



LABOUR MARKET  
INTELLIGENCE PARTNERSHIP

# Skills Planning for Post School Education and Training

**LMIP Research Team**

**Human Sciences Research Council/ Labour Market Intelligence  
Partnership**

**Presentation to Portfolio Committee, 31 May 2017**

# 1. Why skills planning?



- Challenge for any government is to estimate the education and skills (skills strategy) required to support a productive and inclusive economic growth path and society.
- Either wait for market (or social) failure and respond? Or a proactive planning process.
- South African past attempts for a skill planning mechanism has been fragmented, uncoordinated, without a clear underlying philosophy guiding skills planning.
- 2009 administration set up Performance Outcomes: Outcome 5.1.1 (2010) to 'establish a credible institutional mechanism for skills planning.'

- The 2009 administration requested a coherent skills planning mechanism. The HSRC was commissioned (2012) to support DHET to build the mechanism for skills planning and conduct research to support skills planning decisions. (see [lmip.org.za](http://lmip.org.za) for research reports).
- For skills planning we need to better understand the signals for the quantity and quality of skills demanded by the economy, trade and investment policies currently and in the future.

## 2. The Labour Market Intelligence Partnership



- **Theme 1: Establishing a foundation for labour market intelligence systems in South Africa** involves the architecture for a Labour Market Intelligence System and the decision making process of prioritizing skills investments.
- **Theme 2: Skills forecasting: the supply and demand model** aims to develop a system for regular forecasting of the supply of and demand for skills.
- **Theme 3: Studies of selected priority sectors** seeks to understand the critical link between sectoral growth, their skills implications, employment and poverty reduction.

- **Theme 4: Reconfiguring the post-schooling sector** investigated the interaction and alignment between diverse types of education and training systems and labour markets.
- **Theme 5: Pathways through education and training and into the workplace** involves a series of exploratory progression studies through the post-schooling sector and into the labour market.
- **Theme 6: Understanding changing artisanal occupational milieus and identities** focuses on the context within which artisanal skills development and practice is taking place, in terms of changing occupational structures and of changing knowledge and skills bases.

# 3. What approach to skills planning and labour market intelligence systems



Country and approach	Focus of LMIS	Function of LMIS
<b>Market Based Approach (UK,US, Canada)</b>	Extensive data collection takes place on the demand and supply for skills	Understanding the labour market and identifying blockages - response to market failure
<b>Employer or Social Partner Based Approach (Sweden, Netherlands, Finland)</b>	More emphasis is given to understanding vacancies in the labour market and job seekers	Government and social partners use information to determine how resources will be allocated to tackle skill shortages and priorities
<b>State Intervention Approach (Singapore, Taiwan and S. Korea)</b>	Includes the above data and trends on the economy, including trade and investment strategies	Government, with partners, uses LMI for alignment between industrial strategies and those for skills development
<b>Inclusive skills planning approach for South Africa</b>	Supply and demand data as well as workplace skills needed. Analysis of the nature & trajectory of the economy and society and skills policy for economy and vulnerable & unemployed	Government, with partners, uses LM Intelligence for alignment between government growth initiatives & industrial strategies, societal needs and the skills strategy

## 4. Responsibility for skills planning?

- Need for a skills planning unit, with adequate budgets and staff with labour market economics and planning skills to drive the skills planning process.
- The skills planning unit must be located somewhere with critical authority and resources to drive the co-ordination and co-operation among the government departments.
- The SPU could be located in DHET and work with other government departments and stakeholders to plan the skills needs for the country.

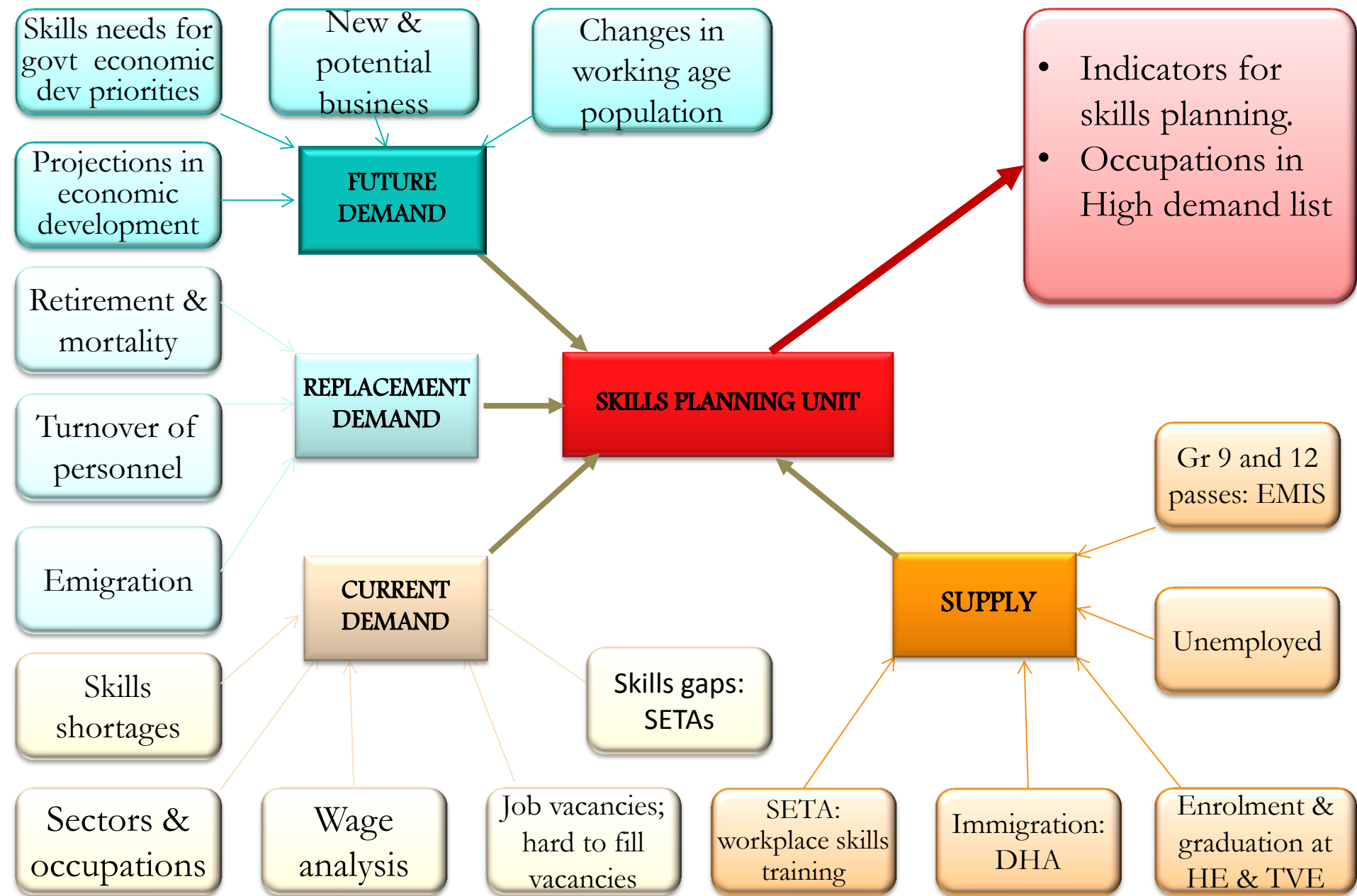
# 5. Information for Skills Planning

Table 1: The skills supply and demand framework, the content, and the analysis focus

Element	Content	Analysis Focus
The economy	Economic performance and structural and policy constraints that impede the country's progress towards inclusive growth.	Analysis of national and sectoral GDP growth rates, employment trends and employment growth by sector, investments and savings, export growth and diversification patterns.
The labour force	The two major challenges are to grow the skills and capability levels of the workforce which started from a low base and to reduce unemployment levels.	Characteristics of the employed and unemployed. The demographics of spatial location, gender, racial group, age, and education level for both groups.
Skills demand	Changes in the structure of employment and skills to provide signals of skills demand.	Employment changes in sectors and occupations, skills needed to support government growth projects, employers' perceptions of skills needed in their firms, and the list of occupations in high demand.
Skills supply	This provides the basis for identifying the types of skills that people acquire when they move through the education system and enter the labour market.	Skills from the schooling sector, the TVET sector, and the university sector. Focuses on trends in enrolment and completion rates for each educational level.
Skills mismatches	The skills of the workforce must match those required by employers, the skills produced by the education system must respond to market demand, and the type of jobs must respond to the skills set of the labour force.	<i>Demand mismatch</i> examines the shape and trajectory of the economy, the types of jobs that are being created, and the skills set and expectations of the working-age population. <i>Educational supply mismatch</i> examines how supply responds to areas of skills demand. <i>Qualification-job mismatch</i> examines the qualification gaps for skilled jobs and then traces the sectors and occupations that the educational qualifications are absorbed into.
Skills policy responses	We need contextually appropriate models for skills planning that take into account the challenges of economic growth and inclusive development in South Africa. Skills planning must take into account past structural inequalities on the basis of race, gender and spatial location. The policy dilemma is how to respond to seemingly paradoxical imperatives given the diverse sets of development pathways.	The policy-reform agenda must consider how to respond to skills demands and mismatches for different groups; initiate wider reforms in the education and training system; raise demand to support employment growth; raise skill levels in targeted sectors of the economy; as well as respond to the development trajectory being followed by South Africa.



## 6. Data and information for the LMIS



# 7. The skills planning mechanism

**National development**

Department of Planning, Monitoring and Evaluation

Cabinet

NDP

Economic dept  
DTI, EDD, DST,  
Treasury

Business &  
labour

Other : DHA,  
DBE, HRDC,  
StatsSA

Macro level  
economic plans

**Skills demand  
at the national  
level**

**SKILLS PLANNING UNIT**

**DHET**

Post School  
Education and  
Training Plan

**Skills demand  
at sectoral &  
occupational  
level in firms  
and ET  
providers**

SETAs

Firms

E & T  
Providers

Universities

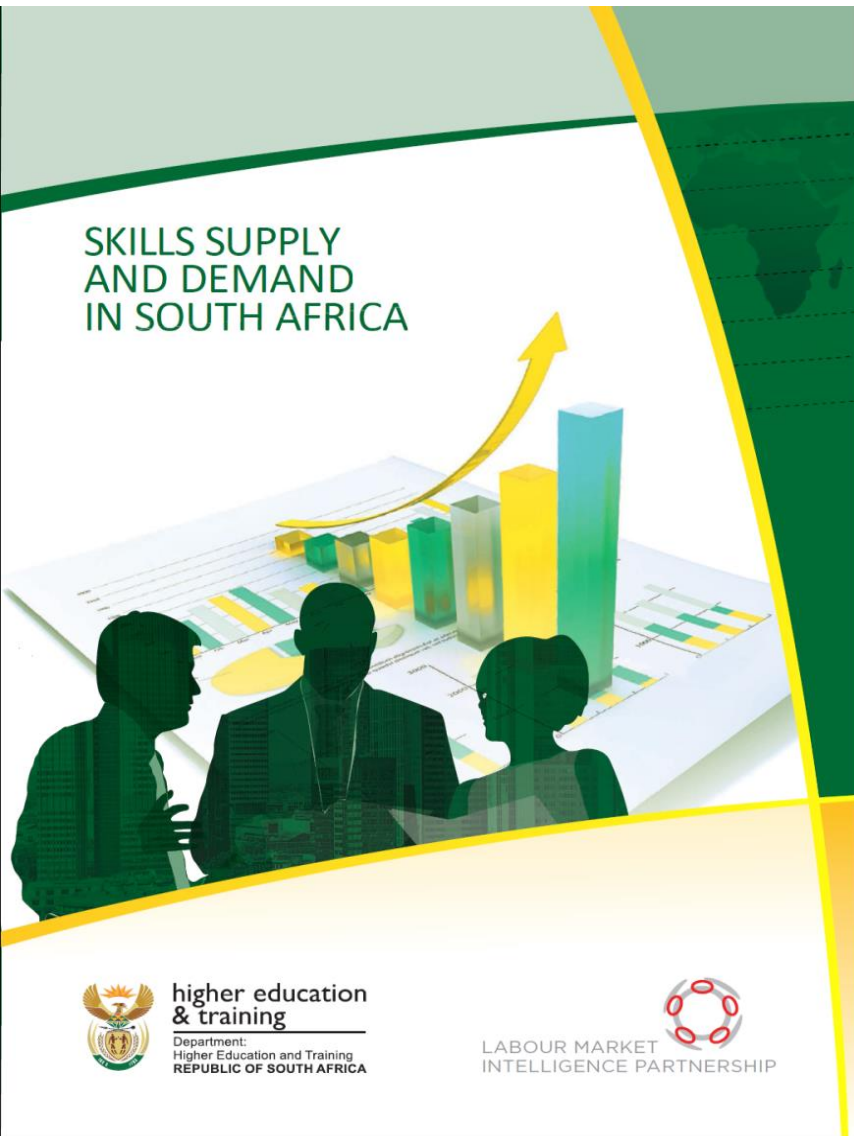
Colleges

Sector skills plans

Enrollment &  
training plans

# 8. Skills Supply and Demand in South Africa

Reddy V, Bhorat H, Powell M, Visser M & Arends F



- Purpose of the report is to provide a holistic understanding of the current supply and demand for skills in South Africa
- The analytical approach is a departure from manpower forecasting
- Tries to understand the complexities and intricacies on how supply and demand interact in the South African society and economy
- Draws implications for Skills Policy

# Key Findings



- Finding 1: The Economy and Demand for Skill
- Finding 2: Education and Skill Supply
- Finding 3: Tertiary Education to Labour Market

# Education-Job Match: Industrial Sectors



Industry sector	1.2 million degrees	1.8 million Post-grade 12 cert & diploma
Community, social services	50	43
Financial	25	18
Manufacturing	8	10
Wholesale and Retail	6	13
Transport	4	6
Construction	3	5
Mining and quarrying	2	3
Agriculture, forestry and fishing	1	1
Electricity, gas and water supply	1	2

## 9. Response of Skills Policy to Skill Needs



- 1. Economic growth and development:** The economy must respond to the twin challenges of participating in a globally competitive environment which requires high skills and a local context requiring low wage jobs.
- 2. Improved levels of education and skills:** improved basic education, increase STEM graduates and technicians, focus on unemployed youth with less than grade 12 certificate.
- 3. Improved match between field of study and labour market destination:** 50% of graduates work in the public sector. Private sector needs to look at its human resource strategy to attract skilled graduates.

# 10. LMIP ONLINE: WEBSITE ([www.lmip.org.za](http://www.lmip.org.za))

Webpage Screenshot



## News, events and resources @LMIP

Research Bulletin January 2014  
Date: January 2014

LMIP-HSRC Seminar: Informativity in the South African labour market in context: indicators of the limits to evidence - based research  
Event date: Monday, 31 March 2014 - 12:30pm to 1:30pm

Policy Round Table II: The Emerging Contours of a Credible Institutional Skills Planning Mechanism for South Africa: Towards a Common Perspective  
Event date: Wednesday, 19 March 2014 - 8:30am to 3:30pm

## Documents in the LMIP repository

Labour Market Intelligence Systems and Mechanisms  
Author(s): Dr Thabo Mabogoane  
Publication year: 2014

Skills Planning for SIPs: Methodology used & reflections on possible implications and issues for credible institutional mechanisms for skills planning  
Author(s): Adrienne Bird  
Publication year: 2014

What is (and is not) a Skills Planning Mechanism for South Africa?  
Author(s): Hoosen Rasool  
Publication year: 2014

## Welcome

"The LMIP is a unique undertaking designed to inform and support evidence-based skills development policy in South Africa. To build a credible institutional mechanism is a major national undertaking. The DHET has entered into partnership with a national research consortium led by the Human Sciences Research Council (HSRC) as one means to support its strategic work to achieve Outcome 5.1. In February 2012, a three year Memorandum of Agreement was signed. Core members of the consortium are the HSRC, the Development Policy Research Unit at the University of Cape Town, and the University of Witwatersrand. Other partners include public and private research institutes, universities and independent consultants."



higher education  
& training  
Department:  
Higher Education and Training  
REPUBLIC OF SOUTH AFRICA



DEVELOPMENT POLICY  
RESEARCH UNIT



HSRC  
Human Sciences  
Research Council

# Economic Growth and Skills Planning:

## Haroon Borat



## Outline

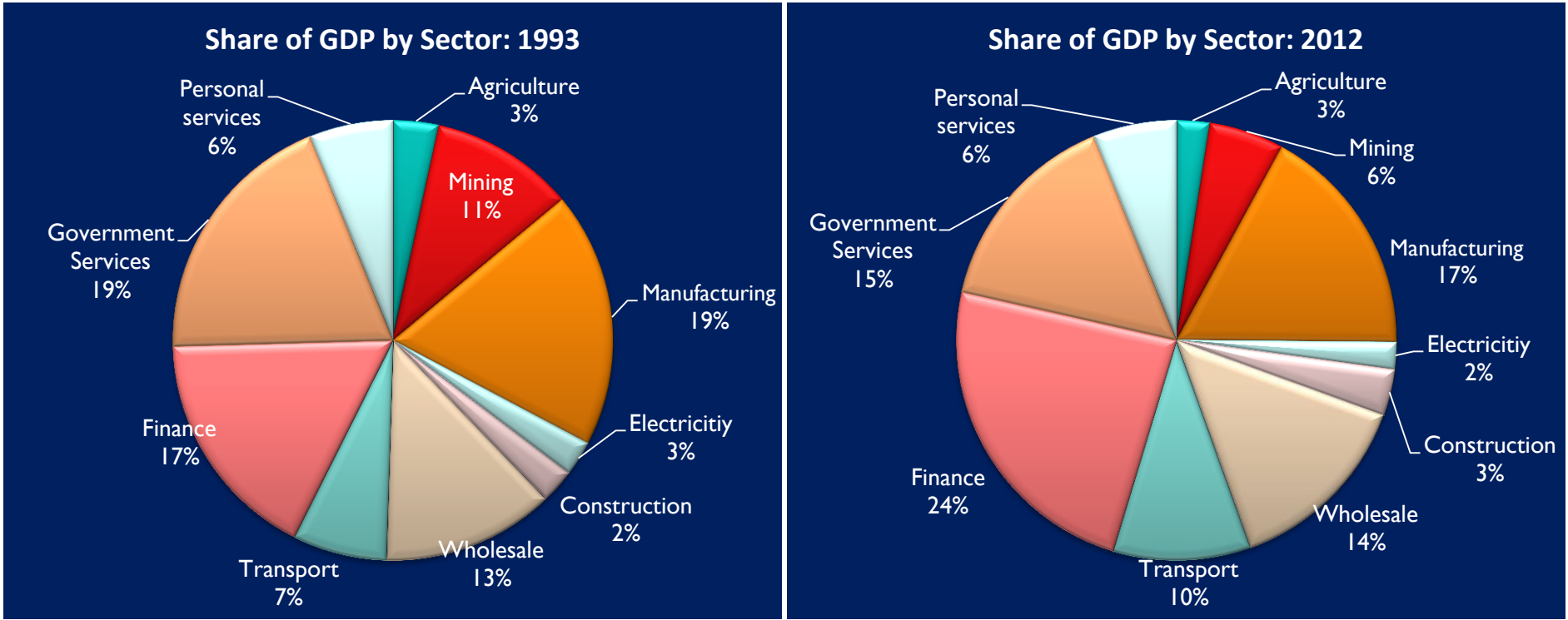
- The Structure of Economic Growth
- Economic Growth and Employment Outcomes



# 1:1 The Structure of Economic Growth



## Share of Sub-Saharan African Population Growth, 2015 - 2100

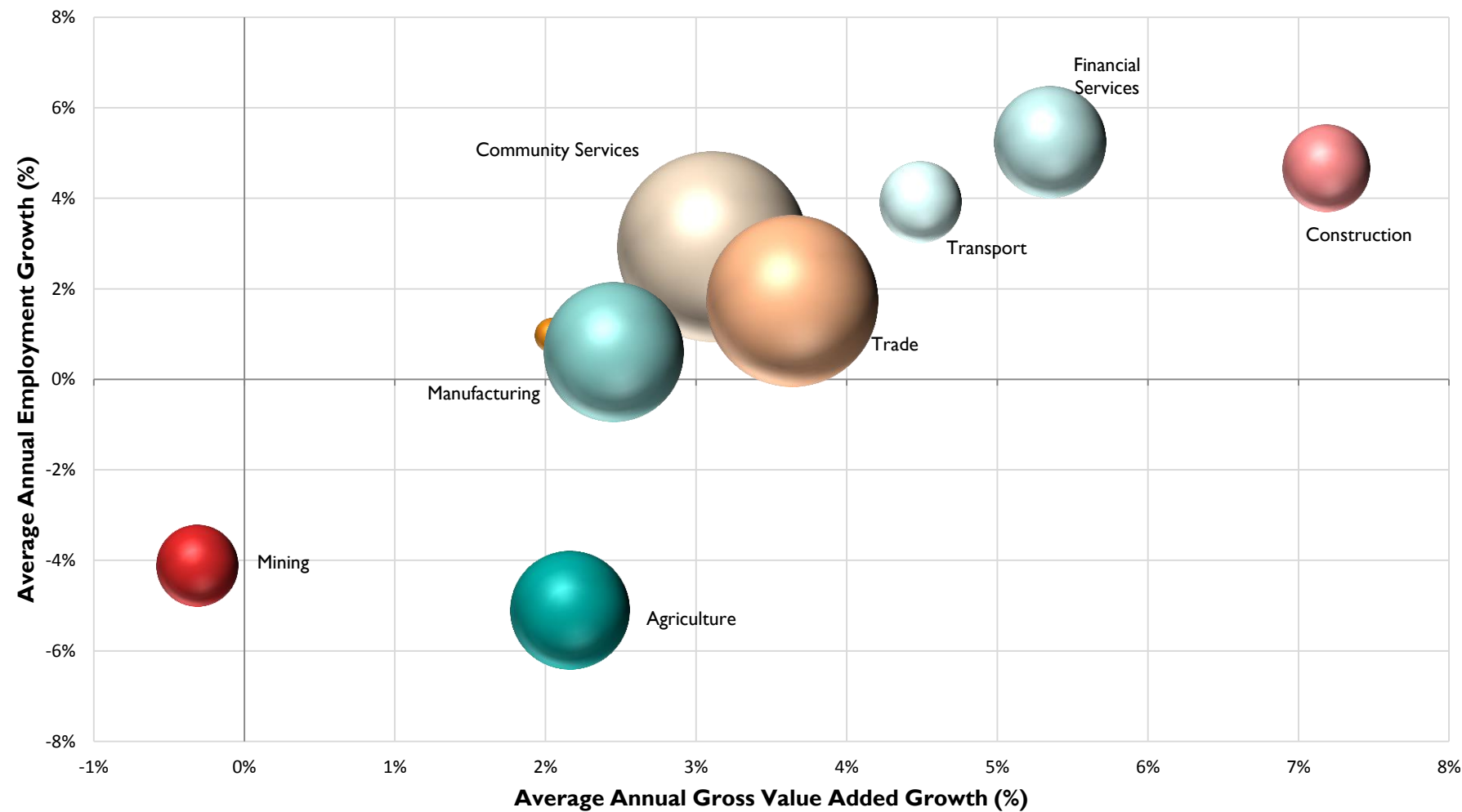


Source: SARB , Quarterly Bulletin, Various issues and Authors' Calculations

# 1.2. The Structure of Economic Growth



Gross Value Added and Employment Growth, by Sector: 2001-2012



## 2.1. Economic Growth and Employment Outcomes

### Employment, Unemployment and Labour Market Participation (in '000); 1995-2016

Category	1995 (Oct)	2005 (Sep)	2016 (July)	Change (1995 - 2016)		Target Growth Rate (1995 - 2016)	Employment Absorption Rate (1995 - 2016)
				Absolute	Percent (%)		
Broad Definition							
Employment	9 515	12 301	15 545	6 030	63.37	104.6	60.6
Unemployment	4 239	7 800	8 160	3 921	92.5		
Labour Force	13 754	20 100	23 705	9 951	72.35		
Narrow Definition							
Employment	9 515	12 301	15 545	6 030	63.37	101.2	62.6
Unemployment	2 032	4 487	5 634	3 602	177.26		
Labour Force	11 547	16 788	21 179	9 632	83.42		

Employment growth insufficient to absorb rapidly expanding supply of workers.

Rising number of discouraged workers.

Employment grew by 63.4% instead of the targeted 104.6% to absorb new job seekers.

## 2.2. Economic Growth and Employment Outcomes

LABOUR MARKET  
INTELLIGENCE PARTNERSHIP

### Employment elasticities; 1997-2012

	Employment Elasticities
Agriculture, forestry and fishing	0.37
Mining and quarrying	1.52
Manufacturing	0.22
Electricity, gas and water	-0.73
Construction	0.85
Trade, catering and accommodation	0.9
Transport, storage and communication	0.42
Finance, real estate and business services	1.2
Community, social and personal services	1.3
All Formal Sector	0.76
<b>OVERALL</b>	<b>0.69</b>

- Changing structure of economy led to stagnant economy, high unemployment and persistently high levels of poverty and inequality.
- Bhorat et al. (2013) identify the following reasons:
  - Decline of manufacturing sector and rising demand for skilled labour - high unemployment and skills premium;
  - Large share of commodity exports and Rand volatility increased vulnerability.
  - SA following a services-led path to growth rather than through industrialisation.

Source: South African Reserve Bank (2014) and StatsSA (LFS 1997 and QLFS 2012), authors' calculations.

## 2.3. Economic Growth and Employment Outcomes

**Employment Shifts by Industry (% share in total employment), 2001 and 2012**

	Growth (2001-2012)		Employment Shares		Share of Change ( $\Delta E_i / \Delta E$ ) <sup>(b)</sup>
	Absolute	Relative <sup>(a)</sup> (% $\Delta E_i / \% \Delta E$ )	2001	2012	(2001-2012)
<b>Primary</b>	-719232	-2.6	0.15	0.07	-0.28
<b>Agriculture</b>	-514 468	-2.7	0.1	0.04	-0.2
<b>Mining</b>	-204 764	-2.2	0.05	0.02	-0.08
<b>Secondary</b>	537 376	1	0.2	0.21	0.21
<b>Manufacturing</b>	112 149	0.3	0.14	0.12	0.04
<b>Utilities</b>	10 774	0.5	0.008	0.008	0.004
<b>Construction</b>	414 453	2.5	0.05	0.07	0.16
<b>Tertiary</b>	2 720 821	1.6	0.63	0.71	1.08
<b>Trade</b>	513 572	0.9	0.21	0.21	0.2
<b>Transport</b>	288 364	2.1	0.04	0.06	0.11
<b>Financial</b>	782 108	2.8	0.09	0.13	0.31
<b>CSPS</b>	1 041 524	2.1	0.17	0.22	0.42
<b>Private households</b>	95 253	0.4	0.09	0.08	0.04
<b>Total</b>	<b>2 497 763</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>

Note: 1. CSPS stands for Community, Social and Personal Services, which is predominantly made up of public sector employment. 2. (a) The ratio of the percentage change for each respective sub-sector and industry to the total overall percentage change in employment over the period (relative sectoral employment growth). 3. (b) The ratio of the percentage change in the share of employment to the overall change in employment over the period (share of change in employment). This measure shows, within each broad sector, where the sources of employment growth are. E.g, employment in tertiary sector is 1.08 times (or 108% of) the level of employment in 2001, which is the sum of the changes for all the industries within this sub-sector. CSPS then is the greatest contributor to employment growth in the tertiary sector.

## 2.4. Economic Growth and Employment Outcomes

**Industry-Based Relative Demand Shift Measures, by Occupation: 2001-2012**

	Between	Within	Total	Share of Within in Total
<b>High-Skilled</b>				
Managers	0.92	12.63	<b>13.32</b>	94.9%
Professionals	3.03	15.04	<b>17.20</b>	87.4%
<b>Medium-Skilled</b>				
Clerks	1.59	12.88	<b>14.07</b>	91.6%
Service & Sales Workers	1.92	11.75	<b>13.23</b>	88.9%
Skilled agric and fishery	-0.55	-19.60	<b>-20.47</b>	95.8%
Craft & Trade Workers	1.35	7.88	<b>9.01</b>	87.4%
Operators & Assembler	0.19	1.63	<b>1.81</b>	90.1%
<b>Unskilled</b>				
Elementary Workers	0.28	1.10	<b>1.37</b>	80.1%
Domestic Workers	0.37	3.49	<b>3.83</b>	91.1%

Source: StatsSA (LFS 2001 and QLFS 2012), Author's Calculations

## 2.5. Economic Growth and Employment Outcomes



- There is a structural mismatch between labour demand and supply, in that the economy and labour market shows a demand for high skilled workers, but there is a surplus of low-skilled workers
- The economy must respond to the twin challenge of participating in a globally competitive environment which requires a high skills base, and a local context that creates low-wage jobs to absorb the large numbers who are unemployed or in vulnerable jobs
- The economy should create more labour-intensive forms of growth in order to absorb the growing levels of people, particularly young people, as first time labour market entrants

# Pathways through Education and Training and into the Labour Market. Mike Rogan

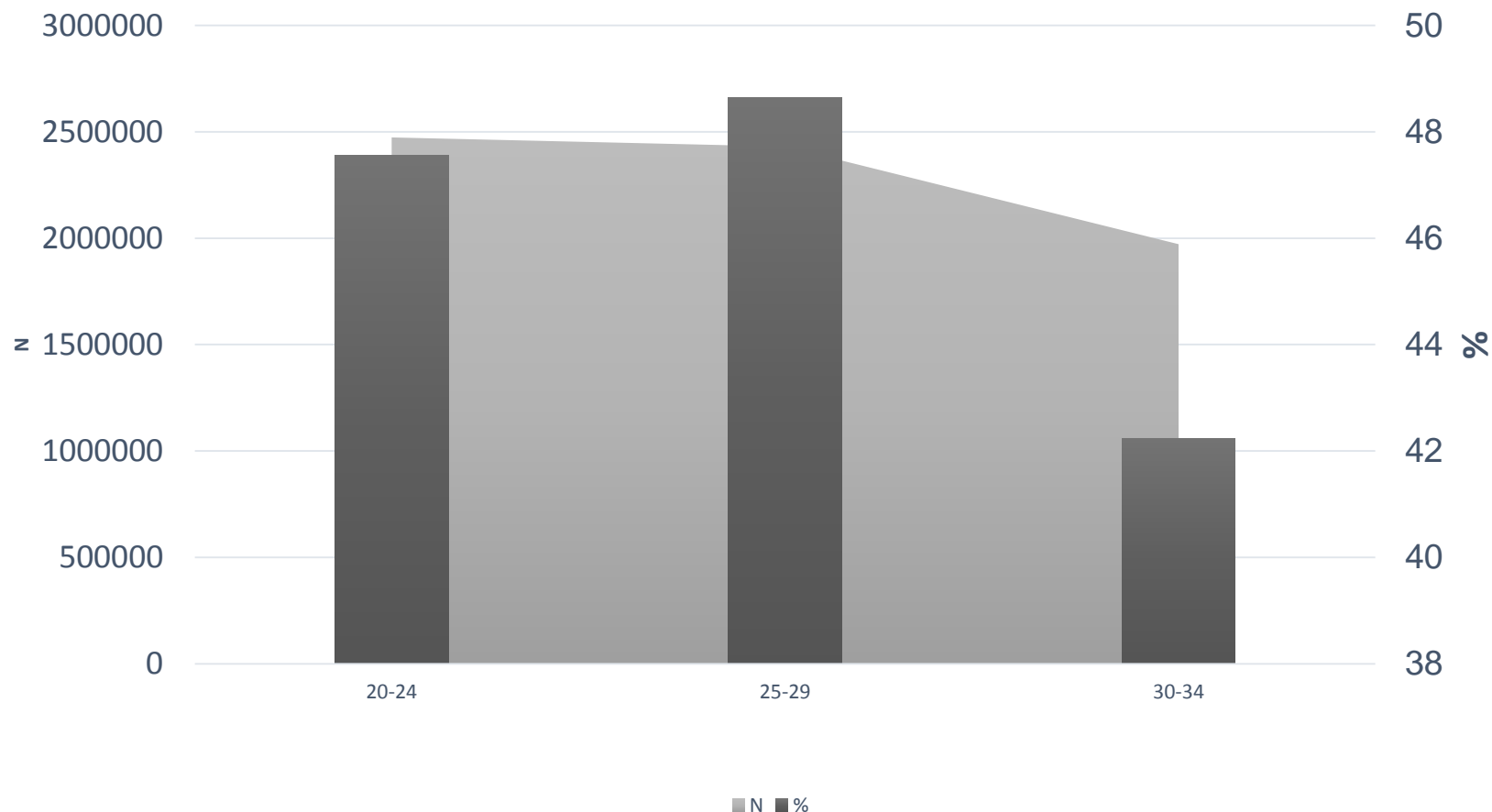


## South African Context

- A low (22%) tertiary enrolment rate (in global comparison)
- High levels of youth (15-24 inclusive) unemployment- 54.2% - 62.5%
- Not in employment, education, or training (NEETs)

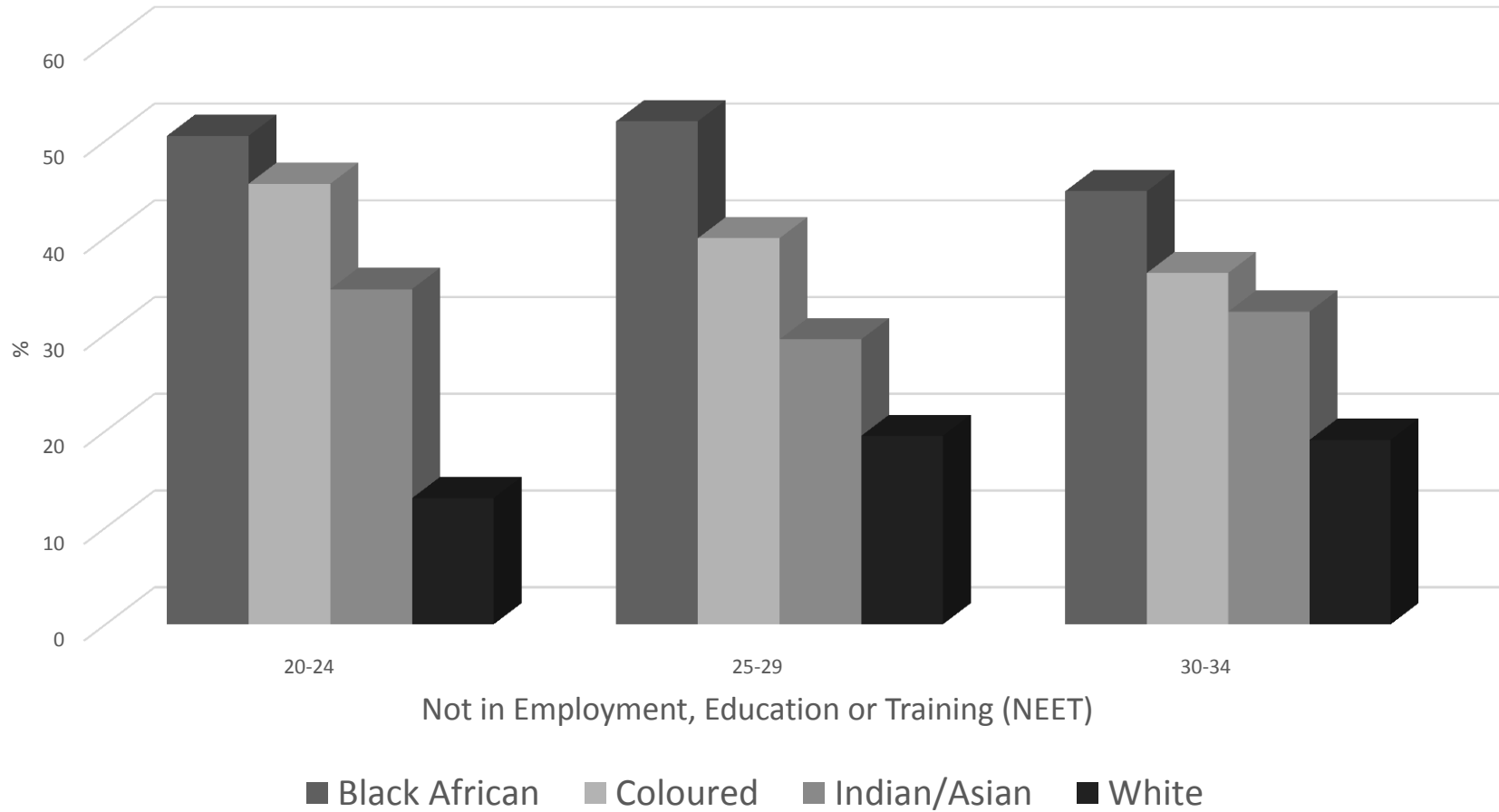


# The number and percentage of 'NEETs' by age group, 2016



Source: Own calculations from the QLFS (2016:3)

# The percentage of 'NEETs' by race and age group, 2016



Source: Own calculations from the QLFS (2016:3)

# Policy Framework



- Increase total PSET enrolments to 5.6 million by 2030. This represents a roughly 150% increase in total enrolments between 2015 and 2030
- Increase enrolments in vocational education in particular
- Three-fold increase in university enrolments in SET (Science, Engineering and Technology) qualifications by 2030

# Changes in enrolment between 2010 and 2015, HEMIS



	2010	2015
<b>Public TVET College</b>	358 393	737 880
<b>Private FET College</b>	46 88	88 203
<b>Public HEI</b>	892 936	985 212
<b>Private HEI</b>	90 767	147 210
<b>Adult Basic Education and Training (ABET)</b>	297 491	---
<b>Community Education and Training (CET) colleges</b>	297 634 <sup>a</sup>	283 602
<b>Total</b>	<b>1 686 469</b>	<b>2 242 107</b>

Source: DHET (2013,2017)

<sup>a</sup>This figures comes from the 2011 DHET report since CETs were not captured in the 2010 data.

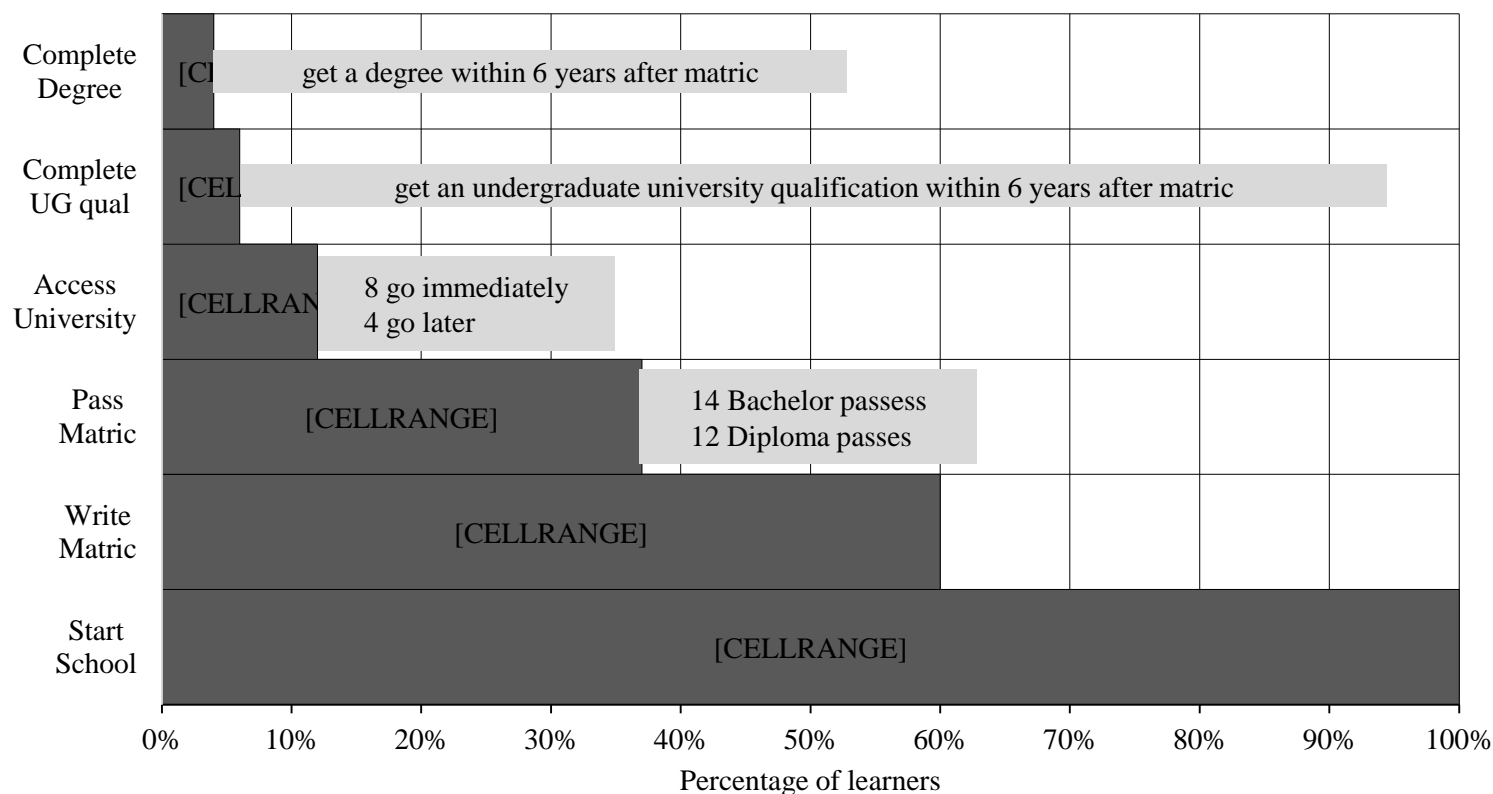
# Research questions

- Which young people access adult education, vocational training, higher education and workplace based training?
- What are the employment outcomes of completers of each of the PSET sectors?
- Which types of data are required to improve our understanding of access to and pathways from PSET institutions?

# Selected Findings

## Higher Education

# Estimated percentage of learners who start school and get university degrees based on the experience of the 2008 NSC cohort (van Broekhuizen et al.)



Source: Authors' own calculations using integrated unit-record 2008 NSC and 2009 – 2014 HEMIS data.

# Completion and dropout rates among learners from the 2008 NSC cohort, by race and programme type (van Broekhuizen et al.)

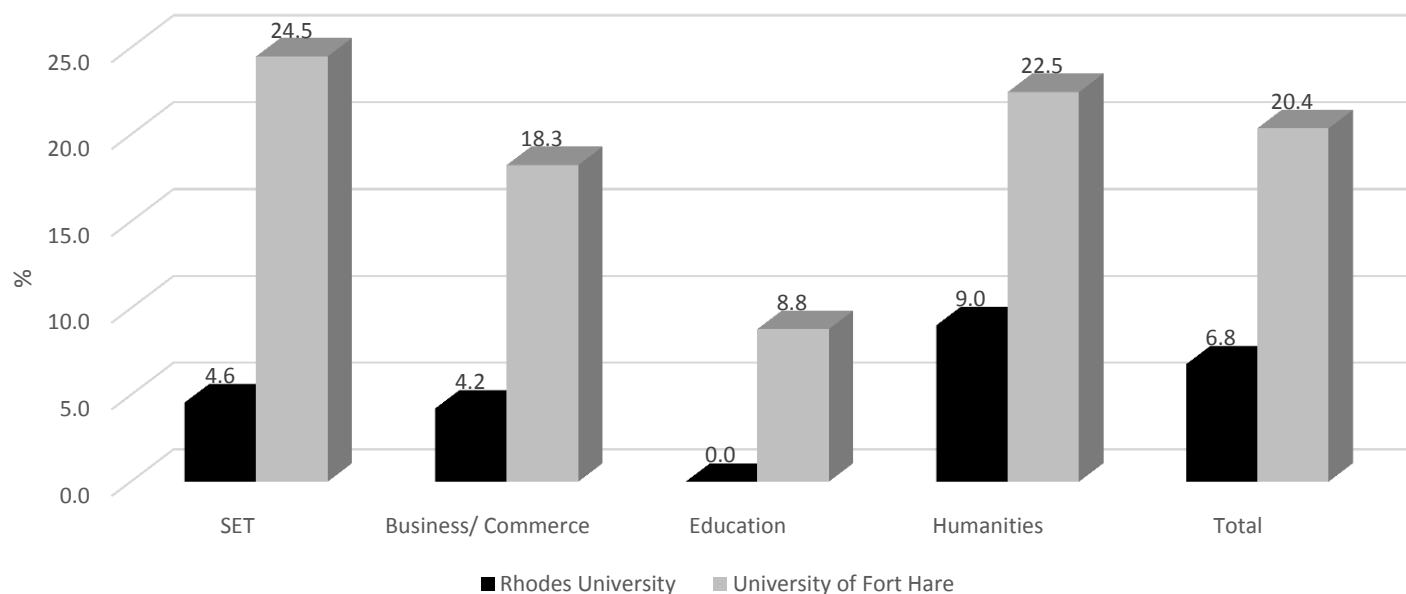


	All undergraduate students			Undergraduate degree students		
	4-year completion	6-year completion	5-year dropout	4-year completion	6-year completion	5-year dropout
<b>Black African</b>	31.8	53.5	32.0	31.7	55.8	24.0
<b>Coloured</b>	34.9	53.8	33.8	34.1	54.8	29.6
<b>Indian/Asian</b>	36.0	62.1	22.8	36.8	63.7	18.9
<b>White</b>	52.7	71.6	18.1	52.7	72.3	16.2

Source: Authors' own calculations using integrated unit-record 2008 NSC and 2009 – 2014 HEMIS data. NOTES: Completion and dropout rates are only estimated for those learners from the 2008 matric cohort who enrolled in undergraduate studies for the first time in 2009.



# Unemployment rates among Rhodes University and University of Fort Hare graduates, by field of study (Rogan & Reynolds)



Source: Authors' own calculations

# Public attitudes to work in South Africa: a missing link

## Bongiwe Mncwango



- ❖ Skills planning discourses assume a passive public.
- ❖ Personal decisions influence the success of interventions aimed at correcting labour market imbalances and mismatches.
- ❖ **A deeper understanding of public perceptions regarding the labour market is key to formulating tailored employment and skills-development interventions.**
- ❖ Limited understanding of public attitudes:
  - about work
  - Lack of data providing comprehensive and longitudinal information on public perceptions about the labour market.
- ❖ Structural inequality - most pressing development challenge.
- ❖ Multi-layered struggle in the world of work :
  - Working age population struggles to obtain paid work;
  - Intensifying struggle for fair working conditions and remuneration in the workplace.

### 3. FOCUS OF PRESENTATION



#### **1. Public perceptions of the labour market**

- ❖ What do South Africans value in a job?

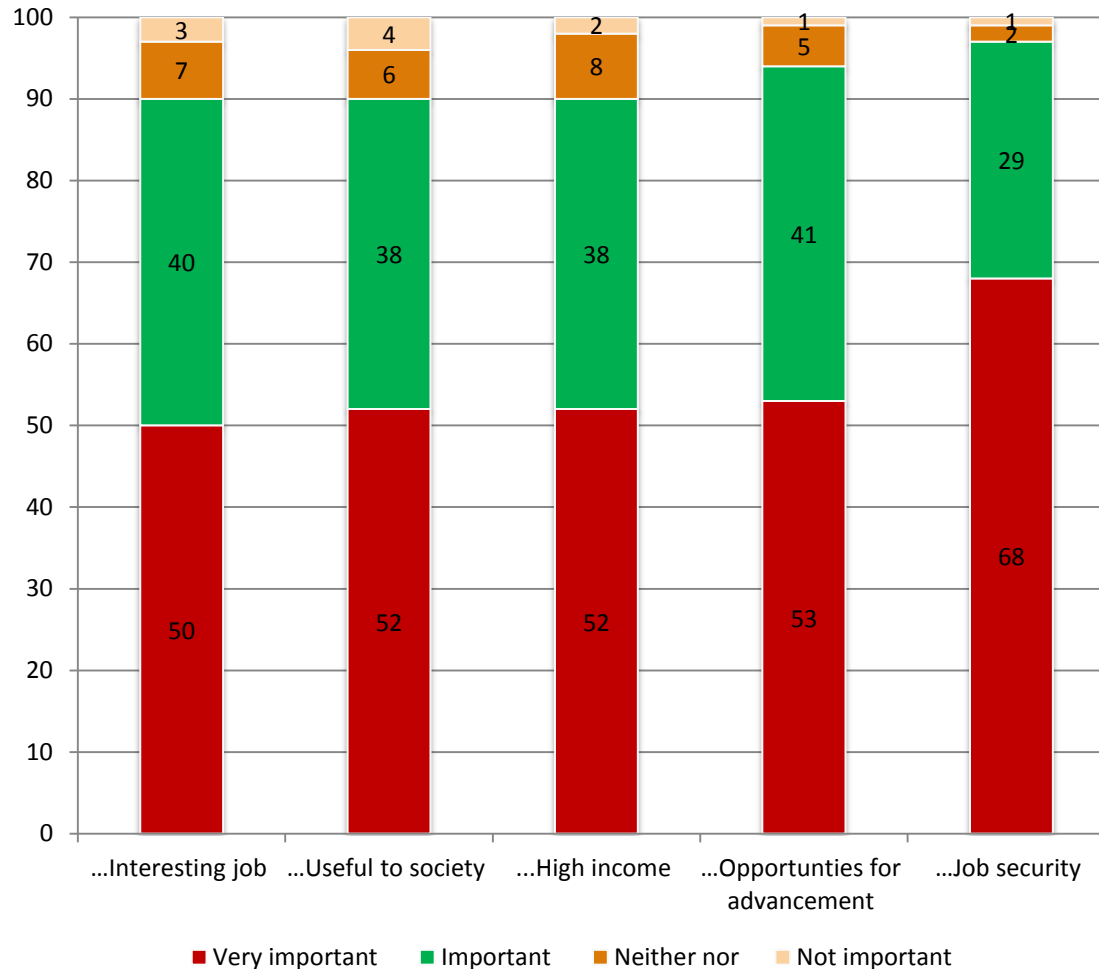
#### **2. Perceptions of those in employment about quality of employment**

- ❖ prevalence of perceived qualification mismatches
- ❖ extent of workplace training

#### **3. Perceptions of those without jobs about prospects of labour market participation and their work-seeking behaviour**

- ❖ views on the possibility of finding employment in the future.
- ❖ strategies used to search for employment.

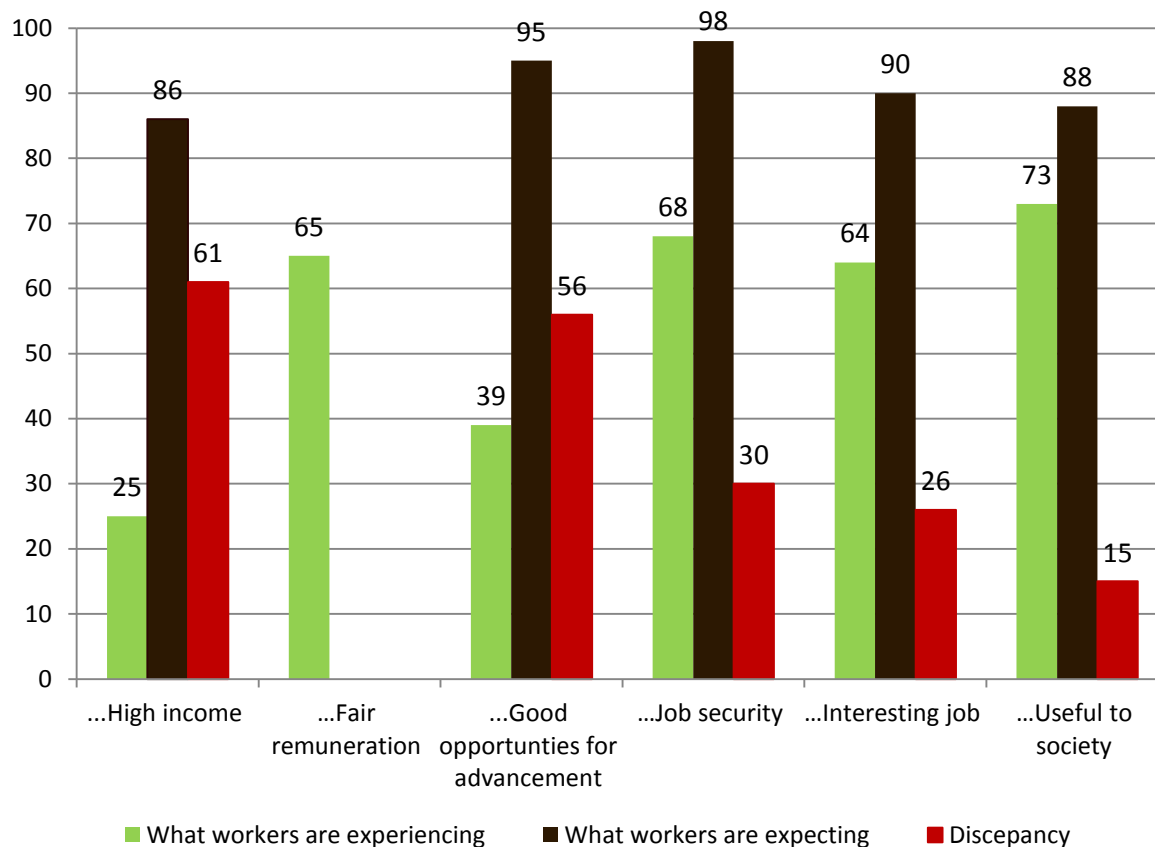
# 1. What does the public consider as an important attribute of a job?



- Workers indicated all work aspects as important for a decent job.
- Job security is most frequently identified as important
- Individual expectations from work are much more complex, in accordance with varied needs and preferences.

## 2. To what extent do the job attributes that workers value exist in their jobs?

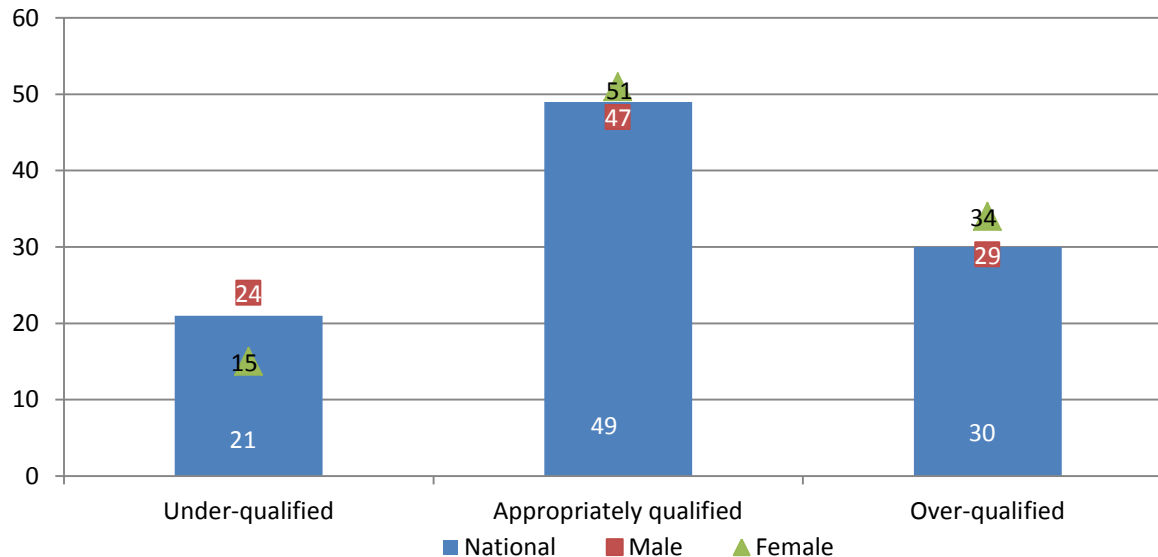
### Comparing what workers expect, and experience at work



The discrepancies are most extreme in relation to the reality of attaining a high income and good prospects for job promotion and advancement.

## 4. What is the incidence of perceived qualification mismatches in SA labour market?

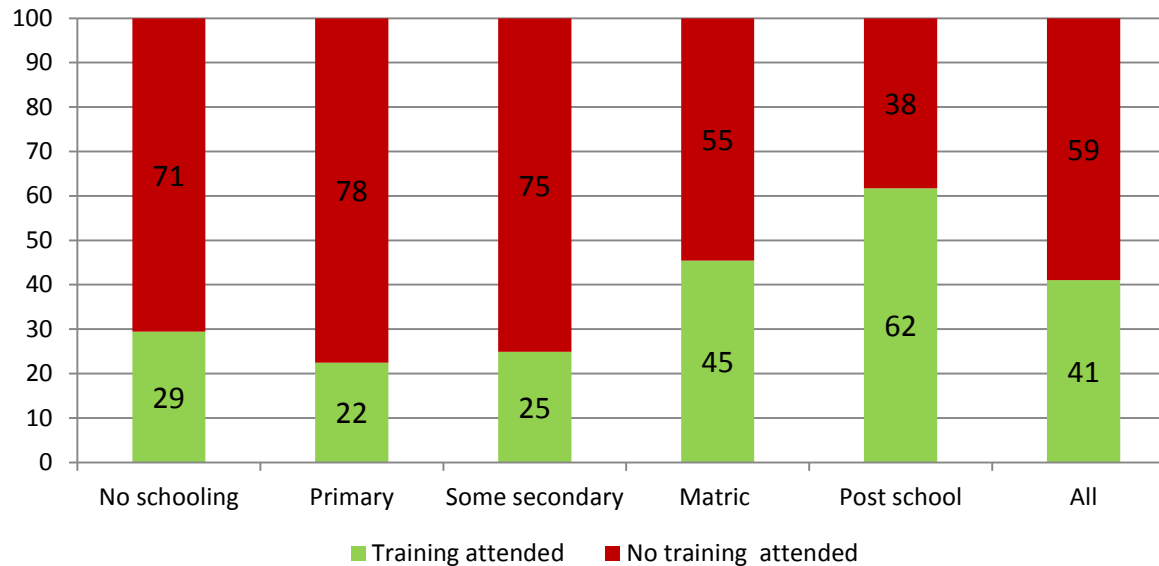
Comparing what workers perceive to be a minimum qualification and their educational attainment



- Affects more than half of workers (51%).
- Over-qualification is more prevalent than under-qualification
- Higher shares reporting over-qualification could thus be reflective of rising educational levels of South Africans.
- Women more likely to report over-qualification than their male counterparts.

Variable	% matched (CI)	% under-qualified (CI)	% over-qualified (CI)
No schooling	50.5 (24.5, 76.1)	49.5 (23.9, 75.5)	0
Primary	38.6 (26.9, 50.5)	61.4 (49.5, 73.1)	0
Some secondary	52.8 (43.9, 61.9)	15 (9.2, 23.3)	32.2 (24.2, 41.2)
Matric	50 (41, 58.5)	28.6 (21.2, 37.3)	21.4 (15.1, 30.1)
Tertiary	39.2 (29, 47.6)	22.3 (14, 32.1)	38.5 (31.6, 50)
Total	46.3 (41.2, 50.7)	27.3 (23, 31.8)	26.4 (22.8, 31.3)

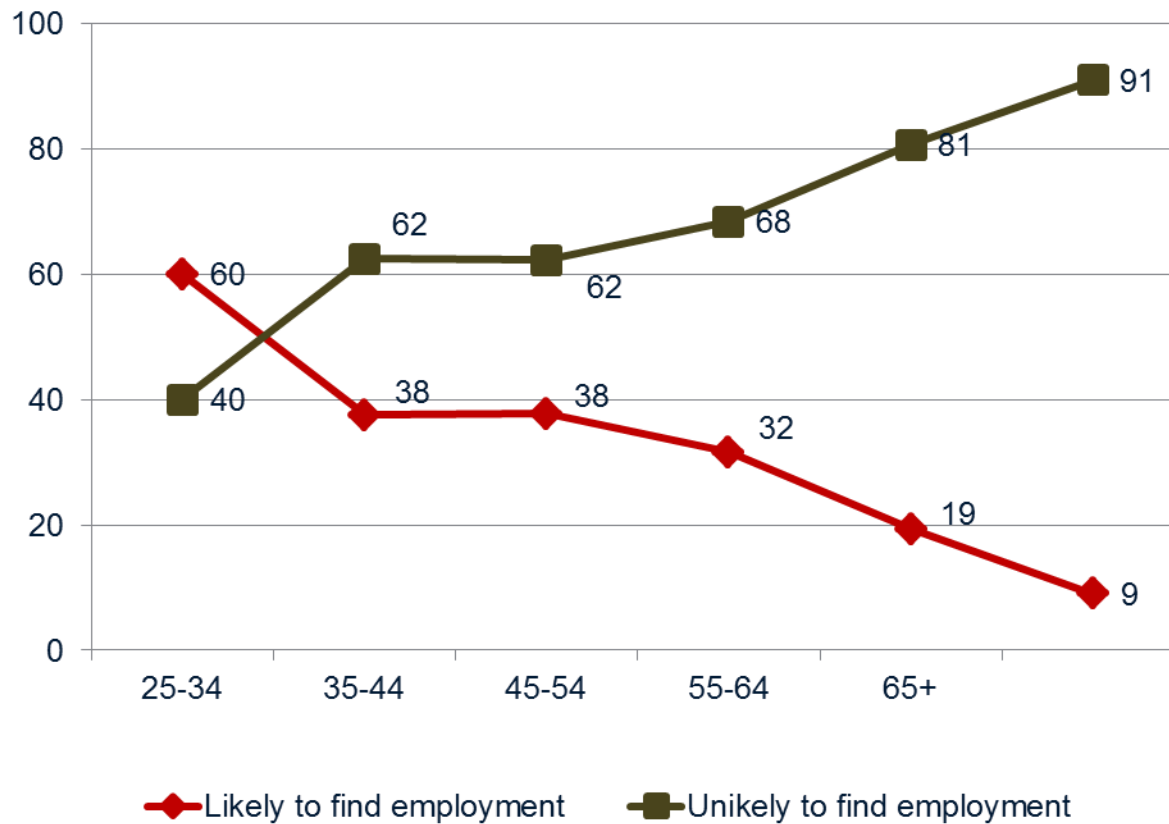
## 5. Who is receiving workplace training?



- Only 59% reported workplace training.
- Workers with tertiary education were three times more likely to attend training.

- Notably, under-qualified workers are three times more likely to receive additional training at work ( $OR=3.104$ ) than well matched workers.
- Having a part time job reduces one's chance of having on-the-job training
- Workers who report strong skill under-utilisation have lower odds of participating in training than workers who report weak or no skill under-utilisation.
- on-the-job training often corresponds to workers' needs for training, as respondents who have reported increased skill requirements since they started working in their job are also more likely to have had training in the past 12 months.

## 6. What is their outlook about employment prospects?



- General low levels of optimism -60% amongst the unemployed.
- The unemployed youth hold a very positive outlook.
- These views drastically alter during their mid-20s.
- Levels of optimism are closely related to the level of education completed.



# Responsiveness to firm demand: enhancing interactive capabilities across the system: Glenda Kruss



## Connecting capabilities in highly unequal developing countries: the case of the SKA

*Understanding how the capacity to form effective linkages to support learning and accumulation of new knowledge - **interactive capabilities** - form a lever for South African universities, TVET colleges and firms to access the global science and technology frontier*

Replication in other knowledge intensive sectors –*biotech, space science, ICTs*

Pace of curriculum change

Networks, not markets

International skills accessibility

# How are public and private decision-makers aligned to address changing skills needs? Evidence from a case study of the sugar sector



*How partnerships between the private and public sectors can be to mutual benefit, pointing to the potential of public-private partnerships*

Foundational programmes

Building improved interactive capabilities

Coordination between private and public intermediaries

Funding to private intermediary organisations to address skills gaps of land reform farmers

# Higher education and economic development: the importance of building technological capabilities



*How skills matching can be strengthened through building interactive capabilities across the higher education sector and its partners in firms, government, industry associations and professional bodies*

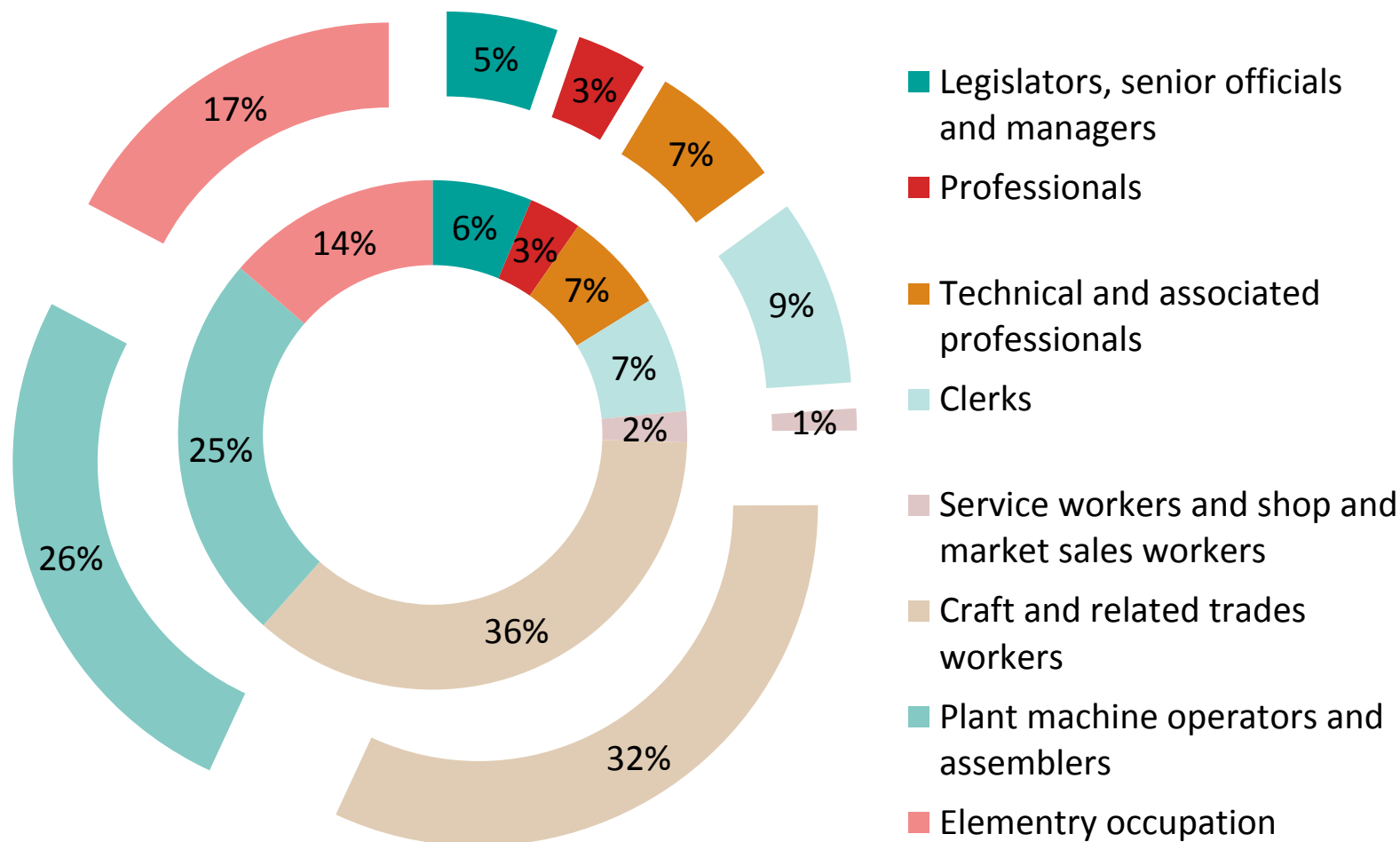
Policies: assessment of capacity and context

DHET: create a distributed process of capacity development and network enhancement

DTI: skills component of industrial policy

Universities: focus on own interactive capabilities

# Changes to the nature of artisanal work and occupations: Important to understanding labour markets. Angelique Wildschut



# A historical account of artisanal skilling and employment using a political economy lens



## History matters

- Exploitative history and **links to slavery**
- Use as **social engineering tool**
- Association with a **limited set of trades and technical occupations**
- **Low status** in comparison to professional qualifications or occupations

## The economy matters

- the shifting economic structure has meant **employment prospects** in relation to artisan training **have shifted**
  - Sectoral shifts: Declining formal sector employment, and many primary & secondary sectors, & intensification of tertiary sector employment.
  - Subsectoral shifts: Declining mining & agricultural sectors with some growth in employment in the construction sector
  - Skills demand shifts: Economy with a strong bias towards high skills
  - Occupational category shifts: Greatest formal (-3.5%) and informal (-4.8) employment losses for C&RT workers

# Work change can affect occupational domains in unexpected ways



## Real & perceived change to knowledge skills requirements

- *“your basic electrician does not cut it anymore because he now also has to service your robot... he has to understand basic PLCs and programming because all of the jigs and fixtures are nowadays running off PLCs” (Engineer, MechCase)*

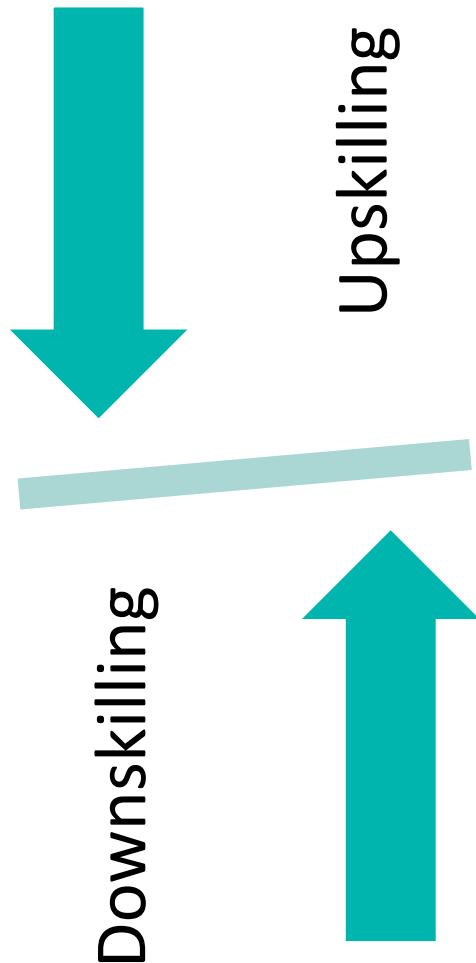
## Tools have changed with implication for the manual dimension of artisanal work

- *“In the old stage you just started say, a pump, by hand... you had to call somebody out to start another pump, or switch it off... But now it’s automated, you have a PLC, a computer system and it reads the demand, and as the demand grows another pumps starts automatically... It’s automation....” (Artisan, MillCase)*

## Organisation of work reinforces traditional boundaries between occupations

- *‘the system technicians ... are the guys looking after the PLC. And then below them are the instrumentation technicians... looking at lower levels... the valves and temperature control... Below them we get the millwrights. And then below the millwrights you actually get the fitters and the rest of them’ (Engineer, MillCase).*

# Opposing work change trends



## Sector & company futures:

- Business growth
- Tendency towards less secure forms of employment

## Workplace culture futures:

- Low-risk work culture with technical competence redefined
- Increased communication requirement
- Training and development both a reality and a dream

## Work futures:

- Opposing work change trends
- Occupational diversification
- Differentiated knowledge and skill within & betw sectors

## Qualification futures:

- Range of NQF-registered qualifications, but limited provision & take-up
- On job training and supplier training dominant modes of provision

# Complex relation between work and demand for skills



- **Macro-economic parameters** and structural change are important considerations for the training of artisans
- **History & discourse of artisanal work & training NB** info to inform successful & appropriate E&T & labour market interventions
- **Relation between work & demand for skills**, from particular occupational groups can be **very unpredictable**
  - Opposing work change trends resulting in both up-skilling and down-skilling
- **Provisioning of formal qualifications only one option** for getting the skills in need
  - On the job and informal learning remain the dominant modes of E&T, with supplier provided training on specific items of equipment or technology a fast-growing trend
- **Occupation not** just an **objective** indicator



# Caveats



- The estimates from the skills planning process provide signals and there are no guarantees, especially for the future demand.
- Education and skills is a necessary but not sufficient condition for economic growth....there must be job creation efforts
- Skills planning must be approached as a strategic exercise rather than a bureaucratic target setting exercise.