

# An overview of the demand and supply of skills in the SALM

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1

## OUTLINE

- Introduction
- Data overview
- Overview of the SALM
- Wages with respect to industry and occupation
- Empirical evidence
- Conclusions

2

## Introduction

- The objective of this paper is to investigate and document important questions regarding occupational categories, education level, wages and interrelationship between demand and supply
- The effect of education and skills development is particularly important in terms of sustainable economic growth

3

## DATA

- The paper made use of the Labour Force Survey data (LFS) from Statistics South Africa in the analysis.
- A more comprehensive and specific information is complemented through using the Department of Education data, Higher Education and Management Information Systems (HEMIS).
- Statistical packages: SPSS and Stata.

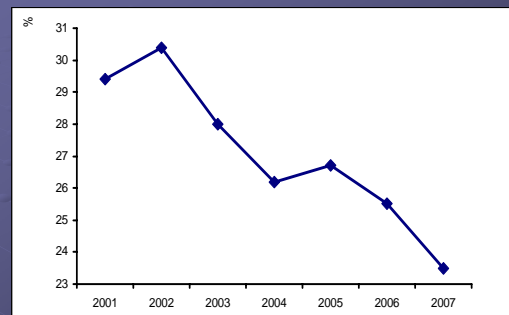
4

## An overview of the SALM

- According to the Labour Force Survey the economically active population increased from 15,8 million to 17,2 million from 2001 to 2007 indicating an average growth of 0,7 per cent.
- The LFPR remained steady between 2001 and 2007 at (56,3) per cent and (56,5) per cent respectively.
- The employed increased from 11,2 million in 2001 to 13,2 million in 2007 indicating a growth of 2,9 per cent .
- Unemployed individuals peaked at 4,9 million in 2002 and thereafter declined to 3,9 million in 2007.
- The unemployment rate peaked at 30,4 per cent in 2002 and thereafter declined to 23,5 in 2007.

5

## Unemployment rate, 2001-2007



6

## Unemployment by demographics

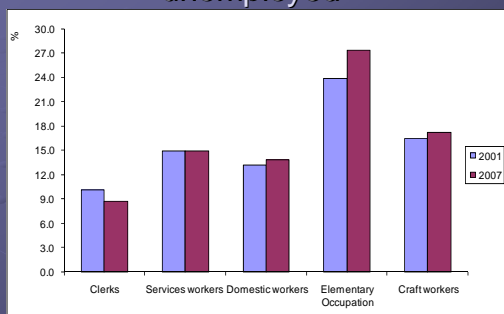
Category	2001		2007	
	Thousands	Percentage share	Thousands	Percentage share
<b>Gender</b>				
Male	2 236	48.0	1 883	47.7
Female	2 420	52.0	2 059	52.2
<b>Population Group</b>				
African	4 081	87.7	3 461	87.7
Coloured	344	7.4	360	9.1
Indian/Asian	99	2.1	44	1.1
White	130	2.8	79	2.0
<b>Age group</b>				
15-24	1 508	32.4	1 357	34.4
25-34	1 912	41.1	1 575	39.9
35-44	786	16.9	606	15.4
45-54	340	7.3	326	8.3
55-65	110	2.4	81	2.1

## Unemployment by demographics continue

- The results for the two years indicate that compared to their male counterparts females are more vulnerable to unemployment.
- Africans are also vulnerable to unemployment compared to other population groups.
- The youth who falls under the age-group 15-24 and 25-34 experiences high unemployment rates compared with other age-groups.

8

## Previous occupation of the unemployed



9

## Previous occupation of the unemployed

- Previous occupation captures the unemployed who once worked and this group constitutes 44,3 per cent (1,7 mil) of the unemployed while those who never worked are 55,7 (2,2 mil) in 2007.
- The graph shows that occupations that are associated with low level of skills experience high unemployment. Moreover, occupations associated with higher skills generally enjoy lower unemployment.
- Those who worked in elementary occupation show high unemployment compared with other groups, followed by craft and related trade as well as services workers.

10

## Education of the unemployed

Education	2001 Thousands	% share	2007 Thousands	% share
Less than matric	3192	68.6	2616	67.2
Matric	1168	25.1	1098	28.2
Tertiary	209	4.5	178	4.6

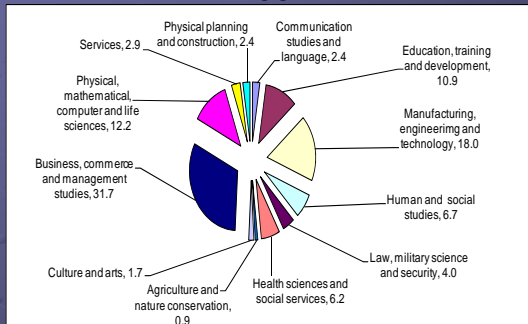
11

## Education of the unemployed

- According to the LFS education is a major determinant in the employment status of workers.
- Those with less than a matric qualification encounters high unemployment levels of 68,6 and 67,2 in 2001 and 2007 respectively.
- Those with matric and tertiary qualification experience mild and low unemployment levels respectively. Matric = 28,2 per cent and tertiary = 4,6 per cent in 2007.
- McIntosh, (2000) found that individuals with less than upper secondary level education have a higher unemployment rate than their more educated peers, while Pauw et al, (2006) found that unemployment for tertiary remains small relative to other education levels.
- However, McIntosh, (2000) argued that education – drawback as a measure of skill since it fail to include skills acquired outside the education system.

12

## Unemployment by field of study, 2007



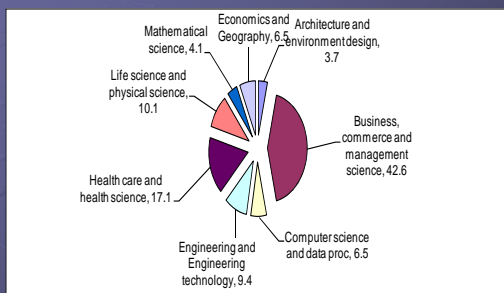
13

## Field of study

- High unemployment rates experienced in the business commerce and management studies followed by manufacturing, which maybe due to the capital intensity of this sector.
- Moleke (2005) found that only 10 per cent of the unemployed in business commerce have a university degree meaning that a bulk of them have non-university qualification that do not have maths as a requirement.
- Pillay (2005) points out that in the manufacturing and engineering sectors acceleration in the demand for labour is largely driven by output.

14

## Quality of the labour supply, 2007



15

## Quality of the labour supply

- According to the department of education, the number of students who fulfilled the requirements for a degree with maths and science varies for different study fields.
- Business commerce and management had 42.6 per cent of students who fulfilled the degree which is the highest in 2007.
- Du Toit (2008) confirms the high enrolment of this field at universities and of technologies might explain decline of this field in colleges.
- The lowest field of study that had candidates that fulfilled the requirements are architecture and environment design as well as mathematical sciences with 3,7 and 4,1 per cent respectively.

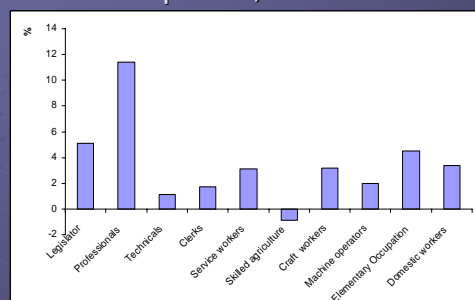
16

## Characteristics and trends in employment

- According to Statistics South Africa's LFS the employment increased by 2,9 per cent between 2001 and 2007.
- Female's annual employment grew by 3,1 per cent, Africans experienced significant growth in employment with 4,3 per cent, 15-24 years, have experienced positive growth of 2,6 per cent between 2001 and 2007.
- Employment is divided into formal, informal and domestic sectors.
- Of the total employed in 2007, 9,6 million was formal, 2,5 million was informal and domestic sector employment accounted for 1,0 million.

17

## Employment growth by occupation, 2001-2007



18

## Employment by occupation

- Employment in all occupations grew significantly between 2001 and 2007 except for skilled agricultural and fishery workers with -1,0 per cent growth.
- Professionals recorded the highest growth of 11,4 per cent and according to Du Toit (2008), this is due to increase in growth of professionals in general government.
- These professionals are mainly teachers, doctors, nurses and lawyers etc.

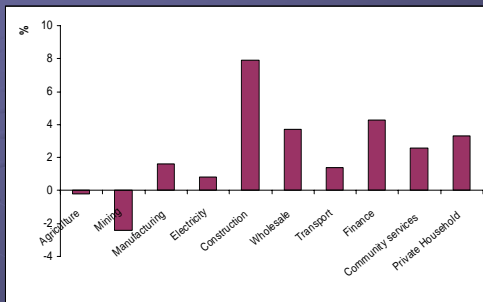
19

## Employment by Occupation



20

## Employment by industry, 2001-2007



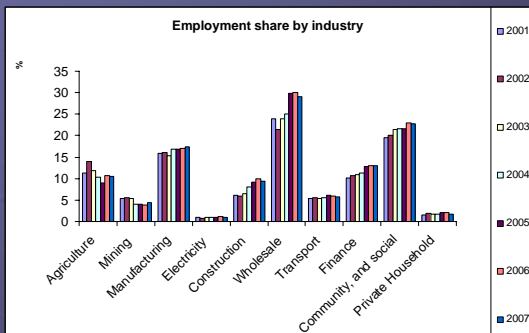
21

## Employment by industry

- Employment by industry indicate on average, positive employment growth, except for agriculture (-0,2 %) and mining (-2,4 %) that recorded declines between 2001 and 2007.
- The construction sector recorded the highest employment growth of 7,9 per cent followed by the finance sector during the period.
- According to the IDC (2007), the construction sector reported the strongest growth in 2004 to 2006 as a result of increased buildings as well as high levels of fixed investment across sectors of the economy.
- Further the strong consumer boom was reflected in high growth rates in the trade and financial sectors.

22

## Employment by industry



23

## Wages by industry

	2007		
	monthly media	95 <sup>th</sup> percentile	95/50
Agriculture, fishing and forestry	990	7 500	7.6
Mining and quarrying	3 500	15 000	4.3
Manufacturing	3 000	23 000	7.7
Electricity, gas and water	5 250	23 000	4.4
Construction	2 000	10 000	5
Wholesale and retail	2 000	10 000	5
Community and social personal services	4 000	17 000	4.3
Transport, storage and communication	4 000	35 000	8.8
Financial intermediation insurance	5 250	23 000	4.4
Private households	900	1 500	1.7

## Wages

- Wages in the South African Labour Market are also skill-biased, meaning that industries and occupation that are associated with higher skills tend to be highly remunerated.
- Industry show that electricity sector as well as the finance sector have high median wages with R5 000 per month in 2007.
- Agriculture and private household sectors have the lowest monthly median wages with R990 and R900 respectively in 2007.

25

## Wages by Occupation

	2007		
	Monthly median	95 <sup>th</sup> Percentile	95/50
Legislators	9 500	35 000	3.7
Professionals	9500	35 000	3.7
Technical and professional	6000	35 000	5.8
Clerk	3 800	13 500	3.6
Service workers	2 000	9 500	4.8
Skilled agriculture	1 900	23 000	12.1
Craft and related trade workers	2 500	13 500	5.4
Plant and machine operators	2 600	7 865	3
Elementary occupation	1 400	4 700	3.4

26

## Wages - continue

- Occupation indicate that legislators as well as professionals have high median wages, while skilled agriculture and elementary occupation have the lowest median wages.
- When further disaggregated by race, it is revealed that wage differentials are more within groups than between groups.
- According to Edwards (2005), the convergence in wages between Africans and white has been attributed to reduced labour market discrimination, as well as an improvement in the skills of blacks.
- Differentials within occupations and industries occur for those that are associated with low skills levels.

27

## Empirical Tests

- A multinomial regression was performed where the variable 'status' from the LFS (2007:2) was used as a dependent variable.
- 'Status' consist of three categories namely: not economically active=0, employed=1, and unemployed=2.
- Employed used as a base category.
- Dummy variable for all the explanatory variables
- Experience used as a control variable.

28

## Empirical results

### Unemployed

- The odds favouring being unemployed to employed increases for females, Africans, the youth and for education.
- For females the odds favouring being unemployed as opposed to being employed increase by 74 per cent, while Africans and the youth increase the odds by more than 100 per cent.
- Education show the odds favouring being unemployed than employed are 79 per cent for individuals with matric qualification.
- Tertiary education indicate negative odds of being unemployed compared to being employed at (-30,5) per cent.
- Experience indicate zero chances of being unemployed.

29

## Empirical results - continue

### Not economically active

- The odds favouring not economically active to employed increases for females and the youth(15-24).
- All the other variables indicates negative odds favouring being not economically active than being employed.
- Africans indicate the odds of (-6,4) per cent, (25-34)age-group showed the odds of (-41,7) per cent, those with matric at (-77,0) per cent, tertiary with (-90,9) per cent.
- Experience indicate zero chances of being not economically active.

30

## Conclusions and recommendations

- The LFS tentatively reveals that demand for workers in the skilled occupations has been increasing meaning individuals lack the relevant skills or qualifications to fill the available jobs in the economy.
- The LFS data show that the youths, Africans, women, matriculants, certain post matric graduates and individuals previously employed in the elementary occupations are most likely to be unemployed or non-participants in the labour market.
- Real monthly median wages reveals differentials exist between and within different occupations and industries. This is a point that signals the importance of skills in wage determinations.
- Labour market information should include the following analysis using household surveys: unemployment rates for particular skills levels, job vacancy rates, enrolment and graduation trends as well as tracer studies that follow graduates into the labour market.
- Characteristics of employed i.e from economically active to employed and from employment to unemployment, as well as disaggregating of employment by industry and occupation and further research on productivity and skills.

31

## Conclusion-Policy

- Investment in skills development not a scorecard but economic growth
- Demand of skills across industries need innovative approaches in recruitment and training
- SETAS – skills specific – relationship between the DoL and the DoE.
- Skills should be across occupation and industry in order to promote productivity.

32

# Thank You

33