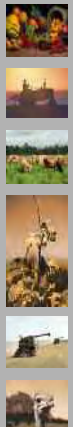




# WESTERN CAPE

## Department of Agriculture

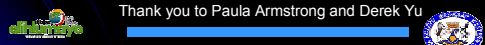
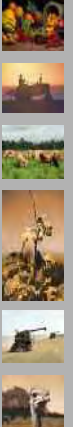
*Shaping a future for agriculture*



# HOW RIGID IS THE AGRICULTURAL WAGE STRUCTURE?

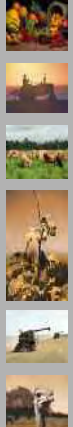
**Elné Jacobs**  
 Department of Agriculture:  
 Western Cape

Thank you to Paula Armstrong and Derek Yu

# INTRODUCTION

- Aim: To test whether for a given level of skill, agricultural workers would earn more in the non-agricultural sector using wage rigidity as criterion
- Two methods will be used: Median income analysis and Lemieux decompositions
- Wages important for efficiency and equity purposes
- SA economy: high unemployment amongst low-skilled workers, and a shortage of skilled workers
- Same across sectors
- Relative supply of skilled workers decreasing
- Decline in demand for low-skilled workers
- Widening of the wage gap



# THE THEORY AND APPLICATION OF WAGES

## Economic Background

- Demand and supply side
- Supply side:
  - Becker's human capital model
  - Mincerian wage function
  - Job matching models of Mortensen (1978), Jovanovich (1979) and Prescott & Vissher (1980)
- Demand side:
  - Importance of firms in wage setting
  - Efficiency wage theory
  - Unionisation

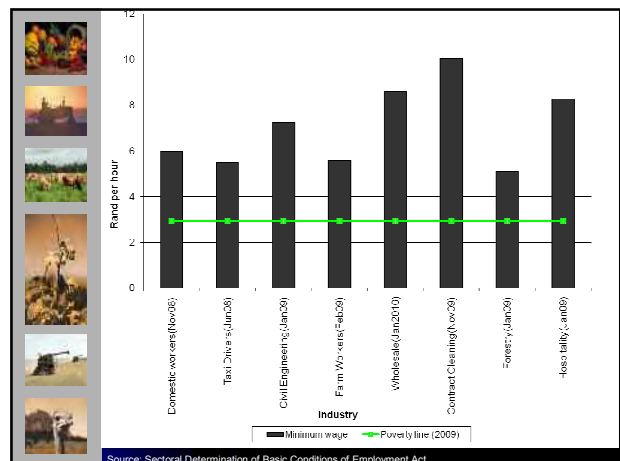


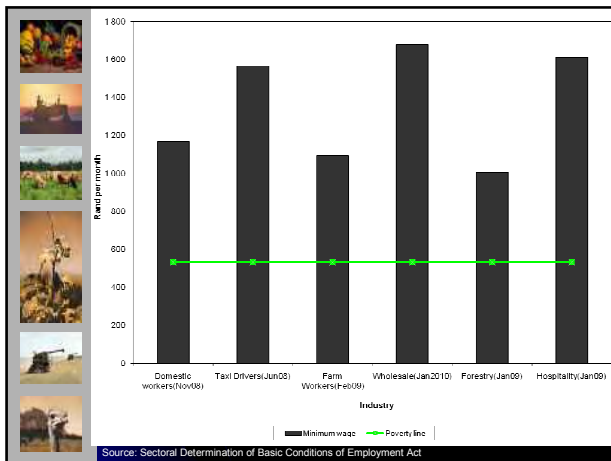
# Wage trends in SA

- 1970's: Exceptional growth - mining, manufacturing and agricultural sectors
- 1980's: Low real growth in wages
- 1990's: Growth re-emerged in the mining and electricity sectors
  - Low skill workers replaced by high-skilled workers
- Forced to work for primary income due to access to barriers
- Race and mobility important determinant in wage differentials
- Mobility especially NB for agriculture - housing

## Agricultural wage situation

- 1 March 2006: Minimum wage Act (age and work hours)





## WAGE ANALYSIS

- 1. Median Income
  - > 50<sup>th</sup> percentile
  - > Monthly median income plotted against the highest education level completed successfully

## 2. Lemieux Decomposition

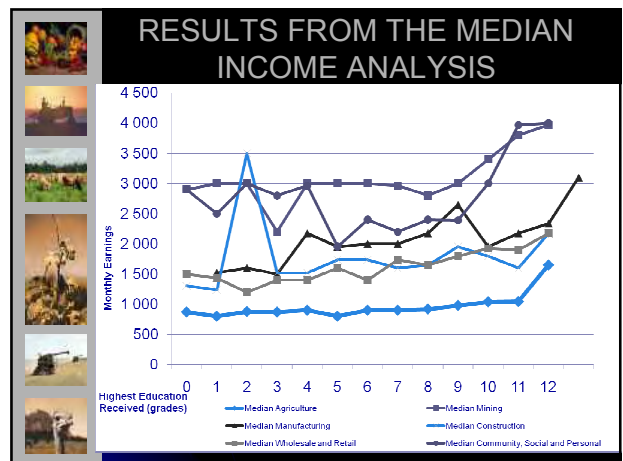
- > Generalization of the Oaxaca-Blinder decomposition
- > Use to investigate what the structure of agricultural workers' wages would look like if they were remunerated in the labour market in the same way as their counterparts in the non-agricultural sector
- > For mathematical equations see full paper

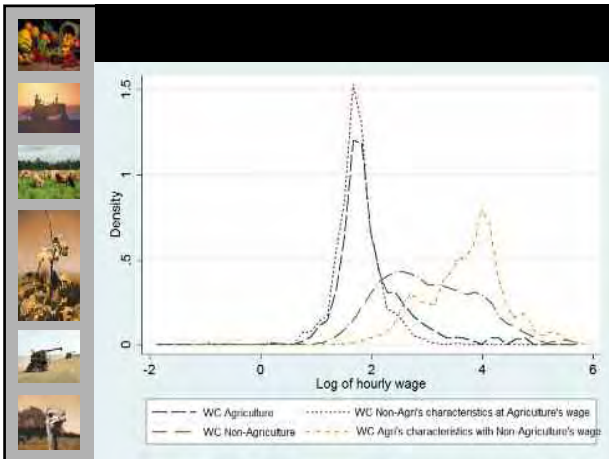
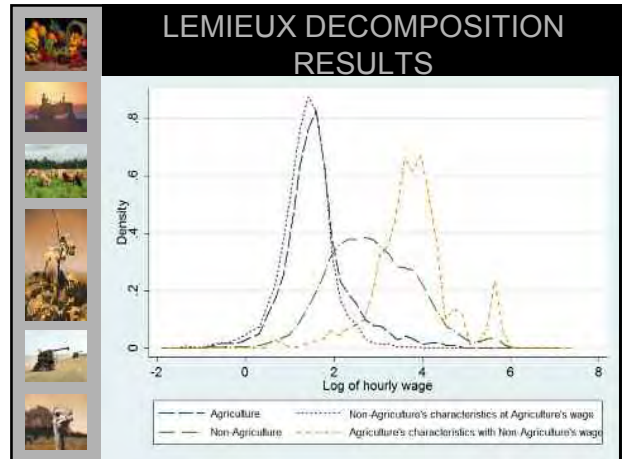
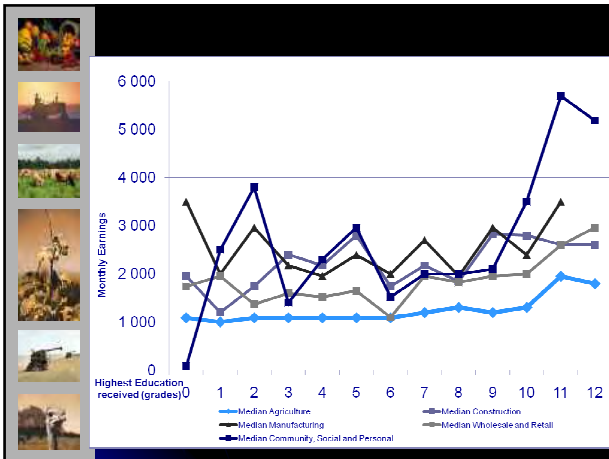
> In Practice:

- ✓ Estimated probability of belonging to agricultural sector (number of agric workers/ labour force)
- ✓ Run probit regression to establish the probability of being an agricultural worker
- ✓ Reweighting of estimated probability with probit results
- ✓ Kernel densities of log wages with different weights

## Extent of Data

- Labour Force Survey of 2007 (March and September)
- 15 and 65
- Informal sector dropped
- Outliers and zero income workers removed
- Private households + Domestic workers
- Self employed (profit vs. earnings)
- Post-matric qualifications not in median income analysis but in Lemieux decomposition
- Only primary source of income, no in-kind benefits, grants etc
- In-kind NB for agricultural workers





### CONCLUSION

- Result of median income analysis:
  - > Agricultural workers earn less than workers in other sectors with the same education level in the sample used
  - > Even after 2006 when minimum wages were implemented in the agricultural sector, the picture did not change compared to 2000
- Results of Lemieux:
  - > Workers are not rewarded for their productive characteristics and therefore might earn more in other sectors given their productive capabilities
- Agricultural sector 'unattractive' when using rigidity in the wage structure as criterion

The End

