

# Determinants of public and private-sector wages in South Africa

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## Introduction

Approximately 1,6 million of the 8,6 million formal-sector employees in South Africa are employed in the public sector. According to the South African Reserve Bank's June 2006 *Quarterly Bulletin*<sup>1</sup>, employment in the public sector expanded by 4 per cent over the five-year period February 2001 to February 2006. The *Annual Economic Report*<sup>1</sup> of the Bank reported a slowdown in nominal wage growth in the public sector, falling from 9,1 per cent per annum in the year ending March 2005, to around 6 per cent per annum in the year to March 2006. Woolard<sup>2</sup> argues that the mere size of this sector deems it necessary to understand the characteristics of workers in the public sector compared to those in the private sector.

Monthly wage earnings depend on different factors. Some factors are unchangeable (e.g. gender) and others are determined by the functioning of the economy and the labour market. Due to imperfect information and markets, the labour market cannot address all inequalities, but government as an employer is compelled by the Constitution to set an example with regard to equity<sup>3</sup> and wage fairness.

The main objective of this article is to compare the extent to which workers' characteristics in the public and private sectors impact on their wages. While for separate analysis it might be more ideal to analyse public-sector employment and wages data from the South African Government's *Personnel and Salary System* (Persal)<sup>4</sup>, for the purpose of comparing the public sector to the private sector, data from the *Labour Force Survey* (LFS) are used. According to Hicks et al.<sup>5</sup>, labour force surveys are an important alternative to administrative data when comparing

public-sector employment. The authors suggest that being a household survey, a labour force survey can provide important information on some characteristics of the employed.

### Box: The data

All figures are based on Statistics South Africa's *Labour Force Survey* (LFS). For this analysis, only formal-sector workers for September 2001, 2003 and 2005 releases are included.

#### The public sector as defined by the System of National Accounts

According to the *System of National Accounts*, the public sector includes general government, the public financial corporate sector and the public non-financial corporate sector. For the purpose of this article parastatals were grouped with the private sector, and the public sector only refers to those working for local, provincial and national government.

#### Dealing with wages reported in brackets in the LFS

Wages reported in brackets (e.g. R1–R200) were dealt with by implementing "the midpoint method" as described in Posel and Casale\*. The median wages were calculated, thereby excluding outliers to get values that represent the average worker.

Due to the personal nature of the earnings question for the LFS, not all respondents answered the question, therefore making the sample size smaller. Of those employed in the formal sector in 2001, the non-response rate for wages was 7,6 per cent, in 2003 it was 10,3 per cent, and in 2005 8,3 per cent. Only those persons between the age of 15 and 65 (working age according to Statistics South Africa) were included.

\* Posel, D. and Casale, D. 2005. *Who replies in brackets and what are the implications for earnings estimates? An analysis of earnings data from South Africa. Paper prepared for the Economic Society of South Africa Conference, September.*

1 South African Reserve Bank. 2006. *Quarterly Bulletin, June and Annual Economic Report*. Pretoria.

2 Woolard, I. 2002. *A comparison of wage levels and wage inequality in the public and private sectors, 1995 and 2000. Working Paper 02/62*. Cape Town: Development Policy Research Unit.

3 *Ibid.*

4 Available [online]: <http://www.treasury.fs.gov.za/faq.htm>

5 Hicks, S, Lindsay, C, Barford, N and Williams, R. 2005. *Public sector employment. Labour Market Division and Employment, Earnings and Productivity Division*. London: Office of National Statistics. Available [online]: [http://www.statistics.gov.uk/articles/nojournal/PSE\\_final.pdf](http://www.statistics.gov.uk/articles/nojournal/PSE_final.pdf)

Three perspectives regarding worker compensation will be provided in this article. The first perspective is essentially descriptive, providing detail of the distribution of employment and wages between sectors and industries. The second section analyses and compares mean and median wages for public and private-sector workers. The third perspective identifies the attributes contributing to differences in monthly compensation by making use of a multi-variate model for monthly wages.

## Public and private-sector wages and employment

According to the September 2005 LFS the public sector constituted 21,5 per cent of the total formal non-agricultural employed in South Africa. Statistics South Africa's *Quarterly Employment Statistics* (QES), which replaced the *Survey of Employment and Earnings* (SEE), reports public-sector employment to be 19,1 per cent of the total formal non-agricultural employed in 2005. This is similar to other countries; for example in 2005 the percentage for the United Kingdom was 20,4 per cent<sup>6</sup> and for Australia it was 16,0 per cent<sup>7</sup> of the total employed.

Table 3.1 shows the different results when measuring public and private-sector employment and wages from a business survey (QES) and from a household survey (LFS). The QES covers all employing enterprises in the formal non-agricultural business sector registered for income tax<sup>8</sup>. Employers working in the enterprise who are not remunerated through the firm's payroll are not included in the number of employees in the firm. The LFS, however, includes all workers from the formal and informal sectors, which could lead to workers misclassifying themselves, and could explain why the LFS for September 2005 reports formal employment to be around 787 000 more than the QES for September

2005. The same holds true when comparing public-sector employment. Monthly average wages calculated from the QES are higher than those calculated from the LFS; this could be due to under-reporting as workers are usually only aware of their net income. Other possible reasons are inaccuracy, because it is not done from a payroll point of view, and that the LFS has non-responses, which could result in sample selection bias.

Table 3.1 further shows that according to the LFS, South Africa's public-sector employment stood at 1 510 million in September 2001 and employment in the private formal non-agricultural sector stood at 5 419 million. The SEE/QES showed public-sector employment at 1 435 million in 2001 and private-sector employment at 3 223 million. In 2005 the LFS showed public-sector employment at 1 784 million and private-sector employment at 5 790. According to the SEE/QES, public-sector employment was lower in 2005 at 1 505 million and private-sector employment was also lower than LFS at 5 605 million.

## Characteristics of the public and the private sector

When analysing employment and total wages between industries for both the private and the public formal sectors, the private sector employs relatively more people in wholesale and retail trade as well as manufacturing, whereas the public sector mainly employs in the community, social and personal services sector. The LFS shows that the largest share of wages in the private sector were paid to people employed in financial intermediation, insurance, real-estate and business services. As may be expected, in the public sector the largest percentage of wages was received by workers in community, social and personal services.

**Table 3.1 Total formal non-agricultural employment and monthly average wages for 2001, 2003 and 2005**

	LFS 2001		SEE 2001		LFS 2003		SEE 2003		LFS 2005		SEE/QES 2005	
	Public	Private	Public	Private								
Employed ('000).....	1 510	5 419	1 435	3 223	1 530	5 814	1 434	4 963	1 584	5 790	1 505	5 605
Monthly average wages (Rand, at current prices).....	3 819	3 400	6 409	4 787	4 889	3 940	8 111	6 083	5 695	4 015	9 480	6 748

Sources: Statistics South Africa, *Labour Force Survey* (LFS), *Survey of Employment and Earnings* (SEE), *Quarterly Employment Statistics* (QES), and own calculations. For comparison purposes the calculations exclude agriculture.

6 News Release National statistics. Available [online]: <http://www.statistics.gov.uk/cci/nugget.asp?id=1292>

7 Parliament of Australia research note. Available [online]: <http://www.aph.gov.au/Library/pubs/RN/2005-06/06m29.htm>

8 Statistics South Africa. Available [online]: [http://www.statssa.gov.za/news\\_archive/07July2005\\_1.asp](http://www.statssa.gov.za/news_archive/07July2005_1.asp)

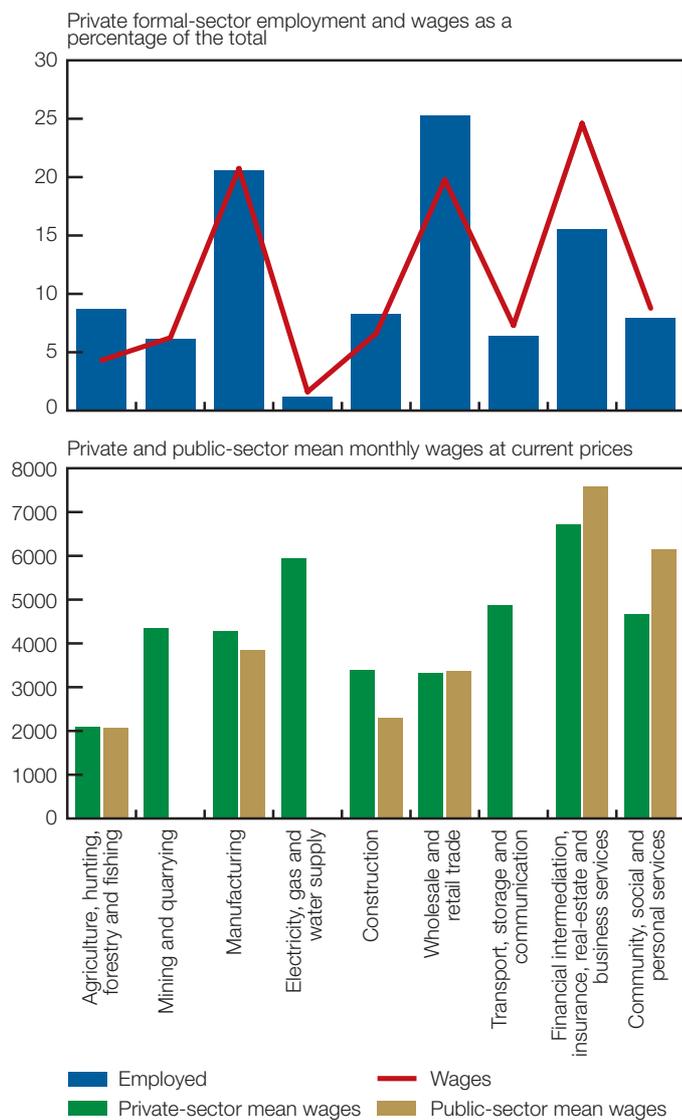
Figure 3.1 represents total employment as well as total wages received by the private formal-sector employed by industry for 2005. As already mentioned, the LFS shows that the highest level of employment in September 2005 in the private sector was in the wholesale and retail trade industry at 25,3 per cent. The largest share of wages for 2005 was paid to people employed in the financial intermediation, insurance, real-estate and business services at 24,6 per cent. This suggests that the wages in the latter sector exceed those in wholesale and retail trade. When analysing the occupations of those employed in financial intermediation, insurance, real-estate and business services, the main occupations were clerks; and service workers, and shop and market sales workers.

Of the total wage bill for the private sector, 8,8 per cent of private-sector wages in 2005 were paid to the

community, social and personal services industry. This industry also employed 8,0 per cent of private-sector workers. In comparison 88,2 per cent of the public-sector workers were employed in this industry, and they received 89,6 per cent of the wages (figure not shown). The mean wage for workers in community, social and personal services was higher in the public sector than in the private sector. Although specific differentiation is not possible, the occupational composition in this industry for both the public and the private sectors in 2005 was mainly technical and associate professionals.

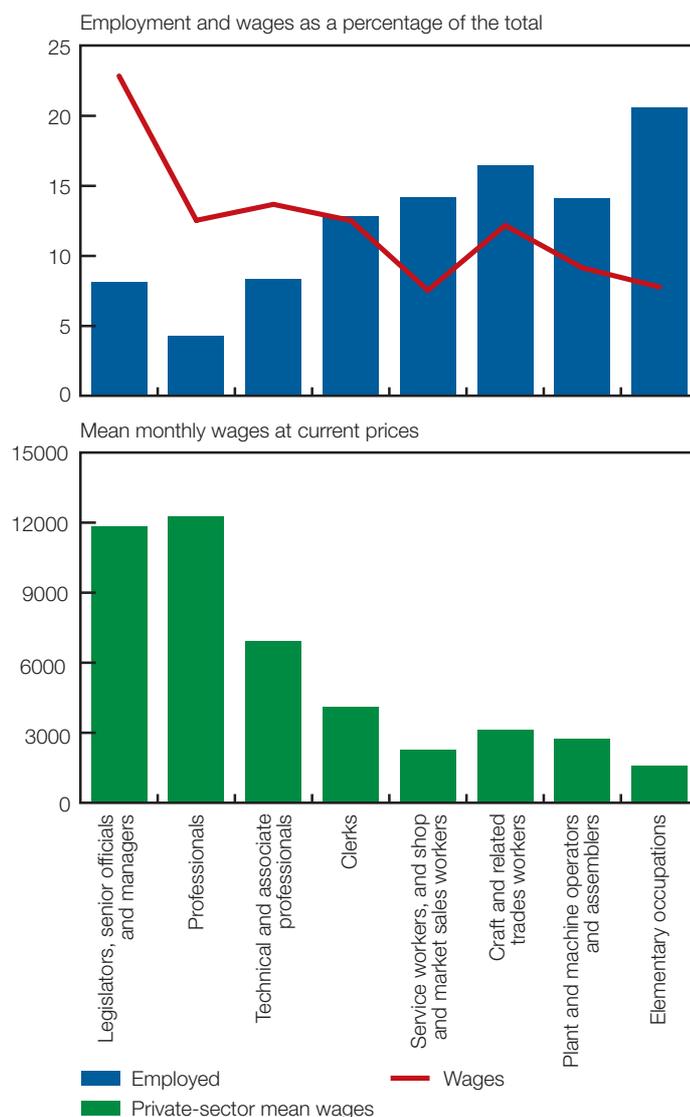
Figure 3.2 describes the total formal employment and total wage distribution by occupation for the private sector according to the LFS 2005. In 2005 the largest

Figure 3.1 Private and public formal-sector employment and wages by industry, 2005



Source: Statistics South Africa, *Labour Force Survey*, September 2005, and own calculations

Figure 3.2 Private formal-sector employment and wages by occupation, 2005



Source: Statistics South Africa, *Labour Force Survey*, September 2005, and own calculations

share of employees was in elementary occupations and the second largest share was that of craft and related trade workers at 16,5 per cent. Even though the category elementary occupations had the highest number of workers at 20,6 per cent in 2005, the largest share of total wages was paid to those employed as legislators, senior officials and managers. Professionals received the second-largest share of remuneration. The mean wage for workers in these occupations was also the highest compared to other industries.

The types of industries associated with technical and associate professionals were found to be financial intermediation, insurance, real-estate and business services as well as community, social and personal services. The difference between the share of wages and the share of employment seems much larger in private-sector service industries in South Africa than in the public sector.

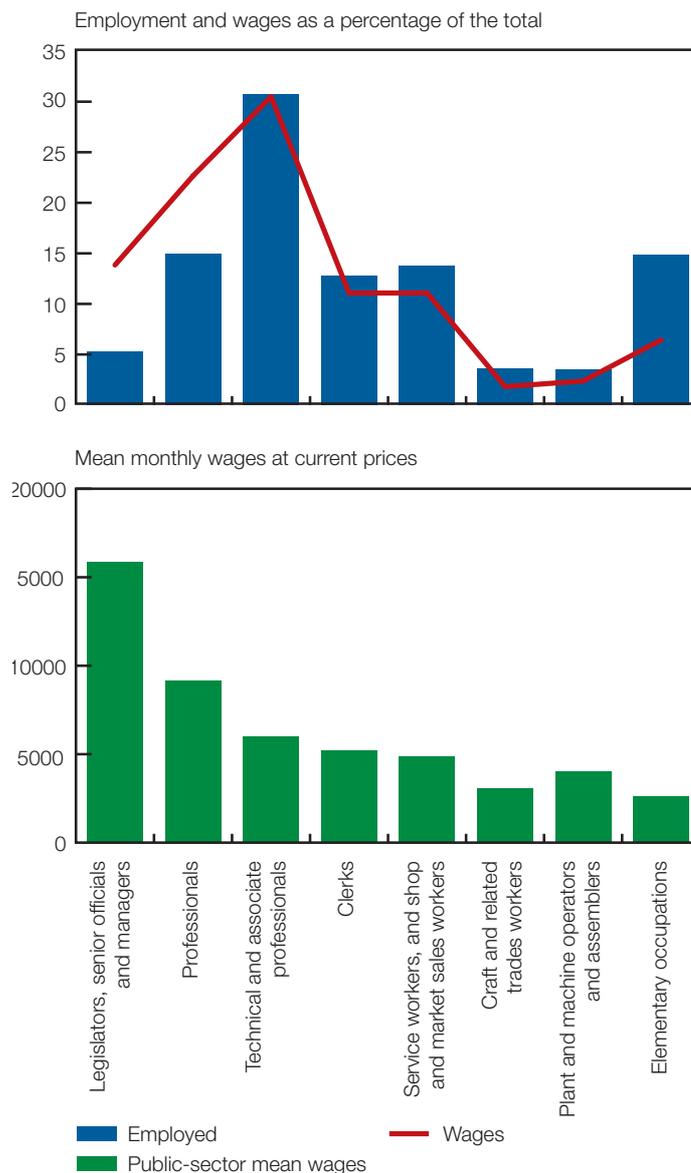
According to the occupational breakdown represented in Figure 3.3, the largest occupational group in the public sector for 2005 was technical and associate professionals at 30,8 per cent. This category also received the largest part of wages at 30,5 per cent. The highest mean wage was earned by workers employed as legislators, senior officials and managers. The difference between the share of wages and the share of employed is much larger in the private sector than in the public sector, especially for legislators, senior officials and managers, and professionals. Legislators, senior officials and managers as well as professionals, according to the LFS, were mostly found to be employed in the community, social and personal services as well as the financial intermediation, insurance, real-estate and business services industry.

Within occupations it seems that wages are more equally distributed within the public sector than the private sector. The difference between the share of wages and the share of employment is larger in the private sector than in the public sector. In an economy where private-sector market forces are much more powerful, this is not unexpected.

### Mean and median monthly wages for 2001, 2003 and 2005

Table 3.2 shows that the median monthly wage of R3 500 in the September 2001 LFS for the public sector was lower than the mean monthly wage of R4 068 (figure not shown). The same was true for the

Figure 3.3 Public-sector employment and wages by occupation, 2005



Source: Statistics South Africa, *Labour Force Survey*, September 2005, and own calculations

private sector where the median wage was R1 800 compared to the mean of R3 391. In the September 2005 LFS the median monthly wage for public-sector workers was substantially higher at R5 000 than it was for private-sector workers who earned around R2 000 per month. In real terms, public-sector median wages increased by 18 per cent between 2001 and 2005. In the private sector real median wages decreased by 3 per cent between 2001 and 2005.

According to the 2003 and 2005 LFS, the public sector employed approximately equal numbers of

**Table 3.2 Monthly median wages for September 2001, 2003 and 2005  
(Current and constant 2000 prices)**

	2001 Current		2001 Constant		2003 Current		2003 Constant		2005 Current		2005 Constant	
	Public R	Private R	Public R	Private R	Public R	Private R	Public R	Private R	Public R	Private R	Public R	Private R
<b>Total</b> .....	3 500	1 800	3 311	1 703	4 500	2 000	3 686	1 638	5 000	2 000	3 906	1 563
<b>Gender</b>												
Male .....	3 482	1 900	3 294	1 798	4 200	2 000	3 440	1 638	4 500	2 200	3 516	1 719
Female.....	3 500	1 680	3 311	1 589	4 500	2 000	3 686	1 638	5 000	2 000	3 906	1 563
<b>Education</b>												
No schooling .....	1 700	700	1 608	662	2 000	800	1 638	655	2 000	960	1 563	750
Some primary .....	1 700	1 000	1 608	946	2 000	1 000	1 638	819	2 500	1 200	1 953	938
Primary .....	1 600	1 200	1 514	1 135	2 300	1 100	1 884	901	2 000	1 400	1 563	1 094
Some secondary .....	2 000	1 500	1 892	1 419	2 600	1 500	2 129	1 229	2 500	1 600	1 953	1 250
Matric .....	3 500	2 600	3 311	2 460	4 100	3 000	3 358	2 457	4 500	3 000	3 516	2 344
Vocational.....	3 000	4 500	2 838	4 257	5 250	6 000	4 300	4 914	5 250	7 000	4 102	5 469
Diploma/certificate with less than Grade 12/Std10.....	4 000	4 000	3 784	3 784	5 250	4 000	4 300	3 276	5 250	4 000	4 102	3 125
Diploma/certificate with Grade 12/Std10.....	4 500	5 000	4 257	4 730	5 250	5 250	4 300	4 300	5 300	5 250	4 141	4 102
Degree.....	5 500	7 000	5 203	6 623	7 000	9 500	5 733	7 781	7 200	9 500	5 625	7 422
Postgraduate degree .....	5 600	9 500	5 298	8 988	7 000	10 500	5 733	8 600	10 000	13 500	7 813	10 547
<b>Occupation</b>												
Legislators, senior officials and managers .....	5 833	7 000	5 518	6 623	9 500	7 000	7 781	5 733	11 000	8 000	8 594	6 250
Professionals .....	5 600	8 000	5 298	7 569	7 000	9 500	5 733	7 781	7 000	9 500	5 469	7 422
Technical and associate professionals.....	4 000	4 000	3 784	3 784	5 250	5 250	4 300	4 300	5 250	5 000	4 102	3 906
Clerks .....	3 100	2 800	2 933	2 649	4 000	3 000	3 276	2 457	4 000	3 000	3 125	2 344
Service workers, and shop and market sales workers.....	3 000	1 300	2 838	1 230	4 000	1 500	3 276	1 229	4 000	1 500	3 125	1 172
Skilled agricultural fishery workers.....	1 800	2 500	1 703	2 365	2 800	1 200	2 293	983	2 700	1 920	2 109	1 500
Craft and related trades workers.....	2 000	1 920	1 892	1 816	3 000	2 000	2 457	1 638	3 000	2 000	2 344	1 563
Plant and machine operators and assemblers .....	2 300	1 600	2 176	1 514	3 000	2 000	2 457	1 638	3 000	2 200	2 344	1 719
Elementary occupations.....	1 800	720	1 703	681	2 000	800	1 638	655	2 000	1 160	1 563	906
<b>Union membership</b> .....	4 000	2 000	3 784	1 892	5 000	2 500	4 095	2 048	5 250	3 000	4 102	2 344
<b>No union membership</b> .....	2 500	1 400	2 365	1 325	3 800	1 500	3 112	1 229	3 006	1 800	2 348	1 406

Source: Statistics South Africa, *Labour Force Survey*, September, and own calculations

males and females, whereas in the private sector, for every one female there were two males employed. When comparing the median wages for the total public and private formal sector, the LFS indicates that the public-sector median wage is much higher than its counterpart in the private sector. Interestingly, female median wages were higher in the public sector than they were for males. The opposite is true for the private sector where male median wages of R2 200 were higher than those of their female counterparts in 2005 at R2 000. This could be due to the different occupational composition of males and females in the different sectors.

As previously found in research on median wages<sup>9</sup> the private-sector median wages for workers with no schooling, or with less than Matric, are lower than the public-sector median wages of workers with the same qualifications. Formal-sector workers who have vocational studies were better remunerated in the private sector at a median wage of R7 000 per month than they were in the public sector, where they earned a median wage of R5 250 per month in 2005. The same is true for workers with a degree or a postgraduate degree. It is also noticeable that both public and private median wages for those with a postgraduate degree increased between 2003 and 2005.

<sup>9</sup> Woolard, I. 2002. *A comparison of wage levels and wage inequality in the public and private sectors, 1995 and 2000*. Working paper 02/02. Cape Town: Development Policy Research Unit.

In 2005 the median wage of public-sector graduates without a postgraduate qualification was 3,6 times higher than the median wage of a public-sector worker with no education, which is a slight change from the 2003 ratio of 3,5. For the same group in the private sector, the median wage was 10,3 times more than that of a worker with no education, which was lower than in 2003 when the ratio was 11,9.

The highest median-paid occupations in both the private and public sectors were those of legislators, senior officials and managers; and professionals. This is true for both 2003 and 2005. Wages for legislators, senior officials and managers have increased substantially more in the public sector than they have in the private sector since 2001. The lowest median wages in the public and private sectors for 2001, 2003 and 2005 were in the elementary occupations category. The ratio of the median wage for more skilled (professionals) and less skilled (those in elementary occupations) for 2005 in the private sector was 8,2 and for the public sector 3,5. In 2003 these ratios were 8,8 and 4,8. It seems that once again the public-sector wage ratio between the highest and lowest skills group is much narrower than in the private sector. In the public sector, legislators and managers earned more than those in the private sector for both 2003 and 2005. Monthly median wages for this occupational group were R11 000 for the public sector and R8 000 for the private sector.

### Multivariate estimation and comparison of the public and private-sector earnings function for 2005

In this section a lin-log model of wages is used to estimate wages for the public and the private sector using the September 2005 LFS data. The wage equation relates the logarithm of monthly wages to a set of individual characteristics. Separate models are then run for specific groups.

The earnings functions were specified as follows:

$$\ln(\text{monthly wages}) = \beta_0 + \beta_1(\text{gender}) + \beta_2(\text{population group}) + \beta_3(\text{experience}) + \beta_4(\text{experience}^2) + \beta_5(\text{region}) + \beta_6(\text{education}) + \beta_7(\text{occupation}) + \beta_8(\text{industry}) + \beta_9(\text{public sector})$$

The dependent variable is the logarithm of monthly wages.  $\beta_0$  is the intercept. Dummy variables were

implemented for explanatory variables except for the experience and experience (squared) proxy, which are continuous variables. Experience, or more accurately potential experience, is calculated as age less the expected age at which the worker should have completed his/her education. The number of years of schooling is derived from the LFS question on highest level of education attained. Experience squared allows for marginal returns to experience over the average working life, in line with human capital theory. Based on this, the coefficient of potential experience is expected to be positive and the coefficient of experience squared to be negative<sup>10</sup>.

The wage equation was first estimated for "All" formal-sector workers and includes public and private-sector workers, as well as all population groups and males and females both. Secondly, the equation was estimated separately for the public and private sector to show whether the effect of different characteristics differs between the two sectors. Thirdly, the wage equation was run for males and females, and lastly for the two largest of the four population groups, African and White. Ordinary Least Squares was used to estimate the equation. Statistics South Africa's weights were used in estimating the equation.

### Public-sector wage premiums for 2005

The equation results for "All" using September 2005 LFS data show that the explanatory power of the equation was 54,8 per cent (see Table 3.3). According to the model, public-sector wages are higher than private-sector wages, controlling for other factors. In 2005 working in the public sector multiplied workers earnings with  $e^{0,299}$  which translates into a 35-per-cent premium, i.e. that public-sector workers earn approximately 35 per cent more than private-sector employees after controlling for other characteristics.

When comparing earnings for the two equations, African and White, Africans employed in the public sector earn 32 per cent more than they would have in the private sector. Whites in the public sector earn 28 per cent more than they would have been earning if they were employed in the private sector.

When the equation was run separately for males and females for 2005, it was found that the public-sector wage premia for males and females were very close to each other, being 33,1 per cent and 34,1 per cent, respectively<sup>11</sup>.

10 Erichsen, G, and Wakeford, J. 2001. *Racial wage discrimination in SA before and after the first democratic election. Working Paper 01/49. Cape Town: Development Policy Research Unit.*

11 It might seem inconsistent that the coefficients, even though they are close for males and females, are smaller than the coefficient for the equation "All"; this is, however, not the case and can be explained by imperfect model specification.

Table 3.3 Various regression results of the earnings equation for 2005

Dependent variable = log of monthly earnings

Explanatory variables	Coefficients						
	All	Public	Private	African	White	Male	Female
Constant .....	5,988	6,840	5,988	5,902	6,038	5,977	5,666
<b>Private</b>				<b>Reference</b>			
Public .....	0,299			0,278	0,247	0,286	0,294
<b>Male</b>				<b>Reference</b>			
Female .....	-0,317	-0,234	-0,314	-0,247	-0,341		
Experience .....	0,033	0,018	0,035	0,024	0,062	0,037	0,025
Experience <sup>2</sup> (x1 000)* .....	-0,446	-0,228	-0,492	-0,206	-1,220	-0,512	-0,328
<b>African</b>				<b>Reference</b>			
Coloured .....	0,191	0,179	0,199			0,206	0,124
Indian .....	0,403	0,195	0,447			0,638	-0,041
White.....	0,421	0,278	0,440			0,490	0,331
<b>Non-member: Trade union</b>				<b>Reference</b>			
Member: Trade union .....	0,166	0,274	0,141	0,238	-0,153	0,135	0,248
<b>No schooling</b>				<b>Reference</b>			
Some primary.....	-0,041	0,108	-0,075	0,083	0,551	-0,117	0,196
Primary.....	0,082	-0,112	0,085	0,201	0,134	-0,021	0,451
Some secondary.....	0,184	0,074	0,189	0,291	0,331	0,078	0,474
Matric.....	0,652	0,663	0,615	0,654	0,916	0,604	0,798
Vocational .....	1,036	0,963	0,997	0,802	1,298	0,950	1,012
Diploma/certificate with less than Grade 12/Std10 .....	0,794	0,781	0,762	0,858	1,187	0,656	0,977
Diploma/certificate with Grade 12/Std10 .....	0,858	0,774	0,859	1,121	0,933	0,777	1,019
Degree .....	1,11	1,036	1,123	1,545	1,102	1,029	1,247
Postgraduate degree.....	1,513	1,781	1,349	2,065	1,519	1,559	1,567
<b>Agriculture</b>				<b>Reference</b>			
Mining and quarrying.....	1,038	0,232	1,038	0,866	1,574	1,042	0,993
Manufacturing .....	0,582	-0,284	0,557	0,538	0,785	0,568	0,568
Electricity, gas and water supply .....	0,635	0,251	0,583	0,640	0,663	0,686	0,431
Construction .....	0,316	-0,483	0,292	0,300	0,458	0,334	0,193
Wholesale and retail trade .....	0,259	0,102	0,237	0,209	0,237	0,290	0,125
Transport, storage and communication.....	0,675	0,28	0,617	0,513	1,103	0,639	0,701
Financial intermediation, insurance, real-estate and business services.....	0,649	0,311	0,614	0,456	0,887	0,638	0,642
Community, social and personal services .....	0,345	0,126	0,267	0,270	0,566	0,362	0,305
<b>Elementary occupations</b>				<b>Reference</b>			
Legislators, senior officials and managers .....	1,002	0,743	1,048	0,971	1,062	0,934	1,078
Professionals .....	0,743	0,389	0,853	0,762	0,795	0,84	0,603
Technical and associate professionals....	0,619	0,314	0,733	0,480	0,765	0,653	0,566
Clerks.....	0,394	0,327	0,414	0,412	0,303	0,468	0,379
Service workers, and shop and market sales workers .....	0,039	0,147	0,017	0,125	0,075	-0,007	0,142
Skilled agricultural fishery workers .....	1,057	0,321	1,118	0,461	1,923	1,184	0,533
Craft and related trades workers .....	0,258	0,158	0,284	0,121	0,746	0,316	-0,061
Plant and machine operators and assemblers.....	0,227	0,550	0,241	0,197	0,580	0,262	0,179
R <sup>2</sup> .....	0,548	0,532	0,547	0,572	0,458	0,598	0,485

\* For interpretation purposes, the coefficient of experience<sup>2</sup> was multiplied by 1 000Source: Statistics South Africa, *Labour Force Survey*, September 2005, and own calculations. For all calculations, coefficients were significant at the 5-per cent significance level except for the equation for Africans where the coefficient for Mpumalanga Province was insignificant (see Annexe 3.1). Provincial coefficients are not shown.

## Effects of other characteristics on wages for “All” for 2005

Overall, when estimating the “All” equation for 2005 higher education played a very important role in determining wages for employed people. Specific educational levels that played an important role were a vocational education, a degree and a postgraduate degree. Within occupations, being a manager or being within a technical and associate professional occupation had a more positive impact on employees’ wages than being in an elementary occupation, even after controlling for education and other characteristics.

## Effects of other characteristics on wages for males and females for 2005

The explanatory power of the equation for males is 60 per cent, and for females 49 per cent. The regression results showed that primary education contributed more towards wages for females than it did for males. Interestingly, it is found that a vocational qualification is more important for higher wages for females than it is for their male counterparts.

The result from the estimations indicated that for female wages it is more important to be in a managerial occupation than it was for male wages. Experience was found to be more important for males than it was for females in terms of wages earned. Being an Indian male increased the chances of earning higher wages when compared to other population groups, while controlling for other characteristics. Female Indian workers earned less than other female population groups, again when controlling for other characteristics. It was also found that in terms of wages it was more important for females to belong to a union than it was for males.

## Effects of characteristics on wages for the public and private sector for 2005

The explanatory power for the public-sector equation is 53 per cent, and for the private-sector equation 55 per cent. The negative coefficient for females indicated that females earned less than their male counterparts in both the public and the private sector, after controlling for other characteristics. Whites and Indians earned more than Africans, especially in the private sector, again after controlling for other characteristics.

People with some primary education in the private sector and primary education in the public sector were worse off than those who had no schooling in

both the private and the public sector, respectively, after controlling for other characteristics. Wages were more positively affected in both the private and the public sectors as workers’ education levels increased after primary education. As would be expected, the wage premium of a person with a postgraduate degree was the largest among all education variables in both the public and the private sector, and the strength of the relationship was stronger within the public sector. In both the public and private sector, having a vocational qualification contributed more towards wages than having a diploma with and/or without a Matric certificate.

Being in the mining industry was much more important for wages than being in any of the other industries in the private sector. Other than mining, it was noticeable that private-sector workers needed to be in a specialist field such as transport or the financial services sector to earn higher wages.

Wages were to a great extent influenced by occupations such as professionals where more specialised skills are required. Although legislators, managers and senior officials had a relatively larger coefficient above elementary occupations, managers are not classified as skilled by the *South African Standard Classification of Occupations* definition. Being in the skilled agricultural and fishery occupation had a larger positive impact on wages than in any of the other occupations.

## Conclusion

The first part of the paper showed the extent to which workers’ pay in the public and private sectors differed. The difference between the share of wages and the share of employment is larger in the private sector than in the public sector, specifically in occupations such as legislators and professionals. These wage differences could be the results of union activity and increases in wages for certain skills in specific occupations. The second and third parts have shown that the wages for workers with a postgraduate qualification are much larger in the private sector than in the public sector. The public sector, being the policy formulator and exemplar, has moved faster to ensure equity in terms of gender and population group than the private sector. The challenge for government is to support the private sector in implementing equity policies. In general, workers in intermediate and higher skilled occupations are more highly rewarded in both the public and the private sectors. Interestingly, the wages for vocational studies are higher in the private sector. This could be due to a larger demand for workers who are vocationally qualified.

## Annexe 3.1 T-statistics of earnings equation

Dependent variable = log of monthly earnings

Explanatory variables	T-statistics						
	All	Public	Private	African	White	Male	Female
Constant.....	2 468,8	6 96,4	2 215,4	2 498,3	414,6	2 122,7	1 097,8
<b>Private</b>				<b>Reference</b>			
Public .....	271,8			221,6	95,6	196,0	170,1
<b>Male</b>				<b>Reference</b>			
Female.....	-497,4	-202,2	-424,9	-352,3	-213,2		
Experience.....	360,6	87,0	346,5	237,4	244,2	334,4	150,3
Experience <sup>2</sup> .....	-241,7	-54,4	-238,8	-109,2	-223,8	-237,3	-90,8
<b>African</b>				<b>Reference</b>			
Coloured.....	173,0	75,1	161,6			148,9	67,4
Indian.....	300,9	59,1	301,4			397,7	-17,1
White.....	565,6	194,1	507,7			520,2	265,1
<b>Non union</b>				<b>Reference</b>			
Union .....	257,1	220,3	188,9	340,3	-87,1	174,9	215,7
<b>No schooling</b>				<b>Reference</b>			
Some primary .....	-22,8	23,0	-38,5	51,8	26,2	-60,8	44,5
Primary .....	39,3	-20,6	37,6	106,7	4,7	-9,4	94,1
Some secondary.....	108,4	16,0	102,6	182,6	26,6	42,1	118,6
Matric .....	368,1	138,2	320,5	381,6	74,6	312,2	193,4
Vocational.....	346,1	118,4	307,9	194,1	100,5	304,2	112,2
Diploma/certificate with less than Grade 12/Std10.....	298,9	135,9	250,4	294,5	92,2	207,2	184,9
Diploma/certificate with Grade 12/Std10.....	439,3	155,5	398,0	551,0	75,9	347,7	234,7
Degree.....	516,5	197,3	464,3	613,7	88,9	420,8	267,4
Postgraduate degree .....	649,7	344,8	490,4	718,4	122,3	561,6	329,6
<b>Agriculture</b>				<b>Reference</b>			
Mining and quarrying .....	537,3	9,1	511,5	499,9	197,9	512,5	148,1
Manufacturing.....	354,8	-28,5	321,9	350,1	123,8	308,7	159,9
Electricity, gas and water supply .....	211,6	23,6	178,0	223,0	69,4	205,7	67,1
Construction .....	173,7	-49,7	151,6	177,9	65,6	169,9	36,5
Wholesale and retail trade.....	158,7	10,0	137,5	136,2	37,8	157,4	35,5
Transport, storage and communication .....	364,9	28,9	314,3	287,2	163,8	312,6	168,9
Financial intermediation, insurance, real-estate and business services .....	387,5	34,5	344,6	282,3	142,0	331,0	181,1
Community, social and personal services .....	191,0	14,5	134,4	152,0	89,5	168,2	83,3
<b>Elementary occupations</b>				<b>Reference</b>			
Legislators, senior officials and managers. Professionals .....	755,9	255,4	707,9	515,7	242,9	597,0	434,5
Technical and associate professionals.....	488,6	142,7	465,4	394,4	171,9	449,8	231,9
Clerks .....	509,9	134,2	514,5	344,2	172,7	426,6	278,2
Service workers, and shop and market sales workers.....	339,8	130,3	317,3	320,9	68,0	283,3	205,2
Skilled agricultural fishery workers.....	35,8	60,2	13,7	120,6	15,6	-5,5	71,7
Craft and related trades workers.....	256,0	33,5	245,0	101,7	200,2	261,0	59,3
Plant and machine operators and assemblers .....	243,4	48,7	247,3	119,7	152,1	271,5	-23,6
.....	205,5	146,6	201,6	191,0	103,3	219,3	58,9
<b>Eastern Cape</b>				<b>Reference</b>			
Western Cape.....	212,6	72,3	176,8	204,5	68,7	163,9	140,0
Northern Cape.....	-6,9	-26,1	-3,3	37,1	-17,2	-3,3	-5,4
Free State .....	-64,3	25,9	-79,2	-36,4	-12,1	-38,4	-47,5
KwaZulu-Natal .....	-127,2	-60,1	-106,8	49,7	-135,4	-110,8	-39,7
North West .....	35,1	73,5	13,2	60,2	-14,4	20,6	41,8
Gauteng.....	202,3	109,9	166,4	259,1	45,9	150,4	143,9
Mpumalanga.....	-71,2	-49,9	-62,0	0,9	-99,2	-35,2	-61,5
Limpopo .....	-34,4	-14,4	-34,5	-4,4	-9,5	-12,6	-24,8
R <sup>2</sup> .....	0,548	0,532	0,547	0,572	0,458	0,598	0,485

Source: Statistics South Africa, *Labour Force Survey*, September 2005 (own calculations at the 95-per-cent confidence level)