

An Investigation into Changes in the Number of Hours Worked in South Africa: 2000-2005

Report prepared for the Department of Labour

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1. Introduction

In countries around the world, exploitation of workers and poor working conditions have thrived in the absence of enforceable and enforced legislation aimed at combating such abuses. One of the aspects that has received attention is the number of hours that employees work within a given time period, such as a day or week.

Currently in South Africa, as in many other countries, the legislative trend has been towards reducing the length of the working week. In terms of legislation, the work week in South Africa was shortened from 46 hours to 45 hours in 1997, with the Basic Conditions of Employment Act creating space for bargaining councils to agree upon shorter work weeks. Ultimately, the objective at the moment is for the South African economy to move towards a 40 hour work week.

This report aims to investigate any changes that may have occurred in the number of hours worked by South African employees between 2000 and 2005. Section 2 briefly discusses the legislative and regulatory environment, with a view to delineating the sample used in the analysis. Section 3 then turns to the datasets employed, highlighting some of the data issues encountered in this study and describing the sample of workers used. In section 4, we turn to changes in the mean numbers of hours worked per week, identifying where these may have changed over the period. Statistically significant changes are again highlighted in section 5 and the report is then concluded.

2. The Legislative And Regulatory Environment

South Africa's labour environment is regulated through various different pieces of legislation, including the Labour Relations Act of 1996, the Basic Conditions of Employment Act of 1997, the Employment Equity Act of 1998, the Occupational Health and Safety Act of 1993 and the Compensation for Occupational Injuries and Diseases Act of 1993. Further, there are also various subsidiary instruments affecting the labour market, such as bargaining council agreements and sectoral determinations.

The Basic Conditions of Employment Act (BCEA) regulates the working conditions of employees, including working hours, leave, particulars of employment and remuneration, and termination of employment. Section 2 of the BCEA regulates the working time of employees. The act stipulates the maximum amount of ordinary hours that a worker governed by the Act should work, as well as the overtime limit. However, the legislated hours of work governing different sectors varies depending on bargaining council and collective bargaining agreements and sectoral determinations, and is usually revised downwards.

The Act stipulates that an employer may not require an employee to work more than 45 ordinary hours in any week, or to work overtime, except by agreement. Even where agreement is reached, overtime work cannot exceed 10 hours in any week. Amongst various roleplayers, there has been a trend towards reducing the work week from 45 to 40 hours. Work weeks can be negotiated through collective bargaining or affected by sectoral determinations. If during negotiations at collective bargaining, a party to the negotiations introduces the reduction of maximum working hours as a subject for negotiation, the parties have to negotiate on the issue.

The BCEA regulates working conditions for the working population in general, with exemptions where they apply. Chapter 2 of the Act, which regulates working hours, is not applicable to:

- senior management workers;
- sales staff who travel and regulate their own hours;
- employees who work less than 24 hours a month for an employer;
- workers who earn more than R115 572 per year (this was revised upwards from R89 455, effective on the 24 March 2003); and
- workers engaged in emergency work are excluded from certain provisions.

The standard provisions of the BCEA are, however, not applicable to workers who are governed by a number of Sectoral Determinations. The sectoral determinations govern the conditions of employment of various sectors including the Contract Cleaning Sector, Learnerships, Private Security Sector, Domestic Worker Sector, Wholesale and Retail Sector, the Taxi Sector, and Farm Workers. Although the provisions in the sectoral determinations differ, generally, workers may not work more than 45 hours ordinary time in any week, nor may they work more than nine (eight) hours in any day if they work up to (more than) five days in a week. Overtime is generally limited to 10 hours per week (except in the cases of domestic and farm workers and those in the Wholesale and Retail sector) (Republic of South Africa 1997a, 1997b, 1999, 2001, 2002a, 2002b, 2003, 2004).

Given the various exclusions, it is essential that the sample be adjusted accordingly. Although the sectoral determinations do differ in the regulation of working hours, they do not differ sufficiently for large enough groups of workers to necessitate an adjustment of the sample, nor is the Labour Force

Survey (LFS) data used suitable for the identification and exclusion of groups of workers corresponding to all sectoral determinations. Exclusion is particularly problematic in that the sectoral determinations were implemented and/or revised on different dates, mostly between 2000 and 2005. Consequently, all formal sector workers are included in the sample used for the analysis. Domestic workers do not form part of the sample.

In terms of the exclusions, individuals working less than 24 hours in a month are excluded from the sample. This is done based on individuals' responses to a question regarding working hours in a 'usual' week. However, there is a problem in obtaining an exact sample from the LFS because the question on working hours does not ask respondents to distinguish between normal working hours and overtime. In the LFS questionnaires, the relevant question relating to hours worked asks, "How many hours per week, *including overtime*, does usually work?" (own emphasis). Since the question does not distinguish between normal working hours and overtime, we are forced to work with the combined total. The decision was also taken to use the above question rather than the alternative question, which asks the number of hours worked in the seven days prior to the survey. This was done so as to eliminate any anomalies that such a question may produce.¹ Because neither question distinguishes between normal and overtime hours worked, it is assumed that those working between 45 and 55 hours are still within the allowed working hours stipulated by the BCEA. The maximum legal number of hours worked per week is considered to be 55 hours – a maximum of 45 hours normal time plus a maximum of ten hours overtime per week – although it is likely that this would still result in an undercount of those that are in contravention of the Act. Those working more than 55 hours per week are considered to be in contravention of the Act.

It is not possible to accurately separate senior management and sales workers who regulate their own hours of work out of the sample. However, it is likely that the income threshold will limit the numbers of these workers that fall within the sample, particularly in terms of senior management workers. As of 24 March 2003, the working hours provisions of the BCEA are not applicable to those who earn in excess of R115 572 per annum (Department of Labour 2004). In 2000, those earning more than R89 455 were excluded from the provisions. Ideally, the analysis would exclude workers above the relevant earnings threshold. However, since the LFS surveys allow respondents to provide both point and income-band responses to the income questions, this is not directly possible. As will be detailed below, incomes were randomly assigned within income brackets, after which the two thresholds were applied to restrict the sample.

¹ Since this type of question refers specifically to the previous seven days, any unusual event in that period could potentially distort the responses that this question elicits. Using the question that refers to the number of hours *usually* worked would, therefore, provide better quality information.

3. Data

The analysis below is based on nationally representative household surveys conducted by Statistics South Africa. Specifically, the September Labour Force Surveys (LFS) of 2000 and 2005 are used. In the 2000 LFS more than 26 000 households and 105 000 individuals were interviewed, while in the 2005 LFS more than 28 000 households and 109 000 individuals were interviewed.

The sample used in the analysis below is comprised of (1) all individuals who are employed, (2) by one or more employers, (3) in the formal sector (and including the domestic work sector), (4) who work for more than 24 hours a month in their main jobs, and (5) who earn below the thresholds of R89 455 in 2000 or R115 572 in 2005.²

As mentioned earlier, the LFS data allows respondents to provide non-point estimate data on income questions. These respondents are allowed instead to provide responses in income bands or even to refuse to answer the question entirely. This poses something of a challenge in ensuring that the sample analysed reflects the population covered by legislation.

A variety of methods can be used to assign point estimates of income for those who have reported only income bands. Posel and Casale (2005) utilise numerous methods of imputing incomes for those who report in bands and find that simple methods are not seriously inferior to more complex methods. For our purposes, the imputed incomes will determine whether or not the individual forms part of the sample or not. In 2000, the income threshold of R89 455 falls within the R72 000 to R96 000 band, while in 2005, the threshold of R115 572 falls within the R96 000 to R132 000 band. Simply stated, individuals reporting incomes in the affected income bands were ranked in ascending order according to an average of 50 randomly assigned values based between zero and one. It was assumed that individuals were evenly distributed across the income bands and, therefore, the proportion of individuals in the band falling below the threshold is the same as the proportion of the income band falling below the threshold. Ranked individuals were selected in ascending income order in this band until this proportion of individuals in the band was reached. These individuals then were deemed to form part of the sample and incomes were randomly assigned for these individuals between the lower bound of the band and the threshold income value using a uniform distribution. Those individuals in the band but excluded from the sample received random incomes between the threshold income value and the upper bound of the affected band. Finally, incomes were randomly assigned for all individuals reporting bands.

The numbers of workers included in the two years were 5.5 million in September 2000 and 6.1 million in September 2005, representing 45.2 percent and 49.3 percent of the total number of employed individuals in those two years (Table 1).

² These thresholds are almost equivalent in real terms. Statistics South Africa's Consumer Price Index for Metropolitan and Other Urban Areas was 101.6 in September 2000 and 129.8 in September 2005 (Statistics South Africa 2006). Deflating the 2005 threshold using these indices provides a value of R90 463, a difference of R1 008 in 2000 Rands.

Table 1: Breakdown of the Sample Used in the Analysis

	September 2000		September 2005	
	Thousands	Share (%)	Thousands	Share (%)
Employed (15 to 65 years)	12 238	100.0	12 301	100.0
... and an employee	8 610	70.3	8 843	71.9
... and in formal sector	7 241	59.2	7 976	64.8
... and in non-agricultural sectors	6 642	54.3	7 517	61.1
... and works 24 hours a month or more	6 368	52.0	7 336	59.6
... and earns above the income threshold	5 534	45.2	6 068	49.3

Source: Own calculations, LFS 2000:2 and LFS 2005:12 (Statistics South Africa).

4. Changes in Hours Worked Between 2000 and 2005

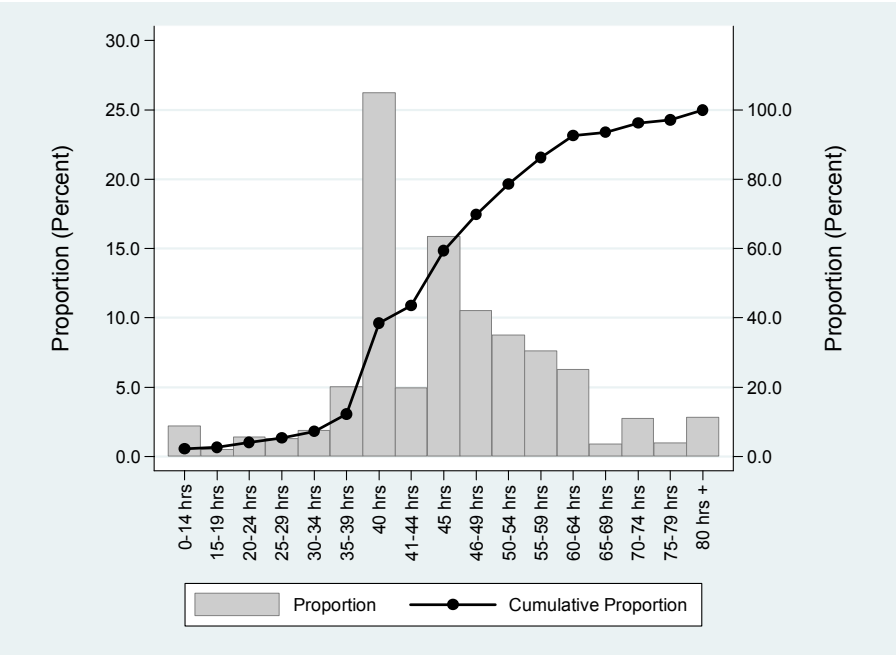
On average, formal sector employees in the non-agricultural sector, working 24 hours or more per month and earning more than R89 455 per annum in 2000, worked 47.6 hours per week, inclusive of overtime. By 2005, having adjusted the income cut-off to R115 572 per annum, average working hours increased to 49.1 hours.³ On average, therefore, workers in 2005 are working about an hour and a half more than was the case in 2000.

Distributionally, the responses in both 2000 and 2005 were clustered around 40 hours and 45 hours per week, respectively representing eight and nine hours work days (see Figure 1 and

³ This difference is only statistically significant at the 10 percent level of significance.

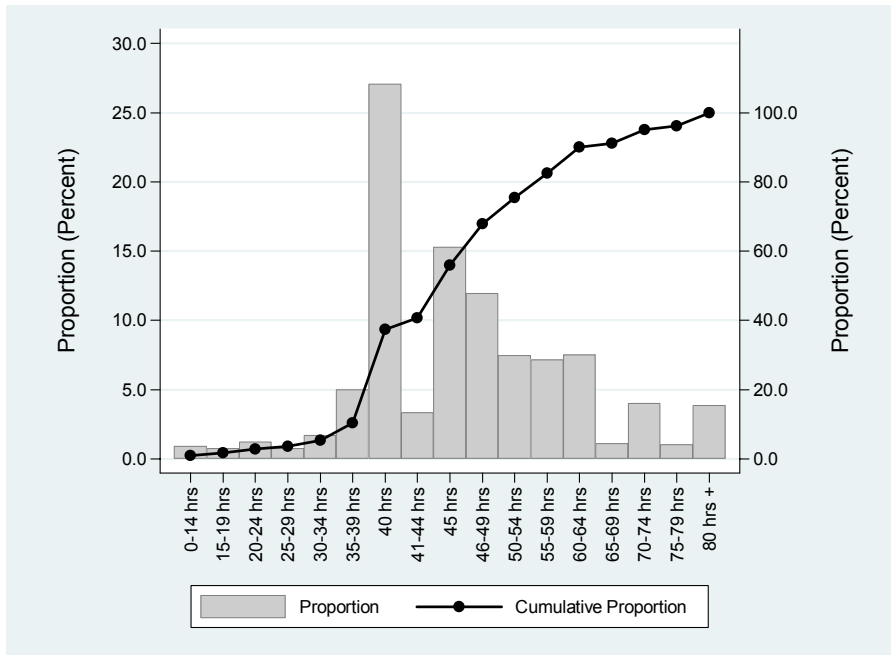
Figure 2 below). In 2000, more than one-quarter (26.3 percent) of workers reported usually working a 40 hour week, while 15.9 percent reported usually working a 45 hour week. In 2005, 27.1 percent of workers usually worked a 40 hour week and 15.3 percent a 45 hour week. Overall, just under half of workers in the sample usually worked 40 to 45 hours per week in both periods.

Figure 1: Distribution of Hour Worked, 2000



Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

Figure 2: Distribution of Hours Worked, 2005



Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

The two figures above represent the distribution of working hours for the group of workers included in our sample. Naturally, though, it is to be expected that these aggregated figures obscure many potentially different patterns based on any number of covariates. Some of these patterns are investigated below.

4.1 Demographic Characteristics

4.1.1 Race

We expect that there will be differences in the average hours worked across different race categories, due to their different educational and occupational profiles, influenced by the apartheid system. We find that, in 2000, Africans worked the longest average hours per week (48.9 hours), followed by Whites (45.4 hours), Coloureds (45.2 hours) and Asians (44.8 hours). However, it is necessary to consider whether the average hours worked are significantly different across the different race groups. In looking at this, we find that the hours worked were only statistically different between Africans, on the one hand, and the other race groups on the other hand. By 2005, both Africans and Asians saw statistically significant increases in the average number of hours usually worked per week. Amongst Africans, the average number of hours worked rose by one hour (or 2.1 percent), while Asians saw an increase of 2.5 hours (5.5 percent). Africans still reported working the longest hours overall, with no significant difference in the hours worked by the other three race groups.

Table 2: Mean Hours Worked by Race, 2000 and 2005

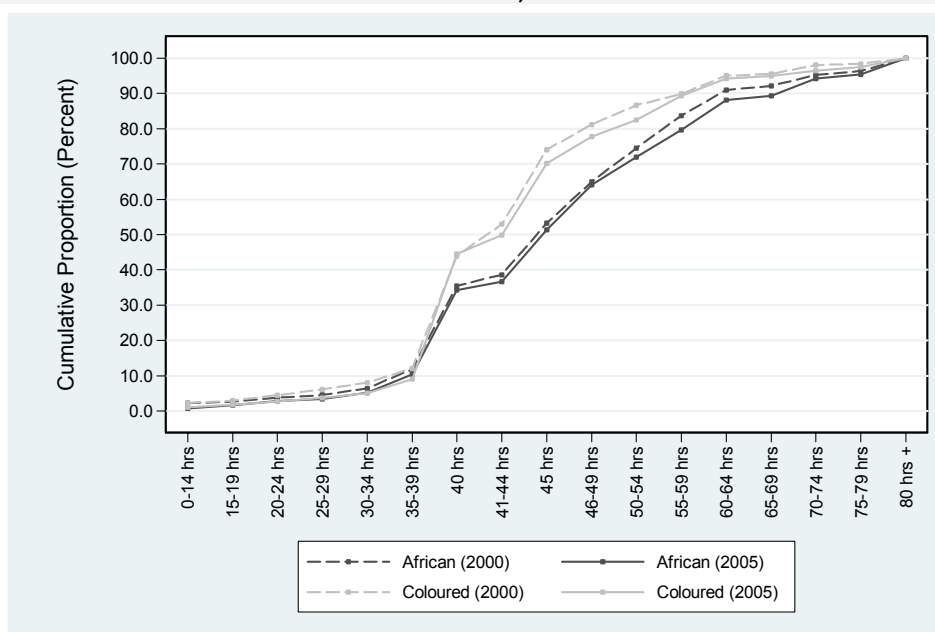
	2000	2005	Change	
			Hours	Percent
African	48.9	49.9	1.0 *	2.1
Coloured	45.2	46.2	1.0	2.2
Asian	44.8	47.3	2.5 *	5.5
White	45.4	46.3	0.8	1.9

Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

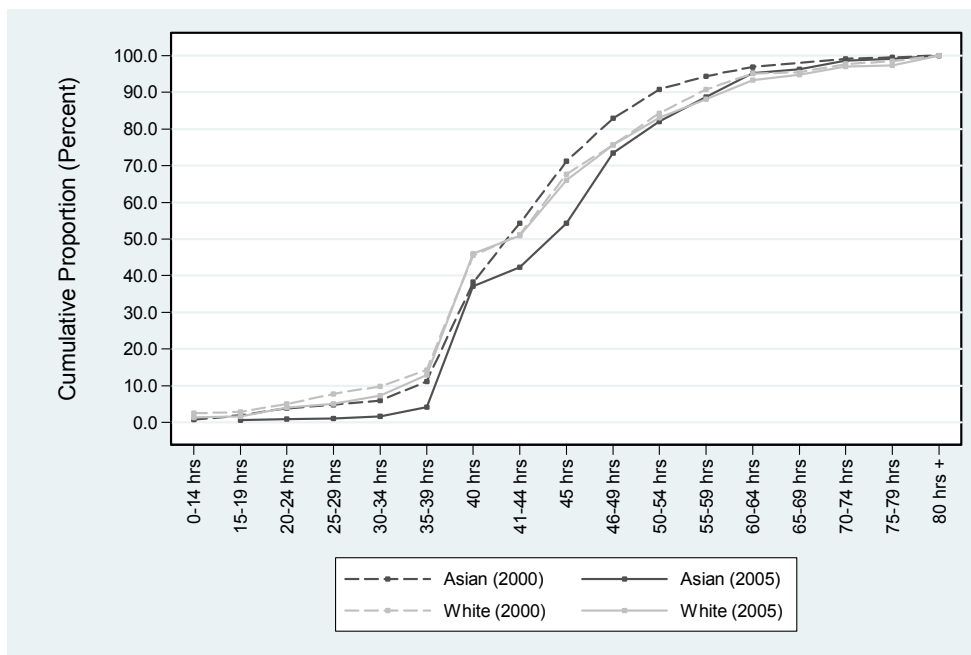
Notes: 1. Asterisks (*) denote statistically significant changes at the 95 percent level of confidence.

For Africans, Coloureds and Whites, the distribution of hours worked did not change much between 2000 and 2005 (Figure 3).⁴ In both years, work-weeks of 40 hours are more prevalent in the Coloured, Asian and White population than in the African population. Fewer than one-quarter (24.4 percent) of African workers in the sample reported usually working for 40 hours per week, compared to 33.1 percent of Asians, 34.2 percent of Whites and 36.2 percent of Coloureds in 2005. The lengthier work-weeks of Africans is confirmed in the fact that less than one-third (32.7 percent) of African workers worked no more than 40 hours per week, compared to 43.2 percent of Coloureds and 44.1 percent of Whites. In comparison, work-weeks of 45 hours or more accounted for almost two-thirds (64.7 percent) of African workers, compared to just over half of Coloured and White workers.

Figure 3: Cumulative Distribution of Hours Worked, 2000 and 2005



⁴ Separate figures for 2000 and 2005 are included in the appendix.



Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

The figure shows a very marginal shift in the cumulative distributions to the right for Africans and Coloureds, indicating greater proportions of workers working longer hours in 2005 than in 2000. For Asians, this shift is somewhat larger, although the sample is relatively small, and may also indicate longer working hours in 2005.

4.1.2 Gender

In both 2000 and 2005, males worked significantly longer hours than females (Table 3). In 2000, males worked an average of 49.2 hours and females 44.9 hours. By 2005, the average hours worked by females increased to 46.8 hours, representing a statistically significant increase of nearly two hours, or 4.3 percent. Males, however, saw no significant increase in the number of hours usually worked.

Table 3: Mean Hours Worked by Gender, 2000 and 2005

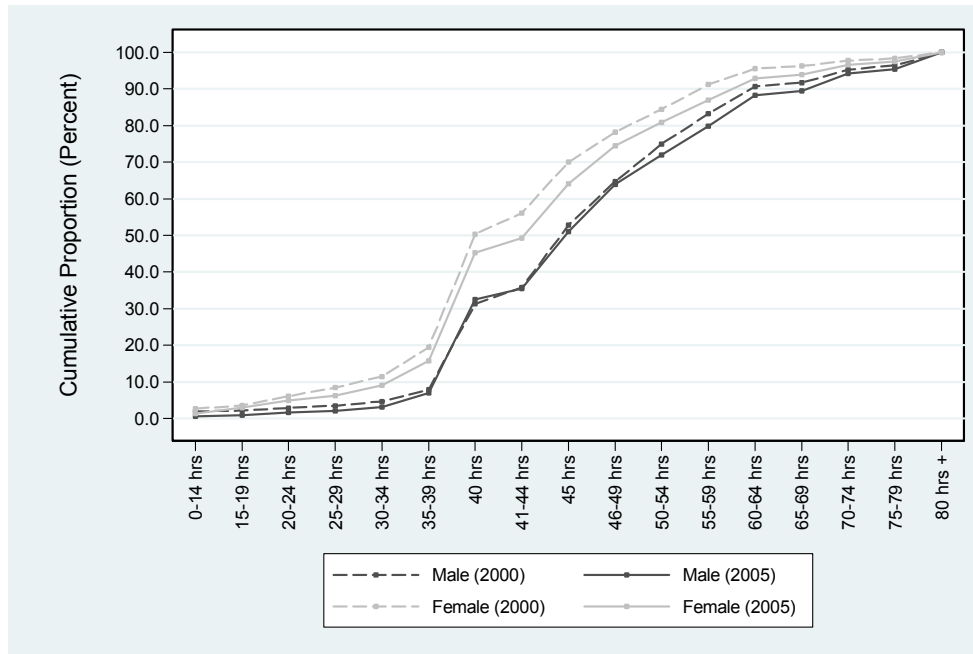
	2000	2005	Change	
			Hours	Percent
Male	49.2	50.0	0.8	1.5
Female	44.9	46.8	1.9 *	4.3

Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

Notes: 1. Asterisks (*) denote statistically significant changes at the 95 percent level of confidence.

Figure 4 confirms the relative positions of males and females with respect to the number of hours usually worked. In both years, the curve for males lies below that of females at all points of the distribution, indicating a smaller proportion of males than females working fewer hours at any given point of comparison. The cumulative distribution for females shifted slightly to the right, indicating a slight increase in the relative proportion of workers working longer hours in 2005. For males, though, this shift is far less pronounced, only occurring at very high numbers of hours worked, specifically from work-weeks of 50 hours and more.

Figure 4: Cumulative Distribution of Hours Worked by Gender, 2000 and 2005



Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

4.1.3 Race and Gender

When comparing the average hours worked per week for a particular race group alone or a particular gender alone to that of different race-gender combinations, we find that being of a particular race-gender combination influences your average hours worked per week.

African men worked the longest average hours per week in both 2000 and 2005, 50 and 51 hours respectively, although the measured increase over the period is statistically insignificant (Table 4). In 2000, they were followed by White men, who worked 48.5 hours per week, and Coloured men who worked 46.8 hours per week. In both 2000 and 2005, African and White males worked longer average hours per week than their female counterparts, while the same was true of Coloureds in 2000. In 2005, African males worked the longest average hours per week (50.8 hours), followed by Asian males (48.7 hours) and African females (48.5 hours). In terms of statistical significance, African males clearly worked longer hours than any other group, while White females worked shorter hours than all other groups, except Asian and Coloured females. There were statistically significant increases in hours worked per week for African women and Asian men, but for all other race groups the changes were insignificant.

Table 4: Mean Hours Worked by Race and Gender, 2000 and 2005

	2000	2005	Change	
			Hours	Percent
African Male	50.0	50.8	0.8	1.6
African Female	46.5	48.2	1.7 *	3.6
Coloured Male	46.8	47.1	0.3	0.6
Coloured Female	43.4	45.1	1.7	4.0
Asian Male	45.3	48.3	3.0 *	6.5
Asian Female	44.0	45.9	1.9	4.3
White Male	48.5	48.3	-0.2	-0.4
White Female	42.8	44.5	1.7	3.9

Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

Notes: 1. Asterisks (*) denote statistically significant changes at the 95 percent level of confidence.

4.1.4 Age

In terms of age, no statistically significant difference in mean hours worked is discernible with all age-groups, except 55 to 64 year olds working, between 46 and 49 hours per week in 2000. By 2005, two age-groups experienced increases in the number of hours worked: 25 to 34 year olds worked 1.5 hours per week longer in 2005, while 35 to 44 year olds worked 1.2 hours extra per week. Consequently, while working hours were broadly similar across age-groups, 25 to 34 year olds worked longer hours than 55 to 64 year olds, at a 95 percent level of confidence.

Table 5: Mean Hours Worked by Age-Group, 2000 and 2005

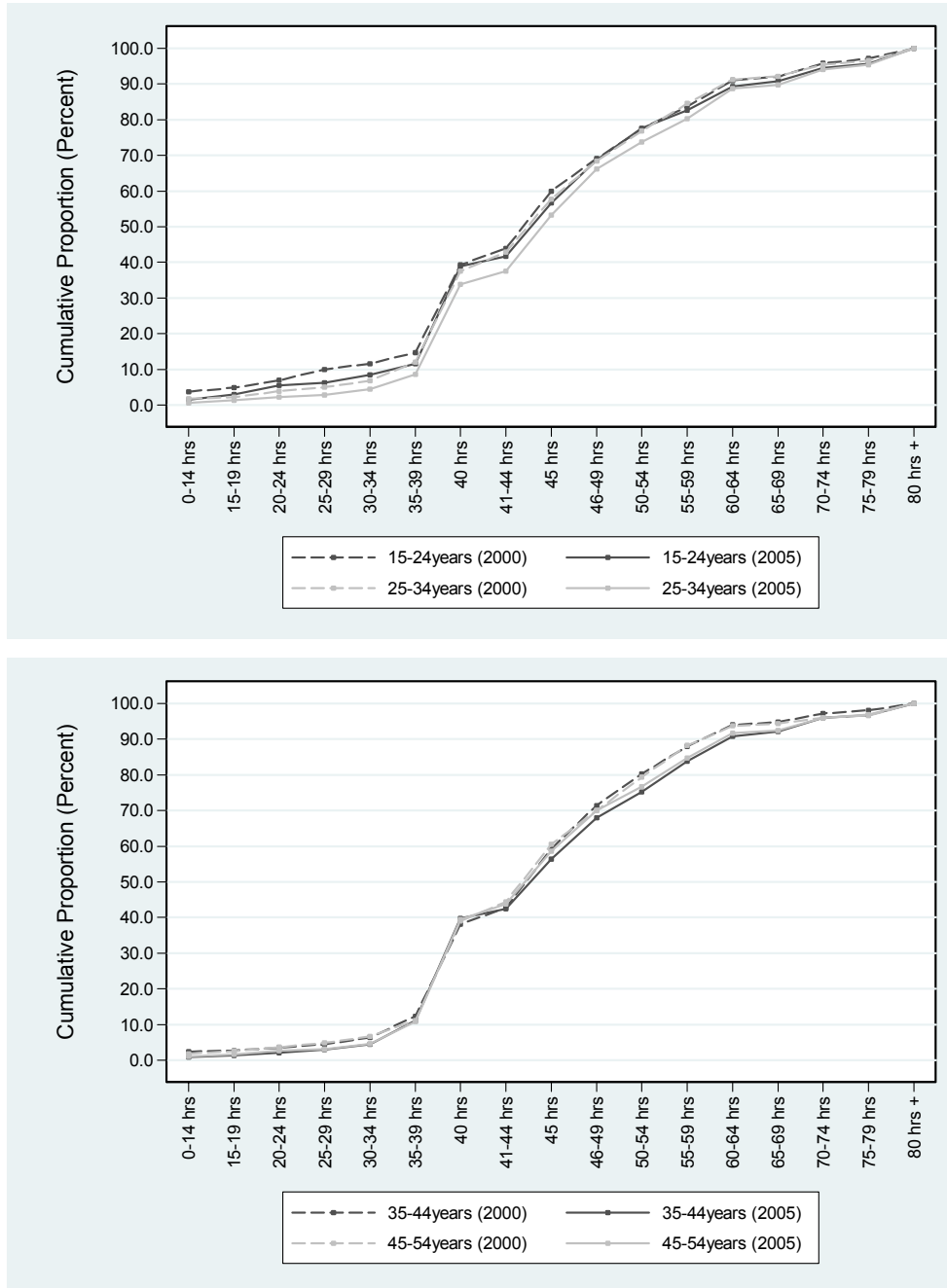
	2000	2005	Change	
			Hours	Percent
15-24 years	47.9	48.6	0.8	1.6
25-34 years	48.1	49.6	1.5 *	3.1
35-44 years	47.2	48.4	1.2 *	2.6
45-54 years	47.4	48.2	0.8	1.7
55-64 years	46.7	47.5	0.8	1.8

Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

Notes: 1. Asterisks (*) denote statistically significant changes at the 95 percent level of confidence.

Age categories do not clearly define groups that are characterised by significant differences in the number of hours worked. This is confirmed by the fact that the cumulative graphs lie so closely together and often cross each other. The distribution of hours worked across different age categories did not change significantly between 2000 and 2005, though more people within the 25 to 34 year age category seem to be working 40 hours and more in 2005 compared with 2000.

Figure 5: Cumulative Distribution of Hours Worked by Age, 2000 and 2005



Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

4.2 Other Covariates

4.2.1 Education

It is expected that there would be a negative correlation between the average hours worked per week and the education of workers: less educated workers are likely to be employed in lower-paying occupations, where overtime may play a more important role in sustaining households. Looking at the evidence from the 2000 and 2005 datasets, we find that those with no education work the longest average hours per week in 2000 (51.7 hours), while those with incomplete GETs worked the longest

hours in 2005 (50.2 hours). In 2000, those with diplomas including matric and those with degrees worked significantly less average hours per week than those with matric or lower education, while those with matric worked significantly fewer hours per week than those with no education and incomplete GETs. In 2005, individuals with diplomas with matric and degrees worked significantly fewer hours per week than those with no education, GETs and matric.

Table 6: Mean Hours Worked by Level of Education, 2000 and 2005

	2000	2005	Change	
			Hours	Percent
No education	51.7	49.8	-2.0	-3.9
Incomplete GET	48.9	50.2	1.4 *	2.8
Complete GET	48.4	49.8	1.4	2.9
Matric	47.5	49.1	1.6 *	3.3
Diploma without matric	45.7	49.3	3.7	8.0
Diploma with matric	44.1	44.9	0.8	1.8
Degree	43.6	42.8	-0.8	-1.9

Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

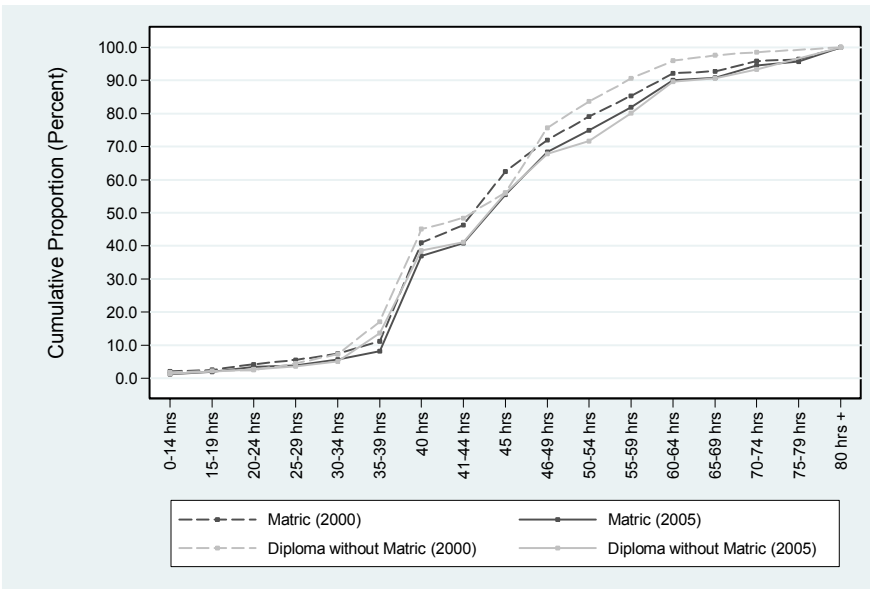
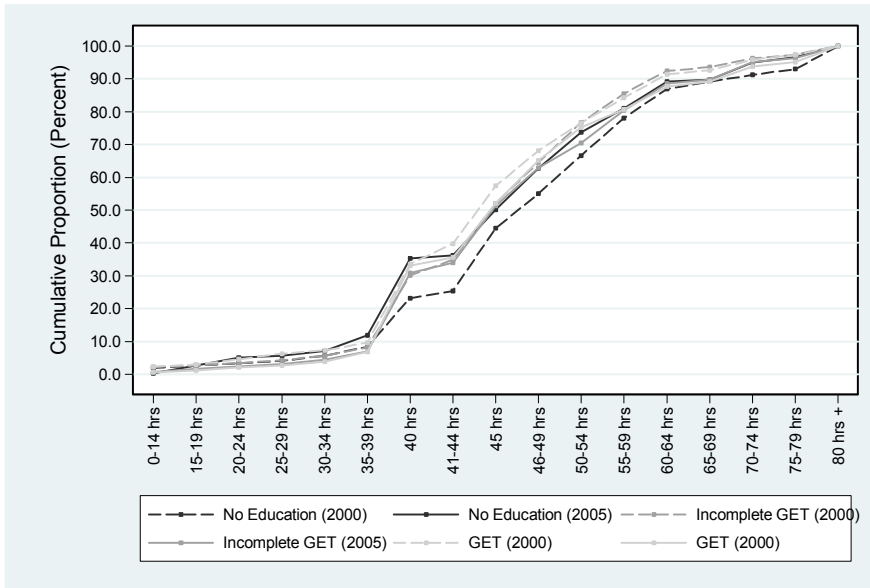
Notes: 1. Asterisks (*) denote statistically significant changes at the 95 percent level of confidence.

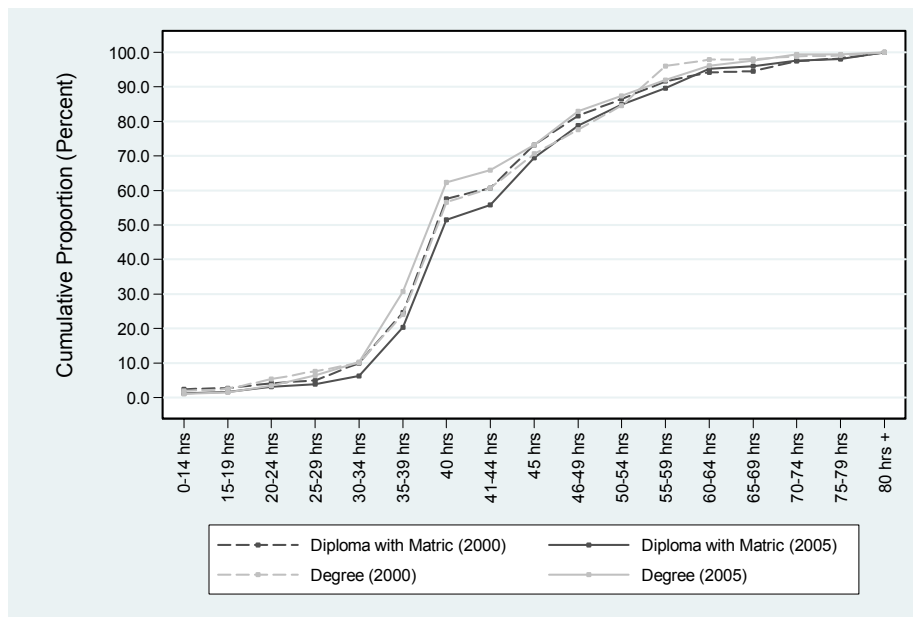
There were significant increases in hours worked between 2000 and 2005 only for workers with incomplete GET education and those with matric certificates, with all other changes being statistically insignificant. On average, matric certificate holders usually worked 49.1 hours per week in 2005.

The distribution shows that for those with no education, 40 hour or longer work-weeks accounted for just over three-quarters of the sample in 2000, but that by 2005 this had decreased to just over three-fifths. At virtually all points in the distribution, therefore, the 2005 line lies above that of 2000, indicating reductions in the number of hours worked, specifically at the upper end of the hour distribution. The distribution of hours worked for those with incomplete GETs and GETs did not change drastically between 2000 and 2005. By 2005, the pattern of working hours barely differed between workers with no education and those with (in)complete GET education, pointing to a possible closer alignment of working hours of those with no education with other educational groupings (the distribution for those with no education actually moved left between 2000 and 2005, indicating improvement).

In looking at the distribution of hours worked for those with a matric and a diploma without matric, we see that for those with a matric, the distribution follows the same pattern between 2000 and 2005, with those working 40 hour or more work-weeks accounting for slightly more of the total population in 2005 than in 2000. The distribution for those with diplomas without matric certificates also shifted slightly to the right in 2005, but is now almost identical to that of matriculants. The distribution of individuals with degrees across weekly hours usually worked changed somewhat over the period. On the one hand, the proportion of degree-holders working under 45 hours per week increased, while, on the other hand, the proportion of degree-holders working 55 hours per week or more also increased. Nevertheless, that workers with diplomas and matric certificates work longer hours than degree-holders is confirmed in the fact that the cumulative proportion line for degreed workers lies consistently above that of diploma-holders.

Figure 6: Cumulative Distribution of Hours Worked by Education, 2000 and 2005





Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

The three figures confirm that better educated workers work fewer hours than their less educated counterparts within the sample. Specifically, the key difference between these two groups is the fact that a far greater proportion of the better educated workers work up to 40 hours per week, compared with other groups. Specifically, while less than one-third of workers with no education, with incomplete GET education, or with completed GET education worked 40 hours per week or less, this was true of 61.3 percent of degreed workers and 50.4 percent of workers with diplomas plus matric, a difference that derives largely from the 35 to 39 hours per week category. However, what the exact reason behind this difference is, is not clear.

4.2.2 Income

The relationship between income level and hours worked is not necessarily clear, since remuneration is often partly determined by the number of hours worked. Nevertheless, it is expected that lower income earners would be more likely to work longer hours than their better remunerated counterparts. Generally, it appears that this is indeed the case. In 2000, the mean hours worked up to incomes of around R18 000 per annum are generally higher than those of individuals earning more than that amount, particularly from R42 001 and up. The pattern is largely similar in 2005, although the distinction is less clear. In 2005, those earning between R72 001 and R96 000 per annum worked statistically significantly fewer hours than all lower income categories except the 'no income' category.

Interestingly, the average work-week increased in length for five mid- and higher-income categories, between incomes of R12 001 and R72 000. Increases in hours worked rose by between 1.7 hours and 2.7 hours. The largest increase, in absolute and relative terms, was amongst those earning R42 001 to R54 000, followed by individuals earning R30 001 to R42 000. It is not clear why this change has been observed, but, since this covariate is income, and since lower income workers in 2000 tended to work longer hours, these changes may be linked to 'bracket creep' as inflation-linked increases result in individuals moving up brackets, despite the fact that their other characteristics may not have changed.

Table 7: Mean Hours Worked by Income Category, 2000 and 2005

	2000	2005	Change	
			Hours	Percent
No income	54.1	46.4	-7.7	-14.3
R1 – R2 400	48.0	48.7	0.6	1.3
R2 401 – R6 000	49.3	50.6	1.3	2.5
R6 001 – R12 000	49.9	51.1	1.2	2.3
R12 001 – R18 000	49.0	51.0	2.0 *	4.0
R18 001 – R30 000	47.9	50.2	2.4 *	4.9
R30 001 – R42 000	46.7	48.4	1.7 *	3.7
R42 001 – R54 000	44.6	47.3	2.7 *	6.0
R54 001 – R72 000	44.6	46.5	1.9 *	4.2
R72 001 – R96 000	46.2	44.4	-1.7	-3.8
R96 001 – R115 572	n.a.	45.0	-	-

Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

Notes: 1. In 2000, the R72 001 – R96 000 category ends at income R89 455.

2. Asterisks (*) denote statistically significant changes at the 95 percent level of confidence.

4.2.3 Province

The recent change in Labour Force Survey datasets, whereby urban-rural distinctions are no longer made, means that comparisons of average hours worked by area type are no longer possible. Similarly, the district council marker variables, which could possibly have been helpful although there may be issues in terms of sample size, were only introduced recently and therefore do not exist in the 2000 dataset. The only geographical variable in the datasets, therefore, is province. Provincially, mean hours worked per week do vary quite considerably. It is not possible to rank the provinces according to hours worked due to overlapping confidence intervals. However, in 2005, average hours worked per week were lower in the Western Cape, at 46.2 hours, than in the Northern Cape, KwaZulu-Natal, North West, Mpumalanga and Limpopo, at a 95 percent confidence level. Conversely, at around 53.2 hours, the average working week in Limpopo is statistically significantly longer than in the Western Cape, Eastern Cape, Northern Cape, Free State, and Gauteng.

Table 8: Mean Hours Worked by Province, 2000 and 2005

	2000	2005	Change	
			Hours	Percent
Western Cape	45.6	46.2	0.6	1.3
Eastern Cape	45.7	46.5	0.8	1.7
Northern Cape	48.1	48.5	0.3	0.7
Free State	47.8	48.1	0.3	0.6
KZN	47.5	52.0	4.5 *	9.4
North West	48.9	49.1	0.2	0.4
Gauteng	47.6	47.6	0.0	-0.1
Mpumalanga	50.3	50.7	0.5	0.9
Limpopo	50.2	52.6	2.4	4.8

Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

Notes: 1. Asterisks (*) denote statistically significant changes at the 95 percent level of confidence.

No province recorded a decline in the average number of hours worked per week. However, only one province saw workers spend statistically greater numbers of hours at work in 2005 compared with five years earlier. In KwaZulu-Natal, mean hours worked by workers in our sample increased by almost 10 percent, from 47.5 hours in 2000 to 52.0 hours in 2005. This increase in hours worked in a 'usual' week is equivalent to an extra 54 minutes (almost one hour) per day.

4.3 Other

4.3.1 Type of Work

In 2000, those on fixed period contracts worked the longest hours (49.7 hours), followed by those in temporary work (48.6 hours), and those in permanent work (47.5 hours). Individuals employed in casual and seasonal work worked the shortest hours. In terms of statistically significant differences, it is not possible to say much except that fixed period contract workers usually worked shorter hours than casual workers. By 2005, no single group could be characterised as working longer hours than any other group. Over the period, however, permanent workers did see their hours of work increase by a statistically significant 1.2 hours, representing an increase of 2.6 percent over the period. Distributionally, not much has changed over the period, except amongst the unstable groupings of casual and seasonal work.

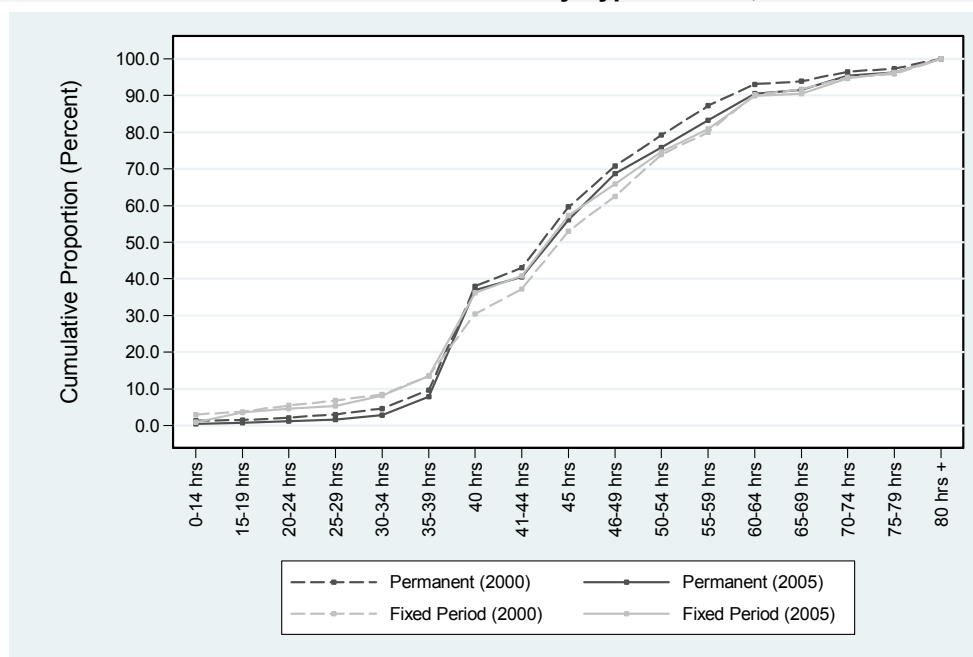
Table 9: Mean Hours Worked by Type of Work, 2000 and 2005

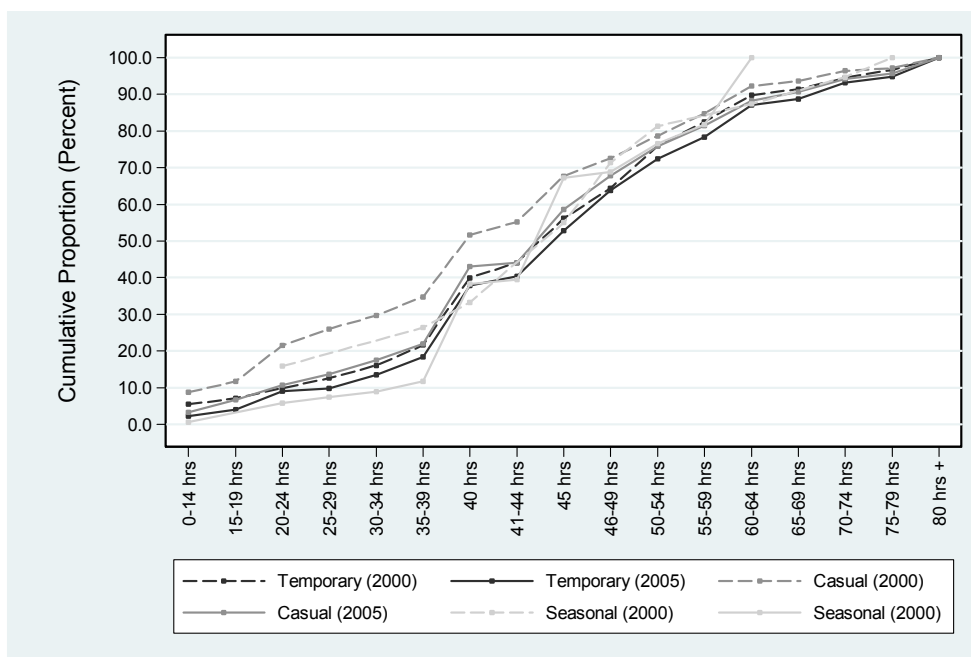
	2000	2005	Change	
			Hours	Percent
Permanent	47.5	48.7	1.2 *	2.6
Fixed period contract	49.7	49.1	-0.6	-1.2
Temporary	48.6	49.5	0.9	1.9
Casual	45.7	48.6	2.8	6.2
Seasonal	45.8	47.3	1.5	3.3

Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

Notes: 1. Asterisks (*) denote statistically significant changes at the 95 percent level of confidence.

Figure 7: Cumulative Distribution of Hours Worked by Type of Work, 2000 and 2005





Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

4.3.2 Union Membership

Given the bargaining power of unions, as well as the scope for reducing working hours via the bargaining councils, one would expect that union members may work shorter hours than non-union members. The data in Table 10 seems to corroborate this: those who are members of unions worked significantly shorter hours in 2000 than those that were not part of unions, 46.9 hours compared to 48.1 hours. By 2005, this gap had increased by a small margin and union members still worked longer hours (48.4 hours) compared to non-union members (49.7 hours). In both years, the difference in hours usually worked by union members and non-members is statistically significant at the 95 percent level of confidence. The increase in average hours worked per week for non-union members was statistically significant, while the confidence intervals for union members overlap marginally.

Table 10: Mean Hours Worked by Union Membership Status, 2000 and 2005

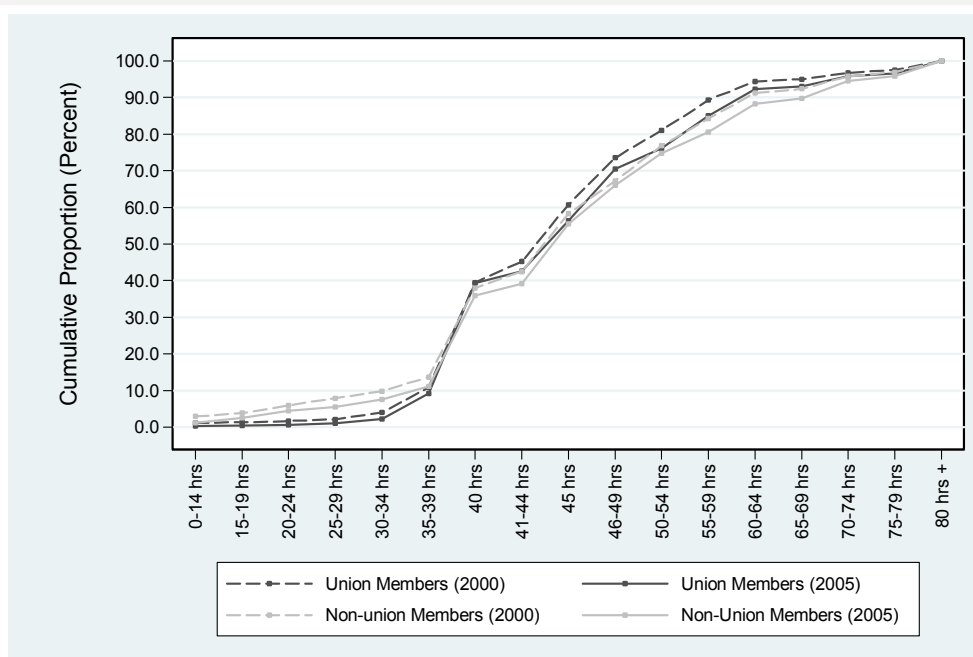
	2000	2005	Change	
			Hours	Percent
Member	46.9	48.0	1.2	2.5
Non-Member	48.1	49.4	1.3 *	2.7

Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

Notes: 1. Asterisks (*) denote statistically significant changes at the 95 percent level of confidence.

Distributionally, there was very little change for both union members and non-members alike (Figure 8). Non-union members, however, in 2005, are more likely than union members to work excessively long hours (from 55 hours upwards). Conversely, there were relatively fewer union members that usually worked fewer than 35 hours per week. On the one hand, one would possibly expect there to be a greater difference in the distributions for union members and non-members: unions should be able to ensure that their members are neither underemployed nor 'overemployed' in terms of working excessive hours. There is some evidence that would support such a view, although perhaps it is less clear than anticipated. This may be linked, in some instances, to the extension of bargaining council agreements to non-parties.

Figure 8: Cumulative Distribution of Hours Worked by Union Membership Status, 2000 and 2005



Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

4.3.3 Employer Type

It is interesting to consider the average hours worked per week by the different types of institutions where individuals are employed. However, these may not be strictly and directly comparable across the two surveys because of a slight change in options in the surveys. While the 2000 survey has seven options to choose from, the 2005 survey has nine, with some of the options being extended to include a greater variety of organizations. These have been condensed to five categories in

Table 11.

Table 11: Mean Hours Worked by Employer Type, 2000 and 2005 – this needs checking

	2000	2005	Change	
			Hours	Percent
Central Government	45.7	45.4	-0.3	-0.6
Provincial Government	43.6	42.3	-1.3	-3.0
Local Government	44.6	46.3	1.7	3.8
Government Enterprise	46.4	46.7	0.3	0.6
Private Sector	46.7	47.9	1.3 *	2.7

Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

Notes: 1. Private sector includes non-profit organisations, cooperatives, professional associations, private business. Self-employment is technically included in this category, although the requirement that individuals be employees ensures that there are 28 unweighted observations who state in this question in 2005 that they are self-employed.

2. Asterisks (*) denote statistically significant changes at the 95 percent level of confidence.

Overall, it appears that government employees tend to work shorter hours than workers in the private sector. This may be due to a greater adherence to limits on hours worked or to a generally differing mix of workers between the private and public sectors. Estimates for central (or national), provincial and local government range between 43 hours and 46 hours in 2000 although, in terms of statistical significance, all that can be said is that provincial government workers work shorter hours than workers in government enterprises and the private sector. A similar pattern is evident in 2005, with provincial government workers working fewer hours than workers in all other categories presented.

The only change in mean hours worked per week is observed in the private sector. Already on the high end of the distribution, workers in private sector establishments saw an average increase of 1.3 hours per week, or 2.7 percent, over the period.

4.3.4 Sector

Different sectors are regulated differently, and one would expect that there will be differences in the average work-weeks of employees based on the type of industries they work in – less skill-intensive sectors could have longer work-weeks than more skill-intensive sectors, for example. In 2000, those working in Community Services (45.0 hours) and Manufacturing (47.4 hours) had the shortest average work-weeks, with the work-week in Community Services being shorter than in any other sector at the 95 percent level of confidence. Those working in Agriculture (51.3 hours) and Private Households (51.7 hours) had the longest working hours, although neither had work-weeks that were statistically different from those in any other sector (excluding Community Services). By 2005, the pattern had barely changed, with only one statistically significant change in mean hours, namely in Wholesale and Retail Trade, where workers worked 1.6 hours longer per week compared to 2000. Workers in Community Services continued to work the shortest hours at 45.3 hours.

Table 12: Mean Hours Worked by Sector, 2000 and 2005

	2000	2005	Change	
			Hours	Percent
Agriculture	51.3	50.9	-0.4	-0.7
Mining	50.0	50.1	0.1	0.2
Manufacturing	47.4	48.5	1.1	2.2
Electricity, Water & Gas	47.8	50.2	2.4	5.1
Construction	47.8	48.7	0.9	1.9
Wholesale & Retail Trade	48.4	50.0	1.6 *	3.4
Transport	50.2	53.5	3.2	6.4
Financial Services	48.7	51.0	2.3	4.7
Community Services	45.0	45.3	0.3	0.6

Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

Notes: 1. Asterisks (*) denote statistically significant changes at the 95 percent level of confidence.

4.3.5 Occupation

In line with expectations of differences according to other covariates such as education and sector, it is not unreasonable to expect that skilled workers may work shorter hours than their skilled counterparts. This is confirmed in both years (Table 13). In 2000, workers classified as Professional or Clerical worked the least number of hours on average (43.6 hours and 44.7 hours respectively). This is true at a 95 percent level of confidence. Similarly, the estimates for 2005 indicate that workers in these two occupational categories work the shortest hours on average. Conversely, the data confirms that Service workers and Operators and Assemblers worked longer than all other occupational groupings in both 2000 and 2005. However, there were no statistically significant changes in hours worked for any occupational category.

Table 13: Mean Hours Worked by Occupation, 2000 and 2005

	2000	2005	Change	
			Hours	Percent
Managerial	47.4	48.5	1.1	2.3
Professional	43.6	44.3	0.7	1.7
Clerical	44.7	45.4	0.7	1.6
Service	52.2	53.8	1.5	3.0
Craft and Trade	48.2	49.1	0.9	2.0
Operators & Assemblers	50.1	51.7	1.5	3.0
Elementary	47.5	48.8	1.3	2.7

Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

- Notes:
1. The Professional category includes Technicians and Associate Professionals.
 2. Asterisks (*) denote statistically significant changes at the 95 percent level of confidence.

5. Conclusion

This paper has revealed that there has been relatively little movement in the average number of hours usually worked between 2000 and 2005 by formal sector, non-agricultural workers. Overall, there has been an increase in the number of hours worked of approximately 1.5 hours, from 47.6 hours in 2000 to 49.1 hours in 2005. However, this increase is only significant at the 90 percent level of confidence. Nevertheless, should this measured change reflect real changes in hours worked, this would constitute something of a setback for government's efforts aimed at reducing the length of the work week, and could be viewed as a deterioration in general working conditions in terms of hours worked.

Table 14 presents a list of the statistically significant changes in mean hours usually worked per week at the 95 percent confidence level. The first thing to note is that not a single significant decrease was found to have occurred over the period. Females worked nearly two hours longer in 2005, largely due to an increase of 1.7 hours experienced by African females. Interestingly, despite the small sample size of Asians and the resulting relatively wide confidence intervals, Asian males were found to be working three hours more in 2005 compared with 2000. Individuals aged 25 to 44 years, as well as those with matric certificates, saw lengthened work-weeks over the period. Possibly due to inflation-caused 'bracket creep', increases in work-weeks were found to have occurred for all income categories between R12 000 per year and R72 000 per year. Workers in KwaZulu-Natal worked nearly one additional hour per day (or 4.5 hours per week) in 2005, while increases were also seen for those employed under permanent contracts and non-union members. Finally, the private sector generally saw longer work-weeks, with the average number of hours worked per week rising by 1.6 hours in the Wholesale and Retail Trade sector.

Table 14: Statistically Significant Changes in Hours Worked, 2000 to 2005

	2000	2005	Change	
			Hours	Percent
Female	44.9	46.8	1.9	4.3
African Female	46.5	48.2	1.7	3.6
Asian Male	45.3	48.3	3.0	6.5
25-34 years	48.1	49.6	1.5	3.1
35-44 years	47.2	48.4	1.2	2.6
Incomplete GET	48.9	50.2	1.4	2.8
Matric	47.5	49.1	1.6	3.3
R12 001 – R18 000	49.0	51.0	2.0	4.0
R18 001 – R30 000	47.9	50.2	2.4	4.9
R30 001 – R42 000	46.7	48.4	1.7	3.7
R42 001 – R54 000	44.6	47.3	2.7	6.0
R54 001 – R72 000	44.6	46.5	1.9	4.2
KwaZulu-Natal	47.5	52.0	4.5	9.4
Permanent Contract	47.5	48.7	1.2	2.6
Non-Union Member	48.1	49.4	1.3	2.7
Private Sector	46.7	47.9	1.3	2.7
Wholesale & Retail Trade	48.4	50.0	1.6	3.4

Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

Notes: 1. All changes listed are significant at the 95 percent level of confidence.

This study, however, suffers from certain weaknesses that stem from the datasets used. Most importantly, the fact that the Labour Force Surveys continue to lack differentiation in terms of normal and overtime hours limits the analysis. Should the Department of Labour be considering similar

studies in the future, it would be advisable for engagement with Statistics South Africa on this matter as soon as possible. The first inclusion of a new question separating overtime from normal time would form the baseline and would only be able to be used for comparison some years hence.

Nevertheless, although the results presented above tend not to be very strong, it is clear that the number of hours worked in a 'usual' week, as reported by workers, has not declined in line with government's desire to move to a 40 hour work-week. In fact, if anything, workers are working longer hours now than in 2000.

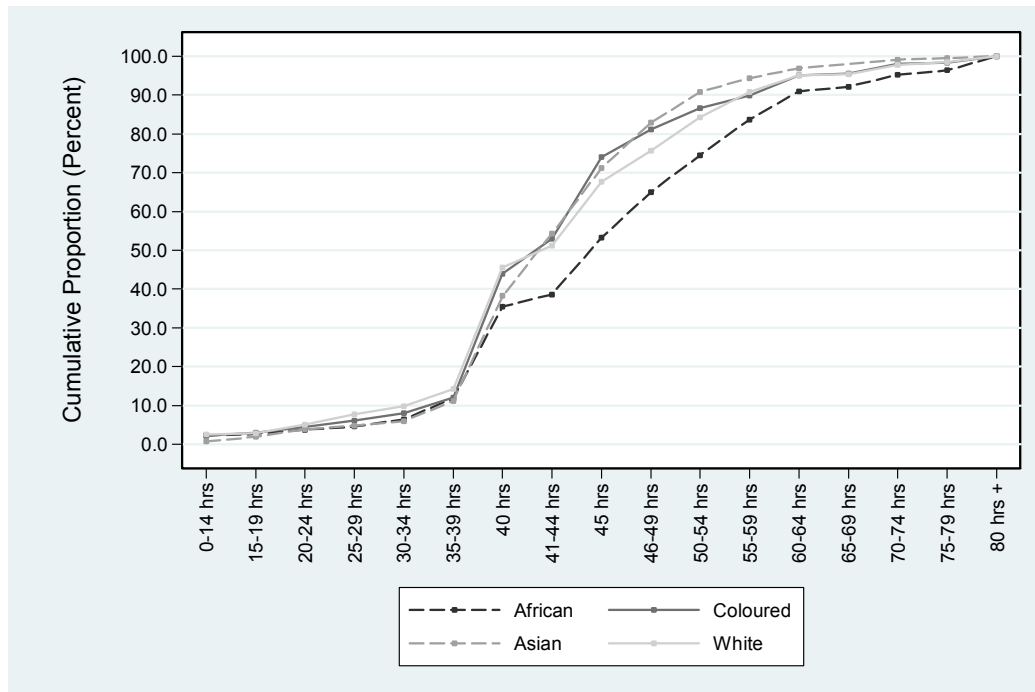
In terms of policy implications, this paper is unable to give much in terms of concrete, certain direction. This is because of the fact that the data source is a household survey with only two questions about the total number of hours worked and because of the lack of a distinction between normal and overtime hours. This lack of distinction between normal time and overtime makes it impossible to determine, for example, which sectors are in the best position to reduce working hours. It is also not possible to investigate some of the questions around and interactions between the numbers of normal time and overtime hours, such as whether and to what extent specific sectors differ in their propensity for overtime work. Most importantly, one cannot gauge from the data the extent to which employers are complying with hours of work provisions of the BCEA. These issues can be addressed by adjusting the current questions in the Labour Force Surveys and adding new questions to the questionnaire, and by undertaking more focussed research at perhaps a sectoral level to really understand the differing sectoral situations. Addressing the LFS issues would, under ideal circumstances, usually precede and direct the more detailed sectoral studies. However, given the current situation, both actions are equally pressing.

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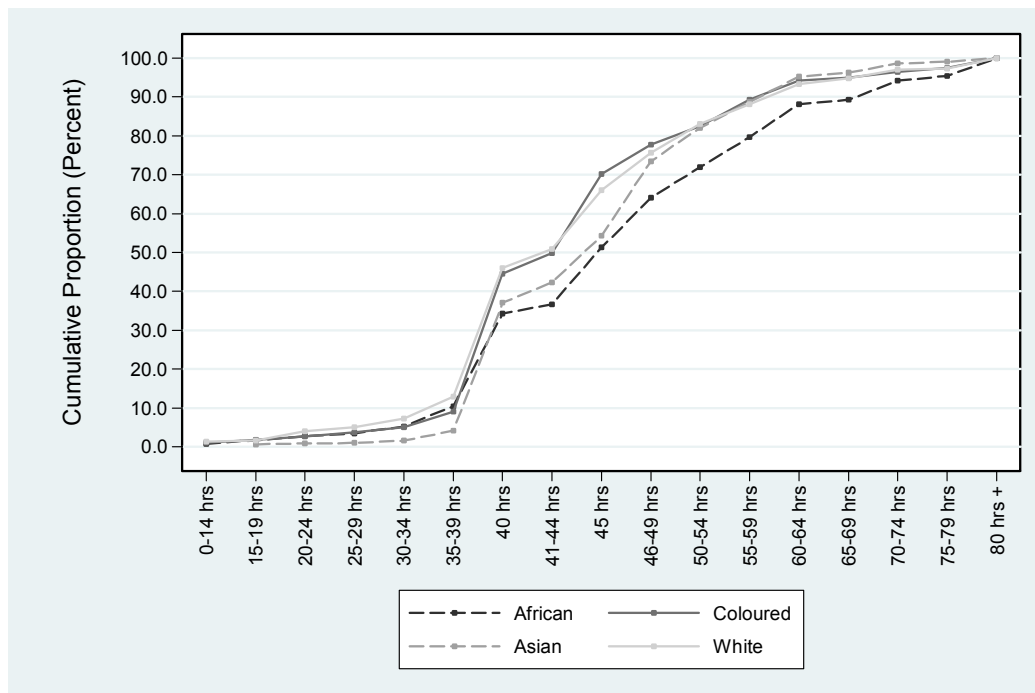
7. Appendix

Figure A-1: Cumulative Distribution of Hours Worked by Race, 2000



Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).

Figure A-2: Cumulative Distribution of Hours Worked by Race, 2005



Source: Own calculations, LFS 2000(2) and LFS 2005(12) (Statistics South Africa).