The South African informal sector (1997 - 2006)

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1

The South African informal sector (1997 – 2006)

HASSAN ESSOP AND DEREK YU^1



According to the 2006 September Labour Force Survey, approximately 22% of the employed (excluding domestic workers and agricultural employment) are engaged in informal sector activities as their main work to sustain themselves and their dependents. Given the large size of the informal sector in relation to the formal sector, it is imperative to understand the dynamics and trends within the informal sector. This paper provides a detailed quantitative descriptive analysis of the South African informal sector between 1997 and 2006 using the October Household Survey and the Labour Force Survey data, adding to the work on informal markets done by authors such as Devey, Skinner & Valodia (2003, 2006a, 2006b), Muller (2003) and Muller & Posel (2004). Such an analysis could not only enhance the informal sector literature currently available, but also increase the depth of analysis available to policy makers.

Keywords: South Africa, Household survey, Labour market trends, Informal sector

JEL codes: J00

¹ The authors gratefully acknowledge the valuable comments by Rulof Burger and Servaas van der Berg.

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The South African informal sector (1997 – 2006)

1. INTRODUCTION

According to the 2006 September Labour Force Survey, approximately 22% of the employed (excluding domestic workers and agricultural employment) are engaged in informal sector activities as their main work to sustain themselves and their dependents. Additionally, the South African government – through luminaries such as the South African president Thabo Mbeki² and the Department of Trade and Industry (dti), amongst others – have all noted the significance of the informal sector. Consequently, given the large size of the informal sector in relation to the formal sector and the importance placed on the informal sector by Government, it is imperative to understand the dynamics and trends within the informal sector.

Although there is a voluminous amount of literature available that analyses trends in the formal labour market, there appears to be additional scope for more analysis on the trends in the informal labour market. This paper attempts to provide a detailed descriptive analysis of the South African informal sector between 1997 and 2006³ using October Household Survey (OHS) and the Labour Force Survey (LFS) data, adding to the work on informal markets done by authors such as Devey, Skinner & Valodia (2003, 2006a, 2006b), Muller (2003) and Muller & Posel (2004). In addition, multivariate analyses are conducted to determine the role of various factors that influence whether or not a person would be involved in informal sector activities. Moreover, one might want to know if the characteristics of informal sector workers differ from formal sector workers, the broad unemployed, or the inactive in the labour market. To this end, a multinomial logistic regression analysis is utilized. Such an analysis should not only enhance the informal sector literature currently available, but will also increase the depth of analysis available to policy makers.

For the purposes of this paper, the OHSs conducted between 1995 and 1999 will be referred as OHS1995, OHS1996, etc., while the LFSs from 2000 to 2006 will be referred to as LFS2000a (for the March 2000), LFS2000b (September 2000), LFS2001a, LFS2001b and so forth. The data from OHS1995 to LFS2000a are weighted using the 1996 census weights, while data from LFS2000b to LFS2006b are weighted using the 2001 census weights.

The remainder of the paper is structured as follows: section 2 will focus on the international and South African definitions of the informal sector, while section 3 will analyse the characteristics of the informal sector workers (e.g., racial composition, gender, occupations, working conditions, earnings, etc.). Section 4 will present a multivariate analysis of informal sector employment, using several of the variables used in the descriptive analysis. In section 5, some aspects of the current informal sector strategy will be considered, discussing whether the core thrusts of these policies are in keeping with the findings of this paper. Finally, section 6 will conclude the paper.

² President Thabo Mbeki often refers to the second economy. However, it is not entirely clear what the second economy encompasses. Devey et al. (2006a) provide a more in-depth analysis of this issue; for our purposes here, we view the informal sector as an important (if not the most important) part of the second economy.

³ Informal sector data are not fully captured in 1995 and 1996 since only the self-employed were asked to declare whether they worked in the formal or informal sector (to be explained in greater detail in section 2.2). Therefore, data from OHS1995 and OHS 1996 will only be analyzed very briefly.

2. DEFINING THE INFORMAL SECTOR

A clear definition of the informal market is important as differing interpretations of the term "informal market" could lead to significantly different estimates and conclusions. In addition, the situation in South Africa is more intricate due to the use of the term "the second economy", which is often thought to refer to the informal economy only. However, the second economy, which has been shown by Devey et al. (2006a: 3) to be without "a coherent conceptualisation", includes the informal sector as one of its *components*. This paper does not attempt to provide a "coherent conceptualisation" of the second economy; however, a clear understanding of how the informal sector is defined internationally and locally is required to fully comprehend the analyses that follow. Furthermore, it is noted again that the informal sector forms part of the second economy; the exact relationship and interaction between these terms are beyond the scope of this paper.

2.1 Definition of the International Labour Organization

The International Labour Organization (ILO) defined the informal sector for the first time in its Kenya report in 1972 as the activities of the hard-working poor, who were "not recognized, recorded, protected or regulated by the public authorities". These activities possess the characteristics of "ease of entry; reliance on indigenous resources; family ownership of enterprises; small scale of operation; labour intensive and adapted technology; skill acquired outside of the formal school system and unregulated and competitive markets." (ILO, 1972: 6)

The definition of informal sector has since changed and evolved. Eventually, for statistical purposes, at the 15th International Conference of Labour Statisticians (ICLS) in 1993, it was agreed that the definition of the informal sector should be based on production units or enterprises rather than employment relations. Moreover, flexibility is allowed with regard to the upper limit on the employment size, the introduction of additional criteria such as the non-registration of either the enterprise or its employees, the inclusion or exclusion of domestic employees, and the inclusion or exclusion of agriculture (ILO, 1993). The ICLS definition also recommended that informal sector enterprises should be defined in terms of one or more of the following criteria:

- (1) Non-registration of the enterprise in terms of national legislation such as taxation.
- (2) Non-registration of employees of the enterprise in terms of labour legislation.
- (3) Small firm size, in terms of the number of employees.

The International Expert Group on Informal Sector Statistics (also known as the Delhi Group) proposed a new definition of the informal sector at the 15th ICLS that was initiated to facilitate international comparability⁴. The Group proposed that the informal sector should include 'private unincorporated enterprises (excluding quasi corporations), which produce at least some of their goods or services for sale or barter, have less than five paid employees, are not registered, and are engaged in non-agricultural activities (including professional or technical activities). Households employing paid domestic employees are excluded' (ILO 2002b: 5). It is obvious that this definition takes criteria (1) and (3) of the 1993 definition into consideration.

⁴ The ILO (2002b) notes, however, that attempts to harmonise the definition of informal markets have met with limited success, and international comparisons remain difficult.

With the 17th ICLS in 2002, the ILO proposed several changes to the initial definition of informal markets. A major change was to define the informal sector according to the employment characteristics of the worker, moving away from the definition set at the 15th ICLS. According to this proposed definition, the informal economy "is seen as comprised of informal employment (without secure contracts, worker benefits or social protection) both inside and outside informal enterprises:

- (1) Informal employment in informal enterprises (small unregistered or unincorporated enterprises), including employers, employees, own account operators and unpaid family workers in informal enterprises.
- (2) Informal employment outside informal enterprises (for formal enterprises, for households or with no fixed employer), including domestic workers, casual or day labourers, temporary or part-time workers, industrial outworkers (including home based workers) and unregistered or undeclared workers." (ILO, 2002c: 12).

ILO (2002a: 7-8) also claims that the situation in which informal sector workers and firms find themselves can be described as the denial of the following essential securities:

- (1) Labour market security: adequate employment opportunities ensured by macroeconomic policies.
- (2) Employment security: protection against unfair dismissal, and regulation on hiring and firing.
- (3) Job security: the work being designated as an occupation, as well as the opportunity to develop a sense of occupation through enhancing competencies.
- (4) Work security: protection against accidents and illness at work through safety and working regulations.
- (5) Skill reproduction security: opportunities to gain skills by means of apprenticeships and employment training.
- (6) Income security: provision of adequate incomes.
- (7) Representation security: protection in the labour market through independent trade unions, employers' organizations and social dialogue institutions.

2.2 South African definition

Statistics South Africa (Stats SA) has been using the same methodology to derive informal sector workers throughout the years, focusing on criterion (1) (i.e., non-registration of the enterprise) of the 1993 ICLS definition⁵. Various questions from the questionnaire are involved to derive the different categories of workers in a number of steps. Firstly, the employment status of the respondents is determined⁶. Next, if the occupation of the employed is 'domestic workers in the private households', they are grouped under the category 'domestic workers', which is an independent category that falls under neither the formal sector nor the informal sector.

⁵ Note that Stats SA does not even attempt to measure the second economy; consequently trends in the second economy cannot be ascertained using official statistics.

⁶ The questions on employment as well as the methodology to derive employment status have changed substantially throughout the OHS/LFS surveys. They are explained in the metadata of the surveys as well as in Yu (2007).

The other employed, whose occupation is something other than domestic workers, are classified as either formal or informal sector workers, according to their answers on the question concerning the registration of the enterprise. If the respondents do not answer the question, they are shifted to the category 'unspecified', while the respondents with the answer of 'I don't know' belong to the category 'don't know'.

Finally, if the industry of the formal sector worker is agriculture, he/she will be classified as a commercial agriculture worker. On the other hand, if the industry of the informal sector worker is agriculture, he/she will be classified as a subsistence agriculture worker. Figure 1 summarizes the methodology to derive the different categories of the formal and informal sector workers.

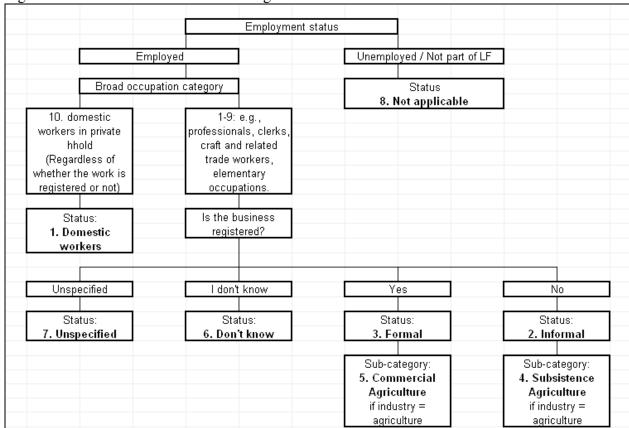


Figure 1 Derivation of the different categories of formal and informal sector workers

For the remainder of this paper, unless stated otherwise, the term "informal sector" stands for the informal sector as conventionally enumerated less subsistence agriculture, "formal sector" stands for the normal formal sector less commercial agriculture, and "non-agricultural employment" means informal sector employment plus formal sector employment (i.e., the categories 'domestic workers', 'subsistence agriculture', 'commercial agriculture', 'don't know' and 'unspecified' are excluded).

Regarding the enterprise registration question, in OHS1995 and OHS1996, only the selfemployed had to answer this question, so it is impossible to determine the sector status of the employees. Therefore, it is also not possible to derive the total number of informal sector workers

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⁷ The option 'don't know' only becomes available from LFS2000a.

in 1995 and 1996.

In OHS1997 – OHS1999, there are two separate questions on enterprise registration, one addressed to employees and the other to the self-employed, in order to determine whether the enterprise where the person works is in the formal or informal sector. From LFS2000a, there is only one enterprise registration question for **both** employees and self-employed to answer.

Despite the structured approach by Stats SA, it is likely that the number of informal sector workers in South Africa is under-estimated. Muller (2003: 6-7, 9) raises numerous concerns relating to the under-estimation of the number of informal sector workers. These concerns are that:

- the surveys fail to capture in-depth information (e.g. occupation) on the individual's secondary employment. For example, it is possible that someone whose main job is formal sector work is engaged in informal sector work on a part-time basis.
- with regard to the main job of the employed, the questionnaire does not instruct interviewers to read the explanation on the difference between formal and informal labour markets.
- even if the explanation is read, the respondents may not properly understand what registration of an enterprise entails,
- the questionnaire assumes that the respondents will know their employer's registration status (i.e. if the employer is registered or not),
- some employees from registered firms may not be receiving benefits such as paid leave, medical aid, etc.

Of particularly importance is the way the meaning of registration of the enterprise is explained to the respondents⁸. If the latter concept is explained incorrectly or misunderstood by the respondents, the probability increases that the number of workers in the informal sector is underestimated. Some of the concerns raised above appear consistently throughout all the OHS/LFS surveys. For instance, none of the questionnaires clearly instruct the interviewer to read the explanation of the formal and informal sectors to respondents. Similarly, the concept of registration is not explained throughout the LFS years. Potential sources of informal sector underestimation for the OHS/LFS surveys studied herein are summarized in Tables A1.1 and A1.2 of Appendix I.

Further, the OHS/LFS surveys started to take the ICLS 1993 criteria (2) and (3) into consideration by asking the respondents about the size of enterprise since LFS2000a, as well as asking whether they have a written contract with the employer since OHS1999. However, criterion (1) is still the main criterion being used to derive the informal sector status for all the years under consideration⁹.

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⁸ Muller (2003) claims that some of the surveys do not instruct the interviewers to read out the note included in the question, which explains the difference between formal and informal sector employment. If the note is not read out, some individuals might not be able to distinguish formal employment from informal employment, and thus they might respond incorrectly. Moreover, some employees are unaware of their employer's registration status, or perhaps not even understand the concept of registration, and thus they might give incorrect answers.

⁹ Devey et al. (2006b: 315 - 316) argue that a definition based on work characteristics, rather than the enterprise-based definition, may be a more appropriate method for classifying workers. Consequently, they derive a formal-informal index by using 13 indicators that focus on criteria (2) and (3) of the ICLS 1993 definition as well as other worker characteristics (instead of focusing entirely on the enterprise registration). This is discussed in detail in Appendix II.

3. CHARACTERISTICS OF INFORMAL SECTOR WORKERS

In this section, the key trends within the informal labour market between 1997 and 2006 are described, with a focus on employment trends by sector, racial composition, gender composition, earnings, working conditions and other variables.

3.1 Spatial, demographic and household characteristics

3.1.1 Employment trends by sector

Figure 2 below shows the employment data since OHS1995¹⁰. Note the large number of people belonging to the unspecified category in OHS1995 (nearly 8 million) and OHS1996 (nearly 7.5 million), which is due to the fact that it is not possible to derive the sector status of the employees, as explained in section 2. Therefore, as mentioned in section 1, the focus of this paper will be on the data from OHS1997 to LFS2006b. Between OHS1997 and LFS2006b, there has been a recorded increase in total employment by nearly 3.7 million. Nearly half of the increase of the employment (almost 2 million) occurs in the formal sector, while there is an increase of informal sector employment by nearly 1.4 million. This implies that the informal sector was responsible for approximately 35 per cent of the increase in total employment between OHS1997 and LFS2006b.

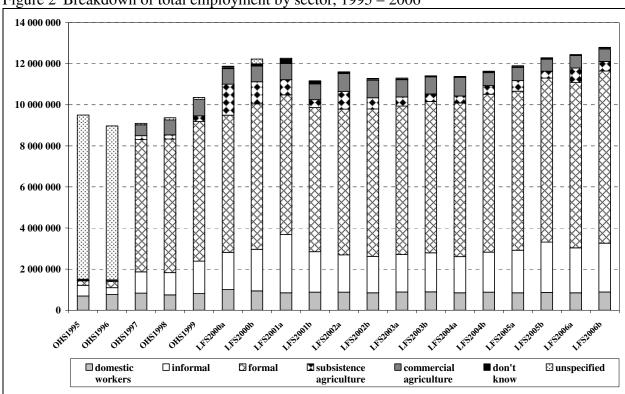


Figure 2 Breakdown of total employment by sector, 1995 – 2006

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¹⁰ The breakdown of total employment between 1995 and 2006 is provided in table format in Table A1.3.

The data show two large fluctuations - the sudden increase of subsistence agricultural employment (exceeding 1 million) in LFS2000a and LFS2000b, as well as the very high level of informal sector employment in LFS2001a (in fact, the informal sector employment in LFS2001a is the highest amongst all the surveys since OHS1997). The former is not the focus of this paper, while Devey et al. (2003 & 2006b) provide some elucidation on the possible causes of the overrepresentation of the informal sector in LFS2001a¹¹. Removing the LFS2001a figure results in a more stable trend in informal sector employment, as shown in Figure 3¹².

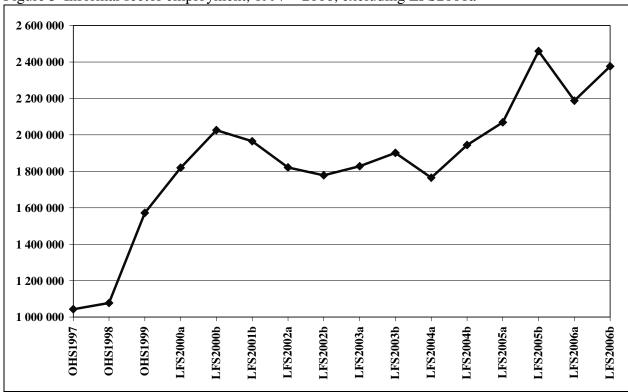


Figure 3 Informal sector employment, 1997 – 2006, excluding LFS2001a

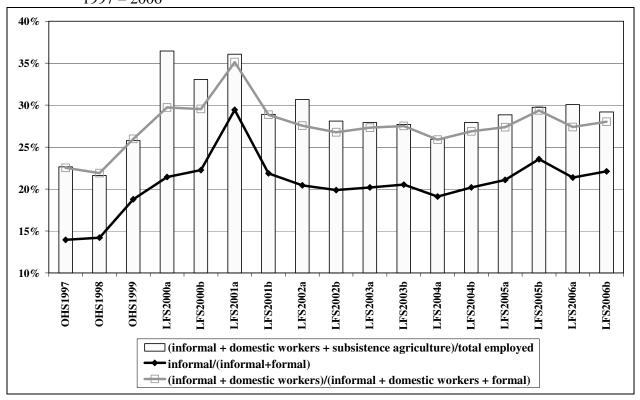
With the exception of the under-estimation during the OHS years 13 and the "over-estimation" in LFS2001a, informal sector workers have been accounting for about 20% of total non-agricultural employment if domestic workers are excluded, and about 30% if domestic workers are included. The latter results appear to be consistent for the period under consideration (Figure 4).

¹¹ Appendix III provides a more in-depth analysis on the three major reasons why LFS2001a over-represents the

¹² Although the discussion in Appendix III helps explaining the over-estimation of informal sector employment in LFS2001a, Devey et al. (2006b: 309) argue that it may be possible that the LFS2001a figure is not an outlier, but rather the 'correct' estimate, with all other estimates significantly under-representing the true level of informal employment. This argument is based on the fact that more probing questions were asked about self-employment and small businesses in a follow-up survey to LFS2001a, which may have led to a larger number of respondents than usual classifying themselves as informal sector workers. Therefore, LFS2001a may well be the most precise estimate of informal employment.

¹³ The self-employed are poorly captured during the OHS years, and informal sector workers account for quite a large proportion of the self-employed. This will be explained in more detail in section 3.1.2.

Figure 4 Informal sector employment as percentage of non-agricultural employment, 1997 - 2006



A question that arises is whether the South African informal labour market is of a comparable size to that of other developing countries. Figure 5 below shows informal sector employment data for 24 countries (see Appendix IV for a more complete table). As can be seen, South Africa's informal labour market¹⁴ is comparable to countries such as Slovakia and Macedonia, and appears to be much smaller than countries such as Pakistan, where over 60% of total employment occurs in the informal sector. A country with a similar economic structure to South Africa, namely Brazil, has a marginally larger informal sector¹⁵. From this data, it can be tentatively concluded that South Africa's informal sector is within the mid-range size of informal markets in developing countries, neither excessively large nor small¹⁶.

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¹⁴ Three different definitions for the South African informal labour market are used here. South Africa (a) excludes agricultural employment and domestic workers; South Africa (b) includes both of these groups of workers, whilst South Africa (c) excludes agricultural employment but includes domestic workers. See Appendix IV for more detail. ¹⁵ Note, however, that countries' own national definition of informal markets is used here. Consequently, these results should be viewed as indicative, and not as conclusive rankings for the selected countries.

¹⁶ Kingdom & Knight (2004: 391), using 1990 statistics by Charmes (2000) on urban unemployment and informal sector employment (i.e., informal sector employment as percentage of non-agricultural employment), argue that South Africa has a very small informal sector (as indicated by a low employment rate in the informal sector), but widespread open unemployment. They contend that South Africa is an international outlier, as its tiny ratio of non-agricultural informal sector employment to urban unemployment is smaller than other comparable countries. In Table A5.1 of Appendix V, the OHS and LFS data are used to derive this ratio between 1997 and 2006. In addition, Figure A5.1 shows that, as a result of the declining trend of the unemployment rate since LFS2004b (in both narrow and broad terms), this ratio shows a slight upward trend, and has increased to approximately 0.9 if the narrow unemployment rate is used and 0.6 if the broad unemployment rate is used. Note that this ratio never exceeds 1.0 using the broad unemployment rate. On the other hand, using the narrow unemployment rate, the ratio only exceeds 1.0 in LFS2001a (remember the informal sector employment is "over-estimated" in LFS2001a (but also see footnote 12). Consequently, Kingdom & Knight's contention that South Africa is an outlier is less applicable when more recent data are considered.

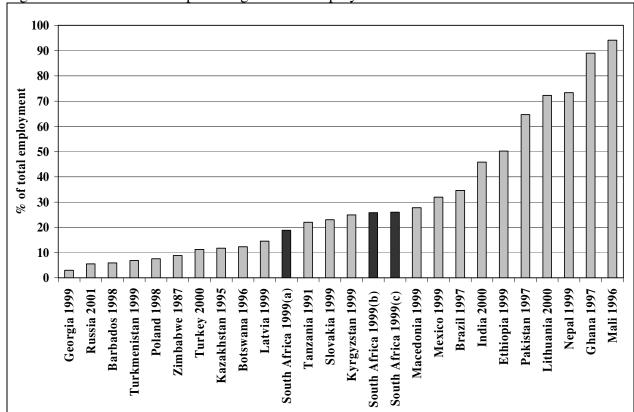


Figure 5 Informal sector as percentage of total employment for selected countries

Source: ILO, 2002b and own calculations from OHS1999.

3.1.2 Nature of employment

It is clear that the informal sector contains significantly more self-employed individuals than the formal sector. Figure 6 shows that the self-employed as percentage of informal sector employment remains stable at about two-thirds during the LFS years (Table A1.4 provides more detail by reporting the number of employees and self-employed in the informal sector), while it is only about 7% in the case of formal sector employment. This result reflects that, either by nature and/or necessity, the informal sector has a large pool of individuals with an entrepreneurial aptitude.

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¹⁷ In the OHSs, there are three options regarding employment type, namely working for 'someone else', 'himself/herself' and 'both himself/herself and someone else'. Only a negligible proportion (less than 1%) of respondents chooses the third option in all OHSs. Thus, people choosing the first and third options are regarded as employees, while people choosing the second option fall in the self-employed category. Since LFS2000a, this question has been improved, and there are currently five categories: 'working for someone else for pay', 'working for one or more private households as a domestic employee, gardener or security guard', 'working on his/her own or on a small family farm/plot or collecting natural products from the forest or sea', 'working on his/her own or with a partner, in any type of business (including commercial farms)' and 'helping without pay in a family business'. People choosing one of the last three options are regarded as self-employed.

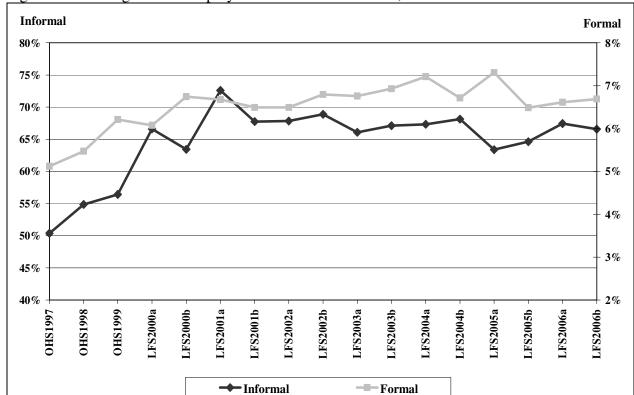


Figure 6 Percentage of self-employed workers in each sector, 1997 – 2006

3.1.3 Race

Figure 7 shows the racial distribution of informal sector workers from OHS1997 to LFS2006b. It is obvious that the Black share is predominant, and also shows an increasing trend with more than 84% for all LFS years, and rising to 88.5% for LFS2006b. Indians do not appear in the informal sector in significant numbers, with less than 2% of the total throughout the period, whilst the White share averages less than 4%, and the Coloured share ranges between 5% and 7% for the LFS years.

The moderate increase of the Black share during the LFS years is caused by the continuous increase of the number of Black informal sector workers during the period concerned (from about 4 million in the early LFSs to 5 million in LFS2006b). The number of Coloured informal sector workers increases slightly from 0.8 million to slightly above 1 million, while the Indian and White figures have stabilized at 0.4 million and 1.8 million respectively.

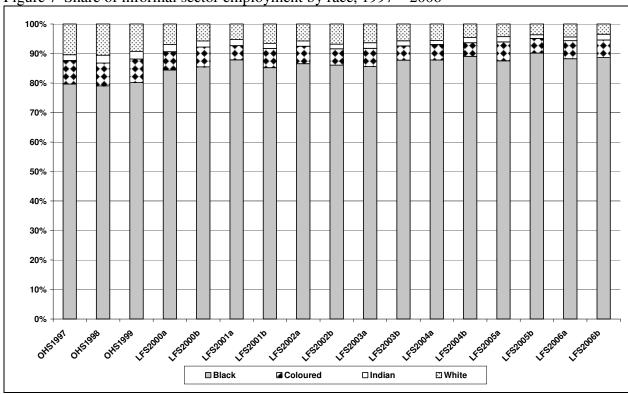


Figure 7 Share of informal sector employment by race, 1997 – 2006

Black informal sector workers as proportion of non-agricultural employment have been stable at approximately 30% during the LFS years. Figure 8 below shows what happened in each race group for selected years.

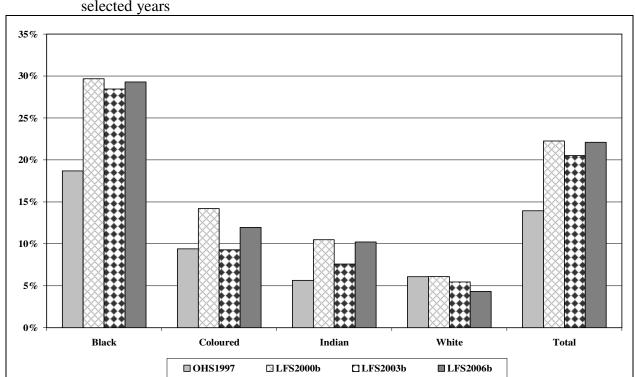


Figure 8 Informal sector employment as percentage of non-agricultural employment by race, selected years

3.1.4 Gender

Looking at the overall informal sector employment by gender, Figure 9 shows that the male share has always been greater (but never quite dominant over the female share), except in LFS2001a, when the female share was greater. This peculiarity is explained in greater detail in Appendix III. Table A1.5 in Appendix I provides more detail by reporting the informal sector employment as percentage of non-agricultural employment by gender and race for the period under consideration. As can be seen, this percentage is the highest for Black females; it hovers around 35% in the period under study.

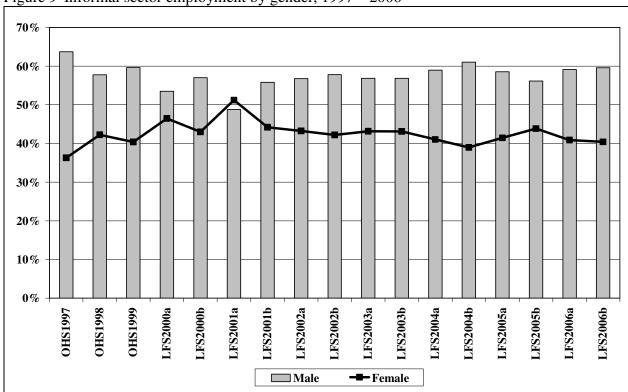


Figure 9 Informal sector employment by gender, 1997 – 2006

Interestingly, looking at the nature of employment of informal sector workers by gender, the females are more likely to be self-employed, as this proportion is approximately 80% throughout the period under study. In the case of male informal sector workers, the percentage of self-employed is only about 55%.

3.1.5 Province

As far as the provincial distribution of informal sector employment is concerned, Gauteng, KwaZulu-Natal and Eastern Cape are the three provinces with the greatest shares. The provincial distribution has been quite stable throughout the years, except for a slight decrease of the KwaZulu-Natal share at the cost of the dwindling Eastern Cape share. Figure 10 presents the latest provincial distribution as in LFS2006b.

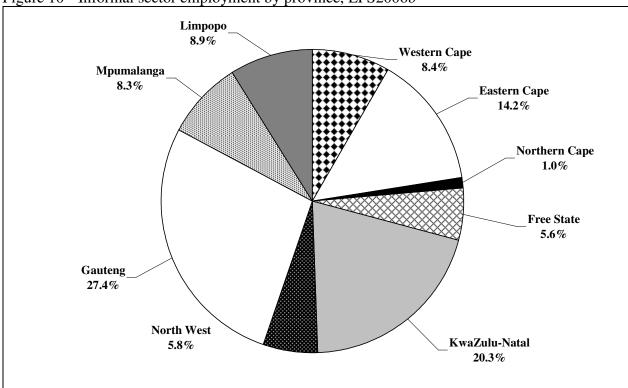


Figure 10 Informal sector employment by province, LFS2006b

With regard to informal sector employment as percentage of non-agricultural employment by province, Eastern Cape and Limpopo were the two provinces where this percentage exceeded one-third throughout the years under study, while the Western Cape and Northern Cape have the lowest percentage (slightly above 10%). Figure 11 reports the results in LFS2006b.

35% 30% 25% 15% 10%

Figure 11 Informal sector employment as percentage of non-agricultural employment by province, LFS2006b

3.1.6 Educational attainment

Eastern

Cape

Northern

Cape

State

Western

Cape

0%

As is expected (and shown in Table 1), informal sector workers are less educated than formal sector workers. In LFS2006b, nearly 80% of the informal sector workers have less than Matric, while this percentage is only about 45% in the formal sector. The proportion of informal sector workers with less than Matric is significantly lower for Blacks when compared to other racial groups. Furthermore, there have been no big fluctuations in the mean years of education of informal sector workers for the whole time period under consideration (it hovers around 7.5-8.0 years). Besides, it can be seen that in all four race groups, informal sector mean years of education are consistently lower than the corresponding formal sector figure. The White population group has the highest mean years of education in both sectors, while exactly the opposite is true in the case of Blacks.

KwaZulu-

Natal

North

West

Table 1 Educational attainment by sector and race, LFS2006b

		Info	rmal secto	r		Formal sector					
	Black	Coloured	Indian	White	All	Black	Coloured	Indian	White	All	
No Education	10.1%	4.1%	1.0%	0.0%	9.2%	3.1%	0.7%	0.4%	0.0%	2.0%	
Incomplete Primary	21.2%	13.1%	1.9%	0.0%	19.6%	9.9%	5.4%	0.4%	0.1%	6.7%	
Incomplete Secondary	50.6%	54.5%	48.3%	27.3%	50.0%	39.9%	43.9%	24.5%	14.5%	34.1%	
Matric	16.0%	23.8%	48.6%	47.2%	18.2%	30.0%	39.1%	48.6%	42.4%	34.9%	
Matric + Cert./Dip.	2.0%	3.2%	0.0%	17.0%	2.6%	11.2%	8.3%	15.3%	23.6%	13.7%	
Degree	0.2%	1.3%	0.3%	8.4%	0.5%	5.8%	2.7%	10.7%	19.4%	8.6%	
Mean eduyear	7.70	9.02	10.47	11.78	7.98	10.17	10.53	11.88	12.69	10.85	

Gauteng Mpumalanga Limpopo South Africa

3.1.7 Household size

For the whole period under consideration, the household size where the head of the household is engaged in the informal sector has consistently been larger when compared to households where the household head is involved in the formal sector. Figure 12¹⁸ shows that the mean household size has stabilized at about 3.5 people per household from OHS1999, for households where the head is engaged in the informal sector.

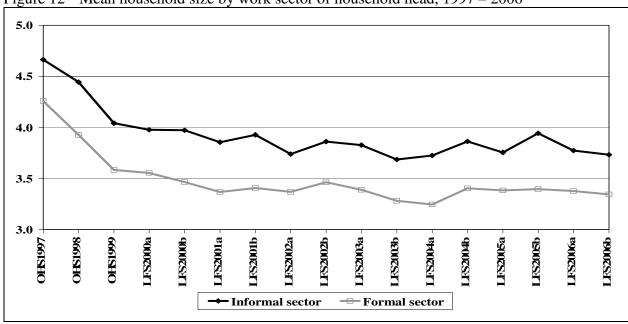


Figure 12 Mean household size by work sector of household head, 1997 – 2006

If the household head is an informal sector worker, the mean number of informal sector worker in the household is greater. In other words, if the household head is involved in the informal sector, a greater number of other household members are likely to be involved in the informal sector. Table 2 summarizes the results using LFS2005a¹⁹.

Table 2 Mean number of formal and informal workers in the households by work sector of household head, LFS2005a

		Mean number of informal sector workers	Mean number of formal sector workers
	Black	1.16	0.09
Household head: informal	Coloured	1.36	0.38
sector worker	Indian	1.08	0.25
sector worker	White	1.30	0.47
	All	1.17	0.12
	Black	0.04	1.23
Household head:	Coloured	0.03	1.64
formal sector worker	Indian	0.02	1.70
ioiiiiai sectoi workei	White	0.02	1.67
	All	0.03	1.38

¹⁸ Between 1997 and 2006, household weights were not available in LFS2000a, LFS2002a, LFS2003a, and LFS2005b – LFS2006b. Therefore, the data on Figure 13 are not weighted.

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¹⁹ No household weight is provided since LFS20005b b, so the latest weighted statistics for Table 2 could only come from LFS2005a.

3.1.8 Dwelling type

As can be seen in Figure 13, the proportion of households living in formal dwellings²⁰ is consistently smaller if the household head is engaged in informal sector work as compared with the household head that is involved in the formal sector. However, this proportion has been showing a downward trend since LFS2004b.

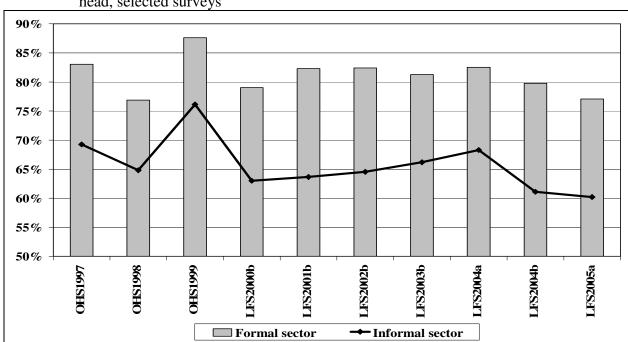


Figure 13 Proportion of households staying in formal dwellings by work sector of household head, selected surveys

Note: these selected surveys are the only surveys where household weights are available

3.1.9 Main income source

Table 3 shows that more than half of the households headed by informal sector workers declare that salaries/wages is the main income source²¹ of the household, but this proportion decreases continuously through the years. In contrast, this proportion remains consistent for the period under consideration at about 97% for households headed by a formal sector worker.

Table 3 Main household income source, if the household head is an informal sector worker

	LFS2001b	LFS2002b	LFS2003b	LFS2004b
Salaries/Wages	60.2%	57.2%	54.0%	53.9%
Remittances	6.5%	6.6%	7.1%	5.1%
Pensions/Grants	3.7%	4.6%	6.1%	6.5%
Sales of farm product	4.2%	3.6%	4.1%	2.7%
Other non-farm income	24.3%	27.2%	28.5%	31.4%
No income	1.1%	0.8%	0.2%	0.3%

²⁰ Formal dwellings include the following: dwelling/house or brick structure on a separate stand or yard, flat or apartment in a block of flats, town/cluster/semi-detached house, unit in retirement village, dwelling/house/flat/room in backyard, and room/flatlet. Note that the question pertaining to dwelling type is not asked in all surveys.

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²¹ The household income source question is asked in only four LFSs, and is not asked in all OHSs.

3.2 Working conditions²²

The working conditions of informal sector workers are consistent with the absence of essential securities as discussed earlier. When examining the location where employment occurs, the analysis shows that 41% of informal sector workers work in the employer's home/firm, with an additional 18% working from someone else's home, and nearly one-quarter do not have a fixed location (using LFS2006b).

With regard to the firm size, it is apparent that most informal sector firms only have one employee. Figure 14 provides further detail by employees and self-employed. For the former, about a quarter of respondents claim that there was only one worker in the firm²³, while the proportion increases to 70% in the case of self-employed respondents. Looking at all informal sector workers, more than 80% are engaged in firms with fewer than five workers. This is indicative of the small scale nature of informal sector activities. The corresponding proportion is only about 10% in the case of formal sector workers.

Nearly 30% of informal sector employees are permanently employed in LFS2006b. In addition, nearly 63% of informal sector employees are employed in either temporary or casual positions, with the corresponding proportion in the formal sector being less than 16%. Interestingly, this ratio for informal sector employees exceeds 40% in the earlier surveys, and Figure 15 shows that the permanently employed proportion has been showing a moderately downward trend.

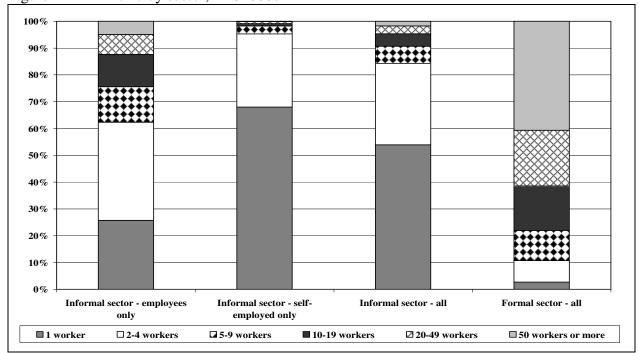


Figure 14 Firm size by sector, LFS2006b

Since a high proportion of informal sector employees are employed temporarily and casually, it is

²² Since the results of most of the working conditions variables do not show large fluctuations, this section will mainly report the LFS2006b results, unless stated otherwise. A complete summary of the working conditions of the employed in LFS2006b can be found in Table A1.7.

²³ The question might confuse respondents, especially employees, as the number of workers in the firm should be at least two (assuming there is one employee and one employer in the firm). It is possible that some employees interpret the meaning of 'worker' as the employees of the firm, *excluding* the owner/employer.

unsurprising that more than 40% of informal sector employees have been working for their present employer for less than a year. Only 10% have been working for their present employer for more than 10 years.

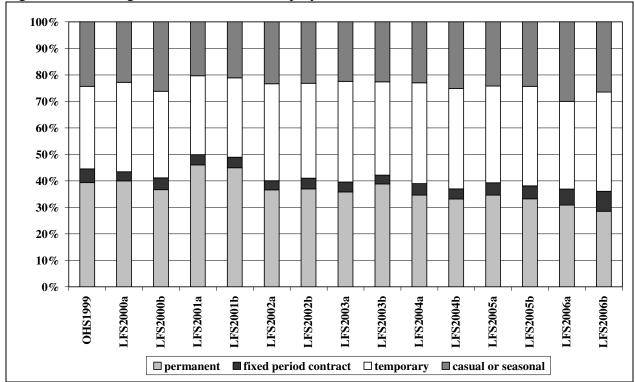


Figure 15 Job length of informal sector employees, 1999 – 2006

Note: the question on job length was asked for the first time in OHS1999.

In addition, a mere 20% of informal sector employees have a written contract with their employers; and just about 3.5% are members of a trade union. On the other hand, nearly 20% of informal sector employees claim to be able to work independently without supervision, while only 12.5% are entitled to paid leave. Only about 7% of employees enjoy retirement fund contributions by their employer. Moreover, looking at all informal sector workers, only 4% and 2% enjoy UIF and medical aid benefits respectively.

Regarding work hours, 70% of informal sector workers claim they could work flexible hours (but 7.5% could only manage to do so within a limited range). The mean usual weekly work hours are quite similar in the formal and informal sectors, but the standard deviation of the latter is nearly double that in the formal sector. Furthermore, nearly a quarter of informal sector workers claim they are willing to work longer hours. This outcome remains fairly consistent since LFS2001b, as shown in Figure 16²⁴.

²⁴ Only 10% of the informal sector workers answered this question in OHS1997 and OHS1998, and the proportion of people answering 'yes' exceeds 60% in these two surveys, which are clearly outliers compared with other years. Therefore, these two years are excluded from the figure.

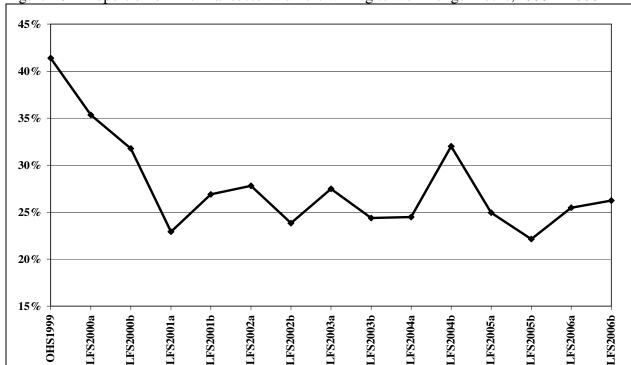


Figure 16 Proportion of informal sector workers willing to work longer hours, 1999 – 2006

3.3 Work activities

3.3.1 Occupation

When the occupation of informal sector workers is considered, a few observations can be made²⁵. Firstly, the percentage distribution for all broad occupation categories remains relatively stable throughout the period in question, the only exception being the sudden decline in the share of skilled agricultural and fishery workers between LFS2002b and LFS2003a, which was in turn complemented by the abrupt increase in the share of elementary occupations²⁶. Also, the proportion of workers engaged in skilled occupations has been hovering around 10% for the whole period, but there was an increase of the proportion involved in unskilled occupations at the expense of semi-skilled occupations as seen in Figure 17.

Looking at the percentage of informal sector engaged in skilled occupations, this is the lowest for the Black population, hovering around 7%-8% throughout the years (in fact, nearly 40% of Black informal sector workers are engaged in unskilled occupations). This proportion remains quite stable at about 10%, 20% and 35% for Coloureds, Indians and Whites respectively.

²⁵ See Table A1.8 for more detail.

²⁶ The reason for this is that until LFS2002b, about 200,000 of informal sector workers' detailed occupation category was gardeners, horticultural and nursery growers (occupational code: 6113), which falls under the broad occupation category 'skilled agricultural and fishery workers' in almost every survey, while only a few thousand people's detailed occupation was farm-hands and labourers (occupational code: 9211), which falls under the broad occupation category 'elementary occupations'). However, it is odd that from LFS2003a onwards, exactly the opposite happens. Since there is no change in the definition of these two detailed occupation categories throughout the years, it is not sure whether this sudden change may not be due to data inputting error.

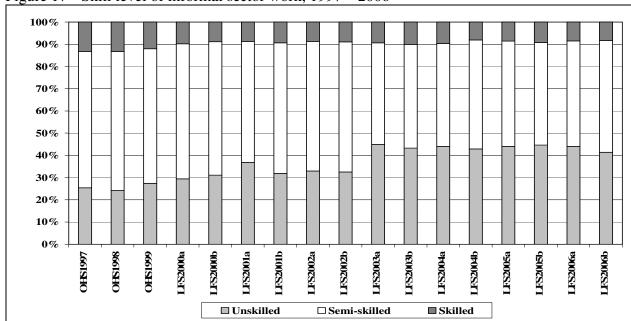


Figure 17 Skill level of informal sector work, 1997 – 2006

Table A6.1 of Appendix VI shows the top ten detailed occupation categories of informal sector workers in selected surveys. It is obvious that street food vendors and street non-food vendors have been predominant. On the other hand, regarding detailed occupation categories by gender, male and females mainly engage in different types of work when the top ten categories of employment are considered, and Table 4 reports the LFS2006b results. Only three categories in the top ten listed for each of the two gender groups in Table 4 are common, namely street food vendors, street non-food vendors and spaza shop operators.

Table 4 Top ten detailed occupations of informal sector employment by gender, LFS2006b

Male		Female				
% of total informal sector employment	%	% of total informal sector employment	0/0			
Farm-hands and labourers	14.35	Street food vendors	30.53			
Bricklayers and stonemasons	10.34	Street non-food vendors	13.48			
Street food vendors	8.42	Spaza shop operator	6.02			
Street non-food vendors	5.81	Tavern and shebeen operators	5.41			
Motor vehicle mechanics and fitters	4.32	Hairdressers, beauticians and related workers	4.43			
Spaza shop operator	3.85	Tailors, dressmakers and hatters	3.78			
Car, taxi and van drivers	3.78	Bricklayers and stonemasons	2.84			
Painters and related workers	3.15	Healer and sangoma	2.68			
Carpenters and joiners	3.05	Personal care of children and babies	2.62			
Construction and maintenance labourers	2.18	Shop salespersons and demonstrators	2.61			
	59.25		74.40			

3.3.2 Industry

Wholesale and retail trade is the dominant industry for informal sector work, consistently accounting for approximately 50% of total informal sector employment for the period under review²⁷. Retail trade not in stores and building of complete constructions or parts thereof are the two dominant detailed industry categories, accounting for almost half of total informal sector employment in all LFSs. See Appendix VII for more detailed statistics.

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²⁷ See Table A1.9 for more detail.

3.4 Earnings

Regarding earnings from their main job, respondents could either declare the actual amount of earnings or choose the relevant income category from the questionnaire. In general, at least two-thirds of informal sector workers declare actual earnings, except in OHS1999. However, a higher proportion of informal sector employees opt to declare the actual amount, compared with the self-employed (Table A1.10). A relatively higher proportion (about 10%) of all informal sector workers do not specify their earnings in OHS1998, OHS1999 and LFS2000a. This proportion only ranges between 3% and 6% in other years, as shown in Table A1.11.

3.4.1 Mean monthly real earnings²⁸

Table 5 shows the mean monthly real earnings of informal and formal sector workers²⁹. For most years, the self-employed in the informal sector earn more than employees in the informal sector. Apart from the over-estimation problem during the OHS years, the earnings of the informal sector workers remain quite stable at approximately R1 000 per month, as shown in Figure 18³⁰. These earnings are substantially lower than the earnings in the formal sector³¹.

Table 5 Mean monthly real earnings of workers by sector, 1997 – 2006

		Informal sector			Formal sector	
	Employee	Self-employed	Total	Employee	Self-employed	Total
OHS1997	1 506	2 553	2 025	3 130	12 673	3 553
OHS1998	1 308	2 178	1 765	3 104	13 620	3 545
OHS1999	1 144	1 666	1 435	3 251	11 161	3 676
LFS2000a	981	1 006	998	3 077	7 319	3 302
LFS2000b	1 011	1 194	1 127	3 379	6 055	3 547
LFS2001a	1 132	1 039	1 064	3 101	6 882	3 314
LFS2001b	1 031	1 042	1 039	3 315	7 036	3 531
LFS2002a	794	942	894	3 214	7 952	3 487
LFS2002b	867	989	951	3 272	7 146	3 502
LFS2003a	892	1 012	971	3 132	7 295	3 373
LFS2003b	903	935	924	3 383	8 157	3 652
LFS2004a	889	1 138	1 056	3 402	8 528	3 723
LFS2004b	823	1 169	1 058	3 341	7 880	3 591
LFS2005a	1 014	1 017	1 016	3 322	8 872	3 676
LFS2005b	974	902	928	3 462	7 317	3 678
LFS2006a	958	1 030	1 006	3 510	8 662	3 818
LFS2006b	904	1 094	1 029	3 564	7 802	3 802

²⁸ For each survey, all respondents who reported a nominal earnings interval only were used to estimate interval regressions of the log of the interval thresholds on a constant only. This provides estimates for the average and variance of the log of earnings distribution for interval-reporters. Next, each observation was assigned the mean value, conditional on falling within the reported interval, as its earnings. Finally, all nominal earnings were converted into real earnings in 2000 prices using the South African Reserve Bank's CPI series (KBP7032N).

²⁹ The earnings statistics only include income earners earning less than R83 334 per month in 2000 prices.

³⁰ The mean and variance of the income of self-employed on average are very high during the OHS years. Burger & Yu (2006) provide a more detailed analysis of this problem. Besides, section 3.1.2 has shown that the self-employed accounts for more than half of total employment during the same period. Therefore, the mean earnings of informal sector workers are over-estimated in the OHSs and are not included in Figure 18.

 $^{^{31}}$ The ratio between the mean monthly real earnings of formal sector workers and the mean monthly real earnings of the informal sector hovers around 3.5 - 4.0 since LFS2001b.

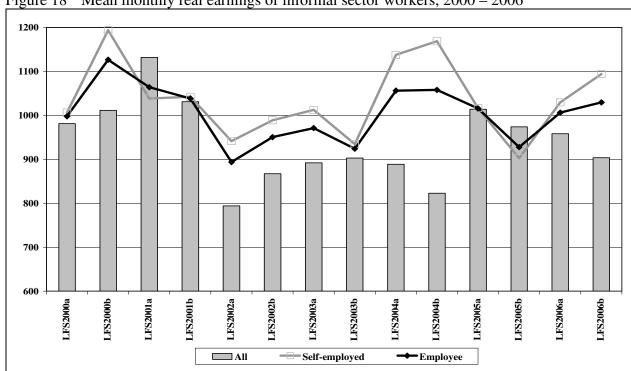


Figure 18 Mean monthly real earnings of informal sector workers, 2000 – 2006

Table 6 shows the mean monthly real earnings by sector and race. It is interesting that Indian and White *informal* sector workers earn more than Black *formal* sector workers on average (but take note of their relatively small numbers, as shown in Figure 7). Additionally, within the informal sector, Blacks earn substantially less than other race groups. This may be due to the type of informal sector activity that Blacks engage in (e.g., a relatively high proportion of Blacks are involved in unskilled occupations which pay less, as mentioned in section 3.3.1), and may also reflect a poorer access to start-up capital.

Table 6 Mean monthly real earnings of workers by sector and race, 1997 – 2006

		Informa	l sector	•		Formal	sector	
	Black	Coloured	Indian	White	Black	Coloured	Indian	White
OHS1997	1 591	2 072	2 185	5 626	2 350	2 532	4 033	6 746
OHS1998	1 428	2 577	3 941	3 436	2 389	2 865	4 164	6 530
OHS1999	1 108	1 508	3 717	4 091	2 409	2 880	4 088	7 084
LFS2000a	765	961	1 917	3 701	2 139	2 574	3 547	6 360
LFS2000b	906	1 317	1 693	4 229	2 280	2 947	3 597	6 866
LFS2001a	874	1 213	2 210	3 939	2 183	2 874	3 606	6 347
LFS2001b	751	1 436	2 106	4 527	2 253	2 820	3 861	6 780
LFS2002a	715	1 154	2 705	3 241	2 305	2 790	3 780	6 775
LFS2002b	708	1 214	2 595	3 971	2 405	2 704	3 583	6 866
LFS2003a	713	1 189	2 250	4 324	2 247	2 703	3 921	6 672
LFS2003b	713	1 113	4 214	4 021	2 383	2 868	4 031	7 620
LFS2004a	782	1 413	2 861	5 324	2 459	3 034	4 924	7 346
LFS2004b	870	1 315	2 588	4 904	2 426	2 827	4 621	7 330
LFS2005a	854	1 157	2 136	4 566	2 534	2 910	4 871	7 299
LFS2005b	802	1 408	2 608	3 067	2 576	3 157	4 155	7 195
LFS2006a	856	1 543	2 916	3 030	2 585	3 128	4 418	7 575
LFS2006b	867	1 768	1 911	3 961	2 690	2 907	5 109	7 533

3.4.2 Total real earnings

Looking at the racial share of the total informal sector earnings as shown in Figure 19, it can be seen that there has been an increase in the Black share throughout the years, complemented by the decline of the White share³². This could be partly explained by the increasing Black share of informal sector employment, as previously shown in Figure 7. On the other hand, when considering total informal sector earnings as percentage of total non-agricultural employment earnings by race, it is apparent that this ratio is the highest for Blacks. This ratio also remains relatively stable at about one-eight for the period under consideration, except in LFS2001a. Table A1.13 provide more detail for each race.

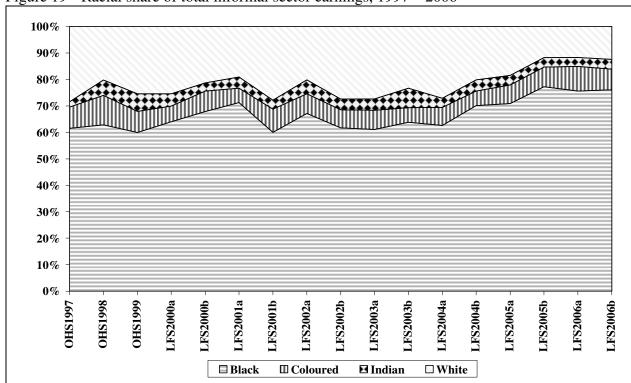


Figure 19 Racial share of total informal sector earnings, 1997 – 2006

Finally, Table 7 summarizes the earnings of the different sectors in LFS2006b. It can be seen that formal sector employment generates twelve times the real earnings of the informal sector, and this ratio stabilizes at between 12 and 14 in the LFS years.

Table 7 Real earnings by sector, LFS2006b

	Domestic Subsistence Commercial Don't											
Domestic					Don t		All					
workers	Informal	Formal	agriculture	agriculture	know	Unspecified	employed					
	Employment											
884 898	2 376 338	8 376 441	472 697	605 129	46 935	24 847	12 787 285					
6.9%	18.6%	65.5%	3.7%	4.7%	0.4%	0.2%	100.0%					
	Mean monthly real earnings (Rand)											
607	1 029	3 801	265	2 064	1 297	3 044	2 799					
Total annual real earnings (R million)												
6 353	6 353 28 241 347 527		1 487	14 615	575	320	399 118					
1.6%	7.1%	87.1%	0.4%	3.7%	0.2%	100.0%	1.6%					

³² Also see Table A1.12 for greater detail.

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3.4.3 Mean household real earnings by sector status of household head

Looking at the mean monthly household real earnings from main job³³ by the sector status of household head, Table 8 shows that the mean earnings of households headed by a Black informal sector worker is only about 50% and 25% of the mean earnings of households headed by a Coloured/Indian and White informal sector worker respectively.

Table 8 Mean monthly household real earnings from main job by the sector status of household head, selected years

	Black	Coloured	Indian	White	All						
		Household head: informal sector worker									
LFS2000b	1 452	2 249	3 203	7 031	1 805						
LFS2001b	1 063	2 856	3 068	7 035	1 546						
LFS2002b	1 016	2 474	4 025	6 022	1 478						
LFS2003b	1 016	1 867	6 344	5 505	1 342						
LFS2004b	1 254	2 766	2 714	6 323	1 542						
LFS2005a	1 209	2 165	2 368	5 512	1 443						
		Household	head: formal se	ctor worker							
LFS2000b	2 936	5 407	6 221	11 367	5 274						
LFS2001b	2 809	5 291	6 521	10 655	5 029						
LFS2002b	3 064	4 402	5 996	10 313	4 942						
LFS2003b	3 392	4 842	6 029	9 807	5 098						
LFS2004b	3 040	4 248	6 933	9 057	4 622						
LFS2005a	3 203	4 748	7 445	10 189	4 974						

3.5 Conclusion on characteristics of informal sector workers

From the analysis above, several characteristics and trends of the informal sector in South Africa have been identified and discussed. A typical informal sector worker is likely to be Black, self-employed, lives in KwaZulu-Natal, Eastern Cape or Gauteng, and is educated less than Matric. If a household is headed by an informal sector worker, this household commonly has a relatively large household size of about 4 people, and is more likely to stay in an informal dwelling.

As far as working conditions are concerned, informal sector worker tends to work in the employer's home or firm, while the number of workers in the firm is less than 5 people. Besides, employment tends to be of a temporary or casual nature. There is usually no written contract with the employer, and the worker does not enjoy paid leave, retirement fund contributions by employer, UIF deductions and medical aid. As a result of such working conditions, it is not surprising that informal sector workers change jobs frequently and are likely to work for their present employer for less than a year. Looking at work activities, the informal sector worker is likely to be involved in unskilled elementary occupations in the wholesale or retail industry. Finally, the worker earns approximately R1 000 in 2000 prices per month from the informal sector work.

Although descriptive in nature, this part of the analysis in Section 3 is only a starting point. More sophisticated analysis is required to extract relationships and to determine which "strings can be pulled" to achieve improved outcomes.

³³ Total household monthly earnings reflects the earnings of people of all ages from their main job.

4. ECONOMETRIC ANALYSES³⁴

The preceding analysis is limited since it only considers one or two variables when describing the characteristics of the informal sector workers. Thus, the purpose of this section is to expand the descriptive analyses conducted above by investigating the role of various factors that influence whether or not a person would be involved in informal sector activities.

4.1 Probit regression on non-agricultural employment

In this section, survey probit regression analysis³⁵ is conducted on non-agricultural employment. The dependent variable is dichotomous: equal to 1 if the employed works in the informal sector, and 0 if the employed is involved in the formal sector³⁶.

In addition, several independent variables were included in the analysis, namely:

- Race (Reference group: Black)
- Gender (Reference group: females)
- Age groups: (Reference group: 15-24 years)
- Province (Reference group: Western Cape)
- Educational attainment: (Reference group: no schooling)
- Self-employment dummy (Informal sector workers are more likely to be self-employed)
- Female self-employment dummy (Female informal sector workers are more likely to be self-employed, as explained in Section 3.1.4)
- OHS1997/1998 dummy (OHS1997/1998 under-estimated informal sector employment)
- LFS2001a dummy (LFS2001a seriously over-estimated informal sector employment)

The results of the regressions are presented in Table 9. In general, the employed³⁷ in non-agricultural activities aged between 25-65 years are less likely to be involved in informal sector work compared with the youngest age group (15-24 years). This result is robust for the selected years (OHS 1997, LFS2000b, LFS2003b, LFS2006b) as well as for the period between OHS1997 and LFS2006b. In addition, the Coloured, Indian and White population groups are less likely to be employed in the informal sector when compared to the Black population group.

With regard to gender, the female dummy is negative and significant in all selected years, except OHS1997, and also for the period between OHS1997 and LDS2006b³⁸. Besides, when considering location, the regression results reveal that people from Eastern Cape are more likely to work in the informal sector (except in OHS1997), compared with people from Western Cape.

³⁴ People with unspecified gender, race, age or educational attainment are excluded from the econometric analysis in this section.

³⁵ Survey regressions consider the survey design variables (i.e., strata and the primary sampling units).

³⁶ Strictly speaking, in order to take selection bias into consideration, a Heckman two-step approach should be used to derive the informal sector employment probability estimates, conditional on participation and employment in non-agricultural activities. However, it was decided to employ a simple probit regression on non-agricultural employment in this section.

³⁷ Note that the employed in Section 4.1 refers to both the self-employed as well as the employees.

³⁸ If the self-employment and female self-employment dummies are excluded from the regressions, the female dummy becomes positive and significant in all selected years and for the period between OHS1997 and LFS2006b.

As expected, a higher educational attainment is associated with a lower likelihood of working in the informal sector. This is indicated by the fact that the absolute value of the coefficients increases as the level of educational attainment increases. As shown in Table 9, this conclusion is significant for all of the selected years, as well as for the full period between OHS1997 and LFS2006b. However, note that the incomplete primary education dummy is insignificant in LFS2000b and LFS2003b.

Furthermore, the OHS1997/1998 dummy variable was found to be negative and significant, revealing that non-agricultural workers had a smaller likelihood of being employed in the informal sector in OHS1997/1998 (reflecting an undercount of informal sector workers), whereas the LFS2001a dummy variable was found to be positive and significant, indicating that non-agricultural workers had a greater chance of being employed in the informal sector in LFS2001a.

In summary, a black male, aged between 15 and 24, active in Eastern Cape, with no or limited educational attainment is more likely to be employed in the informal sector that other non-agricultural workers.

Survey probit regression showing the probability of the non-agricultural employed to Table 9 work in the informal sector, selected years

work in the i		ependent var		rmal sector, (): formal sec	tor
	OHS1997	LFS2000b	LFS2003b	LFS2006b	OHS1997 -	- LFS2006b
Age 25-34 years	-2.009	-0.1826	-0.2978	-0.1791	-0.2778	-0.2787
rige 23-34 years	[3.83]***	[3.59]***	[3.86]**	[3.01]**	[18.35]***	[18.46]***
Age 35-44 years	-0.4429	-0.4940	-0.5630	-0.3399	-0.5023	-0.5042
1186 66 11 964115	[8.20]***	[8.71]***	[7.66]***	[5.10]***	[31.58]***	[31.79]***
Age 45-54 years	-0.4645	-0.5192	-0.6195	-0.5780	-0.6087	-0.6081
,	[7.94]***	[7.93]***	[8.08]***	[8.09]***	[35.56]***	[35.61]***
Age 55-65 years	-0.4254 [5.88]***	-0.4492 [5.34]***	-0.6450 [6.89]***	-0.5098 [6.22]**	-0.5795 [26.75]***	-0.5766 [26.65]***
	-0.4380	-0.3033	-0.4893	-0.3523	-0.3795	-0.3810
Coloured	[6.27]***	[3.76]***	[5.25]***	[4.74]***	[16.60]***	[16.69]***
x 1.	-0.7145	-0.7696	-0.7690	-0.7242	-0.7581	-0.7616
Indian	[5.48]***	[3.63]***	[5.45]***	[3.74]***	[18.05]***	[18.09]***
W/1-:	-0.5476	-0.7825	-1.0820	-1.1503	-0.9383	-0.9444
White	[7.63]***	[9.26]***	[11.57]***	[9.59]***	[37.98]***	[38.16]***
Female	-0.0304	-0.1646	-0.1779	-0.2655	-0.1304	-0.1303
remale	[0.84]	[3.95]***	[3.69]***	[5.16]***	[10.89]***	[10.88]***
Eastern Cape	-0.1467	0.2096	0.2306	0.3426	0.2764	0.2780
Eastern Cape	[1.72]	[2.11]*	[1.98]*	[3.88]***	[10.37]***	[10.43]***
Northern Cape	-0.0443	-0.1174	0.0380	-0.1912	0.0057	0.0070
rvortiletti Gape	[0.48]	[1.00]	[0.28]	[2.00]**	[0.19]	[0.23]
Free State	-0.2718	-0.1635	-0.1182	-0.0365	-0.0607	-0.0576
	[3.02]**	[1.48]	[1.10]	[0.36]	[2.14]*	[2.03]*
KwaZulu-Natal	-0.1901	-0.0527	0.0916	0.1418	0.0864	0.0884
	[2.35]*	[0.54]	[0.87]	[1.46]	[3.23]***	[3.31]***
North West	-0.3623 [4.24]***	-0.2340 [2.18]*	-0.1218 [1.02]	-0.0137 [0.12]	-0.0639 [2.22]*	-0.0623 [2.17]*
	-0.3838	-0.1500	-0.0329	-0.0178	-0.0512	-0.0501
Gauteng	[4.88]***	[1.56]	[0.33]	[0.19]	[1.99]*	[1.94]
3.6 1	-0.0752	-0.0965	-0.0216	-0.0168	0.0453	0.0468
Mpumalanga	[0.79]	[0.87]	[0.19]	[0.17]	[1.59]	[1.65]
Limasas	0.0508	0.1653	0.0685	0.0313	0.1706	0.1721
Limpopo	[0.57]	[1.46]	[0.60]	[0.28]	[5.90]***	[5.96]***
Incomplete primary	-0.2075	-0.1110	-0.0914	-0.2014	-0.1857	-0.1811
meompiete primary	[3.71]***	[1.52]	[1.14]	[2.47]*	[9.93]***	[9.70]***
Incomplete secondary	-0.5587	-0.4233	-0.4304	-0.6402	-0.5154	-0.5105
	[10.53]***	[6.00]***	[5.68]***	[7.59]***	[28.25]***	[28.09]***
Matric	-1.0577	-0.8408	-0.9618	-1.0637	-0.9768	-0.9700
	[16.23]***	[10.44]***	[10.69]***	[11.61]***	[46.52]***	[46.37]***
Matric + Cert/Dip	-1.3917 [14.57]***	-1.2154 [11.83]***	-1.4226 [11.16]***	-1.6690 [12.83]***	-1.3237 [45.86]***	-1.3168 [45.81]***
	-1.2437	-1.4043	-1.3849	-2.1611	-1.6063	-1.5954
Degree	[10.47]***	[9.55]***	[8.79]***	[11.60]***	[39.30]***	[39.07]***
0.16	1.8143	1.8336	2.0041	2.1194	2.0148	2.0195
Self-employed	[32.53]***	[27.86]***	[32.02]***	[28.01]***	[124.78]***	[125.26]***
Б 1 0 10 1 1	0.3621	0.5246	0.6574	0.5017	0.5020	0.5064
Female & self-employed	[5.00]***	[6.50]***	[8.31]***	[5.82]***	[23.91]***	[24.14]***
OHS1997/1998 dummy	_				-0.1249	
O113133//1330 duffillity					[7.57]***	
LFS2001a dummy					0.1569	
Li 52001a duminy					[7.39]***	
Constant	-0.1092	-0.1739	-0.1422	-0.0928	-0.1570	-0.1655
	[1.14]	[1.49]	[1.01]	[0.74]	[4.90]***	[5.20]***
Observations	20 617	19 432	18 805	19 942	314 300	314 300

4.2 Regressions on non-agricultural employment of employees: Stats SA method vs. Devey et al. method on informal sector definition

As explained in Appendix II, Devey et al., in a number of works, examine the work characteristics of the employees (instead of the enterprise registration) to obtain a formal-informal index for LFS2004a. In this section, several regressions are run to compare the Stats SA method and the Devey et al. method to derive informal sector workers characteristics. Note that the same explanatory variables as in section 4.1 are used here, but only employees and not the self-employed are incorporated in the analysis (as noted earlier, in the regressions in Table 9, both self-employed and employees are included). Three key results, as presented in Table 10, are evident.

Firstly, when considering the survey probit regressions (i.e., the first four columns), it was found that the methods from StatsSA and Devey et al deliver similar results, as the older age groups, non-Black population, females, and higher educational attainment are associated with lower probability of working in the informal sector in LFS2004a. The negative coefficient for the female dummy is rather surprising, as the anticipated result was a positive coefficient. The result is potentially explained if females involved in the informal sector are more likely to be self-employed than employed when compared to males in the informal sector. Since the self-employed are omitted in the regressions presented in Table 10, the result would be weighted towards men, i.e. more men are likely to be involved in the informal sector as compared to women.

However, the main difference in terms of results between the two methods is that, in the Stats SA method (i.e., the first column), none of the provincial dummies are significant at the 5% level, while the Eastern Cape and Limpopo provincial dummies are positive and significant³⁹ at the 0.1% and 5% level respectively under the Devey et al. method (i.e., the second column to the fourth column). In addition, if the employed are defined to be in the informal sector if the formal-informal index is 5 or smaller (i.e., the fourth column), the North West and Gauteng dummies also become significant, with negative coefficients⁴⁰.

Finally, a survey regression was conducted using the formal-informal index (rather than a binary outcome) as the dependent variable. Note that the index value ranges between 0 and 13, with a higher index value associated with increasing formal-sector characteristics. Thus, it can be expected that the signs of the coefficients of the independent variables in the survey regression should be the opposite of their signs in the survey probit regressions, as shown in the last column of Table 10. The outcome of the latter regression is consistent with the outcome of the regressions presented above.

The results of the regressions in this section show that the Devey et al formal-informal index method, even when considering some shortcomings as discussed in Appendix II, can clearly be used to produce meaningful results that are consistent with alternative methods of analyses.

⁴⁰ A non-agricultural worker in the North West or Gauteng is therefore less likely to be in the informal sector as compared to a non-agricultural worker in the Western Cape.

³⁹ That means that a non-agricultural worker in the Eastern Cape or Limpopo is more likely to be in the informal sector as compared to a non-agricultural worker in the Western Cape, the reference province.

Table 10 Survey regressions on non-agricultural employment of employees I FS2004a

Table 10 Surve	y regression			yment of empl	loyees, LFS2004a
			nt variable:		Dependent variable:
		1: informal secto	or, 0: formal sec	tor	formal-informal index
		Survey prob	oit regression		Survey regression
	Stats SA	Devey et al. method	Devey et al. method	Devey et al. method	, 6
					Devey et al. method
	method	Assumption	Assumption	Assumption	•
	0.2542	(A) ⁴¹	(B) ⁴²	(C) ⁴³	1.2702
Age 25-34 years	-0.2543	-0.2931	-0.2450	-0.4142	1.2692
	[3.52]***	[4.27]*** -0.5215	[3.99]*** -0.5121	[7.86]*** -0.7324	[13.40]*** 1.9750
Age 35-44 years	[6.49]***	-0.3213 [7.00]***	[7.57]***	-0.7324 [12.96]***	[20.42]***
	-0.5590	-0.5576	-0.5771	-0.8619	2.2175
Age 45-54 years	[6.28]***	[6.05]***	[7.04]***	[12.00]***	[19.56]***
	-0.6115	-0.7014	-0.7099	-0.8464	2.0605
Age 55-65 years	[6.35]***	[6.64]***	[7.68]***	[10.14]***	[15.24]***
C 1 1	-0.4563	-0.4157	-0.4902	-0.5016	1.0590
Coloured	[3.49]***	[3.31]***	[4.49]***	[6.52]***	[7.54]***
Indian	-0.6404	-0.6561	-0.5682	-0.6371	1.2759
muan	[4.31]***	[3.34]***	[3.58]***	[4.38]***	[7.77]***
White	-0.6967	-1.0205	-0.9328	-0.7068	1.0303
Willite	[5.41]***	[8.19]***	[9.47]***	[9.30]***	[11.38]***
Female	-0.2623	-0.2640	-0.2048	-0.0839	-0.2148
1 ciriaic	[5.45]***	[4.78]***	[4.31]***	[2.02]*	[3.47]***
Eastern Cape	0.2839	0.5566	0.4101	0.2906	-0.8741
	[1.86]	[3.79]***	[3.28]***	[3.17]***	[4.66]***
Northern Cape	-0.2266	0.0858	0.1582	0.0869	-0.2651
	[1.50]	[0.63]	[1.10]	[0.70] -0.0172	[1.32] 0.1505
Free State	0.0095 [0.06]	0.1433 [1.00]	0.0102 [0.08]	-0.0172 [0.17]	[0.73]
	-0.0302	0.1153	-0.0188	-0.0408	-0.0381
KwaZulu-Natal	[0.23]	[0.91]	[0.16]	[0.45]	[0.26]
N.T. 1 3377	-0.1031	-0.0510	-0.1629	-0.3032	0.7791
North West	[0.72]	[0.36]	[1.24]	[2.79]**	[3.18]***
Cartana	-0.0830	-0.0367	-0.1931	-0.2755	0.5410
Gauteng	[0.63]	[0.29]	[1.67]	[3.17]***	[3.92]***
Mpumalanga	0.0149	0.0412	-0.0443	-0.1606	0.4668
Mpumaianga	[0.10]	[0.29]	[0.33]	[1.49]	[1.80]
Limpopo	0.1526	0.3497	0.2950	0.2182	-0.7968
1 1	[1.05]	[2.47]*	[2.30]*	[2.21]*	[4.03]***
Incomplete	-0.2262	-0.1354	-0.1367	-0.0780	0.2001
primary	[2.33]*	[1.35]	[1.45]	[0.87]	[0.87]
Incomplete	-0.5366	-0.5004	-0.4874	-0.4210	0.8854
secondary	[6.19]***	[5.18]***	[5.56]***	[4.97]***	[4.05]***
Matric	-1.0418	-1.0045	-0.9856	-0.9294	1.7588
	[10.60]***	[9.56]***	[10.01]***	[10.13]***	[7.54]***
Matric +	-1.5821	-1.5288	-1.3840	-1.3281	1.9789
Cert/Dip	[11.59]***	[9.15]***	[10.63]***	[12.00]***	[8.41]***
•	-1.1580	-1.5298	-1.4409	-1.2380	1.9758
Degree	[5.38]***	[6.07]***	[8.53]***	[9.17]***	[8.08]***
Constant	-0.1579	-0.3710	-0.0931	0.3383	5.8326
Constant	[0.93]	[2.39]*	[0.60]	[2.62]**	[21.52]***
R-squared					0.1576
Observations			15	331	
Absolute values of t statis	<u> </u>		13		

Absolute values of t-statistics in brackets.

^{*** -} significant at the 0.001 level

⁴¹ The employee is regarded as an informal sector worker if his/her formal-informal index is equal to or less than 3. ⁴² The employee is regarded as an informal sector worker if his/her formal-informal index is equal to or less than 4. ⁴³ The employee is regarded as an informal sector worker if his/her formal-informal index is equal to or less than 5.

4.3 Multinomial logistic regression on the working age population

The preceding regressions only make the investigation of the characteristics of informal sector workers possible, yet does not reveal whether the characteristics of informal sector workers differ from those of formal sector workers, the broad unemployed, or the inactive in the labour market. To this end, a multinomial logistic analysis⁴⁴ is conducted on the working age population from OHS1997 to LFS2006b.

The dependent variable is a discrete variable equal to 1 if the individual is employed in the formal sector, 2 if he/she is employed in the informal sector, 3 if he/she is broadly unemployed, and 4 if he/she is inactive (the reference group). In other words, the employed whose formal/informal sector status is 'domestic workers', 'subsistence agriculture', 'commercial agriculture', 'don't know' or 'unspecified' are excluded from the analysis.

The same independent variables as in 4.1 and 4.2 are used in the multinomial logistic regression, with the addition of the marital status dummy (Reference group: not married / not living together with a partner) and household head dummy (Reference group: not a household head). These two dummy variables are included in the multinomial logistic regression since a person's decision to participate in the labour market and/or accepting a job offer could be influenced by his/her marital status and household head status.

The results of the regression, presented in Table 11, can be summarized as follows:

- Males are more likely to be employed or unemployed and less likely to be inactive, compared to females. However, males are more likely to be employed in the informal sector (coefficient = 0.5427, relative risk ratio (rrr)⁴⁵ = 1.72).
- It is clear that Blacks are less likely to be employed in the formal sector (rrr = 0.95), but more likely to be employed in the informal sector or to be unemployed than Whites.
- The relative risk ratios keep declining across age groups for older age cohorts. People aged 25-34 years are more likely to be involved in any sector than the reference group. On the other hand, people in the 55-65 age cohort are less likely to be formally employed or broadly unemployed, but more likely to be engaged in informal sector activities compared to the reference group.
- There is a slight increase of the probability of being employed in the informal sector or to be broadly unemployed as a person becomes more educated, as indicated by the slow increase of the relative risk ratios across the educational attainment dummies. However, the increase of the ratios is much more rapid in the case of employment in formal sector when educational attainment rises beyond incomplete secondary education. In addition, having post-Matric qualifications increases the likelihood of being employed in the formal sector (take note of the high rrr values of 27.29 and 19.87 in post-Matric Certificate/Diploma and Degree respectively).
- Being the household head or being married increases the likelihood of being employed.

⁴⁵ The relative risk ratio shows the probability of the outcome occurring in the non-control group relative to the control group.

⁴⁴ Multinomial logistic regression involves a nominal dependent variable with more than two categories. The dependent variable with k categories will generate (k-1) equations. Each of these (k-1) equations is a binary logistic regression comparing one outcome with the reference outcome.

- In terms of geographic location, people living in Gauteng are more likely to be employed in the formal and informal sectors (and even being unemployed) than in the Western Cape, whilst the opposite appears to be true for the remaining provinces.
- OHS1997 and OHS1998 under-estimates informal sector employment, as indicated by the rrr value of 0.50. On the other hand, the opposite happens in LFS2001a, as the rrr value is 1.59. This result is consistent with the descriptive findings shown in Table 9.

Finally, note that even if the OHS1997/1998 and LFS2001a dummy variables are excluded from the regression, all the independent variables are still significant at the 0.001 level, and there are only negligible changes to the coefficients and relative risk ratios.

Table 11 Multinomial logistic regressions, 1997 – 2006 (Comparison group: inactive)

Tuole 11 Martinonnai		rmal se			ormal se	ctor	Broad	l unem	ployed
	Coef.	rrr	z-stats	Coef.	rrr	z-stats	Coef.	rrr	z-stats
Male	0.8657	2.38	2610.93	0.5427	1.72	1235.75	0.1604	1.17	579.59
Black	-0.0480	0.95	-91.12	0.9954	2.71	1097.76	1.8769	6.53	2671.61
Coloured	0.6930	2.00	959.72	0.6553	1.93	526.53	1.6867	5.40	1940.12
Indian	0.1573	1.17	168.24	0.2147	1.24	127.41	0.7546	2.13	656.90
Age25-34	2.4280	11.34	4995.33	2.3127	10.10	3367.98	1.8952	6.65	5013.96
Age35-44	2.3378	10.36	4167.64	2.1098	8.25	2723.91	1.3983	4.05	2956.60
Age45-54	1.6058	4.98	2659.97	1.4283	4.17	1705.24	0.5376	1.71	985.99
Age55-65	-0.1265	0.88	-185.35	0.1043	1.11	111.44	-1.1601	0.31	-1603.25
Incomplete Primary	0.4091	1.51	558.30	0.2741	1.32	349.30	0.3823	1.47	643.91
Incomplete Secondary	0.8785	2.41	1322.80	0.2499	1.28	339.49	0.3051	1.36	549.04
Matric	2.4876	12.03	3343.30	1.0305	2.80	1149.57	1.3580	3.89	2119.51
Matric + Cert/Dip	3.3065	27.29	3196.12	1.0076	2.74	686.79	0.9971	2.71	925.27
Degree	2.9891	19.87	2559.30	0.3725	1.45	188.38	0.2230	1.25	146.08
Married	0.6502	1.92	1748.24	0.4731	1.60	991.21	0.0592	1.06	168.72
Household Head	1.5230	4.59	3861.17	1.3969	4.04	2752.33	0.2139	1.24	565.19
Eastern Cape	-0.8004	0.45	-1139.66	-0.3707	0.69	-373.19	-0.0698	0.93	-105.59
Northern Cape	-0.4849	0.62	-412.92	-0.7085	0.49	-355.79	0.1485	1.16	138.54
Free State	-0.1847	0.83	-227.97	-0.3618	0.70	-303.98	0.1043	1.11	133.98
KwaZulu-Natal	-0.3297	0.72	-491.81	-0.2706	0.76	-275.82	0.1106	1.12	169.12
North West	-0.2303	0.79	-294.46	-0.4245	0.65	-372.87	0.1466	1.16	199.06
Gauteng	0.2509	1.29	393.58	0.1534	1.17	160.98	0.4490	1.57	688.28
Mpumalanga	-0.2053	0.81	-246.07	0.0322	1.03	28.51	0.0828	1.09	106.76
Limpopo	-0.9103	0.40	-1143.79	-0.3456	0.71	-326.76	0.0521	1.05	74.39
OHS1997/1998 Dummy	-0.2628	0.77	-634.40	-0.6868	0.50	-1095.11	-0.5489	0.58	-1499.84
LFS2001a Dummy	0.0212	1.02	31.38	0.4633	1.59	590.38	-0.0058	0.99	-10.00
Constant	-3.8340		-3685.55	-4.5856		-3094.33	-3.1922		-3013.87
No. of observations					1 127 20	9			
Prob. > Chi-square		0.0000							
Pseudo-R ²					0.2405				

Note: all explanatory variables are significant at the 0.001 level.

5. CURRENT GOVERNMENT STRATEGY

This section provides a short overview of the current government strategy, highlighting some of the foregoing findings in relation to the strategy, with specific focus on the definitions used and the key beneficiaries of government intervention. The aim is simply to determine whether the key findings in this paper are apparent in government policy.

The Department of Trade and Industry (dti) is responsible for the development of industry within South Africa, and specifically for the context here, it is responsible for the development of small, micro and medium enterprises (SMME) in South Africa. The dti has set their strategy for SMME development in the Integrated Small Enterprise Development Strategy, for the period from 2005 to 2014, which also identifies three strategic actions, namely (dti 2005b: 4):

- to promote entrepreneurship,
- to strengthen the SMME environment through more flexible regulations, improved access to finance and markets, and to improve infrastructure facilities and business support,
- to enhance competitiveness and capacity of SMME through:
 - o skills training,
 - o focused quality, productivity and competitiveness-support, and
 - o assisting SMMEs with technology transfers and commercialisation.

The targeted beneficiaries of these strategic actions are (dti, 2005a: 3):

- micro enterprises
- informal enterprises
- black owned enterprises
- female owned enterprises
- the youth (typically defined as individuals aged between 15 and 35 years)
- enterprises in priority sectors 46
- growth orientated enterprises⁴⁷.

Although much more can be said about government's strategy, such analysis would fall beyond the scope of this paper. Since this paper provides an analysis of the characteristics and trends within the informal market, as well as deriving some relationships between several variables and informal sector activity, the following step is to discern whether government's strategy takes these factors into account. Consequently, two aspects of the strategy noted above will be discussed given the preceding analysis of the informal market. First, we briefly consider whether the definition of the informal market as outlined in the dti's Integrated Small-Enterprise Development Strategy is appropriate. Secondly, consideration is given to whether the targeted beneficiaries have been correctly identified.

Before commenting further, it must first be noted that government's strategy and definitions are extremely broad ranging, without a clear focus on any particular segment. For example, a micro enterprise may consist of one person, selling sweets on a train; whereas a medium size enterprise may have a turnover of R2 million per year. The dti (2005a: 22) notes this as well and agrees that

⁴⁶ Amongst these sectors are tourism, construction, agriculture, information and communications technology and cultural industries.

⁴⁷ It is not clear what is meant with "growth orientated enterprises".

the more diverse nature of small enterprises requires greater recognition. Furthermore, it is not clear what the difference between a micro enterprise and the informal sector is, as OHS and LFS data reveal that more than 50% of all firms in the informal sector consist of one worker. The concern here is that government often refers to small business promotion, or SMME development, yet the promotion and/or development of micro enterprises/informal sector firms will require different types of interventions as compared to small or medium sized firms within the formal sector (i.e., small or medium sized firms that are registered, etc.). An immediate recommendation would therefore be to narrow the definition of each of the targeted beneficiaries, as common sense would appear to dictate that government's strategy to the diverse group within the SMME sphere would have to be significantly different for each "targeted beneficiary group".

As examined above, the informal sector consists mainly of Blacks, almost equal number of males and females, with low levels of education, with the majority of informal sector activity occurring in Gauteng, KwaZulu-Natal, and the Eastern Cape. Further, most informal sector businesses consist of one worker, and over 84% of firms have between one and four workers. In this regard, targeting micro firms, Blacks and females can be regarded as consistent with the findings within this paper. However, the broad focus of government's strategy fails to recognize that most entrepreneurial activity in South Africa, whether by nature or necessity, occurs within the informal sector. Approximately two-thirds of individuals involved in the informal sector are self-employed, compared to 7% in the formal sector. Consequently, a clearer focus on developing the skill sets of individuals within the informal sector specifically is required⁴⁸. Additionally, there does not appear to be a specific regional focus, with the relevant provincial departments and other national organizations (such as seda⁴⁹, Khula⁵⁰, etc.) responsible for additional development within their regions. Given that more than 60% of informal sector activity occurs in the three provinces noted earlier, it is recommended that any informal sector strategy should specifically target these provinces.

Even though the core thrust of the proposed interventions of government cannot be analyzed completely herein, the following can be noted. Firstly, funding facilities for informal sector activities, and specifically street vendors (who comprises over 20% of all informal sector activity), should be prioritized⁵¹. Secondly, the promotion of skills development is correct, but how this can be achieved in practise, given that informal workers work similar hours on average as compared to formal sector workers, is unclear. Finally, the reduction of the regulatory burden for informal sector firms may not be as important for small firms within the formal sector, as firms within the informal sector do not comply with laws and regulations in the first instance.

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⁴⁸ It is, of course, not clear that government has the capacity, in the broadest definition of the word, to successfully address this issue.

⁴⁹ The Small Enterprise Development Agency (seda), established in December 2004 in terms of the National Small Business Law, is the Department of Trade and Industry's agency for supporting small business in South Africa.

⁵⁰ Khula Enterprise Finance Ltd (Khula), established in 1996 as an independent agency of the dti, is a financial facilitator for the development of the small business sector by bridging finance gaps that are not addressed by commercial financial institutions in the small business sector.

⁵¹ This may potentially involve that municipalities reconsider their by-laws.

6. CONCLUSION

This paper provided a detailed analysis of the South African informal sector between 1997 and 2006 using the OHS and LFS data, adding to the work on informal markets done by authors such as Devey et al. (2003, 2006a & 2006b) and Muller (2003). From this analysis, several conclusions can be made, which are mostly in line with arguments made previously by Blunch (2001: 6-8). Firstly, given the consistent size of the informal sector for the period investigated, the sector cannot be regarded as a marginal sector as it contributes significantly to overall output and employment (in LFS2006b, 22% of non-agricultural employment if domestic workers are excluded; 28% if domestic workers are included).

Secondly, various types of labour are employed in several different occupations and industries, with different skill and education levels. However, there is a clear dominance of street vendors and activity within the retail services industry, whilst skill and education levels are generally poor. Thirdly, there is a clear geographic focus, with three provinces (Gauteng, KwaZulu-Natal and the Eastern Cape) contributing 62% of all informal sector activity. Fourthly, it was found that, where the household head is involved in the informal sector, the probability that other members of the household would be involved in informal sector activity increases. This leads to the discomforting prospect that being involved in the informal sector may lead to the non-graduation to the formal sector; once involved, always involved.

Fifthly, the multivariate analysis in Section 4.1 found that a Black male from Eastern Cape, aged between 15 and 24, with no or limited educational attainment is more likely to be employed in the informal sector. Additionally, regressions were conducted using different methodologies from Devey et al and StatsSA to derive the informal sector workers' characteristics in LFS2004a. With slight differences, the results obtained from these regressions were robust and consistent, both with the findings in Section 4.1 and for the different methodologies of Devey et al and StatsSA.

The multivariate analysis also considered whether the characteristics of informal sector workers differed from formal sector workers, the broad unemployed, and those who were inactive in the labour market. In brief, it was found that males are more likely to be employed or unemployed and less likely to be inactive, compared to females. Also, as a person becomes more educated, the probability of being employed or broadly unemployed as compared to those who are inactive in the labour market increases. In addition, having post-Matric qualifications increases the likelihood of being employed in the formal sector. As expected, being the household head or being married increases the likelihood of being employed, both in the formal and informal sectors. In terms of the geographic location, people living in Gauteng are more likely to be employed in the formal and informal sectors (and even being unemployed), compared with Western Cape, whilst the opposite appears to be true for the remaining provinces.

Finally, the government's proposed strategy and interventions were briefly discussed, with several clear recommendations resulting from the above analysis. It was found that, although government has correctly identified the most appropriate beneficiaries (i.e. the youth, blacks and females), the broadness of the definitions used (micro vs. medium enterprises) is likely to reduce the effectiveness of the dti's current strategy. A recommendation that follows is more appropriate and narrower definitions of targeted beneficiaries, with alternative strategies designed for each of the main groups within the rather diverse SMMS assemblage.

REFERENCES

Blunch, N-H., Canagarajah, S. & Raju, D., 2001. *The informal sector revisited: A synthesis across space and time*. World Bank Social Protection Paper No. 0119.

Burger, R.P. & Yu, D., 2006. Wage trends in post-apartheid South Africa: Constructing an earnings series from household survey data. Stellenbosch Economic Working Papers: 04/06.

Charmes, J., 2000. *Informal sector, poverty and gender: A review of empirical evidence*. Background paper for World Development Report 2001. Centre of Economics and Ethics for Environment and Development, University of Versailles-St Quentin en Yvelines.

Devey, R., Skinner, C. & Valodia, I., 2003. *Informal economy employment data in South Africa: A Critical Analysis*. Paper presented at the TIPS & DPRU Forum 2003.

Devey, R., Skinner, C. & Valodia, I., 2006a. Second best? Trends and linkages in the informal economy in South Africa. DPRU Working Paper 06/102.

Devey, R, Skinner, C and Valodia, I., 2006b. Definitions, Data and the Informal Economy in South Africa: A Critical Analysis. In: Padayachee, V (ed.), *The development decade? Economic and social change in South Africa*, 1994 – 2004. Cape Town: Human Sciences Research Council Press.

DTI, 2005a. *Integrated strategy on the promotion of entrepreneurship and small enterprises*. Available: http://www.thedti.gov.za/smme/strategy.pdf

DTI, 2005b. Integrated strategy on the promotion of entrepreneurship and small enterprises: Summarized version.

Available: http://www.budgetspeechcompetition.co.za/Portals/0/Small%20Enterprise-Development%20Strategy.pdf

International Labour Organization, 1972. Employment, incomes and equality: A strategy for increasing productive employment in Kenya. Geneva: International Labour Organization.

International Labour Organization, 1993. Report of the fifteenth international labour conference of labour statisticians. Geneva: International Labour Organization.

International Labour Organization, 2000. *Informal sector definition*. Available: http://www.ilo.org/public/english/employment/skills/informal/who.htm

International Labour Organization, 2002a. *Decent work and the informal economy*. Report of the Director-General, International Labour Conference, 90th Session, Report VI. Geneva: International Labour Office.

International Labour Organization, 2002b. *International informal sector statistics*. Available: http://www.ilo.org/public/english/bureau/stat/papers/comp.htm

International Labour Organization, 2002c. Women and men in the informal economy, a statistical picture. International Labour Organisation: Geneva.

Khula Enterprise Financial Ltd. Available: http://www.khula.org.za/

Kingdom, G.G. & Knight, J., 2004. Unemployment in South Africa: The nature of the beast. *World Development*: 32(3): 391 – 408.

Muller, C., 2003. Measuring South Africa's informal sector: an analysis of national household surveys. DPRU Working Paper 03/71.

Muller, C. & Posel, D., 2004. Concerns with measuring informal sector employment: an analysis of national household surveys in South Africa, 1993 - 2001. Studies in Economics and Econometrics, 28(1): 1 - 19.

Oosthuizen, M., 2006. The post-apartheid labour market: 1995-2004. DPRU Working Paper 06/103.

Skinner, C., 2002. *Understanding formal and informal economy labour market dynamics: a conceptual and statistical review with reference to South Africa*. Research Report No. 50, School of Development Studies, University of Natal.

The Small Enterprise Development Agency (seda). Available: http://www.thedti.gov.za/thedti/seda2.htm

Yu, D., 2007. The Comparability of the Statistics South Africa October Household Surveys and Labour Force Surveys. Stellenbosch Economic Working Papers: 17/07.

Appendix I Informal sector statistics

Table A1.1 Potential sources of the under-estimation of informal sector employment

Survey	Is the	How is	Is the concept	Does the	Does the questionnaire
	formal/	the	of registration	questionnaire clearly	clearly instruct the
	informal	question	explained on	instruct the	interviewer to read out the
	sector	asked?	the	interviewer to read	note regarding the
	question		questionnaire?	out the meaning of	difference between formal
	asked?			registration to the	and informal sectors to the
				respondents?	respondents?
OHS1995	Α	D	A	С	С
OHS1996	Α	D	A	A	С
OHS1997	В	F	A	A	С
OHS1998	В	F	A	A	С
OHS1999	В	F	A	A	С
LFS2000a	В	Е	С	N/A	С
LFS2000b	В	Е	С	N/A	С
LFS2001a	В	E	С	N/A	С
LFS2001b	В	E	С	N/A	С
LFS2002a	В	E	С	N/A	С
LFS2002b	В	E	С	N/A	С
LFS2003a	В	Е	С	N/A	С
LFS2003b	В	Е	С	N/A	С
LFS2004a	В	Е	С	N/A	С
LFS2004b	В	Е	С	N/A	С
LFS2005a	В	Е	С	N/A	С
LFS2005b	В	Е	С	N/A	С
LFS2006a	В	Е	С	N/A	С
LFS2006b	В	Е	С	N/A	С

A: Yes, to self-employed only

B: Yes, to both self-employed and employees

C: No, to all the respondents who are asked this question

D: Only one question for self-employed to answer; no question asked to employees.

E: Only one question for both self-employed and employees to answer

F: Two separate questions, one for self-employed and one for employees to answer

Table A1.2 The way the formal/informal sector question is asked in the OHS/LFS surveys

Survey	Self-employed	Employees
OHS1995	Now I would like to determine whether the job/business	Employees
01151775	is/was informal or formal (registered). There are several	
	ways of registering a business. Many small businesses	
	do not register at the following offices:	
	- Registrar of companies,	
	- Commissioner of unemployment insurance,	
	- Commissioner of workmen's compensation.	
	Is/was business registered at any of the above-	
	mentioned?	
	1 = Yes	
	2 = No	
OHS1996	Now I would like to determine whether (the person's)	
	job/business is/was formal (registered) or informal	
	(unregistered).	
	READ OUT : There are several ways of registering a	
	business such as, registration at Registrar of companies,	
	Commissioner of unemployment insurance or	
	Commissioner of workmen's compensation. Many small	
	businesses do not register at any of the above offices:	
	[Now ask] Do you consider your work/business to be	
	formal or informal?	
	1 = Formal	
	2 = Informal	
OHS1997-	Now I would like to determine whether (the person's)	If working for someone else is this
OHS1999	job/business is/was formal (registered) or informal	employment (main employment) in:
	(unregistered).	1= the formal sector
	READ OUT: There are several ways of registering a	2= the informal sector (including
	business such as, registration at Registrar of companies,	domestic work)
	Commissioner of unemployment, South African medical	Note: Formal sector employment is
	and dental council or Commissioner of workmen's	where the employer (institution,
	compensation. Many small businesses do not register at	business or private individual) is
	any of the above offices:	registered to perform the activity.
	[Now ask] Do you consider your work/business to be formal or informal?	Informal sector employment is where
	1 = Formal	the registration to perform the activity has not been done)
	2 = Informal	has not been done)
LFS2000a-	Is the organisation/ business/ enterprise/ branch where	works
LFS2000a- LFS2006b	1 = In the formal sector?	WOIRS
11 52000	2 = In the informal sector (including domestic work)?	
	3 = Don't know	
	Formal sector employment is where the employer (insti	itution, business or private individual) is
	registered for VAT to perform the activity. Informal section	
	not registered for VAT.	i i juint i i i i i i i i i i i i i i i i i i

Table A1.3 Breakdown of total employment, 1995 – 2006

	domestic	7 111 01 1011	1 1	subsistence	commercial	don't		Total
	workers	informal	formal	agriculture	agriculture	know	unspecified	employed
OHS1995	695 416	521 668	219 213	26 530	49 546	0	7 986 974	9 499 347
OHS1996	766 334	330 100	304 260	24 687	56 296	0	7 484 630	8 966 307
OHS1997	828 254	1 043 347	6 436 017	187 486	525 618	0	72 925	9 093 647
OHS1998	747 281	1 077 141	6 508 097	202 082	725 474	0	110 055	9 370 130
OHS1999	812 465	1 571 646	6 796 008	284 336	798 905	0	92 783	10 356 143
LFS2000a	1 002 719	1 819 556	6 672 951	1 507 625	756 510	86 472	28 576	11 874 409
LFS2000b	941 463	2 026 065	7 077 307	1 074 413	766 917	108 318	229 923	12 224 406
LFS2001a	844 135	2 836 182	6 798 257	742 404	784 712	214 235	40 282	12 260 207
LFS2001b	881 168	1 964 763	7 019 158	382 241	764 521	127 023	28 667	11 167 541
LFS2002a	875 172	1 821 426	7 089 163	862 747	864 576	74 868	15 446	11 603 398
LFS2002b	843 019	1 778 542	7 173 080	550 068	851 897	61 643	25 675	11 283 924
LFS2003a	885 322	1 827 711	7 223 138	443 426	841 440	57 332	19 252	11 297 621
LFS2003b	894 626	1 901 131	7 364 616	365 378	831 526	36 403	17 671	11 411 351
LFS2004a	845 965	1 764 630	7 473 638	340 515	912 831	25 704	14 934	11 378 217
LFS2004b	880 067	1 944 236	7 684 843	425 083	624 358	52 970	18 639	11 630 196
LFS2005a	848 914	2 068 479	7 741 991	513 022	647 448	27 756	46 710	11 894 320
LFS2005b	858 199	2 459 690	7 979 587	337 884	578 059	33 783	40 596	12 287 798
LFS2006a	849 085	2 187 940	8 051 532	702 881	605 795	14 098	26 632	12 437 963
LFS2006b	884 898	2 376 338	8 376 441	472 697	605 129	46 935	24 847	12 787 285

Table A1.4 Employment type of informal sector workers, 1997 – 2006

	Employee	Self-employed	Unspecified	Total
OHS1997	517 761	525 586	0	1 043 347
OHS1998	486 185	590 956	0	1 077 141
OHS1999	684 908	886 738	0	1 571 646
LFS2000a	607 441	1 211 650	465	1 819 556
LFS2000b	740 677	1 284 252	1 136	2 026 065
LFS2001a	776 680	2 058 695	807	2 836 182
LFS2001b	633 205	1 330 568	990	1 964 763
LFS2002a	585 946	1 235 480	0	1 821 426
LFS2002b	553 441	1 225 101	0	1 778 542
LFS2003a	619 645	1 207 748	318	1 827 711
LFS2003b	625 345	1 275 786	0	1 901 131
LFS2004a	576 490	1 188 140	0	1 764 630
LFS2004b	619 352	1 324 532	352	1 944 236
LFS2005a	757 388	1 311 091	0	2 068 479
LFS2005b	870 047	1 589 643	0	2 459 690
LFS2006a	712 459	1 475 481	0	2 187 940
LFS2006b	794 486	1 581 852	0	2 376 338

Table A1.5 Informal sector employment as percentage of non-agricultural employment by gender and race, 1997 – 2006

		j gender di	Male			Female				
	Black	Coloured	Indian	White	All	Black	Coloured	Indian	White	All
OHS1997	17.3%	11.1%	6.3%	6.2%	13.6%	21.8%	6.8%	4.4%	5.9%	14.5%
OHS1998	16.4%	10.0%	8.1%	6.0%	13.0%	24.2%	7.8%	9.2%	6.4%	16.3%
OHS1999	22.5%	14.4%	11.5%	7.1%	18.1%	28.4%	11.3%	9.8%	8.3%	20.0%
LFS2000a	25.4%	12.5%	11.0%	6.0%	19.2%	36.3%	10.3%	12.7%	7.3%	24.7%
LFS2000b	25.7%	16.6%	13.5%	5.7%	20.4%	36.9%	11.2%	4.9%	6.7%	25.3%
LFS2001a	31.6%	14.7%	14.8%	7.3%	24.5%	50.8%	13.3%	14.5%	8.2%	36.4%
LFS2001b	25.8%	14.6%	7.9%	7.0%	20.0%	36.6%	12.0%	8.0%	5.9%	24.8%
LFS2002a	24.9%	13.0%	8.7%	5.1%	18.9%	34.0%	8.9%	7.3%	5.6%	22.9%
LFS2002b	23.6%	13.5%	7.4%	6.8%	18.4%	34.0%	5.6%	5.0%	5.5%	22.3%
LFS2003a	24.1%	14.7%	8.7%	5.1%	18.7%	33.5%	6.8%	8.1%	7.0%	22.7%
LFS2003b	25.1%	10.5%	9.3%	5.1%	19.0%	34.3%	7.7%	4.7%	5.9%	22.9%
LFS2004a	23.8%	11.7%	6.7%	5.3%	18.2%	31.4%	5.3%	3.2%	4.8%	20.6%
LFS2004b	25.6%	10.7%	10.1%	5.1%	19.8%	31.6%	5.7%	5.3%	3.9%	20.9%
LFS2005a	25.2%	14.8%	10.3%	5.0%	19.9%	34.2%	8.4%	6.5%	4.2%	23.1%
LFS2005b	28.0%	12.9%	9.9%	4.5%	21.7%	38.5%	7.9%	2.6%	4.9%	26.5%
LFS2006a	26.2%	15.6%	6.9%	4.5%	20.5%	33.3%	6.4%	5.4%	5.6%	22.8%
LFS2006b	26.7%	16.5%	11.4%	5.0%	21.5%	33.8%	6.1%	8.2%	3.4%	23.1%

Table A1.6 Summary of general characteristics of the employed, LFS2006b

	Domestic	Informal	Formal	Subsistence	Commercial	All
	workers	sector	sector	agriculture	agriculture	Employed
Type						
Employee	100.0%	33.4%	93.3%	21.5%	89.4%	79.2%
Self-employed	0.0%	66.6%	6.7%	78.6%	10.6%	20.8%
Race		-				
Black	90.9%	88.7%	60.9%	95.2%	64.3%	69.7%
Coloured	8.1%	5.9%	12.4%	2.8%	22.0%	11.1%
Indian	0.0%	1.9%	4.8%	0.4%	0.2%	3.5%
White	1.0%	3.5%	21.8%	1.7%	13.5%	15.7%
<u>Gender</u>		-				
Male	1.9%	59.6%	61.8%	51.7%	67.9%	57.2%
Female	98.1%	40.4%	38.2%	48.3%	32.1%	42.8%
Province						
WC	11.8%	8.4%	16.5%	1.3%	23.1%	14.4%
EC	10.5%	14.2%	8.3%	37.3%	8.5%	10.6%
NC	2.7%	1.0%	2.4%	2.3%	7.6%	2.4%
FS	7.0%	5.6%	6.2%	2.3%	9.2%	6.1%
KZN	18.0%	20.3%	17.8%	42.7%	15.3%	19.0%
NW	7.6%	5.8%	6.4%	3.3%	6.9%	6.3%
GAU	28.0%	27.4%	31.0%	2.9%	7.5%	28.0%
MPU	8.3%	8.3%	6.3%	4.0%	13.9%	7.1%
LIM	6.1%	8.9%	5.3%	4.0%	8.1%	6.1%
Education						
% of workers with at least Matric	11.3%	21.3%	57.2%	9.3%	18.4%	43.6%
Mean education yrs	7.14	7.98	10.85	5.78	7.07	9.68

Table A1.7 Working conditions of employed, LFS2006b

Table A1.7 Working	Domestic Domestic				Camma	A 11
		Informal sector	Formal sector	Subsistence	Commercial agriculture	All employed
Work location	workers	sector	sector	agriculture	agriculture	empioyea
Owner's home/farm	14.3%	41.0%	3.5%	74.0%	76.2%	17.4%
Someone else's home	83.4%	17.9%	1.1%	15.0%	1.6%	10.5%
Factory/Office	1.8%	4.1%	62.9%	0.5%	15.3%	43.0%
Service outlet	0.2%	6.2%	29.5%	0.3%	2.0%	20.7%
At a market	0.2%	0.5%	0.2%	0.3%	0.0%	0.2%
		6.2%		5.5%		
Footpath, street No fixed location	0.0%		1.0%	3.5% 4.5%	2.6%	2.1%
	0.3%	24.1%	1.7%		1.9%	6.0%
Others	0.0%	0.1%	0.1%	0.2%	0.4%	0.1%
Firm size	02.20	52.0 %	2.70	40.10	2.10	10.60
1 worker	82.3%	53.9%	2.7%	48.1%	2.1%	19.6%
2-4 workers	14.3%	30.4%	8.0%	36.6%	10.6%	13.8%
5-9 workers	1.8%	6.4%	11.3%	5.4%	10.9%	9.5%
10-19 workers	0.8%	4.7%	16.6%	3.9%	20.5%	13.1%
20-49 workers	0.6%	2.9%	20.8%	2.7%	24.7%	15.5%
50 or more	0.1%	1.7%	40.6%	3.3%	31.3%	28.6%
Written contract with em						
Yes	26.5%	20.1%	83.7%	23.2%	62.1%	71.9%
No	73.6%	79.9%	16.3%	76.8%	37.9%	28.1%
Job length***						
permanent	49.1%	28.5%	78.1%	47.0%	67.0%	70.8%
fixed period contract	2.6%	7.5%	6.1%	2.9%	2.8%	5.7%
temporary	31.6%	37.5%	9.1%	31.7%	16.4%	13.9%
casual	16.5%	25.4%	6.5%	13.8%	5.5%	8.9%
seasonal	0.2%	1.1%	0.2%	4.6%	8.3%	0.7%
Tenure***						
0-1 year	30.6%	41.9%	21.9%	29.7%	27.4%	24.7%
1-2 years	13.2%	14.7%	11.6%	13.1%	9.4%	11.9%
2-3 years	8.0%	7.8%	8.2%	10.0%	6.9%	8.1%
3-5 years	12.9%	9.3%	12.5%	15.1%	12.9%	12.3%
5-10 years	19.3%	15.3%	18.9%	11.5%	20.6%	18.7%
10-20 years	12.1%	7.4%	16.8%	14.7%	15.5%	15.6%
More than 20 years	4.0%	3.7%	10.1%	5.9%	7.3%	8.8%
Union membership***				<u> </u>		
Yes	1.8%	3.5%	37.3%	1.2%	9.4%	29.6%
No	98.3%	96.5%	62.7%	98.8%	90.6%	70.4%
Supervision of work***	, , , , , ,		1	, 2.2.0	2 2.2 /0	, 5 76
Work supervised	79.5%	81.8%	92.4%	76.6%	93.8%	90.4%
Work independently	20.5%	18.2%	7.7%	23.4%	6.2%	9.6%
Paid leave***	20.5 70	10.270	7.770	23.170	0.270	2.070
Yes	22.2%	12.4%	72.8%	17.1%	41.9%	61.4%
No	77.8%	87.6%	27.2%	82.9%	58.1%	38.6%
110	77.570	07.070	27.270	02.770	30.170	30.070

Table A1.7 Continued

	Domestic	Informal	Formal	Subsistence	Commercial	All
	workers	sector	sector	agriculture	agriculture	employed
Retirement fund contrib	utions by empl	oyer***				
Yes	7.6%	6.7%	63.9%	8.1%	24.3%	51.7%
No	92.4%	93.3%	36.2%	91.9%	75.7%	48.3%
UIF deductions						
Yes	24.1%	4.3%	71.6%	5.3%	63.4%	52.8%
No	75.9%	95.7%	28.4%	94.7%	36.6%	47.2%
Medical aid						
Yes, self only	0.2%	0.7%	9.0%	1.2%	2.4%	6.2%
Yes, self & dependants	0.8%	1.3%	22.7%	1.4%	7.1%	15.6%
Yes, but not using it	0.0%	0.1%	5.4%	0.1%	1.5%	3.6%
No	98.9%	98.0%	63.0%	97.4%	89.0%	74.6%
Registered as company/c	e <u>c</u>					
Yes	4.7%	7.0%	87.6%	7.2%	94.0%	64.1%
No	95.3%	93.0%	12.4%	92.8%	6.0%	35.9%
Registration for VAT						
Yes	2.7%	3.7%	82.0%	6.3%	93.0%	59.5%
No	97.3%	96.3%	18.0%	93.7%	7.0%	40.5%
Registration for income t	tax			,		
Yes	3.7%	4.9%	82.4%	7.9%	92.5%	59.5%
No	96.3%	95.1%	17.6%	92.1%	7.5%	40.5%
Flexible work hours				,		
Can decide fully	5.6%	62.9%	8.5%	76.6%	11.9%	21.2%
Within a limited range	4.1%	7.5%	3.8%	4.1%	2.1%	4.5%
Fixed by employer	90.3%	29.6%	87.6%	19.2%	85.9%	74.4%
Usual weekly work hours	<u>s</u>					
Mean	39.19	45.17	45.65	27.65	48.90	44.61
Standard deviation	15.70	20.32	11.53	20.17	11.60	14.74
Willing to work longer						
Yes	18.9%	26.2%	14.3%	18.6%	12.1%	16.9%
No	81.2%	73.8%	85.7%	81.4%	87.9%	83.1%

*** Only the employees could answer the question.

Note: only negligible proportion (less than 1%) of respondents give 'I don't know' as the answer in most of the questions, and these answers are excluded from the tabulation.

Table A1.8 Broad occupation categories of the informal sector workers, 1997 – 2006

	A	В	C	D	E	F	G	Н	I
OHS1997	6.0%	2.2%	5.1%	2.8%	15.1%	7.1%	27.6%	8.7%	25.4%
OHS1998	6.9%	1.3%	5.1%	3.3%	24.2%	0.8%	27.0%	7.3%	24.2%
OHS1999	5.2%	1.3%	5.4%	3.4%	17.4%	7.4%	25.9%	6.7%	27.4%
LFS2000a	4.0%	1.1%	4.7%	2.2%	21.6%	8.5%	22.8%	5.8%	29.5%
LFS2000b	3.3%	0.9%	4.7%	1.6%	19.4%	8.1%	25.1%	5.9%	31.1%
LFS2001a	3.0%	0.9%	4.9%	1.6%	23.3%	5.8%	19.4%	4.2%	36.9%
LFS2001b	3.6%	1.0%	4.7%	1.7%	19.9%	7.2%	25.5%	4.5%	31.9%
LFS2002a	4.2%	0.7%	3.8%	1.3%	19.1%	9.9%	23.4%	4.6%	33.0%
LFS2002b	3.4%	1.1%	4.4%	1.6%	17.3%	9.6%	25.4%	4.6%	32.6%
LFS2003a	3.1%	1.9%	4.4%	1.1%	16.3%	0.1%	21.7%	6.5%	44.9%
LFS2003b	4.5%	1.2%	4.5%	1.6%	16.0%	0.2%	23.7%	5.2%	43.3%
LFS2004a	3.1%	1.3%	5.3%	1.9%	14.8%	0.0%	23.7%	5.9%	44.1%
LFS2004b	4.1%	0.6%	3.4%	1.3%	16.8%	0.2%	26.2%	4.7%	42.9%
LFS2005a	3.1%	0.9%	4.6%	1.5%	16.3%	0.2%	24.2%	5.1%	44.1%
LFS2005b	4.0%	0.9%	4.3%	1.4%	17.0%	0.2%	22.9%	4.8%	44.7%
LFS2006a	3.3%	0.8%	4.3%	1.2%	17.4%	0.1%	23.7%	5.1%	44.1%
LFS2006b	2.9%	0.8%	4.6%	0.9%	15.9%	0.0%	28.2%	5.2%	41.4%

Skilled: A: Legislators, senior officials and managers

B: Professionals

C: Technicians and associate professionals

Semi-skilled: D: Clerks

E: Service workers and shop and market sales F: Skilled agricultural and fishery workers

G: Craft and related trade workers

H: Plant and machinery operators and assemblers

Unskilled: I: Elementary occupations

Table A1.9 Broad industry categories of informal sector workers, 1997 – 2006

						,			
	A	В	С	D	E	F	G	Н	I
OHS1997	0.8%	12.3%	0.2%	16.3%	37.6%	8.1%	4.3%	9.9%	10.5%
OHS1998	0.4%	11.3%	0.4%	15.5%	49.2%	7.6%	4.7%	9.4%	1.4%
OHS1999	0.3%	11.6%	0.2%	15.4%	44.3%	6.0%	3.5%	9.9%	8.8%
LFS2000a	0.2%	9.8%	0.1%	10.8%	52.9%	5.4%	3.4%	8.7%	8.6%
LFS2000b	0.5%	11.8%	0.1%	13.5%	48.7%	5.2%	2.5%	8.9%	8.9%
LFS2001a	0.1%	9.5%	0.2%	8.8%	57.7%	5.0%	3.9%	9.0%	5.8%
LFS2001b	0.2%	10.4%	0.1%	14.0%	50.3%	5.4%	4.0%	8.7%	7.1%
LFS2002a	0.2%	10.4%	0.1%	13.2%	49.5%	5.2%	3.4%	7.9%	10.2%
LFS2002b	0.2%	10.5%	0.0%	13.2%	46.3%	5.7%	4.5%	10.2%	9.5%
LFS2003a	0.2%	10.3%	0.3%	11.3%	47.1%	6.6%	4.7%	8.5%	11.2%
LFS2003b	0.1%	10.2%	0.1%	14.0%	47.4%	6.5%	3.7%	9.0%	9.1%
LFS2004a	0.2%	10.1%	0.2%	13.4%	46.3%	7.1%	4.1%	8.9%	9.6%
LFS2004b	0.0%	11.3%	0.0%	16.3%	45.4%	6.2%	3.1%	8.3%	9.4%
LFS2005a	0.4%	10.6%	0.2%	14.2%	45.5%	6.4%	3.5%	8.9%	10.3%
LFS2005b	0.1%	10.4%	0.1%	14.1%	48.9%	6.3%	3.0%	9.3%	7.9%
LFS2006a	0.1%	9.4%	0.1%	14.3%	47.5%	6.3%	3.0%	8.8%	10.3%
LFS2006b	0.1%	10.2%	0.1%	17.8%	44.6%	5.9%	3.6%	9.2%	8.5%

A: Mining/Quarrying

B: Manufacturing

C: Electricity/Gas/Water supply

D: Construction

E: Wholesale/Retail

F: Transport/Storage/Communication

G: Financial/Insurance/Business services

H: Community/Social/Personal services

I: Private households

Table A1.10 Income declaration of informal sector workers, 1997 – 2006

	Empl	loyee	Self-em	ployed	All em	oloyed
	Actual	Income	Actual	Income	Actual	Income
	amount	category	amount	category	amount	category
OHS1997	75.6%	24.4%	74.0%	26.0%	74.8%	25.2%
OHS1998	70.3%	29.7%	60.6%	39.4%	65.2%	34.8%
OHS1999	57.6%	42.4%	47.0%	53.1%	51.6%	48.4%
LFS2000a	87.0%	13.0%	71.5%	28.5%	76.7%	23.3%
LFS2000b	92.1%	7.9%	78.9%	21.1%	83.8%	16.2%
LFS2001a	83.8%	16.2%	75.9%	24.1%	78.1%	22.0%
LFS2001b	86.5%	13.5%	70.7%	29.3%	75.9%	24.1%
LFS2002a	85.1%	14.9%	68.0%	32.0%	73.6%	26.4%
LFS2002b	84.7%	15.3%	69.7%	30.3%	74.4%	25.6%
LFS2003a	87.8%	12.2%	72.9%	27.2%	78.0%	22.0%
LFS2003b	82.5%	17.5%	63.1%	36.9%	69.6%	30.4%
LFS2004a	84.7%	15.3%	68.7%	31.3%	73.9%	26.1%
LFS2004b	84.3%	15.7%	71.2%	28.9%	75.4%	24.6%
LFS2005a	86.4%	13.7%	68.5%	31.5%	75.2%	24.8%
LFS2005b	86.2%	13.8%	73.5%	26.5%	78.0%	22.0%
LFS2006a	88.6%	11.4%	73.1%	26.9%	78.2%	21.8%
LFS2006b	88.9%	11.1%	71.9%	28.1%	77.7%	22.3%

Table A1.11 Proportion of informal sector workers giving peculiar earnings values, 1997-2006

	1777 2000				
		Undeclared		Declared earnings	5
	All	earnings	R0	(R0; R83,334)	$[R83,334; +\infty)$
OHS1997	1 043 347	6.8%	0.5%	92.7%	0.0%
OHS1998	1 077 141	10.6%	0.4%	88.9%	0.1%
OHS1999	1 571 646	11.5%	0.4%	88.0%	0.1%
LFS2000a	1 819 556	7.9%	6.2%	85.9%	0.0%
LFS2000b	2 026 065	4.4%	5.5%	90.0%	0.0%
LFS2001a	2 836 182	4.2%	5.0%	90.8%	0.0%
LFS2001b	1 964 763	4.6%	5.2%	90.2%	0.0%
LFS2002a	1 821 426	4.6%	5.2%	90.1%	0.0%
LFS2002b	1 778 542	5.0%	4.6%	90.4%	0.0%
LFS2003a	1 827 711	3.7%	2.5%	93.8%	0.0%
LFS2003b	1 901 131	5.3%	5.5%	89.2%	0.0%
LFS2004a	1 764 630	4.1%	3.4%	92.5%	0.0%
LFS2004b	1 944 236	4.1%	4.1%	91.8%	0.0%
LFS2005a	2 068 479	4.2%	3.6%	92.1%	0.0%
LFS2005b	2 459 690	3.0%	4.1%	93.0%	0.0%
LFS2006a	2 187 940	4.0%	3.2%	92.8%	0.0%
LFS2006b	2 376 338	3.8%	4.8%	91.4%	0.0%

Table A1.12 Racial share of the total real monthly earnings of informal sector

	Total re	al monthly e	8	Percentage	e of total			
	Black	Coloured	Indian	White	Black	Coloured	Indian	White
OHS1997	15 874	2 073	520	7 344	61.5%	8.0%	2.0%	28.5%
OHS1998	14 570	2 579	1 343	4 691	62.8%	11.1%	5.8%	20.2%
OHS1999	16 728	2 241	1 849	7 098	59.9%	8.0%	6.6%	25.4%
LFS2000a	14 091	1 306	1 029	5 599	64.0%	5.9%	4.7%	25.4%
LFS2000b	18 780	2 151	843	5 901	67.9%	7.8%	3.0%	21.3%
LFS2001a	26 112	2 003	1 552	6 982	71.3%	5.5%	4.2%	19.1%
LFS2001b	15 082	2 201	850	7 002	60.0%	8.8%	3.4%	27.9%
LFS2002a	13 494	1 485	1 063	4 052	67.2%	7.4%	5.3%	20.2%
LFS2002b	12 989	1 440	860	5 774	61.7%	6.8%	4.1%	27.4%
LFS2003a	13 393	1 593	941	5 997	61.1%	7.3%	4.3%	27.4%
LFS2003b	14 244	1 235	1 643	5 207	63.8%	5.5%	7.4%	23.3%
LFS2004a	14 528	1 584	794	6 288	62.6%	6.8%	3.4%	27.1%
LFS2004b	17 951	1 402	1 086	5 166	70.1%	5.5%	4.2%	20.2%
LFS2005a	18 508	1 841	942	4 828	70.9%	7.0%	3.6%	18.5%
LFS2005b	21 328	2 053	982	3 251	77.2%	7.4%	3.6%	11.8%
LFS2006a	19 145	2 369	853	2 966	75.6%	9.4%	3.4%	11.7%
LFS2006b	21 433	2 187	1 037	3 513	76.1%	7.8%	3.7%	12.5%

Table A1.13 Total informal sector earnings as percentage of total non-agricultural earnings by race, 1997 – 2006

	Black	Coloured	Indian	White	All
OHS1997	13.5%	7.8%	3.1%	5.1%	8.5%
OHS1998	12.3%	8.3%	8.1%	3.3%	7.6%
OHS1999	13.0%	7.3%	10.0%	4.5%	8.3%
LFS2000a	13.1%	4.6%	6.6%	3.9%	7.6%
LFS2000b	14.4%	6.9%	5.2%	3.8%	8.3%
LFS2001a	20.7%	6.5%	9.5%	4.9%	11.8%
LFS2001b	12.4%	7.3%	4.5%	4.5%	7.6%
LFS2002a	10.9%	5.0%	6.0%	2.6%	6.2%
LFS2002b	9.9%	4.8%	4.8%	3.7%	6.3%
LFS2003a	10.8%	5.2%	5.1%	3.9%	6.8%
LFS2003b	10.6%	3.8%	7.9%	3.0%	6.1%
LFS2004a	10.3%	4.3%	3.3%	3.8%	6.3%
LFS2004b	12.1%	4.1%	4.9%	3.1%	6.9%
LFS2005a	11.8%	5.1%	4.1%	2.9%	6.9%
LFS2005b	12.7%	5.1%	4.7%	2.0%	7.2%
LFS2006a	11.8%	6.3%	4.0%	2.0%	6.8%
LFS2006b	12.0%	6.8%	4.6%	2.5%	7.5%

Appendix II Analysis of the formal-informal sector index in LFS2004a by Devey et al.

Devey et al. (2006b: 315 - 316) focus on the worker characteristics and use 13 indicators (see Table A2.1) to derive a formal-informal index (in other words, the maximum value of the index is 13). Their aim is to find out the proportion of informal sector workers displaying formal-sector characteristics, as well as the proportion of formal sector workers with informal-sector characteristics. The result in LFS2004a is shown in Table A2.2.

Table A2.1 The 13 indicators used to derive the formal-informal sector index

Question number***	Index = 1	Index = 0
4.4: number of employers	(1): one employer	???
	(2): more than one employer	
4.6: permanence of work	(1): permanent	(2): fixed period contract
		(3): temporary
		(4): casual
		(5): seasonal
4.8: written contract with employer	(1): yes	(2): no
4.10: who pays wage	(1): employer	(4): other
	(2): labour broker	
	(3): contractor or agency	
4.11: employer contributes to pension of	(1): yes	(2): no
retirement fund	•	
4.12: paid leave	(1): yes	(2): no
4.13: membership of trade union	(1): yes	(2): no
4.16 number of regular workers in enterprise	(6): 50 or more	(1): 1
		(2): 2 – 4
		(3): 5 – 9
		(4): 10 – 19
		(5): 20 – 49
4.17a: works for a registered company or	(1): yes	(2): no
close corporation		
4.17b: employer makes UIF deductions	(1): yes	(2): no
4.17c: employer makes medical aid or health	(1): yes, for himself only	(3): no medical aid benefits
insurance payments	(2): yes, for himself and his	provided
• •	dependents	
4.17d: enterprise is registered to pay VAT	(1): yes	(2): no
4.19: location of work	(3): inside a formal business	(1): in the owner's home
	premises	(2): in someone else's home
	(4): at a service outlet	(5): at a market
		(6): on a footpath or street
		(7): no fixed location

^{***} The question number refers to the LFS2004a questionnaire.

Table A2.2 Formal-informal index for formal and informal workers by Devey et al.

	Status (Using the Stats SA enterprise registration methodology)						
Index score	For	Formal		Informal			
13	574 626	7.3%	398	0.0%			
12	1 205 941	15.4%	5 126	0.3%			
11	1 333 428	17.0%	7 714	0.4%			
10	1 341 682	17.1%	7 561	0.4%			
9	939 984	12.0%	12 491	0.7%			
8	589 071	7.5%	8 250	0.4%			
7	404 610	5.2%	15 689	0.9%			
6	373 774	4.8%	23 055	1.3%			
5	383 909	4.9%	46 482	2.5%			
4	251 509	3.2%	67 655	3.7%			
3	226 719	2.9%	160 172	8.7%			
2	133 597	1.7%	265 126	14.5%			
1	41 353	0.5%	106 194	5.8%			
0	27 048	0.3%	1 107 701	60.4%			
Total ⁵²	7 827 251	100.0%	1 833 614	100.0%			

Source: Devey et al., 2006: 316

Critique of Devey et al's analysis

- 1. For question 4.4 (number of employers), there are only 2 options available: '(1): one employer' or '(2): more than one employer'. Devey et al. allocate an index value of 1 on both options, and this seems to imply that as long as long the employed give definite answer, they are assured to get 1 mark (99.82% of employees specified their answer in LFS2004a). So, does that mean that only those (a tiny 0.18% of employees) who did not specify their answers on this question will be allocated a value of 0? Devey et al. only mention that if the respondents' answer is 'other' in 4.4, the index value is 0 (Devey et al., 2006b: 321), but no explanation is given on what 'other' means, and there is no 'other' option in the questionnaire.
- 2. If the respondents' answers in some of the questions are 'I don't know' or 'unspecified', what would happen to the index value? Are they assigned a value of 0 or 1? Devey et al. do not provide any explanation.
- 3. If the respondent is self-employed⁵³ (i.e., his answer in 4.3 is either option (3), (4) or (5)), he/she is not allowed to take part in questions 4.4 4.13, and his/her answers for these questions are coded as '(8): not applicable'. In other words, the self-employed's answers in the first 7 indicators in Table A1.1 are '(8): not applicable'. However, Devey et al. do not provide any explanation on the respondents' index value in these indicators.

⁵² The employment figures by Devey et al. (formal sector employment: 7,827,251; informal sector employment: 1,833,614) are different than the authors' figures (formal sector employment: 7,473,638; informal sector employment:

^{1,833,614)} are different than the authors' figures (formal sector employment: 7,473,638; informal sector employment: 1,764,630), because the LFS2000b – LFS2005a data were re-weighted using the Census 2001 weight only after the Devey et al. article was released, so it seems the LFS2004a data used by Devey et al. were still weighted with Census 1996 weights.

⁵³ See footnote 17 for more information on how the self-employed are derived.

If they assume a value of 0 in each of these 7 indicators, then even if a self-employed worker gets a value of 1 in each of the remaining 6 questions, his total index score could only be 6 (and one would mistakenly think that the worker displays strong informal-sector characteristics due to the low total index score). However, if the authors assume a value of 1 in each of these indicators, then all these self-employed are assured of a minimum total index value of 6.

So, it seems that if all 13 indicators are used to derive the index, the index would only be useful to distinguish informal sector employees (since only employees are asked to answer all 13 questions). However, Devey et al. definitely included **both** self-employed and employees in Table A2.2 (in Table 15.1, page 304 of their article, the total formal and informal sector employment figures for LFS2004a are exactly the same as those on Table A2.2, so they did not exclude some of the employed for the formal-informal sector index).

Table A2.3 shows the formal-informal index for employees only, using the LFS2004a data that are weighted using the Census 2001 weights, and assuming that the index value for each indicator is zero, if the respondent's answer on the question concerned is 'I don't know' or 'unspecified'.

For example, if one defines the employee with the index equal to or smaller than 5 as an informal sector worker, then 7.7% of employees (534 650 people in total) defined as formal sector workers under the Stats SA enterprise registration methodology are now regarded as informal sector workers. Similarly, 87.4% of employees (504 071 people in total) defined as informal sector workers under the Stats SA methodology are still regarded as informal sector workers under the formal-informal index methodology. Therefore, the total number of informal sector employees in LFS2004a under the formal-informal index methodology would be 1 038 721 (compared with 576 490, under the Stats SA methodology), as shown in Figure A2.1.

Table A2.3 Formal-informal index for formal and informal sector employees, using the Devey et al. methodology

		memodology					
	Statı	us (Using the S	Stats SA enterp	rise registrati	on methodolog	gy)	
	Forma	al sector emplo	yees	Informal sector employees			
Index score	Number of people	Percentage	Cumulative percentage	Number of people	Percentage	Cumulative percentage	
0	163	0.0%	0.0%	1 463	0.3%	0.3%	
1	2 990	0.0%	0.0%	4 450	0.8%	1.0%	
2	17 591	0.3%	0.3%	258 030	44.8%	45.8%	
3	63 929	0.9%	1.2%	139 057	24.1%	69.9%	
4	132 277	1.9%	3.1%	59 921	10.4%	80.3%	
5	317 700	4.6%	7.7%	41 150	7.1%	87.4%	
6	354 686	5.1%	12.8%	22 180	3.8%	91.3%	
7	394 000	5.7%	18.5%	12 489	2.2%	93.5%	
8	578 860	8.3%	26.9%	8 996	1.6%	95.0%	
9	937 298	13.5%	40.4%	11 301	2.0%	97.0%	
10	1 261 047	18.2%	58.6%	6 267	1.1%	98.1%	
11	1 244 494	17.9%	76.5%	6 5 1 9	1.1%	99.2%	
12	1 092 388	15.8%	92.3%	4 364	0.8%	99.9%	
13	536 504	7.7%	100.0%	303	0.1%	100.0%	
Total	6 933 927	100.0%		576 490	100.0%		

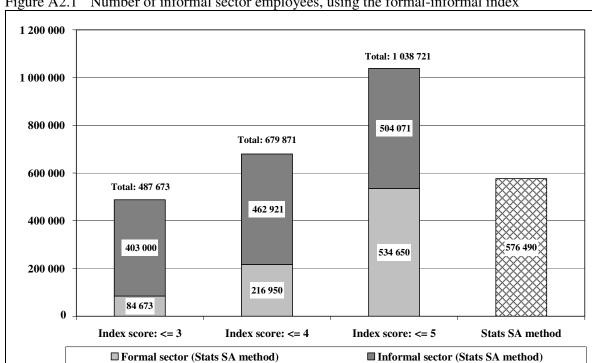


Figure A2.1 Number of informal sector employees, using the formal-informal index

To conclude, the formal-informal index proposed by Devey et al., which defines an informal sector worker based on work characteristics, may be a more suitable and accurate method for estimating the number of informal sector workers.

Appendix III Reasons for the over-representation of informal sector in LFS2001a

Devey, Skinner & Valodia, I., (2003: 14-19 & 2006b: 307-308) claim that there are three possible reasons for the over-estimation of informal sector employment in LFS2001a. First, there has been an inordinately high share of female informal employment. Table A3.1 supports this argument, as LFS2001a is the only survey where the female share of informal sector employment exceeds 50% (but only at 51%). In fact, the female numbers have increased by almost 600,000. However, the male numbers also show an abrupt increase of more than 200,000 in LFS2001a, followed by a decline also by about 200,000 in LFS2002b. Therefore, it might not be true to say that the increase of informal sector employment in LFS2001a is only caused entirely by the sudden rise of the *female* numbers.

Table A3.1 Informal sector employment by gender

		Numbers			Share	
	Male	Female	Total	Male	Female	Total
OHS1997	664 847	378 500	1 043 347	64%	36%	100%
OHS1998	622 105	455 036	1 077 141	58%	42%	100%
OHS1999	936 835	634 811	1 571 646	60%	40%	100%
LFS2000a	973 986	845 570	1 819 556	54%	46%	100%
LFS2000b	1 155 157	870 908	2 026 065	57%	43%	100%
LFS2001a	1 383 933	1 452 249	2 836 182	49%	51%	100%
LFS2001b	1 096 762	868 001	1 964 763	56%	44%	100%
LFS2002a	1 033 979	787 447	1 821 426	57%	43%	100%
LFS2002b	1 027 736	750 510	1 778 246	58%	42%	100%
LFS2003a	1 038 894	788 462	1 827 356	57%	43%	100%
LFS2003b	1 081 203	819 928	1 901 131	57%	43%	100%
LFS2004a	1 040 532	724 098	1 764 630	59%	41%	100%
LFS2004b	1 186 256	757 768	1 944 024	61%	39%	100%
LFS2005a	1 210 919	857 560	2 068 479	59%	41%	100%
LFS2005b	1 381 395	1 078 295	2 459 690	56%	44%	100%
LFS2006a	1 293 490	894 383	2 187 873	59%	41%	100%
LFS2006n	1 415 777	960 470	2 376 247	60%	40%	100%

Secondly, Devey et al. (2003) argue that the informal sector employment is unusually high in KwaZulu-Natal. Table A3.2 shows that the KwaZulu-Natal share indeed increased (from 18.5% to 22.6%) between LFS2000b and LFS2001a, and employment increased by 267 038. However, looking at the absolute change, Gauteng employment increased rapidly by 193 609, which accounts for almost a quarter of the increase of informal sector employment. Moreover, five provinces (including KwaZulu-Natal and Gauteng) showed a percentage increase of at least 40% between the two surveys. Thus, KwaZulu-Natal is not the only province causing the abrupt increase of informal sector employment in LFS2001a.

Table A3.2 Informal sector employment by province

	LFS2	000b	LFS2	001a	Change	
	Number	Share	Number	Share	Absolute	Percentage
Western Cape	181 636	9.0%	179 287	6.3%	-2 349	-1%
Eastern Cape	278 794	13.8%	322 352	11.4%	43 558	16%
Northern Cape	25 308	1.2%	27 058	1.0%	1 750	7%
Free State	111 570	5.5%	170 308	6.0%	58 738	53%
KwaZulu-Natal	374 491	18.5%	641 529	22.6%	267 038	71%
North West	146 469	7.2%	225 062	7.9%	7 593	54%
Gauteng	469 153	23.2%	662 762	23.4%	19 609	41%
Mpumalanga	174 058	8.6%	237 849	8.4%	63 791	37%
Limpopo	264 586	13.1%	369 975	13.0%	105 389	40%
South Africa	2 026 065	100.0%	2 836 182	100.0%	810 117	40%

Thirdly, there has been a sudden increase of informal sector employment in the wholesale and retail industry in LFS2001a of 653 544 (followed by a decrease of 646 468 in the next survey), as shown in Table A3.3. Looking at the detailed industry category, this sudden increase in wholesale and retail employment is caused mainly by the sub-category 'retail trade not in stores', as the number of informal sector workers in this sub-category increased by 557 475 (from 653 181 to 1 210 656). Consequently, Devey et al's third reason is fully agreed with.

Table A3.3 Informal sector employment, wholesale and retail industry

	Number	Change
OHS1997	363 426	
OHS1998	520 643	157 217
OHS1999	685 696	165 053
LFS2000a	961 376	275 680
LFS2000b	980 480	19 104
LFS2001a	1 634 024	653 544
LFS2001b	987 556	-646 468
LFS2002a	901 092	-86 464
LFS2002b	820 420	-80 672
LFS2003a	860 025	39 605
LFS2003b	899 472	39 447
LFS2004a	816 545	-82 927
LFS2004b	881 732	65 187
LFS2005a	940 885	59 153
LFS2005b	1 202 654	74 102
LFS2006a	1 040 052	66 038
LFS2006b	1 059 584	86 493

Appendix IV International comparison of informal sector statistics

Table A4.1 International informal sector employment statistics

	Last available year	% of total employment	Sector excluded	Domestic workers	Age limit	Area						
AFRICA												
Botswana	1996	12.3	Agriculture	Included	12 and over	All						
Ethiopia***	1999	50.2	Agriculture	Excluded	Not explained	All						
Ghana	1997	89.0	None	Included	15 and over	All						
Mali	1996	94.1	Agriculture	Not explained	Not explained	All						
Tanzania	1991	22.0	Agriculture, livestock and fishing	Included	10 and over (except operators: 15 and over)	All						
Zimbabwe	1987	8.8	None	Included	15 and over	All						
South Africa (a)	1999	18.8	Agriculture	Excluded	15-65	All						
South Africa (b)	1999	25.8	None	Included	15-65	All						
South Africa (c)	1999	26.0	Agriculture	Included	15-65	All						
			ATIN AMERIC									
Barbados	1998	5.9	None	Included	15 and over	All						
Brazil	1997	34.6	Agriculture	Excluded	10 and over	Urban						
Mexico	1999	31.9	Agriculture	Included	12 and over	Cities with 100,000+ inhabitants						
			ASIA									
India***	2000	45.8	Agriculture	Excluded	Not explained	All						
Nepal	1999	73.3	Agriculture	Included	15 and over	All						
Pakistan	1997	64.6	Agriculture	Not explained	Not explained	All						
Turkey***	2000	11.2	Agriculture	Excluded	Not explained	All						
Turkmenistan	1999	6.8	None	Excluded	Not explained	All						
		CENTRAL	AND EASTER	N EUROPE								
Georgia***	1999	3.0	Agriculture	Excluded	Not explained	All						
Kazakhstan	1995	11.7	None	Included	None	All						
Kyrgyzstan	1999	24.9	Agriculture	Included	None	All						
Latvia***	1999	14.5	Agriculture	Excluded	Not explained	All						
Lithuania	2000	72.2	None	Included	15 and over	All						
Macedonia	1999	27.8	None	Included	15-80	Unspecified						
Poland	1998	7.5	None	Included	15 and over	All						
Russia***	2001	5.5	Agriculture	Excluded	Not explained	All						
Slovakia	1999	23.0	Agriculture	Excluded	None	All						

Source: ILO, 2002b and own calculations from OHS1999.

^{***} Using the harmonized definition of informal sector. For the other countries, the national definition of informal sector is used. The harmonized definition of the informal sector covers 'private unincorporated enterprises (excluding quasi corporations), which produce at least some of their goods or services for sale or barter, have less than five paid employees, are not registered, and are engaged in non-agricultural activities (including professional or technical activities). Households employing paid domestic employees are excluded' (ILO 2002b). The harmonized definition aims at making internationally comparable data available (but the table above clearly shows that not all countries adopt this definition).

Appendix V Ratio of informal sector employment to unemployment

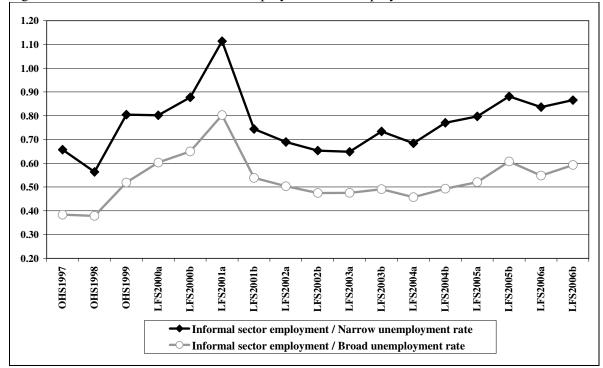
Table A5.1 Unemployment rate and informal employment

	A	В	С	D	E		A/B	A/C	A/D	A/E
OHS1997	14.0%	21.2%	36.4%	19.5%	30.0%		0.66	0.38	0.72	0.47
OHS1998	14.2%	25.2%	37.5%	22.8%	32.6%	İ	0.56	0.38	0.62	0.44
OHS1999	18.8%	23.3%	36.2%	21.7%	31.7%		0.80	0.52	0.87	0.59
LFS2000a	21.4%	26.7%	35.6%	28.5%	35.0%		0.80	0.60	0.75	0.61
LFS2000b	22.3%	25.4%	34.3%	25.8%	32.1%		0.88	0.65	0.86	0.69
LFS2001a	29.4%	26.4%	36.7%	27.0%	33.9%		1.11	0.80	1.09	0.87
LFS2001b	21.9%	29.4%	40.6%	28.5%	35.7%		0.74	0.54	0.77	0.61
LFS2002a	20.4%	29.7%	40.6%	29.6%	37.0%		0.69	0.50	0.69	0.55
LFS2002b	19.9%	30.4%	41.9%	30.0%	37.4%		0.65	0.47	0.66	0.53
LFS2003a	20.2%	31.2%	42.5%	30.5%	37.4%		0.65	0.48	0.66	0.54
LFS2003b	20.5%	28.0%	41.8%	27.6%	36.5%		0.73	0.49	0.74	0.56
LFS2004a	19.1%	27.9%	41.8%	27.5%	36.2%		0.68	0.46	0.69	0.53
LFS2004b	20.2%	26.2%	41.0%				0.77	0.49		
LFS2005a	21.1%	26.5%	40.5%				0.80	0.52		
LFS2005b	23.6%	26.7%	38.8%				0.88	0.61		
LFS2006a	21.4%	25.6%	39.0%	•			0.84	0.55		
LFS2006b	22.1%	25.5%	37.3%				0.87	0.59		

Note: the urban-rural variable is no longer available since LFS2004b.

- A: Employment rate in the informal sector (i.e., informal sector employment as % of non-agricultural employment)
- B: Narrow unemployment rate
- C: Broad unemployment rate
- D: Narrow unemployment rate in urban areas
- E: Broad unemployment rate in urban areas

Figure A5.1 Ratio of informal sector employment to unemployment



Appendix VI Detailed occupation categories of informal sector workers, selected years

Table A6.1 Top ten detailed occupation categories of informal sector employment, selected years

OHS1997	<u>U</u>	OHS1999	
Street non-food vendors	7.95%	Street food vendors	14.35%
Street food vendors	7.30%	Gardeners/Horticultural/Nursery growers	7.22%
Gardeners/Horticultural/Nursery growers	6.49%	Street non-food vendors	4.79%
Bricklayers and stonemasons	5.65%	Shop salespersons and demonstrators	4.32%
Taxi driver, minibus taxi driver	5.42%	Bricklayers and stonemasons	4.09%
General managers in wholesale/retail trade	4.51%	Tavern and shebeen operators	3.61%
Shop salespersons and demonstrators	4.41%	Spaza shop operator	3.42%
Motor vehicle mechanics and fitters	2.99%	Motor vehicle mechanics and fitters	2.91%
Tailors, dressmakers and hatters	2.32%	Taxi driver, minibus taxi driver	2.72%
Tavern and shebeen operators	1.96%	General managers in wholesale/retail trade	2.66%
% of total informal sector employment	49.00%	% of total informal sector employment	50.09%
LFS2001b		LFS2003b	
Street food vendors	19.97%	Street food vendors	19.87%
Gardeners/Horticultural/Nursery growers	7.09%	Farm-hands and labourers	9.36%
Street non-food vendors	6.33%	Street non-food vendors	8.47%
Spaza shop operator	5.36%	Bricklayers and stonemasons	3.71%
Tavern and shebeen operators	4.21%	Spaza shop operator	3.69%
Bricklayers and stonemasons	3.88%	Tavern and shebeen operators	3.38%
Shop salespersons and demonstrators	3.30%	Taxi driver, minibus taxi driver	3.18%
Taxi driver, minibus taxi driver	2.66%	Tailors, dressmakers and hatters	2.27%
Motor vehicle mechanics and fitters	2.58%	Motor vehicle mechanics and fitters	2.26%
Tailors, dressmakers and hatters	2.56%	Shop salespersons and demonstrators	2.15%
% of total informal sector employment	57.94%	% of total informal sector employment	58.34%
LFS2005b		LFS2006b	
Street food vendors	20.25%	Street food vendors	17.36%
Street non-food vendors	9.76%	Street non-food vendors	8.91%
Farm-hands and labourers	7.78%	Farm-hands and labourers	8.90%
Spaza shop operator	5.98%	Bricklayers and stonemasons	7.31%
Bricklayers and stonemasons	4.89%	Spaza shop operator	4.73%
Tavern and shebeen operators	3.31%	Tavern and shebeen operators	2.87%
Tailors, dressmakers and hatters	2.75%	Motor vehicle mechanics and fitters	2.58%
Car, taxi and van drivers	2.38%	Hairdressers, beauticians and related workers	2.39%
Construction and maintenance labourers	2.24%	Car, taxi and van drivers	2.32%
Motor vehicle mechanics and fitters	2.13%	Healer and sangoma	2.03%
% of total informal sector employment	61.47%	% of total informal sector employment	59.40%

Appendix VII Detailed industry categories of informal sector workers, selected years

Table A7.1 Top ten detailed industry categories of informal sector employment, selected years

	5440 8 0 1 1 0 0	of informal sector employment, selected	years
OHS1997	1	OHS1999	
Retail trade not in stores	14.15%	Retail trade not in stores	26.53%
Building of complete constructions or parts thereof	11.12%	Building of complete constructions or parts thereof	10.43%
Private households with employed persons	9.73%	Private households with employed persons	8.74%
Land transport excluding railway	6.63%	Land transport excluding railway	5.28%
Retail trade in food/beverages/tobacco in specialised stores	6.40%	Manufacture of wearing apparel, except fur apparel	3.19%
Other retail trade in new goods in specialised stores	4.41%	Shebeen	3.18%
Manufacture of wearing apparel, except fur apparel	3.43%	Other retail trade in new goods in specialised stores	3.03%
Maintenance and repair of motor vehicles	2.50%	Building completion	2.99%
Non-specialised retail trade in stores	1.96%	Maintenance and repair of motor vehicles	2.95%
Human health activities	1.93%	Other service activities	2.29%
% of total informal sector employment	62.26%	% of total informal sector employment	68.61%
LFS2001b		LFS2003b	
Retail trade not in stores	35.43%	Retail trade not in stores	34.24%
Building of complete constructions or parts thereof	10.45%	Building of complete constructions or parts thereof	10.17%
Private households with employed persons	7.04%	Private households with employed persons	9.06%
Shebeen	4.90%	Land transport excluding railway	5.67%
Land transport excluding railway	4.89%	Shebeen	3.81%
Manufacture of wearing apparel, except fur apparel	3.81%	Manufacture of wearing apparel, except fur apparel	3.14%
Maintenance and repair of motor vehicles	2.53%	Maintenance and repair of motor vehicles	2.95%
Human health activities	2.34%	Building completion	2.90%
Other service activities	2.32%	Human health activities	2.53%
Building completion	1.99%	business activities n.e.c.	2.16%
% of total informal sector employment	75.70%	% of total informal sector employment	76.63%
LFS2005b	•	LFS2006b	
Retail trade not in stores	36.94%	Retail trade not in stores	32.47%
Building of complete constructions or parts thereof	10.70%	Building of complete constructions or parts thereof	13.42%
Private households with employed persons	7.88%	Private households with employed persons	8.50%
Land transport excluding railway	5.03%	Land transport excluding railway	4.96%
Manufacture of wearing apparel, except fur apparel	3.15%	Other service activities	3.15%
Other service activities	2.90%	Maintenance and repair of motor vehicles	3.14%
Maintenance and repair of motor vehicles	2.60%	Building completion	2.85%
Building completion	2.60%	Human health activities	2.45%
Shebeen	2.49%	Shebeen	2.18%
Human health activities	2.25%	Manufacture of wearing apparel, except fur apparel	2.00%
% of total informal sector employment	76.54%	% of total informal sector employment	75.12%