

**CHARACTERISTICS OF INFORMAL ECONOMY WORKERS AND THEIR
HOUSEHOLDS: CONCEPTS AND MEASUREMENT USING HOUSEHOLD
SURVEYS.**

by

Richard Michael Devey

Submitted in partial fulfilment of the requirements for the degree of Master of
Development Studies, Faculty of Community and Development Disciplines,
University of Natal, Durban.

January 2003
Durban

Abstract

This study describes the characteristics of informal economy workers and their households. The central reasons for initiating the study were twofold. Firstly, the informal economy has grown in size and it is increasingly recognised as an important component of the economy. Secondly, it is widely agreed that accurate measurement of the informal economy has not been achieved. Thus, the study aimed to describe the informal economy using the most up-to-date national labour force survey as well as assess how accurately the informal economy has been measured with that instrument.

The informal economy has developed as a result of globalisation and the technological revolution (amongst other factors) according to researchers. Recognition that workers within the informal economy (and those subject to informalisation within the formal economy) are not achieving fair labour standards has led to efforts to re-conceptualise work. The informal economy is extremely difficult to define and four conceptual models are described in this study. Each of the models agrees that the informal economy operates outside the ambit of formal activities, thus a form of dualism is defined, and that the economy is heterogeneous in character. The models differ in how the informal economy interrelates with the formal economy; the dualist model proposes there is no interaction while the legalist model states that a superior-subordinate relationship exists between the two. Competing models view the informal economy as either survivalist or as a vibrant, productive entity. A notable characteristic of the informal economy is flexibility in working conditions. This study will contribute to debate on the nature and measurement of the informal economy in South Africa.

The method used in this study was secondary analysis of the Labour Force Survey. Integrating elements of theory and measurement, it is suggested that the design of the survey instrument reinforces the dualist model. Analysis revealed that different economies – formal and informal – occur and that, although the two are not mutually exclusive, these exhibit markedly different characteristics. The formal worker and his or her household showed significantly better statistics for a range of demographic, social and economic indicators. Formal employees enjoyed better quality employment relationships than informal workers, as demonstrated by higher proportions in

permanent employment and longer duration of employment. Measurement of an interrelationship between the formal and informal economies was hampered by the design of the survey instrument, however, there is evidence that a relationship does exist and this was defined as superior-subordinate in nature. The heterogeneous nature of the informal economy was confirmed by example of a wide range of occupations, involving varied levels of skill. Generally, the South African informal economy appears to be survivalist in nature, as demonstrated by high frequencies of workers in occupations of low skill as well as by the general poverty and low standard of living exhibited by the informal workers' household. It was recognised that there are categories of worker who are worse off than the informal worker and this finding, along with the observation that disparities exist between different types of worker within the informal economy itself, raises the question of how useful it is to use the dualist framework for analysis. Informal workers did report higher levels of flexibility, however, it is argued that this would not compensate for poor statistics recorded for nearly all other indicators measured.

Based on the analysis above, it is suggested that the informal worker 'formalise' if this path is made possible because it is clear that formal workers achieve a significantly better standard of living. In the long term this goal could be achieved by improving education levels and by facilitating access to the formal economy. In the short to medium term the outlook for the informal worker could be improved by adopting policies that foster improved work conditions, including improved access to medical aid, paid leave, and some form of pension or retirement plan.

The study concludes that measurement of the informal economy is more accurate than past attempts, but that further improvement is possible. Given the disparities within the informal work force and the idea that a dualist approach is not the most effective conceptualisation of the labour force, the study calls for a flexible survey instrument that caters for various definitions of the informal worker. The inclusion of additional questions, for example to measure workers' perceptions of exploitation and satisfaction with working conditions, is encouraged. These suggestions would facilitate effective investigation of alternative conceptualisations of the informal economy through means of the survey instrument.

Acknowledgements

I would like to thank the following people:

Imraan Valodia, School of Development Studies. A perfect supervisor; providing clear insight and valuable comments, pointing out helpful reference material, and making sacrifices so that deadlines could be met.

Caroline Skinner, School of Development Studies, for sharing useful reference material.

Statistics SA for providing access to the Labour Force and October Household Surveys. The results obtained in this study are based on the author's own calculations and analysis and should not be attributed to Statistics SA.

Debbie Budlender, Community Agency for Social Enquiry, for providing advice and information on informal economy statistics and the surveys used in this study.

The University of Natal, Durban, for financial assistance in the form of a bursary.

Colleagues in the School of Development Studies for their friendship and support. Special thanks to Professor Francie Lund for helpful insight on re-conceptualising work and Lesley Anderson for assisting with registration(s) and the final hand-in.

Declaration of originality

This dissertation represents original work by the author and has not been submitted in any other form to another University. Where use has been made of the work of others it has been duly acknowledged and referenced in the text.

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Chapter One. Introduction

Globalisation and the technological revolution (amongst other factors) are widely recognised as bringing about changes in the nature of work as well as influencing conditions of work of the worker (Castells, 1996). Examples of such change are increased informalisation and growth of the informal economy. It is well established that accurate measurement of the informal economy has not been achieved (Theron & Godfrey, 2000: 56) but a shift from the traditional focus on formal employment has resulted in improved measurement (Budlender & Hirschowitz, 2000). This dissertation provides a description of the informal economy in South Africa as measured using the most recent labour force survey. Such a description allows a comparison of formal and informal workers, and a comparison of various types of informal worker, using a comprehensive set of demographic, social and economic indicators. This comparative analysis will expose similarities and differences between formal and informal groups. A descriptive analysis also allows an assessment of findings from this study in relation to existing information on the characteristics and nature of the informal economy. If large discrepancies are observed then the accurate measurement of the informal economy must be questioned and recommendations can be made to improve measurement.

In this chapter, work and the informal economy are introduced as important concepts in development. Employment and work are closely inter-related concepts. As static phenomena employment and work have multiple attributes. As a dynamic entity in changing social, economic and political climates, work is open to various interpretations. A particular category of work – informal work – appears to be growing in size and importance in South Africa and this has significant implications for the economy and society. The description of workers in the informal economy and their households and their comparison with other types of worker, using up-to-date survey data, forms the basis for this study.

1.1. Definitions of employment and work

Employment is defined as “the act of employing or the state of being employed” and “a person’s work or occupation” (*Collins Concise Dictionary, 1989*). Work is listed with twenty-seven meanings, including “physical or mental effort directed towards doing or making something”, “paid employment at a job or a trade, occupation or profession”, “the place, office, etc. where a person is employed”, “at one’s job or place of employment”, “to till or cultivate”, “operate or cause to operate...” and “to make or decorate by hand in embroidery, tapestry, etc.” (*Collins Concise Dictionary, 1989*). Authors often use the terms employment and work interchangeably. In this study the terms employment and work are restricted to employment and work in the labour market, usually for pay, because this is the definition used in the Labour Force Survey (Statistics SA, 2001d). For the same reason, study, housework and gardening, and voluntary work for a charity or club are examples of work that are excluded from the definition of work and employment in this study. This may not be the most effective definition of work and employment. Standing (1999) has provided an excellent discussion on the derivation and meaning of concepts such as work, employment, and occupation. That author noted inconsistencies in how work is measured, for example, that a voluntary worker actively performing caring activities in the community would not be classified as employed while a person who fails to sell any goods is likely to be labelled employed (Standing, 1999: 10).

1.1.1. Employment, work and development

Employment and work are central to understanding industrial society and explaining social change (Webster, 2002: 29; Purcell, 1986: 154). Employment and unemployment rates are key economic indicators used to evaluate the status of a country’s economy and labour statistics are the “mainstay of public policy” (Maier, 1999: 167). At the micro level, employment is used to measure productive activity in a household. Income, closely related to employment, is a critical indicator for assessing likely poverty status and living standards in households. Right to employment is listed as a key indicator in measurement of quality of life (Hutton, 1990: 189). Employment is most commonly measured using official statistics, usually gathered by government departments (Purcell, 1986:157).

1.1.2. Measurement of employment and work

While employment may be considered an objective indicator, the multifaceted nature of employment requires the use of a battery of probing questions to achieve accurate measurement. Employment can be described as part-time or full-time, formal or informal, permanent or temporary, casual and seasonal. Labour force participation, sector choices, hours of work, job search methods and duration of unemployment, earnings from wage employment, conditions of employment, types of employment contracts, and job tenure and turnover are all attributes used to measure 'employment' (Anderson Schaffner, 2000). Current employment status, length of employment, job and pay satisfaction, pension rights, overtime and short working hours are some of the elements of rights to employment that can be measured using national surveys (Hutton, 1990: 185). Accurate measurement is hard to achieve given the range and variety of attributes that constitute employment and work.

1.1.3. Re-conceptualising work

Globalisation is a highly controversial and much debated phenomenon. Both positive and negative effects of globalisation will be addressed briefly. One point of agreement between pro- and anti-globalisation lobbies is that globalisation and technological change are changing the nature of work.

From a pro-globalisation perspective, globalisation results in the exposure of an economy to international competition and for Southern Africa this implies positive economic effects including the formation of regional trading blocs, improved communication – both across borders and internationally – and a wider variety and cheaper goods for the consumer (Webster, 2002: 36). Also, institutions such as the ILO and NGOs are expected to promote new workplace norms and core labour standards (Webster, 2002: 37). Globalisation does not occur in a vacuum or under perfect conditions and Webster lists major barriers to the development of a diversified industrial economy in the South African Development Community (SADC) region. These barriers include the persistence of economies based on mining and agriculture exports, the social disruption of families and communities through exploitation of

migrant workers, and underdevelopment and dispossession of land (Webster, 2002: 34).

Globalisation can impact negatively on both formal and informal economies. According to the anti-globalisation lobby, one of the key negative effects is an increase in flexibility. The origins of flexibility can be traced to the failure of statutory regulation (Standing, 1999). Statutory regulation was used to achieve various forms of security, including labour market, employment, work, income and job security (Standing, 1999:52). Statutory regulation failed because economic dynamism and freedom were lacking and it was undermined by various factors including macro-economic instability, globalisation, privatisation, market regulations, the technological revolution, mass unemployment and feminisation of the labour force (Standing, 1999). Market regulation replaced statutory regulation and the pursuit of flexibility occurred because organisations needed to respond quickly to market demands.

What is meant by flexibility? As an example, Theron and Godfrey list numerical, temporal and wage flexibility as three inter-related forms (2000: 6). Numerical flexibility pertains to a change in size and structure of the workforce in response to changes in the market. Temporal flexibility is the capacity to vary hours of work, shift systems, and to introduce part-time, home-working or temporary work. Wage flexibility concerns a shift in individualised or team-based pay where amount paid is related to performance. Increased flexibility occurs as casualisation or externalisation (Theron & Godfrey, 2000). In instances of casualisation, the number of employees in the organisation remains fairly stable but either employees with non-permanent status replace permanent workers or permanent workers adopt more flexible work characteristics. In cases of externalisation, the organisation shrinks in size because either retrenchment occurs and an external contractor is employed to do the job of the retrenched or workers are transferred to the external contractor.

Within the formal economy, globalisation produces flexible work arrangements that advantage the employer and disadvantage the worker (Lipsett & Reesor, 1997). The employer gains from having to pay lower wages and fewer non-wage compensation costs as well as from a reduction in downtime labour costs as a result of flexible

scheduling facilitated by 'non-standard' employment (Betcherman & Chaykowski, 1996: 25). Non-standard work is characterised by a high level of flexibility, demonstrated by high numbers of home-based and temporary workers in this category (Lipsett & Reesor, 1997). Women and youth are over-represented in the group of non-standard workers, non-standard jobs are considered lower quality than standard jobs, and workers have limited access to representation from a union (Betcherman & Chayowski, 1996). Supporters of increased flexibility have argued that flexibility improves the chances of previously excluded workers – including women, youth and older workers – accessing the labour market (Theron & Godfrey, 2000: 17). Those authors also noted that proponents associate increased flexibility with enhanced job satisfaction as a result of being able to make choices about number of hours worked, location of work, and type of work performed.

Globalisation is associated with an increase in workers joining the informal economy as part of the informalisation of work (Charmes, 2002: 157; Webster, 2002: 38; Carr, Chen & Tate, 2000). Workers may join the informal economy directly by preference or they may move into the informal economy from the formal economy as a result of informalisation. There are no statistics stating what proportion of workers join the informal economy through the latter route. Irrespective of where workers originate from, the informal economy is characterised by a high level of flexibility. For example, Valodia (2002: 55) notes how flexibilisation results in a growth in labour broking and subcontracting and a high incidence of home-based work. These forms of employment relationship are common in the informal economy.

A key underlying element in the need to re-conceptualise work is the effect increased flexibility has on working conditions and worker rights. In South Africa, government policy has shifted from fostering an integrated and unified labour market to one that encourages the development of a dual labour market (Valodia, 2002: 57). The drive for flexibility – intended to reduce labour costs, increase investment and generate new employment opportunities – is argued to produce one market with high minimum standards and acceptable wages and another with low standards and no minimum wage (Valodia, 2002).

Traditionally, labour market measurement has focussed on those employed in the formal sector of the economy. Leonard (2000: 1073) and Chen, Sebstad & O'Connell (1999) noted a key problem with the collection of statistics on the informal economy by government statisticians and labour market policymakers. For example, official statistics on home-based work are inadequate because of the following reasons: under-enumeration of the informal economy; labour force surveys fail to recognise multiple economic activities (particularly home-based work); the work conducted by women home-based workers is viewed as an extension of their unpaid housework; and subcontract workers or outworkers who work for formal firms fall between the formal and informal economies (Chen, et al., 1999: 605). Chen, et al. (1999) referred to home-based workers as the 'invisible' workforce. One of the main aims in the call to re-conceptualise work is to include those workers excluded from national accounts. The above authors argue that national accounts are inaccurate because home-based work is not counted in official statistics.

Labour organisations such as the ILO and WIEGO (Women in Informal Employment: Globalising and Organising) have registered their intent to re-conceptualise work and develop more accurate measurement of work. A workshop is scheduled for December 2002 to initiate the process of change (ILO, 2002b).

1.2. The informal economy

1.2.1. Definition

Cross referred to the exercise of defining the informal economy as "defining the undefinable" (2000: 30) and Leonard has described it as "no easy task" (2000: 1072). One of the most commonly used definitions of the informal economy was provided by Castells and Portes (1989: 12): "a heterogeneous set of activities that are unregulated by formal institutions but that occur in a legal and social environment in which similar activities are regulated". Also in 1989, de Soto defined the informal sector as a refuge for workers who could not meet the costs of abiding by existing laws in attempting to meet legitimate economic objectives (de Soto, 1989: 12). While one definition separates informal economy activities from illegal activities, another defines the informal economy as necessarily illegal and justifies the activity as meeting legitimate

goals. Swaminathan (1991: 1) defined the informal economy as activities (a) with a mode of organisation different from the unit of production most commonly cited in economic theory, that is, the firm or corporation, (b) that are unregulated by the state and (c) are excluded from standard economic accounts of national income. Chen, et al (1999: 603) added that workers performing informal activities are not likely to be protected by labour legislation or organised by formal trade unions. In this study, the informal economy will almost certainly exclude illegal activity. Such activity is unlikely to be reported in a survey instrument. By definition, in the survey instrument, the informal economy is unregulated by the state because criteria for an individual to work in the informal economy include that he or she is not registered as a company or to pay VAT (Statistics SA, 2001d). A more detailed conceptualisation of the informal economy is provided in Chapter Two.

1.2.2. Measurement of the informal economy

Charmes (2002: 155) refers to growth of employment in the informal economy as “irresistible”. Notably, this growth has been rapid at the global level, in Europe, Africa, Latin America and Asia. In South Africa informal economy activities are significant, with an estimated contribution to GDP of between 6 and 12 % (Mahadea, 2001: 191; Martins & Ligthelm, 1995: 7). A sizeable proportion of South African workers work in the informal sector. Official statistics from the September 2001 Labour Force Survey record over 17% of the workforce as informal economy workers (Statistics SA, 2002a). If domestic and subsistence agriculture workers (considered special categories of informal worker and therefore afforded separate statistics) are included in the count, the percentage of informal workers rises to over 26% of the workforce (Statistics SA, 2002a).

Given the size and growing importance of the informal economy it is important to measure the sector accurately. Accurate measurement will facilitate improved predictions and modelling of economic performance and market behaviour (ILO 2002: 13). It is in the interests of numerous role players to obtain accurate measurement of the informal economy. Governments would benefit from more accurate economic indicators, labour organisations such as ILO would obtain a solid

grounding for policy development, and organisations representing workers would have empirical data to expose and counter exclusion, exploitation and market biases.

Research of the informal economy has been conducted using a variety of approaches, including survey and case study methodologies. The case study is used to conduct in-depth, holistic investigation into the processes and relationships of social phenomena. This strategy deals with subtleties and intricacies of unique cases and multiple methods are used to account for complicated social systems. Given the heterogeneous nature and complexity of the informal economy the case study is well suited to investigation of that economy. Examples of case studies of informal economy activities in South Africa include: street traders in Durban and East London (Lund & Skinner, 1999, and Holness, Nel & Binns, 1999, respectively) and domestic workers (Preston-Whyte, 1991). Lund (1998: 5) summarises several case studies, including those relating to workers growing and selling fresh produce, herb dealers, clothing manufacturers, and craft and curio sellers. Case studies, while providing rich detail, are restricted by small sample sizes and as a result generalisation of findings is often not possible.

An alternative methodology that counters the limitations of the case study is the survey approach. Charmes (2002) summarises trends in the informal economy using data from censuses and labour force surveys implemented in numerous countries. For purposes of collecting economic data at the national level, Statistics South Africa has introduced a Labour Force Survey (Budlender & Hirschowitz, 2000). This survey caters for measurement of the informal economy and, recognising the importance of the informal economy, efforts have been made to improve the measurement of this sector in South Africa.

1.3. The present study

1.3.1. Rationale

“If it seems to you that ‘reality’ in the social science is a slippery concept, you are not far wrong. Economic relations, personal habits and technology are changing so rapidly that statisticians must constantly devise new ways of measurement if they are to avoid data degradation” (Doyle, 2002: 17).

Given that the informal economy represents a significant proportion of the labour market, that efforts have been made to improve measurement of the informal economy, and that calls to re-conceptualise work are largely based on examples from within the informal economy, it is important to obtain an up-to-date description of the informal economy using the most recent available data. If globalisation is resulting in increased informalisation, and if the result of informalisation is expected to be a weakening of conditions of employment, then the effects must be reported. By describing the labour market and the conditions therein, empirical data will be provided to develop interventions and make policy to protect workers' rights. Also, the dissertation format allows an opportunity, not often afforded by other forms of publication, to provide a detailed set of measurements for a wide range of indicators.

1.3.2. Feasibility

Statistics South Africa has introduced a Labour Force Survey to measure employment (formal and informal) at the national level. The questionnaire includes key social indicators such as gender and education level, indicators that measure various attributes of work, and some household indicators. Profiles can be developed and comparisons can be made between various types of worker in the labour market.

1.3.3. Objectives of the study

The objectives of the study are threefold. Firstly a comparison of informal economy workers with formal economy workers will be conducted. This comparative analysis will be conducted at individual worker and household levels with the intention of measuring similarities and differences between groups for a wide range of relevant indicators. The second objective is to focus within the group of informal workers and describe characteristics of key sub-groups as well as establish predictors of satisfaction in the informal worker's household. The third objective is to note the strengths and limitations of the survey instrument in relation to definitions of the informal economy and recommend possible improvements to the survey instrument.

1.3.4. Outline of dissertation

In Chapter One the relevance of employment in development, the effort to re-conceptualise work, and the growing importance of the informal economy are established. A literature review is conducted in Chapter Two, focussing on conceptualisation and characteristics of the informal economy. Methodology, including a description of key indicators, is presented in Chapter Three. A comparison of indicators for informal, formal and other workers and their households is presented in Chapter Four. The informal worker becomes the focus in Chapter Five, in which indicators for sub-groups of informal worker are compared. Predictors of satisfaction in informal households are also identified in this chapter. Conceptualisation and measurement of the informal economy are revisited in relation to study findings in Chapter Six.

Chapter Two. The informal economy: concepts and characteristics

The nature of the informal economy is described through a review of conceptual models and characteristics. Four conceptual models of the informal economy are illustrated and characteristics of the informal economy are provided, mostly through South African examples. Research questions are presented at the end of the chapter.

The review of literature is most concerned with definitions, models and measurement. Although economic and political forces that explain the existence and persistence of the informal economy are introduced, an in-depth analysis of the informal economy in a detailed economic context is not provided. While gender is recognised as a key factor and will constitute an important indicator when measuring the informal economy, the study does not intend a feminist or gendered analysis.

2.1. Conceptual models of the informal economy

2.1.1. Discovering the ‘informal sector’ and ‘informal economy’

Economists predicted economic development and growth in formal employment during the 1950s & 1960s, instead a growth in unemployment and an increased reliance on informal sector activities occurred (ILO, 2002a: 10). The demise of the apartheid state and its policies that worked to restrict informal activities resulted in growth of such activities, for example street trading, in South African cities (Nesvåg, 2000; Holness, et al., 1999; Lund & Skinner, 1999). Hart is credited with introducing the concept of informal sector through his research on urban employment in Ghana (Hart, 1973: 68). During the same period, the ILO’s Kenya mission recognised the existence of both marginal and profitable and efficient enterprises within the traditional sector and renamed it the ‘informal sector’ (ILO, 2002a). An indication of the relative newness of the informal economy is the association of the sector with post-modern industrial society (Cross, 2000). The informal economy has been conceptualised in different ways – based on either unit of production or employment relations – as reflected by various models (illustrated below).

The definition of the informal economy is largely dependent on the focus of interest. For example, recognising the growth in both size and relevance of the informal sector, attempts have been made to incorporate the informal economy in GDP measures. To ensure consistency with the System of National Accounts and provide for a separate accounting of GDP in the informal economy a definition based on production units or enterprises, rather than on employment relations, was promoted (Hussmans, 2001 cited in ILO, 2002a).

Not all parties have embraced the concept of informal sector/economy. Peattie (1987) argued that the informal sector, while acting as a banner for liberals, economic planners and radicals, was of little use as a framework for development or alleviating poverty. In dismissing the use of the concept as a framework for poverty analysis, that author pointed out that not all petty entrepreneurs ('informal') are poor and workers in large organisations ('formal') can be underpaid. Peattie also noted that the informal sector was impossible to define and it would therefore be impossible to measure in the real world (1987: 858). Nevertheless, the concept garnered strong support and in 1991 the informal sector was featured for the first time as a major agenda item at an international conference, the International Labour Conference. The term 'informal sector' was regularly used as a reference to informal enterprises, excluding the individual worker. Researchers and policy-makers adopted the concept 'informal economy' to encompass a wider variety of enterprise and employment relations that occur in industrialised, transition and developing economies (ILO, 2002a: 11). A review of literature indicates that the terms 'informal sector' (Hasan, 2002; Muller, 2002; Moser, 1994; Rakowski, 1994) and 'informal economy' (ILO, 2002a; Leonard, 2000; McKeever, 1998; Portes, 1994) are both used. The broader concept of informal economy will be used for this study as it is concerned with analysis at the individual worker level and not at the enterprise level.

Rakowski (1994) compares and contrasts four perspectives on the informal sector or economy; two are structuralist (the dualism and underground approaches) and two are underpinned by neoliberal economic principles (the legalist and microenterprise development approaches). These models are detailed in sections 2.1.2 through 2.1.4.

2.1.2. Dualism

In a book titled 'Sociology and the future of work' the scope of analysis is defined as follows:

“...the first thing which needs clarifying is the word 'work'. Although it can be argued that our definition of work can include a very wide range of activities, and that the future of work debate is itself partly about redefining the category of activities which we include under this heading (see Ransome 1996), we are primarily concerned here with activities for which people receive direct financial remuneration in the context of a discernable and legally sanctioned employment structure. For present purposes then, work is defined as formal paid employment.” (Ransome, 1999: 10).

The 1993 International Conference of Labour Statisticians (ICLS) defined the informal sector as:

“all unregistered or unincorporated enterprises below a certain size, including micro-enterprises owned by informal employers who hire one or more employees on a continuing basis; and own account operations owned by individuals who may employ contributing family workers and employees on an occasional basis” (ILO: 2002a:11).

The dualist model of employment is reflected in these two quotes. This model essentially recognises two separate economies – formal and informal – that have disparate origins, different mechanisms of operation, and widely divergent attributes (Figure 1).

In developing countries the formal and informal economies are viewed to originate through different mechanisms. The formal economy develops as a result of external influences, such as investment and the introduction of advanced technology, from capitalist sources (Bromley, 1978: 1033). The informal economy exists within the host country and functions using internal resources. Some factors that encourage growth of the informal economy include price inflation, inadequate wages, and surplus of workers in the urban labour market (Hart, 1973: 61). Under the dualist model the formal and informal economies have opposite characteristics (summarised in Figure 1). The formal economy is characterised by difficult entry, a reliance on foreign inputs, a large scale of operation, the use of advanced technology and

protected markets (ILO, 1972: 6). The informal economy has attributes of relatively easy entry, local resources, small scale of operation, limited use of technology, and unregulated markets (ILO, 1972: 6). There is no linkage between the formal and informal sector in early representations of the dualist model (ILO, 1972: 5).

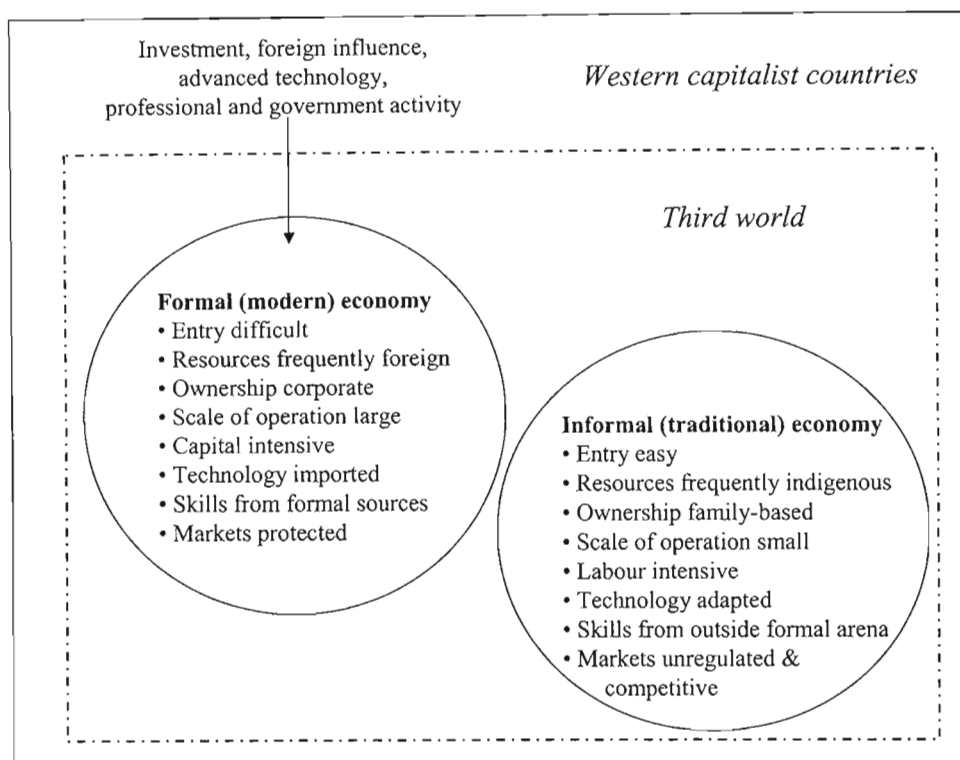


Figure 1. The dualist model of formal and informal economies (based on ILO (1972) and Bromley (1978)).

Revised definitions from proponents of the dualist model provide a more refined account of the informal sector. The informal economy includes (ILO, 2002a: 13): informal employment in informal enterprises (small unregistered or unincorporated enterprises) including employers, employees, own account operators, and unpaid family members in informal enterprises; informal employment outside informal enterprises such as employment for formal enterprises, for households, or with no fixed employer; and domestic workers, casual or day labourers, temporary or part-time workers, industrial outworkers (including home workers) and unregistered or undeclared workers. The informal sector excludes the formal, criminal, and reproductive or care economies (ILO, 2002a: 12). The revised set of economies and the possible interaction between sets is illustrated in Figure 2.

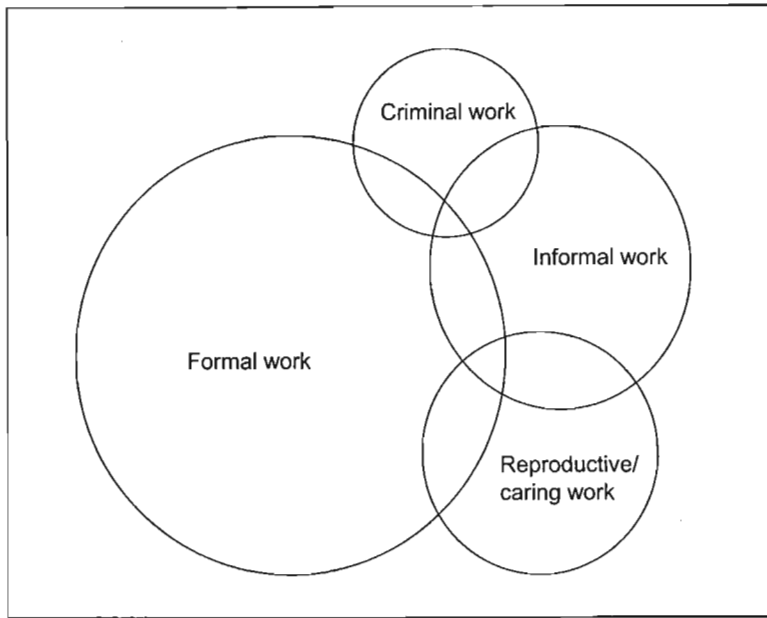


Figure 2. Types of economy and possible interaction between economies.

Supporters of dualism view the informal sector as survivalist and transitional (Rakowski, 1994: 503). The ‘inefficient’ informal economy is expected to disappear in developing countries (for example, Kenya and Ghana) once economic growth and modern industrial development reach adequate levels.

To summarise the dualist perspective: the informal economy is marginal, peripheral and not linked to the formal sector or modern capitalist development (ILO 2002a: 10). Limitations of the dualist model have led to the development of alternative models, notably associated with Portes and Castells (the underground model) and de Soto (the legalist model).

2.1.3. The underground model

The underground model of the informal economy is often associated with Portes and Castells (Cross, 2000; Rakowski, 1994: 503). One of the primary objectives of the underground approach was to disassociate informal activities from criminal activities (Figure 3). The rationale for this separation was that informal activities, while illicit in process, generally result in a legal product. Criminal activities yield illegal products.

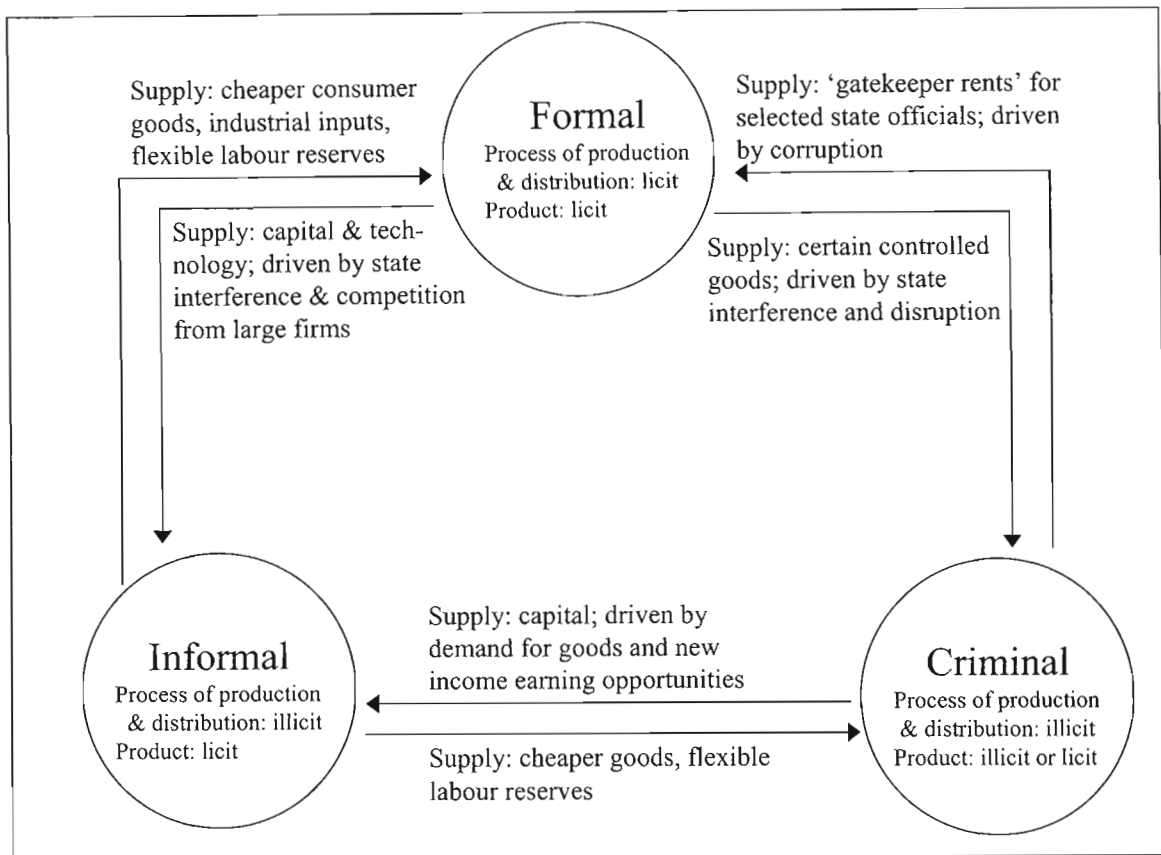


Figure 3. The underground model of economic activity (after Castells & Portes, 1989: 14).

The underground model aims to expose class conflict and exploitation of workers by focussing on mechanisms of subordination of labour (Rakowski, 1994: 503). In this approach the informal sector is viewed to originate as a result of economic causes such as an economic crises, industrialisation, and from attempts to undermine organised labour's control over the work process (Castells & Portes, 1989: 28). The growth of the informal sector as a result of economic crises occurred in Latin America in the 1980s and Asia in the 1990s.

One of the key differences between the dualist and underground models is the recognition of systematic links between the formal and informal economies in the latter model. Moser (1994: 20) noted that many informal sector enterprises have production or distribution relations with formal enterprises, including supplying inputs, finished goods, and services to each other through direct transactions or sub-contracting. Castells and Portes argued that some activities that occur in the formal sector – unreported activities of large corporations – should be classified as informal

(1989: 15). Researchers have argued that the informal economy is displacing its formal equivalent in post-industrial society, demonstrating a shift private production and provision of services within the home and community (Purcell, 1986: 155).

The underground model, unlike the dualist model, integrates the role of capitalism and the employment relationship in the conceptualisation of the informal economy. Increased globalisation of the 1990s resulted in formal firms either hiring workers at low wages with few benefits or subcontracting production of goods and services. The effects of this and other drivers included reduced labour costs, fluctuations in productivity and a decentralised model of economic organisation (Castells & Portes, 1989: 30). The informalisation of employment relations produces an informal economy that is a permanent, subordinate and dependent feature of capitalist development.

The underground model also differs from the dualist model in regard to the role of the state. While dualism advocates increased state support for small manufacturing through mechanisms such as credit, technical assistance and training (Bromley, 1990: 328), proponents of the underground model argue that the informal sector develops as a reaction against state regulation. The state plays a role in weakening the rights of workers on the one hand while state sponsored support of some parts of the informal sector provides a competitive advantage (Rakowski, 1994: 504).

According to the underground model, the informal economy is efficient, creative and resilient in Third World countries (Hart, 1973) and productive and flexible in developed nations (Leonard, 2000).

2.1.4. The neoliberal models

Two models of the informal economy based on a neoliberal economic base are the legalist and microenterprise development approaches. de Soto, a Peruvian economist and entrepreneur, argued that underdevelopment resulted from excessive government bureaucracy and the persistence of a system in which business and government elites manipulated the system to their own advantage (Bromley, 1990: 330). There is strong evidence that government policies shape informal economy practises, for example, by

supporting subcontracting the state promotes a relationship between the formal and informal sectors but in the process effects reduced labour costs because informal employees do not get access to welfare benefits (Leonard, 2000: 1080). de Soto defined informal activity as that which contravened official regulations, as demonstrated through workers moving from rural to urban areas not being able to access the complex legal systems required by the state and formal institutions (2000: 203). Such migrants become 'extralegals', operating outside the formal legal system, by choice (de Soto, 2000: 25) and the state is not able to control the activities of extralegals (de Soto, 2000: 89). Extralegals develop their own forms of legal representation and they are able to represent themselves intelligently. In de Soto's conceptualisation, the informal economy was presented as a vibrant sector, workers making a living in spite of stifling government regulation and mismanagement of public enterprises (Bromley, 1990: 339).

South Africa provides an appropriate example to demonstrate the underlying principles of the legalist model. In the legalist model the state creates a cleavage between formal and informal economies as a result of legal and bureaucratic actions. The repressive behaviour of the apartheid government led to restricted informal activities. The legalist would argue that rational choice, a key element of this approach, resulted in many South Africans opting to work in the informal sector in spite of many obvious drawbacks (Cross, 2000; Rogerson 1985, cited in Mahadea, 2001). Thus, working in the informal sector is a preferable alternative to low wages offered under a labour oppressive economy and the high cost of legalising.

Some authors have argued that attempts to formalise or legalise the informal economy will weaken it (Cross, 2000: 44). Legalising of activities has resulted in a larger number of people working in a given sector, as demonstrated by the growth of street trading in South Africa (Nesvåg, 2000; Holness, et al., 1999). Mahadea has expressed concern about incomes dropping even lower as more people enter the informal economy (2001: 192). Legalisation may disadvantage the informal worker because of increased competition within the sector and through loss of flexibility.

The legalist approach recognises links between the formal and informal economies and proposes that the latter is disadvantaged. Leonard (2000: 1078) provides a

detailed example of how the informal worker can be exploited by the formal economy. That author introduces a woman who has progressed from selling knitted items and dresses to the community to supplying shops. She could be classified as both a successful entrepreneur and as an out-worker providing a cheap source of goods for organisations in the formal sector. The woman has autonomy and control over the work process (flexible work hours), however, this autonomy is questionable given the deadlines and orders, and the hidden costs of production, including electric and heating costs and the invisible labour power of other members of the family. These costs are not accounted for in the prices charged (Leonard, 2000).

In the first world economies of UK, Germany and France the formally employed (and not unemployed) have been observed to participate in informal activities (Leonard, 2000: 1070). Purcell (1986: 155) noted that successful manipulation of the informal economy was most accessible to those with a secure base in the formal sector. These examples demonstrate how the formal worker, achieving multiple livelihoods, holds a possible advantage over informal and unemployed workers.

Further evidence of a delinquent relationship between the formal and informal economies is provided by Cross (2000: 40) who notes that forces in the formal sector take action to destroy informal activities, such as street trading, because these activities can pose an economic threat to the formal economy.

The microenterprise development approach is a practical approach based on neoliberal and social welfare principles. The model is similar to the legalist model as it has a strong focus on legal elements. Through design it accepts notions of stratification and exploitation, and seeks to empower and produce equality. In this model the poor can defend themselves and survive.

The example of Karachi (Pakistan) is useful to illustrate key principles of the microenterprise development model. Hasan (2002) explains how the informal sector in Karachi (Pakistan) provides its own solutions to government incapacity and corruption. The state adopted the welfare state model to achieve development, however, it failed to reach targets for subsidized housing, health, education and jobs (Hasan, 2002: 70). The underlying cause of informalisation is argued to be globalisation and liberalisation (Hasan, 2002). Hasan provides numerous examples of

informal activities, including construction, education, health, transport and recycling of waste, that occur in defiance of rules and regulations. Exploitation of labour is evident through sub-contracting by factories in the clothing and auto sectors, allowing exporters and industrialists to reduce production costs, and limit unionisation of labour, application of labour laws and a minimum wage.

2.1.5. Critique of models

The conceptual models of the informal economy represent various viewpoints. The models share in common that informal economy activities are unregulated by the state. They differ in relation to the role of the state, in how they account for the employment relationship, the role of capitalism, and in how they characterise the informal economy. There is some overlap between models. The dualist and underground models see a positive role for the state, proponents of neoliberal models argue against state intervention (Rakowski, 1994:506). While the dualist model ignores the employment relationship, the underground and legalist models emphasise subordination and exploitation of workers. The neo-liberal models present the informal economy as a vibrant, productive sector while underground and dualist models emphasise its survivalist nature.

The dualist model is effectively an aggregation of multiple dimensions of employment and the limitations of the model have been exposed by a number of authors. Bromley (1978) lists nine deficiencies in the dualist definition of formal and informal economies. For example, Bromley (1978:1034) noted the restrictive nature of using only two categories to define employment and pointed out that the set of attributes to define one or the other economy was not convincing, and remarked that it is unrealistic to view the two economies as separate and independent. The dualist model also failed to assimilate an important factor, the employment relationship (ILO, 2002a: 11).

Contesting the separate economies of dualism, others demonstrated that economic activities occur as a continuum with dynamic links between formal and informal sectors (e.g. Moser, 1994). Many informal sector enterprises were argued to have production or distribution relations with formal enterprises (Moser, 1994: 20). The

dualist model fails to be entirely convincing because it is highly unlikely that the various sectors will have no interaction. For example, Cross (2000: 31) refers to ‘grey areas’ between formal, informal and illegal sectors and cites the example of pirated products that are illegal by intellectual property and patent laws but that are rarely considered as illegal by members of the general public.

While the neoliberal models provide examples of vibrant communities fending for themselves there are many examples (e.g. ILO, 2002a; Lund, 1999) where informal communities have not achieved success in countering the effects of state inefficiency, exclusion from the formal labour market, and poverty.

Rakowski (1994) argued that the legalist model, for example, tends to conceal the economic causes of informalisation. Capitalism as the underlying cause of informalisation can be countered by the example of Dongguan, China. Kroeber (2002: 202) describes the growth in informal activity – including the production of shoes, shirts, office furniture, and electronic goods – in Dongguan. The system of production described is economically successful but it does not operate under a reliable legal system. Kroeber reports extensive and systematic exploitation of transient labour and involvement of corrupt state officials. Many characteristics of this example are fundamental to the underground and neo-liberal models: exploitation of workers, corrupt state activity, extralegal activity, and a vibrant, successful informal economy. Unless one argues that capitalism is taking root in communist China it is difficult to justify capitalism as the underlying cause of informalisation in this instance.

While the dualist approach has been subject to the highest level of criticism, it is probably a necessary model for purposes of comparing GDP contributions from the formal and informal economies. The underground, legalist and micro-enterprise development models share several common ideas and examples can be found to support the claims of each model. Rather than reject any of the models it is more productive to accept that a variety of models are required to explain the complex nature of the informal economy. Having illustrated the various conceptual models of the informal economy, the focus will now turn to the characteristics of the informal economy through a review of various indicators.

2.2. Characteristics of the informal economy

The purpose of this section is to describe characteristics of the informal economy. It must be noted that, by definition, the informal economy is heterogeneous and a condensed, detailed characterisation is therefore beyond the scope of this study. Also, as demonstrated by examples used in Chapter One and section 2.1 above, the informal economy is extensive and exists in developed and developing nations. A comparison of characteristics across nations is not feasible and the review will focus primarily on South African examples.

2.2.1. The use of indicators in development

Indicators are used to describe social phenomena and provide information on social conditions. They help us measure intensity and distribution, can result in identification of problems, and are used to measure and monitor change over time. Indicators are less useful for measuring processes and relationships. Indicators can be defined as direct or by-product, output or input, subjective or objective, and can measure physical or social attributes (Miles, 1985).

Social (and economic) indicators have strengths and weaknesses; strengths include objectivity, normative measurement and the capture of important aspects of society; weaknesses include that social indicators are fallible, interpretation can be questionable if not contextualised, and the choice of which indicator to use is often a subjective exercise (Diener & Suh, 1997).

2.2.2. Demographic, social and economic indicators

Some generalisations can be made about the informal economy: it occurs in both first world and developing countries and in urban and rural locations. Rates of employment in the sector are higher in developing countries; for all regions of the developing world informal employment represents nearly half or more of total non-agricultural employment (ILO, 2002a: 17). Participation of the labour force in non-agricultural informal employment varies by continent, with estimates of 51% in Latin America and 65% in Asia and 72% in sub-Saharan Africa (ILO, 2002a: 17).

Size of the informal economy

The limitations of indicators as noted above are evident when attempting to cite the size of the informal economy. A review of the size of the informal economy is complicated by the use of varied indicators, some absolute, others relative. While one indicator establishes the importance of the sector using number of workers another measures contribution to GDP. The underlying purpose of each indicator is different and each has some value. Both may be scrutinised in terms of validity and reliability.

Rogerson (1996: 6) described attempts to measure the South African informal economy in the late 1980s and early 1990s as 'hopelessly inadequate'. Estimates (considered under-estimates) from surveys conducted in 1989 and 1990 measured the sector at around 1,6 million (Martins & Ligthelm, 1996: 7). Based on the 1993 October Household Survey, the informal economy was estimated to be just over 4 million (Rogerson, 1996: 6). The sector was estimated at 1,6 million using the 1994 OHS (Martins & Ligthelm, 1995) and 1,7 million using the 1995 OHS (Torres, Borat, Leibbrandt & Cassim, 2000). More recent estimates based on the 2000 LFS measure the informal sector (excluding the agricultural sector) in South Africa at 4,063,000 million workers (ILO, 2002: 40). The latter figure contradicts the official statistics from the same data source (LFS) that records the informal sector (including domestic workers but excluding agricultural sector) at 2,932,000 (Statistics SA, 2001b). While the ILO figure publishes the informal sector as representing 34% of total employment, Statistics SA figures show the informal sector to represent 25% of total employment. It is possible that ILO used a broader definition of 'informal work', redefining a fair number of workers classified as formal by Statistics SA as informal.

Demographic details and occupation of informal workers

A focus on the worker's gender, race, occupation, education and other characteristics reveals the heterogeneous nature of the informal economy.

Generally, women are viewed to constitute a major proportion of informal workers. McKeever (1998: 1224) noted that proportions of women working in the informal economy is significant; while women constituted 35% of the labour force, 67% of workers in the informal economy were women. Women informal workers earn less

than men, have less desirable and unskilled jobs and are more likely to work as employees (Lund, 1998; McKeever, 1998; Rogerson, 1996). Black women are the most vulnerable category of informal worker (Torres, et al., 2000). Occupation is often gender-specific with women predominantly performing survivalist activities such as selling fruit, food preparation, dressmaking and childcare (Lund, 1998; Rogerson 1996). Men perform activities classified as more productive (McKeever, 1998), for example construction.

The informal economy is represented by a vast array of occupations, including street vendor (fruit, fish, meat or crafts), urban cultivator, child minder, street barber, garbage scavenger, traditional herb collector, spaza operator and hawkker (Rogerson, 1996: 7). Other categories of occupation include garbage collectors, data processors, casual workers in restaurants and hotels, casual or day labourers in construction and agriculture, sub-contracted janitors and security guards, garment makers, and assemblers (ILO, 2002a: 9). McKeever (1998) noted stratification within the informal sector in South Africa, for example shebeen work is better paid than hawking. Informal manufacturing is less prevalent in South Africa than in some other countries (Torres, et al., 2000; Lund, 1998). A high proportion of informal occupations in South Africa are rated as survivalist as opposed to expansionist (Rogerson, 1998: 7). Torres, et. al. (2000) report 36% of self-employed as street sellers or shopkeepers.

Black South Africans represent the largest share of informal workers (Torres, et al., 2000). Distribution of informal workers is also biased for region, with major concentrations in KwaZulu-Natal and Gauteng and a higher proportion in urban areas than in rural (Rogerson, 1996: 7). Age distributions of the informal worker are less clear. McKeever (1998) observed distributions concentrated at both ends of the age distribution while Lund (1998) reports male street traders to be younger on average than their female counterparts.

Education levels of the informal worker are low (Lund, 1998) measured at an average of seven years relative to an average of thirteen years for the formal worker (McKeever, 1998). The latter author noted that incomes of informal workers are lower than formal workers. In 1990, estimated average monthly incomes of the informal entrepreneur and employee were R604 and R351 respectively relative to R1,535

earned by the formal worker (Mahadea, 2001: 192). Estimates from a 1994 survey showed the mean wage of all workers (R1,902) to be twice the average earned by informal workers (R826; median income R200) (Torres, et al., 2000).

Working conditions

Sethuraman (1976: 74) argued that while demographic indicators (such as gender, age, education, work experience and occupation) can determine employment and earning potential, characteristics of the labour market could also be an explanatory factor. For example, if contractual relations are used to define formal and informal economies (as suggested should be the case by Bose (1990: 2)) then the contractual relationship becomes an important indicator for measurement of the informal economy.

Jhabvala (2002) lists four critical elements of labour standards when considering protection of employment. These are the employer-employee relationship, the workplace, a one-to-one relationship between employer and employee, and the exclusion of certain workers – the self-employed and independent workers – from some laws and standards. Under ideal conditions, the employer's obligations would include providing a minimum wage, safe working conditions, social security (health care, child care, and old age benefit), and security of work. The workplace exists under control of employer and it is where the employee comes to perform work. The employee performs one job for one employer for a set amount of time.

What are the characteristics of the informal worker in relation to the above labour standards? It should be noted from the onset the majority of informal workers are likely to be excluded from labour standards (as defined by Jhabvala's fourth element) because they are generally self-employed and independent workers.

A vast literature describes how employers do not meet their obligations. Bose (1990: 9) provides examples of poor conditions of work, including low wages, fluctuating income, long working hours, and hostile working environments. Jhabvala (2002) explains how exclusion results in poor wages that in turn prevent access to welfare such as old age benefit. 'Lacking social protection', 'a competitive disadvantage', 'deprived of secure work, workers benefits, social protection, and representation or

voice' and 'little legal or social protection' is the wording used by the ILO (2002a: 9) to describe conditions of work of the informal worker. McKeever (1998) describes how employers in South Africa use the informal economy to avoid workplace regulations, reduce costs associated with worker benefits, avoid unionisation, and create a more flexible work force.

Lack of protection is not only evident in developing countries. In developed nations not all workers are protected by labour legislation, for example, about 20 million workers in US are not protected by labour legislation (Doyle, 2001). Unprotected workers include fourteen million managers and supervisors (some of whom may be informal workers), seven million independent contractors, three million farm workers and one million domestic workers (Doyle, 2001).

While fair labour standards recommend a designated workplace, the location of informal work can vary from small shops and workshops to the street and the home (ILO, 2002: 9). The World Bank has suggested that the easiest way to define the informal economy is to use location. That institution identifies four categories based on location: dependent and independent home-based workers; street traders and street vendors; itinerant, seasonal and temporary job workers on building sites or road works; and those in-between the streets and home, such as waste collectors (World Bank, 2001a). Each of these locations implies possible tax obligation on the part of any employer. Home-based work is increasing in incidence (Charmes, 2002) and the lack of contractual obligation by employers of home-based workers is described by Chen, et al. (1999).

While a one-to-one relationship between informal worker and employer represents the ideal labour standard, the existence of such a relationship cannot be assumed. Jhabvala (2002) cites examples of workers who have more than one type of job and in South Africa gardeners and domestic workers are examples of informal employees who can work for more than one employer. The occurrence of multiple employers raises the question of which one, if any, is responsible for providing benefits and support. Similarly, size of the organisation has implications for representation and the worker's ability to achieve fair labour standards. The size of the organisation is generally one of the criteria used to define formal and informal organisations.

Sethuraman (1976) used the size of less than 10 workers to define as informal. Smaller groups of workers would be less likely to achieve fair representation.

Work relationships can be described as permanent, casual, own account and contracted (ILO, 2002a: 9). The ideal work relationship would be a permanent or at least a relatively long-term relationship between employer and employee. Numerous authors have noted the growth in non-permanent forms of employment (Theron & Godfrey, 2000; Standing, 1999; Castells, 1996: 265). Gerry and Bromley (1979) provide a continuum of employment with some overlap possible between categories. The continuum is made up of stable wage work, short-term wage work, disguised wage work, dependent work and true self-employment. While stable wage work reflects a high degree of stability, short-term wage work includes casual labour, has no assurance of continuity and does not share the benefits of long-term wage work. Relative to categories further down the continuum it is likely to be registered and legal. Short-term workers are likely to work on the employer's premises and equipment, raw materials and other inputs are provided by the employer (Bromley & Gerry, 1979). Outworkers and home-based workers constitute the disguised wage-work category. This category is not legally registered and involves piecework through subcontracting. The worker has flexibility over hours worked and the firm supplies resources. The 'dependent' worker relies on one (or more) larger enterprises to obtain credit, rental of premises or equipment, supply of raw materials, or outlet for products. The relationship is considered disadvantageous to the worker. Examples of dependent work include the taxi driver operating someone else's vehicle and keeping profit over and above rental and running costs and the street trader who purchases off a wholesaler who provides the credit to purchase the goods. The true self-employed has free choice of suppliers and outlets and is the owner of production. He or she relies on inputs provided by others, on receipt of outputs by others, and on a system of payment in goods, services and monies. Growth in sub-contracting, home-based work and casual work means that the majority of informal workers - own account workers - are not achieving fair labour standards.

Quality of life

Much of the literature on informal workers focuses on economic indicators, the relationship between employer and worker, and working conditions of the worker.

Some studies give evidence of the general living conditions and quality of life of the informal worker. The informal economy has been closely associated with poverty (Torres, et al., 2000; Bromley & Gerry, 1979). Bose (1990) points out that informal workers are not able to meet basic needs like food, housing and education for self and family. Informal households are often excluded from access to public services housing, transport, health and sanitation (Bose, 1990: 43). de Soto refers to ‘modest homes cramped together on city perimeters’ (2000: 80), however, that author provides examples of how such slums are able to bring about improved quality of life.

Self-determination

Two distinct views exist in regard to self-determination by the informal worker. McKeever (1998) argues that workers may choose work in the informal economy to avoid taxes and have a more flexible work schedule. An alternative view is that the informal worker is forced to enter the informal economy and, once in work, the worker has no control over the production process (Bose, 1990).

Existing knowledge of the informal economy worker leaves us with a picture of a heterogeneous entity. Demographically, the informal economy is largely black and females are over-represented in South Africa. Socio-economically, the informal worker is likely to have lower income and education levels than his or her formal counterpart. The informal economy worker is likely to be excluded from fair labour standards and have a relatively poor quality of life overall.

2.3. Research questions

A key assumption for this research is that the data collection instrument is based on a dualist model, treating formal and informal economies as separate entities (Statistics SA, 2001d). This may limit what we can learn about the informal economy from the LFS because the dualist approach does not account for the employment relationship and the issue of exploitation, for example.

Based on the literature review above it can be hypothesised that the informal economy worker would show greater levels of flexibility than his or her formal counterpart. The formal worker would be expected to show better statistics for indicators measuring

work relationship and working conditions (the informal worker is generally viewed to have a weak relationship with employer and is exploited, according to the neoliberal models) and productivity (the informal economy is viewed as survivalist by dualist and underground models).

Research question for objective one (comparing formal and informal workers)

- What are the similarities and differences between informal, formal and other workers for various demographic, social and economic indicators?
- More specifically, what can be inferred about level of flexibility, work relationship, interaction with the formal economy, working conditions, the nature of work (survivalist versus productive), and other characteristics of the informal economy worker?

Research questions for objective two (comparing various groups of informal worker)

- What are the demographic, social and economic characteristics of informal workers in South Africa as measured using national surveys?
- What are the similarities and differences between various sub-groups of informal worker for various demographic, social and economic indicators? As with the questions for objective one, the hypothesis here is that certain types of informal worker may show better statistics for flexibility, work relationship, working conditions, the nature of work and other characteristics.
- What predictors influence satisfaction levels in informal households?

Research questions for objective three (strengths and limitations of the survey instrument)

- What issues are raised related to accuracy and value of information on the informal economy as derived from the LFS?
- What changes can be made to the instrument of measurement to improve the quality of measurement of the informal economy?

Chapter Three. Methodology

This chapter includes: a theoretical perspective to ground the methodology; a general introduction to the survey approach; a description of relevant characteristics of the surveys used for secondary analysis in this research; an explanation of how categories of worker and types of households were derived for the analysis; a general description of indicators used; and an explanation of the form and process of analysis.

3.1. Theoretical considerations

Crotty (1998: 2) highlights four elements for consideration when designing research: epistemology, theoretical perspective, methodology and methods. One combination of these elements is the epistemology of objectivism, the theoretical perspective of positivism, the survey methodology, and statistical analysis (Crotty, 1998: 6). This study is concerned with secondary analysis (statistical) of information collected using questionnaires from a national household survey. The study can be viewed as a positivist approach within an objectivist epistemology because the Labour Force Survey is designed to represent the population of South Africa through a probability sampling frame and scientific weighting techniques.

3.2. The survey approach

Surveys occur in various forms – geographic, ordnance and social surveys – and attempt to measure a phenomenon ‘comprehensively and in detail’ (Denscombe, 1998: 6). The census and survey can be traced back to ancient times (Babbie & Mouton, 2001: 230). Surveys are used to record, measure and compare a range of social factors such as poverty, disease, mortality and crime. A growth in use of statistical techniques in relation to social surveys occurred in the nineteenth century (Tonkiss, 1998: 58). The apparent objectivity and statistical design of surveys has resulted in this strategy being closely associated to models of research developed in the natural sciences (Tonkiss, 1998: 60). That author also noted that surveys are often associated with government-driven research, the survey being the primary strategy to collect information for government programmes.

Surveys can be descriptive or analytic (Oppenheim, 1992: 12). The purpose of the descriptive survey is to count, answering 'how many' and 'what proportion' questions. This form of survey requires a representative sample (Oppenheim, 1992: 39). The analytic survey is relational and, unlike the descriptive survey, attempts to explain the relationships between experimental, dependent, controlled and uncontrolled variables (Oppenheim, 1992: 21).

As a research strategy the survey has advantages and disadvantages. Surveys produce valuable empirical data although sometimes at the expense of a solid theoretical base (Denscombe, 1998: 27). Other advantages of surveys are the broad coverage achieved and the saving in cost and time (for the amount of information generated) relative to some other strategies. On the negative side, Denscombe (1998: 28) points out that the broader significance of the data collected through the survey can be neglected when a large volume of information has to be processed. Also, while achieving broad coverage, surveys often produce superficial information. Validity and reliability of survey responses can be compromised. For example, accuracy and honesty of responses can be questioned (Denscombe, 1998: 28) and the applicability of survey instruments in different contexts is contentious, for example, language does not always translate to the same meaning (Babbie & Mouton, 2001: 231).

3.2.1. Surveys in South Africa

In South Africa collection of demographic data using the survey can be traced to the late seventeenth century (Babbie & Mouton, 2001: 230). Socio-economic surveys were introduced in South Africa in the early 1900s. Survey research in South Africa cannot be separated from political influences. Mfono (2001: 527) traces the political influences on compilation and use of demographic information to the Population Registration Act of 1950. This act made classification of population by race statutory. Disaggregation by race contributed valuable insight into analyses of the population dynamics of the various groups, however, greater advances occurred in measurement of population groups other than blacks (Mfono, 2001: 527). Demographic data were used largely to reinforce the ideological position to protect the economic advantage of the white population (Mfono, 2001: 533).

Restrictive acts in the apartheid years, such as the Group Areas Act rendered many individuals in South Africa unwilling to provide information to census takers and surveyors because of rigorous controls that regulated their presence in urban areas (Mfono, 2001). Post-apartheid changes include new provincial boundaries and the inclusion of homelands into provinces resulting in changes in the compilation of population data. A common population register was established in 1995. The first Household Survey under the new government was conducted in October 1995, the first census in 1996, the first Demographic Health Survey (DHS) in 1997 and the first Labour Force Survey in February 2000.

3.3. Description of datasets

This research project makes use of two major socio-economic surveys, the Labour Force and October Household Surveys, to measure dimensions of the informal economy. Two datasets will be used, these being the September 2001 LFS and the 1998 OHS. The September 2001 LFS is the most recent dataset that is available for analysis. This survey showed lower employment figures (10.8 million) than recorded in 2000 (about 12 million). Statistics SA's explanation for the discrepancy includes timing of the survey, floods, a change in fieldworkers and a change in sampling frame (Statistics SA, 2002b). A decision was made to use the September 2001 figures because, while the absolute numbers are lower than expected, the distribution within the categories of employed were similar to previous LFS results. Furthermore, earlier LFSs exhibited other problems, for example unusual numbers of subsistence agriculture workers and informal workers were recorded in September 2000 and February 2001, respectively. The 1998 OHS includes a key subjective indicator, satisfaction with life, which has value as an outcome variable to measure predictors of satisfaction in a household.

The LFSs examine formal and informal employment and unemployment (Statistics SA, 2001b). A unique attribute of the LFS is that it has a rotating panel design. From 2001 onward it will be possible to track changes in employment characteristics of a 'dwelling unit'. Twenty percent of dwelling units will be replaced for each round of the survey. A slight limitation of the panel design is that the survey will track changes in a dwelling unit and not changes of a specific set of people, that is, if a group of

people move from a dwelling unit the new set of people who take occupancy of the dwelling unit will be surveyed in the next round. The multipurpose OHS was used to measure a range of development and poverty indicators, unemployment rates (official and expanded, according to standard definitions of the ILO), and access to education and infrastructure (Stats SA, 2000b). The OHS covered a broader range of indicators than the LFS. For example, the OHS measured births and deaths and included questions pertaining to health, crime and migration. This useful survey was discontinued post-1999 for financial reasons but was revived in the form of a General Household Survey in 2002.

Early versions of the OHS focussed on measurement of formal work so it is not possible to obtain an accurate measure of the informal economy until the publication of the 1997 OHS (Budlender & Hirschowitz, 2000). For example, the 1995 OHS failed to capture accurate figures for informal employment because the concept was poorly defined, key questions were omitted from the questionnaire, and sectors within the informal sector were misclassified (Bhorat, 1999: 324). The 1994-1996 OHSs classified all employees as formal sector workers or domestic workers and in 1995 and 1996 only self-employed informal economy workers were captured (Budlender & Hirschowitz, 2000: 3). Later versions of the OHS (1997-1999) allowed for informal workers as employees or self-employed and with the advent of the LFS, informal economy activity could be derived from a broad set of questions including registration to pay VAT, registration as a closed corporation, size of the organisation, evidence of UIF contributions, location of business, and the person's assessment of whether the business is 'formal' or 'informal' (Budlender, Buwembo & Shabalala, 2001; Budlender and Hirschowitz, 2000: 8). These changes in the survey instrument reflect recognition of the importance of the informal economy as well as an intention to measure it accurately.

3.3.1. Validity and reliability of the OHS and LFS surveys

Size of the sample, sampling frame and sampling method are important determinants of validity and reliability of a survey. The number of households surveyed by the OHS and LFS has changed over time, primarily for financial reasons. Table 1 lists the number of households surveyed by year.

Table 1. Number of households and enumerator areas surveyed for OHS and LFSs ^a

Survey	Number of households	Number of enumerator areas or primary sampling units
OHS 1995	30,000	3,000
OHS 1996	16,000	1,600
OHS 1997	30,000	3,000
OHS 1998	20,000	2,000
OHS 1999	30,000	3,000
LFS Feb 2000	10,000	1,574
LFS Sep 2000	30,000	3,000
LFS Feb 2001	30,000	3,000
LFS Sep 2001	30,000	3,000

^a Information sourced from various Statistics SA statistical releases.

The sampling method from 1995 onwards was based on a two-stage probability sample utilising stratified and cluster techniques. Stratification was by province, magisterial district, urban and rural location, and population group. Surveys were designed to cover various types of enumerator area, including formal or informal urban areas, commercial farms, traditional authority areas or other non-urban areas (Statistics SA, 1999). Stratification may have varied by year, for example in 1997 households were stratified by province, Transitional Metropolitan Councils (TMC) and District Councils (DC). At the individual level weighting was by province, gender, age groups and population group.

Stratification for the September 2000 LFS is described as: “Explicit stratification of the Primary Sampling Units (PSUs) was done by province and area type (urban/rural). Within each explicit stratum, the PSUs were implicitly stratified by District Council, Magisterial District and, within the magisterial district, by average household income (for formal urban areas and hostels) or enumerator area (EA). The allocated number of EAs was systematically selected with “probability proportional to size” in each stratum” (Statistics SA, 2001a).

Sampling frames of all surveys with the exception of the 1995 OHS were based on the 1996 census. The 1995 OHS was sampled according to the 1991 census. A re-weighted version of the 1995 OHS, based on the 1996 census, is available.

The sampling frame excluded some groups, including all prisoners in prisons, patients in hospitals, and people residing (temporarily or semi-permanently) in boarding

houses and hotels. Special dwellings such as prisons, hospitals, boarding houses, hotels, guest houses, schools and churches were excluded in the Labour Force Surveys (Statistics SA, 2001a).

A list of problems experienced by other researchers and this author with the various OHS and LFS datasets is provided in Table 2. The problems could be conceptual (for example, ineffective definition of the informal economy) or technical (for example, data contains inconsistencies).

Table 2. Selected conceptual and technical problems with OHS and LFS datasets

Survey	Problem(s)
OHS 1995	Cannot measure informal economy accurately ^a
OHS 1996	Cannot measure informal economy accurately ^a Birth data not published Some inconsistencies between ASCII data and information in the metadata file
OHS 1997	Data not published for some health and crime variables At least one of the data releases contains errors (data left justified in ASCII file) Mining sector, hostels excluded ^b
OHS 1998	No obvious problems
OHS 1999	Birth and children data files released but data is not valid or reliable.
LFS 2000 Feb	About 1,000 cases have household data but no information for roster or worker files i.e. lack of consistency across files A limited selection of background variables was included in this pilot survey ^c Subsistence agriculture appears to be over-represented
LFS 2000 Sep	Subsistence agriculture appears to be over-represented ^c
LFS 2001 Feb	Informal sector workers appear to be over-represented ^c
LFS 2001 Sep	Some inconsistency across files (probably not significant) Workers under-represented – about 1 million lower than expected (reasons provided in text)

^a Budlender & Hirshowitz (2000)

^b Statistics SA (2000a)

^c Statistics SA (various statistical releases)

The problems above raise the issue of validity and reliability of these surveys. The problems often relate to isolated components of the surveys and in spite of the problems the researcher can obtain useful information from the surveys. Bhorat (1999: 320) has critiqued the 1995 OHS for the manner in which it measures the informal economy but praised the measurement of unemployment. Further evidence of the value of these surveys is reflected through published work. The OHS and LFS have been used by researchers to measure poverty (Hirshowitz, 2000; May, Woolard

& Klasen, 2000), quality of life (Devey & Møller, 2002), employment (Devey, Skinner & Valodia, 2002; Muller, 2002) and unemployment in South Africa (Dias, 2002; Kingdon and Knight, 2000).

3.4. Description of indicators

The purpose of this section is to introduce indicators that will be used in analysis to establish similarities and differences between various categories of worker and their households.

The use of multiple indicators is a favoured strategy for measuring living conditions and poverty. For example, twelve components were recommended for measurement of standard of living: health; food and nutrition; education (literacy and skills); conditions of work; employment situation; aggregate consumption and saving; transportation; housing, including household facilities; clothing; recreation and entertainment; social security; and human freedom (Latouche, 1992: 253). This study is able to investigate education, conditions of work, employment situation, and housing. More recently, indicators for housing (including heating the home), water and sewerage, education and income (including ownership of cars) have been used in developing a living conditions index (May, 2001).

3.4.1. Deriving categories of worker

In this study the term worker is applied in a broad sense and refers to an employee or an own account worker (who may be an employer). For purposes of analysis categories of worker are the same as those used by Statistics SA. These include two categories of formal worker and three categories of informal worker. Formal workers are either formal or commercial agricultural. The justification for treating the two as separate categories is that agriculture represents primary production. Informal workers are informal, subsistence agriculture and domestic workers. The reasoning for treating subsistence agriculture as a separate group is as above for commercial agriculture and domestic workers represent a large, unique group within the informal economy.

Derivation of these categories is now described. For the September 2001 LFS the process begins by classifying all people 15 years or older as employed, unemployed or not economically active. This is achieved from a sequence of questions including “Worked past 7 days”, “Job although absent”, “Work category”, “Reason absent from work”, “Acceptance of job”, “Time to start work” and “Work seeking action” (Statistics SA, 2001d). The calculations for deriving these three categories can be found in the LFS metadata file (Statistics SA, 2001c). This study focuses on the worker but selected statistics for unemployed persons are included in Chapter Four for comparative purposes. Once the three categories have been formulated all employed 15 years of age or older are classified into work categories.

A second variable categorising persons 15 years or older as formal, informal, domestic or other (includes cases responding ‘unspecified’ and ‘don’t know’) is derived from questions ‘What is person’s occupation’ and sector (formal or informal) of business or enterprise where the person works (Figure 4). If the individual selects formal or informal for sector then the individual is classified as formal or informal with the exception of domestic workers. For the latter, if occupation is recorded as domestic then the individual is labelled a domestic worker. All other individuals who are recorded as employed (based on their responses to the questions listed earlier) but are not formal, informal and domestic are classified as ‘other’.

Is the organisation/ business/ enterprise/ branch where works

1 = In the formal sector
 2 = In the informal sector (including domestic work)
 3 = DON'T KNOW

Formal sector employment is where the employer (institution, business or private individual) is registered to perform the activity. Informal sector employment is where the employer is not registered.

Figure 4. Sector question with instructions to fieldworkers from September 2001 LFS questionnaire (Statistics South Africa, 2001: 24).

The third step in the derivation of the work types is to combine the responses for employment status and sector. Thus a ‘pure’ formal worker is employed (employment status) and formal (sector). If industry is agriculture such a worker is classified as commercial agriculture. A ‘pure’ informal worker is employed (employment status) and informal (sector). If industry is agriculture such a worker is classified as

subsistence agriculture. Domestic workers are employed (employment status) and occupation is listed as ‘domestic’.

Analysis was limited to workers in the economically active age range 15 to 65 years of age.

Two additional types of worker were derived for the analysis of informal workers in Chapter Five. The first was identification of the informal worker who had at least one formal worker in his or her household. To create this category a dummy variable measuring the presence of a formal worker was created at household level and this was then linked to each individual in the worker file. This allowed selection of informal workers with a formal person present in the household. These informal workers are termed ‘formal-present’ in this study. The second type of worker was the worker who was reported as being informal but who had formal characteristics of being registered for VAT payment or working for a registered company. This worker is termed ‘formal-like’ for this study.

3.4.2. Deriving types of household

Households are referenced according to the type of worker present in the household. As for individual analysis, the worker’s age range was limited to 15 to 65 years of age. Thus, a ‘formal’ household was a household containing at least one formal worker (it is important to note that such a household may include other worker types). Thus households could be defined as formal [F], commercial agriculture [CA], subsistence agriculture [SA], informal [I], domestic [D], other (unspecified worker) [O], unemployed [U] and not economically active [N]. It is highly likely that a household of a given type may contain at least one member from another category of work or who is unemployed or not economically active. Combinations can be computed for this eventuality. Examples of possible combinations of members in a household include: cn (a household containing at least one commercial agriculture worker and at least one additional person who is not economically active); fiu (at least one formal worker, at least one informal worker, and at least one unemployed person only); and d (a household containing at least one domestic worker only).

Formal households

The frequency of combinations for formal households is presented in Table 3. A third of households were f households (i.e. contained at least one formal worker and no other type of member). A further third of formal households were fn households (i.e. contained at least one formal worker and at least one member who was not economically active, but no other type of member). Of formal households, 87.7% contained formal workers or formal workers with unemployed and not economically active members, but no other type of worker (Table 3).

Table 3. Combinations of members in formal households.

Combinations of work categories	N	%	Cumulative %
Formal, not eco active	1,676,531	33.8	33.8
Formal only	1,667,620	33.7	67.5
Formal, unemployed, not eco active	520,585	10.5	78.0
Formal, unemployed	482,525	9.7	87.7
Formal, informal, not eco active	124,681	2.5	90.2
Formal, informal	120,961	2.4	92.7
Formal, domestic	76,177	1.5	94.2
Formal, domestic, not eco active	71,663	1.4	95.7
Formal, informal, unemployed, not eco active	46,108	0.9	96.6
Formal, other, unemployed, not eco active	23,289	0.5	97.1

Commercial agriculture households

At least a third of commercial agriculture households contained formal agriculture worker(s) only. A further third of such households contained a combination of commercial agriculture worker with at least one economically inactive individual. Combinations of commercial agriculture with formal worker(s) occurred in higher frequencies than informal worker(s), indicating that the formal agriculture sector may – within households – be more closely associated with the formal economy.

Subsistence agriculture households

About 55% of households that contained subsistence agriculture worker(s) had no other type of worker present. Of note is that a fair proportion of subsistence households contained informal (9.2%) and formal (8.2%) workers.

Informal households

Over half of informal households were exclusively informal or contained at least one person who was not economically active (Table 4). Informal households were more likely to contain a formal worker(s) than workers from other informal sectors (domestic and subsistence agriculture workers). A significant proportion of informal households contained at least one unemployed person.

Table 4. Combinations of workers in households with at least one informal worker.

	Frequency	Valid Percent	Cumulative Percent
Informal, not economically active	485,828	29.8	29.8
Informal	380,709	23.4	53.2
Informal, unemployed, not economically active	165,168	10.1	63.3
Informal, unemployed	139,114	8.5	71.9
Formal, informal, not economically active	124,681	7.7	79.5
Formal, informal	120,961	7.4	87.0
Formal, informal, unemployed, not economically active	46,108	2.8	89.8
Informal, domestic	27,488	1.7	91.5
Informal, domestic, not economically active	23,774	1.5	92.9
Formal, informal, unemployed	22,276	1.4	94.3

Domestic households

Half of domestic households were exclusively domestic, followed most frequently by a domestic household containing at least one formal worker (15.3%). A significant proportion of domestic households contained unemployed.

Households with no worker

A fair proportion of households contained no active worker. These households were divided into two groups. The first set of households had no active worker but at least one elderly person or a person with access to a grant (i.e. household would probably derive income from a pension or grant). The second set of households had no active worker, no elderly person and no grant-holder. These households are termed 'elderly' (the majority of these households apparently rely on pension income) and 'unemployed' households (a high proportion of these households contained unemployed people and these households showed significant reliance on remittance income), respectively.

3.4.3. Roster indicators

A roster indicator is an indicator that pertains to each person in the household. For this study, key demographic and social indicators such as gender, age, ethnic group and education were used.

Some indicators used at the household level were derived from the roster file. For example, number of people in the household is a count of the number of individuals per household in the roster file. Other variables aggregated from the roster file include number of elderly, infants, children, members in the household collecting water or wood, literate members in the household, and the number of dependents and members who are independent.

3.4.4. Worker indicators

Key demographic and social indicators such as gender, age, ethnic group and education were measured for each worker. In both the OHS and LFS a worker is classified as anyone 15 years or older, however, the analysis was restricted to workers in the economically active age range of 15-65 years. Work-related variables used in this study include: work sector, occupation, industry, income, relationship, size of organisation, location, hours worked, access to benefits (for example, medical aid and annual leave), and access to a trade union.

3.4.5. Household indicators

Some key demographic and social indicators were presented for the household head. Household indicators utilised include: spatial indicators such as province and urban-rural location; housing indicators such as type of housing and ownership; access to services including water, electricity, sanitation, telephone and postal service; source of energy for cooking, heating and lighting; and economic indicators such as monthly expenditure. The OHS includes a broader range of indicators than the LFS. Thus indicators relating to health and crime were used in addition to those listed above for the analysis of predictors of satisfaction levels.

3.5. Analysis

The secondary analysis of the September 2001 LFS proceeded in two stages to answer the research questions posed in Chapter Two. In the first stage, informal and formal workers were profiled using selected indicators. This analysis related to objectives one and two and was expected to provide a description of informal workers as a group as well as a profile of similarities and differences between formal and informal workers. The second stage involved an analysis of specific categories of informal worker. This stage addressed objective two and was expected to provide key similarities and differences within the informal sector.

Secondary analysis of the 1998 OHS described satisfaction levels in the various types of household and identified predictors of satisfaction in informal households.

Multinomial regression was attempted to establish significant associations between category of worker and groups of indicators measured at the individual worker level. Problems were experienced as a result of the large sample size (unweighted) and the validity of model fit was uncertain. Furthermore, for household analysis in Chapter Four it was not possible to analyse groups using regression analysis because household types were not mutually exclusive. Given the large size of the datasets (30 000 and 20 000 households respectively) the author is confident that any trends noted are significant. In Chapter Five categories of informal worker including male, female, urban and rural were tested against the same set of predictor variables using multinomial regression to establish significant associations. Selected statistics from these analyses are presented in Appendix A. Multinomial logistic regression is useful for classification of subjects based on values of a set of predictor variables. This type of regression is similar to logistic regression, but it is more general because the dependent variable can have more than two categories. A stepwise regression model was used to determine significant predictors of level of satisfaction. The dependent variable 'satisfaction with life' has five categories ranging from 'Very dissatisfied' through 'Very satisfied' (Statistics SA, 1998). Predictors entered in the model, and statistical output from the model, are reported in Chapter Five.

Chapter Four: Profiles of workers and their households by category of work

The purpose of this chapter is to describe a variety of indicators for the informal economy worker and his or her household relative to other types of worker. The results are presented in three sections. The first section provides the distribution of the economically active and working populations in South Africa. Worker demographics and work-related indicators are described in the second section. The third section describes similarities and differences between households containing various categories of worker. All data presented in this chapter are sourced from the September 2001 LFS.

4.1. The working population

Of the economically active population – 15 to 65 years of age – 39.6% were employed (Table 5). In absolute numbers, 10.8 million people were employed.

Table 5. Distribution of South Africa's economically active (15-65 years of age) population by categories of employment.

Main activity	N	%	%
Formal	6,872,924	25.1	63.4
Commercial agriculture	665,941	2.4	6.1
Subsistence agriculture	358,983	1.3	3.3
Informal	1,873,136	6.8	17.3
Domestic	915,831	3.3	8.5
Unspecified	146,000	0.5	1.3
<i>Sub-total employed</i>	<i>10,832,816</i>	<i>39.6</i>	<i>100.0</i>
Unemployed	4,525,309	16.5	
Not economically active	12,006,413	43.9	
<i>Sub-total not employed</i>	<i>16,531,722</i>	<i>60.4</i>	
<i>Total 15-65</i>	<i>27,364,538</i>	<i>100.0</i>	

Of the employed population, 63.4% worked in the formal sector (Table 5). Informal and domestic workers represented the second and third largest groups of worker, constituting 17.3% and 8.5% of the working population, respectively.

4.2. Description of indicators for individual workers, by employment category

4.2.1. Demographic and spatial indicators

Demographic and spatial indicators included for analysis included gender, age, marital status and race group. Spatial indicators measured included province and location in an urban or rural area. The distribution of each indicator is provided for individual workers by employment category in Table 6. The table includes selected statistics for the unemployed for comparative purposes.

Table 6. Demographic and spatial indicators for workers (15-65 years), by employment categories, with selected statistics for the unemployed.

	F	CA	SA	I	D	U	TOTAL ^a
N	6,872,924	665,941	358,983	1,873,136	915,831	4,525,309	10,832,816
<i>Gender</i>	6,872,924	665,941	358,983	1,873,136	915,831	4,525,309	10,832,816
Male	61.1	71.8	64.4	54.5	2.9	47.3	55.8
Female	38.9	28.2	35.6	45.5	97.1	52.7	44.2
<i>Age</i>	6,872,924	665,941	358,983	1,873,136	915,831	4,525,309	10,832,816
15-19 yrs	1.2	3.3	14.8	2.8	1.0	5.9	2.1
20-29 yrs	23.4	28.4	25.1	23.8	17.9	50.2	23.5
30-39 yrs	36.4	29.5	20.2	31.2	29.6	26.5	33.9
40-49 yrs	25.5	21.1	17.0	25.1	31.6	12.6	25.4
50-59 yrs	11.7	14.5	14.7	13.1	17.8	4.4	12.8
60-65 yrs	1.8	3.1	8.1	3.9	2.1	.5	2.4
<i>Marital status</i>	6,872,602	665,941	358,983	1,872,686	915,831	4,525,309	10,832,043
Married/ live together	61.5	62.2	48.2	52.8	39.5	27.5	57.6
Widow/widower	2.9	2.8	5.5	6.0	10.1	1.8	4.1
Divorced/separated	4.4	2.1	2.6	4.3	7.5	2.6	4.5
Never married	31.1	32.9	43.8	36.9	42.9	68.2	33.8
<i>Race</i>	6,852,700	664,823	358,983	1,871,271	914,829	4,524,152	10,808,607
African/black	55.0	63.2	93.5	84.4	88.0	86.8	65.0
Coloured	12.6	25.1	4.8	6.8	11.2	7.9	11.9
Indian/Asian	6.4	.2	.4	2.1	.3	2.4	4.5
White	26.0	11.4	1.3	6.6	.5	2.8	18.7
<i>Urban/rural</i>	6,872,924	665,941	358,983	1,873,136	915,831	4,525,309	10,832,816
Urban	81.9	12.0	14.8	56.5	65.0	64.6	69.4
Non-urban (Rural)	18.1	88.0	85.2	43.5	35.0	35.4	30.6
<i>Province</i>	6,872,924	665,941	358,983	1,873,136	915,831	4,525,309	10,832,816
Western Cape	15.7	23.6	2.5	8.1	10.1	7.5	13.8
Eastern Cape	8.3	10.7	48.8	16.8	12.5	13.1	11.6
Northern Cape	1.8	6.6	2.5	1.2	3.3	1.8	2.1
Free State	7.1	14.3	3.7	5.5	9.2	7.1	7.2
KwaZulu-Natal	18.9	16.8	9.5	17.2	18.7	21.8	18.0
North West	7.3	6.3	9.4	6.9	7.9	7.5	7.4
Gauteng	29.3	.9	3.6	22.0	25.3	23.9	25.3
Mpumalanga	6.1	8.8	7.0	8.1	6.5	6.8	6.6
Northern Province ^b	5.5	12.0	13.0	14.1	6.6	10.6	7.8

Key: F (formal), CA (commercial agriculture), SA (subsistence agriculture), I (informal), D (domestic), U (unemployed [official definition]).

Notes: a Total includes all worker categories, excludes unemployed.

b Northern Province is now known as Limpopo Province

The distribution of males and females in the economically active population was 47.4% and 52.6% respectively in September 2001. Within the working population 55.8% were male (Table 6) demonstrating the dominance of men in the employment market. Distribution by gender was unequal within categories of employment. Males were over-represented in formal and agriculture employment. Females were over-represented in domestic work. The proportion of women recorded as unemployed – 52.7% – mirrored closely the distribution of women in the economically active population. Informal economy literature suggests that in developing countries most of the female labour force will be in the informal sector. The proportion of males and females in the informal category, 54.5% and 45.5% respectively, was not markedly different to proportions for the employed population. This result implies the informal economy has a ‘normal’ distribution and that the absolute number of men employed in the informal economy is higher. The picture changes when domestic workers are added to the population of informal workers. When the informal economy includes domestic and subsistence agriculture workers women represented a greater absolute number of informal workers than men (1,870,239 million women relative to 1,277,710 men, or 59.4% women to 40.6% men).

Raw ages were recoded into ten-year intervals. A third of all workers were 30-39 years of age. A further quarter of all workers were 40-49 years of age and just under a quarter were aged 20-29 years. The distribution of formal and informal workers within each age category was similar to the overall distribution for all workers. Within the category of domestic worker a high frequency of workers were aged 40-49 years. In contrast, within subsistence agriculture a relatively high proportion of workers were aged 15-19 years. About half of individuals reported to be unemployed were aged 20-29 years.

Fifty-seven percent of workers were married or lived together while a third reported being ‘never married’. While formal and informal workers exhibited similar distributions to that of the population of workers, domestic and subsistence workers and the unemployed showed skewed distributions. Significantly high proportions of these workers reported being ‘never married’. For unemployed and subsistence agriculture workers the high percentage of workers of single status is most likely related to the sample of workers or unemployed being relatively young. For domestic

workers the high proportions of workers recorded as single or widowed reflect a form of employment that is not conducive to a normal family life (Preston-Whyte, 1991).

In 2001, the population of South Africa comprised 78% black, 9% coloured, 2.8% Indian and 10% white individuals (Statistics SA, 2002b). For the same period, the working population was composed of 65.0% black, 11.9% coloured, 4.5% Indian and 18% white workers. These proportions reflect the skewed racial distribution of employment in South Africa, black South Africans the most disadvantaged and white South Africans the most advantaged in this respect. Black South Africans were over-represented in informal employment and the unemployed group and were under-represented in formal work. While the proportion of white workers in the working population was measured at 18.7% these workers were concentrated in the formal sector – 26.0% of formal workers were white. Coloured workers were over-represented in commercial agriculture.

Over two-thirds of all workers were located in urban areas with formal workers occurring in urban areas in the highest proportion (81.9%). In contrast, formal and informal agricultural workers listed a rural response in 88.0% and 85.2% of cases respectively. The proportion of informal workers recorded in rural areas – 43.5% – was significantly higher than the population average of 30.6%.

Provinces recording the highest numbers of workers were Gauteng, KwaZulu-Natal and Western Cape. The high frequencies could be related to relative wealth (Gauteng and Western Cape) and/or population size (KwaZulu-Natal) of the province. Relatively high proportions of informal workers were measured in the poorer Northern (14.1%) and Eastern Cape (16.8%) provinces. Workers in commercial agriculture and subsistence agriculture were over-represented and under-represented in the Western Cape respectively. Coloured were over-represented in the commercial agriculture category and coloureds occur in high frequencies in the Western Cape. This partially explains the high proportion of commercial agriculture workers measured in the Western Cape. The Western Cape had a low proportion of unemployed. The Western Cape is regarded as a wealthy province and the concentration on formal agriculture and low unemployment reflects this. Extremely low proportions of agriculture workers were reported in Gauteng, a province that

relies on a strong economic base and industry to maintain its rating as a rich province. In contrast, subsistence agriculture workers occurred in high proportions in the poorer Eastern Cape (48.8%) and Northern Province (13.0%).

4.2.2. Socio-economic measures

Socio-economic indicators measured for workers included education, literacy (ability to read and write) and income (Table 7).

Table 7. Socio-economic indicators for workers (15-65 years), by employment categories, with selected statistics for the unemployed.

	F	CA	SA	I	D	U	TOTAL ^a
N	6,872,924	665,941	358,983	1,873,136	915,831	4,525,309	10,832,816
<i>Education</i>	6,782,487	658,276	355,362	1,853,561	904,258	4,500,923	10,693,875
No education	2.7	18.0	19.0	10.1	13.9	4.2	6.5
Primary	14.1	46.4	46.9	33.7	47.0	23.8	23.6
Secondary (excl. G12)	27.6	20.4	27.8	36.5	32.7	40.5	29.2
Matric	30.4	9.8	5.6	14.2	6.1	25.3	23.3
Post-matric	25.2	5.4	.7	5.5	.4	6.2	17.4
<i>Average years of education</i>	12.45	7.08	6.45	8.72	7.05	10.24	10.76
<i>Ability to read</i>	6,872,781	665,816	358,983	1,873,136	915,831		10,832,548
Yes	97.4	80.6	78.2	89.4	85.3		93.2
<i>Ability to write</i>	6,872,924	665,539	358,983	1,873,136	915,831		10,832,414
Yes	97.2	80.5	77.8	89.1	85.1		93.0
<i>Income group</i>	6,303,962	642,904	350,014	1,782,380	897,331		10,096,900
None	.5	.5	53.9	5.5	.0		3.2
R1-200	1.3	6.0	15.4	19.1	18.9		6.9
R201-500	4.5	42.1	18.5	26.3	46.9		15.2
R501-1 000	12.9	30.8	7.3	21.8	28.2		16.9
R1 001-1 500	14.0	6.3	2.0	9.0	4.0		11.3
R1 501-2 500	21.0	4.5	1.6	8.7	1.7		15.2
R2 501-4 500	21.1	3.4	1.0	6.1	.2		14.6
R4 501-11 000	20.2	4.4	.1	3.1	.1		13.5
R11 001-30 000+	4.7	2.0	.2	.5	-		3.2
<i>Average income category (range 1-14)</i>	6.75	4.14	2.0	3.87	3.24		5.57

Key: F (formal), CA (commercial agriculture), SA (subsistence agriculture), I (informal), D (domestic), U (unemployed [official definition]).

Notes: ^a Total includes all worker categories, excludes unemployed.

Education is closely correlated with employment and the statistics obtained in this study confirm this. The modal category for education was secondary education (excluding matric) at 29.2% while reasonable proportions of workers had matric (23.3%) or better (17.4%). However, just less than one quarter of workers had primary education only (23.6%) and 6.5% had no education (Table 7). Formal workers had significantly better levels of education than all other workers, including commercial agriculture workers. The unemployed and informal workers reported better education levels than agriculture and domestic workers. Informal workers and

the unemployed showed higher than average proportions of secondary education while agriculture and domestic workers had higher than average proportions of primary and no education. Average number of years of education was highest for formal workers, then unemployed and informal workers (Table 7).

Overall literacy rate of workers – as measured by ability to read and write – was relatively high (93%). The proportion of informal workers who could read and write was higher than agriculture and domestic workers.

Distribution of income was markedly skewed by categories of work (Table 7). Formal workers showed high proportions in wealthier income categories, with 62.3% of formal workers reporting income in the range of R1 501-R11 000. Commercial agriculture workers fared less well with 70% reporting income in the lower range of R200-R1 000. The distribution for subsistence agriculture workers was even worse, 53.9% reported having no income. Informal and domestic workers showed the highest percentages in the income categories R1-R200, R201-R500 and R501-R1000.

Domestic worker incomes were generally concentrated within the range R1-1000 while informal workers showed better percentages (than domestic workers) in the higher income categories. Income was formulated as fourteen categories ranging from no income (1) to R30 000+ (14) in the LFS. Averages of these categories for the different types of worker demonstrated that formal workers have above average incomes (Table 7).

Education level was strongly correlated with income ($r=0.562$, $p < 0.05$ for education (five categories) by income (nine categories)).

4.2.3. Form of work, occupation and industry of workers

The LFS distinguishes between employees and own account workers (self-employed). The majority of workers worked for someone else for pay (71%) with a significant proportion (15.5%) of remaining workers working on their own or with a partner in any type of business (Table 8). The majority of formal workers (including commercial agriculture) worked for someone else for pay (93.1% and 89.6%, respectively). Over sixty percent of informal workers worked on their own or with a partner. Domestic

workers and subsistence agriculture workers showed high frequencies in categories designed to capture those specific work types.

Table 8. Form of work, occupation and industry of workers (15-65 years), by employment categories.

	F	CA	SA	I	D	U	TOTAL ^a
<i>Main work (form)</i>	6,870,721	665,941	358,983	1,872,432	915,831		10,820,106
Working for someone else for pay	93.1	89.6	33.9	25.6	2.1		71.4
Work for one or more hhs as domestic, gardener, security guard	.2	.2	.1	6.8	97.9		9.6
Work on own or small hh farm/plot or collect natural products	.0	.7	58.9	1.3			2.3
Working on own or with partner in any type of business	6.2	9.3	3.4	62.0	.0		15.5
Helping without pay in hh business	.4	.3	3.6	4.4			1.2
<i>Occupation</i>	6,861,673	665,941	358,983	1,870,396	915,831	2,065,943 ^b	10,807,214
Elementary occupation	13.1	67.2	37.7	31.6		23.3	19.6
Craft & related trades	13.3	1.9	.7	25.6		16.5	13.3
Service, shop & market workers	14.4	.9	.4	20.2		15.0	12.9
Technical & associated professionals	15.2	.6		4.9		4.2	10.6
Clerks	15.3	1.9	.1	1.8		10.4	10.2
Plant & machine operators & assemblers	12.8	13.8	4.1	4.7		13.3	10.0
Domestic workers					100.0	13.2	8.5
Legislators, senior officials & managers	8.5	1.6		3.4		1.2	6.1
Professionals	6.7	.3		1.1		.8	4.5
Skilled agricultural & fishery workers	.7	11.8	57.1	6.9		2.1	4.3
<i>Industry</i>	6,849,430	665,941	358,983	1,870,048	915,831	2,064,798 ^b	10,794,177
Wholesale & retail trade	20.8			50.1		22.4	22.2
Community, social & personal services	26.4			8.7		8.1	18.4
Manufacturing	20.2			10.6		22.3	14.9
Private households	.1			6.8	100.0	14.4	9.8
Agriculture, hunting & forestry		100.0	100.0			5.8	9.7
Finance and business services	13.0			4.1		7.0	9.0
Construction	4.7			13.8		9.9	5.5
Transport, storage and communication	6.3			5.5		4.7	5.0
Mining	7.1			.1		4.1	4.5
Other	1.4			.1		1.2	.9

Notes: ^a Total includes all worker categories, excludes unemployed

^b Previous employment

Unskilled categories of occupation such as ‘elementary occupation’ (19.6%), craft and related trades (13.3%) and service, shop and market workers (12.9%) contained the highest proportions of workers (Table 8). Informal workers occurred in higher

proportions than average for these categories. While formal workers were more evenly distributed across occupation categories, higher than average proportions were observed in the skilled occupations, including technical and associated professionals and clerk categories. Agriculture workers (both formal and informal) occurred in high proportions in the elementary occupations and skilled agriculture and fishery worker categories. Occupation is used to identify the domestic worker.

Over fifty percent of workers worked in three industries: wholesale and retail trade (22.2%); community, social and personal services (18.4%); and manufacturing (14.9%). Formal workers were over-represented in manufacturing and community, social and personal services while half of all informal workers were recorded in the wholesale and retail trade industry. Industry is used to define agriculture workers. The majority of 'private household' workers were domestic workers.

4.2.4. Working conditions of the employee

A set of questions relating to relationship with employer and conditions of work is asked of the worker defined as an employee. It is important to note from the outset that a relatively low proportion of informal workers were classified as employees (Table 9). A clear majority of all employees (95.6%) had only one employer. Informal workers (12.2%) and domestic workers (7.4%) were most likely to report having more than one employer. Gardeners, as informal workers, would be included here.

Generally, informal employees reported commencing work, or they changed jobs, more recently than their formal counterparts (Table 9). The highest percentage of employees commenced employment in the period 1995 to 1999 (i.e. three to seven years ago). Informal, domestic and subsistence agriculture employees were over-represented in more recent periods (for example, a high number commenced work in 2001) and were under-represented in the period 1980 through 1994.

Formal employees were more likely than informal employees to enjoy a permanent relationship with their employer (84.3% and 44.0%, respectively). All categories of informal employment were over-represented in the temporary and casual employee categories (Table 9). Agricultural work – both commercial and subsistence – had a strong seasonal attribute.

Table 9. Working conditions of the employee, by employment categories.

	F	CA	SA	I	D	TOTAL
<i>Number of employers</i>	6,366,732	590,440	120,897	590,201	893,409	8,671,978
One employer	96.5	98.0	95.8	87.8	92.6	95.6
More than one employer	3.5	2.0	4.2	12.2	7.4	4.4
<i>Year commenced working</i>	6,388,392	595,672	121,332	596,154	914,356	8,724,812
-1979	6.6	6.6	3.9	4.2	3.9	6.1
1980-1989	20.1	15.6	9.9	8.3	11.5	17.8
1990-1994	17.7	16.8	12.6	8.3	13.8	16.4
1995-1999	32.2	32.0	30.9	30.6	33.5	32.1
2000	9.6	10.0	13.9	15.8	14.9	10.8
2001	13.8	19.0	28.8	32.8	22.5	16.8
<i>Work</i>	6,384,676	594,659	120,474	585,449	898,541	8,688,183
Permanent	84.3	73.4	56.1	44.0	61.3	77.8
Fixed period contract	3.6	2.8	2.5	4.0	2.0	3.4
Temporary	7.2	13.6	24.9	30.1	23.3	11.3
Casual	4.8	3.7	12.0	20.7	13.1	6.7
Seasonal	.2	6.4	4.5	1.2	.3	.8
<i>Written contract</i>	6,400,213	597,397	122,241	596,010	914,523	8,740,544
Yes	65.2	37.3	10.0	14.9	9.3	52.8
No	31.4	60.8	87.4	82.1	88.2	43.7
Don't know	3.5	2.0	2.6	3.0	2.5	3.5
<i>Supervision of work</i>	6,364,460	595,993	120,606	593,859	909,741	8,686,378
Work supervised	85.6	92.7	78.5	70.7	69.0	83.2
Work independent	14.4	7.3	21.5	29.3	31.0	16.8
<i>Contribution to pension or retirement fund</i>	6,175,294	586,338	120,832	577,452	896,473	8,449,009
Yes	66.7	18.5	4.1	11.8	3.6	51.5
No	33.3	81.5	95.9	88.2	96.4	48.5
<i>Paid leave</i>	6,238,978	588,944	121,172	581,335	899,654	8,526,314
Yes	73.8	34.1	11.5	16.4	18.8	60.0
No	26.2	65.9	88.5	83.6	81.2	40.0
<i>Trade union membership</i>	6,111,215	592,567	120,753	576,152	902,832	8,400,089
Yes	44.0	10.1	3.0	8.4	1.5	33.7
No	56.0	89.9	97.0	91.6	98.5	66.3

Just over fifty percent of all employees had a written contract, however, this was significantly skewed in favour of formal employees, 65% of whom had a written contract (Table 9). Over 80% of all informal employees (informal, domestic and subsistence agriculture) stated they had no written contract with their employer.

Supervision of work was common for 83.2% of all employees. Of the various employment types, informal and domestic workers had the most independence from supervision (29.3% and 31.0%, respectively, reported they worked independently).

Two thirds of formal employees worked for an employer who made contributions to a pension or retirement fund (Table 9). Employers of informal employees are significantly less likely to do so, with only 11.8% of informal employees reporting an employer contributing to a pension or retirement fund. The picture is similarly dismal for other non-formal employees.

Formal employees showed significant advantages over other types of employee in respect to paid leave and membership of a trade union (Table 9). Comparing formal and informal employees, 73.8% of the former confirmed paid leave relative to only 16.4% of the latter. And while the proportion of formal employees who were members of a trade union was relatively low (44.0%), this was significantly higher than informal employees (8.4%).

4.2.5. Working conditions of the worker

The LFS measures several work-related indicators for all workers (employees and own account), including access to medical aid, hours of work, size of the organisation and location (Table 10).

The results demonstrated that medical aid is virtually unattainable for all but formal workers and even their rate of affirmation was low (Table 10).

Just less than fifty percent either contributed UIF payments or were excluded from UIF because of a high income. Sixty percent of formal workers contributed UIF payments compared with 4.5% of informal workers.

About a quarter of informal workers would like to work additional hours, however, the average hours worked by informal workers was similar to the average hours worker by formal workers (Table 10).

Size is one of the characteristics used to define an organisation as formal or informal. Generally, informal workers worked for small-sized organisations (over 50% of informal workers worked as individuals compared with 2.7% formal workers). In

contrast, over half of formal workers worked in organisations that had 20 or more regular workers (Table 10).

Table 10. Working conditions of the worker, by employment categories.

	F	CA	SA	I	D	TOTAL
<i>Medical aid or health insurance</i>	6,713,861	660,620	351,909	1,857,811	905,437	10,589,652
Yes, self only	15.0	4.2	.1	1.1	.6	10.1
Yes, self & dependants	23.3	3.7	1.0	2.2	.7	15.5
No medical aid benefit	61.7	92.1	98.9	96.7	98.7	74.4
<i>UIF Deductions</i>	6,574,449	648,396	353,412	1,843,531	896,636	10,406,419
Yes	60.1	39.7	4.3	4.5	3.5	41.9
No, income above UIF	7.7	3.1	2.5	5.7	5.9	6.7
No, other reason	32.2	57.2	93.1	89.8	90.6	51.3
<i>Hours worked past seven days (incl. overtime)</i>	6,844,170	664,789	354,248	1,857,335	910,761	10,759,925
Mean	46.10	50.90	32.80	45.49	42.31	45.55
<i>Hours worked in an average week (incl. overtime)</i>	6,832,992	663,669	354,209	1,857,230	909,495	10,745,554
Mean	46.87	51.77	33.56	46.61	42.87	46.37
<i>Flexible working hours</i>	6,821,695	664,311	356,320	1,862,897	907,838	10,735,397
Can decide fully	8.9	11.8	65.4	67.8	8.7	21.3
Limited range	4.8	1.3	5.0	7.2	10.0	5.5
Fixed by employer	86.3	86.9	29.5	25.0	81.3	73.2
<i>Longer hours</i>	6,747,020	657,622	353,674	1,843,461	902,594	10,621,830
Yes	13.3	10.0	19.3	26.3	17.1	15.9
<i>Number of regular workers</i>	6,550,854	655,779	357,641	1,856,611	910,261	10,429,170
1	2.7	2.9	40.0	54.8	80.0	20.1
2-4	9.5	11.7	32.9	30.9	15.7	15.0
5-9	11.5	15.4	11.3	6.3	1.6	10.0
10-19	16.1	19.8	7.1	2.8	1.6	12.4
20-49	19.4	21.9	4.8	2.7	.6	14.4
50+	40.8	28.4	3.8	2.5	.5	28.1
<i>Location</i>	6,866,236	665,941	358,650	1,872,801	914,723	10,800,988
Owners home/farm	3.2	75.8	80.7	50.1	42.5	21.9
Someone else home	.6	1.7	4.2	8.9	55.9	7.0
Factory/office	62.7	15.8	1.4	4.4	.4	42.0
Service outlet	28.3	.9	.9	7.4	.5	19.7
At a market	.3			.8		.3
Footpath, street	1.5	3.2	6.5	6.4	.2	2.6
No fixed location	2.9	1.5	5.9	21.4	.5	6.1
Other	.5	1.0	.5	.6	.1	.5

Of the employed, the highest number work in a factory or office (42.0%) with high proportions working in the owner's home or farm (21.9%) or a service outlet (19.7%) (Table 10). Formal workers showed higher than average proportions in factories, offices and service outlets while informal workers were more likely to work in the owner's home or farm (50.1%) or had no fixed location of work (21.4%).

4.2.6. Registration of business

Criteria used to define a worker as formal or informal include size of the organisation, the registration of an organisation (or individual) as a company or closed corporation, and registration for payment of VAT. The LFS includes two questions that measure registration (Table 11).

Table 11. Registration of business, by employment categories.

	F	CA	SA	I	D	TOTAL
<i>Organization or business a registered company or closed corporation</i>	6,682,466	651,319	342,737	1,820,397	898,361	10,447,311
Yes	83.6	93.1	9.4	7.2	4.8	61.5
No	16.4	6.9	90.6	92.8	95.2	38.5
<i>Registered for VAT</i>	6,523,454	626,737	337,702	1,817,379	888,316	10,235,708
Yes	79.7	90.0	8.2	6.1	4.6	58.2
No	20.3	10.0	91.8	93.9	95.4	41.8
<i>Sector</i>	6,872,924	665,941	358,983	1,873,136	913,544	10,684,529
Formal sector	100.0	100.0			5.0	71.0
Informal sector			100.0	100.0	95.0	29.0

The majority of formal enterprises were registered as a company or closed corporation (83.6%) and/or were VAT-registered (79.7%). In contrast, extremely low proportions of informal economy workers were registered.

4.2.7. Supplementary agricultural activity

Table 12. Supplementary agricultural activity, by employment categories.

	F	CA	SA	I	D	TOTAL
<i>Farming activity</i>	6,868,933	665,431	358,983	1,872,885	915,298	10,826,382
Yes	4.3	25.0	72.3	19.4	7.9	10.8
<i>Reason for farming</i>	288,631	158,940	254,319	359,875	70,585	1,148,061
Extra food	70.5	49.6	61.9	75.0	74.5	67.2
Main source food	9.5	6.8	20.4	12.4	17.6	13.0
Other	20.0	43.7	17.7	12.6	7.8	19.7

The LFS includes a question on agricultural activity (growing produce or keeping stock) for sale or household use. Such a question could be useful for demonstrating survivalist activity.

Subsistence agriculture workers were most likely to conduct farming activities, usually for extra food (Table 12). About one fifth of informal workers reported farming activity, primarily for extra food.

4.3. Description of indicators for workers' households

Of all South African households, 69.5% (7,578,524 of 10,899,395 households) contained at least one employed worker in 2001. Forty-five percent of households housed at least one formal worker (Table 13). The importance of the informal sector is evident; households containing at least one informal worker (14.9%) were the second most frequent type of household. Households with at least one domestic worker represented the third largest group of households.

Table 13. Frequency and percentage of households^a containing at least one individual of each category of worker or an individual of economically active age (15-65 years) who does not work.

	F	CA	SA	I	D	O	U	NE
n (1+ in hh)	4,955,196	460,121	289,916	1,628,716	966,480	126,913	2,911,929	6,710,265
% (1+ in hh)	45.5	4.2	2.7	14.9	8.9	1.2	26.7	61.6
Maximum	8	6	7	6	3	7	14	18
Mean ^b	1.34	1.27	1.29	1.16	1.02	1.15	1.52	1.98

Source: September 2001 LFS

Key: F (Formal), CA (commercial agriculture), SA (subsistence agriculture), I (informal), D (domestic), O (other), U (Unemployed), NE (Not economically active).

Notes: ^a 10,899,395 households in South Africa

^b Mean is based on n for each sub-group and not on n for total sample

4.3.1. Characteristics of the head of household

Table 14. Demographic indicators for head of household, by type of household

	F	CA	SA	I	D	NW/E/G	NW/NE/NG	TOTAL
N	4,955,196	460,121	289,916	1,628,716	966,480	1,714,266	1,606,605	10,905,687
<i>Gender</i>								
Male	4,953,081	459,740	289,703	1,628,368	966,480	1,712,782	1,598,832	10,886,911
Female	74.7	80.1	71.3	66.4	36.8	39.3	50.6	61.0
	25.3	19.9	28.7	33.6	63.2	60.7	49.4	39.0
<i>Age</i>								
-19 yrs	4,929,136	458,369	288,757	1,623,337	961,513	1,705,899	1,598,012	10,845,166
20-29 yrs	0.2	0.3	1.5	0.3	0.4	0.2	7.5	1.4
30-39 yrs	12.1	15.2	8.5	10.3	11.3	1.8	24.6	12.6
40-49 yrs	30.7	28.2	15.6	25.5	24.1	5.1	24.0	24.4
50-59 yrs	28.3	24.6	20.7	27.3	31.3	6.8	22.8	23.6
60-69 yrs	17.5	19.8	17.5	19.2	22.8	10.1	16.1	16.5
70+ yrs	7.4	8.7	19.7	11.3	6.7	37.6	3.5	12.2
	3.8	3.3	16.6	6.0	3.3	38.5	1.6	9.4

Key: F (formal), CA (commercial agriculture), SA (subsistence agriculture), I (informal), D (domestic), NW/E/G (no worker, elderly or grant-holder present) termed 'elderly' in text, NW/NE/NG (no worker, no elderly and no grant-holder present) termed 'unemployed' in text.

Distributions of gender and age of household head are presented Table 14. The majority of heads were male (61%). Formal, agriculture and informal households had higher than average proportions of male heads. Domestic households and households with no employed worker present had high proportions of female heads.

A criterion used to classify households with no employed worker is the presence of an elderly person. Thus households with no worker formed two sub-groups, one with heads of an older age distribution (presence of elderly head) and the other with heads skewed toward the younger age categories. Subsistence and domestic households reported older than average heads while the highest proportion of heads of formal households were aged between 30-39 years (the main age category of workers generally).

Table 15. Socio-economic indicators for head of household, by type of household

	F	CA	SA	I	D	NW/E/G	NW/NE/NG	TOTAL
<i>Education</i>	4,865,467	455,115	286,680	1,601,152	949,684	1,690,480	1,591,197	10,735,796
No education	6.6	25.5	30.8	17.0	17.9	38.9	14.8	16.3
Primary	21.2	46.3	46.4	36.1	44.1	32.0	32.3	29.6
Secondary (excl. G12)	29.9	16.9	17.4	30.7	30.6	19.2	35.1	28.5
Matric	22.1	6.8	3.1	10.5	5.5	5.7	12.7	14.4
Post-matric	20.2	4.6	2.2	5.7	1.9	4.2	5.1	11.3
<i>Income</i>	4,196,352	418,336	246,384	1,350,250	828,879	5,469	13,020	6,397,059
Not reported	6.6	3.2	2.7	4.4	3.0	29.9	6.2	5.5
None	0.4	0.7	35.5	1.9	0.3	3.9		1.7
R1-200	1.1	4.8	15.8	14.2	10.8	17.1	18.2	5.5
R201-500	4.0	39.1	23.0	21.8	35.9		10.9	13.5
R501-1 000	11.4	31.1	10.9	22.4	30.8	25.1	28.2	16.8
R1 001-1 500	13.8	6.6	3.8	10.5	7.5	24.1	10.4	11.6
R1 501-2 500	21.5	5.2	3.5	11.5	7.1		10.2	16.2
R2 501-4 500	17.6	3.1	3.1	8.0	2.8		6.4	12.8
R4 501-11 000	18.3	4.3	1.3	4.5	1.3		9.6	12.7
R11 001-30 000+	5.3	2.1	0.4	0.8	0.6			3.7
<i>Work category</i>	4,953,081	459,740	289,703	1,628,368	966,480	1,712,293	1,595,219	10,882,809
Formal	80.2	2.7	4.9	9.7	14.4			36.5
Commercial agriculture	0.5	85.2	1.5	0.6	5.2			3.6
Subsistence agriculture	0.4	0.5	72.5	1.1	1.6			1.9
Informal	2.6	1.5	5.4	69.9	4.3			10.5
Domestic	0.8	0.9	0.5	1.4	59.7			5.3
Unspecified	0.1	0.1	0.2	0.2	0.5			0.8
Unemployed	3.2	1.3	2.4	3.3	3.8	5.6	37.4	8.7
Not economically active	12.2	7.8	12.5	13.9	10.5	94.4	62.6	32.7

Heads of formal households were generally well educated with forty percent citing matric or better as highest education level achieved (Table 15). Other households showed high proportions of heads with lower education levels. The distribution of income of head was closely related to their education levels. Within formal households, heads reported incomes in the richer income categories. For other types of household, heads reported higher proportions in the lower income categories.

Eighty percent of heads of formal households were formal workers and 12.2% were not economically active (Table 15). Similarly, the majority of heads in commercial agriculture households were agricultural workers. Seventy percent of informal household heads were informal workers, 13.9% were not economically active and 9.7% were formal workers. The latter result may reflect the relative importance given to the formal worker within a household where both formal and informal workers coexist.

4.3.2. Demographic and social characteristics of household members

Key attributes of household members for households defined according to the different types of worker are presented in Table 16. In total, households closely reflect population figures for gender in that 51.9% of members were female and 48.1% were male. All households reflected proportions of gender within 5% of this population distribution with the exception of domestic households (58.8% of members were female). Age distributions of each type of household were generally similar to the distribution of age in the population. Households containing no worker showed a skewed distribution because one of the criteria used to define these households was the presence of an elderly person.

Distribution of members by education varied markedly between households (Table 16). Although members from informal households have a distribution that corresponds well with the distribution for all households, all other household types, with the exception of formal households, contained significantly high percentages of members with no education or primary education. Members of formal households were over-represented in matric and post-matric categories.

Table 16. Demographic and socio-economic indicators of household members.

	F	CA	SA	I	D	NW/E/G	NW/NE/NG	TOTAL
N	19,643,994	2,075,541	1,721,957	7,745,164	3,647,237	8,271,736	5,812,816	44,670,891
<i>Gender</i>	19643994	2075541	1721957	7745164	3647237	8271736	5812816	44670891
Male	50.7	50.3	52.2	48.5	41.2	44.2	46.8	48.1
Female	49.3	49.7	47.8	51.5	58.8	55.8	53.2	51.9
<i>Age</i>	19,643,994	2,075,541	1,721,957	7,745,164	3,647,237	8,271,736	5,812,816	44,670,891
0-9 yrs	21.3	24.7	26.2	25.4	23.2	26.4	26.6	24.1
10-19 yrs	18.4	18.3	24.6	21.7	20.4	23.0	27.9	21.2
20-29 yrs	18.8	19.4	17.5	18.7	19.2	14.8	19.4	18.1
30-39 yrs	18.2	15.4	9.9	13.6	14.0	8.0	10.4	14.1
40-49 yrs	13.0	11.0	8.0	11.0	13.0	5.0	8.0	10.0
50-59 yrs	6.7	7.1	5.4	5.7	7.5	4.3	5.4	5.9
60-69 yrs	2.4	2.9	4.6	2.8	2.0	9.6	1.3	3.7
70+ yrs	1.5	1.2	3.6	1.6	1.2	8.7	0.8	2.8
<i>Education</i>	19,478,784	2,062,949	1,715,682	7,702,887	3,620,730	8,229,775	5,796,245	44,384,554
No education	17.7	30.5	29.4	24.4	24.3	30.6	24.4	23.3
Primary	26.5	43.5	44.3	36.9	40.8	38.8	39.2	34.0
Secondary (excl . G12)	26.5	16.8	20.5	25.8	26.0	21.8	26.4	24.9
Matric	18.0	6.0	4.0	10.0	7.0	7.0	8.0	12.0
Post-matric	11.1	2.8	1.6	3.4	1.5	2.1	2.3	6.0
<i>Work category</i>	19,643,994	2,075,541	1,721,957	7,745,164	3,647,237	8,271,736	5,812,816	44,670,891
Formal	35.3	2.8	2.7	5.3	6.9			15.5
Commercial agriculture	0.3	32.7	0.5	0.3	2.4			1.5
Subsistence agriculture	0.3	0.4	23.9	0.7	0.7			0.9
Informal	2.0	1.0	3.0	25.0	3.0			4.0
Domestic	1.0	3.6	1.4	1.1	25.4			2.1
Unspecified	0.1	0.0	0.1	0.2	0.2			0.3
Unemployed	8.2	4.8	5.9	8.1	8.1	12.1	17.7	10.2
Not economically active	22.3	20.5	24.7	23.1	20.3	49.4	42.3	30.4
Not applicable (< 16 years)	30.6	34.1	37.7	36.4	33.4	38.5	40	34.7

All households contained high proportions of members who were not economically active or dependant, that is, younger or older than the economically active age (Table 16). Households with no employed worker contained higher proportions of unemployed than households with an employed worker.

4.3.3. Demographic indicators for workers' households

Formal and informal households showed different characteristics when considering household demographics (Table 17). Formal households had a higher percentage of

households with balanced numbers of males and females and a lower proportion of households with more women than men. Informal households were larger in size (number of members) than formal households, and contained greater numbers of elderly and infants. Consequently, the dependency ratio of informal households was higher than that of formal households. Other types of households, for example subsistence agriculture and elderly households, showed even higher dependency ratios than informal households.

Table 17. Demographic indicators by type of household.

	F	CA	SA	I	D	NW/E/G	NW/NE/NG	TOTAL
N	4,955,196	460,121	289,916	1,628,716	966,480	1,714,266	1,606,605	10,905,687
<i>Household demographics</i>								
<i>Gender distribution</i>	4,955,196	460,121	289,916	1,628,716	966,480	1,714,266	1,606,605	10,899,395
Fem dominated	28.8	26.0	32.4	35.0	63.1	52.1	43.0	38.1
Male dominated	33.3	32.0	35.3	30.6	12.3	18.9	33.3	29.4
Equal proportion m/f	37.8	42.0	32.3	34.5	24.6	29.0	23.7	32.5
Mean # adult males	1.31	1.26	1.56	1.35	0.88	1.10	0.88	1.16
Mean # adult females	1.32	1.23	1.56	1.50	1.60	1.68	1.08	1.35
Mean number in household	3.77	3.75	5.14	4.46	3.68	4.47	3.32	3.83
Mean # elders m65+ f60+	0.14	0.15	0.44	0.20	0.12	0.93	0.05	0.26
Mean # infants 0-2 yrs	0.18	0.22	0.29	0.25	0.16	0.23	0.19	0.20
Mean # children 0-6 yrs	0.46	0.56	0.80	0.64	0.46	0.65	0.48	0.52
Mean # dependent (not 15-65)	1.23	1.36	2.36	1.74	1.28	2.35	1.40	1.50
Mean # independent (15-65)	2.54	2.39	2.79	2.72	2.40	2.12	1.92	2.33
Dependency ratio: dep/indep if gt 1 > dep	0.48	0.53	0.95	0.68	0.49	1.23	0.77	0.66

4.3.4. Education levels in workers' households

Table 18. Education levels by type of household.

	F	CA	SA	I	D	NW/E/G	NW/NE/NG	TOTAL
N	4,955,196	460,121	289,916	1,628,716	966,480	1,714,266	1,606,605	10,905,687
<i>Education</i>								
Mean # matric or better	1.12	0.33	0.31	0.61	0.35	0.41	0.36	0.71
Mean # std 8 or better	1.67	0.58	0.78	1.18	0.79	0.85	0.78	1.19
Mean # literate (std 6 or better)	2.16	0.99	1.33	1.81	1.36	1.39	1.24	1.69

Of all households, formal households achieved the strongest averages when measuring education levels (Table 18). Reviewing the averages, it is noted that informal households would be rated second after formal households for average education.

4.3.5. Work, income and expenditure in workers' households

Table 19. Work, income and expenditure in workers' households.

	F	CA	SA	I	D	NW/E/G	NW/NE/NG	TOTAL
N	4,955,196	460,121	289,916	1,628,716	966,480	1,714,266	1,606,605	10,905,687
<i>Work, income & expenditure</i>								
Mean # workers: formal	1.34	0.11	0.14	0.25	0.26	-	-	0.61
Mean # workers: commercial agriculture	0.01	1.27	0.03	0.01	0.08	-	-	0.05
Mean # workers: subsistence agriculture	0.01	0.02	1.29	0.03	0.02	-	-	0.03
Mean # workers: informal	0.08	0.05	0.16	1.16	0.09	-	-	0.17
Mean # workers: domestic	0.04	0.14	0.07	0.05	1.02	-	-	0.09
Mean # workers: other	0.00	0.00	0.00	0.01	0.01	-	-	0.01
Mean # workers: unemployed	0.33	0.18	0.29	0.37	0.31	0.54	0.63	0.41
Mean # workers: not economically active	0.89	0.81	1.29	1.07	0.77	2.34	1.43	1.22
<i>% hh 1+</i>								
% hh 1+ formal	100.0	9.3	12.5	20.7	21.1	-	-	45.4
% hh 1+ comm. Agric	0.9	100.0	2.2	1.1	6.4	-	-	4.2
% hh 1+ subs agric	0.7	1.4	100.0	2.4	2.1	-	-	2.7
% hh 1+ informal	6.8	3.9	13.7	100.0	8.4	-	-	14.9
% hh 1+ domestic	4.1	13.4	7.1	5.0	100.0	-	-	8.9
% hh 1+ other worker	0.4	0.2	0.3	0.6	0.9	-	-	1.2
% hh 1+ unemployed	22.7	12.8	18.1	24.5	19.3	30.5	42.8	26.7
<i>Unemployed members source of support</i>								
Person in household	96.6	97.1	89.8	96.4	97.4	86.1	24.8	77.9
Person not in household	2.9	1.9	15.2	5.0	4.9	11.5	64.5	19.4
UIF	0.9	0.6	-	0.4	0.1	0.2	1.6	0.8
Savings	1.3	0.4	0.7	0.7	0.4	0.8	6.3	2.1
Other (e.g. charity)	0.7	0.9	1.1	1.1	0.5	2.9	0.7	1.0
<i>% hh 1+ not eco active</i>								
% hh 1+ not eco active	50.9	45.7	59.3	55.1	39.8	97.9	75.5	61.5
% hh 1+ elderly grant holder	-	-	-	-	-	100.0	-	15.7
% hh no worker, no elderly, no grant holder	-	-	-	-	-	-	100.0	14.7
<i>Work indicators</i>								
1+ own business	12.5	11.6	14.8	66.1	5.3			13.9
1+ paid work	95.3	92.6	50.3	43.1	32.3			51.9
1+ domestic work	4.5	14.9	8.0	11.7	97.3			9.8
1+ unpaid work	0.9	0.8	3.0	4.2	0.2			0.9
1+ farm work	1.3	4.6	59.1	3.5	1.3			2.2
1+ construction/ repair work	0.5	0.8	4.6	1.7	0.5			0.5
1+ catch food	0.0	0.2	1.9	0.1	0.1			0.1
1+ beg money or food	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.0

Table 19 continued. Work, income and expenditure in workers' households.

	F	CA	SA	I	D	NW/E/G	NW/NE/NG	TOTAL
% hh 1+ do not work: work-related reason	32.2	22.4	31.0	37.7	28.0	50.7	65.2	40.4
% hh 1+ do not work: casual or seasonal employment	0.7	3.3	0.6	0.6	0.6	1.4	1.4	1.0
% hh 1+ do not work: student, housewife, ill or aged	43.5	36.5	52.5	46.0	33.4	94.4	57.8	52.9
Mean # with income (incl. Not reported)	1.47	1.57	1.00	1.44	1.48	0.01	0.01	0.95
<i>Main source of income</i>	4,941,977	460,121	288,533	1,627,487	965,783	1,710,892	1,603,373	10,873,934
Salaries & wages	94.8	89.8	44.6	60.6	93.3	1.3	3.9	60.2
Remittances	0.7	0.9	13.1	5.3	1.2	10.6	72.5	13.9
Pensions & grants	2.7	4.6	30.6	10.3	4.8	84.6	4.3	17.8
Sales of farm produce	0.3	4.4	6.0	3.3	0.2	0.1	0.3	1.0
Other non-farm income	1.4	0.3	4.2	19.3	0.4	2.3	5.4	4.6
No income	0.1	0.0	1.4	1.2	0.1	1.1	13.7	2.5
<i>Household expenditure</i>	4,717,934	448,978	282,584	1,574,501	934,876	1,675,102	1,537,244	10,476,498
R0-399	12.4	43.7	47.3	38.2	46.3	34.6	63.7	32.4
R400-799	21.4	32.0	34.1	30.3	32.0	44.4	21.8	27.8
R800-1 199	16.9	9.3	9.5	12.7	10.9	11.8	5.9	12.6
R1 200-1 799	12.3	5.2	3.8	6.6	5.8	3.7	3.0	7.6
R1 800-2 499	10.4	2.2	1.7	4.7	1.8	1.9	2.2	5.8
R2 500-4 999	14.7	4.0	2.9	4.7	1.7	2.6	2.2	7.8
R5 000-9 999	8.7	1.9	0.7	2.1	0.9	0.7	1.1	4.4
R10 000+	3.2	1.6		0.8	0.5	0.3	0.2	1.6

On average the formal household contained 1.3429 formal workers and informal households contained 1.1619 informal workers (Table 19). Formal households contained 0.0752 informal workers and informal households contained 0.2464 formal workers. Mean numbers of unemployed and not economically active members were slightly higher in informal households than in formal households. Households with no worker were most likely to contain an unemployed person. Twenty-two percent of formal households and 24.5% of informal households housed at least one unemployed person. In all household types, except unemployed households, the significant source of support for the unemployed was someone within the household. For unemployed households the main source of support was someone outside the household.

Just over half of all households contained at least one person performing 'paid work', 13.9% contained at least one person with his or her own business and a further 9.8% contained at least one person working as a domestic. A high proportion of formal

households reported the presence of a paid worker (95.3% for formal households and 92.6% for commercial agriculture). Higher proportions of informal households reported having 'own business' (66.1%) than conducting 'paid work' (43.1%) and a higher proportion of informal workers reported conducting 'unpaid work' relative to other households. Domestic and subsistence agriculture households confirmed expected high proportions in 'domestic work' and 'farm work' categories.

Responses to questions asking why people in the household were not working were observed in higher frequencies in households without workers that contained higher numbers of unemployed and economically inactive members. Main reasons for not working included the member being a student, housewife, ill or aged or a work-related reason such as not being able to find suitable employment or not having the right qualifications.

Table 19 shows that the main sources of income for households were salaries and wages (60.2%), pensions and grants (17.8%) and remittances (13.9%). Almost all formal and domestic households sourced incomes from salaries and wages (94.8% and 93.3%, respectively). A significant proportion (19.3%) of informal households relied on 'other non-farm' income. Households with no employed worker and no pensioner or grant-holder relied heavily on incomes from remittances.

Household expenditure showed similar distributions to individual incomes. Formal households showed higher percentages in the richer expenditure categories while the modal category for all other types of household (with the exception of households with no worker but an elderly member or grant-holder) was the lowest expenditure category (Table 19).

4.3.6. Financial assets in workers' households

Formal households enjoy high proportions of financial assets relative to other types of household (Table 20). While just over 40% of households reported having money in a savings account in a bank, two-thirds of formal households reported this financial asset. Similar proportions of formal and informal households reported savings in stokvels (around 8% in each case). Just over a quarter of formal households reported

savings in a pension plan or retirement annuity compared with 6.9% of informal households. Formal households are more likely to have unit trusts, stocks or shares as well as cash loans to be repaid. Forty-three percent of formal households have at least one member with life insurance compared with only 16.9% in informal households.

Table 20. Financial assets in workers' households.

	F	CA	SA	I	D	NW/E/G	NW/NE/NG	TOTAL
N	4,955,196	460,121	289,916	1,628,716	966,480	1,714,266	1,606,605	10,905,687
<i>Financial assets (in hh)</i>								
<i>Money in savings account at a bank</i>	4,946,377	459,658	289,461	1,628,273	966,175	1,712,260	1,604,749	10,881,713
Yes	66.9	24.0	18.8	35.4	27.1	21.1	19.4	42.2
<i>Savings in stokvel</i>	4,942,928	459,658	289,461	1,628,268	966,175	1,712,006	1,604,857	10,878,455
Yes	8.5	3.1	5.0	8.7	9.0	5.7	3.4	6.9
<i>Savings in a pension plan or retirement annuity</i>	4,945,487	459,658	289,461	1,628,268	966,175	1,712,260	1,603,996	10,880,407
Yes	26.4	6.8	4.0	6.9	3.6	5.7	3.1	14.0
<i>Unit trust, stocks or shares</i>	4,945,567	459,658	289,461	1,628,268	965,707	1,711,937	1,603,795	10,879,963
Yes	9.2	3.8	1.5	3.0	0.7	1.8	1.2	5.0
<i>Cash loans to be repaid</i>	4,946,035	459,658	289,461	1,628,268	966,175	1,711,937	1,603,996	10,880,632
Yes	5.1	1.3	1.4	2.3	1.1	0.8	0.5	2.8
<i>Life insurance</i>	4,946,035	459,658	289,461	1,627,423	966,175	1,712,260	1,603,996	10,880,109
Yes	43.1	17.5	20.2	16.9	10.9	16.2	7.1	25.7
<i>Other savings</i>	4,941,544	459,658	289,461	1,625,874	965,044	1,711,042	1,603,996	10,872,234
Yes	3.7	1.6	1.0	2.0	2.0	2.9	0.9	2.7

4.3.7. Spatial indicators for workers' households

Table 21 demonstrates that household distribution by urban and rural location showed similar trends to that of individual workers. Sixty-three percent of all households were urban. Formal and domestic worker households were over-represented in urban areas (80.1% and 70.1% respectively). Agricultural households and households with no worker present were over-represented in rural areas. The distribution of informal households by urban and rural location is not markedly different from the distribution of all households.

About one third of both formal and domestic households are located in Gauteng. This result demonstrates the strong relationship between the formal economy and wealth of province as well as the close association between the formal economy and domestic service. Other notable distributions by province were the high proportion of commercial agriculture households in Western Cape and Free State and the presence

of high percentages of subsistence agriculture households and households with no worker in the poorer provinces, Eastern Cape and Northern Province.

Table 21. Spatial indicators for workers' households.

	F	CA	SA	I	D	NWE/G	NW/NE/NG	TOTAL
N	4,955,196	460,121	289,916	1,628,716	966,480	1,714,266	1,606,605	10,905,687
<i>Spatial indicators</i>								
Type of area	4,955,196	460,121	289,916	1,628,716	966,480	1,714,266	1,606,605	10,905,687
Urban	80.1	13.6	15.9	60.5	70.1	46.3	51.5	63.4
Non-urban (Rural)	19.9	86.4	84.1	39.5	29.9	53.7	48.5	36.6
<i>Province</i>								
Western Cape	14.1	21.0	3.0	8.5	10.4	7.6	6.3	10.5
Eastern Cape	7.7	11.2	44.3	14.7	10.9	20.0	17.3	13.0
Northern Cape	1.4	6.0	2.0	1.0	2.4	2.2	1.0	1.7
Free State	6.9	14.3	3.9	4.8	7.8	5.4	5.9	6.4
KwaZulu-Natal	17.2	18.9	10.6	17.4	18.2	21.3	21.5	18.6
North West	7.2	6.0	9.3	6.2	6.7	7.9	6.8	7.2
Gauteng	35.4	1.7	6.0	29.3	33.7	15.4	21.3	27.7
Mpumalanga	5.1	9.7	6.8	6.8	4.9	6.0	5.4	5.6
Northern Province	5.1	11.3	14.1	11.4	5.1	14.1	14.4	9.3

4.3.8. Housing, ownership and subsidy

Formal or commercial agriculture households were more likely than others to live in formal dwellings (Table 22). Subsistence agriculture and households with no employed worker showed above average percentages living in traditional houses. A high proportion of domestic workers lived in dwellings in the backyard of a property. The majority of houses were roofed with corrugated iron and wood (57.5%) with tiles (18.2%) and asbestos (13.4%) being other major types of roofing material. Corrugated iron and wood predominated in agricultural and informal households while tiled roofs occurred in significantly higher proportions in formal households. Asbestos and thatching occurred in high percentages in commercial and subsistence agriculture respectively. Walls of houses were primarily constructed from brick (58.8%) with cement block or concrete (13.5%), mud (11.7%) and corrugated iron (10.9%) representing other popular wall materials. Formal households (including commercial agriculture) were more likely to have walls from bricks while subsistence agriculture, domestic and households with no employed worker showed significantly high proportions of mud, corrugated iron or zinc for walls.

Table 22. Housing, ownership and subsidy.

	F	CA	SA	I	D	NW/E/G	NW/NE/NG	TOTAL
N	4,955,196	460,121	289,916	1,628,716	966,480	1,714,266	1,606,605	10,905,687
<i>Housing and ownership</i>								
<i>Main dwelling</i>	4,861,677	458,592	289,330	1,606,369	960,422	1,709,691	1,588,034	10,751,810
Formal house	63.0	66.2	54.1	56.3	48.7	58.3	48.0	57.4
Traditional	3.2	13.2	34.2	14.5	7.7	25.8	21.2	12.3
Informal dwelling shack	8.3	6.6	6.0	12.6	13.8	5.2	11.8	9.1
Formal: multiple room	12.7	5.2	2.4	4.4	3.9	5.8	5.9	8.5
Informal dwelling in backyard	4.4	1.7	1.2	4.9	7.5	1.8	6.1	4.5
Dwelling in backyard	4.0	0.8	0.9	4.3	13.8	2.0	3.7	4.4
Room or flatlet	4.6	6.3	1.2	2.8	4.6	1.1	3.3	3.8
<i>Roof (main material)</i>								
Corrugated iron or wood	48.8	69.6	76.3	64.4	62.5	59.3	66.8	57.5
Tile	28.6	4.0	1.8	10.8	18.8	9.8	7.6	18.2
Asbestos	15.2	21.6	4.7	14.2	12.7	12.8	9.7	13.4
Thatching	1.0	4.1	16.2	7.0	2.4	15.4	10.9	6.1
Cement block or concrete	6.4	0.7	1.0	3.7	3.6	2.7	4.9	4.8
<i>Walls (main material)</i>								
Bricks	70.1	64.4	41.5	51.4	57.9	49.9	43.3	58.8
Cement block or concrete	12.9	12.7	15.5	14.5	11.0	14.3	15.2	13.5
Mud	3.2	12.4	30.5	13.8	8.9	24.2	19.4	11.7
Corrugated iron/zinc	10.2	5.5	4.5	13.5	15.5	6.1	14.8	10.9
Mix mud & cement	1.4	2.1	6.1	3.1	2.2	4.2	4.5	2.7
Wood	2.1	2.9	1.8	3.6	4.4	1.3	2.8	2.5
Mean # rooms	4.41	3.53	4.58	4.07	3.13	4.56	3.65	4.18
<i>Home ownership</i>								
Owned, paid off	43.4	30.9	77.1	66.1	43.8	83.7	69.5	56.3
Owned, not paid off	19.6	2.4	1.6	7.2	3.8	3.0	3.6	10.6
Rented	28.5	8.9	2.7	18.6	15.1	9.9	20.3	21.2
Occupied rent free from employer	5.3	50.5	13.9	3.4	24.7	0.7	0.9	7.2
Occupied rent free	3.2	7.4	4.7	4.7	12.6	2.8	5.7	4.7
<i>Government subsidy</i>								
Yes	6.5	1.1	2.2	5.3	4.4	4.0	3.5	5.0
<i>Government land grant</i>								
Yes	2.2	0.8	8.8	3.1	2.3	1.8	2.0	2.2

An unexpected result was that higher than average proportions of informal households and households with no employed worker present reported owning the house (Table 22). High proportions of such households live in traditional housing and ownership may reflect a form of tenure that does not require payment. While a significant proportion of formal households reported ownership, high percentages reported the

property was not paid off (19.6%) or rented (28.5%). Agriculture and domestic households were characterised by high numbers occupying free of rent.

Of all households, 5% received some form of government subsidy and the highest proportion of such households contained at least one formal worker. Subsistence agriculture households were more likely than other households to attain a government land grant (Table 22).

4.3.9. Services, energy and infrastructure by type of household

Table 23. Services, energy and infrastructure, by type of household

	F	CA	SA	I	D	NW/E/G	NW/NE/NG	TOTAL
N	4,955,196	460,121	289,916	1,628,716	966,480	1,714,266	1,606,605	10,905,687
Services								
<i>Source of water</i>	4,942,411	458,453	288,750	1,624,663	962,712	1,709,039	1,600,196	10,865,862
Piped tap in dwell	57.0	28.1	10.9	30.7	36.5	27.7	22.9	40.2
Piped tap on site/neighbour	30.0	35.4	23.4	35.2	39.1	27.2	34.1	31.7
Public tap	7.8	13.2	25.6	16.6	13.7	17.0	18.2	13.0
Natural: flowing, dam, well, spring, rain tank	2.8	11.0	29.6	11.9	6.0	21.9	18.8	10.6
Borehole	1.8	8.5	8.5	4.1	3.6	4.9	4.4	3.5
Water carrier	0.6	3.8	2.1	1.5	1.1	1.4	1.6	1.2
<i>Payment for water</i>	4,943,566	460,016	289,093	1,626,082	966,480	1,710,575	1,604,026	10,877,315
Yes	71.5	17.5	20.0	48.4	38.9	45.4	39.2	53.8
<i>One or more fetches water</i>	4,955,196	460,121	289,916	1,628,716	966,480	1,714,266	1,606,605	10,905,687
Yes	10.9	30.5	51.4	29.6	21.2	40.3	39.2	24.6
<i>Hours collecting water in the past seven days</i>	4,955,196	460,121	289,916	1,628,716	966,480	1,714,266	1,606,605	10,899,395
Mean	1.01	3.11	7.89	3.52	1.85	5.85	4.47	2.89
<i>Toilet facility</i>	4,946,255	459,794	289,093	1,628,227	966,375	1,712,220	1,605,039	10,884,783
Indwelling, flush, public sewer (incl. few septic)	54.1	24.8	8.1	27.1	32.2	24.6	20.8	37.1
On site, pit, no ventilation	12.9	24.3	45.9	28.9	22.0	33.5	30.8	22.6
On site, flush, public sewer	23.1	12.7	7.4	20.8	27.4	14.4	18.9	20.7
None	2.2	19.9	22.7	11.0	7.0	17.0	17.7	9.6
On site, pit latrine, ventilated	3.0	5.6	9.0	4.6	3.7	4.8	4.6	4.0
Other on site	2.6	4.7	2.7	3.4	4.1	2.9	3.4	3.0
Other off site	2.1	8.0	4.2	4.1	3.7	2.9	3.9	3.1
<i>Refuse removal</i>	4,882,615	444,708	273,209	1,607,861	957,817	1,693,163	1,591,116	10,741,783
Local authority 1x week or less	78.1	16.6	11.6	53.1	63.6	43.1	45.0	59.8
Own refuse dump	13.4	51.9	72.4	35.5	23.8	46.0	43.2	29.2
No refuse removal	3.7	13.2	12.3	7.8	7.0	9.1	8.7	6.6
Communal refuse	4.9	18.3	3.7	3.6	5.5	1.8	3.1	4.4

Table 23 continued. Services, energy and infrastructure, by type of household

	F	CA	SA	I	D	NW/E/G	NW/NE/NG	TOTAL
Energy								
<i>Energy for cooking</i>	4,872,835	452,494	283,356	1,621,866	961,273	1,700,017	1,589,838	10,762,218
Electric mains	78.4	41.1	17.9	48.4	59.4	39.7	38.2	58.1
Wood	4.5	41.7	54.4	22.1	13.7	38.4	31.0	19.3
Paraffin	12.8	12.3	22.0	24.6	21.4	15.6	26.6	17.8
Natural: coal, gas	4.3	4.8	5.7	5.0	5.5	6.3	4.3	4.7
<i>Energy for heating</i>	4,892,380	450,949	281,854	1,612,933	952,013	1,693,545	1,577,500	10,749,012
Electric mains	72.3	35.1	11.8	42.8	52.6	35.1	32.9	52.7
Wood	5.8	49.0	58.0	24.7	16.9	40.4	33.2	21.4
Paraffin	10.0	5.6	15.1	15.8	14.7	9.3	16.6	11.9
None	7.8	7.6	7.5	9.6	9.9	7.7	11.4	8.7
Coal	4.0	2.7	7.6	7.2	5.9	7.6	5.8	5.3
<i>Energy for lighting</i>	4,934,978	454,760	285,684	1,623,232	959,573	1,703,036	1,598,350	10,840,270
Electric mains	88.2	61.3	55.2	70.4	76.9	64.4	59.9	75.2
Candles	8.9	32.4	27.9	22.1	18.0	27.3	31.6	19.1
Paraffin	2.8	6.2	16.9	7.5	5.0	8.3	8.6	5.8
<i>One or more collects wood</i>	4,955,196	460,121	289,916	1,628,716	966,480	1,714,266	1,606,605	10,905,687
Yes	5.2	40.8	49.6	21.2	15.6	33.8	28.2	18.2
<i>Hours fetching wood in the past seven days</i>	4,955,196	460,121	289,916	1,628,716	966,480	1,714,266	1,606,605	10,899,395
Mean	0.59	3.87	6.51	2.85	1.71	5.29	3.66	2.39
Infrastructure								
<i>Fixed telephone in dwelling</i>	4,947,734	459,899	289,093	1,626,464	966,009	1,712,260	1,604,122	10,883,832
Yes	37.5	13.0	8.7	19.3	14.0	23.0	10.3	25.0
<i>Own cellphone</i>	4,947,098	459,899	289,093	1,628,185	966,009	1,712,260	1,604,178	10,885,504
Yes	44.7	15.0	17.0	27.4	15.3	10.5	16.0	28.3
<i>Mail or post service</i>	4,893,586	454,507	284,071	1,600,959	948,559	1,674,949	1,574,853	10,717,981
Delivered to dwelling	53.3	8.4	6.6	39.0	42.4	33.3	30.0	41.2
Delivered to postbox	23.9	18.0	19.4	20.8	17.9	20.3	21.8	21.7
Delivered to shop or school	4.9	9.6	42.4	18.6	9.7	30.2	25.8	15.2
Do not receive	4.1	11.9	11.5	9.9	10.8	8.7	12.3	8.1
Delivered to workplace	10.2	47.9	10.2	3.5	12.4	0.5	0.8	7.9
Received by friend or neighbour	3.6	4.2	9.9	8.2	6.9	6.9	9.4	5.9

Formal households showed significant advantages over other types of household when considering access to services, energy and communication networks (Table 23). Over half of formal households had access to: water through a piped tap in the dwelling, a flush toilet in the dwelling, and refuse removal by the local authority once a week. Over 80% of formal households had access to electricity for cooking, heating and lighting. Higher than average proportions of formal households had access to a

telephone or cellphone and over three quarters had post delivered to the dwelling or a postbox. In contrast, a high proportion of informal households relied on access to water through taps on site and public taps, a pit toilet on site with no ventilation, and their own refuse dump. For cooking, heating and lighting requirements, significant proportions of informal households utilised forms of energy other than electricity, including paraffin, wood and candles. Extremely low proportions of informal households have access to a telephone or cellphone. In terms of access to services it should be noted that the informal household is often better off than the agricultural household and households with no workers. Domestic households showed relatively strong statistics for services and such households apparently benefit from proximity to facilities associated with formal households.

Interestingly, a fair proportion of informal workers were prepared to pay for water, at 48.4% a greater proportion than all other households with the exception of formal households. Agricultural households (both commercial and subsistence) are less likely to respond in the affirmative because such households are more likely to source water from natural sources and boreholes. The percentage of informal households prepared to pay for services (water) possibly reflects the wealth of these households relative to those households that report lower willingness to pay.

4.3.10. Standard of living items by type of household

Formal households recorded the best percentages for all standard of living index items with the exception of agricultural items and bicycles and motorcycles (Table 24).

Informal households measured second best percentage for vehicles and televisions.

Table 24. Standard of living items by type of household.

	F	CA	SA	I	D	NW/E/G	NW/NE/NG	TOTAL
N	4,955,196	460,121	289,916	1,628,716	966,480	1,714,266	1,606,605	10,905,687
<i>Standard of living index items</i>								
<i>Vehicle</i>	4,949,132	460,016	289,677	1,627,861	965,761	1,712,754	1,604,002	10,886,813
Yes	38.9	13.8	13.0	21.3	8.1	13.3	10.3	24.2
<i>Motorcycle</i>	4,948,747	460,016	289,677	1,627,274	965,761	1,712,754	1,603,195	10,885,034
Yes	2.0	3.2	1.0	1.1	0.4	0.2	0.3	1.2
<i>Tractor</i>	4,948,445	460,016	289,677	1,627,274	965,761	1,712,754	1,604,002	10,885,539
Yes	0.8	7.8	4.4	1.0	0.1	0.8	0.8	1.1
<i>Plough</i>	4,945,995	460,016	289,677	1,627,274	965,209	1,712,361	1,604,002	10,881,697
Yes	3.8	10.1	16.6	6.8	3.2	9.3	6.5	5.8
<i>Television</i>	4,946,948	460,016	289,677	1,627,414	965,761	1,712,361	1,603,028	10,883,262
Yes	71.5	40.5	41.9	54.4	49.5	47.5	38.7	56.3
<i>Bicycle</i>	4,945,436	460,016	289,461	1,626,398	965,761	1,711,305	1,603,617	10,879,838
Yes	22.6	23.0	15.5	16.5	13.8	11.0	10.7	17.0
<i>Radio</i>	4,944,426	459,813	289,677	1,627,861	965,368	1,711,726	1,603,730	10,880,808
Yes	86.8	75.6	76.2	79.9	75.4	75.4	69.1	79.4
<i>Bed</i>	4,947,790	460,016	289,677	1,627,861	966,175	1,712,754	1,604,319	10,885,788
Yes	96.6	93.8	95.1	95.3	93.8	94.5	94.0	95.2
<i>Watch</i>	4,948,249	460,016	289,677	1,627,492	965,805	1,712,754	1,604,181	10,885,739
Yes	92.8	78.5	78.1	83.8	83.8	78.2	75.2	84.8
<i>Books</i>	4,948,249	460,016	289,677	1,627,861	966,175	1,712,754	1,604,319	10,886,247
Yes	66.6	38.2	40.9	51.0	44.4	48.4	45.2	54.8

4.3.11. Survival and welfare indicators by type of household

Table 25. Survival and welfare indicators by type of household.

	F	CA	SA	I	D	NW/E/G	NW/NE/NG	TOTAL
N	4,955,196	460,121	289,916	1,628,716	966,480	1,714,266	1,606,605	10,905,687
<i>Survival and support</i>								
<i>How often had a problem satisfying food needs</i>	4,937,514	459,896	289,677	1,624,055	964,301	1,710,538	1,599,954	10,862,433
Never	68.7	51.9	26.4	40.7	48.0	36.1	31.1	51.1
Seldom	8.6	11.6	10.0	11.4	11.0	9.3	10.0	9.6
Sometimes	18.0	25.9	45.7	34.9	28.3	37.0	34.7	27.4
Often	3.2	7.4	10.1	7.3	8.5	10.7	12.1	7.0
Always	1.5	3.2	7.9	5.7	4.3	6.9	12.2	4.9
<i>Welfare grants (at least one in hh)</i>								
<i>Old age pension</i>	4,945,735	460,016	289,677	1,625,164	964,872	1,711,974	1,606,605	10,877,053
Yes	9.3	9.0	29.1	14.2	8.0	74.6	0.0	19.0
<i>Disability grant</i>	4,945,735	460,016	289,677	1,625,164	964,872	1,711,066	1,606,605	10,876,145
Yes	2.6	2.8	8.0	3.2	2.8	12.8	0.0	4.0
<i>Child support grant</i>	4,944,315	460,016	289,677	1,625,164	964,495	1,711,846	1,606,605	10,875,504
Yes	2.8	3.0	7.5	7.0	5.3	12.7	0.0	4.7
<i>Other grant</i>	4,955,196	460,121	289,916	1,628,716	966,480	1,714,266	1,606,605	10,905,687
Yes	0.6	0.4	0.7	1.1	0.4	2.0	0.0	0.8

The question 'How often have you had a problem satisfying food needs' allows a more subjective measure of poverty. Predictably, formal households are less likely to affirm this problem (Table 25). Households with no worker employed and no elderly person or grant holder reported the highest frequencies of failing to meet food needs.

Of all households, about twenty percent have access to an old age pension and 4% and 4.7% access disability and child support grants. Elderly households and subsistence agriculture households are most likely to rely on this form of welfare support.

In summary, the informal economy represents a significant proportion of the workforce in South Africa. At the individual worker level, a higher proportion of informal workers than formal workers are women, black and live in rural areas. The informal worker has lower education levels and receives lower income than the formal worker. Informal workers are less likely than their formal counterparts to have permanent jobs and high proportions do not enjoy an employer-employee relationship. Working conditions for the informal worker are characterised by low percentages with access to benefits such as paid leave, medical aid, and a pension scheme. Informal workers did show better statistics for indicators measuring flexibility, for example, flexible working hours. An analysis at household level showed that formal households were significantly better off than informal households for a range of indicators, including: access to services such as piped water and conventional electricity, financial assets, source of energy for cooking, heating and lighting, and formal housing. The results obtained indicate that the formal worker generally has a significantly better quality of life than the informal worker in both work and home environments.

Having profiled informal, formal and other workers and their households, the study will focus on groups within the informal economy.

Chapter Five: Profiles of informal workers and predictors of satisfaction in informal households

This chapter contains two main sections. The chapter begins by profiling various types of informal workers for demographic indicators and indicators measuring working conditions. The information presented in the first section is derived from the September 2001 LFS. In the second section, satisfaction with life between various types of household is measured and a regression model is used to establish predictors of satisfaction in the informal household. Data is sourced from the 1998 OHS for the latter section. It must be noted that for all analysis in this chapter that ‘informal’ excludes domestic and subsistence agriculture workers.

5.1. Profiles of informal workers

5.1.1. Demographic and spatial indicators by type of informal worker

Gender, age, race and spatial indicators for various groups of informal worker are presented in Table 26. The table shows distributions for male, female, urban and rural informal workers. Two additional categories of informal worker are included who have links with formal sector workers. The first refers to a worker who lives in a household with a formal worker (FW), termed formal-present in the text. The second refers to a worker who has been reported to have a characteristic generally identified as formal, in this case the worker has been classified as informal but was also recorded as working for a registered company or was VAT-registered. Such workers are termed formal-like in the text. Such workers occurred in relatively small proportions but provide an interesting link with the formal economy.

Women informal workers were over-represented in rural areas (Table 26). Also, a higher proportion of formal-present informal workers were women.

No significant differences between groups were observed for age.

In terms of race, black informal workers showed a rural bias while formal-present and formal-like workers were more likely to be white. Male informal workers showed

higher proportions than females in urban areas (61.4% and 50.6%, respectively). Three quarters of formal-present workers were located in urban areas.

Table 26. Demographic and spatial indicators for informal workers.

	Male	Female	Urban	Rural	FW	FC	Total
N	1,020,020	853,116	1,058,093	815,043	365,131	160,820	1,873,136
<i>Gender</i>	1,020,020	853,116	1,058,093	815,043	365,131	160,820	1,873,136
Male	100.0		59.2	48.3	47.6	67.8	54.5
Female		100.0	40.8	51.7	52.4	32.2	45.5
<i>Age</i>	1,020,020	853,116	1,058,093	815,043	365,131	160,820	1,873,136
15-19 yrs	2.9	2.7	2.0	3.9	3.2	1.5	2.8
20-29 yrs	26.4	20.6	23.7	24.0	24.3	21.6	23.8
30-39 yrs	29.9	32.9	31.9	30.3	27.4	33.8	31.2
40-49 yrs	23.3	27.3	24.8	25.5	23.6	24.0	25.1
50-59 yrs	13.3	13.0	13.5	12.7	16.5	15.0	13.1
60-69 yrs	4.2	3.5	4.1	3.7	5.0	4.1	3.9
<i>Race</i>	1,018,253	853,018	1,056,228	815,043	363,364	160,820	1,871,271
African/black	82.4	86.8	74.4	97.5	64.6	60.5	84.4
Coloured	7.6	5.8	11.2	1.1	14.3	10.0	6.8
Indian/Asian	2.3	1.9	3.6	0.3	5.3	4.4	2.1
White	7.6	5.5	10.9	1.1	15.8	25.1	6.6
<i>Urban/rural</i>	1,020,020	853,116	1,058,093	815,043	365,131	160,820	1,873,136
Urban	61.4	50.6	100.0		75.5	75.5	56.5
Non-urban (Rural)	38.6	49.4		100.0	24.5	24.5	43.5
<i>Province</i>	1,020,020	853,116	1,058,093	815,043	365,131	160,820	1,873,136
Western Cape	9.2	6.9	13.8	0.7	17.4	9.3	8.1
Eastern Cape	14.5	19.6	10.6	24.9	10.1	10.0	16.8
Northern Cape	1.4	0.9	1.8	0.4	1.2	1.9	1.2
Free State	6.2	4.6	7.8	2.5	5.8	1.4	5.5
KwaZulu-Natal	15.9	18.9	16.0	18.8	16.5	18.1	17.2
North West	7.8	5.9	4.3	10.3	5.3	4.9	6.9
Gauteng	25.3	18.2	37.8	1.7	26.9	40.1	22.0
Mpumalanga	7.1	9.3	4.8	12.4	9.1	7.9	8.1
Northern Province	12.6	15.8	3.2	28.2	7.5	6.5	14.1

Key: FW (Formal worker in household with informal worker), FC (Informal worker has formal characteristic e.g. registered cc or VAT)

Some notable spatial effects were observed for provinces. Higher than average proportions of urban and formal-present workers occurred in the Western Cape (Table 26). Extremely low numbers of informal workers occur in rural areas of the Western Cape. In contrast proportions of rural informal workers are higher than average in Eastern Cape and Northern Province. Significantly high proportions of urban and formal-like informal workers occur in Gauteng. The bias of rural workers in Eastern

Cape and Northern Province and urban workers in Western Cape and Gauteng reflects the wealth of these provinces.

5.1.2. Socio-economic indicators by types of informal worker

While male and female informal workers showed a similar distribution for education level, rural workers showed significantly poorer levels of education (Table 27).

Formal-present workers occurred in higher than average proportions in the matric and post-matric categories.

Male informal workers showed a better income distribution than women, for example, 27.2% of women were measured in the R1-200 category compared with 12.2% of men. Thus, although women have similar education levels to men they earn less. A similar effect was noted for urban and rural informal workers, with urban informal workers having the better income profile. Formal-like workers showed relatively high proportions in the richer income categories.

Table 27. Socio-economic indicators by types of informal worker.

	Male	Female	Urban	Rural	FW	FC	Total
<i>Education</i>	1,005,110	848,452	1,043,586	809,975	360,427	159,349	1,853,561
No education	8.8	11.5	5.9	15.4	3.7	6.7	10.1
Primary	35.6	31.5	27.3	42.0	21.6	20.0	33.7
Secondary (excl. G12)	36.4	36.5	41.0	30.6	40.0	32.3	36.5
Matric	14.1	14.3	17.8	9.6	22.2	27.5	14.2
Post-matric	5.1	6.1	7.9	2.5	12.5	13.5	5.5
<i>Average years of education</i>	8.69	8.74	9.79	7.35	10.69	10.74	8.72
<i>Income group</i>	966,177	816,203	990,851	791,529	330,962	153,933	1,782,380
None	3.8	7.5	3.3	8.2	4.5	1.0	5.5
R1-200	12.2	27.2	13.6	25.9	13.4	3.7	19.1
R201-500	24.6	28.3	22.0	31.7	21.7	11.5	26.3
R501-1 000	23.9	19.3	22.5	20.9	19.8	22.4	21.8
R1 001-1 500	11.3	6.3	11.9	5.3	12.9	16.6	9.0
R1 501-2 500	11.7	5.1	11.9	4.6	11.4	12.1	8.7
R2 501-4 500	7.7	4.1	9.1	2.3	9.6	16.0	6.1
R4 501-11 000	4.1	1.8	4.6	1.1	5.0	12.7	3.1
R11 001-30 000+	0.7	0.3	0.9	0.0	1.7	4.0	0.5
<i>Average income category (range 1-14)</i>	4.29	3.38	4.41	3.20	4.49	5.80	3.87

5.1.3. Form of work, occupation and industry for types of informal worker

A significantly high proportion of formal-like workers were classified as employees indicating these workers may have been incorrectly classified as informal (Table 28). Significantly higher proportions of male informal workers were employees.

Table 28. Form of work, occupation and industry of informal workers^a.

	Male	Female	Urban	Rural	FW	FC	Total
<i>Main work</i>	1,020,020	852,413	1,057,389	815,043	365,131	160,116	1,872,432
Working for someone else for pay	33.0	16.7	27.1	23.7	23.0	63.2	25.6
Work for one or more hhs as domestic, gardener, security guard	10.9	1.8	7.3	6.1	3.0	1.9	6.8
Work on own or small hh farm/plot or collect natural products	1.0	1.5	0.4	2.4	0.4		1.3
Working on own or with partner in any type of business	52.4	73.5	61.9	62.0	68.8	33.2	62.0
Helping without pay in hh business	2.7	6.5	3.3	5.8	4.8	1.8	4.4
<i>Occupation</i>	1,018,366	852,029	1,056,408	813,988	365,131	160,116	1,870,396
Elementary occupation	21.3	43.9	29.9	33.7	26.2	17.0	31.6
Craft & related trades	35.2	14.0	23.4	28.4	22.5	19.3	25.6
Service, shop & market workers	12.9	29.0	20.2	20.3	24.5	20.7	20.2
Technical & associated professionals	4.4	5.4	5.5	4.1	6.2	7.4	4.9
Clerks	1.1	2.5	2.1	1.4	3.3	6.4	1.8
Plant & machine operators & assemblers	7.5	1.3	5.0	4.3	5.8	11.9	4.7
Legislators, senior officials & managers	4.9	1.6	4.6	1.8	6.5	10.5	3.4
Professionals	0.9	1.2	1.9		2.0	3.6	1.1
Skilled agricultural & fishery workers	11.8	0.9	7.6	5.9	3.0	3.1	6.9
<i>Industry</i>	1,018,109	851,939	1,056,535	813,513	365,131	160,116	1,870,048
Wholesale & retail trade	36.4	66.4	47.3	53.8	48.5	29.3	50.1
Community, social & personal services	6.7	11.2	10.9	6.0	12.8	14.3	8.7
Manufacturing	8.0	13.8	10.4	10.9	11.5	11.8	10.6
Private households with employed persons ^b	11.1	1.6	7.5	6.0	3.1	2.1	6.8
Finance and business services	5.0	3.0	6.3	1.3	5.7	13.4	4.1
Construction	22.9	3.0	11.4	16.9	11.1	12.7	13.8
Transport, storage and communication	9.4	0.9	6.1	4.9	7.3	14.5	5.5
Mining	0.2	0.0	0.1	0.2		1.4	0.1
Other	0.1	0.0	0.1	0.1	0.0	0.5	0.1

Notes: ^a Categories are ordered from high to low frequency for all workers (refer to Table 8).

^b Category includes extraterritorial organisations and representatives of foreign governments

Disparities were noted for occupation, in particular for gender and formal-present workers (Table 28). Males, relative to females, dominated craft and related trades (35.2% to 14.0%) and skilled agriculture and fishery worker (11.8% to 0.9%) categories. Females, relative to males, dominated elementary occupations (43.9% to

21.3%) and service, shop and market (29.0% to 12.9%) categories. Formal-present workers occurred in lower proportions than average in elementary occupations and craft and related trades and in relatively high proportions in skilled occupations such as plant and machine operators and assemblers and legislators, senior officials and managers.

Industry is also divided along gender lines, with males predominating in, for example, construction and transport industries. A high proportion of women occurred in wholesale and retail trade (although significant numbers of men work in the latter industry as well).

Table 29. Specific occupations of informal workers, by gender.

Male	n	%	Female	n	%
Gardeners, horticultural and nursery growers	119,486	11.7	Street food vendors	270,294	31.7
Street food vendors	96,586	9.5	Street vendors, non-food products	70,450	8.3
Bricklayers and stonemasons	69,802	6.8	Tavern and shebeen operators	58,767	6.9
Motor vehicle mechanics and fitters	52,124	5.1	Spaza shop operator	57,097	6.7
Taxi driver, minibus taxi driver	50,677	5.0	Tailors, dressmakers and hatters	45,073	5.3
Street vendors, non-food products	47,983	4.7	Shop salespersons and demonstrators	42,561	5.0
Spaza shop operator	45,431	4.5	Personal care of children and babies	20,567	2.4
Painters and related workers	25,443	2.5	Stall and market salespersons	18,313	2.1
General managers in transport, storage and communication	22,215	2.2	Sewers, embroiderers and related workers	18,282	2.1
Tavern and shebeen operators	22,083	2.2	Hairdressers, barbers, beauticians and related workers	16,855	2.0
Carpenters and joiners	21,261	2.1	Traditional medicine practitioners	13,236	1.6
Shop salespersons and demonstrators	21,078	2.1	Helpers and cleaners in offices, hotels and other establishments	12,339	1.4
Building and related electricians	21,023	2.1	Cooks	11,517	1.4
Building frame and related workers not elsewhere classified	18,834	1.8	Handicraft workers in wood and related materials	7,740	0.9
Building construction labourers	18,374	1.8	Gardeners, horticultural and nursery growers	7,277	0.9
Traditional medicine practitioners	16,649	1.6	Cashiers and ticket clerks	7,224	0.8
Builders, traditional materials	15,809	1.5	Building frame and related workers not elsewhere classified	6,927	0.8
Welders and flamecutters	15,688	1.5	General managers in wholesale and retail trade	6,664	0.8
Blacksmiths, hammer-smiths and forging-press workers	14,346	1.4	Pre-primary education teaching associate professionals	6,612	0.8
Hairdressers, barbers, beauticians and related workers	13,660	1.3	Sewing-machine operators	6,374	0.7
Handicraft workers in wood and related materials	13,142	1.3	Waiters, waitresses and bartenders	6,271	0.7
General managers of business services	11,202	1.1	Plasterers	6,142	0.7
Car, taxi and van drivers	11,040	1.1	Millers, bakers, pastry-cooks and confectionery makers	5,420	0.6
Protective services workers not elsewhere classified	10,794	1.1	Hand packers and other manufacturing labourers	5,000	0.6
Shoe-makers and related workers	10,574	1.0	Library and filing clerks	4,942	0.6
<i>Cumulative percentage</i>		<i>77.0</i>	<i>Cumulative percentage</i>		<i>85.2</i>

A breakdown of specific occupations by gender is provided in Table 29. The table has three points of interest. Firstly, the wide range of activities – street vending, gardening, bricklaying, painting, sewing, driving, caring, operating a shop or spaza, hairdressing, welding, managing, and practising traditional medicine are some activities - underlines the heterogeneous nature of the informal economy. Secondly, there is substantial variation in skill levels required for the different activities listed. For example, carpenters, electricians, traditional herbalists and general managers are likely to require a higher level of skill and knowledge than the street vendor, gardener, driver, waiter and cashier. Thirdly, Table 29 shows significant differences in occupation by gender. It is interesting that while some categories occur in high frequencies and proportions for both men and women – for example, street vending of food and non-food products – there is a significant gender disparity by specific occupation. For example, while large numbers of men participate in activities such as gardening, bricklaying, driving taxis and motor vehicle repairs, women show high frequencies in dressmaking and care of children and babies.

5.1.4. Working conditions of the informal employee

Table 30 measures indicators of the employee. The percentage of informal workers with formal characteristics recorded as employees is significantly higher than average.

For the conditions listed, formal-like workers are least likely to have commenced employment in the past year and are most likely to have access to permanent work, a written contract, paid leave, trade union membership and an employer that contributes to a pension fund. Interestingly, although the absolute number of women that are employees was significantly lower than males, those women that were employees showed better statistics for permanent work, a written contract, paid leave and an employer contributing to a pension scheme.

Rural workers showed the worst statistics for the range of indicators, these workers are most likely to have temporary jobs, have no written contract, only 8.6% have paid leave, 4.7% are members of a union and a mere 5.3% have an employer contributing to a pension fund.

Table 30. Working conditions of the informal employee.

	Male	Female	Urban	Rural	FW	FC	Total
<i>Number of employers</i>	434,914	155,286	355,338	234,862	92,771	103,207	590,201
One employer	85.4	94.5	87.2	88.6	93.5	91.6	87.8
More than one employer	14.6	5.5	12.8	11.4	6.5	8.4	12.2
<i>Year commenced working</i>	439,425	156,730	356,853	239,301	94,318	102,877	596,154
-1979	4.0	4.8	4.5	3.8	4.3	5.4	4.2
1980-1989	7.7	9.8	9.7	6.2	8.3	11.7	8.3
1990-1994	9.0	6.3	8.5	8.0	10.1	13.1	8.3
1995-1999	30.8	29.9	31.2	29.6	33.4	33.8	30.6
2000	15.6	16.5	16.5	14.9	14.8	13.1	15.8
2001	32.9	32.7	29.6	37.6	29.1	22.8	32.8
<i>Work</i>	434,017	151,432	353,232	232,218	93,530	102,979	585,449
Permanent	39.9	55.7	46.8	39.8	49.2	72.0	44.0
Fixed period contract	4.4	2.7	3.9	4.0	4.9	3.3	4.0
Temporary	30.9	28.0	24.8	38.3	23.8	15.7	30.1
Casual	23.4	12.9	23.5	16.5	22.0	9.0	20.7
Seasonal	1.4	0.7	1.0	1.5			1.2
<i>Written contract</i>	439,281	156,730	357,225	238,785	93,249	103,099	596,010
Yes	13.1	19.8	18.7	9.1	21.2	36.9	14.9
No	83.9	77.3	78.5	87.5	76.5	59.0	82.1
Don't know	3.0	2.9	2.8	3.3	2.3	4.1	3.0
<i>Supervision of work</i>	437,619	156,240	356,597	237,262	94,116	104,169	593,859
Work supervised	68.6	76.4	67.4	75.6	68.9	72.1	70.7
Work independent	31.4	23.6	32.6	24.4	31.1	27.9	29.3
<i>Employer contribution to pension or retirement fund</i>	425,085	152,367	348,763	228,689	90,881	100,185	577,452
Yes	8.5	20.7	16.0	5.3	12.8	36.7	11.8
No	91.5	79.3	84.0	94.7	87.2	63.3	88.2
<i>Paid leave</i>	430,181	151,153	347,995	233,339	89,400	102,140	581,335
Yes	13.1	26.0	21.7	8.6	19.2	42.8	16.4
No	86.9	74.0	78.3	91.4	80.8	57.2	83.6
<i>Trade union membership</i>	425,758	150,394	346,957	229,195	90,977	99,734	576,152
Yes	7.0	12.4	10.8	4.8	9.5	25.9	8.4
No	93.0	87.6	89.2	95.2	90.5	74.1	91.6

5.1.5. Working conditions by type of informal worker

Formal-like workers showed working conditions markedly different to other types of informal worker (Table 31). Their characteristics were indeed more equivalent to formal employment, including: a fair proportion working for larger organisations, 14.5% worked for a company that paid towards medical aid, experienced lower levels

of flexibility, and higher percentages than average worked in factories, offices or service outlets.

Table 31. Working conditions by type of informal worker

	Male	Female	Urban	Rural	FW	FC	Total
<i>Medical aid or health insurance</i>	1,010,079	847,732	1,047,139	810,672	362,702	157,673	1,857,811
Yes, self only	1.4	0.8	1.7	0.4	1.7	8.1	1.1
Yes, self & dependants	2.0	2.3	3.2	0.8	3.4	6.4	2.2
No medical aid benefit	96.5	96.9	95.1	98.8	95.0	85.5	96.7
<i>UIF deductions</i>	999,459	844,072	1,038,976	804,555	361,435	153,753	1,843,531
Yes	5.1	3.8	6.7	1.6	4.7	35.6	4.5
No, income above UIF	5.2	6.4	7.1	4.0	7.8	8.4	5.7
No, other reason	89.8	89.8	86.2	94.4	87.4	56.0	89.8
<i>Hours worked past seven days (incl. overtime)</i>	1,013,883	843,452	1,047,527	809,808	361,577	160,116	1,857,335
Mean	46.7	44.1	45.6	45.3	45.4	49.9	45.5
<i>Hours worked in an average week (incl. overtime)</i>	1,012,869	844,361	1,047,904	809,326	360,756	160,116	1,857,230
Mean	47.9	45.1	47.1	46.0	46.4	52.2	46.6
<i>Flexible working hours</i>	1,012,370	850,527	1,052,067	810,830	363,086	158,981	1,862,897
Can decide fully	60.0	77.2	64.7	71.9	70.5	36.4	67.8
Limited range	7.2	7.1	8.2	5.9	8.6	9.8	7.2
Fixed by employer	32.8	15.7	27.1	22.2	20.9	53.8	25.0
<i>Longer hours</i>	999,647	843,814	1,043,596	799,865	358,679	158,521	1,843,461
Yes	27.2	25.3	25.9	26.9	21.8	16.3	26.3
<i>Number of regular workers</i>	1,009,213	847,398	1,048,434	808,176	364,032	156,428	1,856,611
1	44.7	66.8	52.0	58.5	57.6	23.4	54.8
2-4	37.1	23.6	31.3	30.4	27.6	20.6	30.9
5-9	8.5	3.6	7.3	5.0	6.4	15.7	6.3
10-19	3.5	2.1	3.3	2.2	3.3	9.1	2.8
20-49	3.5	1.6	3.1	2.1	2.8	14.9	2.7
50+	2.7	2.3	2.9	1.9	2.3	16.2	2.5
<i>Location</i>	1,020,020	852,781	1,057,758	815,043	365,131	160,820	1,872,801
Owners home/farm	40.2	62.0	48.9	51.7	58.2	27.1	50.1
Someone else home	12.8	4.4	9.4	8.3	5.8	6.0	8.9
Factory/office	4.9	3.7	5.8	2.5	5.1	22.3	4.4
Service outlet	5.9	9.3	7.2	7.7	7.8	19.4	7.4
At a market	0.4	1.3	0.7	1.0	1.3	0.6	0.8
Footpath, street	6.4	6.3	6.9	5.7	4.1	5.8	6.4
No fixed location	28.6	12.8	20.5	22.6	17.4	17.2	21.4
Other	0.8	0.3	0.6	0.6	0.2	1.7	0.6

A significantly higher proportion of female informal workers are more likely to have flexible employment conditions, work alone and work at the owner's home or farm

compared with their male counterparts (Table 31). Conditions of work are generally poor for all informal workers and urban and rural workers showed few significant differences, although urban workers showed better percentages for medical aid and UIF benefits.

5.2. Satisfaction with life as an outcome variable.

In this section satisfaction with life as an outcome variable is explored. The 1998 OHS questionnaire featured the question ‘Taking everything into account, how satisfied is this household with the way it lives these days?’ Respondents could choose from an ordinal scale ranging from positive ‘very satisfied’ and ‘satisfied’ through negative ‘dissatisfied’ and ‘very dissatisfied’. The five-point scale was balanced with a middle category ‘neither satisfied nor dissatisfied’. Satisfaction scales are recognised as useful subjective indicators to assess quality of life. Such scales have been used as outcome variables to identify predictors of quality of life. In this chapter satisfaction with life is used as a dependent, outcome variable. Various predictors, including economic and social variables, are assessed to establish what determines a satisfied informal economy household. It was necessary to use an older dataset (OHS 1998) to research this theme as subjective indicators were dropped from the 1999 OHS and were not included in the Labour Force Surveys.

5.2.1 Employment in 1998

Table 32. Number and percent of South Africans employed in 1998, by employment category.

	N	% 15-65	% employed
Formal	6,527,120	25.4	69.5
Commercial agriculture	726,249	2.8	7.7
Subsistence agriculture	202,290	0.8	2.2
Informal	1,077,017	4.2	11.5
Domestic	749,303	2.9	8.0
Unspecified	107,966	0.4	1.1
<i>Sub-total (employed)</i>	<i>9,389,946</i>	<i>36.5</i>	<i>100.0</i>
Unemployed	3,162,662	12.3	
Not economically active	13,156,940	51.2	
<i>Sub-total (not employed)</i>	<i>16,319,602</i>	<i>63.5</i>	
<i>Total 15-65</i>	<i>25,709,548</i>	<i>100.0</i>	

Source: 1998 OHS

Number and percentage of workers employed in the informal economy in 1998 is presented in Table 32. The informal economy constituted 11.5% of the labour force in 1998.

5.2.2. Satisfaction levels in different types of households

A relatively high proportion of South African households were satisfied in 1998 (Table 33). Formal households showed the highest satisfaction levels. Households most likely to have to rely on survivalist activities, that is subsistence agriculture and informal households and elderly and unemployed households showed the lowest satisfaction levels. Informal households were significantly less satisfied than formal households.

Table 33. Satisfaction levels for types of household.

	F	CA	SA	I	D	NW/E/G	NW/NE/NG	Total
N	4,204,176	474,301	151,003	883,830	707,078	1,611,658	1,765,523	9,230,758
<i>Five categories</i>								
Very satisfied	17.4	14.1	9.3	11.6	13.6	15.8	14.8	15.6
Satisfied	51.3	46.7	36.4	42.9	44.8	44.9	37.4	45.9
Neither satisfied nor dissatisfied	16.3	18.7	25.5	19.5	20.7	18.8	19.0	18.0
Dissatisfied	12.2	16.3	24.1	21.2	17.0	16.8	21.5	16.3
Very dissatisfied	2.8	4.1	4.8	4.8	3.9	3.6	7.2	4.2
<i>Three categories</i>								
Very/satisfied	68.7	60.8	45.7	54.5	58.4	60.7	52.2	61.5
Neither satisfied nor dissatisfied	16.3	18.7	25.5	19.5	20.7	18.8	19.0	18.0
Very/dissatisfied	15.0	20.4	28.9	26.0	20.9	20.4	28.7	20.5

Source: 1998 OHS

Key: F (formal), CA (commercial agriculture), SA (subsistence agriculture), I (informal), D (domestic), NW/E/G (no worker, elderly or grant-holder), NW/NE/NG (no worker, no elderly, no grant-holder)

5.2.3. Predictors of satisfaction in informal households.

Predictors of satisfaction in informal households represented a variety of indicators (Table 34). South Africa has a high crime rate and society is concerned with the issue of crime. It is therefore not surprising that feelings of safety in dwelling and neighbourhood were positively correlated with satisfaction. The presence of a formal worker or an elderly person, either of whom would provide a regular income, was also positively correlated with satisfaction. A high number of members of employable age who are not economically active and large numbers in the household generally were associated with higher levels of dissatisfaction, possibly reflecting the difficulty faced by the informal worker in providing for a large number of dependents. Informal

households valued electricity, the use of a telephone or cellphone and access to private health, although living in a traditional dwelling was less satisfying for some. Coloured households reflected stronger satisfaction levels (controlling for white households). A list of predictors and variables excluded from the model is listed in Appendix A.

Table 34. Predictors of satisfaction in informal households.

	Standardised B	T	Sig
Constant		17.692	.000
Safety in dwelling	.203	5.296	.000
Medical health (private)	.083	3.540	.000
Communications	.058	2.306	.021
Safety in neighbourhood	.197	5.153	.000
Type of housing (traditional)	-.083	-3.582	.000
Number of people aged 15-65 not economically active	-.076	-3.386	.001
Number of formal workers in hh	.083	3.553	.000
Race (coloured)	.055	2.492	.013
Number of people in hh	-.074	-3.147	.002
Number of elderly in hh	.059	2.663	.008
Energy for lighting (electricity)	.055	2.206	.027

$R^2 = 0.232$ $F = 45.56$ $p = 0.000$

Urban informal households

Urban informal households showed similar predictors (Table 35) to the overall population of informal households. Feelings of safety in dwelling and neighbourhood were positively associated with satisfaction; urban informal households valued the presence of a formal worker, electricity, use of a telephone or cellphone and private medical help. High numbers of unemployed in the household was a predictor of dissatisfaction in urban households.

Table 35. Predictors of satisfaction in urban informal households.

	Standardised B	T	Sig
Constant		12.650	.000
Safety in neighbourhood	.242	4.919	.000
Medical help (private)	.097	3.318	.001
Energy for lighting (electricity)	.079	2.598	.010
Safety in dwelling	.181	3.653	.000
Number of unemployed in hh	-.099	-3.570	.000
Communications	.072	2.308	.021
Number of formal workers in hh	.064	2.196	.028
Race (coloured)	.056	2.008	.045

$R^2 = 0.258$ $F = 42.771$ $p = 0.000$

Rural informal households

In rural areas, safety was a significant predictor indicating that concerns with crime is not simply an urban phenomenon. The presence of a formal worker or an elderly member was positively associated with satisfaction. Predictors of dissatisfaction included larger household size, living in a traditional house and having no toilet. Black rural households experienced lower satisfaction levels (controlling for white rural households).

Table 36. Predictors of satisfaction in rural informal households.

	Standardised B	T	Sig
Constant		10.191	.000
Safety in dwelling	.234	3.880	.000
Type of housing (traditional)	-.135	-3.716	.000
Number of people in hh	-.157	-4.297	.000
Number of formal workers in hh	.107	2.958	.003
Sanitation (no toilet)	-.087	-2.404	.017
Race (black)	-.085	-2.382	.017
Safety in neighbourhood	.128	2.132	.033
Number of elderly in hh	.073	2.046	.041

$R^2 = 0.200$ $F = 20.776$ $p = 0.000$

This chapter has profiled different types of worker in the informal economy, exposing differences between men and women, urban and rural workers, and workers with strong formal links. Predictors of satisfaction in informal households have been identified.

Chapter Six. Conceptualisation and measurement of the informal economy revisited

This chapter begins with a discussion on the validity and reliability of official statistics. Since this research makes use of secondary analysis of survey findings it is necessary to establish the accuracy and objectivity of the survey approach. In the second section, research questions are considered in light of the findings reported in Chapters Four and Five. In this section elements of the informal economy such as flexibility and the survivalist nature of the economy are discussed. In the third section, successes and failures of the Labour Force Survey are discussed in relation to measurement of the informal economy. The outlook for the informal economy worker is presented in the conclusion at the end of this chapter.

6.1. Official statistics: objective measure or social construction?

6.1.1. Theoretical perspectives and the survey strategy

Positivism is a theoretical perspective that claims objective measurement is possible through the use of scientific method. According to this perspective, the positivist can discover meaning in an object independently of any consciousness of the object. In contrast, a subjectivist ascribes subjective meanings to objects. It can be argued that national surveys are designed from the positivist perspective since the methodology uses statistical (scientific) calculations to determine a sample that represents the population. Thus, official statistics can be viewed as objective facts derived from an instrument designed within the positivist perspective. Slater, discussing Marxist and ethnomethodologist critiques of official statistics, summarised their disagreement:

“In this radical perspective statistics, and hence the representations of reality they conjure up, are not so much *collected* as *constructed* or *produced*. The argument goes that statistics tell us very little about the social phenomena they purport to describe but actually reflect the social agencies and practises through which they are generated.” (1998 :194).

The idea that social statistics can produce what we understand as society, rather than reflect society, stems from the epistemology of constructionism (Tonkiss, 1998: 59). Constructionism is “the view that all knowledge, and therefore all meaningful reality

as such, is contingent upon human practices, being constructed in and out of interaction between human beings and their world, and developed and transmitted within and essentially social context” (Crotty, 1998: 42). Slater (1998) notes that official statistics can be challenged on grounds of reliability and validity because of inaccurate interpretation, changes in institutional practises, and through influences of government bias and ideology. Interpretation relates to how we apply subjective judgement (as opposed to objective reasoning) to measurement. For example, some indicators such as registered births and deaths are relatively unambiguous but the meaning of other concepts, for example ‘work’, is hotly debated. Change in policy, being one component of institutional practise, can have a major effect on statistics. For example, Maier (1999) demonstrates that change in definitions of unemployment by the Bureau of Labour Statistics in US has influenced measurement of unemployment, resulting in both undercounts and overcounts. Similarly, the US poverty line – a measure of significant social effect – has been criticised by some as being too low and others as too high (Maier, 1999). The participation of the state in the generation and distribution of official statistics introduces elements of power, vested interests and control. Slater (1998) cites the example of gender bias in official statistics through work being defined as paid work outside the home thereby ignoring women’s unpaid work in the home.

If the processes we use to collect, record, analyse and understand knowledge about social life effect the way we define and interpret social structures, social groups and social problems (Tonkiss, 1998: 59) then it is important to ensure the information collected is valid and reliable.

6.1.2. The re-conceptualisation of work and the survey strategy

The debate introduced above coincides neatly with the movement to re-conceptualise work. Proponents of this movement have noted problems of official statistics that limit the effective measurement of informal work: Leonard (2000) and Chen, et al. (1999) note the exclusion of home-based workers from the official statistics and Jhabvala (2002) describes how some types of workers do not fit into a narrow definition of ‘worker’; and Budlender, et al. (2002: 17) note the introduction of prompts has resulted in the LFS producing more efficient data than the OHS for street

traders and subsistence agriculture workers. The latter is a positive step, however, even here the context is viewed as limiting. Budlender, et al. (2002) note that a question on registration is used to distinguish between the formal and informal economies and suggest that it may be more appropriate to use alternative indicators of formality or informality. Indicators such as number of employees in the organisation, registration as a company or close corporation, UIF deductions, location of business, nature of contract, work relationship, and entitlement to paid leave could be used to define formal or informal workers (Budlender, et al. 2002).

It is entirely possible that an entity will not carry all the 'desirable' attributes to define it as formal or informal. For example, an entity may not be registered but have over twenty employees. Should this entity be classified as formal or informal? Through registration it is informal but through size it is formal. Unless clear definitions are derived there will always be some misclassification. If we continue to work with concepts of formal and informal economy it may be more useful to ensure that all key attributes of work are measured and then derive a variety of classifications from the information collected. Rather than pre-categorise an entity, it may be more useful to allow for a variety of definitions.

6.1.3. Conceptual models of the informal economy and the survey strategy

Instruments used to collect official statistics are often based on tools developed and designed by organisations such as the ILO and the World Bank. For example, the Living Standards Survey, used for questionnaire design in developing countries, is published by the World Bank. It is highly likely that those organisations will base the design of instruments on their own conceptual models. This need not be viewed in a negative light, for example, the ILO is partnering with WEIGO to debate the concept of work. The instrument used in this study best fits the dualist model of the informal economy. This claim is best demonstrated by the derivation of the two economies from a set of questions that are used to distinguish between them (Statistics SA, 2001c). Use of LFS findings to support or refute the underground and neo-liberal models of the informal economy is markedly more difficult to effect. Some attributes of these models cannot be inferred from the questions posed in the questionnaire. Self-determination and choice are not measured, nor are interventions, influences and

perceptions of corruption relating to the state. The survey does not measure movement between the formal and informal sector (although it may be possible to measure this if the panel design works). Some attributes of the underground and neo-liberal models can be inferred. Exploitation of workers can be inferred from indicators that measure conditions of work. State intervention through provision of grants is measured and some indicators of survivalist activity are included (for example, type of occupation and reliance on agricultural activity for extra food). The attributes of size and flexibility are also covered in the survey instrument.

The use of the survey in the present format is likely to perpetuate the dualist perspective of the informal economy, however, changes introduced as a result of debates on the definition of work may result in an instrument that better represents other, more applicable, models of the informal economy. It must also be noted that the survey is one of several approaches to investigating phenomena. By definition, the survey is broad in scope and intends wide coverage. The nature and purpose of the survey strategy may be at odds with the heterogeneous nature of the informal economy. Testing of the neo-liberal models of the informal economy requires consideration of ethics, self-determination on the part of the worker, relations with the formal sector, and state activities. These facets may best be tested using other strategies, such as the case study. Acknowledging that the survey approach probably best reflects the dualist model of the informal economy, the discussion will now answer the research questions posed in Chapter Two.

6.2. Comparing informal economy workers and their households with other workers

6.2.1. Informal workers would be better off ‘formalising’

From analysis of the LFS it is evident that there is a wide chasm between informal and formal workers. Formal workers are better educated, are more likely to have highly skilled jobs and earn higher wages. Over half of informal workers are own account workers. Those that are employees are more likely to have a temporary or casual relationship with their employer. In contrast, the majority of formal workers are employees and have a permanent relationship with their employer. Conditions of

service (or labour standards) are significantly better for formal workers than any other type of worker although it should be noted that the conditions for formal workers are sometimes not ideal. The analysis of informal households demonstrated that informal workers live in households with a high dependency rate, few financial assets and low proportions had access to best quality services and infrastructure. Higher proportions of informal households were more likely to grow extra food, rely on grants, and have problems meeting food requirements than formal households.

The effect of apartheid

Given South Africa's recent history it is important to consider whether or not the pattern of employment outlined earlier is primarily an effect of apartheid.

It is well established that whites in South Africa are wealthier than blacks on a range of indicators (e.g. Devey & Møller, 2002). This inequality is the result of apartheid policies. From the first stage of the analysis it was found that whites are over-represented in the formal economy and blacks were over-represented in the informal sector. Are the differences between formal and informal workers the result of labour market differences or do they simply reflect the relative advantage of the white sub-population that dominates in the formal economy? Selecting black South Africans and comparing formal and informal workers within this group can answer this question. The results comparing black formal and informal workers are presented in Appendix B. The findings from this analysis demonstrate that there are significant differences between black formal and informal workers. Thus, although residual effects of apartheid may explain some of the differences in standard of living between formal and informal workers through richer whites being over-represented in the sector, the major difference is determined by labour market duality.

The 'advantage' of flexibility

The drive for flexibility causes the growth of (or at least perpetuates) the informal sector. Flexibility of working conditions is touted as one of the advantages of being an informal worker (the only other obvious advantage for the worker is not having to pay tax). It is therefore tragically ironic that, from tens of indicators, this study found that the only advantage the informal worker has over other workers is a high level of flexibility in working conditions, measured by flexibility of working hours and low levels of supervision. It is highly unlikely that this benefit outweighs the poor results

for all other indicators. If given the choice, informal workers would almost certainly trade the advantage of flexibility with better work and living conditions. Some surveys have measured subjective satisfaction with job and satisfaction with various elements of work including: 'salary/wage', 'job opportunities', 'the way you are treated at work', 'your travelling expenses', and 'the independence you have at work' (Markdata, 1995). It would be interesting to test such questions on formal and informal workers and compare their responses. Their responses would clarify, at a relatively simplistic level, whether formal workers are more satisfied with their less flexible, but more lucrative, work conditions.

Survivalist versus productive economy

The various models of the informal economy present the informal worker as either a survivalist or as a vibrant, productive participant. The productive informal economy may be more typical of enterprises, rather than individual workers. Portes, Castells and Benton (1989) maintain that adoption of innovative technology, export-orientated business strategies and autonomy are essential components of growth of the small informal enterprise. Necessary co-requisites include government support, a suitable entrepreneurial environment and solidarity within the community of informal enterprises (Portes, et al., 1989). Portes (1994: 127) states that informal economies of growth are exception rather than the rule. Organisations such as WIEGO (2002) argue that the informal economy has potential to be productive. The majority of informal workers in South Africa work alone and fail to meet any of the criteria required to facilitate growth. Analysis of incomes corroborates the idea (Valodia, 2002) of two economies – one with high wages, the other with low wages. While informal workers were capable of earning high incomes – indicating workers in the informal economy can achieve at similar levels to those in the formal economy – such workers were very much in the minority. Therefore, this study finds more evidence in favour of the survivalist view. While the productive argument supports a sustained informal economy, this study concludes that the informal worker would be better off moving into the formal economy, if such an opportunity was afforded.

Movement into the formal economy

While some authors have argued that the informal worker will move into the formal sector when conditions become suitable, the evidence from this study suggests this

would be difficult to achieve. The education levels of informal workers are well below those in the formal economy and the types of jobs performed by a large majority of informal workers (for example street trading) are not likely to develop skills that would attract interest from the formal sector. The outlook is not completely bleak because the study revealed that informal workers have the third best average education level. Interestingly, the better education levels of the unemployed may represent a threat to the informal economy worker if unemployed workers decided to work in the informal economy. The unemployed worker may also represent a threat in that they may be higher in the job queue when applying for formal employment. Nevertheless, the informal group remains well suited to achieve education levels equivalent to those of the formal worker.

The formal economy as a separate economy

There are indications from the results that there is severe discontinuity between the formal and informal economies, lending support to dualism. One example of discontinuity is in relation to the size and age of the organisation for which the worker works. While formal organisations tend to be larger and older, informal organisations are generally smaller (often an individual own account worker) and more recently established. While smaller organisations have the advantage of mobility, the 'individuality' of informal units would make it difficult to achieve the solidarity necessary to achieve growth. The low proportion of informal workers with union representation is evidence of this effect.

Broadly, there appear to be two economies. The formal economy is able to access technology, understand and adopt competitive business strategies, lever government support and achieve some level of solidarity. The informal economy is apparently less capable of accessing these resources.

The nature of the relationship between formal and informal economies

Castells and Portes (1989: 12) cite examples of individual workers moving between the formal and informal economy and Tokman (1978) debates two possible forms of relationship between the formal and informal economies, one benign the other being a superior-subordinate form of relationship. If the dualist view of two independent sectors is rejected, what evidence can we obtain about the relationship from the

survey analysis? A few results hint at a closer relationship between the informal and formal economies than indicated by the marked differences between sectors discussed earlier. About one third of both formal and domestic households are located in Gauteng. This result demonstrates the strong relationship between the formal economy and wealth of province as well as the close association between the formal economy and domestic service. At least one sector of the informal economy is closely associated with the formal economy, however, the form of the relationship is superior-subordinate.

Results indicated that value is attached to the presence of a formal worker in the informal household. Informal workers with a formal member present in their household had a better level of education. The presence of a formal worker in the informal household was a significant predictor of satisfaction for the household. Of all households 5% received some form of government subsidy and, significantly, the highest proportion of such households contained at least one formal worker.

6.2.2. Informal workers are not the worst off

It may seem from the above section that proponents of the survivalist view have been vindicated because informal workers toil under unfair working conditions and have a significantly poorer standard of living. The population is not simply divided into formal and informal workers, however, and there are indications that informal workers are not the worst off of workers. Informal sector workers achieved third best average education levels (after formal workers and the unemployed), were more likely than all other households except formal to have savings in a bank account, and showed fair levels of vehicle and television ownership. These results could support the 'vibrant sector' view of the informal economy. Informal households (compared with agricultural, elderly and unemployed households) tend to be located in urban areas where economic opportunity is greater. When all indicators are considered, informal workers (and their households) show advantages over unemployed, subsistence agriculture and elderly households.

A possible continuum of households from best off to worst off is suggested in Table 37. The continuum lends support to Peattie's argument that the informal economy is

not the most useful concept for development purposes (1987). A focus on the informal economy denies a significantly large set of worse off cases from gaining attention. For example, the high incidence of young subsistence agriculture workers and unemployed is of general concern. Such individuals must surely be targeted for better qualifications and access to the (formal) labour market. Concentrating on informal workers may exacerbate the problem of jobless youth.

Table 37. A continuum of households based on type of worker in household.

Type of worker	Rating and reasoning for rating
Formal	1. Significantly better on all indicators (except flexibility of work) than all other types
Commercial agriculture	2. Second best incomes on average, low proportion of unemployed (although these households may be remitting to unemployed households), high proportions of permanent employees.
Informal	3. Third best average education and income. High proportion in urban areas. Second best for savings, vehicle and TV ownership indicators. Dependency ratio and proportion of unemployed lower than elderly and unemployed.
Domestic	4. Strong proportions in urban location. Rates second best on access to services (relationship with formal economy affords this access but these statistics hide extensive incidence of poor quality living quarters, abusive relationship with employer and disrupted family life). Low dependency ratios (this group may remit to a household elsewhere).
Elderly	5. Access to a pension or grant apparently lifts these households out of poorest income category. High dependency ratios and high numbers in rural location.
Unemployed	6. High dependency ratios, poor proportions for most indicators, high proportions disadvantaged by location in poor provinces and rural areas. Second best average education levels indicates this group has some potential to improve.
Subsistence agriculture	7. Achieves weak proportions for nearly all indicators. Scored best percentage (although low) on access to government land grants.

Alternatively, because the informal economy is defined through work, the strategies adopted to develop the sector are likely to be different from households with no worker present. A strategy must be developed for cases where there is a high level of autonomy and flexibility (characteristics of the informal economy), this strategy is

unlikely to apply to households relying on welfare and remittances to survive. Nevertheless, the latter households contain high proportions of unemployed who may decide to work in the informal economy so policies dedicated to that economy would be of relevance to them.

6.2.3. Disparities within the informal economy

Just as informal workers can be rated as poorer than formal workers, groups of informal worker are better off than others. McKeever (1998) noted such inequality based on a survey conducted in 1990. Results from this study showed that ten years on, male and urban informal workers have better means to work and have attained better working conditions than women and rural informal workers. And formal-present and formal-like informal workers showed better statistics than average for the indicators measured. These findings support arguments that the South African government's post-apartheid economic policies are not favourable for women (Valodia, 2002) or rural dwellers. A review of literature on the informal economy demonstrates that much of the research conducted focuses on the urban economy. The size of the rural informal economy in South Africa demonstrates that this component is significant and is equally deserving of attention.

6.2.4. The satisfied informal household: maximised economic efficiency or safety and services?

Results of a regression model testing predictors of satisfaction with life demonstrated the need to look beyond economic and work indicators when measuring the informal economy. Some economic indicators, such as the presence of unemployed or a formal worker, predicted satisfaction. An interpretation is that the informal household would be more satisfied under conditions of maximised economic efficiency, that is, fewer dependents and the presence of formal workers. This result possibly demonstrates that the informal household is aware of what factors are required to maximise efficiency but the means (for example, improved education) and end (for example, formalisation of employment) to solve the problem are not accessible. The results demonstrated that it is not simply economics that influences satisfaction as demonstrated by the predictors of feelings of safety and satisfaction with services, for example rural

dwellers – understandably – were dissatisfied when no sanitation was available. Feelings of safety and access to reliable health care and services such as electricity and sanitation are concerns of all South Africans. This finding leads to the question: is the informal economy a useful concept for formulating development initiatives?

6.3. Issues of measurement

The measurement of employment presents numerous challenges and sometimes these problems are exacerbated in developing countries because employment does not adhere to formal structures.

6.3.1. Successes of the survey approach

It appears that the LFS is providing more reliable and valid measurement of the informal economy than in the past. For example Lund noted that the 1995 OHS measured only six (2,038 weighted) street traders (1998: 16). This study showed that about 484,000 street traders were measured by the September 2001 LFS survey. Other results support expected general trends. For example more women and own account workers than men and employees were expected in the informal economy. The former result is the case when domestic workers are counted as informal workers. If agriculture and domestic workers are excluded there are more men in the informal economy. This supports predictions that government policy will favour men in the informal labour market in South Africa (Valodia, 2002). Other trends, such as high proportions of domestic workers working in someone else's home with access to piped water and flush toilets and subsistence agriculture workers being located in rural areas and having the highest likelihood of obtaining a land grant are indicative of the accuracy of the survey.

6.3.2 Failures of the survey approach

The survey fails on a number of counts, some due to conceptual problems that are not easily solved. Examples of three challenges are provided.

Measurement of the relationship between formal and informal economies

The LFS does not measure a worker shifting between the formal and informal economy because it does not allow for multiple instances of work (although the panel

design may allow for this in future LFSs). The survey also fails to measure whether the worker has entered the informal economy directly or whether he or she has moved from the formal economy. The economy of preference of the unemployed worker is also not measured.

Instruments that measure employment usually focus on the worker's main job, that is, one work-related activity. The option to measure multiple work activities has only been introduced to South African questionnaires in recent years. However, the questions simply record an affirmative that the person may have two jobs but no details are collected as to what the second job entails (Muller, 2002: 12).

The researcher can achieve better measurement of multiple activities by asking about total amount of hours the worker spends working in an occupation (for any employer) as well as about earnings from main employer and earnings from all employers (Anderson Schaffner, 2000: 228). This suggestion does not provide the type of work performed, and a more comprehensive solution may be to provide a grid allowing for two or three activities as well as selected attributes for each.

Exclusion of types of worker, types of activities or important attributes of work

Anderson Schaffner (2000: 230) concluded that many income-generating activities are performed outside markets and may not be considered as 'work' or 'employment' by respondents in developing countries. This problem is emphasised by Muller (2002: 3) in a study critiquing the effectiveness of household surveys in South Africa. That author lists the following categories of work as likely to be under-reported in South Africa: low-paying survivalist activity; work involving only a few hours per week; illegal work; child labour; casual, temporary and contract labour; and outsourced work. Illegal work and child labour (illegal by definition of the rights of the child) are not relevant to the informal economy debate.

To solve the problem of respondents identifying their activity as a valid work activity Anderson Schaffner (2000) recommends a sequence of questions asking about different kinds of work, including categories of 'own farm', 'non-farm household enterprise' and 'wage employment'. The LFS caters for a wide a range of activities and it is difficult to see how the filters to establish workers could be improved. As

with all researcher-driven research there is a question of how well the respondent will understand the categories created by the researcher. Clear guidelines and strong fieldworker training would go some way toward preventing misunderstanding.

The researcher can also provide the respondent with a range of activities to help them identify valid work activities. For example, questions on occupation and industry in the most recent labour force survey questionnaire (September 2001) include lists of activities (Figure 5 and Figure 6, respectively). The use of lists of activities must be managed carefully – researchers attempting to identify participation in the informal sector in US have noted that the provision of lists of activities resulted in over-reliance of the categories in the lists and that nuances in meaning within a single activity can be lost through providing ready-made categories (Tickamyer & Wood, 1998: 331).

What kind of work did do in his/her main job during the last seven days (**or usually does, even if he/she was absent in the last seven days**)? Give occupation or job title.

Work includes all the activities mentioned earlier
Record at least two words: Car sales person, Office cleaner, Vegetable farmer, Primary school teacher, etc.
For agricultural work on own/family farm/plot, state whether for own use or for sale mostly.

What were 's main tasks or duties in this job?
EXAMPLES: SELLING FRUIT, REPAIRING WATCHES, KEEPING ACCOUNTS, FEEDING AND WATERING CATTLE.

Figure 5. Occupation questions with instructions for fieldworkers from September 2001 LFS (Statistics SA, 2001d: 16).

What are the main goods and services produced at 's place of work? What are its main functions?
Examples: Repairing cars, Selling commercial real estate, Sell food wholesale to restaurants, Retail clothing shop, Manufacture electrical appliances, Bar/ restaurant, Primary Education, Delivering newspapers to homes.

Figure 6. Industry question with instructions for fieldworkers from September 2001 LFS (Statistics SA, 2001d: 17).

Valodia (*pers. comm.*, 14th November, 2002) has noted that the LFS should attempt to measure citizenship of the informal worker. Foreign traders bring both positive (e.g. innovation) and negative (e.g. xenophobia) elements to the informal economy debate.

Given the increase in cross-border migration in Africa the foreign informal worker is likely to play an important role in the South African economy.

Sethuraman (1976) suggested that accurate measurement of the informal sector requires specific identifiers, relevant to a given sector, thus some questions may be relevant for manufacturing while others are more useful for measuring detail of the construction sector. Charmes has recommended specific questions for efficient measurement of street traders (World Bank, 2001b).

Misclassification of activities

Eardley & Corden (1996: 16), researching workers in the UK, have noted that self-employed workers with strong links to legal institutions (such as the Inland Revenue, national insurance contributions, VAT inspectors, and payment of wages to employees) or those performing traditional activities such as fishing or farming are more likely to classify themselves as self-employed in questionnaires. Workers in transitional situations between unemployment or inactivity and self-employment and workers attempting to start a small business were less likely to identify a clear category for type of employment according to those authors. Case studies of a childminder incorrectly classified as informal (thereby failing to gain the benefits of formal self-employment) and a company director classified as an employee highlight the need for clear definitions of categories of employment (Eardley & Corden, 1996: 17-18). In the South African context similar misclassification could occur as a result of poor design and confusion on the part of the respondent. For example, Muller (2002: 17) has noted that a respondent could be misclassified if they did not understand the concept of registration or did not know the registration status of their employer.

Categories presented to the respondent must be mutually exclusive to avoid confusion. For example, the location of the respondent working in the Warwick Market in Durban could be correctly identified as 'at a market', 'on a footpath, street, street corner' and 'no fixed location' if stall positions change on a regular basis.

Results from this study also demonstrate that some workers classified as informal may have been classified incorrectly because they show characteristics more representative

of the formal worker. The counterargument here is that these workers could be successful informal workers (such workers would probably have similar working conditions to formal workers).

6.3.3. Are we asking too much of the survey strategy?

Criticism of the LFS is not limited to measurement of the informal sector. Dias (2002) motivates for changes to the LFS to achieve a more refined measurement of unemployment. Posel (2002) records disappointment in finding that measurement of migration has deteriorated in the LFS. The critics of the LFS have valid concerns, however, reconstituting the LFS questionnaire to meet the needs of all critics may have serious effects on longitudinal integrity of the survey. And it is also necessary to acknowledge, as indeed Posel does, that it is beyond the scope of the survey strategy to measure every characteristic of a phenomenon. One possibility is to rationalise the purpose of existing surveys. The LFS in its present form covers a fair range of work indicators quite well, the general household survey could be used to measure a different range of indicators, although it must be noted that key characteristics that could be used to define the formal and informal economy – size of organisation, registration details, work relationship, place of work - would have to be included. Another solution may be to add into the LFS a short module containing a limited number of questions that could be rotated from time to time. For example, it would be useful to measure some subjective indicators relating to working conditions but it is probably not essential to include these questions for each round of the survey. Adding only a few questions is unlikely to jeopardise the integrity of the LFS. It must also be reiterated that other strategies can be used to compliment the survey approach.

6.4. Conclusion and recommendations

The outlook for informal workers

The pro-globalisation lobby argue liberalisation (open markets) will result in growth and the reason developing countries are not experiencing growth is protectionism and controls (Legrain, 2002). Assuming this is true (and it is hotly debated) and if economic and political conditions do not facilitate liberalisation then development

must take place through other mechanisms. A set of core indicators, called the Common Country Assessment Indicators, were derived by the OECD, the United Nations and the World Bank in 1998 (Statistics SA, 2000b). These indicators were designed to measure development goals and included:

- The creation of full employment, including the extent of employment in the working age population, the unemployment rate and the informal sector as a percentage of total employment
- Access to housing and facilities, including adequate shelter, safe drinking water and sanitation
- Access to education, including primary and secondary education and increased literacy
- Gender equity, including the ratio of girls to boys in secondary schools and the ratio of women to men in paid employment outside agriculture

The results from secondary analysis of the 2001 LFS demonstrate that the informal economy worker is lagging behind the formal equivalent on the indicators listed. In South Africa the informal economy represents a significant proportion of total employment. The types of jobs performed by informal workers tend to be low skilled although some informal workers have skills that could be used to foster self-development. For example carpenters, builders and welders could provide services within a community if the state and other institutions fail to provide necessary infrastructure and services. Such activity would provide an example to support the micro-enterprise model of the informal economy. It is important to note, however, that the vast majority of informal workers do not have extensive skills and may not be able to supplant the role of formal or state service providers.

While a relatively high proportion of informal worker have access to formal houses, a large number live in poor quality housing. A significant proportion of informal workers rely on primitive sources of energy and have not been able to access high quality services and facilities. Education levels of the informal worker are low. Given this environment of relative disadvantage, it is difficult to perceive the informal worker eking an advantage from open markets.

Organisations such as WIEGO (2002) argue that the state must play a key role in improving conditions for disadvantaged workers. Indeed, there are indications that the South African government is moving to protect the most vulnerable workers. Minimum wages are being introduced for domestic (*The Mercury*, November 7th 2002) and farm workers (*The Mercury*, December 3rd 2002). In some local cases, local government is collaborating with NGOs, informal workers and researchers to improve conditions of work of street traders (for example, Lund & Skinner, 1999). More recently the municipality has expressed its intention to regulate street trading through registration of businesses (*The Daily News*, November 11th 2002), however, regulation may erase the autonomy of the sector that is viewed as a necessary component for growth (Tokman, 1978). The forces in the labour market are contradictory; de-formalisation to achieve flexibility for some workers flows against formalisation to protect vulnerable workers and improve conditions for others.

The results from this study indicate that one solution to improve the lot of the informal worker and household would be to secure at least one formal worker in each informal household. This could best be achieved by raising education levels significantly, however, this would be a long-term strategy and there is a question as to whether the market has the capacity to absorb the number of formal workers required.

Other trends are less positive for the informal worker. Institutions such as banks and medical aid providers fail to extend services to the informal worker, viewed as an unreliable customer. WIEGO (2002) have urged focus of four policy areas to improve the situation of informal workers: macroeconomic and labour policies, urban regulations, and social protection measures. WIEGO's (2002) admirable, but somewhat idealistic, goals for the informal economy include: the right to organise; representation in policy-making and negotiating forums; transformation of survivalist activities to more productive work; transformation of informal jobs into protected and secure work; and integration of formal and informal institutional mechanisms. These goals could be achieved through policy intervention. Forces representing the formal economy and agents hoping to maintain the status quo will resist change. Information that exposes inequalities and disparities and that is derived using the survey approach will be one of the tools used by those seeking better standard of living for the informal worker.

Measurement of the informal economy

The accurate measurement of the informal economy requires reconceptualisation of questions and a longer questionnaire with additional questions and more detailed instructions for the interviewee and respondent. These changes to the survey instrument would require additional resources – more time and money – for design, data entry and analysis. Interviewee fatigue is already a problem for the LFS. An innovative rotation of sample and questions may help reduce this problem. The trade off between the purpose and focus of national surveys and a restricted budget must be recognised. It would be difficult, if not impossible, to design a questionnaire that measures employment to the satisfaction of every interested party. Nevertheless, potential solutions can be tested using improved instruments and it would be unproductive to deny the usefulness of the survey strategy to measure employment.

An immediate improvement would be that Statistics SA to improve transparency of information. This could be achieved by establishing a public website where both Statistics SA and users can log problems experienced with data (and possible solutions to these) and facilitate discussion around issues of measurement.

Finally, alternative methodologies should not be neglected, and are certainly likely to be of effective use, to investigate the more complex aspects of the informal economy.

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Appendix A: Selected statistics

A1. Selected multinomial regression statistics for Table 26 in Chapter Five.

The statistics below are included to demonstrate how significant associations were determined for the tables presented in Chapter Five. For example, testing the association between gender and demographic indicators of age, race, urban-rural and province resulted in significant associations between gender and age, urban-rural and province (see below). This would be interpreted as an uneven distribution of gender occurring across age groups, in urban and rural areas, and by provinces. Gender and race were independent.

Gender by age, race, urban-rural and province:

Likelihood Ratio Tests				
Effect	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	747.603	.000	0	.
RAGE	775.313	27.709	5	.000
RACE	754.872	7.268	3	.064
URBRUR	754.837	7.233	1	.007
PROV	795.842	48.239	8	.000

Urban-rural by gender, age, race and province:

Likelihood Ratio Tests				
Effect	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	716.791	.000	0	.
GENDER	723.643	6.852	1	.009
RAGE	723.704	6.913	5	.227
RACE	800.909	84.118	3	.000
PROV	1832.724	1115.933	8	.000

Formal-present by gender, age, race, urban-rural, province:

Likelihood Ratio Tests				
Effect	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	1011.897	.000	0	.
GENDER	1056.901	45.004	1	.000
RAGE	1028.728	16.830	5	.005
RACE	1095.363	83.466	3	.000
URBRUR	1068.059	56.162	1	.000
PROV	1045.492	33.595	8	.000

Formal-like by gender, age, race, urban-rural, province:

Likelihood Ratio Tests				
Effect	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	692.567	.000	0	.
GENDER	710.686	18.119	1	.000
RAGE	699.070	6.503	5	.260
RACE	776.857	84.291	3	.000
URBRUR	693.547	.981	1	.322
PROV	740.471	47.904	8	.000

A2. List of variables used in regression models.

Outcome variable	Codes
Satisfaction with life	1 (very dissatisfied) 2 (dissatisfied) 3 (neither) 4 (satisfied) 5 (very satisfied)
Predictors	Codes
<i>Demographic</i>	
Gender of head	1 (male) 0 (female)
Number of married people in hh	Interval (0-9)
Number of children 0-6 years of age in hh	Interval (0-9)
Number of births in hh during past year	Interval (0-6)
Number of deaths in hh during past year	Interval (0-3)
Number of people in hh	Interval (1-25)
Number of elderly in hh	Interval (0-3)
Ethnic group	1 (black) 1 (coloured) 1 (Indian) - (white)
Urban-rural	1 (urban) 0 (rural)
<i>Social and economic</i>	
Education: number of people with matric or better	Interval (0-6)
Total monthly household expenditure	Interval (7-36,000)
Total monthly household income	Interval (0-443,825)
Number of formal sector workers in hh	Interval (0-5)
Number of unemployed in hh	Interval (0-5)
Number of people 16-65 not economically active in hh	Interval (0-10)
<i>Housing, energy and access to services</i>	
Type of house	1 (formal) 1 (traditional) – (other: e.g. informal)
Ownership of house	1 (owner) 0 (other: e.g. rented)

Energy for cooking	1 (electricity) 1 (gas, paraffin) – (other: e.g. wood)
Energy for heating	1 (electricity) 1 (gas, paraffin) – (other: e.g. wood)
Energy for lighting	1 (electricity) – (other: e.g. paraffin, candles)
Source of water	1 (piped) 1 (public) – (other: e.g. natural source)
Sanitation	1 (flush toilet) 1 (none) – (other: e.g. pit latrine)
Refuse removal	1 (local authority) 0 (other: e.g. communal)
<i>Communication and infrastructure</i>	
Communications	1 (telephone or cellphone) 0 (none)
Street lighting	1 (yes) 0 (no)
<i>Crime and health</i>	
Victim of burglary, robbery, housebreaking, murder	1 (yes) 0 (no)
Safety in neighbourhood	1 (very unsafe) 2 (unsafe) 3 (safe) 4 (very safe)
Safety in dwelling	1 (very unsafe) 2 (unsafe) 3 (safe) 4 (very safe)
Medical help	1 (private) 0 (public)
Distance to welfare	1 (less than 5km) 0 (more than 5km)

Variables excluded from regression model measuring predictors of satisfaction in informal households were:

	Beta In	t	Sig.
Gender of head (male)	.016	.704	.481
Number of married people in hh	.010	.423	.672
Number of children 0-6 years of age in hh	-.015	-.529	.597
Number of births in hh during past year	-.017	-.564	.573
Number of deaths in hh during past year	.002	.091	.927
Ethnic group (black)	.032	.965	.334
Ethnic group (Indian)	-.023	-1.048	.295
Education: number of people with matric or better	.008	.313	.754
Total monthly household expenditure	.012	.480	.631
Total monthly household income	.016	.745	.456
Urban-rural (urban)	-.043	-1.638	.102
Number of unemployed in hh	-.022	-.657	.511
Type of housing (formal)	.014	.507	.612
Ownership of house (owner)	.014	.631	.528
Source of water (piped)	.003	.112	.911
Source of water (public)	.041	1.777	.076
Energy for cooking (electricity)	.022	.654	.513
Energy for cooking (gas, paraffin)	-.004	-.158	.874
Energy for heating (electricity)	.034	1.045	.296
Energy for heating (gas, paraffin)	-.007	-.297	.766
Sanitation (flush)	-.031	-1.106	.269
Sanitation (none)	-.036	-1.508	.132
Refuse removal (local authority)	-.016	-.594	.553
Street lighting	-.030	-1.183	.237
Victim of crime	-.002	-.098	.922
Distance to welfare (< 5 km)	-.004	-.196	.844

Variables excluded from regression model measuring predictors of satisfaction in urban informal households were:

	Beta In	t	Sig.
Gender of head (male)	.013	.483	.629
Number of married people in hh	-.012	-.409	.682
Number of children 0-6 years of age in hh	-.007	-.267	.789
Number of births in hh during past year	-.022	-.753	.452
Number of deaths in hh during past year	.007	.265	.791
Number of people in hh	-.023	-.767	.443
Number of elderly in hh	.026	.953	.341
Ethnic group (black)	.030	.755	.450
Ethnic group (Indian)	-.026	-.910	.363
Education: number of people with matric or better	.015	.450	.653
Total monthly household expenditure	.018	.585	.559
Total monthly household income	.033	1.177	.240
Number of people aged 15-65 not economically active	-.032	-1.135	.256
Type of housing (formal)	.003	.076	.939
Type of housing (traditional)	-.021	-.741	.459
Ownership of house (owner)	.015	.558	.577
Source of water (piped)	-.027	-.812	.417
Source of water (public)	.047	1.505	.133
Energy for cooking (electricity)	.007	.166	.868
Energy for cooking (gas, paraffin)	.017	.448	.654
Energy for heating (electricity)	.029	.726	.468
Energy for heating (gas, paraffin)	.023	.706	.480
Sanitation (flush)	-.003	-.104	.918
Sanitation (none)	.014	.497	.619
Refuse removal (local authority)	.029	.990	.322
Street lighting	-.007	-.223	.824
Victim of crime	-.010	-.372	.710
Distance to welfare (< 5 km)	.017	.615	.539

Variables excluded from regression model measuring predictors of satisfaction in rural informal households were:

	Beta	In	t	Sig.
Gender of head (male)	.017		.490	.624
Number of married people in hh	.056		1.535	.125
Number of children 0-6 years of age in hh	-.028		-.588	.557
Number of births in hh during past year	-.019		-.380	.704
Number of deaths in hh during past year	-.006		-.171	.864
Ethnic group (coloured)	.043		.881	.379
Education: number of people with matric or better	-.036		-.938	.349
Total monthly household expenditure	-.013		-.343	.732
Total monthly household income	-.017		-.474	.636
Number of unemployed in hh	-.062		-1.700	.090
Number of people aged 15-65 not economically active	.010		.200	.842
Type of housing (formal)	-.022		-.378	.706
Ownership of house (owner)	-.007		-.188	.851
Source of water (piped)	.066		1.792	.074
Source of water (public)	.031		.870	.385
Energy for cooking (electricity)	.042		1.112	.267
Energy for cooking (gas, paraffin)	-.018		-.502	.616
Energy for heating (electricity)	.039		1.066	.287
Energy for heating (gas, paraffin)	-.037		-1.033	.302
Energy for lighting (electricity)	.015		.389	.697
Sanitation (flush)	-.042		-1.084	.279
Refuse removal (local authority)	-.030		-.844	.399
Communications	.015		.404	.686
Street lighting	-.043		-1.220	.223
Victim of crime	.001		.019	.985
Medical health (private)	.056		1.546	.123
Distance to welfare (< 5 km)	-.034		-.970	.332

Appendix B. Selected indicators comparing formal and informal black workers.

For the following analysis formal work does not include commercial agriculture and informal work does not include subsistence agriculture or domestic work.

Table B1 shows that the absolute number of black workers in the formal economy is significantly higher than the number working in the informal economy. The proportion of black women working in the informal economy is higher than in the formal economy. Black informal workers show slightly higher proportions in the younger and older age ranges. Formal workers show a strong urban bias while about half of all black informal workers are located in rural areas. While both formal and informal workers occur in Gauteng and KwaZulu-Natal, black informal workers occur in high percentages in the poorer provinces of Northern Province and Eastern Cape.

Table B1. Demographic and spatial indicators for black workers (15-65 years).

	Formal	Informal
N	3,768,746	1,580,102
<i>Gender</i>	3,768,746	1,580,102
Male	64.5	53.1
Female	35.5	46.9
<i>Age</i>	3,768,746	1,580,102
15-19 yrs	.6	2.8
20-29 yrs	21.8	24.2
30-39 yrs	39.1	32.1
40-49 yrs	26.7	25.1
50-59 yrs	10.1	12.3
60-69 yrs	1.6	3.5
<i>Urban/rural</i>	3,768,746	1,580,102
Urban	70.4	49.7
Non-urban (Rural)	29.6	50.3
<i>Province</i>	3,768,746	1,580,102
Western Cape	4.1	3.5
Eastern Cape	8.6	18.6
Northern Cape	.9	.6
Free State	9.3	5.6
KwaZulu-Natal	19.7	17.0
North West	11.0	7.8
Gauteng	29.7	21.4
Mpumalanga	8.1	9.2
Northern Province	8.6	16.4

Black formal workers showed significantly better education and income levels than their informal counterparts (Table B2).

Table B2. Education and income indicators for black workers (15-65 years).

	Formal	Informal
<i>Education</i>	3,709,809	1,563,903
No education	4.5	11.5
Primary	21.8	37.7
Secondary (excl. G12)	31.4	36.2
Matric	23.6	11.7
Post-matric	18.7	2.9
<i>Average years of education</i>	11.18	8.10
<i>Ability to read</i>	3,768,603	1,580,102
Yes	95.6	87.9
<i>Ability to write</i>	3,768,746	1,580,102
Yes	95.4	87.6
<i>Income group</i>	3,609,728	1,524,799
None	.5	5.9
R1-200	1.8	21.4
R201-500	6.5	29.0
R501-1 000	18.1	23.1
R1 001-1 500	18.2	8.2
R1 501-2 500	25.1	7.1
R2 501-4 500	18.3	3.7
R4 501-11 000	10.5	1.4
R11 001-30 000+	1.0	.1
<i>Average income category (range 1-14)</i>	5.85	3.53

The majority of black informal workers showed high proportions in four occupation categories: elementary occupations; craft and related trades; service, shop and market workers; and skilled agriculture (Table B3). Black formal workers were more evenly distributed and showed relatively high proportions in technical and skilled occupations such as plant and machine operators. Differences in proportions were also observed for industry with over half of informal workers citing wholesale and retail trade as industry while formal workers were more evenly distributed across community, social and personal services, wholesale and retail trade and manufacturing.

Table B3. Occupation and industry of black workers (15-65 years)

	Formal	Informal
<i>Occupation</i>	3,763,730	1,578,066
Elementary occupation	18.5	34.6
Craft & related trades	14.8	25.5
Service, shop & market workers	17.0	20.0
Technical & associated professionals	13.5	3.7
Clerks	10.5	1.2
Plant & machine operators & assemblers	17.7	4.7
Legislators, senior officials & managers	2.7	2.5
Professionals	4.3	.2
Skilled agricultural & fishery workers	1.1	7.4
<i>Industry</i>	3,761,553	1,577,718
Wholesale & retail trade	19.7	53.0
Community, social & personal services	28.7	7.2
Manufacturing	19.5	10.3
Private households	.3	7.1
Finance and business services	8.5	2.5
Construction	5.4	13.9
Transport, storage and communication	6.0	5.8
Mining	10.6	.1
Other	1.5	.1

While the majority of formal workers work for someone else for pay, the majority of informal workers are own account workers (Table B4). Conditions of work for formal and informal employees differ markedly. Informal employees are more likely to work for more than one employer and are less likely to have worked for a long period of time. Informal employees show high percentages of temporary and casual employment relationship. Low proportions of informal employees enjoy paid leave, work for an employer who contributes to a pension scheme, are afforded a written contract, or are represented by a trade union. While formal employee percentages for the same indicators are not excellent they are significantly better than the informal percentages. A lower proportion of informal employees are supervised indicating the greater flexibility available to the informal employee.

Table B4. Relationship with employer and working conditions of the employee.

	Formal	Informal
<i>Main work</i>	3,768,746	1,580,102
Working for someone else for pay	96.6	24.4
Work for one or more hhs as domestic, gardener, security guard	.3	7.0
Work on own or small hh farm/plot or collect natural products	.0	1.5
Working on own or with partner in any type of business	2.6	62.4
Helping without pay in hh business	.5	4.7
<i>Number of employers</i>	3,608,966	374,834
One employer	96.3	89.7
More than one employer	3.7	10.3
<i>Year commenced working</i>	3,628,889	377,647
-1979	6.7	3.7
1980-1989	21.0	6.6
1990-1994	18.0	8.5
1995-1999	31.0	30.2
2000	9.8	16.2
2001	13.5	34.9
<i>Work</i>	3,615,653	369,420
Permanent	81.5	42.2
Fixed period contract	4.0	4.6
Temporary	9.9	34.2
Casual	4.4	18.2
Seasonal	.2	.8
<i>Written contract</i>	3,634,001	378,424
Yes	61.1	13.8
<i>Supervision of work</i>	3,606,563	375,900
Work supervised	92.2	72.8
<i>Contribution to pension or retirement fund</i>	3,474,920	364,369
Yes	64.6	10.8
<i>Paid leave</i>	3,515,450	370,023
Yes	68.1	14.5
<i>Trade union membership</i>	3,443,548	364,119
Yes	51.9	10.0

Few informal workers have access to medical aid or health insurance (it should be noted that formal worker percentages are extremely low as well) and UIF deductions are not deemed important for the informal worker. Formal and informal workers appear to work a similar number of hours in the average week although the informal worker has greater flexibility over when he or she works and is more likely to want to work extra hours. Number of employees is used to classify a worker as formal or informal and this relationship is very clear from the results obtained here. While work of the majority of formal workers is located in an office or service outlet, over 70% of informal workers work in the owner's home or in no fixed location.

Table B5. Working conditions of the black worker.

	Formal	Informal
<i>Medical aid or health insurance</i>	3,656,551	1,568,265
Yes, self only	12.7	.5
Yes, self & dependants	16.8	1.5
<i>UIF Deductions</i>	3,577,532	1,554,437
Yes	57.1	2.9
<i>Hours worked in an average week (incl. overtime)</i>	3,751,566	1,568,023
Mean	48.04	47.12
<i>Flexible working hours</i>	3,743,423	1,572,730
Can decide fully	5.1	69.4
Limited range	3.2	6.1
Fixed by employer	91.7	24.5
<i>Longer hours</i>	3,681,239	1,555,343
Yes	15.4	27.7
<i>Number of regular workers</i>	3,571,284	1,567,707
1	2.6	57.4
2-4	9.1	29.8
5-9	11.5	5.8
10-19	17.5	2.5
20-49	20.1	2.4
50+	39.2	2.1
<i>Location</i>	3,765,633	1,579,767
Owners home/farm	2.4	49.6
Someone else home	.6	9.1
Factory/office	59.9	3.3
Service outlet	30.8	6.9
At a market	.4	.7
Footpath, street	2.2	7.1
No fixed location	3.3	22.7
Other	.4	.5

As expected, the majority of formal workers work for a registered business that is registered for VAT payment. In contrast, very few informal workers list registration as a characteristic (Table B6).

Table B6. Registration of business.

	Formal	Informal
<i>Organization or business a registered company or closed corporation</i>	3,641,182	1,537,562
Yes	79.6	5.3
<i>Registered for VAT</i>	3,509,249	1,530,454
Yes	73.9	4.0

Black informal households are larger in size on average than black formal households (4.51 members and 3.79 members, respectively). Informal households have a higher dependency ratio than formal households (0.7066 and 0.4835 dependents: independents, respectively). The average number of unemployed per household is similar for informal and formal households (0.3868 and 0.3937, respectively).

While almost 95% of households with a formal worker rely on salaries and wages as the main source of income, informal households rely on salaries and wages (57%), other non-farm income (21%) and pensions and grants (11.1%). Relative to formal households, informal households are less likely to have financial assets, such as money in a savings account or savings in a retirement or pension plan.

Table B7. Income and financial assets of black households.

	Formal	Informal
<i>Main source of income</i>	3,248,759	1,401,849
Salaries & wages	94.6	57.0
Remittances	.9	5.9
Pensions & grants	3.0	11.1
Sales of farm produce	.4	3.7
Other non-farm income	1.1	21.0
No income	.1	1.3
<i>Financial assets</i>		
<i>Money in savings account at a bank</i>		
Yes	64.8	31.6
<i>Savings in stokvel</i>		
Yes	12.1	10.0
<i>Savings in a pension plan or retirement annuity</i>		
Yes	17.9	3.7
<i>Unit trust, stocks or shares</i>		
Yes	3.7	0.9
<i>Cash loans to be repaid</i>		
Yes	4.7	2.1
<i>Life insurance</i>		
Yes	32.2	12.6

Differences exist between formal and informal households for numerous household indicators (Table B8). While a fair proportion of informal workers live in formal housing, 16.7% live in traditional housing and nearly 20% live in some form of informal housing. Higher proportions of informal households rely on water from public or natural sources. While two-thirds of formal households have a toilet facility in the dwelling or on site, only 40% of informal households access this type of sanitation. Informal households are more likely than formal households to rely on own or communal refuse dumps.

Table B8. Selected household indicators for black households.

	Formal	Informal
<i>Housing</i>		
<i>Main dwelling</i>	3,166,840	1,382,187
Formal house	55.9	53.7
Traditional	4.7	16.7
Informal dwelling shack	12.2	14.0
Formal: multiple room	10.1	2.3
Informal dwelling in backyard	6.4	5.6
Dwelling in backyard	4.9	4.7
Room or flatlet	6.0	2.9
<i>Source of water</i>		
	3,249,156	1,399,523
Piped tap in dwell	38.1	22.0
Piped tap on site/neighbour	43.1	39.6
Public tap	11.3	18.4
Natural: flowing, dam, well, spring, rain tank	4.2	13.7
Borehole	2.3	4.6
Water carrier	.9	1.7
<i>Toilet facility</i>		
	3,254,032	1,402,589
In dwelling, flush, public sewer (incl. few septic)	33.4	17.9
On site, pit, no ventilation	19.4	33.2
On site, flush, public sewer	33.0	23.0
None	3.3	12.6
Other	10.8	13.2
<i>Refuse removal</i>		
	3,198,336	1,383,507
Local authority 1x week or less	68.8	47.1
Own refuse dump	19.2	40.5
No refuse removal	5.4	8.8
Communal refuse	6.6	3.6

Fewer than half of informal households rely on electricity for heating and cooking. Informal households tend to rely on products such as wood and paraffin as sources of energy. A higher proportion of formal households have access to a telephone in the dwelling or a cell phone.

Table B8 continued. Selected household indicators.

	Formal	Informal
<i>Energy for cooking</i>	3,181,270	1,390,664
Electric mains	68.7	41.8
Wood	6.7	25.3
Paraffin	18.8	27.8
Natural: coal, gas	5.8	5.1
<i>Energy for heating</i>	3,215,681	1,388,596
Electric mains	61.5	36.2
Wood	8.2	27.9
Paraffin	14.7	17.9
None	9.7	9.8
Coal	6.0	8.3
<i>Energy for lighting</i>	3,242,898	1,397,710
Electric mains	82.9	67.0
Candles	12.9	24.8
Paraffin	4.2	8.3
<i>Fixed telephone in dwelling</i>	3,252,439	1,400,826
Yes	21.2	12.6
<i>Own cellphone</i>	3,253,159	1,403,078
Yes	35.7	23.6

While 60.8% of formal households never have a problem meeting food needs, only 36.1% of informal households reported never having a problem meeting food needs (Table B9). Informal households showed slightly better proportions for accessing various grants.

Table B9. Survival and welfare indicators by type of household.

	F	CA
<i>Survival</i>		
<i>How often had a problem satisfying food needs</i>	3,247,165	1,399,665
Never	60.8	36.1
Seldom	9.9	11.8
Sometimes	23.7	38.0
Often	3.7	7.7
Always	1.9	6.5
<i>Welfare grants (at least one in hh)</i>		
<i>Old age pension</i>		
Yes	9.3	14.3
<i>Disability grant</i>		
Yes	2.1	2.7
<i>Child support grant</i>		
Yes	3.6	7.8
<i>Other grant</i>		
Yes	0.6	1.1

In summary, black informal workers are worse off for nearly all indicators, demonstrating that differences are effected by labour market dualism. Although the effect of apartheid policies can explain some of the differences between formal and informal economies, the major difference is effected by the relative advantages that characterise the formal economy (for example, higher level of education, access to high quality jobs, and so on).