



UNIVERSITY OF CAPE TOWN

CENTRE FOR
SOCIAL SCIENCE RESEARCH

**HINDRANCES TO SELF-
EMPLOYMENT ACTIVITY: EVIDENCE
FROM THE 2000 KHAYELITSHA/
MITCHELL'S PLAIN SURVEY**

Paul L. Cichello

CSSR Working Paper No. 131



Published by the Centre for Social Science Research
University of Cape Town
2005

Copies of this publication may be obtained from:

The Administrative Officer
Centre for Social Science Research
University of Cape Town
Private Bag
Rondebosch, 7701
Tel: (021) 650 4656
Fax: (021) 650 4657
Email: kforbes@cssr.uct.ac.za

Price in Southern Africa (incl. VAT and postage): R 5.00

or it can be downloaded from our website
<http://www.cssr.uct.ac.za/index.html>

ISBN 1-77011-065-8

© Centre for Social Science Research, UCT, 2005

CENTRE FOR
SOCIAL SCIENCE RESEARCH

Social Surveys Unit

HINDRANCES TO SELF-EMPLOYMENT
ACTIVITY: EVIDENCE FROM THE 2000
KHAYELITSHA/MITCHELL'S PLAIN
SURVEY

Paul L. Cichello

CSSR Working Paper No. 131

October 2005

Dr. Cichello is an Assistant Professor in the Economics Department at Loyola College in Maryland, USA and a visiting researcher in the Centre for Social Science Research and the Development Policy Research Unit at the University of Cape Town.

Hindrances to Self-employment Activity: Evidence from the 2000 Khayelitsha/Mitchell's Plain Survey¹

Abstract

The 2000 Khayelitsha/Mitchell's Plain (KMP) Survey offers a unique view into the hindrances to self-employment activity in the KMP area. Respondents identify a lack of money/capital as the primary barrier to participation and hours worked in self-employment activities. Concerns over expected profit, while present, are not a dominant hindrance. A lack of skills, concerns over future access to formal jobs, and other "hidden" costs also play a role in limiting self-employment activities, though these are far less important than issues related to capital constraints. Further research is needed to identify whether capital constraints are tied to a lack of access to start-up capital or a lack of demand for borrowing due to ex-ante risk management strategies.

I. Introduction

There is a tremendous need for a better understanding of how self-employed businesses operate and succeed in South Africa. An improved understanding would help analysts better explain why forty-one percent of the labour force remains unemployed rather than entering some sort of self-employment activity, survivalist or otherwise.² More importantly, we could then help public policy makers, informal worker organisations, and NGOs design programmes or regulatory structures that increase the profit levels of those currently engaged in

¹ I gained valuable insights from conversations with and comments by Chris Barrett, Gary Fields, Chris Manolis, Nicoli Nattrass, David Newhouse and participants at the University of Cape Town's CSSR Seminar series. I would also like to thank Caroline Skinner, Imraan Valodia, and Francie Lund for their thought provoking discussions (and tour of informal trading areas), and their encouragement in pursuing this important area of research. Any errors are my own.

² The narrow and broad unemployment rates for South Africa were 27% and 41%, respectively, in March 2005 (StatsSA, 2005). At the time of the survey used in this study, the narrow and broad unemployment rates for South Africa were 26% and 36%, respectively, in September 2000 (StatsSA, 2001).

these activities and/or encourage more people to enter profitable self-employment opportunities. Identifying and addressing barriers and hidden costs faced by self-employed businesses has the potential to lead to substantial poverty alleviation and increased economic well-being for a large segment of the population. This paper will attempt to illuminate some of these hindrances to self-employment activity in the Khayelitsha/Mitchell's Plain area, on the outskirts of Cape Town.

Research addressing informal self-employment is currently underway, but more is needed. Multiple sector specific industry studies of the self-employed have been conducted in Durban and other areas. For example, Lund (1998) reviews a variety of quantitative and qualitative survey work concerning street traders.³ Additionally, the role of informal workers in the clothing industry has been examined, with particular interest in addressing how the formal and informal economies interact (Skinner and Valodia, 2000). Carr and Chen (2002) call for more such studies, identifying the global value chain of the particular goods, with an emphasis on the role of the self-employed in developing countries and an ultimate goal of identifying how these self-employed individuals might capture a larger share of the overall returns.

Such studies are particularly useful when they include analysis of policies that may be applied by governments to address the problems of the self-employed. Skinner (1999) lays the foundation for analysing local government policies that may benefit street traders in five South African cities. The work includes some specific problems faced by street traders as well as the administrative regulations and the institutional structures that such traders face. Additional quantitative work is needed in this area to determine which programmes/structures have been most successful over time.⁴

In some sense, this work represents another such study focusing on the self-employed and attempting to identify issues and structures that might hinder their economic progress. Far and away the best such existing work that the author is aware of is Skinner's 2005 review of constraints faced by over 500 informal firms in the Durban metropolitan areas. This study sets itself apart due to the breadth of coverage of business activities surveyed, its extensive set of questions directly assessing and ranking limitations faced by these small firms, and its

³ Lund (1998) also provides a brief, yet extremely informative, review of the major historical regulations affecting the informal economy in South Africa as well as the government policy and regulations in the 1990s.

⁴ Chen (2004) notes that Budlender (2000) and Budlender *et al* (2004) reviewed the impact that local (Durban) as well as provincial (KwaZulu-Natal) and national government budgets have on a variety of informal economy participants. These studies find the local governments to be responsive to the needs of the informal economy.

direct enquiry into the role government may play to assist these firms as judged by those actually engaged in these activities.

Like Skinner (2005), this study does not limit its investigation to those individuals (that is, firms) already engaged in one particular industry. It is inclusive of a large set of industries individuals may (potentially) be engaged in. In contrast to Skinner, I assess input from the potential self-employed as well as actual self-employed individuals. I pay particular attention to identifying what prevents individuals from choosing self-employment rather than unemployment. In short, I address this issue from a labour supply perspective.

The call for such work has been building. Cichello *et al.* find results from KwaZulu-Natal that are suggestive of barriers in the informal economy, including self-employment (Cichello *et al.*, 2005). Chen (2004) specifically calls for further research to answer questions such as “Do barriers to entry into the informal economy still exist in South Africa?” As early as 2001, Kingdon and Knight had a paper aptly titled, “Why high open unemployment and small informal sector in South Africa?” In that paper, and other accompanying research, Kingdon and Knight provide economic and psychologically based evidence from the nationally representative October Household Survey that suggests that many individuals are not “voluntarily” unemployed, but must, instead, be facing serious impediments to entry to the informal sector (Kingdon and Knight, 2001, 2002).

Kingdon and Knight go on to provide a bountiful list of potential constraints. Many of these potential constraints, such as restrictive bye-laws, poor entrepreneurial skills, poor social/trading networks, are acute in South Africa due to the legacy of the Apartheid regime (Kingdon and Knight, 2001). Other potential hindrances include capital/credit/land constraints, a lack of infrastructure in Black townships, the prevalence of violence and insecurity in the informal economy, and, for those employing non-family members, industry based wage and working condition mandates (*ibid*). Yet, there is no direct investigation of these constraints. At this point, the set of plausibly important hindrances is still unwieldy, making effective modeling of the self-employment decision difficult at best.

More empirical work is needed. Such work must allow for an expanded set of potential hindrances, before narrowing down the list of hindrances that policy makers should be most concerned about. The aforementioned industry specific studies have been helpful in identifying some important barriers/constraints, particularly for Durban street traders (Lund, 1998; Skinner, 1999). The room for additional work in this area is extremely broad.

In this working paper, I use responses from affected individuals to directly identify potential barriers and/or hidden costs that may impact the decision process for individuals considering or currently engaged in self-employment activity in the Khayelitsha/Mitchell's Plain area outside of Cape Town. I start with three obvious deterrents to participation in self-employment: 1) zero or negative expected profit (due to a lack of demand for products/ services or a high cost of complementary inputs); 2) capital constraints and/or risk concerns (that limit the funds available or desire to access funds for a venture with a positive expected profit); and 3) a lack of skills (either skills particular to a specific type of self-employment or basic entrepreneurial skills). These hindrances shall be referred to as *profit barriers*, *capital barriers*, and *skill barriers*, respectively.

I also refer to *future-limiting barriers* which captures the notion that self-employment choices today may limit labour supply choices in future periods. This idea, found in Harris-Todaro models extended to include the informal economy, suggests that working in the informal economy (including self-employment) in the current period limits one's chances of accessing formal employment in the next period.⁵

All other barriers and hidden costs shall be referred to as *hidden cost barriers*. Other "barriers," might include formal restrictions (such as regulations that prohibit sales in an area) or informal restrictions (such as gangs that only allow those in their group to sell in an area). By "hidden" costs, I am referring to costs that an analyst may not typically include in his/her analysis, particularly when treating individuals as atomistic agents in static labour market models that assume well functioning labour markets.⁶ These include economic costs, such as the loss of profit due to theft or extortion, and non-economic costs such as the fear of and impact from violence that is related to their choice of employment. They also include the loss of household resources one might lose access to after leaving unemployment and the additional payments to other household (or extended kin) one might make once self-employed. Finally, "barriers" may be thought of in terms of "hidden" costs, where a perfectly enforced barrier

⁵ See Fields (1975) for one example of an extended H-T model that incorporates the informal sector. The limiting future barrier may include concerns beyond those implicit in H-T models. For example, costs may also include an option value if starting a business now precludes the right to gain access to resources to start another business in the future.

⁶ If the reader prefers, s/he can think of these as "often ignored costs" or "typically trivial costs." This is obviously open to interpretation. The greatest shades likely come from those items that belong in the formulation of expected profit but are oft ignored. This could be anything from informal business taxes (i.e. extortion payments, etc.) to oft ignored transportation costs. The key point is to be open to the possibility that issues we typically ignore may be important in this setting.

represents an infinite cost.⁷ I will use the terms barriers, hidden costs, and hindrances, interchangeably.

Given that analysts typically ignore such hidden costs, surveys are generally poorly designed for capturing them. The Khayelitsha/Mitchell's Plain (KMP) survey, however, is an exception. From this survey, I make use of information describing past self-employment activity (including previous business failures) as well as current self-employment activities to identify such costs. Additional responses from the current unemployed also help the investigation into barriers limiting activity within the self-employment sector.

In following this empirical approach of analysing subjective answers from labour market participants, rather than modeling the decisions and testing for defacto constraints, two cautions are in order. First, the analysis is based on subjective answers from participants, which may be misleading for a variety reasons. For example, some hindrances may be so deeply rooted in the landscape and the mindset of respondents that they will not mention them. Or, they may have a myopic or otherwise tainted view of what represents a constraint on their activities. The former problem is a serious concern. The latter may actually provide extremely useful information to policy makers, as it is the perceptions of labour market participants is as important as reality. Another potential problem in drawing policy conclusions from this analytical approach is the fallacy of composition. While one individual might prosper if s/he was able to overcome a barrier, this does not logically imply that a large population would similarly prosper should the barrier be removed for all. Bearing in mind these cautions, I find that the KMP survey responses provide some important information for policy makers and researchers alike.

First, *profit barriers* do not appear to be keeping many of the unemployed from engaging in self-employment activities. Thus, there may be considerable room for welfare improvements if public policy and NGO organisations can help the unemployed engage in these profitable activities.

Second, *capital barriers* appear to be the primary deterrent to entry and a limitation on profits from self-employment activity. It is unclear whether this lack of money/capital induces lower participation and profits due to a) ex-ante risk management strategies that induce the unemployed to remain unemployed rather than face the variable income stream and/or downside risk associated with self-employment; or b) capital constraints that limit the liquidity these individuals have for initial capital investments. Pursuing research to disentangle

⁷ It would be more typical for a barrier to add to the expected value and the variance of such costs. For example, regulatory bye-laws may increase costs in periods where one happens to get caught. The barrier of a missing formal credit market may simply increase the cost of capital as an individual moves to money lenders.

these effects and implementing public policy programmes and/or interventions from NGOs or informal worker organisations to overcome these hindrances are the primary action oriented recommendations of this analysis.

Finally, there is also some evidence that *skill barriers* and *hidden cost barriers* also limit self-employment activity. However, these hindrances appear to be of considerably less importance than the capital barriers.

The layout of this paper is as follows. Section II describes the data used in the empirical work. Section III provides an empirical description of self-employment activity in the Khayelitsha/Mitchell's Plain area. Section IV investigates hindrances to self-employment activity. Section V discusses how to best move forward in creating an appropriate economic model of labour supply decisions and details why distinguishing an appropriate model will be important for public policy makers, NGOs and self-employed worker associations. The conclusion briefly summarises the main points. Appendix A provides suggestions for those who conduct future survey work in this area.

II. Data

The data used in this study come from the 2000 Khayelitsha/Mitchell's Plain (KMP) survey. This survey, undertaken by the University of Cape Town's Centre for Social Science Research (CSSR), was "designed to explore different concepts of employment, unemployment, and labour-force participation" Nattrass (2002: 7). Nattrass (2002) offers a much more detailed discussion of the survey and the many benefits its design offers for analysing labour force status and outcomes. Analysis of the informal economy, and self-employment in particular, is greatly aided by this survey approach.

The data set includes information on 4,984 individuals (2,644 adults) from 1,172 households. This is a representative sample from the approximately 750,000 residents living in the Mitchell's Plain managerial district, a working class neighborhood on the outskirts of Cape Town.⁸ Thus, the sample is not representative of the population in the Cape Town Metropolitan area, and clearly not representative of the province or the nation as a whole. Given the exploratory nature of this paper, limiting analysis to the working class sector on the outskirts of Cape Town is not a major drawback.⁹

⁸ The Mitchell's Plain district, which includes the township of Khayelitsha, recorded a population of 728,916 in the 1996 Census (SALDRU 2003). See SALDRU (2003) for a complete description of the data including details on the sampling process, the data collection process, and the ex-post weighting of the data.

⁹ Complementary studies will be necessary to identify hindrances in rural and other areas.

Compared to other surveys, this survey offers a unique opportunity to investigate the issues at hand. First, the survey has a rich set of questions concerning hindrances to increased self-employment activity. Typical surveys offer no such questions. Second, this survey follows an open approach to gathering information that allows respondents to provide insights that the survey team may not have recognised apriori. This was not a qualitative case study of a few homes, where a free-flowing discussion can lead the survey team to ask new questions. The questions in this large survey were fixed apriori. But, rather than forcing respondents to choose a best answer from a set list of answers determined ex-ante by the survey team, respondents were readily allowed to offer their own unique response. Allowing respondents to choose an “Other” category is a feature that is often available on such large scale quantitative surveys. Yet, the willingness of the survey team to accept such answers is apparent in the large number of people who choose this category. The effort to capture respondents’ answers in their own words and to include this information in the released data set, proves to be quite valuable for this investigation.

There are both costs and benefits to this latter approach of allowing, if not encouraging, people to respond outside the set categories listed on the form. The downside of this approach is that respondents sometimes answer in ways that drift from the point of what the survey team is trying to capture. I cite a couple of examples of this in the Appendix. The upside is that new responses that are common to many individuals can emerge, providing valuable information that would otherwise be missed. Given the seminal nature of this work into hidden costs and barriers, the approach of this survey is a tremendous benefit.¹⁰

I focus my analysis on the 2,626 African or Coloured individuals found in the adult (18 years old or over) data file.¹¹ When conducting analysis, I will use weights that adjust for non-response, assuming non-response is missing at random after conditioning on an individual’s age, gender, and race.¹² Africans comprise 68 percent of the weighted sample. This serves as a further reminder

¹⁰ When a large body of individuals chose the “Other” category, I reviewed the detailed responses and grouped these answers into a new category or categories. These categories, which I created ex-post, are clearly identified as subcategories of the “Other” category in the analysis that follows. They always begin with the work “OTHER:” in capital letters. In placing observations in such groups, I took a conservative approach. If I was uncertain whether someone fit a particular category, I simply left them in the general “Other” grouping.

¹¹ For simplicity, I eliminate 18 adults who are neither Coloured nor African. Three of these classified themselves as Indian and fifteen who classified themselves in the “Other” racial category.

¹² These are the adjusting weights described in SALDRU (2003) that adjust for (complete) non-response of individuals. It assumes random attrition, conditional on the age, gender, and race proportions of the individual and maps these proportions to those found in the 1996 Census. It does not adjust for missing values that crop up when individuals refuse to answer particular questions or give contradictory answers.

that the data come from an area that is not representative of the province as a whole.

Analysis is sometimes limited to a subset of the 2,085 individuals who are considered to be in the broadly defined labour force, as defined by Natrass (2003) when using standard rules defined by the International Conference of Labor Statisticians (ICLS). This subset eliminates 298 individuals who chose not to participate in the labour force and 243 individuals with missing or contradictory information regarding their labour market status.¹³ Using this sample, the broad unemployment rate is 45.4 percent, with a 50.5 percent unemployment rate among Africans and a 33.0 percent unemployment rate among Coloureds.

The employed can be further decomposed based on a person's primary employment status. The sample includes 866 individuals in regular wage jobs, 186 people in self-employment activities, and 66 people who primarily engage in casual work. The weighted proportions are 79, 15, and 6 percent of the employed sample, respectively. While many others who have previous self-employment experience and all of those who chose not to try self-employment can also provide useful information, our interest will often lie with the 186 individuals primarily engaged in self-employment activities at the time of the survey. That is where we begin.

III. Self-Employment Activity

Describing the self-employed

The first step in understanding the barriers and costs hindering the potential gains from self employment is to understand what activities are currently taking place, where and when they are taking place and who is engaged in these activities. We start by describing who becomes self-employed. In this paper, we are concerned primarily with those self-employed that would be considered a part of the informal economy. Barriers to entry in the legal and medical professions, etc., are not the focus of this investigation. Thus, unless otherwise indicated, we will use the sample of 181 self-employed individuals engaged in non-professional self-employment activities.

¹³ I do not use the labour force categories created by using alternative indicators of labour market status (Natrass 2003). Natrass (2003) goes on to provide insightful description of how, in the South African setting, the broad labour force can be decomposed into those who are actively searching for work, those who are searching via (kin/friend) networks only, and the marginalised unemployed.

When conducting this analysis, it is important to not only decompose the self-employed into groups, determining the relative size of each group, but also to identify the proportion of each group that is self-employed. The first measure roughly approximates what you will see when you look at the self-employed. The latter measure roughly approximates the likelihood that a particular type of person will be self-employed.

Table 1a shows that the majority of self-employed workers were African females. Table 1b amplifies this theme, showing that the proportion of African females between 20 and 65 who are primarily engaged in self-employed work (11.5) is far greater than that of African males (4.8 percent), Coloured males (3.8 percent), or Coloured females (3.5 percent).

Table 1. Gender, race and self-employment activity

	<i>1a: Percentage of self employed, by race and gender</i>		<i>1b: Percentage of 20 to 65 year olds primarily engaged in self-employment activities</i>	
	African	Coloured	African	Coloured
Male	23.7	8.8	4.8	3.8
Female	59.0	8.4	11.5	3.5

Table 2 shows the age break down of the self-employed. The percentage of self-employed in the broadly defined labour force generally increases with age. Increased percentages are generally maintained or increased despite declines in the percentage of self-employed relative to the population for those 50 years or older. This is suggestive that those in formal employment are likely to leave the labour force (i.e. retire) earlier than those in self-employment.

Table 2. Age and self-employment activity

<i>Age</i>	<i>2a: Percentage of self employed, by age</i>	<i>2b: Percentage primarily engaged in self-employment activities, by age</i>	
		<i>Percent of entire population</i>	<i>Percent of broadly defined labour force</i>
18 - 22	6.2	2.3	3.0
23 - 29	22.5	5.7	6.3
30 - 39	36.0	8.3	9.5
40 - 49	22.4	8.6	10.7
50 - 64	10.6	6.9	10.4
65 and older	2.4	4.9	17.4

Despite the generally increasing likelihood that a labour force participant will be self-employed the older they are, demographic effects result in the bulk of the

self-employed (65 percent) being young, generously defined as being less than 40 years old. For comparison purposes, it is worth noting that seventy percent of the regular wage workers, seventy-four percent of casual workers, and eighty-one percent of the broadly defined unemployed are under 40 years old. So, in fact, the self-employed are disproportionately composed of older individuals compared to other labour force categories.

Table 3 shows that the self-employed have a lower average education level than those who are in regular wage employment. The self-employed also have slightly lower average years of completed schooling than the unemployed, though this is likely driven by the younger age distribution of the unemployed. Finally, the self-employed have higher average schooling than those who are casual employees, though this is not quite statistically significant at the ten percent level. The differences in median schooling seem to confirm the differences between the self-employed and wage employees and casual employees.

Table 3. Average and Median Years of Schooling by Labour Market Status

<i>Labour Market Status</i>	<i>Average Schooling completed (yrs)</i>	<i>Median Schooling completed (yrs)</i>	<i>Number of obs.</i>
Wage employee	8.9*	9	743
Unemployed	8.2*	8	561
Self-employed	7.8	8	163
Not in Labour Force	7.6	8	140
Casual employee	7.1	7	47

Note: * Indicates statistical significance difference from average education of the self-employed at the 1 percent level.

Having seen who comprises the self-employed, we now identify the type of activities in which they are engaged.

Self-employment activities

Table 4 provides a tabulation of business activities described by those who were primarily self-employed at the time of the survey and grouped by the author into three primary categories: production, sales, and services.¹⁴ Forty-six percent of these workers were engaged in sales related activities. Such activities include the sale of fruits and vegetables, cooked meat, live chickens, other foods,

¹⁴ See Devey *et al.* (2004) for a tabulation of activities taking place in the informal economy in South Africa as a whole.

Table 4. Activities of the self-employed

<i>Describe your main non-wage income-earning activity</i>	<i>Freq.</i>	<i>Percent</i>
Production		30.2
Made clothing for sale direct to customer	15	8.2
Made clothing for sale to factory/shop	1	0.6
Made food for sale	22	12.1
Made beer for sale	15	8.0
Made other items for sale	2	1.3
Sales		45.9
Shop-keeper	2	1.4
Ran a spaza shop from your home	26	14.0
Bought fruit/vegetables, reselling them	11	6.2
Sold other goods on the street	12	6.5
OTHER: Shebeen/Sell beer/liquor	7	3.9
OTHER: Sell Meat	9	5.1
OTHER: Sell Clothes	4	2.1
OTHER: Sell Sweets/snacks	6	3.3
OTHER: Sell Cigarettes	2	1.1
OTHER Sell sweets/snacks AND cigarettes	2	1.0
OTHER Sell other food/drinks/goods- unsure if at shop/home/street	2	1.3
Services		19.0
Hairdressing services/beauticians	8	4.3
Self-employed artisan	9	4.9
Building or repairing houses	6	3.4
Taxi owner-driver	2	1.0
Herbalist/traditional healer	3	1.5
Child-minding services	3	1.8
Other services (describe)	4	2.1
Professional services (lawyer, dentist, architect, doctor, etc.)	5	2.7
OTHER	4	2.1
Total	183	100.0

snacks/sweets, cigarettes, clothes or other goods.¹⁵ Thirty percent of the self-employed were engaged in the production of goods. Production, at least in the clothing area, was predominantly directed towards the final consumer rather than as an input for the formal sector. Nineteen percent of the self-employed were engaged in non-professional service activities including such services as hairdressing, house repair, etc. Three percent were engaged in professional services. Given the training and capital involved in such professional activities, these are not considered part of the informal economy and their information will be excluded from all analysis that follows. Two percent of those engaged in

¹⁵ The percentage in sales related activities may be slightly underestimated. The questionnaire inadvertently left off the option of selling beer. Some shebeen owners may have been inadvertently placed in the production section under making beer.

self-employment did not provide enough information to be adequately categorised.

Where do the self-employed work?

Table 5 shows that only a tiny minority of the self-employed, about four percent, rent or own a business premise outside of their home. I include a note of caution when assessing this table. Due to issues related to the wording of the question, Table 5 is best interpreted as saying that **at least** 16 percent of the sample sells goods on the street. A number of those who stated they work from home may actually work in the streets, as this option was not explicitly stated in the question, while the other three options were explicitly stated.

Table 5. Location of business by self-employment activity type

	<i>Type of business activity</i> ¹⁶			
	Production	Retail	Services	Total
Work from home	85.1	79.4	73.4	80.2
Work from a street, pavement or other public open space*	9.2	17.7	22.1	15.8
Rent business premises	3.5	2.9	2.1	2.9
Own business premises	2.2	0	2.4	1.1

Note: * This option was not explicitly stated in the question, while the other three options were stated. Therefore many of those working in the street likely answered “Work from home.”

When do the self-employed work?

A picture of these many individuals working at home or hustling on the streets engaged in a variety of production, retail sales, or service activities is emerging. Table 6 shows when they are working. It is clear that most self-employed individuals work during the weekends as well as during the weekdays. However, there is an even split as to whether or not people worked in the evening hours on weekdays.

¹⁶ The limited observations from “Other business activities,” are included in the total percentages.

Table 6. Working hours of the self-employed

Business Activity	<i>Percentage of individuals who usually work</i>		
	Monday – Friday during the day	Monday - Friday in the evenings	Weekends
Production	83	50	88
Retail Sales	94	53	90
Services	97	45	84
TOTAL	91	50	88

Probit regressions were run to identify whether a person’s gender, race, age (entered with a quadratic term), or the type of activity s/he engaged in (production, sales or services) would help predict whether s/he worked during a given period, *ceteris paribus*.¹⁷ Surprisingly, none of these standard variables were statistically significant in explaining whether people work during the evening hours (Mon-Fri). There were two significant characteristics that helped to predict those who worked during the daytime hours (Mon-Fri). The likelihood of working at this time increased with age up to 38 years old and then decreases with age. Additionally, those engaged in sales activities were more likely to work at this time than those engaged in production activities. This may be driven by a number of workers engaged in food and beer production solely on the weekend. Females were found to be less likely to work on weekends, *ceteris paribus*. There is also some evidence that the likelihood of working on weekends decreases with age up to 46 years old and then increases.¹⁸ Therefore, we observe a slight preference among prime working-aged individuals to work during the week but not on weekends as compared to the young and the old.

Figure 1 helps to demonstrate how many hours individuals worked in a typical week. The data are presented in a histogram, and include a kernel density function of hours outlined over the graph.¹⁹ Nine individuals claimed to work more than 12 hours a day, every day of the week. For this analysis, I capped these observations at 84 hours of work.

The median hours worked by the self-employed is 35 hours a week. The hours worked are clearly not unimodal. A very large segment of this population, 36 percent, works twenty hours or less. This could represent a positive feature of self-employment, allowing those with frailties or childcare duties a more flexible schedule for their work activities. Or, it could represent a negative

¹⁷ Results are available upon request. I test for significance at the 5 percent level.

¹⁸ Although a joint test rejects the null of no effect for age at the 10 percent cut-off, it gives a p-value of .1029 and both age and age-squared are statistically significant coefficients using a t-statistics.

¹⁹ This figure does not weight the data. However, the images do not appear different in any significant way when the data are weighted.

consequence where constraints prevent individuals from working more hours and earning a greater profit. There is a second mode working just over 40 hours a week. The third hump, at just over 80 hours a week, is enhanced by the capping of the data at 84 hours but is noticeable even if this data transformation does not take place.

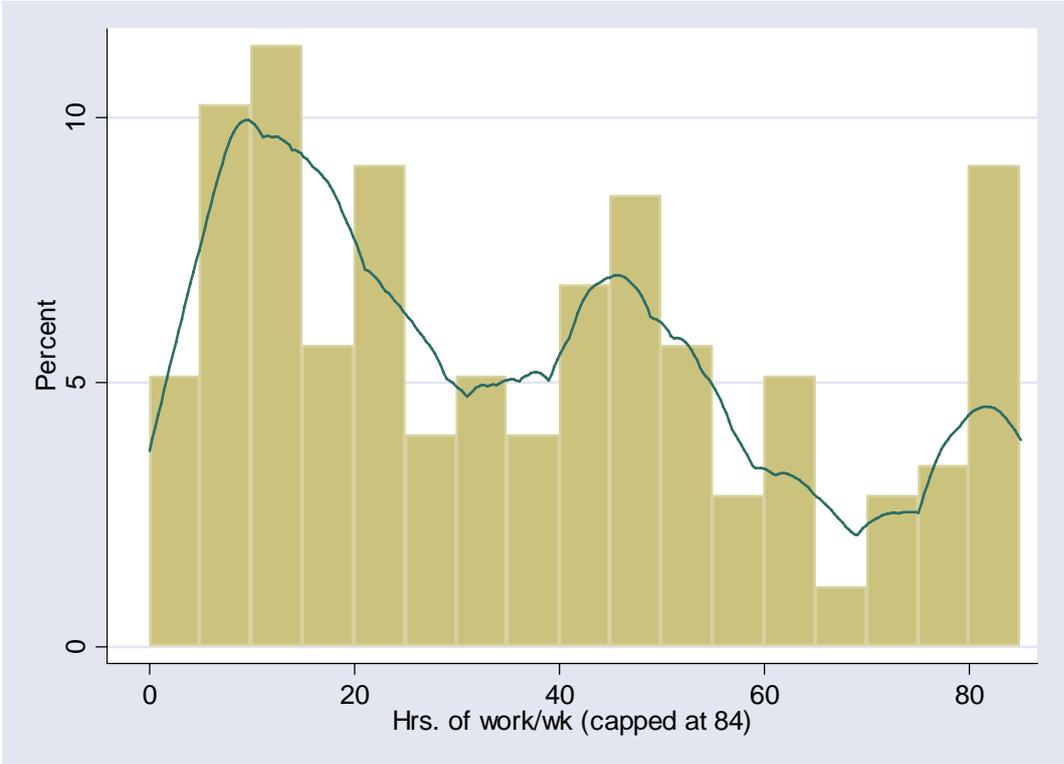


Figure 1. Hours of work for self-employed

Multivariate regression analysis on the hours of work suggests that females work about six and a half hours less a week on average, *ceteris paribus*, but this is not quite statistically significant at the 10 percent level (see Table 7). Other variables in this descriptive regression did produce statistical significance.²⁰ The regression suggests that, *ceteris paribus*, Coloureds are working about 9 hours more a week than Africans; that hours of work tend to increase with age until 37.8 years of age and then decline with age; and that the self-employed engaged in sales activities tend to spend considerably more time, on average, than those

²⁰ I ran alternative specifications of this model that included schooling variables, once entered linearly and also once with dummy variables for levels (6 years or less, 7-9 years, 10 or 11 years, 12 years or more). Schooling variables were insignificant at the ten percent level and the specifications resulted in a loss of 24 observations without schooling data. Age data coefficients under these specifications had higher p-values but the convex relationship was still significant. Other variables had generally similar coefficient and significance levels.

in production or service related activities.²¹ The low R-squared value reminds us that most of the variation in hours worked is idiosyncratic

Table 7: Multivariate regression on hours worked among self-employed

<i>Variable</i>	<i>Coef.</i>	<i>Std. err.</i>
Intercept	5.5	15.8
Male	(omitted)	
Female	-6.5	4.0
African	(omitted)	
Coloured	8.7*	4.3
Age	2.1*	.63
Age squared	-.0276*	.0069
production	(omitted)	
retail	12.3*	4.3
services	-5.8	4.7
other act. type	-10.6	17.9
n = 173	R² = .150	

Note: * Statistically significant at 5 percent level.

Earnings

Earnings and profit data for the self-employed are extremely problematic in the KMP survey. (See Appendix B for further details.) This loss of reliable self-employment pay data represents a major loss for the KMP survey. Earnings from self-employment would typically be our primary indicator of “success” and a key variable for identifying the determinants of successful self-employment. As discussed in Appendix A, addressing this issue should be a top priority for future survey teams interested in self-employment activities. In defense of the KMP team (and particularly troubling to reflect upon), the only reason that we can identify this problem is that the team asked for values for the component parts of profit. Without these additional questions, analysts, like myself, would mistakenly present the reported profits without caveat, taking them at face value.

One thing that we can comfortably say based on these earnings data is that taxes and the cost of electricity and lighting represent relative minor costs for the self-employed. Taxes were paid by just a handful of the self-employed. While about

²¹ $\frac{\partial \text{Hours}}{\partial \text{Age}} = 2.090011 - 0.0276(2 * \text{Age})$. This implies that the hours of work are expected to

increase with age, ceteris paribus, until the individual is 37.8 years. At that point, the derivative equals zero. After 37.8 years of age, increasing the age, causes a lower predicted hours of work, ceteris paribus.

a third of the individuals paid some costs related to electricity and lighting, these costs were generally quite minor.

Summary

We have tackled the who, what, where, and when of self-employment activity. The self-employed in KMP are disproportionately African women. They tend to be young (under 40), though the likelihood of being self-employed actually increases with age for those remaining in the labour force. They are engaged in a wide array of businesses, with forty-six percent engaged in sales oriented activities, thirty percent in production oriented businesses, and nineteen percent in service related activities, respectively. They seem to undertake activities targeted towards end consumers rather than as inputs to formal businesses, though it is impossible to discern this with complete certainty. They tend to work from home or sell goods in the streets rather than rent or own a separate business establishment. The vast majority tends to work on weekdays and on the weekend, but the self-employed are evenly split with regards to evening work. Despite the large majority that tends to work both weekdays and weekends, thirty-six percent of the self-employed work twenty hours a week or less.

Answering how and why individuals become self-employed, to a large extent, remains to be tackled. Answering why individuals become self-employed is clearly heavily tied to their expectations regarding how much money they will make. Unfortunately, I have limited confidence in the profit and wage data available for the self-employed so analysis on these points is limited.

Both how and why some people choose self-employment and others do not can be addressed to some extent by analysing the data collected regarding hindrances to self-employment. We can look for clues on what caused people difficulty when they considered entering into self-employment and search for explanations on why some left self-employment, why others do not spend more time on self-employment activities, and why the unemployed are not participating at all. This is done in Section IV.

IV. Hindrances to Self-Employment

The Unemployed

The most straight-forward way to determine why people do not choose self-employment over unemployment is to simply ask the unemployed. The KMP

survey does just that. Table 8 shows the responses from 939 respondents between the ages of 18 and 65 who were classified as unemployed using the broad unemployment measure discussed previously.

Capital barriers are, by far, the primary hindrances to entering self-employment. The vast majority (78 %) of unemployed say that they have no capital or no money to start a business. As will be discussed below, this represents a mix of capital constraints and/or ex-ante risk management choices on the part of the unemployed. An additional 5 percent of unemployed give alternative answers that also imply *capital barriers* keep them from self-employment.

Table 8. “Some people respond to unemployment by becoming self-employed. Why have you decided not to go this route?”

<i>Reason</i>	<i>Frequency</i>	<i>Percent</i>
Capital Barriers		82.7
No capital/money to start business	728	77.5
I cannot borrow money	29	3.1
Self-employment income too risky/variable	20	2.1
Skill Barriers		4.5
No training or skills	35	3.7
Don’t know legal procedures to start bus.	1	0.1
OTHER: Never thought of it	7	0.7
Profit Barriers		2.4
It’s not profitable	11	1.2
OTHER: Past self-employed failures	7	0.7
OTHER: Too many small businesses	5	0.5
Future-Limiting Barriers		3.9
Prefer to wait for wage job	36	3.9
Hidden Cost Barriers		1.6
Fear of crime		
Too much crime in small business	10	1.0
Excluded from Networks		
No business connections (friends/relatives)	6	0.6
Personal Choice		3.2
OTHER: Still in School	17	1.9
OTHER: Too young	2	0.2
OTHER: Too old	1	0.1
OTHER: I am self-employed	5	0.5
OTHER: No time	5	0.5
OTHER	16	1.8
Total	939	100

Responses in Table 8 also indicate that *skill barriers* (4.5%) and *future-limiting barriers* (3.9%) are inhibiting entry into self-employment, though at not nearly

the same level as the *capital barriers*. Most surprisingly to this author, *profit barriers* are hardly ever voiced as a concern. Just two percent of the unemployed state these as a primary cause for not entering self-employment. *Hidden cost barriers*, likewise, do not appear to be a primary deterrent to entry. A similarly low two percent of the unemployed list these as their primary concern.

Results from Table 8 tell us that policy makers should renew their efforts to understand the capital constraints faced by individuals in the KMP area and identify interventions that may help them overcome these hindrances. Thus, it is also worth our time to ensure we understand the meaning behind the most common response, “No capital/money to start a business.” This response could stem from at least three distinct issues.

The most direct interpretation is that individuals literally could not get the start-up money necessary to buy stocks/capital because they did not have the money and they could not borrow it from anyone at a reasonable rate. This interpretation is easiest to think of as a person being unable to pay the fixed cost entry fee to enjoy a profitable opportunity. In fact, another three percent explicitly state they cannot borrow money. Thus, the lack of access to credit and/or appropriate savings mechanisms becomes an important barrier preventing individuals from self-employment activities.

A second interpretation is that individuals can get access to money (via loans or previous savings) to start a business, but they do not have enough wealth (i.e. money/capital) to overcome the variability in income that comes with running a business once it is started, even if they know the business will have a positive profit on average. This can arise when credit and savings constraints limit the ability of individuals to smooth consumption levels and there is no insurance market to sufficiently cover these temporary shocks. Rather than face such variability in consumption, individuals choose not to start a business. This is shown in the latter portion of the response, “Self employment income is too risky/variable” which was explicitly stated by two percent of respondents.

A third interpretation is that individuals do not have enough wealth (i.e. money/capital) to overcome their uncertainty over the expected profit level. In other words, the individual could get the money to start a business, and the expected profit is desirable given their *ex-ante* expectations, but s/he chooses not to enter self-employment because of the repercussions that would befall him/her if the business fails. In this case, the variability in profits is not just over time, but across individuals (or more precisely, across business ventures).²² Thus, a

²² More technically, one could express the variability concept with a profit function for firm i equal to $p_{it} = \mu + \varepsilon_{it}$ where $\mu > 0$ and ε_{it} equal to a mean zero random variable, i.i.d. across

particular business venture may be revealed to have a negative expected profit after some fixed costs have been incurred. Hesitations on entering such ventures stem, most directly, from the lack of appropriate business insurance markets.

For simplicity, I will refer to both of the last two interpretations as ex-ante risk mitigation choices and the first interpretation as a lack of access to (start-up) capital. I will further distinguish the concepts, discuss inter-linkages and explore policy implications later in the paper. For now, it is enough that we recognise the distinction between not having access to money to pay a fixed cost entrance fee, not being able to handle the fluctuations in income that come with an otherwise profitable business and not being able to bear the risk of an outright business failure occurring.

Finally, the relationship between wealth and overcoming these *capital barriers* can take two forms. First, capital constraints are more binding on those without tangible collateral, implying that, the less wealthy individuals are, the greater difficulty they face in smoothing consumption levels (Dercon, 2002). Similarly, the less wealthy individuals are, the less chance they have to have access to start-up capital via loans, or from previous savings. Second, it is common to assume that absolute risk-aversion decreases with wealth. In this case, facing identical distributions of future profit streams, wealthier individuals would be more likely to select lucrative self-employment options that carry risks related to temporary fluctuations in income (and consumption) or downside risk, even if they shared similar capital constraints.

Previously self-employed

Another way to understand these hindrances is to identify why previously existing businesses have failed. All adults were asked if they had ever been self-employed. Those who had previously been engaged in a self-employed business but no longer worked in this area were asked the following: “Why did you bring your self employment to an end?” Thus individuals are forced to give only what they consider to be the primary reason for ending their business.

Table 9 shows that a lack of profitable opportunities (40 percent) and the presence of credit constraints- implicitly revealed by the 15 percent who had no money to buy stock- were the primary hindrances forcing an end to these self-employment businesses. Unfortunately, there are no follow up questions to determine what led to the businesses being unprofitable. The detrimental impact

time and firms. To capture the concept of riskiness, one could use the same general function, but replacing μ with μ_i , where μ_i equals an i.i.d. (over firms) random variable, with a positive mean but some negative support. (To emphasise the fixed costs this could be modified to $p_{it} = \mu_i - f \cdot I_0 + \varepsilon_{it}$ where f is a fixed cost and I_0 is an indicator variable for time 0.)

of crime, which includes the theft of stock or money and the fear of violence, also has a powerful impact, shutting down 7 percent of these businesses. Family/health issues, migration decisions, conflict within the community, and other such reasons were cited by just a small number of individuals as the primary reason for leaving self-employment.

Table 9. Reason for ending first self-employment business

<i>Reason</i>	<i>Frequency</i>	<i>Percent</i>
Not making money	57	40.4
No Money to buy stock	21	15.1
OTHER: still self-employed (diff business)	15	10.4
Offered paid employment	9	6.5
Decided to look for paid employment	4	2.9
Stock was stolen	4	2.7
Thieves kept stealing money I made	3	2.3
OTHER: fear of crime/violence	3	2.3
Became sick /disabled	2	1.6
OTHER: Pregnancy/family issues	2	1.4
OTHER: Moved out of area	2	1.4
Lost business premises	2	1.7
Problem with employees	1	0.6
OTHER	15	10.9
Total	141	100

Somewhat surprising is that only 6.5 percent of respondents said they left self-employment for a wage job. This is lower than the percentage (10.4) that went on to remain self-employed but shift business activities. This low percentage moving to wage employment could be taken as evidence of the voluntary nature of self-employment work or it could be used to reinforce the notion that those working in the informal sector do not have much time to search for formal employment. In fact, three percent shut down the business explicitly to look for paid employment that they did not already have. Either way, the data show that issues related to the self-employed business itself tend to cause more business failures than voluntary decisions to seek better opportunities elsewhere.

A similar question for those who were self-employed in the last six months but not in the last month, revealed similar hindrances of a lack of profitability and a problem with capital constraints (see Table 10). This question may well be capturing many shutdowns that are temporary in nature, as opposed to the previous question which generally captured permanent closures of a self-employment business. Given this, it is not surprising that sicknesses were responsible for a higher percentage of these closures. This result should not be taken as evidence that AIDS or other illnesses are causing a tremendous increase

in permanent business closures. Additionally, the larger percentage of individuals claiming that they had no money for buying stock reminds us that even if liquidity constraints do not cause a complete closure of a business, they may cause temporary shutdowns, seriously lowering profits.

Table 10. Why not engaged in income-earning activities this month?

<i>Reason</i>	<i>Frequency</i>	<i>Percent</i>
Not making money	17	33.7
No money to buy stock	18	35.8
Became sick/disabled	5	9.6
Stock was stolen	2	3.6
Taking holiday, will restart soon	1	2.7
Other	7	14.8
Total	50	100

Current self-employed

The KMP survey also asked individuals why they did not spend more time working in their self-employment activities. Table 11 presents the proportion of individuals who gave a particular reason, grouped by the amount of hours they currently work each week. The reasons were grouped by the author into three categories based on whether the limitation was voluntarily imposed by the individual, brought about by external circumstances, such as a lack of demand for their product, or if the distinction cannot be determined.²³ Responses were split fairly evenly between those who voluntarily choose to limit their working hours and those who wanted to work more but felt inhibited in some way.

Capital barriers again appear to inhibit the earnings potential in this sector as 20 percent of individuals claimed that their efforts were limited by the amount of supplies that they could afford to buy. Table 11 shows that capital constraints limited hours of work in the retail and production areas as compared to the services area. This is likely due to the fact that business services often involve large fixed costs in terms of human or physical capital to open the business with relatively smaller marginal costs to keep supplies up compared to sales/small scale productions activities. Limited demand was also a prominent problem holding back hours of work. Those working less than 30 hours per week (not shown on table) and those engaged in the production of food/beer and other products were particularly likely to mention that the timing of customer availability hindered the time they put into such activities. There is some limited evidence that crime limits activity in the sales sector, but these

²³ This is a very rough distinction.

observations come entirely from individuals who are already working 70 or more hours per week.

Table 11. Reasons why the self-employed do not work more, by activity type

<i>Reason</i>	<i>Type of business activity</i>			
	<i>Production</i>	<i>Sales</i>	<i>Services</i>	<i>Total</i>
Voluntary limitation on hours worked	43.0	48.5	56.4	48.3
Already working as hard as possible	35.1	28.6	33.8	31.8
Don't have time	3.7	13.1	3.7	8.0
Value spare time/don't want to work more	1.8	1.2	18.9	5.2
OTHER: Spend enough time already	0.0	2.5	0.0	1.1
OTHER: childcare/family time	2.4	3.2	0.0	2.2
Involuntary limitation on hours worked	51.1	44.0	43.6	46.3
Can't afford supplies	20.8	22.8	15.0	20.5
Not enough demand	20.5	11.6	22.4	16.9
Extra time not worth money	2.4	4.2	3.7	3.5
OTHER: Customer availability weak at other times	7.4	2.3	2.5	4.0
OTHER: Fear of crime	0.0	3.2	0.0	1.4
Nonclassified limitation				
Other	5.9	7.6	0.0	5.4
Total	100	100	100	100

Further Exploration of Capital Barriers

Having heard from the unemployed, the previously self-employed, and the current self-employed, it is clear that capital barriers are thought to be the primary hindrance to additional self-employment activities. There is substantial evidence that a lack of capital prevents some individuals from successfully operating businesses. 78 percent of the unemployed stated they had no money/capital as the reason they did not try self-employment. An additional three percent explicitly stated they could not borrow money. Fifteen percent of those who ended their first self-employment experience did so because they had no money to buy stock. Thirty-six percent of recent closures were due to a lack of money to buy stock. Twenty percent of the current self employed, stated that they cannot afford supplies (implicitly implying an inability to borrow to buy these supplies) as the primary reason for not spending more time in their self-employment activity.

There is a large literature on the how and why financial institutions do not adequately serve small business owners and the poor, in general, in developing countries. The problems of moral hazard, adverse selection, and asymmetric information (with positive monitoring costs) can induce market failure and a lack of banking/credit/insurance institutions, particularly for those who lack fungible collateral.²⁴ Transaction costs associated with monitoring lenders has also dissuaded banks from engaging in micro-lending practices. At times, this literature focuses on the rural areas as if implicitly assuming that the issues of asymmetric information, moral hazard and transaction costs disappear in the urban arena.

We would like to identify which, if any, individuals in the KMP survey have access to formal or informal banking institutions for borrowing and/or savings purposes. This is a difficult problem. Engaging in savings/borrowing activity implies access to these institutions. However, not engaging in such activity does not logically imply a lack of access. I will highlight circumstantial evidence found in this survey, but the issue requires more direct scrutiny in future survey work.

Table 12 provides details of savings activity, by one's position in the labour force. Those who are formal wage employees and self-employed are clearly more likely to save and to save a higher level than casual employees, the unemployed or those not in the labour force. This is not surprising since they are earning more in the labour force. However, this brings up the potential issue of reverse causality. Are the unemployed not engaged with banks and other savings mechanisms because they have no work and nothing to save or do they have no work because they cannot engage in the banking system and build up savings? While we cannot answer this question directly, the data do provide some interesting facts relevant to this discussion and to the issue of who has access to savings/borrowing mechanisms.

First, the large-scale participation in burial societies, regardless of labour market status, shows that individuals in the KMP area are fundamentally cognisant of and desire participation in savings schemes that minimise unexpected fluctuations in expenditures. It seems likely that they would also be concerned about their ability to control fluctuations in expenditures if they were to be self-employed. Without perfect capital markets, one would expect such fluctuations to be greater under self-employment compared to a formal job with a regular

²⁴ Discussion of these types of problems, where market failures can arise due to asymmetric information, adverse selection and moral hazard, are now common place in standard micro-economic texts. Morduch discusses how micro-finance programmes may theoretically be able to overcome these issues. He goes on to bring in empirical evidence suggesting more is at work than standard group-lending models would suggest (Morduch, 1999).

salary. These fluctuations stem from fluctuations in costs and revenue associated with the self-employment activity.

Secondly, the banking industry is currently serving a substantial portion of the self-employed as 25 percent report saving money in the bank each month. Additionally, approximately 7 percent of the self-employed reported drawing down from savings, which may include drawing down from savings accounts.²⁵ This should allow the self-employed to save for expected and even some unexpected fluctuations in profit over time.²⁶ Without more direct questions, there is no way to tell whether the other 75 percent of self-employed and the bulk of the unemployed feel that they can participate in savings behavior (either currently or in the future) within the formal banking system.²⁷

The survey also asked people if they were currently drawing down on past savings. 7.2 percent of casual employees, 6.9 percent of the self-employed, 4.9 of the non-labour force participants, 3.6 percent of the formal wage employees and 3.3 of the unemployed said that they were drawing down their savings. Therefore, there is some evidence consistent with the self-employed using the banks to address variable profits.

While banks are used for saving money, they are not generally used for borrowing money. Twenty-nine percent of the self-employed owe money. Yet, of this group, only 7.5 percent are repaying to banks. The bulk of the repayments are going to loans from family and friends (31.3 percent). Next come payments to furniture shops (18.9 percent), retail shops (17.2 percent) and clothing shops (10.4 percent). An additional 8.9 percent are repaying money lenders. It is not possible to determine if the borrowing is being used for business capital or for consumption items. Even many of the debts paid to furniture shops and retail shops, which we would normally think deferred payments for home consumption items, could be rental on business related furniture/inputs.²⁸ Debts to retail shops could also be for supplies that individuals then sell on the street. However, it is clear that the bulk of borrowing

²⁵ This may be overstating those who are saving as some individuals appear to have answered with the amount of money deposited in their bank each month before withdrawals, rather than the net amount saved.

²⁶ A more complete discussion of such precautionary savings follows below.

²⁷ The second round of the KMP survey will offer additional information about savings and why more people do not engage in the formal banking system.

²⁸ The financial diaries (www.financialdiaries.com) provide an excellent anecdote of a car wash owner who claims taxi drivers choose his business because he has a “waiting room” with a sofa.” I am not claiming that all the debt is for such productive business items or that over-indebtedness from consumption is not an issue worthy of concern. However, such credit may be another avenue that allows individuals to get access to credit for inputs that help them begin or expand their business.

done by these small business owners is not coming through the formal banking system.

Table 12. Savings Behaviour

<i>Type of Individual for a Given Type of Savings</i>	<i>Percent Partic- ipating</i>	<i>Average or Percentile Value Added per Month: Conditional on Participating</i>			
		<i>Average</i>	<i>Percentile</i>		
			<i>25th</i>	<i>50th</i>	<i>75th</i>
Bank					
Formal wage employee	32.8	318	100	200	400
Self-employed	25.4	485	100	200	400
Casual employee	7.1	287	50	100	800
Unemployed	4.5	234	80	100	200
Out of Labour Force	8.8	289	50	200	250
Stockvel					
Formal wage employee	13.8	246	100	150	250
Self-employed	14.5	206	100	200	300
Casual employee	4.1	119	100	100	160
Unemployed	5.9	130	50	100	150
Out of Labour Force	3.5	230	65	100	200
Burial Society					
Formal wage employee	55.7	58	20	40	60
Self-employed	53.6	65	25	40	60
Casual employee	40.3	36	26	35	50
Unemployed	26.6	42	20	35	50
Out of Labour Force	39.0	64	20	38	55
Other					
Formal wage employee	9.9	211	50	120	250
Self-employed	6.7	130	0	50	250
Casual employee	3.0	222	0	600	600
Unemployed	2.0	157	0	40	165
Out of Labour Force	1.7	322	5	80	500

With the data at hand, we cannot determine whether the majority of self-employed and the vast number of unemployed has (and has previously had) access to formal savings. Likewise access to formal and/or informal credit is impossible to determine with certainty. Results are consistent with a notion that a lack of access to formal savings for many and a lack of access to formal credit for most.

Further Exploration of Skill Barriers

There is some evidence that a lack of skills plays a role in keeping people from entering self-employment. Skills can come in two forms: the technical skill to make a product/provide a service and the business skills to turn one's technical skill into a profitable business.

The problems in the ability of the KMP survey to capture profit data (see Appendix A) may well reflect a lack of business skills on the part of the current self-employed. There appeared to be confusion over profits and revenue and the concept of profit versus owner's salary. It is unclear how much this inability to express costs in our preferred business terminology affects the profitability of these businesses. However, these effects, combined with the general inability to state costs and profit in a way that matches their stated gross revenue, suggests that these small scale entrepreneurs may not have the business skill to take advantage of many profitable opportunities. They also do not have the ability to effectively convey business opportunities to potential lenders. Further analysis on this issue may well reveal that training in entrepreneurial skills may greatly assist the existing self-employed and lead to new entrants.

Table 13. How did you learn how to do this income-earning activity?

	<i>Frequency</i>	<i>Percent</i>
Taught myself	99	56.5
Taught by someone while helping them	15	8.7
Learned on the job, employed in similar business	12	6.6
Learned on the job while in a diff kind	2	1.3
Taught by a friend	10	5.5
Taught by a family member	26	14.9
Underwent formal training	9	5.2
Other	2	1.3
Total	176	100

The KMP survey contains additional information on the level of training required to participate in the self-employment sector and how those currently self-employed acquired this skills. Table 13 shows that over half of the current self-employed taught themselves how to do their job. Although only five percent underwent formal training, about 44 percent learned from someone else. These may imply some hindrance to entry if one did not have a previous job/apprenticeship or have a family/friend to teach one a skill.

Table 14 shows that, for most self-employed activities, it takes little time to learn the technical skill. Fifty-one percent of the self-employed said that someone could learn their skill well enough to be a valid competitor within a

few days. Only 11 percent of the self-employed said that it would take more than 3 months of training for someone to be a competitor. Table 14 also breaks out the time it takes to learn the skill by whether or not an individual taught themselves. Not surprisingly, more complex skills learned from others take longer to master. The take-away from Tables 13 and 14, however, is that a large segment of the self-employed sector operates in a setting where skills do not require formal training or learning from others nor do they require much time to acquire. Within a few days, a person can be a valid competitor to a large number of self-employed activities. Thus, the acquisition of technical skills does not appear to be a primary barrier keeping the unemployed from engaging in self-employment activity.

Table 14. How long would it take someone to learn to do your work and start competing with you?

	<i>All</i>		<i>Taught themselves</i>	<i>Taught by others</i>
Less than a day	28.9		35.9	19.0
A few days	22.3		27.5	15.0
One week	16.8		15.8	18.2
1-4 weeks	12.7		10.5	15.7
1-3 months	8.1		5.8	11.5
3-6 months	2.0		1.3	3.1
6 mos. to 1 year	1.1		1.0	1.3
1-2 years	6.3		2.3	12.0
> 2 years	1.7		0.0	4.2
Total	100.0		100.0	100.0
n	(168)		(102)	(66)

A lack of skills may still exclude people from certain self-employment activities. Additionally, it may certainly prevent them from gaining a higher level of profit and be an underlying cause that people do not enter the informal sector (the direct cause being they do not earn enough to make it worth while). Thus, programmes to increase technical competency are worth investigating as policies to improve performance of the informal economy. Yet, a lack of skills should not be considered a primary direct cause of the high level of unemployment.

Further Comments on Other Barriers

Crime, a lack of social connections and other *hidden cost barriers* may well exist, but they do not appear to be the primary hindrance in the minds of the unemployed. This does not mean we should ignore these costs altogether. The KMP survey, while quite good compared to most other surveys, is not perfectly

designed for capturing these hindrances. For example, one key feature of the survey is that it typically allows respondents to mention only one hindrance to self-employment activities. This approach can mask many problems individuals might face if they felt capable of starting a business. For example, I may not worry about potential informal restrictions to activity in the taxi business if I know I cannot borrow money to fix my taxi-bus. I may not mention concerns over theft when I have not even considered opening a shop because I cannot afford or borrow to buy stocks of merchandise to sell. These *hidden cost barriers* may well crop up as extremely important hindrances if capital constraint/risk management issues are resolved. Future surveys would assist policy makers if they could be designed in a way that draws out the relative importance of these secondary hindrances.

An additional issue is that the survey questions for the unemployed are not targeted towards a specific self-employment occupation that a person might choose. Individuals are implicitly left to pick a self-employment position and describe the hindrance that prevents their participation. If people tend to focus on the high profit self-employment opportunities, such as taxi drivers, answers may differ from those given if individuals were asked about why they do not sell sweets or fruits and vegetables on the street, etc. It would be useful to ask a series of questions identifying hindrances that prevent an individual from entering a number of different common self-employment activities. Afterwards, the respondent would identify the activity they would be most likely to enter into if they were to be self-employed. This would allow much more information to be conveyed to policy makers.

From this survey, there is no evidence that formal regulations, such as panhandling regulations or fees for licenses, are preventing individuals from profitable opportunities. Neither is there evidence of informal regulations, such as gangs protecting the territory on which they can sell, hindering self-employment activities. These results are quite surprising. Any tourist knows that panhandling regulations are strictly enforced in Cape Town's popular Waterfront shopping district. Additionally, taxi associations, such as Cape Amalgamated Taxi Association (CATA) and Congress of Democratic Taxi Association (Codeta) have been reputed to take a violent line, if necessary, to protect their business (Dugard 2001). Indeed, in the months preceding this survey, these associations were accused of engaging in a series of killings of bus drivers and commuters in order to protect their routes (and profits) serving the Khayelitsha township (Reuters, 2000). It would seem that these associations would provide a hindrance to many people's desires to enter the lucrative taxi business. Yet, such issues are never brought out.

It is possible that these could be examples of something so ingrained in the minds of individuals, a common knowledge of how things work, that people

may not actually voice them as a concern. Or, it could simply be another example of what people consider a secondary hindrance, the primary hindrance being finance. Or, it could be entirely irrelevant. The way to distinguish this is, again, to devote the space in a survey to ask about this explicitly.

Summary

The KMP survey offers a clear indication that *capital barriers* are a major hindrance to profits and participation in self-employment activities. Many self-employed individuals seem to be willing and able to engage the formal banking institutions in savings, but choose, or more likely, are forced to rely on informal mechanisms when it comes to borrowing money. Ex-ante risk management decisions may also be a major factor in preventing individuals from taking on debt necessary for certain types of self-employment. More analysis is needed to distinguish problems in getting access to capital and the problem of choosing not to borrow due to the resulting variable income stream and/or the downside risk associated with business failure.

Other potential issues also appear to be hindrances to self-employment activity. There is some evidence that *skill barriers* (both entrepreneurial and technical), *future-limiting barriers* and other *hidden cost barriers* such as crime may also limit self employment activity. These issues appear to be of lesser importance than *capital barriers*.

Also of major significance, *profit barriers* did not appear to be the primary culprit in keeping individuals from entering self-employment. The limited number of such responses can be considered circumstantial evidence that other barriers are indeed present and important obstacles preventing the unemployed from entering self-employment.

Finally, this is not meant to be the last word on this issue. While *capital barriers* are the clear primary hindrance, other secondary barriers may well turn out to be difficult to overcome should an effective financing mechanism be found.

V. Comments on Economic Modeling and Policy Implications

I have shown that *capital barriers* present a major hindrance to self-employment activity. I believe policy makers, NGOs, and self-employed worker associations should be identifying and implementing programmes that help to alleviate these barriers. Certainly, this effort has been underway for some time, but efforts

should be further re-invigorated by these findings. More research should be done to evaluate the effectiveness of existing finance programmes that target micro-entrepreneurs. Such empirical evidence would aid future planning. Efforts to assess the impact of such programmes should be taken seriously during the initial roll-out of such programmes and programme modifications.

I also believe that an appropriate theoretical model of labour supply decisions could greatly aid in the construction of policy interventions. Such a model will need to take into account the primary hindrances caused by *capital barriers*. Yet, I next argue that we are still far from having an appropriate model.

I first briefly discuss why refining our understanding of *capital barriers* is an important next step. This is important information for both those attempting to model labour supply choices and to policy makers or other concerned individuals attempting to assist the unemployed. I also point out the necessity of understanding the role that inter- and intra-household sharing practices play in these decisions. After a brief discussion on the legacy of Apartheid, I advocate for continuing to identify other hindrances to self-employment despite their seemingly minimal role in this paper.

Does it Matter which Capital Barrier is the Strongest?

As explained previously, capital barriers can be broken into two classifications, a lack of access to start-up capital and ex-ante risk mitigation strategies. In short, these can be thought of as a lack of supply of start-up capital available to micro level entrepreneurs or a lack of demand for start-up capital by small scale entrepreneurs. The two are obviously inter-linked, but this is a good distinction to start with.

Fafchamps (1999), Dercon (2002) and others have given excellent surveys of risk and the multitude of responses individuals take to avoid risk. It is extremely important that policy-makers and those hoping to model the labour supply choice recognise that entering self-employment is entering a world of increased risk. I highlight the need to distinguish two components of risk. The first is the risk associated with variable profit streams even if one is engaged in a business that has a positive expected profit. The second is the risk associated with recognizing that the business is unprofitable on average after entry.

Economic modelers may recognize the first as concentrating on the fluctuations, either seasonal or random, around some expected profit level. They will recognize the second as uncertainty around the average profit level itself (at least prior to entry). The first requires a seasonal shifter or random error component

to profits, while the second suggests a model of imperfect information and possibly introducing Bayesian updating of one's expected profit if it takes a series of experiences to determine the appropriate level.²⁹ I have referred to these as concerns over fluctuations in the profit streams and over downside risk. This lexicon is for convenience and focus. An alternative term for the latter issue is *expected profit uncertainty*.

In the face of liquidity constraints, these concepts begin to blur. When a within period liquidity constraint is added to the model, the average profit in a given time period may become dependent on past seasonal or random shocks about the mean expected profit. In practice, it will also be critical to distinguish when the expected profit uncertainty is caused by temporary variations in profit in earlier periods.

For policy makers and NGOs, these distinctions are critical because they highlight key points:

- 1) **A lack of access (or supply) of start-up capital may be hindering the unemployed from entering reliably profitable self-employment opportunities.** Concerned parties would focus on offering start-up capital to such individuals. If such profit opportunities are not dependent on early or immediate entry, but will be available for some time to come, access to this credit may be delayed without greatly hindering incentives to enter self-employment.
- 2) **Ex-ante risk mitigation strategies may also hinder the unemployed from accessing available credit for start-up capital.**
- 3) **In the face of credit, savings, and insurance failures, expected fluctuations in profit streams after start-up can cause such a loss of expected utility that individuals opt out even though the business remains profitable on average.** If concerned parties allow *timely* access to credit in such spells, take-up rates for start-up capital will increase. This encourages banks and/or micro-finance organisations to maintain an ongoing relationship with a client rather than providing one-time only access to start-up funds.
- 4) **Uncertainty over the expected profit levels of a business may result in individuals opting out of profitable opportunities.** Concerned parties

²⁹ Bayesian updating refers to the idea that one may enter the process with a prior estimate of a business's expected average profit and update it based on new information (i.e. your profit in the first period). Using the conditional probability of expected profit given your first period profit (and Bayes Rule), you can come up with a posterior estimate incorporating the new information. This process can continue each period with the point estimate of your expected profit level moving (i.e. "updating") based on past experience.

assisting individuals in understanding the business environment and creating business plans may help individuals have a better idea of the profit levels they should expect. If individuals initially have unbiased estimates, better information may decrease the variance of these expectations enough to have them enter self-employment. If this work reveals initial bias in the estimates of the unemployed, effects on participation in self-employment are uncertain.

- 5) **In the face of credit, savings, and insurance failures, random or seasonal fluctuations can also lead to a downward shift in future expected profits.** This further reinforces the need for *timely* access to credit and extended relationships with clients.

The initial policy lesson seems to be one of engaging potential clients early on to help them determine expected profit levels and encouraging savings for buffer liquidity to the extent possible. Delays in funding start-ups are not a major hindrance, unless a time dependent seasonal opportunity is approaching. Once the business has opened, *timely* access to affordable credit may be critical to business survival. Agreeing to provide timely capital prior to start-up will increase demand for start-up capital, but, of course, also increase problems related to moral hazard. Agreements for future borrowing at times of known seasonal slumps may be foreseen and agreed upon in principle before the business opens. Random shocks are much more difficult to handle. Suppliers of capital will also be assessing the expected profit level of the business as well and they will likely have less information than the entrepreneur.

Both policy makers and economists would like to determine the primary issue facing those trying to enter self-employment. To what extent are business plans necessary? To what extent is ignorance and learning about the expected profit level a necessary component of labour supply models? To what extent does past experience in business (or having relatives in business) diminish this ignorance or change one's perception of the expected profit? Is volatility of profit streams a concern? Does it cause such large fluctuations in consumption that people walk away from profitable ventures? How do these fluctuations in profit result in differing fluctuations across people? There are many more questions to answer.

The Role of the Household and Extended Network

To understand this issue from a labour supply perspective, the role of the household and extended kin or social network is critically important. To start, the household and this extended network provide the consumption level for an individual when they are unemployed. If this alternative level was zero (and the

individual had no wealth), we can presume that the individual would always choose the chance for positive consumption that comes with access to start-up capital. In short, ex-ante mitigation strategies would never deter entry into self-employment. Thus, understanding the level of access to consumption goods that individuals gain from or lose to the household in the states of unemployment and unemployment will be critical.

Additionally, this extended network provides access to credit. For example, in our analysis of the KMP survey, family and friends have been shown to be the largest providers of credit/loans. How does one get access to family credit? Does starting a business imply becoming a provider of credit to others in the extended network? If so, is it restricted to credit from your business (ex. automatic credit on goods you sell) or does it extend into access to your working capital? How do these rules vary by savings/credit institution?

Understanding the dynamic impact of business failure is also a key point. The extent to which entry into self-employment is deterred by concerns over business failure largely depends on how this affects one's future access to consumption goods and credit within the household and the extended kin network.

Finally, there is the larger question of whether labour supply of an individual should be modeled from the perspective of the individual, within a broader household context, or an intra-household context. To what extent does resource pooling take place within and across households? To what extent does one's role as employed infer power over household resource allocation? What are the rules that one must abide to remain in such a network? The questions are vast. In determining an initial expanded economic model of labour supply for South Africa, we would likely do best to concentrate on: 1) the (rules guiding the) household's provision of consumption goods to individuals during periods of unemployment, self-employment, and the extent to which these change after an unsuccessful self-employment experience; and 2) the (rules guiding the) household's provision credit for self-employment opportunities and the extent to which this changes after an unsuccessful bout of self-employment.

The Legacy of Apartheid

The legacy of Apartheid makes South Africa unique in many ways. Some of these unique aspects can potentially act as a drag on self-employment activity. Policy makers may want to consider strategies of how to best overcome (or eliminate) such hurdles left from the past. Economists will want to incorporate

those features that play a prominent role in labour supply choices into their model of self-employment activity.³⁰

Some examples of potential legacy issues include:

- 1) Restrictive bye-laws that may excessively prohibit sales of goods and services in desirable locations.
- 2) A general fear of crime, amplified by a lack of trust across income/racial lines, that precludes the *demand* for many potentially profitable transactions of goods and services from taking place in certain locations (in people's homes or in township areas).
- 3) High transportation costs for (service) transactions between the poor and the rich due to historical segregation issues.
- 4) Ignorance across income/racial lines that precludes more effective credit flows. For example, there may be fewer (silent) partnerships between rich and poor and less lending by rich bank officers due to ignorance of the business environment in which the micro-entrepreneurs operate. A lack of trust can also hinder these credit arrangements from both demand and supply.
- 5) Social structures that have not yet evolved to the new opportunities available. Many risk/credit/resource sharing institutions that exist may be efficiently suited to the restricted set of opportunities Blacks faced under the Apartheid regime. As they evolve, they may not be well suited for the opportunities now available.
- 6) A lack of individual experience with entrepreneurship due to historical restrictions on property ownership and rights to sell, etc. This lack of experience can result in increased ignorance about profit expectations, uncertainty on how to start a business, a smaller network of business contacts for supplies and/or distribution, inexperience in handling risk, inexperience in handling credit, inexperience in differentiating business capital from income, and a host of other issues.
- 7) Residual customer, employee, or employer discrimination (or reverse discrimination).

This is not meant to be an exhaustive list. Nor is it meant to suggest that all of these are critical issues to address. These issues were not explicitly found to be

³⁰ The point is to take these hindrances as given and include only the most important factors.

important in our analysis. However, they may be so engrained in the psyche of respondents that they are sometimes difficult to recognize as hindrances.³¹ One could get a better sense for the role these potential hindrances play by investigating the issues directly.

Multiple Hindrances

This paper concentrated on the primary hindrances identified as affecting the unemployed, currently self-employed and previously self-employed. It is likely that these individuals would also face multiple other hindrances if the primary hindrance were solved. Thus, I advocate that future investigations offer opportunities for individuals to assess the extent to which a variety of hindrances impact efforts to enter specific self-employment opportunities.

Such information will assist economists and policy makers. For example if certain hindrances tend to cluster together, policy makers may insist on bundling programmes together. For example, suppose a number of people have skills at small-scale construction but they do not start their own businesses because they both do not have the business skills necessary and they lack access to start-up capital. An effective programme might offer an initial set of classes for the unemployed, access to start up capital once one reaches a certain level of understanding, and continued night sessions for the first few months of business operation.

Overall, it appears that capital constraint and risk management issues are an important area for future analysis. They are issues that public policy and/or informal worker organisations/NGOs may well be able to enter and assist small businesses. Much more analysis is needed to understand the expected benefits of such interventions and optimal intervention strategies.

VI. Concluding Remarks

What can we say to policy makers?

First and foremost, this paper has shown that there is a need for additional research into the extent to which *capital barriers*, both capital constraints and ex-ante risk management issues, are excluding the unemployed from

³¹ To be fair, some of these represent a particular reason for a lack of demand or broader underlying institutions that an individual would be unlikely to voice. Instead, they would likely mention the general lack of demand or a symptom of such underlying problems (such as simply a lack of access to capital).

participating in the self-employment activity and hindering profits of those already engaged in such activity. These effects, collectively, are strong hindrances to participation in self-employment activities. A fair amount of research has recently been conducted analysing savings, credit, and insurance opportunities among poor South Africans (see Ardington *et al.*, 2004, and <http://www.financialdiaries.com>). Such work should continue with renewed focus on the extent to which these financial structures assist self-employment opportunities (Ardington and Leibbrandt, 2004 provides an excellent start) or could be modified to better assist the self-employed.

There is a need to separate the impact of three distinct effects: 1) a lack of access to start-up capital; 2) decisions to forego profitable opportunities due to concerns about the variability of the income stream; and 3) decisions to forego opportunities with an *ex-ante* positive expected profit over concerns of the downside risk associated with business failure. One must identify these effects separately in order to come up with efficient policy solutions. Additionally, it is important to conduct research into how government policy/regulatory structures and/or informal worker organisation/NGO programmes can greater assist these small business persons a) gain access to capital in a responsible way; and b) spread the risk associated with small business enterprise activity. Both issues are complicated. They are fraught with moral hazard and other contentious issues that may limit the extent to which public policy may effectively engage these issues. Yet, they also seemingly offer the greatest potential benefit.

Other issues, such as crime and a lack of skills, both entrepreneurial skills and occupation specific technical skills, are also shown to be affecting some individuals. At this point, these hindrances appear to be far less important than the capital constraints/risk management issues. Yet, with a more extended and targeted set of questions, future survey work may well identify these and other issues to be far more serious hindrances than suggested by the current survey. Additionally, this survey has been conducted in one small area of the country. The rural self-employed or the self-employed in other urban areas may well be facing a different set of problems than those limiting self-employment activity in the KMP area.

Generally speaking, policies that help the demand for the informal economy will help increase profits for the self-employed and encourage more activity within the sector. The self-employment activity in KMP appears to be primarily providing final goods and services. An informal review of the data suggests that these goods and services are primarily being sold to KMP residents. Three ways to increase the demand for the informal economy (and improve the profits of the self-employed) would be:

- a) improve the connections between informal and formal economies such that these small businesses could better provide inputs to the formal economy;
- b) increase the sale of goods and services to non-residents; and
- c) provided that informal goods and services are normal goods, increase the income of KMP residents including via improved formal sector incomes.

Of these three options, it is likely that the first is the most contentious in current policy environment. There is a legitimate fear that some formal sector workers, currently enjoying greater social protections and wages, would lose their jobs in the process. The question of comparing the losses of these formal jobs in the factor market to the gains in the informal jobs in the factor market and the benefits to the producer (and any jobs in the final product market) in the formal economy is a long-standing debate in policy circles. In contrast, the last item is likely to be the least contentious in principle, though offering a disparity of viewpoints on how to best achieve it. I believe that all avenues are worth considering and investigating further.

Finally, in considering policy solutions to enhance the general success of these small businesses, we should first look to other international settings that have had more experience with policy interventions targeting self-employed individuals in the informal economy. Recognizing the unique features of the South African landscape does not preclude learning from the experiences of others. For example, a World Bank report from Mexico offers a variety of useful ideas:

“The key components of Mexico’s microfirm strategy are the provision of finance, technical assistance, and marketing services, promotion of inter-firm organisation and regulatory reform. Each of these interventions is designed to address specific constraints on microfirm growth and thereby enhance the sector’s capacity to generate employment and incomes. Credit, equipment leasing, and special technology transfer programmes, for example, alleviate physical capital constraints. Training and technical assistance, on the other hand, increase microfirms’ levels of human capital. Other assistance measures promote forms of inter-firm organisation in order for the microfirm sector to capture economies of scale. Collective action by small firms enables them to negotiate better terms in the purchase of inputs and the sale of their goods. Or a group of small firms may share equipment and infrastructure which they could not afford on their own, resulting in higher productivity and output. *The strategy reflects the realization that there is no single missing link (though credit was often thought to be such a factor) whose provision will ensure growth and poverty-reduction*

in microfirms” (Almeida, Alves and Graham, 1995: 44). [Italics added].

The last sentence may be particularly important for us to remember given the findings of this paper. The authors go on to mention an integrated set of programmes that were applied. This is just one example from one of the many pieces of policy analysis that has taken place throughout the world. While understanding the uniqueness of the South African heritage and the legacy that this system left, policy makers, NGOs and self-employed organisations would do well to learn from the successes and failures of policy interventions in other regions.

Future Research

Moving forward, I believe there is a need to better assess these potential hindrances to self-employment activity. This requires additional survey work explicitly designed to capture such obstacles, identifying the relative importance of each item in preventing activity in a variety of specific self-employment activities and also identifying any potential interactions between the various hindrances. Such analysis may well reveal a greater set of hindrances affecting people’s decision to stay unemployed rather than enter self-employment activities. It should also be constructed to allow analysts to separate the issues of lack of access to capital and a lack of desire for borrowing brought on by ex-ante risk management strategies related to variable income streams and uncertainty over the level of expected profit.

I believe that a labour supply viewpoint is an important lens through which we can explore this issue. To accurately utilise a labour supply model, we must also have a better understanding of the full costs and benefits associated with operating a successful self-employment business and with having had a failed business venture in the past. These costs and benefits may be dynamic in nature and they may relate to your social standing, both are issues that are often not accounted for in assumptions of economic studies.

In assessing these costs and benefits, we must have a better understanding of the extent to which self-employment is an individual or household activity. In particular, we would like to know the extent to which an individual’s access to capital depends on the household or extended network, the extent to which other household or kin members share in the profits (potentially through employment), and the extent to which the household and/or individual bear the risk of the investment. The fact that household formation can be endogenous to labour supply decisions further complicates these issues.

Finally, though I have not explicitly brought out this point, the connection between barriers and hindrances to self-employment and poverty traps is clear. In recent years, theoretical poverty trap models have emerged based explicitly on poor households inability to enter into profitable but risky ventures due to low asset levels and capital constraints (Zimmerman and Carter, 2003; see Carter and Barrett, 2004 for a review of how these poverty trap models have evolved). Empirical work has presented corresponding supporting evidence of such dynamic traps in a variety of countries (for example, Lybbert *et al.*, 2004; Hoddinott, 2004). Supportive empirical evidence has also been found in South Africa (Adato *et al.*, 2004). Difficulty in accessing capital and/or the riskiness of self-employment ventures were the hindrances that the unemployed and the self-employed in KMP singled out as significant barriers to entry into self-employment. Thus, exclusion from self-employment, or at least one portion of self-employment opportunities, may be a primary example of a mechanism by which poverty traps are sustained in South Africa. Instead of engaging in self-employment, households allow a primary asset, a member's labour, to remain unutilised. We must foster a climate that allows household's to overcome such traps as they exist in South Africa.

References

- Adato, M., Carter, M., and J. May. 2004. "Sense in Sociability? Social Exclusion and Persistent Poverty in South Africa." Presented at BASIS CRSP Policy Conference. *Combating Persistent Poverty in Africa*. Washington DC. December.
- Ardington, C., D. Lam, M. Leibbrandt and J. Levinsohn. 2004. "Savings, Insurance, and Debt over the Post-Apartheid Experience: A Review of Recent Research." *CSSR Working Paper* No. 65. Cape Town: Centre for Social Science Research, University of Cape Town.
- Ardington, C. and M. Leibbrandt. 2004. "Financial Services and the Informal Economy." *CSSR Working Paper* No. 66. Cape Town: Centre for Social Science Research, University of Cape Town.
- Almeida, A.L.O., Alves, L.F., and S.E.M. Graham. 1995. *Poverty, Deregulation and Employment in the Informal Sector of Mexico*. The World Bank
- Budlender, D. 2000. "Budgets and the Informal Economy." Study 4. *Research Report for Technical Task Team for the Informal Economy*. April.
- Budlender, D., C. Skinner and I. Valodia. 2004. "South African Informal Economy Budget Analysis." *School of Development Studies Working Paper*. University of KwaZulu-Natal. Durban, South Africa.
- Carr, A. and M. Chen. 2002. *Globalization and the Informal Economy: How Global Trade and Investment Impact on the Working Poor*. Geneva. International Labor Office: Geneva.
- Carter, M., and C. Barrett. 2004. "The Economics of Poverty Traps and Persistent Poverty: An Asset-Based Approach." Presented at BASIS CRSP Policy Conference *Combating Persistent Poverty in Africa*. Washington DC. December.
- Chen M. 2004. "Informality at Work: Reconceptualizing the Employment Challenge." 50th Anniversary Conference *Reviewing the First Decade of Development and Democracy in South Africa*. University of KwaZulu-Natal. Durban, South Africa. October.
- Chen, M., J. Renana, and F. Lund. 2002. "Supporting Workers in the Informal Economy: A Policy Framework." *Employment Sector Working Paper on the Informal Economy*. ILO: Geneva.

- Cichello, P., G.S. Fields, and M. Leibbrandt. 2005. "Earnings and Employment Dynamics for Africans in Post-Apartheid KwaZulu-Natal: A Panel Study of KwaZulu-Natal." *Journal of African Economies*. 14(2): 143-190.
- Deaton, A. 1991. "Saving and Liquidity Constraints." *Econometrica*. 59(5): 1221-1248.
- Dercon, S. 2002. "Income risk, coping strategies and safety nets." *World Bank Research Observer*. 17(2): 141-66.
- Dercon, S. 2004. "Growth and shocks: evidence from rural Ethiopia." *Journal of Development Economics*. 74(2): 309-29.
- Devey, R., C. Skinner, and I. Valodia. 2004. "Definitions, Data and the Informal Economy in South Africa: A Critical Analysis." 50th Anniversary Conference *Reviewing the First Decade of Development and Democracy in South Africa*. University of KwaZulu-Natal. Durban, South Africa. October.
- Dugard, J. 2001. "From Low Intensity War to Mafia War: Taxi violence in South Africa (1987 - 2000)." *Violence and Transition Series*, Vol. 4. Centre for the study of Violence and Reconciliation. May.
- Fafchamps, M. 1999. "Rural Poverty, Risk, and Development." Report submitted to the Food and Agriculture Organization. October.
- Fields, G. S. 1975. "Rural–Urban Migration, Urban Unemployment and Underemployment, and Job Search Activity in LDCs." *Journal of Development Economics*. 2(2): 165-87.
- Hoddinott, J. "Shocks and their Consequences across and within Households in Rural Zimbabwe." Presented at BASIS CRSP Policy Conference *Combating Persistent Poverty in Africa*. Washington DC. December.
- Kingdon, G. and J. Knight. 2001. "Why high open unemployment and small informal sector in South Africa?" mimeo. Dept. of Economics. Oxford. October.
- Kingdon, G. and J. Knight. 2002. "What have we learnt about unemployment from microdatasets in South Africa?" *Social Dynamics*. 27(1): 79-95.

- Lund F. 1998. "Women Street Traders in Urban South Africa: A Synthesis of Selected Research Findings." *CSDS Research Report* No 15. Durban: University of Natal.
- Lybbert, T. J., C. B. Barrett, S. Desta and D. L. Coppock. 2004. "Stochastic Wealth Dynamics and Risk Management Among A Poor Population." *Economic Journal*. 114(498): 750–777.
- Morduch, J. 1999. "The Microfinance Promise." *Journal of Economic Literature*. 37(4): 1569-1614.
- Natrass, N. 2002. "Unemployment, Employment and Labor Force Participation in Khayelitsha/ Mitchell's Plain." *CSSR Working Paper* 12. Cape Town: Centre for Social Science Research. University of Cape Town.
- Reuters. 2000. <http://archives.cnn.com/2000/WORLD/africa/08/03/safrica.buses.reut/>
- SALDRU. 2003. Khayelitsha / Mitchell's Plain Survey 2000. Survey Report and Baseline Information. University of Cape Town.
- Seekings, J. 2002. "Unemployment and Distributive Justice in South Africa: Some Inconclusive Evidence from Cape Town." *CSSR Working Paper* 24. Cape Town: Centre for Social Science Research. University of Cape Town.
- Skinner C. 1999. "Local Government in Transition - A Gendered Analysis of Trends in Urban Policy and Practice Regarding Street Trading in Five South African Cities." *CSDS Research Report* No 18. Durban: University of Natal.
- Skinner, C. and I. Valodia. 2002. "Labour Market Policy, Flexibility, and the Failure of Labour Relations: The Case of the KwaZulu-Natal Clothing Industry." *Transformation* 50.
- Skinner, C. 2005. "Constraints to Growth and Employment in Durban: Evidence from the Informal Economy." *SoDS Research Report* 65. University of KwaZulu-Natal.
- Skordis, J. and M. Welch. "Comparing Alternate Measures of Household Income: Evidence from The KMP Survey." *CSSR Working Paper* 25. Cape Town: Centre for Social Science Research. University of Cape Town.

Statistics South Africa (StatsSA). 2001. Discussion Paper 1. Comparative Labor Statistics, Labor Force Survey, September 2000. June.

Statistics South Africa (StatsSA). 2005. Statistical Release. Labor Force Survey, March 2005. July.

The World Bank. 2001. "Helping Poor People Manage Risk." World Development Report 2000/2001: Attacking Poverty, Ch. 8. Oxford University Press: N.Y.

Zimmerman, F.J. and M.R. Carter (2003), "Asset smoothing, consumption smoothing and the reproduction of inequality under risk and subsistence constraints," *Journal of Development Economics* 71: 233-260.

Appendix A

Specific suggestions for future survey work on hindrances to self-employment

Although not its primary purpose, the KMP survey does an excellent job of breaking ground on data collection identifying hindrances/barriers to self-employment in the Cape Town area. The survey, of course, is not perfect and hindsight can allow us to identify how the survey could be better suited to target these questions. Additionally, this survey has given us a better grasp on which issues are likely to be of primary importance so we can more effectively target them. I offer the following major suggestions for discussion among those that seek to collect data in the future. These suggestions are presented from the perspective of a data user, rather than from the perspective of an expert in survey design.

- 1) Allow the current/former self-employed to identify more than one hindrance to their activities and the current unemployed to identify more than one reason that they do not enter self-employment.** For example, the survey asks “Why did you bring your self-employment to an end?” (Question D.11). This question forces individuals to choose just one answer. In doing so, this seriously limits the information obtained. For one thing, you cannot identify interactions between hindrances. Also, it is much harder to determine what secondary issues may inhibit people if the primary hindrance is overcome. This reduction in information is exacerbated by the fact that the most common answer to this question was quite open in terms of underlying causes (see suggestion 4). There should still be a mechanism by which people could rank the answers in terms of importance. This could be via a direct ranking of the hindrances or a likert-scale approach to each answer (see suggestion 2).
- 2) Ask about specific potential hindrances and use a Likert-scale approach to identify the importance of each factor mentioned.** An expanded questionnaire would allow more information by asking factual statements concerning issues that may or may not affect the current/former self-employed and the current unemployed. For example, you can ask the current self-employed to identify whether they agree or disagree to the following statement: “I make less money because I reduce my self-employment activities to avoid being robbed.” They could respond using a Likert-scale approach (5 categories: Strongly Disagree to Strongly Agree).

- 3) For the current unemployed, run through the list of hindrances with respect to very particular jobs that they might engage in.** Instead of asking, “Some people respond to being unemployed by becoming self-employed. Why have you decided not to go this route?” the survey could begin: “Some people respond to being unemployed by becoming self-employed. Some sell goods in the street, some open a spaza/shebeen, etc.” Four common occupations, differing in skill levels and/or capital requirements could be chosen. Individuals could then be asked about the hindrances that keep them from selling goods on the street, then about the hindrances that keep them from opening a spaza, etc. Finally, it would be good to ask what self-employment activity they would be most likely to enter. Fear of survey fatigue on the part of the respondent may be a concern with this approach, but the idea of being specific about self-employment activities can certainly be integrated into these questions.
- 4) Follow up on vague or open answers. In certain instances, you may restrict respondents to select from your pre-constructed choices.** For example, the most common answer to the question, “Why did you bring your self-employment to an end?” was “I wasn’t making money.” There are many potential reasons for this- lack of demand, increased input costs, high costs of transport, theft, etc.- and there should be some means to inducing a follow up for more specific questions now that we recognize some of the common responses people may give. Another example, discussed in suggestion 7, left us with 78 percent of the unemployed saying they did not enter self-employment because “no money/capital.” This points us in a direction, but leaves too many possibilities open. It would be nice to have a follow up question to get to more specifics. This might be one case where, if follow ups are not feasible, one might give a list of choices that the individual can choose from (see suggestion 7).
- 5) Maintain the flexibility of allowing respondents to verbalise additional issues that they feel are important but were not addressed.** This is a strong feature of the current KMP survey and should be integrated into the new format. In other words, allow respondents to identify additional issues they feel are important and to rank their importance on the Likert scale. The benefit of this approach is that you do not limit the problems to just one issue, but you still allow a measure of how important each potential hindrance is (and how it relates to other potential hindrances). To some extent, there is a natural conflict between avoiding vague or open answers (which is the heart of suggestion 4) and allowing answers that survey constructors may not have envisioned (which is behind suggestion 5). Striking a balance is admittedly not easy, and I would suggest that forcing respondents to stick to the pre-

constructed list should only be a last resort if there is no room for follow up questions.

- 6) **Improve the collection of self employment revenue, cost and profit data.** This likely represents a significant challenge to the profession as a whole. In the KMP survey, there were many problems in getting answers to the question G.13.1 – G.13.8. Some of the contradictory elements are discussed in Appendix B. The primary problem is that there are major discrepancies between reported profit levels and profit levels constructed based on reported revenue and costs. There is no way to tell whether the reported profit levels or the constructed profit levels are superior. This is something that needs to be investigated. If there are inherent problems with self-reported profits then many other surveys likely suffer similar problems, but can not expose it as they have not asked for the components of profit.

Particular issues to be aware of are when requesting component pieces of profit are:

- a) Some people may confuse total revenue with income
- b) Some respondents may confuse their own wage with profit, giving the same answer for both.
- c) It is possible that some individuals may include some of the cost of materials that a client incurred in responding to a question meant to capture the cost of materials that they incurred.

My initial suggestion in this area is to have some sort of editing and double-checking of the respondents on the spot while the survey is taking place. The team could be equipped with simple calculators to double-check that revenue minus total costs correctly sum to profit. This would obviously have to be done in a non-confrontational way. This forcing the data to match might raise fears of biasing the data in some direction (particularly if the survey team suggests which cost/revenue might be incorrect) and would need to be thought out fully. However, it may also force a discussion of and better understanding of the individual elements that we are collecting information on.

Finally, data producers should review the alternative profit values and report any major discrepancies in documentation accompanying the data release.

- 7) Improve the distinction between a lack of access to capital preventing self-employment and ex-ante risk mitigation choices preventing self-employment.** There is a need to make a distinction between an inability to get access to cash at reasonable rates for start up capital, and an ability to get the cash, but choosing not to do so due to fears of the variability in returns and/or the potential downside risk. This distinction was apparent in a few answers given by the unemployed when they were asked why they did not engage in self-employment. However, when 78 percent of individuals responded “No money/capital” there was no follow up to distinguish between an inability to physically get the start up capital and problems that a lack of money made them unable to sustain down-cycles in a variable income stream or outright business failure.
- 8) Distinguish the root cause of any ex-ante risk mitigation choices, variability in income or downside risk.** Ex-ante risk mitigation decisions can stem from two sources, variability in income or downside risk. The first is when there is relative certainty of average profit over a medium-term time horizon, but strong fluctuations in profit levels period to period (and implicitly a problem with the capital markets allowing you to smooth consumption). The second, downside risk, refers to engaging in an activity that has a positive expected profit, but will lead some individuals to experience negative profits in the medium term. In short, the latter can be thought of as uncertainty over the medium term profit level.

Additionally, I have a list of suggestions that are important, but are either focused on the use of KMP survey data in particular or are of relatively minor importance compared to the major suggestions above.

- 9) All self-employed persons who previously worked in the formal economy should be asked why they stopped being a wage worker.** Question G.7 (Why did you stop being a wage worker?) should not be limited to those who had wage work similar to their self-employment income (i.e. based on response to G.5). This seriously limits our ability to understand the extent to which informal work should be considered voluntarily and the dynamics of labour market transitions. NOTE: G.5 is an important question for understanding the human capital that may be gained in wage labour and brought to self-employment. It should still be asked, but not used as a limiting device.
- 10) Avoid blending the concepts of what people are doing and where they are doing it.** There seems to be confusion over whether the purpose of question G.2 (“Describe your non-wage income earning activity”) was to

gather information on the type of products sold or to find where the business fits into the production chain or to find where people work or some other concept. This temptation to follow this approach is understandable since society recognises and treats spaza owners differently from those selling goods on the street. However, by allowing the distinction over all dimensions to be contained in one question, some answers get muddled and lead to contradictory placements. My recommendation would be to tighten the categories so that the analyst can have a clear reference point for finding where in the value chain the business belongs (make a product to sell to firms, make a product to sell to customers, re-sell items to firms, re-sell items to customers, sell a service to businesses, sell a service to customers) and then narrow down where the product is sold (on street/public space, from home, from rented/owned business), what type of product(s)/services are sold. NOTE: If individuals are selling in a public space, we would also like to know if they need a license/permit (and the fee attached) or if they need approval from an informal authority to sell there.

11) The KMP survey documentation should warn users of the data about questions that give misleading/contradictory information. Many of these questions may have been revealed well after the initial documentation was released. Thus, it may be a good idea to include follow-up information sheets to any new users of the data. Examples include:

- a) Question G.15 “Do you work from home or do you own or rent a business premises?” The option of selling goods in the street was excluded from being stated as an explicit answer on the questionnaire. The result is that many people who work in the streets likely chose the option of work at home.
- b) When people describe their non-wage income earning activity (Question G.2), it appears that many of those who answered in the other category likely fall either in the “Ran a spaza” or “Sold goods on the street categories” but it is difficult to distinguish one from the other from the information at hand. (See suggestion 10 above.)
- c) Answers to questions concerning the reservation wage it would take for informal workers to take a wage job give rise to logical inconsistencies (see questions G.29, G.28, G.13.7, and G.13.8). In fact, about half of the sample gives answers that are inconsistent. One example is that the large group of people who say they would not work at a job that paid what they make in their current self-

employment job, but then give a lower wage than their current pay level when asked for the lowest wage they would accept if offered a job.

- d) Issues related to self-employment profit previously discussed in Appendix A and suggestion 6.

Appendix B: Earnings Data

As mentioned in the text, earnings and profit data for the self-employed are extremely problematic in the KMP survey. The questionnaire asked self-employed workers for the following information about earnings in a typical month: gross income; labour expenses; cost of materials; rent, electricity, lighting, etc.; taxes; other expenses of business; and money for your own salary. The questionnaire also directly asked for a typical month's take-home profit (which should equal gross income minus all expenses listed above). Thus, average profit can be taken as stated by the respondent with this last, single question or constructed from the previous set of questions which included gross income and the different costs. I formed such a constructed profit variable, assuming that missing values were equal to zero.

Table B-1 shows the average reported level for each of these components as well as how that level compares to gross income (total revenue). One will note that when the average profit level constructed by subtracting a person's stated gross income from his/her stated costs (R 97) is quite different from the average profit level that respondents gave directly (R 547).³² This difference in averages is not driven by just a few observations. In fact, forty-five percent of the observations have such a deviation between the individual's stated profit and his/her constructed profits. Even more disturbing, a simple regression predicting constructed profits based on stated average profit yields an R-squared of 0.000.

In analysis not shown, the author identified a number of potential errors that individuals may have made while answering these questions. First, I dropped a few outliers observable in a scatterplot of stated versus constructed profit levels. Next, I removed a number of observations where the gross income and costs had all been set to zero. Further, I eliminated observations where evidence suggested that individuals may have confused gross income (i.e. total revenue) with profit. I also eliminated observations where individuals may have confused the money for own salary with take home profit, stating the same value in both answers. Even after removing all of these problematic observations, the R-squared on the regression of constructed profits based on stated profits remains a tepid .1999. Lastly, the stated profit levels were never below zero while a number of constructed profit values fell below zero. Limiting observations further to those where the stated profit values were greater than zero, left 105 observations and an R-squared of just .2041.

³² For this comparison to be valid, I am assuming that the missing values equal zero. Note that the missing values predominate in those costs where the average reported cost is quite low, in part because of the large number of respondents report a cost of zero.

Table B-1. Average Revenue, Expenses, and Profit for the Self-employed in KMP

<i>Earnings/expenses in a typical month</i>	<i>obs.</i>	<i>No. who answered zero</i>	<i>Average (missing values excluded)</i>	<i>Avg / Avg. gross income</i>
Gross income (i.e. total revenue)	176	20	R 830	100.0
Labour expenses	150	134	R 53	6.4
Cost of materials	175	50	R 337	40.6
Rent, electricity, lighting, etc.	153	103	R 38	4.6
Taxes	146	141	R 6	0.7
Other expenses of business	150	119	R 147	17.7
Money for own salary	162	97	R 207	24.9
Reported take-home profit	170	40	R 547	65.9
Constructed profit (equal to gross income stated by respondent i minus all expenses as stated individually by respondent i, with missing values replaced with zeros)	175	38	R 97	11.7

These differences in reported and constructed profit levels make reliable covariate analysis impossible to complete. For example, I constructed two measures of self-employment pay. SEpay1 uses the stated typical wages plus the constructed monthly profit level net of the normal return to capital.³³ SEpay2 constructs a similar measure using stated monthly profit levels. Table B-2 details the average and median self-employment pay by type of industry using both of these measures. It is clear that the stories differ considerably based on the measure used. The average levels of pay are much higher when using stated profits, with very important ramifications. Any interpretation of the relative well-being of these workers compared to formal employees, any discussion of just wages found in this sector, and any discussion of the potential wages in self-employment for the current unemployed relies on an accurate measure of self-employment pay. Large differences are also found in the median self-employment pay.

³³ I arbitrarily assumed a 3 percent annual rate of return for capital used in self-employment work. This assumption is not important to the point at hand.

Table B-2. Mean and Median pay, by type of self-employed activity

<i>Business Activity</i>	<i>Freq.</i>	<i>sepay1</i>		<i>sepay2</i>	
		<i>Mean</i>	<i>Median</i>	<i>Mean</i>	<i>Median</i>
Production	57	277	126	376	165
Retail	86	180	178	587	250
Services	31	338	74	1522	287
Unknown	4	-143	100	284	100

Also, the differing measures of pay give us very different stories regarding the relative pay across industry types. For example, according to the first measure, services offer the lowest median pay. According to the second measure, services offer the highest median pay. Using averages, the first measure shows that self-employment pay in sales activities falls well below that in production activities while the second measure shows the reverse relationship.

The Centre for Social Science Research

Working Paper Series

RECENT TITLES

Magruder, J. Nattrass, N. 2005. *Attrition in the Khayelitsha Panel Study (2000-2004)*. CSSR Working Paper no. 123.

Seekings, J. with Jooste, T. Langer, M. Maughan Brown, B. 2005. *Inequality and Diversity in Cape Town: An Introduction and User's Guide to the 2005 Cape Area Study*. CSSR Working Paper no. 124.

Seekings, J. 2005. *The Mutability of Distributive Justice Attitudes in South Africa*. CSSR Working Paper no. 125.

Seekings, J. 2005. *The Colour of Desert: Race, Class and Distributive Justice in Post-Apartheid South Africa*. CSSR Working Paper no. 126.

Meintjes, H. Bray, R. 2005. *'But where are our moral heroes?': An analysis of South African press reporting on children affected by HIV/AIDS*. CSSR Working Paper no. 127. (A Joint Working Paper of the Children's Institute and the Centre for Social Science Research).

Mattes, R. and Shin, D. 2005. *The democratic impact of cultural values in Africa and Asia: The cases of South Korea and South Africa*. CSSR Working Paper no. 128.

Klasen, S. Woolard, I. 2005. *Surviving unemployment without state support: Unemployment and household formation in South Africa*. CSSR Working Paper no. 129.

Collins, D. 2005. *Financial instruments of the poor: Initial findings from the Financial Diaries study*. CSSR Working Paper no. 130.

The Centre for Social Science Research

The CSSR is an umbrella organisation comprising five units:

The **AIDS and Society Research Unit** (ASRU) supports innovative research into the social dimensions of AIDS in South Africa. Special emphasis is placed on exploring the interface between qualitative and quantitative research. By forging creative links between academic research and outreach activities, we hope to improve our understanding of the relationship between AIDS and society and to make a difference to those living with AIDS. Focus areas include: AIDS-stigma, sexual relationships in the age of AIDS, the social and economic factors influencing disclosure (of HIV-status to others), the interface between traditional medicine and biomedicine, and the impact of providing antiretroviral treatment on individuals and households.

The **Data First Resource Unit** ('Data First') provides training and resources for research. Its main functions are: 1) to provide access to digital data resources and specialised published material; 2) to facilitate the collection, exchange and use of data sets on a collaborative basis; 3) to provide basic and advanced training in data analysis; 4) the ongoing development of a web site to disseminate data and research output.

The **Democracy in Africa Research Unit** (DARU) supports students and scholars who conduct systematic research in the following three areas: 1) public opinion and political culture in Africa and its role in democratisation and consolidation; 2) elections and voting in Africa; and 3) the impact of the HIV/AIDS pandemic on democratisation in Southern Africa. DARU has developed close working relationships with projects such as the Afrobarometer (a cross national survey of public opinion in fifteen African countries), the Comparative National Elections Project, and the Health Economics and AIDS Research Unit at the University of Natal.

The **Social Surveys Unit** (SSU) promotes critical analysis of the methodology, ethics and results of South African social science research. Our core activities include the overlapping Cape Area Study and Cape Area Panel Study. The Cape Area Study comprises a series of surveys of social, economic and political aspects of life in Cape Town. The Cape Area Panel Study is an ongoing study of 4800 young adults in Cape Town as they move from school into the worlds of work, unemployment, adulthood and parenthood.

The **Southern Africa Labour and Development Research Unit** (SALDRU) was established in 1975 as part of the School of Economics and joined the CSSR in 2002. In line with its historical contribution, SALDRU's researchers continue to conduct research detailing changing patterns of well-being in South Africa and assessing the impact of government policy on the poor. Current research work falls into the following research themes: post-apartheid poverty; employment and migration dynamics; family support structures in an era of rapid social change; the financial strategies of the poor; public works and public infrastructure programmes; common property resources and the poor.
