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Correlates of Vulnerability in the South African Labour Market

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Abstract

Using the October Household Survey of 1995 (OHS95), this paper seeks to understand the determinants of indigence in the South African labour market. To this end the study presents a description of the labour market, focusing on how covariates such as race, gender, education and location help explain the poverty observed in the labour market.

A key innovation of the paper is the application of traditionally household poverty measures to individuals in the labour market. Hence through utilising cumulative distribution functions drawn from the Foster, Greer, Thorbecke (FGT) class of poverty measures, we are able to understand the distribution of earnings within a stochastic dominance framework. Such distribution functions are then derived for a series of labour market categories ranging from employment by race to employment by sector and occupation. In addition, by setting two individual poverty lines, specific measures of poverty are also determined according to the different labour market cohorts.

Some of the key results of the study are that farm workers and household domestic workers constitute the most vulnerable individuals amongst the employed. In addition, apart from race, gender and education are crucial determinants of low or zero earnings. Rural labour markets also surface as a key component of poverty in the labour force. Finally, there is sufficient evidence to suggest that a different labour market seems to be operating for Africans and Coloureds on the one hand, and Asians and Whites on the other.

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1. Introduction

The purpose of this paper is to provide an empirical overview of the South African labour market, using the 1995 October Household Survey (OHS) data. The focus will be on measuring the nature and extent of low earnings and vulnerability amongst participants in the labour market. We table a descriptive analysis of the level of earnings in the different segments of the labour market. In addition, the various hurdles in the labour participation chain will be presented, in order to better understand the processes through which labour market participants are drawn out of the pool of economically active individuals and, then, how individuals are selected into employment from this pool of labour market participants. The final section of this paper concentrates on illustrating and measuring the extent and distribution of low-earnings in the labour market. In this section we draw on existing poverty methodologies, which have thus far been applied predominantly to the analysis of poverty at the household level rather than to individuals in the labour market. The conclusion then draws out some of the implications for more formal, econometric work on the labour market.

2. An Overview of Labour Market Poverty

We begin this section with a detailed discussion of the labour market data that underlies all of the consequent analysis. It is very important, yet uncommon in the South Africa literature, to be clear about the extent to which a description of labour market is driven by the limitations of available data rather than judgement calls about the operation of the labour market. Our selection of individuals in the labour market and their subsequent categorisation was constrained by the design of the questionnaire for OHS95 in a number of ways. Section 2.1 below continues with this description of the selection process. Section 2.2. then goes on to explore earnings and participation in the labour market, using a set of different covariates to facilitate this overview.

2.1. The Limitations Imposed by Labour Market Data

The individuals who formed part of the labour market as a whole were between the ages of 16 and 65, and reported themselves to be working full-time, part-time or on sick-leave at the time of the interview. In addition, those adults claiming they were unemployed and those not working but looking for a job, were together captured as part of the unemployed. This selection process was quite intricate and careful, given the design of the questionnaire, and the final segmentation was of a labour force made up of employees, self-employed workers, hybrid workers (simultaneously employees and self-employed) and the unemployed. We will briefly describe the derivation of each of these segments¹.

A major constraint facing a full analysis of the vulnerable in the labour market is the lack of decent information on the informal sector. The construction of the OHS survey was such that the only entry point into the less formal sections of the labour market comes through the sub-set of workers who were reported as self-employed and owned the business they were operating. It is

¹ A more detailed discussion of our selection procedure for the employed and unemployed in the OHS 95 will be provided by the authors on request.

possible to divide such self-employed according to those who registered their business and those who did not and whether or not the business paid value-added tax. The unregistered, non tax-paying self-employed could arguably then be regarded as part of the informal sector. However, as the unregistered self-employed clearly constitute only one portion of the informal sector in South Africa, it would be unwise to refer to this group as the informal sector. For example, the survey did not capture information on individuals who were the employees of the unregistered self-employed.² Therefore, in the rest of this study we speak directly of the unregistered self-employed and do not use the term informal sector at all.

Another constraint imposed by the survey comes in the analysis of those individuals who listed their status as both formal sector workers and self-employed, thus earning income from two sources. Such persons were included in the sample as a separate category. As these 'hybrid' workers are potentially vulnerable labour market participants, we therefore give them explicit attention in Box 1. However, there was no satisfactory way of deciding on their primary labour market activity and they were therefore not included in any further tables or analysis below.

Box 1 : The 'Hybrid' Worker - An Overview

Formal and unregistered employment totalled 10.3 million individuals, which includes the 148 020 workers who held two types of employment: Firstly, as an employee working for a formal sector firm, and secondly as a self-employed individual. These workers drew an income from two sources, and their inclusion in earnings analysis based on the different labour market sub-groups would have elicited biased results. The data shows that about 54% of these workers are African and approximately 34% are White. The African share is below that in the formal sector, while a larger share of Whites are found in this cohort. The gender distribution is similar to formal employment with approximately 69% of the sample being male. Given that the hybrid worker is earning an income from two sources, it is expected that median incomes should be higher than in the formal sector. The table below confirms this, as the median values by race, are all greater than the corresponding formal sector incomes.

Table 1: Median and Standard Deviation, Monthly Income (Rands)

Race	African	Coloured	Asian	White
Median	2 146	2 736	3 300	5 510
Mean	3 515	5 547	5 249	10 557
Std. Dev	4 582	9 847	4 919	16 993

The OHS 95 reports these incomes as monthly totals by individuals, and hence it is not possible to decompose them by source. The high standard deviations for Whites, and Africans in particular, shows the high dispersion in earnings amongst these workers. The gap between African and White earnings amongst these workers is marginally higher, as the median earnings of Africans are 33% of White earnings, compared to 36% in the formal sector. The sectoral distribution of these workers shows that, as with the formal and unregistered sectors, the majority (33%) are employed in Community Services, followed by Wholesale & Retail Trade (21%) and then Manufacturing (18%). The largest share within Community services is civil servants (employees coded as central, provincial or local government employees) and public servants working in both education and health. Government employees therefore are a relatively large component of this hybrid worker category. In Wholesale & Retail trade, the largest component are those workers in the retail trade. The largest occupational category is Labourers, at 28 218 or 19%, signalling that it is predominantly workers who are supplementing their formal income, with income from self-employment. The next two dominant occupations are Labourers (23 488) Craft and Clerks (17 479). The Clerks pick up those employees in the various tiers of government. The shares of the highest two occupations Managers and Professionals, yield figures above that in the formal sector. Relative to the formal sector therefore, these hybrid workers are disproportionately composed of employees in the mid- to upper-levels of the occupational ladder. It could thus be argued that hybrid workers are formal sector workers with steady long-term employment contracts, who are generating additional income through self-employment activities.

² At best, we can impute the size of this group from the questionnaire.

To estimate the number of unemployed we made use of a set of criteria including an individual's willingness to take a job if one was available, and an important 'cleaning' question in which the respondent had to show that he/she had no job for reasons related primarily to the inability to find a job or the lack of adequate skills or qualifications. This allowed for the exclusion of those, for example, who were housewives or students, yet may have regarded themselves as unemployed at the beginning of the questionnaire. In the data set the latter who were omitted as unemployed as a result of this question, using the weighted sample numbered 286 293 individuals, or 6.9% of those initially designated as unemployed³.

In the light of all of these data considerations, Table 1 below presents a broad snapshot of the South African labour market. The total population of working age is about 23.9 million, with more females than males in every race group, except for Whites. By race, it is clear that a greater share of White (78%) than African (47%) male workers are in employment.

It is also evident that across all race groups, formal employment (designated as 'employee') dominates as the main form of work activity. The share of African males in unemployment is 18%, much higher than the 2% of White male workers without jobs. Coloured male workers are not far below that of African males, with 13% of these workers in unemployment. The figures for those out of the labour force are telling. The primary reason amongst males, for being economically inactive is given, across all race groups, as enrolment in education. The figure for African males of 24%, however, is exceptionally high, and in part reflects long periods of duration within the education system.

The gender differences in the labour market are stark. Hence, while 43% of all African male workers are in formal employment, only 17% of African female workers are in the same position. This can be explained in three different ways. Firstly, there are more African females in non-registered businesses than African males. This picks up the large number of domestic workers amongst African female workers, a point we develop further in the paper. Secondly, the share of African females in unemployment is also higher. Thirdly, a larger proportion of African females are out of the labour force, with the majority being enrolled in education or involved in household duties.

It is interesting to note that the education figures are almost replicated across the genders, indicating that this variable is more differentiated according to race than gender⁴. However there are also differences amongst female workers. While only 17% of African females are in formal employment, 45% of White females and 36% of Coloured females have formal jobs.

Note also that 8% of Coloured women are also in unregistered self-employment, again reflecting their involvement in domestic services. The upshot is that African women are the least likely amongst female, and indeed male, workers of all races, to have employment.

The unemployment rates in Table 1 are presented according to both the strict and expanded definitions. However, it is important to elucidate how these two concepts were derived from the survey⁵. Table 2 below reflects the results from a specific question in the survey, which was used as the decision rule for whether individuals reported themselves as unemployed according to the narrow or strict definition.

³ The largest sub-category here were those individuals who, upon saying that they wanted a job, reported themselves as housewives who preferred not to seek work. These people numbered 113 729, approximately 2.7% of all those previously coded as unemployed.

⁴ Unfortunately, the OHS95 does not break down the code for 'Other' in the questionnaire, which would have been useful, given its fairly high share for African females in particular.

⁵ The Appendix below provides a detailed description of how the data, through the survey questionnaire, was cleaned in order to generate the full sample of unemployed individuals.

Table 2 shows that the unemployed number approximately 3.9 million, and of these the majority reported to be doing nothing to find work, but still had the desire to find a job (Code 1). The second largest category of search were those of the unemployed, who had made enquiries at different workplaces for work. This suggests a relatively informal search method, compared to for example, codes 3 and 5. Note also that these formal mechanisms of search only account for under 10% of all search behaviour.

Table 1: Employment Status of Adults by Race and Gender

	Male (Percentage)				Female (Percentage)				(%)
	African	White	Coloured	Asian	African	White	Coloured	Asian	Total
Total Number	8 424 476	1 796 299	1 098 972	343 145	9 016 475	1 748 318	1 161 714	352 004	23 941 403
Employed									
Employee	43	63	60	59	17	45	36	30	35
Self-Employed									
Business registered	0	11	1	8	0	3	0	1	1
Business not registered.	2	2	2	5	8	2	8	2	5
Both (Hybrid Employee)									
Business registered	0	1	0	0	0	0	0	0	0
Business not registered	1	1	1	1	1	1	0	0	1
Total	47	78	64	73	26	52	44	34	43
Unemployed									
Searching for Work	9	2	10	6	9	2	9	5	8
Not Searching for Work	9	0	4	1	12	1	6	3	8
Total	18	2	13	7	21	3	15	7	16
Out of Labour Force									
Enrolled in Education	24	10	11	11	22	9	9	11	20
Keeping House	0	0	0	0	13	21	16	34	8
Retired	3	8	3	3	5	8	4	4	4
Disabled	3	2	7	3	2	1	4	3	3
Other	6	1	3	2	11	6	8	7	7
Total	36	20	24	20	53	45	41	59	42
Unemployment Rate									
Broad	28	3	17	9	45	6	26	18	27
Narrow	13	2	12	8	19	4	16	11	13

The decision rule, that ultimately derived the unemployment rates in Table 1, was to consider those individuals who were unemployed according to the narrow definition, as those captured in codes 2 through 9⁶. This captures only individuals who have actively searched for a job in the last four weeks. These unemployed number about 1.9 million, or just under half, of the total sample of unemployed. The expanded definition, in trying to capture the discouraged work seeker as well, therefore includes all individuals coded from 1 through 9. Those workers who have not looked for work in the last 4 weeks, but who would like to work, are thus included as unemployed. As these numbers suggest, the unemployment rates derived are very sensitive to the choice of definition⁷. Hence, Table 1 shows that the total unemployment rate based on the expanded definition is 27%, while it is 13% using the narrow definition.

Table 2: Method of Search in Previous 4 Weeks

Code	Search Method	Number	Perc.
1	Nothing, but still wants work	2 012 592	51.97
2	Nothing: wants work but already has job to start at a definite date in the future	119 502	3.09
3	Waited/registered at employment agency/trade union	279 379	7.21
4	Enquired at workplaces, farms, factories or called on other possible employers	1 215 389	31.38
5	Placed/answered advertisement(s)	72 930	1.88
6	Sought assistance of relatives or friends	132 916	3.43
7	Looked for land, building, equipment or applied for permit to start own business or farming	9532	0.25
8	Sought/underwent training	7593	0.20
9	Other	22 874	0.59
	Total	3 872 707	100.00

Examining these unemployment rates more closely, it is evident that African unemployment rates are higher than all other race groups. By the broad definition, the African male unemployment rate is 28%, compared to 3% for Whites. The Coloured broad unemployment rate is fairly high as well, at 17%. The gender effect though is very strong: the African female broad unemployment rate is 45% and for Coloured females, 26%. Noticeably, Asian and White female unemployment rates, are double that of their male counterparts, at 18% and 6% respectively. We reach the familiar labour market outcome, that race and gender are very important determinants of unemployment in the society.

The unemployment rates here, based on the OHS95, are different to those that have been derived from the SALDRU data. From the analysis here, the narrow rate is higher and the broad rate lower than the SALDRU estimates of 12.3% and 29.8% respectively (SALDRU,1994). The OHS94 results, in turn, report a narrow rate of 20.3%, and an expanded rate of 32.6% (CSS,1994). The lower broad unemployment rate reached in the analysis here is in all probability a function of the careful screening that occurred when questioning those individuals who regarded themselves as unemployed. Appendix 1 below describes this screening process. Relative to the unemployment questions in the previous surveys, it is probably fair to regard the OHS95 unemployment rates as the closest to the true value.

⁶ Some have argued that codes 7 and 8 should not be included when defining the unemployed. Both codes though represent those individuals who, at the time of interview, still did not have a job. In addition, code 8 also includes those who may have previously undertaken training, a fact that would not exclude them from being part of the unemployed. Ultimately though, the numbers of individuals involved in these two codes, is small enough to make little difference to the overall unemployment rates derived.

⁷ The CSS has recently opted to publish the narrow definition as the official unemployment rate. The evidence makes it plain that such a choice should not lessen the appreciation of the very low rate of labour absorption in the economy, in an environment of very poor official unemployment insurance.

2.2. Earnings and Participation in the Labour Market

The earnings data presented here is all in standard monthly figures. The figures were thus not adjusted to derive earnings per month controlled for by hours worked. The reasons for this were that firstly, 92% of the employed worked 35 hours or more in the week preceding the interview⁸. Hence the overwhelming majority of the sample did in fact work full-time. In addition, of those individuals who worked part-time or less than 35 hours, the median hours worked was 25 per week. This means that even for those employed on a part-time basis, the hours worked was quite high. Not surprisingly, the data showed that it was those in the labourer categories, who predominated amongst the part-timers. Yet, even here, the median hours worked was again high, at 21 hours per week. Therefore, given the overwhelming predominance of full-time work amongst the employed, the decision was to present all earnings data as monthly, without recourse to their hourly equivalents.

Tables 3 and 4 consider the earnings of employees and the self-employed by occupation. The occupational categories are those based on the CSS definitions. Further divisions of this data by gender are provided in Appendix 2. The tables present the value of median earnings in 1995 Rands, by location and also in relation to a pre-determined low-earnings line. The line used here, is R293 per month which corresponds to a single adult equivalent income used in deriving 1995 household poverty lines.⁹ There can be very little contention that this is indeed a low labour market income. The fact that R293 per month is so much lower than any of the median incomes certainly illustrates this point.

Table 3: Earnings Profile By Occupation, All Employees

Location	Overall		Urban		Rural	
Occupation	Median	H Index	Median	H Index	Median	H Index
Armed Forces	2,177	0%	2,663	0%	na	Na
Managers	5,200	0%	5,566	0%	3,250	1%
Professionals	4,670	0%	4,670	0%	3,349	0%
Technicians	3,133	0%	3,379	0%	2,646	0%
Clerks	2,000	1%	2,000	0%	1,500	1%
Service & Shop Workers	1,400	3%	1,500	2%	1,071	5%
Skilled Agric. Workers	1,115	11%	1,346	10%	840	12%
Craft Workers	1,600	2%	1,800	1%	1,200	4%
Machine Operators	1,300	2%	1,500	0%	875	6%
Domestic Helpers	942	6%	1,000	5%	754	10%
Agric. Labourers	428	26%	500	17%	410	28%
Mining/Constr. Labourers	900	3%	908	3%	894	4%
Manuf. Labourers	1,000	4%	1,115	2%	628	9%
Transport Labourers	1,115	3%	1,115	2%	1,041	3%
Other Labourers	1,143	3%	1,250	1%	900	8%

It is evident that there is a fairly standard differentiation in earnings by occupation, with managers for example earning more than clerks, and the latter in turn being better remunerated than labourers¹⁰. Amongst labourers, the worst paid are agricultural labourers, with a median income of R428 per month. Hence, the median wage gap between the highest and lowest paid occupation is about 80%. After farm labourers, the worst paid are Mining labourers and Domestic Helpers. Domestic Helpers, in the language of the survey, refer to domestic helpers and cleaners, helpers and cleaners in offices, hotels and other establishments and hand

⁸ The 35 hour week is used as the cut-off period between full-time and part-time work in the questionnaire.

⁹ Given this, we use the terminology of 'low earners' and 'working poor' and low-earnings line and poverty-earnings line' interchangeably in this paper.

¹⁰ The OHS95 has a broad category for workers in elementary occupations, and the approach here has been to extract those labourer categories deemed to be of interest in earnings analysis.

launderers and pressers. In other words, Domestic Helpers do not encapsulate domestic workers in private households, as these individuals are coded elsewhere in the questionnaire. This would explain the relatively high overall median incomes for Domestic Helpers. Despite this fact, note that 10% of Domestic Helpers in rural areas live in poverty. Agricultural labourers are the most poverty-stricken amongst employees, as over one quarter nationally earn less than R293 per month. Categories of labourers outside Domestic Helpers and those in agriculture, all contain fewer working poor.

A category that does not seem to make much sense, in the light of the results obtained is that of skilled agricultural workers. Here the median income is below that of a machine operator, and 11% of these individuals live below the low-earnings line, despite the suggestion that these individuals are not in an unskilled occupation. The reason would seem to be in the classification of this occupation. Individuals involved in subsistence agriculture & fishing were included in addition to gardeners & crop growers and hunters & trappers. The inclusion of these workers, would clearly lower the median earnings in this occupation. More detailed examination of the data suggests that the biggest contributor to high poverty levels in this occupation, comes from market gardeners & crop growers. Excluding this sub-occupation leads to a fall in poverty incidence from 11% to 2.5%, meaning that the contribution of poverty in the group of gardeners & crop growers is about 8.2%. To avoid erroneous assumptions about occupational earnings then, it would seem that the label of 'independent farm & fishery workers' would be more apt in describing this occupation.

We turn now to the description of earnings amongst the self-employed, broken down by those involved in registered businesses and those in unregistered enterprises. Again, the data by gender is provided in Appendix 2.

Table 4: Earnings Profile By Occupation, Self-Employed

Location	Overall		Urban		Rural	
	Median	H Index	Median	H Index	Median	H Index
Registered Activities						
Managers	11,249	0%	11,000	0%	13,000	2%
Professionals	16,000	0%	16,535	0%	na	na
Technicians	8,000	0%	8,000	0%	na	na
Service & Shop Workers	2,800	0%	3,000	0%	na	na
Skilled Agric. Workers	9,364	0%	5,000	0%	11,249	0%
Craft Workers	5,000	0%	5,000	0%	2,970	0%
Other Labourers	3,784	2%	3,222	2%	na	na
Various 'Informal' Occup.	3,784	2%	3,300	3%	4,392	0%
Unregistered Activities						
Managers	4,167	3%	4,649	3%	1,600	0%
Technicians	1,539	5%	2,000	4%	1,098	5%
Service & Shop Workers	1,500	0%	1,377	0%	na	na
Skilled Agric. Workers	1,000	21%	na	na	1,000	23%
Craft Workers	1,098	6%	1,200	3%	909	10%
Domestic Workers	387	38%	431	27%	300	46%
Other Labourers	990	11%	1,083	9%	750	15%
Various 'Informal' Occup.	2,000	4%	2,500	2%	1,500	8%

Table 4 confirms that registration status is an important income discriminator. Hence, for those self-employed individuals with a registered business, all except two categories earn a living above the low-earnings line. Even for these two occupations, Other Labourers and Various Informal Occupations, the median monthly wage is R3 784¹¹. For those self-employed in

¹¹ Various informal occupations refers to individuals coded as General Managers in enterprises such as shebeens, taverns, spaza shops, butcheries and so on.

unregistered businesses, poverty incidence is higher, particularly in the case of domestic workers and skilled agricultural workers. Domestic workers here, refers primarily to domestic workers in private households¹². For these workers, the median wage is R387 per month, placing 38% of these workers below the low-earnings line. For those in rural areas, 46% work below this line. While the median wage for skilled agricultural workers is higher at R1000, 21% of these workers earn less than R293 per month.

It is interesting to note that Manager category for registered and unregistered activities, yields very different income levels. For the latter, the median earnings is just over a third of the income earned by managers in registered enterprises. Clearly the segmentation of the labour market along registration status has a direct impact on understanding the income differentials amongst the self-employed.

Table 5 below represents the results from segmenting the labour market on the basis of a wider set of covariates such as years of schooling, location, occupation and sector.

Table 5 : The Labour Force and Employed, By Individual Characteristics

Race	African	Coloured	Asian	White	Total
Labour Force (No.)	9 633 389	1 522 443	419 450	2 393 213	13 968 495
Percentage Share	68.97	10.90	3.00	17.13	100
Male	55.98	55.19	65.62	59.89	56.85
Female	44.02	44.81	34.38	40.11	43.15
No Sch.	11.56	5.90	0.50	0.05	8.64
Primary	30.47	29.38	6.47	0.37	24.47
Incomplete Secndary	33.70	41.84	36.03	21.06	32.50
Complete Secndary	15.50	15.93	41.09	45.58	21.47
Tertiary	8.78	6.94	15.92	32.94	12.93
Urban	50.31	81.29	93.65	90.27	61.83
S-Urban	2.38	0.29	2.09	1.02	1.91
Rural	47.10	18.41	4.26	8.71	36.11
Median Earnings	450	800	2000	3799	848
Employed (No.)	6 227 236	1 203 899	369 532	2 295 121	10 095 788
Percentage Share	61.68	11.92	3.66	22.73	100
Male	62.46	57.83	67.86	60.73	61.71
Female	37.54	42.17	32.14	39.27	38.29
No Sch.	11.85	6.36	0.56	0.03	8.09
Primary	29.78	29.74	6.29	0.35	22.22
Incomplete Secndary	32.17	39.73	34.91	19.97	30.40
Complete Secndary	14.34	16.06	41.11	45.80	22.68
Tertiary	11.86	8.12	17.13	33.86	16.61
Urban	52.97	78.17	93.28	90.22	65.92
S-Urban	2.51	0.31	2.31	1.02	1.90
Rural	44.45	21.53	4.41	8.77	32.14
Union	67.79	73.70	74.09	79.59	71.41
Non - Union	32.21	26.30	25.91	20.41	28.59
Agriculture	15.20	18.54	1.32	4.39	12.63
Mining	5.67	1.06	1.00	4.36	4.65
Manufacturing	13.78	19.65	26.67	14.40	15.09
Electric	0.78	0.61	0.30	1.62	0.93
Construction	4.37	7.46	3.80	4.62	4.78
Wholes	15.48	17.91	32.67	20.09	17.45
Transport.	4.56	3.82	5.41	7.38	5.14
Finance	3.27	3.96	8.47	16.05	6.45
Commty.	36.89	26.99	20.37	27.09	32.88
Manag	2.89	2.03	10.76	14.56	5.73
Craft	10.31	14.53	15.83	15.00	12.08
Labourer	19.03	17.37	6.87	2.53	14.63
Agric.	12.12	15.50	0.03	0.16	9.36
Domest.	9.94	6.78	0.12	0.09	6.97

¹² There are 722 024 domestic workers in private households and 737 domestic helpers classified as self-employed and operating unregistered enterprises.

Median Earnings	1082	1083	2333	4000	1400
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The data is presented by labour force and then for the employed only. We have chosen to segment the sample in this way, and not according to informal and formal sector participants given the difficulties in the survey of dividing the sample in this manner. These survey problems are highlighted in Box 2 below. All shares are within-group estimates.

The gender shares within the labour force show again that males dominate across all race groups. However the ratios for the employed show a larger share of males, indicating that unemployed females are disproportionately represented in the labour force.

The location distributions are fairly constant when comparing the labour force with the employed. Urbanisation rates for Africans though are much lower than for the other three groups. Hence while close to 80% or more of non-Africans live in urban areas, the corresponding figure for Africans is just over 50%. Clearly, rural labour markets are far more important for the African work force compared with the other race groups. It must be remembered that in these rural labour markets, not only is labour demand lower in quantity and quality terms, but mobility is also severely restricted given existing indigence amongst individuals and their linkages to already poor households.

The dominance of rural labour markets for Africans is replicated somewhat in the sectoral shares for the employed, as 15% of African employees work in agriculture, compared to less than 5% for Asians and Whites.

Note however, that the figure for Coloureds is also high. The Finance sector is an interesting contrast, as the figures show that while the share of Coloureds and Africans is relatively small, it is considerably higher for Asians and Whites. Within Finance, the mean skill levels are considerably higher than those found in Agriculture. This sectoral *cum* skills division between the two sets of race groups, point to a very different labour market for Asians and Whites on the one hand and Africans and Coloureds on the other. This is borne out further in the occupational divisions, where only about 2% of Africans and Coloureds are managers, while the figure for Asians and Whites is over 10%. The labourer category shows a reversal in these shares, with 17% or more of all Africans and Coloureds working in elementary occupations. Amongst labourers, the two most indigent workers are farm workers and household domestic workers. Here the different labour market shares by the two race groups is much more pronounced, and strongly displays the differential between those at the top-end and those at the bottom-end of the internal labour market.

The median earnings data by race again point to the difference in quality of employment by the two race groupings. Amongst the employed, the median monthly earnings for Africans and Coloureds is about R1000, while for Asians it is over R2000 and Whites R4000. Even though White median earnings are twice those of Asians, it is clear that for these two racial cohorts the returns to labour are considerably greater than for Coloureds and Africans. Notice that when examining these figures for the labour force as a whole, the much higher unemployment rates in this cohort shows up as a large reduction in the median income. Correspondingly, the Asian and White incomes fall only marginally.

The education splines presented in the table broadly confirm the trend observed above: that by race, two separate labour market processes seem to be at work. We see that while between 35% and 42% of Africans and Coloureds have primary schooling or less, the figures for Asians and Whites is only between 0.38% and 7%. Though the incomplete secondary schooling rates for Asians is similar to that of Coloureds and Africans, the completed secondary schooling variable yields the familiar pattern. Completed secondary education, as will be shown later, is a key schooling attainment in terms of improved labour market opportunities. What is interesting to note though, albeit on the basis of descriptive statistics, is that the share of the lower education categories are not considerably larger for the labour force as a whole than for the employed only. This suggests that education is more important in determining the income from employment than whether an individual gets a job or not.

Box 2: The Misnomer of the Informal Sector in the OHS95

The survey, as a starting point to capturing individuals in the informal sector, asks a question about the employment *status* of the worker, providing three options for the respondent, namely are they:

1. Working for somebody else
2. Working for themselves
3. Working for themselves *and* somebody else

For those individuals coded as 1, they are automatically captured as part of the formal sector. This means that the employees of those in the informal sector, cannot be explicitly identified in the survey. Through this approach in the survey questionnaire, the first problem therefore is that a significant part of the informal sector is lost. We are unable to provide an accurate and direct estimate of the informal sector using this data set. A second-best solution is to impute the size of the informal sector, through another question in the survey, although this is of course not ideal.

The individuals who code themselves as 2, can of course be either in the formal or informal sector. Loosely put, both doctors and street sellers would be in the group. Hence, the manner in which the survey differentiates between these two sectors, is to ask two questions to these individuals, namely:

1. Is/was the business registered?
2. Do you have a VAT number?

Specifically, each of these individuals coded as 2, are asked whether the business they own is registered and then furthermore whether they are registered to pay VAT. If individuals answer 'yes' ('no') to both questions, they are regarded as part of the formal (informal) sector. On the face of it, the only problem is that the size of the informal sector is not explicitly defined and measured. It appears that the categorisation of informal sector individuals through a registration and VAT question is tenable, and not at odds with approaches elsewhere. The problem with this approach, or with the actual survey design, is evident though when deriving data for the informal sector. The baseline data is provided below, and it shows that there are about 1.2 million individuals in the sector, of whom close to 80% are Africans.

Informal Sector Individuals, By Race

Race	African	Coloured	Asian	White	Total
Number	1 014 822	121 427	27 846	126 908	1 291 003
Share	78.61	9.41	2.16	9.83	100

This data is seemingly congruent with previous estimates, such as the SALDRU 1993 household survey where the estimate was about 1.1 million (Bhorat & Leibbrandt, 1998). However, closer inspection of the data illustrates a gross bias. Occupational data on this sample of individuals illustrate that the overwhelming majority are household domestic workers. As the table below illustrates, the overwhelming majority of African and Coloured workers who are coded as part of the informal sector are actually employed as domestic workers.

Informal Sector Individuals who are Domestic Workers, By Race

Race	African	Coloured	Asian	White	Total
Number	633756	85897	437	1866	721957
Share	62.45	70.74	1.57	1.47	55.92

While the shares for Whites and Asians are of course much smaller, the large absolute numbers for Africans and Coloureds ensures a distorted aggregate picture of the sector. Hence, the national figures show that of the 1.2 million in the informal sector, over half are in fact domestic workers. Now, given that these workers cannot be readily conceived of as part of the informal sector, we are left with a grossly inadequate description of this sector. Indeed, if we exclude domestic workers, the survey suggests that the informal sector is made up of about 569 000 participants. This figure, it would appear, is a significant underestimate of the number of informally employed.

The upshot of the above is that for analytical purposes, one cannot use this data set to make a credible distinction between the formal and informal sector. More broadly, this problem adds to the dilemma in South Africa, that very poor data exists on a part of the labour market that is essential to a thorough understanding of poverty and inequality.

Given the focus on differing labour participation processes, it is necessary to try and grasp in more detail the nature of the decision-making sequence for individuals in the labour market. Table 6 attempts this, by dividing the labour participation decision into three broad categories: namely, to participate or not, then for those who do participate, whether they are employed or unemployed and finally if they are employed, what form of employment is taken up. Beginning with the last row, it is evident that a larger portion of adult females in rural areas are out of the labour force compared to those in urban areas. However it is also true that a smaller share of rural females are in the labour force than urban females. Of those rural females in the labour force, only 53% will have a job, with the remainder unemployed, compared to about 70% of urban females with a job. Note that amongst those with a job, the level of unregistered businesses is high, for both rural and urban areas. This reflects, as Box 2 above alluded to, the high share of domestic workers in private households. Indeed these high unregistered business figures are repeated throughout the table, for all the different covariates chosen. In comparison for adult males, where the figures are produced in Appendix 2, the level of unregistered business activity is much lower. This is important because it implies that all unregistered businesses are dominated by females. In terms of the location results for males, Table 6b in the appendix shows that there are larger shares of males in both urban and rural areas who are in the labour force. In addition, shares of those employed in both locations are greater for males than females.

The table shows that there is a positive relationship between years of potential experience and the share of those in the labour force, as well as the share of those in employment. Potential experience is calculated as the age of the individual subtracted from their years of education and 6 years. Hence, as individuals accumulate more experience, their likelihood of being in the labour force and in employment will increase. The age distribution of labour supply decisions is very interesting. It shows that for females younger than age 25, 71% are out of the labour force. These individuals are more than likely to be students. However, note that a greater share of women (80%) over the age of 55 are out of the labour force. This would represent women, as seen above, who are likely to be involved in regular household duties. Moreover, of the 29% of women in the labour force under the age of 25, over half are unemployed, compared to the over 55 cohort where only 12% are without jobs. Interestingly for the over 55 age group, more women are in unregistered enterprises than in any other age cohort. This suggests that age distribution of domestic workers is predominantly composed of older individuals. Note however that for the employed, wage employment represents the largest share, a trend observed across all covariates in the table.

The number of dependants, in the form of young children that an individual has, seems to have no influence on whether women remain in or out of the labour force. However, those women with no children younger than six to care for, are more likely to be employed than those with one or more young children. For males, the experience effect is much stronger in the 11-20 years and 20+ years categories, since a substantially larger (smaller) share of males compared to females are in (out) of the labour force. In the age distribution, across all cohorts, more males are in the labour force with the overwhelming majority of those younger than 55 being wage employees.

The education data is extremely interesting. Firstly, the percentage of females in the labour force is related closely to the level of education achieved. Hence, women with no education, less than 8 years of schooling or those with some secondary schooling, are all more likely to be out of the labour force. This suggests that a dominant share of women between the ages of 16 and 65 in these education categories are either furthering their schooling or have remained as housewives. The first labour market snapshot above would tend to corroborate this claim. The attainment of a matric certificate or more tends though to result in a greater share of women in the labour force than out of it.

Secondly, once in the labour force, females with higher levels of education tend, more likely, to be employed. Hence there is also a negative correlation between the share of unemployed females in the labour force and the level of education. Thirdly, of the females who are employed, those with no education are predominantly in unregistered businesses, again picking up the domestic services effect. Of those with primary schooling, close to 50% are self-employed in

unregistered businesses. Finally, we again pick up an indirect registration status and income link: as the years of education falls, the number of females with unregistered businesses increases. For males, the shares in the labour force across all education categories are, once again, greater. One interesting difference here is that while matric attainment resulted in a larger share of women in the labour force than out, the share of males in the labour force is greater for all education categories.

Table 6: The Participation Patterns of Female Adults

	Particip.		In Labour Force			Employed	Self-Employed		Hybrid	
	In labour Force	Out of Labour Force	Employed	Ue, searching	Ue., not searching	Wage Employee	Regitd. Bussn.	Unregitd. Bussn.	Regitd. Bussn.	Unregitd. Bussn.
Education										
None	40%	60%	55%	15%	30%	44%	1%	58%	0%	1%
Literate (<8yrs)	48%	52%	57%	18%	25%	57%	0%	46%	0%	1%
Incomplete Secondary (8-10yrs)	39%	61%	57%	21%	22%	83%	1%	19%	0%	1%
Matriculated (10 yrs)	61%	39%	70%	17%	13%	93%	3%	5%	0%	1%
Diploma (11-12yrs)	74%	26%	92%	5%	3%	94%	3%	2%	0%	2%
Degree (>12yrs)	69%	31%	89%	4%	7%	85%	7%	7%	1%	2%
Presence of Young Children										
Mean No. of Young Children	0.68	0.71	0.56	0.85	0.91	0.55	0.29	0.64	0.33	0.51
1 or More Children < 6	49%	51%	56%	20%	24%	75%	1%	27%	0%	1%
No Children < 6	49%	51%	71%	14%	16%	77%	2%	22%	0%	1%
Age of Individual										
16-25	29%	71%	45%	28%	27%	87%	1%	15%	0%	1%
25-55	63%	37%	67%	14%	18%	75%	2%	25%	0%	1%
55-65	20%	80%	88%	4%	8%	64%	3%	35%	0%	1%
Potential Experience										
5 or less yrs	17%	83%	53%	27%	20%	96%	2%	7%	0%	1%
6-10 yrs	43%	57%	53%	24%	24%	92%	1%	8%	0%	1%
11-20 yrs	68%	32%	61%	19%	21%	83%	2%	17%	0%	1%
20+ yrs	51%	49%	71%	12%	17%	67%	2%	33%	0%	1%
Location										
Urban	57%	43%	71%	16%	13%	82%	2%	17%	0%	1%
Rural	40%	60%	53%	18%	30%	62%	1%	40%	0%	1%

3. An Application of a Class of Poverty Measures to the Labour Market

Having provided an introductory overview of the South African labour market, this section of the paper focuses on providing a richer description of the distribution of earnings in the labour market. We pay particular attention to identifying the working poor within the labour market. To do so we apply the tools and framework of poverty dominance analysis to individuals in the labour market. These tools are usually applied at the household level, but given the specific focus of our work here, it is wholly appropriate to use these tools to focus on individuals in the formal and unregistered self-employed sectors as well as the unemployed, where applicable.

A major strength of the methodology is the fact that it is capable of integrating the unemployed into the analysis. The aim of this section is to derive cumulative distribution functions by pre-defined labour market categories, in order to understand earnings, segmentation and the nature of job allocation decisions in the labour market. By specifying a low-earnings line, we are also able to highlight the incidence of working poor in different sub-groups within the labour market and to derive the shares of working poor within these sub-groups. The design of any later multivariate modelling of labour market earnings will flow from the picture of the labour market that we distil in this section.

3.1. The FGT Poverty Approach

The most widely used approach that captures both the depth and severity of poverty is the generic class of measures, found in Foster, Greer and Thorbecke (1984). This FGT class of poverty measures can be written in the general form as:

$$P_{\alpha}(z) = \int_0^z \left(1 - \frac{Y}{z}\right)^{\alpha} f(Y) dY \quad (1)$$

where α is a non-negative parameter. It is clear from (1) that when $\alpha=0$, a headcount index (H or P_0) is calculated. The depth of poverty, measured as the poverty gap index (PG), is calculated when $\alpha=1$ ¹³. The severity of poverty, a measure that is sensitive to the distribution of income among the poor, is found when $\alpha=2$.

The choice of a poverty line is open to much debate, and is probably the most contentious issue surrounding the measurement of poverty. In recent literature, considerable progress has been made in overcoming the restrictions implicit in basing a poverty analysis on one poverty line. The FGT methodology has been extended to a graphical consideration of the widest possible range of poverty lines, from 0 to $z^{\max}$ (Ravallion, 1994:126). The values taken by this cumulative distribution function over the defined interval, will yield the Poverty Incidence Curve. Given that the distribution function is $F(Y)$, it is also true that the poverty deficit curve can be traced by the following:

$$D(z) = \int_0^{z^{\max}} F(Y) dY \quad (2)$$

Hence the area under the Poverty Incidence Curve, represents the poverty deficit function. The former traces the values of the headcount index (P_0) for all poverty lines (z) from 0 to $z^{\max}$, while the latter traces the measure for the poverty gap (P_1) for all z from 0 to $z^{\max}$. The poverty severity curve is derived in turn, from the deficit function as:

¹³ The PG is therefore calculated as $P_1 = \int_0^z (1-Y/z)f(Y)dY$

$$S(z) = \int_0^{z^{\max}} D(Y) dY \quad (3)$$

and points on $S(z)$ represent the results for P_2 , at any poverty line between 0 and $z^{\max}$.

Given the fact that these three functions are nested within each other, the interlinkages elicit important poverty comparisons (Ravallion, 1994:129). Should $F_A(z)$ lie above $F_B(z)$ for all z , then this is true for both distributions on $D(z)$ and $S(z)$. The opposite though is not true. Hence should $S_A(z)$ lie above $S_B(z)$ for all z , it would not necessarily be true that $D_A(z) > D_B(z)$ for all z . These are the axioms of dominance testing which make it possible to do useful poverty comparisons and rankings, based on the magnitude, depth and severity of poverty, for different distributions and sub-groups in the population.

The extension of the graphical representations of dominance testing to the description of individual earnings in the labour market is especially useful and illuminating. Using pre-determined labour market categories, for example, all formal sector workers defined by their sector, it is possible to construct a set of curves, which would fully describe the distribution of individual earnings within any given sector of the economy. Dominance testing therefore becomes a crucial tool in understanding the difference in earnings status amongst individuals in the labour market. It allows us to provide powerful and very useful information about the magnitude, depth and severity of low earnings amongst individuals in the labour force. In providing such an analysis we extend our analysis of earnings - beyond the somewhat crude median incomes provided in Table 1 above.

3.2. Cumulative Distribution Functions for the South African Labour Market

The c.d.f.s that follow are derived for all three major labour market segments, namely the formally employed, unregistered self-employed and the unemployed. The intention is to derive different cumulative distributions by a set of relevant markers of low earnings in the labour market. These include race, gender, location and education. In addition, certain other markers were included, namely union status, sector and occupation. It should be clear from the above analysis that some of these variables will be relevant predictors of the earnings profile of workers. Therefore, the distribution functions will be important, not only in providing graphical representations of poverty in the labour market, but also in informing any earnings equation estimation. Hence, a crucial input of the functions is to inform how individuals are selected into different segments in the labour market, and what the important set of determinants of participation and earnings are. Dealing correctly and exhaustively with this selection process will go a long way toward increasing the robustness of any earnings equation results.

The difficulty in constructing the distribution functions lay in the choice of cuts to make on the data. The one clear trend is that strong first-order dominance holds almost across all of our selected cuts. Almost no second-order dominance testing was required. The functions that follow are an overview of the most important results found for labour market participants.

Figures 1 and 2 below present the labour force as a whole, and include all employees, the registered and unregistered self-employed and the unemployed. The vertical axis cumulates individuals in the sample and varies from 0 to 1 as the sample increases. To avoid graphical interference from outliers in the sample, income was kept at a maximum of R5000 per month for all the c.d.f.s presented here. The values on the vertical axis will confirm the percentage of the sample captured in each case. The positive value of the intercepts in Figures 1 and 2, represent the share of unemployed individuals in the selected sub-samples. Hence, the higher value intercept for the African workforce simply indicates a larger pool of unemployed compared to White workers. The figures below illustrate that for any chosen poverty line between 0 and 5000 rands, the fraction of all African workers in poverty is significantly greater than the fraction of

African employed in poverty, and the share of this sample in poverty is in turn, larger than that of the White employed or White workers.

The inclusion of zero earners therefore generates a greater fraction of individuals living in poverty than when compared with the sample of employed only. It is clear though that race is a crucial predictor of zero and low labour market earnings, with the dominance of Africans over Whites being quite stark.

Another, and equally important, manner in which to interrogate the data here is of course to determine a poverty line and then estimate the share of individuals falling below the poverty line - the Headcount Index (H). The individual poverty line calculated is R293 per month.¹⁴ Hence Figure 1, for example, shows that at the poverty line the proportion of the White labour force in

¹⁴ The choice of this low-earnings line is discussed in section 3.3 below. All the headcount results that are discussed in here are taken from Table 7.a. of section 3.3.

poverty is only 4.2%, while the H for the African labour force stands at 41.6%, almost thirteen times greater. This is a vivid illustration of the differing poverty status amongst African and White labour market participants. When the unemployed are excluded, the P_0 values drop considerably for Africans to 10.1%, while the decline for White workers is to 0.2%. Labour market poverty in the aggregate then is very different for the White workforce, compared to that experienced by African workers - in large part a function of the very high unemployment numbers amongst African workers.

Having examined the labour market as a whole, it is interesting to analyse the gender and race distribution of earnings for the employed only, thus excluding unemployed individuals. Figure 3 below attempts to do this. Note that because the unemployed have been excluded, the intercepts are zero for all the functions. There is clearly both a race and a gender effect in terms of earnings.

The figure above illustrates that the lowest proportion of earners living in poverty, at any chosen poverty line, are White male employees in the formal sector or White male self-employed informal sector workers, followed by white females in the same two forms of employment. There is robust first order earnings dominance between Whites and Africans, and this dominance also holds for all low-earnings lines when comparing male and female African workers. The higher degree of poverty amongst African females is illustrated also in the H index, where their H value is 16.6% while for African males it is only 6.2%. What is interesting is that while the male and female c.d.f.s are closer together for Africans, the vertical differences for White workers are, on average, much greater between the genders.

The education-related earnings distributions for all the employed are shown in Figure 4 below. Again, the strong level of first-order dominance is evident. The employed with the lowest fraction of individuals in poverty are those with tertiary-level schooling, while those with no education or primary schooling have the largest proportion of poverty earners.

Figure 4 also makes it clear that secondary, rather than primary education has a significant impact on the poverty status of the employed. The attainment of primary education for an employed person is unlikely to reduce the probability of earning more than the low-earnings line, relative to an employed individual with no schooling. At the poverty line though, the value for H is 23.1% for individuals with no education, and 16.7% for those with primary schooling. A second-order dominance test would determine whether this poverty information is robust for all income levels, and it would also provide additional information on the comparative depths of poverty between these two groups. The value of H for the employed with no education is about

35% higher than for those with tertiary education, whose H value is 0.7%. This reinforces the fact that education is a key variable in predicting earnings, relative to poverty, of employed individuals in the labour market.

Another very robust result of first-order dominance is for the employed by region. Again, as with the full labour force, the proportion of individuals in poverty is lower for those in urban areas relative to those in semi-urban and rural areas, irrespective of the low-earnings line that is specified¹⁵. Given that the demand for labour is strongly correlated with location and wage levels, this result is not surprising. It is evident that in terms of the earnings of labour market individuals, the five education categories chosen together with the three location variables are very clear predictors of the earnings status of employed individuals in the labour market.

Figure 4: Earnings Distribution by Education Levels

The following three distribution functions refer to those employed individuals by a pre-selected sub-set of sectors and occupations. The survey contains a far larger number of sectors and occupations¹⁶, and it is convenient to aggregate these into categories, that may yield interesting comparative information about labour market poverty. Figure 5 therefore examines those individuals in four sectors, namely Mining, Manufacturing, Agriculture and Finance¹⁷.

Mining was chosen, given its obvious historical importance in output and employment terms to the economy, while Manufacturing remains the largest contributor to GDP. Agriculture, together with Mining represents an industry in decline with relatively high labour-capital ratios, while the Finance sector, in being the core of the new services industry, is the fastest growing in the economy. It is evident from the distribution functions that individuals in these sectors also

¹⁵ Given that three discrete distribution functions were generated, it was decided, *ex post*, to maintain the three locational definitions of the CSS, rather than opting for only a rural, urban split.

¹⁶ There are 50 sub-sectors within 9 major sector divisions and approximately 150 occupations within 9 major occupational groups.

¹⁷ The complete coverage of these sectors is Mining & Quarrying, Manufacturing, Agriculture, Hunting, Forestry & Fishing and finally Financial Intermediation, Insurance, Real Estate & Business Services.

have differing earnings profiles. Hence the largest and smallest fraction of individuals below any chosen low-earnings line are those in Agriculture and Finance respectively. The latter is indicative of a high-skill, high capital-intensive sector, while individuals in farming are disproportionately labourers with low skill levels.

Figure 5: Earnings Distribution By Selected Main Sectors

Applying our low-earnings line reveals a value of H for workers in Agriculture in poverty of about 23%, while for Finance it is 0.4%. The close association between the employed in Manufacturing and Mining is a result of the high level of unionisation in these two sectors, combined with similar mean skill levels. It would appear though, that the share of Manufacturing workers in poverty is higher ($H=1.46\%$) than the fraction of Mining workers ($H=0.45\%$), for any poverty line. The percentage of unionised manufacturing workers is lower (42.1%) than the share of Mining workers who are union members (67.7%), and this may be an explanation for the first-order dominance. The distributions for union and non-union members, not shown here, yields first-order dominance of non-union workers over union workers, robust for any poverty line.

Figures 6 and 7 derive earnings distributions by selected occupations.

Figure 6: Earnings Distribution of Managers, Craft & Trade Workers and Agricultural Labourers

Figure 6 compares three broad occupations that span the entire job ladder, from managers to those in elementary occupations. We have chosen Managers, Craft and Trade workers and labourers in Agriculture to represent this distribution across the job ladder. It is evident that first-order dominance holds, irrespective of the poverty line. Given the relative wages found in most societies, this distribution is not unexpected. It is clear though that the level of individual poverty amongst labourers in Agriculture is extremely high. For example, a poverty line of R650, would place over 72% of these workers in poverty, while the comparative figure for Craft and Trade workers and Managers would be 13.6% and 4.5% respectively¹⁸. Using the study's individual poverty line, the figures for craft workers and managers are close to zero, while the H value for all agriculture labourers is 26.78%.

While Figure 6 shows the expected poverty information - that Labourers are the lowest earners compared to other occupations in the labour market, Figure 7 attempts to provide more detail on the earnings status of those individuals captured broadly as Labourers. The survey was very helpful in identifying workers by their occupation and sector together. Hence, it was possible to look at labourers in say Mining and Agriculture compared to domestic services.

Figure 7 then, shows that the two occupations with the lowest earnings, and those with the highest fraction of individuals in poverty, are self-employed domestic workers and agricultural labourers, a result alluded to in Table 5. Labourers in the formal sector, such as Mining and Manufacturing have a lower incidence of poverty. Note that domestic helpers also have a distribution closer to Mining and Manufacturing labourers than Agriculture labourers and domestic workers.

This earnings distribution picks up the cohort of cleaning staff in the formal sector. Using the individual poverty line, the H value for Domestics is 38.03%, compared to 26.78% for farm workers. However, first-order dominance does not hold for all possible income levels as a cross-over seems to occur at approximately R1000. Hence, it will be necessary to undertake a second-order dominance test for differences in the depth of poverty between the two groups. There is clearly though a strong first order dominance between labourers in agriculture and self-employed domestic services on the one hand and labourers in the traditionally formal sectors such as Mining and Manufacturing. For example, while about 70% of all these individuals earn below R1250 per month, the figure for farm and domestic employees is close to 100%. The H value for those in Manufacturing is 1.54%, while for mine workers, it is less than 1%.

Figure 7: Earnings Distribution by Labourer Categories

¹⁸ The number for managers would be biased downwards, in that we would include employed persons who are unregistered self-employed and, therefore, would not conform to the classic conception of managers employed in the formal sector. Across all race groups, this class of managers number about 101 000 individuals.

In sum, it is clear from the above that Agriculture and household Domestic workers present the highest levels of earnings vulnerability in the South African labour market, irrespective of the choice of individual poverty line. The constellation of covariates identified in the previous distribution functions, namely race, gender, education, union status and location, are all informative in seeking to locate and explain employment that is both unskilled and very poorly paid. While mean skill levels, as identified by broad occupational classification, may be similar in other sectors, different endowments serve to generate lower individual poverty rates. More specific results on the contributions of these covariates to earnings and poverty status, will be generated through the earnings function analysis in the next section.

Figure 8: Formal Sector and Unregistered Self-employed Earnings Distributions

Table 5 above alluded very strongly to the earnings differences between formal participants and the unregistered self-employed. Within this, it was also noted that African and Coloured females represented the lowest earners and most marginalised, within the unregistered self-employed group. By way of further contrast between the formal and unregistered self-employed sectors, the graph above shows that first-order dominance holds across all income levels. This is

indicative of the difference in quality of employment between the two labour markets. Clearly the dominance in pure numerical terms of Domestic workers within the unregistered self-employed, dictates this outcome.

3.3. *Shares of the Working Poor in the South African Labour Market*

Section 3.2. has presented a diagrammatic understanding of poverty in the labour market, as embedded in the c.d.f.s. These diagrams are very useful and user-friendly and are a powerful way in which to present earnings dominance over the entire income range. Of course, the c.d.f.s are able to impart information about the actual values for the Headcount Index and these were also illustrated. We used the headcount index, to derive the percentage of labour force participants and/or employed workers in different sub-groups of the labour market who earn less than a poverty line of R293 per month.

As discussed in our earlier review of the FGT measures, the headcount is only one of the three poverty measures. We restricted the discussion to the headcount as it offered the most intuitive picture of the incidence of working poor within any sub-group. However, we have derived specific values for all three poverty measures: P_0 , P_1 and P_2 . This is to utilise one of the key advantages of the FGT measures; i.e. in each instance total measured poverty can be fully and consistently distributed between the chosen sub-groups. In short, total poverty can be decomposed into poverty shares.¹⁹

More precisely, we split the labour market population into a relevant set of m sub-groups with each sub-population of n_i so that the total population is simply:

$$n = \sum_{i=1}^m n_i$$

We then derive intra-group FGT measures for different sub-groups in the population. The intra-group FGT measure is best captured as follows:

$$P_{ci} = \frac{1}{n_i} \sum_{j=1}^{q_i} \left(1 - \frac{Y_{ij}}{z}\right)^\alpha$$

where Y_{ij} is the income of the j th household or individual in sub-group i . Finally, we derive the formula for calculating weighted shares of sub-group poverty as:

$$P_\alpha = \frac{\sum_{i=1}^m P_{ci} n_i}{n}$$

Thus, the decomposable properties of the FGT class of measures allow us to measure the share of all low-earners across key sub-groups in the labour market. Tables 7a and 7b below present the results of this share decomposition across race, gender, education, location, sector, occupation and union status. In all but the last three of these cases, the poverty shares are computed for the full labour force and also for the employed. In calculating these shares it is worthwhile to do the calculation for all three poverty measures. The changes in the shares as one moves from P_0 to P_1

¹⁹ In all these calculations, national frequency weights were assumed and missing values for monthly income were all omitted. The original intra-group measures are available from the authors, as are the actual weighted measures.

and then P_2 provide us with a sense of how the poverty shares change as one uses measures that give greater weight to the depth of poverty and the poorest of the working poor.

Before discussing the results, there is one final sensitivity issue that we need to address. This is the choice of low-earnings line. Up until this point in the paper we have made use of a R293 per month low-earnings line. The strong first-order dominance illustrated by the c.d.f.s of the previous sub-section of this paper imply that the poverty rankings will not change as we change the low-earnings line. However, although the c.d.f.s do not cross, their slopes and relative positions do change and the actual poverty shares will change based on the actual low-earnings line that is selected.

As stated at the beginning of this paper, the justification for the R293 line is that this is the monthly adult equivalent income that undergirds our household poverty line. However, there is no doubt that this is an extremely low labour market income. For one thing, an adult earning such an income would be poverty-neutral in the household in the sense that they pay their own way but make no additional contribution to lifting that household out of poverty.

At the end of the day, there is really no rigorous way to choose a low-earnings line. The best that can be done is to be transparent and to explore sensitivity to the chosen line. Box 3 below presents the annual and monthly values for a number of possibilities. We selected option 4 (R650 per month) for the sensitivity analysis and Table 7b repeats all the share decompositions at this wage. The amount would enable a household of average size with the average numbers of employed and unemployed to earn the relevant household poverty income. Thus, there is a positive household contribution built into this wage but it is still clearly a low income. For example, it is well below the R800 mark that is the 25th percentile of actual wages or the 40th percentile of wages if we include the unemployed as zero earners.

Box 3: Selecting a Low-Earnings Line: Defining the Working Poor

1. Per capita adult equivalent:
R293 per month and R3 516 per year
2. Per capita expenditure level:
R594 per month and R7 128 per year
3. The wage required to meet the household poverty line, given the mean number of employed workers in a household
R814 per month and R9 768 per year
4. The wage required to meet the household poverty line, given the mean number of employed plus unemployed workers in a household
R650 per month and R7 800 per year
5. The 40th percentile of all wages of employed workers
R1 200 per month and R14 400 per year
6. The 25th percentile of all wages of employed workers
R800 per month and R9 600 per year
7. The 40th percentile of all workers, presuming a zero wage for the unemployed
R800 per month and R9 600 per year
8. 50% of the mean wage of those employed
R1 107 per month and R13 287 per year

The bolded total figures in Tables 7a and 7b offer a good starting point in discussing the results. Obviously, the total labour force (13.8 million workers) and the total number of employed workers (9.9 million workers) are the same in both tables. Of these, 45.6% of the labour force and 25% of the employed are poor when the low-earnings line is set at R650 per month. The respective figures fall to 32.56 % and 7.25 % when the line is set at R293 per month. Thus, at this lower line most of the poor are unemployed. In terms of a straight headcount, 86.03 % are unemployed. This same number of unemployed participants only forms 61% of the working poor at the higher line. As these unemployed are, by definition, the poorest of the all participants, it is no surprise that the poverty share of the unemployed rises sharply in both tables when P_1 and P_2 are used as bases for the shares calculation.

For the labour force as a whole (employed and unemployed), the decomposition in Table 7a shows that 88% of the low earners are African and about 9% are Coloured. When the analysis is restricted to the employed alone these respective shares are 86% and 12% respectively. This picture is robust across all poverty measures and across both tables. The dominant racial angle to labour market vulnerability could not have been more clearly revealed. Within the African group 10% of earners lie below the R293 benchmark compared to 7 % of Coloureds. Within this group of working poor, the Africans are clearly the lowest earners as their share of poverty rises to 100% when P_1 and P_2 shares are calculated. Table 7b shows that Coloureds retain their share at the higher line.

Thus, we now know that we are predominantly looking at within-African breakdowns as we move away from race to the other cross-cutting factors. A comparison of the total male/female and African male/female breakdowns in Table 7a reveal a very stable picture across the measures. Females make up 57% of poor labour market participants and African females alone constitute 50% of this total. This is not only because of the much higher incidence of unemployment. When we focus only on the employed, African females make up 53% of the working poor by straight head-count and 68% when the depth of poverty is considered. Given that African women make up 30.5% of the labour force and 23.3% of the employed, their poverty 'contributions' are seen to be far in excess of their representation. This is a stark illustration of the special vulnerability of this section of the labour force. However, Table 7.b. shows that amongst the employed, the African male poverty contribution rises sharply relative to African females at the higher low-earnings line. This signals the fact that there are a significant group of African

males earning between R293 and R650 per month. Yet, even at this higher poverty line, African female earners constitute 40 and 46% of the working poor.

Table 7a: FGT Measures for Individuals in the South African Labour Market, R293 p.m.

Variable/Measure	Number/Share	P _{0i}	P ₀	P ₁	P ₂
Labour Force					
Total	13817522	32.56	100.00	100.00	100.00
African	69.12	41.58	88.27	88.73	88.19
Coloured	10.92	25.15	8.44	8.23	8.29
Asian	3.00	11.98	1.10	1.01	1.14
White	16.95	4.23	2.20	2.01	2.34
Unemployed	28.01	100.00	86.03	93.37	96.59
Male	56.72	24.62	42.89	42.59	42.60
Female	43.28	42.98	57.13	56.91	56.90
African Male	38.61	32.07	38.03	38.87	38.52
African Female	30.51	53.62	50.24	49.86	49.67
No Education	8.68	47.46	12.65	10.58	10.56
Primary Education	24.56	44.75	33.75	30.98	30.05
Secondary	32.50	34.75	34.68	36.56	36.99
Std. 10	21.50	24.08	15.90	17.98	18.44
Tertiary	12.77	7.71	3.02	3.48	3.48
Urban	61.73	24.63	46.69	51.80	52.41
Semi-urban	1.91	30.88	1.81	1.98	2.21
Rural	36.22	46.00	51.17	45.41	45.33
Employed					
Total	9 947 208	7.25	100.00	100.00	100.00
African	61.79	10.14	86.42	100.00	100.00
Coloured	11.97	7.07	11.59	0.00	0.00
Asian	3.67	0.53	0.25	0.00	0.00
White	22.57	0.56	1.74	0.00	0.00
Male	61.60	4.39	37.30	33.33	34.00
Female	38.40	11.85	62.77	66.67	66.00
African Male	38.53	6.22	33.06	31.84	31.85
African Female	23.26	16.62	53.32	68.16	68.15
No Education	8.15	23.10	25.98	24.46	24.56
Primary Education	22.31	16.72	51.46	52.07	52.08
Secondary	30.37	4.35	18.22	20.24	20.11
Std. 10	22.74	0.93	2.92	3.23	3.25
Tertiary	16.43	0.67	1.52	0.00	0.00
Urban	65.81	2.79	25.33	35.10	34.90
Semi-Urban	1.90	5.31	1.34	1.58	1.48
Rural	32.24	16.49	73.33	63.32	62.75
Agriculture	12.73	22.82	40.07	26.58	23.34
Manufacturing	15.05	1.46	3.03	3.09	3.80
Mining	4.66	0.45	0.29	0.00	0.00
Finance	6.47	0.39	0.35	0.00	0.00
Wholesale & Retail	17.40	3.93	9.43	10.47	10.63
Community	32.88	9.89	44.86	51.26	52.98
Other	10.81	1.32	1.97	8.60	9.25
Manager	5.74	1.27	1.01	1.91	2.87
Craft & Trade	12.18	2.15	3.61	4.06	5.09
Agric. Labourer	9.50	26.78	35.07	25.32	26.99
Domestic Worker	7.17	38.03	37.60	38.79	39.00
Union	29.02	0.58	2.32	1.96	1.00
Non-Union	72.48	9.79	97.87	98.33	99.00

Table 7.b.: FGT Measures for Individuals in the South African Labour Market,R650 p.m.

Variable/Measure	Number/Share	P _{0i}	P ₀	P ₁	P ₂
Labour Force					
Total	13817522	45.65	100	100.00	100.00
African	69.12	56.83	86.04	87.32	88.61
Coloured	10.92	44.19	10.58	9.37	8.50
Asian	3.00	16.68	1.10	1.01	0.76
White	16.95	6.13	2.28	2.30	2.13
Unemployed	28.01	100	61.36	76.00	85.45
Male	56.72	37.58	46.70	43.90	42.87
Female	43.28	56.22	53.30	54.89	55.82
African Male	38.61	47.73	40.37	39.32	38.70
African Female	30.51	68.36	45.69	47.36	48.64
No Education	8.68	72.52	13.79	11.99	11.17
Primary Education	24.56	67.82	36.48	33.53	32.21
Secondary	32.50	47.04	33.49	34.51	35.47
Std. 10	21.50	28.5	13.42	15.61	16.97
Tertiary	12.77	10.08	2.82	3.03	3.37
Urban	61.73	32.62	44.05	51.26	52.02
Semi-urban	1.91	49.8	2.89	2.01	2.01
Rural	36.22	67.48	53.06	46.73	45.97
Employed					
Total	9 947 208	25.01	100.00	100.00	100.00
African	61.79	33.36	82.42	83.55	84.48
Coloured	11.97	30.41	14.56	13.44	12.53
Asian	3.67	5.69	0.83	0.64	0.56
White	22.57	2.4	2.19	2.37	2.43
Male	61.60	20.64	50.85	46.34	46.17
Female	38.40	32.01	49.15	52.57	53.83
African Male	38.53	27.66	42.61	40.67	40.26
African Female	23.26	42.81	39.81	42.88	42.22
No Education	8.15	59.9	19.53	19.73	21.27
Primary Education	22.31	51.21	45.69	46.12	47.39
Secondary	30.37	22.12	26.86	25.75	23.90
Std. 10	22.74	6.39	5.81	5.63	4.94
Tertiary	16.43	3.2	2.10	2.05	2.07
Urban	65.81	12.79	33.66	33.15	33.50
Semi-Urban	1.90	31.01	2.36	2.30	2.35
Rural	32.24	49.58	63.91	62.77	64.15
Agriculture	12.73	72.27	36.78	31.58	31.62
Manufacturing	15.05	12.37	7.44	5.93	5.95
Mining	4.66	7.97	1.49	0.87	0.87
Finance	6.47	4.88	1.26	0.93	0.94
Wholesale & Retail	17.40	20.06	13.95	11.10	11.20
Community	32.88	25.81	33.94	38.05	38.15
Other	10.81	11.89	5.14	11.54	11.57
Manager	5.74	4.51	1.03	0.98	1.08
Craft & Trade	12.18	13.62	6.63	5.10	5.38
Agric. Labourer	9.50	81.33	30.88	27.50	27.03
Domestic Worker	7.17	81.25	23.29	25.69	29.71
Union	29.02	6.71	7.79	5.25	5.14
Non-Union	72.48	31.9	92.44	94.75	94.86

The tables highlight a number of important variables that cut across racial and gender divides. The importance of low levels of education in terms of the incidence of low earnings has already been flagged. The share analysis adds to this by showing that, amongst the employed, 75% of low earners have primary schooling or less. Since these individuals constitute only 31% of the employed, the burden of low levels of education is clearly revealed. When comparing the blocks for all participants versus the employed, it can be seen that secondary schooling and matric have a larger poverty share for all participants. This would seem to imply that these higher levels of education do not necessarily guarantee that a person will have a job, but it does offer better earnings to those with employment. Underlying this rather anomalous finding is the fact that South Africa's unemployment problem has become far more severe in the last fifteen years and therefore has a strong youth dimension to it. At the same time, the exit levels of South Africans out of school have risen sharply. Thus, it is very important to keep the age cohort differences in mind when interpreting these education effects.

Individuals in rural areas constitute close to a third of the total labour force and the employed. Yet, half of the poverty in the labour market and 73% of the poverty amongst the employed is rural. Thus, rural areas are greatly over-represented. Despite this, there are two aspects to Tables 7a and 7b that caution against an exclusive focus on the rural dimensions of labour market vulnerability. First, the rural share (by headcount) falls when the poverty line increases to R650 per month. Second, even at the lower poverty line, the rural shares fall significantly as the basis is changed from P_0 to P_1 and then to P_2 . This indicates that there are significant pockets of urban unemployed and low-earners. These low earners are the unregistered self-employed that were highlighted in the earlier c.d.f. analysis.

The last three blocks of both tables offer further cross-sections on vulnerability within the employed. From preceding discussion we know that these blocks are predominantly intra-group insights about the determinants of vulnerability amongst poorly educated Africans. We also know that this analysis still spans both males and females and rural and urban areas. The sectoral and occupational analyses complement each other. A full 85% of the low-earners work in the agricultural and community sectors. The occupational distribution shows that this result is largely due to the shares of low earners that are agricultural labourers and domestic workers (35% and 38% respectively)²⁰. Since both of these occupations and sectors, as well as the third major vulnerable sector (wholesale and retail) are non-unionised it is hardly surprising to find that unions have a close to zero share of low earners at the low poverty line. This rises to an 8% headcount share at the higher line corresponding to the increasing share of manufacturing workers within the working poor.

²⁰ Note that the sample by occupation is incomplete in both tables, excluding individuals in other job grades. An 'other' category however, in representing skill levels across the job ladder would have little meaning and was thus omitted.

4. Conclusion

After presenting basic descriptive information on the South African labour market, the heart of this paper has sought to show that important, useful and indeed graphically powerful information can be gleaned by using the tools of poverty analysis to describe individual earnings in the labour market. Rather than rely on median or, worse still, mean income levels, this analysis has sought to understand more rigorously the distribution of earnings and the extent and incidence of low earnings in the labour market. While a choice of poverty line could have dictated this analysis from the outset, the preferred option was to begin by using the tools of dominance testing to understand the poverty-sensitive segmentations in the labour market. Thereafter we specified a poverty line in order to discuss the incidence of poverty in the labour market. We then used two poverty lines to calculate poverty shares across different groups within the labour market.

One of the key results here is that domestic workers and farm workers together, are the two most vulnerable groups in the labour market. It is the importance of these groups that correlates with the total dominance of African and Coloured race groups and the significance of women among the most vulnerable. The above picture has important implications for the modelling of earnings. Coming out of the above then, is the strong suggestion that there are a number of different labour markets in South Africa. It seems clear that, for Africans and Coloureds, unregistered self-employment is qualitatively different from the formal sector. In addition, there are important differences between men and women in the labour market. We have flagged the fact that the processes determining labour force participation and selection into employment differ by gender. This is also true of the allocation into self-employment and into occupations. We have also flagged the potential importance of differences between urban and rural labour markets. The importance of education in turn, was powerfully displayed through the distribution functions. It appears though that education is more important in determining earnings than whether an individual gets a job or not.

We have ensured that all labour market participants are extensively discussed in our analysis by exploiting a particular strength of the FGT poverty framework; namely, its ability to integrate the unemployed into the analysis of earnings vulnerability. This is fully reflected in our c.d.f. analysis and in the share decompositions. However, in conclusion, it is important to recognise that this framework has not been broad enough to incorporate those that are not participating in the labour market. It is clear from the discussion in Section 2 of this paper that the participation fault line is a key aspect of vulnerability that should not be forgotten. We showed that South Africa's labour participation rates are extremely low. Moreover, the key correlates of low participation are seen to be the same as those associated with earnings vulnerability. Thus, in almost every case, the analysis of earnings is an understatement of vulnerability as it ignores the desperation of those on the fringes of the labour market.

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Appendix 1

Derivation of the Unemployed in the Labour Market Data Set

Step 1: Definition of Employed (used in all three schemes):

A person is treated as Employed if:

- To question 3.1 "What did ... do most during the last 7 days?"
 1. Working full time.
 2. Working part-time.
 3. With a job by absent from work (e.g., sick-leave, leave, strike, etc.)
 4. Going to school/college/university, etc.
 5. Unemployed(but looking for work).
 6. Not working, not looking for work.
 7. Housekeeping (including cleaning, cooking, caring for children/disabled/old people in the household, etc.)
 8. Retired (pensioner).
 9. Permanently unable to work.
 10. Other

he/she replied with 1, or 2.

- OR, to question 3.1 he/she replied with 3
- OR to question 3.34 "How does ... support him/herself?":
 1. Did odd jobs during the past week.
 2. Supported by persons in the household.
 3. Supported by relatives not in the household.
 4. Supported by friends not in the household.
 5. Supported by charity, church, welfare, etc.
 6. Unemployment benefit.
 7. Saving or money previously earned.
 8. Old age or disability pension.
 9. Other e.g., bursary, loan.

he/she replied with 1

- AND (this is required for both 3.1=3 or 3.34=1) reported positive earnings (either employee or self-employed earnings) and an occupation (essentially everyone who reported positive earnings reported an occupation, and vice-versa).

Step 2: Definition of Unemployed versus Out of Labor Force.

Definition 1: This follows the CSS definition.

A person is Unemployed if:

- He/she is not Employed
- AND, to question 3.28 "If a suitable job is offered to ... will he/she accept it?", he/she replied with "1. Yes."

Otherwise, the person is Out of the Labor Force.

Definition 2:

A person is Unemployed if:

- He/she satisfies Definition 1 of Unemployed,

- AND to question 3.1 "What did ... do most during the last 7 days?"
 1. Working full time.
 2. Working part-time.
 3. With a job but absent from work (e.g., sick-leave, leave, strike, etc.)
 4. Going to school/college/university, etc.
 5. Unemployed(but looking for work).
 6. Not working, not looking for work.
 7. Housekeeping (including cleaning, cooking, caring for children/disabled/old people in the household, etc.)
 8. Retired (pensioner).
 9. Permanently unable to work.
 10. Other

he/she replied with 5 or 6.

Otherwise, the person is Out of the Labor Force.

Definition 3:

A person is Unemployed if:

- He/she satisfies Definition 1 of Unemployed,
- AND Question 3.33 "Why did ... not work during the last 7 days?"
 1. Lack of skills or qualifications for available jobs.
 2. Cannot find suitable work (salary, location of work or conditions not satisfactory).
 3. Has found a job, but only starting at a definite date in the future.
 4. Scholar or student, prefers not to work.
 5. Housewife, prefers not to seek formal work.
 6. Retired and prefers not to work.
 7. Illness, invalid, disabled or unable to work (handicapped).
 8. Too young or too old to work.
 9. Seasonal worker e.g., fruit picker, wool-shearer.
 10. Contract worker e.g., mine-worker resting according to contract.
 11. Other reason.

he/she did NOT answer 4, 5, 6, 7, 8, or 11. Note that seasonal and contract workers are treated as Unemployed. The alternative is to call them Employed, as they are clearly not Out of the Labor Force.

Otherwise, the person is Out of the Labor Force.

Our recommendation is to use definition 3 to determine whether those who are not working are Unemployed or Out of the Labor Force. We prefer it to definition 1 because it should eliminate people who may say they would accept a job if it were offered, but actually have a good reason not to be working. We prefer it to definition 2 because while people may have an activity other than working, that may be because they don't have the opportunity to work.

Step 3: Definition of "Broad" or "Narrow" Unemployment (used in all three schemes):

A person is "Broadly Unemployed" under one of the three schemes presented above if he/she meets the criteria of that scheme.

A person is "Narrowly Unemployed" under one of the three schemes presented above if he/she:

Meets the criteria of that scheme,

AND

to question 3.30 "In the past 4 weeks, what has ... done to find work?"

1. Nothing, but still wants to work.
2. Nothing: wants to work but already has a job to start at a definite date in the future.
3. Waited/registered at employment agency/trade union.
4. Enquired at workplaces, farms, factories or called on other possible employers.
5. Placed/answered advertisement(s).
6. Sought assistance of relatives or friends.
7. Looked for land, building, equipment or applied for permit to start own business or farming.

8. Sought/underwent training.
9. Other.

he/she did NOT reply with 1.

Appendix 2

Table 3a: Earnings Profile By Occupation and Race, Male Employees

	African		White		Coloured		Asian	
	Median	Share	Median	Share	Median	Share	Median	Share
Armed Forces	1,887	0%	na	na	na	na	na	na
Managers	2,940	0%	7,254	0%	2,845	0%	3,500	0%
Professionals	3,500	0%	7,254	0%	4,500	0%	5,120	0%
Technicians	2,800	0%	5,500	0%	3,611	0%	3,772	0%
Clerks	1,738	1%	3,379	0%	1,718	0%	2,700	0%
Service & Shop Workers	1,500	1%	3,333	1%	1,500	1%	1,666	0%
Skilled Agric. Workers	700	15%	3,999	0%	1,346	7%	na	na
Craft Workers	1,250	2%	4,460	0%	1,400	1%	2,200	1%
Machine Operators	1,317	3%	3,379	0%	1,288	1%	1,917	0%
Domestic Helpers	1,115	2%	na	na	900	3%	na	na
Agric. Labourers	430	24%	na	na	507	12%	na	na
Mining/Constr. Labourers	919	2%	na	na	800	8%	na	na
Manuf. Labourers	1,076	3%	na	na	1,000	2%	na	na
Transport Labourers	1,152	2%	Na	na	950	5%	na	na
Other Labourers	1,115	3%	3,379	0%	1,000	3%	na	na
Various Informal Occupations	na	na			na	na	na	na

Table 3b: Earnings Profile By Occupation and Race, Female Employees

	African		White		Coloured		Asian	
	Median	Share	Median	Share	Median	Share	Median	Share
Managers	2,167	3%	3,379	0%	2,177	0%	na	
Professionals	3,200	0%	4,230	0%	3,400	0%	4,692	0%
Technicians	2,500	0%	3,379	0%	2,708	0%	3,068	0%
Clerks	1,465	1%	2,400	0%	1,472	2%	1,500	0%
Service & Shop Workers	1,000	7%	1,642	0%	1,000	4%	1,450	3%
Skilled Agric. Workers	na	na	Na	na	na	na	na	na
Craft Workers	848	8%	1,938	4%	950	4%	1,200	0%
Machine Operators	1,000	3%	Na	na	1,115	1%	1,200	0%
Domestic Helpers	850	8%	Na	na	750	9%	na	na
Agric. Labourers	300	46%	Na	na	340	30%	na	na
Mining/Constr. Labourers	700	16%	Na	na	na		na	na
Manuf. Labourers	800	6%	Na	na	848	3%	na	na
Transport Labourers	na	na	Na	na	na		na	na
Other Labourers	900	9%	1,383	0%	1,115	2%	na	na

Table 4a: Earnings Profile By Occupation and Race, Self-Employed Males

	African		White		Coloured		Asian	
	Median	Share	Median	Share	Median	Share	Median	Share
Registered Activities								
Managers	13,000	3%	12,500	0%	7,000	0%	15,400	0%
Professionals	na	na	18,137	0%	Na	na	12,000	0%
Technicians	na	na	8,000	0%	Na	na	na	na
Skilled Agric. Workers	na	na	11,249	0%	Na	na	na	na
Craft Workers	na	na	5,000	0%	Na	na	na	na
Various Informal Occupations	4,392	0%	na	na	Na	na	na	na
Unregistered Activities								
Managers	2,596	4%	5,000	0%	Na	na	na	na
Technicians	1,600	11%	na	na	Na	na	na	na
Craft Workers	1,192	4%	4,649	0%	1,200	6%	na	na
Domestic Workers	431	29%	na	na	Na	Na	na	na
Other Labourers	1,083	7%	na	na	Na	Na	na	na
Various 'Informal' Occup.	2,760	4%	na	na	Na	Na	na	na

Table 4b: Earnings Profile By Occupation and Race, Self-Employed Females

	African		White		Coloured		Asian	
	Median	Share	Median	Share	Median	Share	Median	Share
Registered Activities								
Managers	na	na	7,991	0%	na	Na	na	na
Skilled Agric. Workers	na	na	4,649	4%	na	Na	na	na
Unregistered Activities								
Technicians	800	4%	1,378	2%	na	na	na	na
Craft Workers	500	14%	1,300	5%	na	na	na	na
Domestic Workers	377	38%	na	na	360	37%	na	na
Other Labourers	660	15%	na	na	na	na	na	na
Various 'Informal' Occup.	1,336	5%	na	na	na	na	na	na

Appendix 3

Table 6b: Participation Patterns of Males

	Particip.		In Labour Force			Employed	Self-Employed		Hybrid	
	In labour Force	Out of Labour Force	Employed	Ue, searching	Ue., not searching	Wage Employee	Regitd. Bussn.	Unregitd. Bussn.	Regitd. Bussn.	Unregitd. Bussn.
Education										
None	69%	31%	78%	8%	14%	94%	1%	6%	0%	1%
Literate (<8yrs)	69%	31%	73%	13%	14%	94%	1%	5%	0%	1%
Incomplete Secondary (8-10yrs)	54%	46%	75%	14%	11%	91%	3%	6%	0%	2%
Matriculated (10 yrs)	78%	22%	81%	11%	8%	89%	7%	3%	0%	1%
Diploma (11-12yrs)	86%	14%	95%	4%	2%	88%	9%	1%	1%	1%
Degree (>12yrs)	85%	15%	93%	3%	4%	80%	14%	3%	2%	2%
Presence of Young Children										
Mean No. of Young Children	0.52	0.55	0.50	0.55	0.61	0.50	0.36	0.62	0.48	0.56
1 or More Children < 6	68%	32%	77%	12%	12%	91%	3%	5%	0%	2%
No Children < 6	68%	32%	79%	11%	10%	91%	5%	4%	0%	1%
Age of Individual										
16-25	33%	67%	57%	22%	21%	98%	1%	2%	0%	1%
25-55	88%	12%	82%	9%	9%	91%	4%	4%	0%	1%
55-65	49%	51%	91%	4%	5%	83%	10%	10%	0%	1%
Potential Experience										
5 or less yrs	17%	83%	60%	25%	16%	98%	2%	2%	1%	2%
6-10 yrs	48%	52%	62%	20%	18%	95%	3%	2%	0%	1%
11-20 yrs	87%	13%	77%	12%	11%	92%	4%	3%	0%	2%
20+ yrs	82%	18%	85%	7%	8%	89%	5%	6%	0%	1%
Location										
Urban	74%	26%	81%	11%	8%	91%	5%	4%	0%	2%
Rural	60%	40%	73%	11%	16%	92%	4%	4%	0%	1%