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Explaining Employment Trends in South Africa: 1993-1998

Haroon Bhorat[1]

Introduction

Probably the key economic challenge facing the democratic government is how to encourage an environment that simultaneously raises the prospects of employment for new entrants, while also creating jobs for the significant number of currently unemployed individuals. The point of departure for this paper is to analyse employment trends in the economy since 1993. In particular, the paper will try to determine more systematically what the magnitude of the employment shifts have been, and where they have been occurring over the last 4 or 5 years in the domestic economy. We will therefore also be indirectly be assessing recent claims in the media an elsewhere of, for example, job losses totalling 500 000 since 1993.

We are immediately hamstrung by data availability, but an attempt has been made to be both creative and thorough with the sub-optimal numbers we have at our disposal. To this end, the paper will first consider the trends that have been observed from 1993 to 1998 in the formal sector, examining in particular the movements in employment across sectors and broad skills categories. In the second instance, we use the household survey data for the period 1993 to 1997 to consider total employment shifts across a wider range of covariates.

Formal Employment Trends Since 1993: Is the Data Saying Anything New?

In order to analyse formal employment trends, and indeed total employment shifts, the data sources suggest in the first instance that the Quarterly Bulletin of Statistics (QBS) would contain the primary source of employment information. The QBS labour market information has more recently been derived principally from the estimates calculated in the Survey of Total Employment and Earnings (STEE). The first difficulty with the QBS data though is that the employment numbers do not include Agriculture. Hence, one is always left with a crucial segment of aggregate employment excluded. This is presumably a function of the instrument that is being used by Statistics South Africa (SSA) to collect employment and other labour market data. Secondly, and more fatally, the data in many instances is not plausible and in fact renders the QBS a very poor source of employment information. A simple example will indicate the poor quality of this data[2]. Given that the QBS constantly revises its employment numbers from one issue to the next, there has to be a process of always sifting out the final 'revised' employment numbers produced for any given year. Hence, taking the QBS issues for December 1999 and March 2000, the estimates for non-agricultural employment between 1997 and 1998 are produced below.

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[2] I am indebted to Dudley Horner for this example.

Table 1: Employment Estimates from the QBS

Issue of QBS	1997	1998
December 1999	5 161 285	4 657 072
March 2000	5 161285	4 959 485

The 1997 figures for total non-agricultural employment are thus the same for both issues, which of course validates the original employment estimate. However, for 1998 the original estimate of 4 657 072, is revised in the March issue to a total figure of 4 959 485. What this means is that the revised estimate uncovered over 300 000 new workers! For the employment numbers in a single year to change that dramatically undoubtedly means that we are dealing with a very poorly constructed instrument and consequently a questionable database of employment figures. Needless to say, such examples abound in any set of issues of the QBS. Use of either of these sets of figures would of course paint a very different picture of how the labour market is functioning. From the above table for example, with the 1999 results, we would show an employment loss of about 500 000 jobs in the economy. However, using the revised estimate, the figure is only about 200 000 lost jobs.

Given the highly problematic nature of the QBS, the solution was to opt for a more complete and thorough data set, namely the WEFA Industrial Service Analysis (IAS) data set[3]. The data covers employment levels in 46 economic sectors over the period 1970-98, according to three pre-defined skill categories. This data set builds on the Manpower Survey data set, in that the Manpower figures were only available in odd years from 1969-87 and then annually from 1988-94. The even years in the 1969-87 period were calculated through linear interpolation. The period after 1994 for the skills-based numbers were calculated through a forecasting method. Smoothing was done in cases where extreme fluctuations in the data occurred Ultimately though, the data is more complete, makes more sense than the QBS numbers, and is probably the best detailed time-series employment data set we have available.

Formal Employment Trends by Sector

Table 2 presents formal employment trends, using the WEFA IAS data, for the period 1993 to 1998. It is evident that in this period, total formal employment fell from about 7.8 million to approximately 7.4 million. This constitutes an employment loss of about 360 000 jobs over the 6-year period. Indeed, if we take the period from 1994, to mark the onset of democratic rule, employment losses totalled 284 837. Needless to say, on both counts the job creation performance of the formal economy has been abysmal. The only redeeming feature of these numbers is that they fall well short of the much-touted 500 000 job loss figure.

The sectoral division of the employment losses is provided in the table at the main sector level. It is evident that in all but two main sectors of the economy, employment levels fell from between 0.01% to as much as 5.51%. The only two sectors which increased their intake were Wholesale & Retail Trade and Financial & Business Services. In both cases though, the employment increase was modest in absolute

[3] It is important to note that Statistics South Africa will be running a bi-annual labour force survey from this year onwards. It is hoped that this survey will deliver better and more coherent statistics on the labour market.

numbers, as the combined employment growth of these sectors was about 77 000 jobs. Both these sectors are of course service industries and the growth in employment in this period matches well with evidence over a longer period indicating the growth in the service sectors relative to others in the economy (Bhorat,1999 and Bhorat & Hodge,1999).

Table 2: Formal Employment Trends by Main Sector: 1993-1998

Sector	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*Average*	*Actual Job Loss/Gain*
Agriculture	**868600**	**860700**	**853100**	**845600**	**838033**	**822643**		**-45 957**
% change		*-0.91*	*-0.88*	*-0.88*	*-0.89*	*-1.84*	*-0.90*	
% share	*11.20*	*11.17*	*11.13*	*11.00*	*10.90*	*11.08*		
Mining	**620653**	**607900**	**596638**	**568964**	**552166**	**433114**		**-187 539**
% change		*-2.05*	*-1.85*	*-4.63*	*-2.95*	*-21.56*	*-5.51*	
% share	*8.00*	*7.89*	*7.78*	*7.40*	*7.23*	*5.83*		
Manuf.	**1401243**	**1400956**	**1421317**	**1453143**	**1406352**	**1351696**		**-49 547**
% change		*-0.02*	*1.45*	*2.23*	*-3.21*	*-3.88*	*-0.57*	
% share	*18.00*	*18.17*	*18.54*	*18.89*	*18.43*	*18.20*		
Utilities	**75400**	**71301**	**71400**	**73200**	**71200**	**69214**		**-6186**
% change		*-5.43*	*0.14*	*2.52*	*-2.73*	*-2.79*	*-1.38*	
% share	*0.97*	*0.92*	*0.93*	*0.95*	*0.93*	*0.93*		
Constructn.	**370016**	**363710**	**354377**	**326859**	**311570**	**283287**		**-86 729**
% change		*-1.7*	*-2.56*	*-7.77*	*-4.67*	*-9.07*	*-4.30*	
% share	*4.75*	*4.72*	*4.62*	*4.25*	*4.08*	*3.82*		
Wholesale	**961800**	**924600**	**939600**	**936200**	**941181**	**981207**		**19 407**
% change		*-3.87*	*1.62*	*-0.36*	*0.53*	*4.25*	*0.36*	
% share	*12.36*	*12.00*	*12.26*	*12.17*	*12.33*	*13.22*		
Transport	**364800**	**339900**	**348000**	**343900**	**336649**	**320415**		**-44 385**
% change		*-6.83*	*2.38*	*-1.18*	*-2.11*	*-4.82*	*-2.09*	
% share	*4.69*	*4.41*	*4.54*	*4.47*	*4.41*	*4.32*		
Finance	**530342**	**535688**	**545679**	**558805**	**511339**	**587437**		**57 095**
% change		*1.01*	*1.87*	*2.41*	*-8.49*	*14.88*	*1.95*	
% share	*6.81*	*6.95*	*7.12*	*7.26*	*6.70*	*7.91*		
Comm. Sev	**2589776**	**2603828**	**2536300**	**2587156**	**2594254**	**2574741**		**-15 035**
% change		*0.54*	*-2.59*	*2.01*	*0.27*	*-0.75*	*-0.01*	
% share	*33.28*	*33.78*	*33.08*	*33.63*	*33.90*	*34.62*		
Total	**7782632**	**7708591**	**7666412**	**7693824**	**7631789**	**7423754**		**-358 876**
% change		***-0.95***	***-0.55***	***0.36***	***-0.81***	***-2.73***	***-0.78***	

Counterpoising these small employment increases however, have been significant employment losses at the main sector level. Specifically, the largest percentage declines have been in the Mining industry, Construction and Transport. The last-mentioned is surprising, given that as a service sector, and therefore a growing and dynamic industry, one would have expected a rise in employment levels. It is possible that the reorganisation of some of the state-controlled enterprises may have contributed to this employment decline.

It has though been the Mining and Construction industries that have borne the brunt of the employment losses. Together, these two sectors have shed over 270 000 jobs in this 6-year period. Mining alone has lost 187 000 employees since 1993. Indeed, the absolute employment losses by sector indicate that the Mining industry has far and away been the key reason for the aggregate formal employment losses observed since 1993 in the domestic economy. One of the notable factors that did impinge on the industry's performance was of course the gold price. The decision by certain EU countries to curtail their gold reserves, and the more fatal decision of the Australian central bank to halve its gold reserves resulted in a dent in international confidence in the metal, and severely affected its price. Indeed, in this period the gold price fell from about $360 in 1993 to about $280 in 1998, resulting in closures of a number of marginal gold mines.

An interesting addition to the sectoral picture is the employment performance of the Manufacturing industry. Here it is evident that while the percentage decline has been small at 0.57%, the actual job loss figure of about 50 000 has not been insubstantial. For a main sector that remains the largest contributor to GDP to yield such poor employment figures is a cause for very serious concern. Finally, the second primary sector, Agriculture while not losing jobs as rapidly as Mining, has also shed about 46 000 workers since 1993.

The upshot from the above is that in the aggregate there has been a significant shrinking of formal employment between 1993 and 1998, that is spread across 7 of the 9 main sectors of the economy. Furthermore, this short-run analysis suggests that not only the primary sectors of the economy are in employment-decline, although of course the Mining industry has been the key job shedder in the economy. Instead the economy's largest main sector, Manufacturing, has also shed jobs fairly rapidly over a very short time period, an at least one of the service industries (namely Transport) has not been able to retain its workforce over the 6-year period. Ultimately, all of the main sectors in the formal economy outside of Wholesale & Retail Trade and Finance, have proven to be consistent job shedders since 1993.

The employment patterns observed over the period 1970 to 1995 have indicated a slightly different trajectory. In this analysis (Bhorat,1999; Bhorat & Hodge,1999), there was formal employment growth in all sectors except Agriculture, Mining and Construction. Indeed, both Manufacturing and Transport grew steadily, though not spectacularly, over this period. The more recent evidence here, albeit over a shorter period, suggests that the employment losses have become more widespread across the main sectors. Hence, since 1993 all sectors except the Retail and Finance sectors have yielded significant job losses. We can, without the use of formal empirical derivations, conjecture three possible reasons for the intensification of these employment losses. These reasons are broadly, the onset of tariff and trade liberalisation; the greater adoption of new technologies and finally the process of restructuring of state-owned enterprises.

In the first case, the general phase-down of tariffs since 1994 has undoubtedly resulted in increased competitive pressures on all sectors, but particularly the manufacturing industry. Greater international competition has meant declining demand for locally produced products either as inputs or outputs. In particular, this post-1993 period in the South African economy is marked by import substitutes

displacing final domestic goods and placing extreme pressure on previously protected industries. The result has therefore been shrinking output and investment levels across most main sectors, with the obvious corollary being a secular decline in employment levels. Linked to liberalisation is the parallel process of increased adoption of new technologies. Partly then, due to the need to raise efficiency levels and become more competitive, firms have begun to adopt capital in preference for labour, so as to ensure that they are no longer competing purely on the basis of lower unit labour costs. Coupled with this exogenous pressure, has been the natural rise in capital-labour ratios as a consequence of the microelectronics revolution. This change has made new technologies a necessity for all firms in all sectors, in order to remain competitive both domestically and internationally. These new technologies are by their very nature efficiency-improving, but also labour-reducing. This therefore has been a second key reason for the generalised decline in employment in the economy. Finally, since 1994, the South African economy has embarked sporadically on a process of reorganising and restructuring its state-owned enterprise, ranging from its national airline carrier to the national communications provider. In both these cases, restructuring has meant job losses. This process is probably the most significant reason for the decline in employment in the Transport sector.

It is important to append to the above discussion, an analysis of employment trends within some of the main sectors. The purpose of the table below then, is to provide a more detailed overview of employment shifts within the Manufacturing industry. In this way, it will be possible to unpack the total employment loss of over 40 000 jobs observed in Table 2 above for Manufacturing. As a starting point, Table 3 below makes it plain that employment changes within the sector have been uneven, as some manufacturing sub-sectors have grown in employment, and others declined. Specifically, of the 25 sub-sectors listed below, 8 have achieved positive employment growth while 17 have recorded negative employment growth. The aggregate outcome for the sector has of course still been a fall in employment.

The poor level of employment growth is shown in the fact that for those sub-sectors which expanded, 43 571 new jobs were created, while in turn for the same period a total of 98 552 jobs were shed by the shrinking sub-sectors. The largest job shedders in percentage terms were the Leather industry, Basic Iron & Steel and Non-Metallic Minerals. In all three of these sub-sectors employment fell by between 27% and 31%. In absolute terms however, the latter two sectors remain as large job shedders, but the largest decline was in the Food industry, where 20 606 jobs were lost. Despite the small number of employees losing their jobs in Leather, this still constituted the industry's workforce shrinking by close to a third its original size in 1993. Hence though the absolute figure is small, the labour market outcomes in this industry remain highly significant. In the Food sub-sector the number of jobs lost amounted to 10% of the industry's 1993 workforce. Both Non-Metallic minerals and Basic Iron & Steel lost large quantities of workers who in turn represented over a quarter of the sub-sectors' quantum of employees for 1993. Ultimately then, four sub-sectors within manufacturing explain a significant proportion of the aggregate employment loss within the sector. It is important to note that two of these sectors, Food and Leather, are labour-intensive industries.

Table 3: Formal Employment Trends within Manufacturing: 1993-1998

Manufacturing	1993	1994	1995	1996	1997	1998	Change	% change: 1993,98
FOOD	190,831	179,621	176,062	177,274	170,988	170205	*-20626*	*-10.81*
% change		*-5.87*	*-1.98*	*0.69*	*-3.54*			
% share	*13.61*	*12.82*	*12.39*	*12.20*	*12.16*			
BEVERAGE	35,615	34,349	32,651	31,233	30,202	30200	*-5415*	*-15.2*
% change		*-3.55*	*-4.93*	*-4.34*	*-3.30*			
% share	*2.54*	*2.45*	*2.29*	*2.15*	*2.15*			
TEXTILES	65,083	68,211	66,142	78,675	75,875	60131	*-4952*	*-7.61*
% change		*4.81*	*-3.03*	*18.94*	*-3.56*			
% share	*4.64*	*4.87*	*4.65*	*5.44*	*5.39*			
CLOTHING	126,404	125,087	133,820	149,600	142,532	131538	*5134*	*4.06*
% change		*-1.04*	*6.98*	*11.79*	*-4.72*			
% share	*9.02*	*8.93*	*9.42*	*10.29*	*10.14*			
LEATHER	9,633	9,054	9,111	7,818	7,625	6607	*-3026*	*-31.41*
% change		*-6.01*	*0.63*	*-14.19*	*-2.46*			
% share	*0.69*	*0.65*	*0.64*	*0.54*	*0.55*			
FOOTWEAR	25,584	26,935	27,808	25,143	23,906	22449	*3135*	*12.25*
% change		*5.28*	*3.24*	*-9.58*	*-4.92*			
% share	*1.83*	*1.92*	*1.96*	*1.73*	*1.80*			
WOOD	59,559	65,090	62,894	59,893	60,747	74275	*14716*	*24.71*
% change		*9.29*	*-3.37*	*-4.77*	*1.42*			
% share	*4.25*	*4.65*	*4.43*	*4.12*	*4.32*			
FURNITURE	46,021	46,238	46,024	48,292	46,562	46499	*478*	*1.04*
% change		*0.47*	*-0.46*	*4.92*	*-3.58*			
% share	*3.28*	*3.30*	*3.24*	*3.32*	*3.32*			
PAPER AND PAPER PRODUCTS	49,595	48,946	50,372	48,262	47,268	45349	*-4246*	*-8.56*
% change		*-1.31*	*2.91*	*-4.18*	*-2.06*			
% share	*3.54*	*3.49*	*3.54*	*3.32*	*3.36*			
PRINTING	53,552	52,927	53,365	52,650	52,008	54258	*706*	*1.32*
% change		*-1.17*	*0.83*	*-1.34*	*-1.22*			
% share	*3.82*	*3.78*	*3.75*	*3.62*	*3.70*			
COAL AND PETROLEUM PRODUCTS	20,111	19,226	18,159	17,400	16,375	16885	*-3226*	*-16.04*
% change		*-4.40*	*-5.55*	*-4.18*	*-5.89*			
% share	*1.44*	*1.37*	*1.28*	*1.20*	*1.16*			
OTHER CHEMICALS	69,738	66,205	66,210	65,661	63,808	66970	*-2768*	*-3.97*
% change		*-5.06*	*0.01*	*-0.83*	*-2.82*	5		
% share	*4.98*	*4.73*	*4.66*	*4.52*	*4.54*			
BASIC CHEMICALS	31,947	31,540	29,820	29,256	27,621	28150	*-3797*	*-11.88*
% change		*-1.27*	*-5.45*	*-1.89*	*-5.59*	2		
% share	*2.28*	*2.25*	*2.09*	*2.01*	*1.94*			
RUBBER PRODUCTS	16,088	16,319	17,336	17,674	16,158	15155	*-933*	*-5.79*
% change		*1.43*	*6.23*	*1.94*	*-8.58*	-6		
% share	*1.15*	*1.16*	*1.22*	*1.22*	*1.15*			
PLASTIC PRODUCTS	47,427	43,329	48,531	46,817	47,791	56553	*9126*	*19.24*
% change		*-8.64*	*12.01*	*-3.53*	*2.08*	18		
% share	*3.38*	*3.09*	*3.41*	*3.22*	*3.39*			

Table 3: *contd.*

GLASS	9,992	10,598	10,280	10,096	9,871	8346	*-1646*	*-16.47*
% change		*6.06*	*-3.00*	*-1.79*	*-2.23*	-15		
% share	*0.71*	*0.76*	*0.72*	*0.69*	*0.71*			
NON-METALLIC MINERALS	69,283	63,655	61,464	62,242	59,576	50362	*-18921*	*-27.31*
% change		*-8.12*	*-3.44*	*1.27*	*-4.28*	-15		
% share	*4.94*	*4.54*	*4.32*	*4.28*	*4.24*			
BASIC IRON AND STEEL	69,605	64,231	62,781	61,320	57,331	49349	*-20256*	*-29.1*
% change		*-7.72*	*-2.25*	*-2.33*	*-6.51*	-14		
% share	*4.97*	*4.58*	*4.41*	*4.22*	*4.10*			
BASIC NON-FERROUS METALS	17,506	16,837	16,357	14,676	14,165	15778	*-1728*	*-9.87*
% change		*-3.82*	*-2.85*	*-10.28*	*-3.48*	11		
% share	*1.25*	*1.21*	*1.15*	*1.01*	*1.01*			
FABRICATED METALS	117,341	120,742	119,448	124,493	122,859	116701	*-640*	*-0.54*
% change		*2.89*	*-1.07*	*4.22*	*-1.31*	-5		
% share	*8.37*	*8.62*	*8.40*	*8.57*	*8.74*			
MACHINERY	66,515	67,475	73,279	77,021	75,029	-2	*6997*	*10.52*
% change		*1.44*	*8.60*	*5.11*	*-2.59*			
% share	*4.75*	*4.82*	*5.16*	*5.30*	*5.34*			
PROF EQUIPMENT	6,301	7,638	7,538	7,408	6,469	5893	*-408*	*-6.46*
% change		*21.22*	*-1.31*	*-1.71*	*-12.68*	-9		
% share	*0.45*	*0.55*	*0.53*	*0.51*	*0.46*			
MOTOR VEHICLES AND PARTS	73,360	76,696	82,757	84,849	79,493	76639	*3279*	*4.46*
% change		*4.57*	*7.90*	*2.53*	*-6.31*	-4		
% share	*5.24*	*5.47*	*5.82*	*5.84*	*5.66*			
OTHER TRANSPORT EQUIPMENT	13,558	12,229	11,398	12,458	11,581	10776	*-2787*	*-20.56*
% change		*-9.80*	*-6.79*	*9.29*	*-7.04*	-7		
% share	*0.97*	*0.87*	*0.82*	*0.86*	*0.84*			
OTHER MANUFACTURING	23,488	22,361	21,704	25,177	23,642	20311	*-3177*	*-13.52*
% change		*-4.63*	*-2.94*	*16.00*	*-6.09*	-14		
% share	*1.68*	*1.59*	*1.53*	*1.73*	*1.68*			
Total	**1401243**	**1400956**	**1421317**	**1453143**	**1406352**	**1351696**	***-49547***	***-0.57***
% change		*-0.02*	*1.45*	*2.23*	*-3.21*	*-3.88*		

Certain manufacturing sub-sectors however, have been expanding their employment base since 1993. In pure percentage terms, high growth is reported in Wood & wood products, Plastic products and Footwear. These sectors have expanded employment by between 12% and 24% over this period. In absolute numbers, Wood, Plastics and Machinery have been the largest hirers. Collectively these four sub-sectors accounted for about 34 000 new jobs created in manufacturing over this period. Needless to say, for the largest sector in the domestic economy to be creating, in terms of its *high-employment* sectors, so few jobs over a 5-year period is wholly inadequate.

A very interesting result is the fact that two of the economy's industries thought to be hardest hit in terms of trade and tariff liberalisation, Footwear and Clothing, in fact report employment growth over this period. It is possible of course that there is a lag effect, and that most of the employment losses occurred in 1999 and early 2000, but in essence, the negative effects of liberalisation were already impacting on these industries. Notably, the textile industry did shrink its employee base. This result is

hard to explain, and even more so given that the numbers represent formal employment only. The recourse of many retrenched clothing (and to some extent footwear) workers into the informal sector would therefore not be picked up here. One could argue then that the numbers represent an underestimate of the actual growth in the two industries, particularly Clothing. It is possible that the marginal employment growth in Clothing for example, is a result of firms moving into less visible rural and semi-urban areas, and here is where labour displacement combined with low employment growth is taking place.

Ultimately, the sub-sectoral employment numbers reflect on an industry that is not dynamic in terms of job growth. The sector's largest employer, Food, has shed jobs as have two of the larger employers in the industry, namely Non-Metallic Minerals and Iron & Steel. In turn, despite the surprise result with the Clothing industry, the growth in employment of about 5000 workers for the industry's second largest employer is clearly inadequate. This leads to confirmation of the long-run analysis, that while the manufacturing industry is dominant in terms of its contribution to GDP it cannot be realistically viewed as a medium-term creator of sustainable employment.

Employment Trends by Skill Category

While the above has outlined total employment growth by main sector and at the manufacturing sub-sector level, it is important to assess what the skills distribution has been in the economy's employment trajectory. Put differently, it is necessary to determine which skills categories, if any, have grown and which have been in decline since 1993. The analysis is undertaken using the WEFA data set again. The WEFA data set however only utilises three skills groupings, namely highly skilled, skilled and unskilled. There is no documentation to ascertain which specific occupations were linked to these skill categories. However, using the IOC system, the table below attempts a broad, and probably close to accurate, representation of the occupations covered by each of these three skill bands.

Table 4: Linking WEFA IAS Skill Categories to Occupations

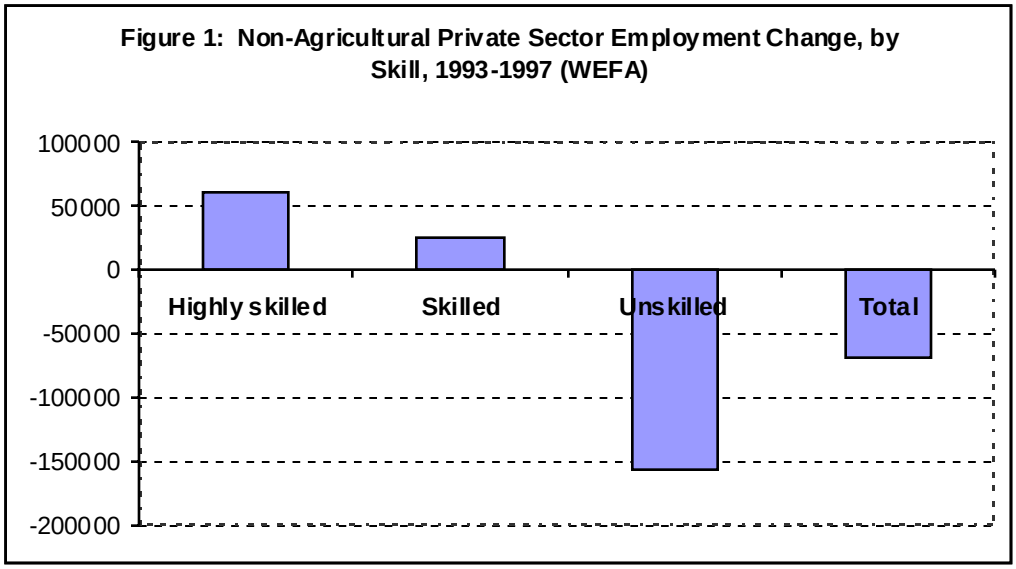
Skill Category	*Occupations*
Highly Skilled	Professionals; Associate Professionals Technicians Managers
Skilled	Clerks Service & Sales Skilled Agric. & Fishing Craft & Related Trades Plant and Machine Operators & Assemblers
Unskilled	Sales & Service Labourers Agric, Fishing & related Labourers Mining, Construction, Manufacturing & Transport Labourers Other Labourers

It should be evident that while the broad labels encompass numerous work activities, ranges of skills and formal education levels, the occupations presented do probably overlap quite well with each of the skill bands. We undertake the analysis here firstly of total employment by skills followed by two main sectors, namely Manufacturing and Financial & Business Services. The first was chosen for its high contribution to

GDP and the second as the economy's fastest-growing sector[4]. Both tables cover the period until 1997 only, and not 1998, as with the above sectoral employment numbers. In addition, the aggregate employment numbers do not match those provided in Table 2. The reason for this is that the skills divisions here contain some residual, and the error is reflected in non-reporting of certain skills categories, so yielding in most cases, an underestimate of total employment within the main sector.

Figure 1 below attempts to show total employment shifts by the three skills categories. It covers the period 1993 to 1997 and excludes Agriculture as well as the public sector. A skills division of employment for these two sectors was not available in the WEFA data set. The graph is visually striking; it is clear that over this short time period the demand for highly skilled and skilled workers has increased dramatically. Hence, over this period, total demand for these two skill bands in the non-agricultural private sector increased by over 80 000 workers.

Figure 1: Non-Agricultural Private Sector Employment Change, by Skill, 1993-1997 (WEFA)



In contrast the demand for unskilled fell dramatically, by over 150 000 employees. Overall employment in this configuration of sectors, fell by about 70 000 workers. The reduction in overall employment then, overwhelmingly affected unskilled workers, while those in the top two skills bands in fact gained over this period. This data is a striking example of the degree and intensity of skills-biased employment patterns present in the modern South African labour market. The short time period covered in the figure serves only to reinforce the intensity of the skill-bias.

Table 5 dissects employment patterns within manufacturing by the three skills bands. The last column of the table again tells a powerful tale of the skills bias in the overall employment loss for the main sector. Hence, while in the aggregate, about 16 000 jobs have been lost in manufacturing between 1993 and 1997, it is unskilled and skilled workers who have borne the brunt of this job loss. Collectively, about 32 000 skilled and unskilled jobs have been shed within the sector. In contrast, the number

[4] Data for the period 1970 to 1997 for example, indicates that the manufacturing industry's share of GDP remained constant at about 24% of national GDP. In turn, the share of financial services' GDP rose by 6% over the period, from 11.1% in 1970 to 17.2% in 1997.

highly skilled manufacturing workers has increased by 13.2%, amounting to approximately 16 000 jobs.

Table 5: Employment by Skills Level in the Manufacturing Sector

Skill level	*1993*	*1994*	*1995*	*1996*	*1997*	*No. Of Jobs Created/Lost*
Highly skilled	123 708	129 309	135 494	140 683	139 991	16 283
% share	*8.87*	*9.27*	*9.65*	*9.86*	*10.16*	
Skilled	391 550	390 262	396 067	400 566	386 981	-4 569
% share	*28.09*	*27.99*	*28.22*	*28.09*	*28*	
Unskilled	878 223	874 640	871 769	884 282	850 031	-28 192
% share	*63.02*	*62.7*	*62*	*62.03*	*61.7*	
Total	1 393 518	1 394 249	1 403 367	1 425 568	1 377 040	-16 478
% share	*100*	*100*	*100*	*100*	*100*	

In sum, there appears to have been a redistribution of jobs within manufacturing from unskilled and skilled workers to highly skilled employees. Interestingly, this is in contrast to the aggregate private sector figures above, where highly skilled and skilled workers both gained. For Manufacturing, there appears to be an even greater bias, as only those at the very top-end of the labour market have gained. While Manufacturing as a whole has lost jobs, this table makes it plain that the losses have been at the cost only of skilled and unskilled jobs. Despite the employment decline then, highly skilled workers have in fact been winners over this period.

The skills distribution of employment within the financial & business services sectors is displayed in the table below. Firstly, note that employment levels have of course increased in this period for the sector. However, as with the manufacturing sector, the skills bias in the growth of jobs is stark. Of the 48 080 jobs created in the sector, it was skilled and highly skilled workers who benefited, while the number of unskilled workers fell by about 10 000. Unlike manufacturing, this correlates with the trends observed in Figure 1. In contrast with the manufacturing industry as well, the finance sector has a very small share of unskilled workers. This reinforces the point that in one of the few main sectors of the economy that is creating employment, the jobs that are being created will be almost solely for skilled and highly skilled individuals. Indeed, while the share of unskilled workers within Manufacturing was about 62% over this period, within financial services it has ranged between 2% and 4% of total employment in the sector.

Table 6: Employment by skills in the Financial sector

Skill level	*1993*	*1994*	*1995*	*1996*	*1997*	*No. Of Jobs Created/Lost*
Highly skilled	94750	100237	107533	113094	122052	27 302
% share	*20.41*	*21.35*	*22.4*	*23.56*	*23.82*	
Skilled	348491	351478	357780	365872	378978	30 487
% share	*75*	*74.89*	*74.5*	*76.22*	*73.9*	
Unskilled	20959	17585	14687	12835	11250	-9 709
% share	*4.5*	*3.74*	*3.00*	*2.67*	*2.19*	
Total	464200	469300	480000	491801	512280	48 080
% share	*100*	*100*	*100*	*100*	*100*	

Collectively, skilled and highly skilled workers gained approximately 58 000 jobs over this 5-year period, with the larger share being amongst skilled employees. It is interesting to note that even within these two skilled bands, the preference in the sector was for a larger proportion of highly skilled rather than skilled employees. This is manifest in the growing share of highly skilled workers (20.4% to 23.8%) as opposed to a declining share of skilled individuals (75% to 73.9%).

While these tables only cover two main sectors within the economy, they reflect a general trend in employment by skill levels. Aggregate employment, and indeed individual main sector employment levels by these three skill levels, all almost without exception indicate that the demand for high skilled and (often though not always) skilled workers has increased, while that for unskilled workers has declined. In essence, this suggests that aggregate employment losses reflect losses for unskilled workers, and mask the gains made by more skilled workers. And where aggregate employment growth is recorded, it is almost always to the benefit of semi-skilled and skilled workers. The South African labour market therefore is mimicking international labour demand patterns observed in the EU for example, namely of a growing demand for workers at the top-end and decreasing preference for employees at the bottom-end of the occupational ladder. The upshot is to engender a new form of dualism within the labour market – that of a shortage of workers at the top-end of the occupational ladder, matched by rising joblessness amongst unskilled workers. For the short- to medium-term this is a trend that is likely to continue in South Africa.

Employment Data from the Household Survey: Does the Evidence Concur?

One of the drawbacks of using the WEFA IAS data is that, given the attempt to derive a long time-series of employment figures, it was not possible to derive employment figures by more detailed covariates such as race, gender and location. In addition, of course, the data only represents the formal sector, and the reasoning again is the attempt made to generate a long-rung set of employment numbers. It is precisely in trying to deal with both these difficulties in the WEFA IAS data, that use was made of household survey data. Household survey data, will by their very nature provide employment figures by these different covariates. In addition because they survey all individuals in a household, through the sampling frame, they implicitly include both formal and informal sector employees.

All the available household surveys undertaken for South Africa by Statistics South Africa (SSA) have been utilised here. Hence, we cover the period 1994-1997 to gauge employment patterns in the labour market. The first year, 1994, represents the first such household survey to be undertaken in South Africa by a government agency, and follows the first survey ever undertaken in the country, which was managed by the Southern Africa Labour and Development Research Unit (SALDRU) and the World Bank. Given the richness of information delivered with the 1994 data, the SSA took the decision to run such a survey annually. This led then to the series of October Household Surveys (OHSs), as they have become known. At the time of writing, the latest publicly available survey was the 1997 OHS. The first statistical exercise that needed to be pursued with the data, was to ensure that the same weighting coefficient was applied to all the individual survey data years. Use was made of the Census 1996

weights, and these were accordingly applied to all the surveys, so as to ensure consistency and comparability in the employment numbers across the years.

Table 7 below presents the first cut of the survey data, providing the total employment numbers for each of the years, with a direct comparison to the WEFA formal sector numbers. The first result from the table, is that the household survey data report a significantly larger employment estimate, with the difference representing a proxy for the self-employed or informal sector. The total employment figures from the survey data therefore suggest that employment has grown by about 20 000 jobs since 1994. This of course represents a reversal of the employment loss figure reported for the formal sector alone, where the WEFA data suggests about 76 000 jobs have been lost. While this total employment growth in effect represents static job growth, the figures do suggest that we are a considerable way off the 500 000 job loss figure that has been present in recent labour market debates.

Table 7: Comparing Household Survey and WEFA/IAS Employment Figures, 1993-97

Data Set	1994	1995	1996	1997	Change	% Change
OHS **Total**	8 988564	9 397120 *4.55*	8 607512 *-8.40*	9 008620 *4.66*	20056	0.27
WEFA						
Total Formal	7 708591	7 666412	7 693824	7 631789	-76802	-0.33
		-0.55	*0.36*	*-0.81*		
Difference	*1 279973*	*1 730708*	*913688*	*1 376831*	96858	
		35.21	*-47.21*	*50.69*		12.90

As the difference row illustrates, the marginal employment rise in the aggregate, is a result of the growth in the informal sector, where employment increased by close to 100 000 workers. The one concern from the survey data however, is the reliability across the years of what is essentially a proxy for the informal sector. Examining the data across the years yields fluctuations that are very large across such a short time period. It is highly unlikely that the size of the informal sector could have changed so dramatically from one year to the next. However the average size of the sector, of about 1.3 million in this period does strike one as fairly accurate. In addition, the overall trend of a growth in informal employment matched by declining formal employment and stable total employment, does seem to reflect employment shifts in the domestic economy. Two fairly robust conclusions from the above data then, is firstly of an informal sector that is serving to capture some employees exiting from the formal sector, and possibly also of individuals entering the labour market for the first time[5]. Secondly, the data shows that since the onset of democratic rule, total employment has in fact remained static, rather than declined as has oft been reported. Against the backdrop of about 230 000 new entrants per year (since 1994) into the

[5] The survey data does make a distinction between 'self-employed' workers and those who are 'employees'. This division however, is not a match for the formally versus informally employed, as the employees of the self-employed would also be included as 'employees'. In addition, the self-employed would also capture individuals in work activities that we would not readily categorise as 'informal'. These kind of difficulties are present in almost all the survey years covered. Hence, for this reason, it was thought best to proceed with the WEFA formal sector data and the total survey employment figures to derive a proxy for informal employment.

labour market as well as a inherited unemployed cohort of about 3.8 million workers however, this employment performance is very far from adequate.

The survey data's real usefulness lies in terms of the divisions that can be engendered with the aggregate employment figures. In the first instance then, we turn to total employment shifts by race, presented in the table below. The racial division suggests that of the small total employment growth over the period, the most significant winners have been Coloured and Asian workers. Collectively the number of employees in these two race groups has expanded by over 100 000 jobs, at an average growth rate of between 2% and 4% since 1994. The African workforce in turn has remained stable with only about 2000 jobs added since 1994. Employment growth for African workers has therefore been non-existent. If one considers that over this period the African economically active population (EAP) grew by 3.02%, then an average employment growth of –1.07% is extremely poor. For the Coloured workforce on the other hand, the EAP grew as fast as employment expanded, which is a steady state equilibrium, where the growth in the EAP is matched by a rise in employment. A much better relative performance is amongst Asian employees, where the EAP grew by 2.35%, but employment increased by 3.54%. It is precisely this type of rising labour absorptive capacity which is required on a consistent basis, across all race groups and over a longer period of time, to ensure some tangible reduction in national unemployment numbers.

Table 8: Total Employment, by Race (OHS, 1994-97)

Race	1994	1995	1996	1997	change	%change
African	5680378	6033411	5230627	5682522	*2144*	
% change		*6.21*	*-13.30*	*3.89*		-1.07
% share	*63.19*	*64.21*	*60.77*	*63.07*		
Coloured	1082294	1114856	1186981	1153120	*70826*	
% change		*2.87*	*5.87*	*-2.76*		1.99
% share	*12.04*	*11.86*	*13.79*	*12.80*		
Indian	325815	351306	321030	360906	*35091*	
% change		*3.65*	*2.87*	*4.09*		3.54
% share	*3.62*	*3.74*	*3.72*	*4.01*		
White	1900001	1897469	1868804	1811986	*-88015*	
% change		*-1.78*	*-2.87*	*-4.98*		-3.21
% share	*21.14*	*20.19*	*21.71*	*20.11*		
Total	*8988564*	*9397120*	*8607512*	*9008620*	*20056*	
% change		*4.55*	*-8.40*	*4.66*		

The most unexpected result from the table is the significant decline in the number of white employees. Their share of employment fell by 1 percentage point, but more importantly employment fell by close to 90 000 workers. Amongst the four races, White employees were the only group to see their absolute number of workers fall since 1994. Given the skills biased nature of employment changes in the South African labour market, and the fact that these overwhelmingly benefit White workers, this is a startling result. The key reason for this result though lies not in rising unemployment levels amongst White workers (say perhaps as a result of attrition in the public sector). Instead, as the table below illustrates, the key factor driving lower

White employment levels, has been lower participation rates amongst Whites in this period.

Table 9: White Employment, Unemployment and Participation Levels (OHS,1994-97)

	1994	1995	1996	1997	Actual Loss/ Mean % change
Employed	1900001	1897469	1868804	1811986	*-88015*
% Change		*-1.78*	*-2.87*	*-4.98*	*-3.21*
Unemployed	118932	95382	116337	121113	2181
% Change		*-19.81*	*21.97*	*4.11*	*2.09*
EAP	2018933	1992851	1985141	1933099	-85834
% Change		*1.29*	*-0.39*	*-2.62*	*-0.57*

Hence, over the period 1994-1997 the White economically active population fell by about 85 000 workers, from a labour force of 2 million to one of about 1.93 million. In the same period, unemployment only increased marginally by about 2000 workers. The key reason therefore, for the decline in employment levels amongst White workers has been the fact that the number of White individuals seeking employment has actually fallen. Given that the growth of the White population has been positive over this period, at about 2.6% on average, declining EAP levels cannot be explained by a smaller White population. Labour market-specific reasons therefore must be provided in order to understand this anomaly. Two possibilities come immediately to mind: growing emigration on the one hand and early retirement on the other, of White workers.

Firstly, the emigration of White workers would be a key factor in explaining the lower employment numbers, as these individuals would of course not be recorded as unemployed, but because they have departed will be reflected in declining EAP numbers. Official statistics from SSA indicate that *self-declared* emigration totalled about 20 000 EAP individuals between 1994 and 1997. Given the know difficulty associated with emigration (and immigration) data, this figure is generally understood to be a significant underestimate of emigration (Meyer *et al*, 2000). More recent attempts have been made though by Meyer *et al* (2000) to use recipient country data as a more robust predictor of the number of emigrants from South Africa. These statistics however, are difficult for our purposes here for two reasons: firstly they include only professional and managerial workers, so excluding all other semi-skilled and unskilled emigrants. In addition, the data is not broken down by race. The latter is not as serious a problem, given that close to 100% of the emigrants will have been White. Rough estimates, based on the Meyer *et al* study have been produced here in order to derive a guesstimate of the total emigration of Whites in the period 1994-1997.

Table 10: Rough Estimates of Emigration, 1994-97 (Meyer *et al* & author's own calculations)

Country	1994-1997
Australia	4500
New Zealand	2775
Canada	2556
United States	3410
United Kingdom	8555
Sum of all skilled workers	*21796*
Total workers for 5 countries	*33024*
Total for all countries	*42889*

Meyer *et al* utilise destination country data to get at an estimate of actual emigration from South Africa, hence bypassing the difficulties with the 'origin-based' data of SSA. The table above provides an estimate of emigration of professionals and managers in the period 1994 to 1997 for five of the major destination countries for South Africa emigrants: the United Kingdom, United States, Australia, Canada and New Zealand. This sums to 21 796 workers. The problem is that this number does not present the total economically active population who have emigrated. Supporting data for New Zealand and Canada however indicates that skilled emigrants account for about 66% of all South African emigrants. Using this as a proxy, we arrive at the total emigrant figure for the 5 countries, namely 33024. In turn, these 5 countries are estimated to represent 77% of total South African emigration. Applying this factor gives us a guesstimate of the emigration of South Africans to the rest of the world between 1994 and 1997 of 42 889.

In the context of Table 9 this means that 50% of the drop in the EAP for Whites was due to emigration. Placed into a context of serious skills shortages at the top-end of the labour market, and of growing premia for skilled workers, this is an extremely worrying trend. It means that the population wherein the country's skills are currently concentrated are also those with a very high propensity to leave the country permanently. What is popularly known as the 'brain drain' then, must be recognised as one of the most serious labour market constraints that this economy currently faces.

The other possibility explaining the White employment result, is that of early retirement. It is possible that a significant share of White workers, with the advent of the new government in 1994 for example, did take an early retirement from the public sector. There is provisional evidence in the table below that a portion of White workers may have gone into early retirement.

Table 11: White Employment Shifts, by Age (OHS,1994-97)

Age Cohort	1994	1995	1996	1997	Change
16-24	274 638	279 642	299 393	239 174	*-35464*
25-34	565 696	570 227	514 868	534 297	*-31399*
35-44	505 210	511 921	519 729	513 323	*8113*
45-54	402 679	386 093	372 116	370 308	*-32371*
55-64	151 778	149 586	162 698	154 884	*3106*
Total	1 900 001	1 897 469	1 868 804	1 811 986	*-88015*

As indicated, the second largest loss of White workers was amongst those in the 45-54 age cohort. This may represent individuals in the public sector who exited early and left the economically active population. It is interesting to note that large declines in employment are reported amongst Whites in the 16-24 and 25-34 age groups. This may typify the nature of the emigration exodus: that of young White graduates who at the beginning of their working life are leaving the country. If this is the trend, and the evidence is provisional and deduced rather than confirmed, then the labour market may be losing skilled individuals who are at the beginning of their earnings and productivity life cycle. This age dynamic adds another worrying dimension to the emigration problem.

The sectoral evidence below provides indirect evidence for the decline in White employment due to the changing public sector. Hence, white employment by sector reports declines or static employment in almost all main sectors of the economy. The one outlier is that of white workers in an unspecified sector, where employment grew by about 84 000 workers. The largest decline though is for 'services' which essentially represents public sector workers. Here, employment fell by about 63 000 employees.

Table 12: White Employment Shifts, by Sector (OHS,1994-97)

Sector	1994	1995	1996	1997	*Change*
Agriculture	67 773	85 462	78 520	46 432	*-21 341*
Mining	70 699	78 427	59 897	70 534	*-165*
Manufacturing	307 512	266 751	260 395	271 260	*-36 252*
Utilities	30 262	30 451	43 392	36 501	*6 239*
Construction	80 614	85 546	53 490	80 716	*102*
Trade	331 757	386 057	283 091	302 831	*-28 926*
Transport	155 521	137 697	117 108	125 539	*-29 982*
Financial	304 575	303 881	342 938	305 873	*1 298*
Services	522 798	479 182	462 237	459 665	*-63 133*
Unspecified	28 490	44 015	167 736	112 635	*84 145*
Total	1 900 001	1 897 469	1 868 804	1 811 986	*-88015*

In addition, the Transport sector which may also encompass previously state-run enterprises, also yields a high White employment loss. While the figures are hard to explain as a function of either emigration or early retirement, the Transport and services numbers do suggest that some early retirement must have been occurring within government. The one redeeming feature of the data is the retention of White

employment in the economy's fastest-growing and most dynamic industry, namely Financial and Business services.

Ultimately though, the analysis above has uncovered an important, and worrying, trend in terms of employment creation. This is that the country's key skills reservoir, located essentially amongst White workers, is being rapidly depleted. The results indicate that this is a function simultaneously of White emigration of alarming proportions, and high levels of early retirement concentrated in the public sector. The debate on skills shortages in the country therefore, needs to now also take account of this high rate of exit of part of the populace that disproportionately contributes to the skills base of the economy and who are, in the main, at the beginning of their working lives. The results furthermore suggest that the conclusion made by some that black skilled labour would benefit from the white exodus is probably not correct, given that the short-run scarcity of such labour means that the only outcome is a higher premium for these black workers. This induces both higher costs to employers as well as the consequence of greater income disparities[6].

Employment by Gender and Education Levels

Table 13 below turns to analysing employment trends by gender. It is evident that the distribution of employment gains since 1994 has not been gender-neutral. Hence, while male employment has grown by about 1.3% on average over the period, female employment has fallen by 1.2%. In total, about 160 000 new jobs were created for males, while approximately 140 000 female jobs were lost. This in turn translated into a rise in the share of male relative to female employment in the labour market.

Table 13: Employment by Gender (OHS, 1994-97)

Gender	1994	1995	1996	1997	Change	% change
Male	5328405	5664693	5128091	5488645	*160240*	*1.29*
% change		*6.31*	*-9.47*	*7.03*		
% share	*59.28*	*60.28*	*59.77*	*60.93*		
Female	3660083	3732349	3479351	3519889	*-140194*	*-1.21*
% change		*1.97*	*-6.78*	*1.17*		
% share	*40.72*	*39.72*	*40.42*	*39.07*		
Total	***8988547***	***9397109***	***8607492***	***9008602***	*20054.68*	*0.27*
% change		***4.55***	***-8.40***	***4.66***		

The results observed above are somewhat surprising given that earlier evidence indicated massive declines in primary sector employment, where the labour force is of course predominantly male. In turn, the growth in financial and business services should have partly benefited female workers. A racial division of the gender trends suggests that the biggest losers over this period, has been African females whose employment fell by 118 703 jobs. White female employment also fell substantially by 60 311 jobs, while the employment of Coloured and Asian females increased. The brunt of the female job attrition then, was borne by African and White employees. The former reflects in all probability the loss of employment of African females in unskilled, service-oriented jobs. For example, household domestic service employment has fallen by about 60 000 jobs in this period, with a disproportionate share of these individuals of course being African females. The loss of White female

[6] I am greatful to Jurgen Stetten for this comment.

employment is concentrated in the Community Services and Transport sectors. The former probably reflects high exit rates of White female clerical and administrative staff from the public sector, as well as possibly individuals in other spheres of government such as health and education services.

While the WEFA IAS data was useful in gauging the growth of employment across the three pre-designated skills bands, the survey data is extremely useful in its ability to add more detail to these divisions. Hence, the table below presents employment data from 1994 according to 5 education categories. The absolute change in employment figures in the period yield results that match the skills data from WEFA, namely that there has been a growth in employment primarily in the matric and tertiary categories. These two categories have witnessed a combined increase of about 330 000 jobs since 1994.

Table 14: Employment by Education Level (OHS, 1994- 1997)

	OHS 1994	**OHS 1995**	**OHS 1996**	**OHS 1997**	***Change***	***% change***
None	731251	763672	668494	742438	**11187**	**1.01**
% change		*4.43*	*-12.46*	*11.06*		
% share	*8.14*	*8.17*	*7.77*	*8.24*		
Primary	2,115,052	2,142,415	1,790,475	1,901,302	**-213750**	**-2.98**
% change		*1.29*	*-16.43*	*6.19*		
% share	*23.53*	*22.79*	*20.81*	*21.11*		
Incomplete Sec	3,013,328	2,915,433	2,633,012	2,848,180	**-165148**	**2.54**
% change		*-3.25*	*2.69*	*8.17*		
% share	*33.52*	*31.02*	*30.59*	*31.16*		
Matric	1,843,396	2,067,843	1,945,590	2,038,520	**195124**	**4.67**
% change		*15.13*	*-5.91*	*4.78*		
% share	*20.51*	*22.01*	*22.61*	*22.63*		
Tertiary	1,261,817	1,430,104	1,507,770	1,390,723	**128906**	**3.68**
% change		*13.36*	*5.43*	*-7.76*		
% share	*14.04*	*15.22*	*17.52*	*15.44*		
unspecified	23,644	77,575	62,101	87,371	**63727**	**82.94**
% change		*228.09*	*-19.95*	*40.69*		
% share	*0.26*	*0.83*	*0.72*	*0.97*		

In contrast, employment amongst those with incomplete secondary education, or those with primary education fell by a combined amount of approximately 378 000 jobs. Employment for those with no education rose marginally. Essentially then, employment patterns continue to reflect the strong skill biases reported here and elsewhere for the South African labour market. The preference since 1994, and the more than likely continued preference, of employers is for highly educated workers relative to those with low levels of secondary or primary schooling. Indeed, more

formal econometric evidence bears this out, as it is shown that incomplete secondary schooling or less reduces the probability of employment in the labour market (Bhorat & Leibbrandt,1999). In general though the educational distribution of the employed reflect a maldistribution towards those with lower levels of education. For only 15% of the workforce to have tertiary education is a strong indication of how poorly the supply of labour is matched with labour demand. It is this low share of highly educated workers that explains much of shortages existent at the top-end of the labour market. Ultimately the success of labour supply policies should be measured by the extent to which the share of degreed workers can be substantially raised within the labour force.

While the data is not shown here, the locational distributions indicate extremely interesting employment patterns. For the period 1994-97, urban employment increased by about 638 000 jobs, while rural employment fell by 618 000 jobs. In effect, there appears to have been a redistribution of jobs away from rural areas toward urban areas. It is possible that since 1994, incentives that kept firms in rural areas began to erode or fall away, and this saw many either returning to urban areas or simply closing down. The intensification of tariff liberalisation may have also resulted in numerous marginal rural-based firms, particularly in the clothing industry for example, that either closed down or moved elsewhere in the region. In addition, rural employment decline may also be a function of the informally employed migrating to urban centres in search for higher returns on their activities.

The survey data then suggests firstly that total employment has increased very marginally over the 1994-1997 period, with the growth in the informal sector counteracting losses in the formal sector. The racial data suggests that Asian and Coloured employment is rising, with the extremely worrying trend of declining White employment and participation rates. While female, and in particular African female employment, magnifies the racial and gender dimensions to our poor employment performance, the education data supports the evidence of a continuing bias against low-skilled and toward high-skilled workers.

Conclusion

More recent data on employment analysed above has shown that formal sector employment losses have not only continued, but to some extent have widened to encompass some service sectors as well. In addition, it is evident that for the formal economy, the mainstay of long-term sustainable employment, to be shedding jobs at such a rate is extremely alarming. It points to the huge quantity adjustments that are taking place in these sectoral labour markets, as they variously respond to new technologies, greater international competitiveness and a new ethos concerning more fluid work arrangements.

Aggregate employment since 1994 however, has remained stagnant but has not declined. Hence, the informal sector has grown in importance as a source of work for new entrants and those prematurely exiting the formal sector. It has indeed become an important growth node for jobs in the economy. The quality of these jobs, their sustainability and their number are at present poor. However, the importance of policy interventions focused on a sector that is at present the only discernable job creator in the economy cannot be over-emphasised.

The other theme strongly displayed in the paper was that of contrasting employment amongst the four race groups. African workers clearly yield very poor labour absorption rates, with the results for Asian workers being the most encouraging. Most importantly though, the large and sudden drop in White participation rates is an extremely serious trend, and one that warrants specific policy interventions in the area of emigration.

The skills data, matched by the education level numbers reinforce the now well-known fact that the South African labour market is characterised by rising demand for skilled and semi-skilled workers, at the expense of those at the bottom-end of the labour market. The corollary is a labour market segmented by skills and educational qualifications, where individuals with high skills and high qualifications are in short supply, so generating a shortage in this portion of the labour market. In contrast however, those with low skill or schooling levels are in excess supply given non-increasing demand for their services. It is the co-existence of these two labour markets – a high-skills supply shortage one and a low-skills excess supply market – that typifies the crisis the South African labour market finds itself in.

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