Half Measures: The ANC's Unemployment and Poverty Reduction Goals

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Abstract

Taking as its starting point, the ANC's election priorities of halving poverty and unemployment, the paper reviews pronouncements of the ANC in conference, and in government, in an attempt to discover more precise specifications of the two goals, and what they entail. Failing to find precision anywhere, an attempt is made to discover what changes in the relevant magnitudes are required to meet the probable goals. As far as unemployment is concerned, these are shown to depend, in the first instance, on what is understood by 'halving' (rate of unemployment or number unemployed; official or expanded). Once that is known, the behaviour of the three variables that determine unemployment rates and levels: the rate of growth of the potential labour force, the rate of change of the participation rate, and the rate of job creation, has to be considered. Predicting their likely course, an always difficult task, is made more difficult still by weaknesses in the statistics. Simulations suggest that under the most optimistic conditions, halving the official rate of unemployment would require 3.7 million jobs to be created between 2004 and 2014. Halving the number of expanded unemployed under pessimistic assumptions about the growth rate of the economically active would require 11 million jobs in the same period. Government's inability to exert significant influence on any of the three determining variables suggests it goes back to the other social partners who took part in the Growth and Development Summit (where commitment to the goal was reaffirmed) to negotiate achievable targets, this time armed with proper information about the size of task.

Unlike unemployment, poverty levels can, through the social security system, be directly affected by government. The United Nations Millennium Declaration laid out a series of goals to which most countries, included South Africa, are committed. One of them is to halve absolute poverty (defined, in the absence of a national poverty line, as being below $1(US)/day). Although there is some confusion in government about the goal (one Department of Social Development document refers to halving the number of poor), that should easily be dispelled. Problems in the case of this goal result from the inability of researchers to determine the numbers of people below the line denoting 'absolute' poverty. In the first place, there is no agreed poverty line. This is less important than the next problem – the poverty of the statistics from which poverty estimates have to be constructed. One aspect of this is the difficulty of estimating the value of the 'social wage' (social spending) to poor individuals and households.

Simulation, using what are hoped to be plausible guesses at the missing or dubious values, is only way around these problems. Drawing on the results of another study (Meth, 2004), the paper presents a set of estimates of poverty at various levels, made using a variety of assumptions where data are weakest. These examine the period 1997-2002. Given the margin of ignorance in the data, it is probably impossible to say much about poverty headcounts, rates or gaps at the poverty line chosen to denote absolute poverty. It is clear, though, that if the social wage reached its intended recipients, that a catastrophic increase in the poverty headcount would have been averted. It also seems likely that even if the headcount rose, the poverty gap could have declined. As the poverty line is raised, the number of poor stabilises at a high level (roughly 20 million). It shows little sensitivity to increases in the assumed values of the social wage. This suggests a limit to the efficacy of existing and planned anti-policy measures. It is recommended that better surveys to gather information on the extent and severity of poverty be designed and implemented as a matter of

urgency. A heavy concentration of academic firepower on the highly resistant problem of valuation of the social wage is also recommended.

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Introduction

A recently published paper by Ravi Kanbur posed 'some hard questions about growth, inequality and poverty'. Prominent among them is that of:

> "… what exactly it is that we are buying into when we accept the number one Millennium Development Goal of the United Nations – halving the incidence of income poverty by the year 2015."
> (Kanbur, 2004, p.1)

The question is of more than passing interest in South Africa. The country is committed to meeting the Millennium Development Goals (MDGs).[1] In addition, the social partners have committed themselves to halving unemployment. The target year for meeting these goals is the year 2014, the 20th anniversary of democracy in South Africa. These laudable aims featured prominently in the recent general election – at the head of a list of 'Some of the most important targets and objectives making up Vision 2014' in the ANC's 2004 election manifesto, we find:

- Reduce unemployment by half through new jobs, skills development, assistance to small businesses, opportunities for self-employment and sustainable community livelihoods.
- Reduce poverty by half through economic development, comprehensive social security, land reform and improved household and community assets. (ANC, 2004, p.8)

It is unreasonable to expect an election manifesto to spell out precisely what all of its aspirations entail. For purposes of the evaluation of performance that must take place, however, greater precision is necessary. This paper looks behind the manifesto at policy and other documents in an attempt to discover what is understood by these commitments. Finding little evidence of a considered view, the paper delves into unemployment and poverty statistics in South Africa in an attempt to see whether or not greater precision than that displayed so far in specifying each of these targets, is possible. In each case, the search opens a window overlooking an impressively wide plain of ignorance. In view of this, the paper ends with some recommendations about what to do about the two commitments.

The paper's limitations must be stated at the very outset. It does not concern itself unduly with the question of whether proclaiming commitment to the 'halving' targets is a good or bad thing. The attempt it makes to evaluate progress towards the achievement of these goals is perfunctory. In the case of the poverty target, the paper focuses primarily on income poverty, doing so in full awareness of the fact that approaches that have the reduction of income

1 The Millennium Development Goals (MDGs) are spelled out in a resolution called the Millennium Declaration, adopted by the General Assembly of the United Nations (UN, 2000a).
A goal is defined as an aim or desired result, whereas a target is defined as an objective or result towards which efforts are directed.

poverty as their sole end have long since slipped into disfavour.[2] There is, however, virtue in looking at income poverty – as long as one does not lose sight of the fact that it is one aspect of what is a complex multi-dimensional problem.

The government position on 'halving'

From pronouncements made by senior politicians, it is possible to infer that when it comes to halving unemployment, government has in mind the official rate of unemployment.[3] It is not easy, though, to find an explicit statement to this effect. First port of call in the search for greater specificity was the "programme of action" page on the government website. That part of the site is devoted, however, to medium- and short-term targets. There is nothing on the unemployment goal under the Economic, Investment and Employment cluster, and nothing on poverty reduction under the Social cluster.[4] That avenue being closed, the next set of documents consulted were those prepared for, and emerging from the ANC's 51st National Conference in December 2002. For our purposes, the most important among these were two papers distributed in advance of the National Policy Conference (held in September 2002) to formulate views to be taken forward to the National Conference. These papers (ANC 2002a and 2002b) outlined economic and social policy in a way that shaped the resolutions adopted at the National Conference. References to poverty and unemployment abound in each paper. Neither of them however, quantifies the problem in such a way as to facilitate the drafting of resolutions that set clear and comprehensible targets. Of course, information on poverty and unemployment (particularly the latter), was widely available elsewhere. Even so, the omission of any discussion of feasible targets in the background papers could have hampered delegates whose access to, and understanding of the nature of both problems was limited.

Given the silence of the background papers on the matter, it comes as little surprise to find no specific poverty reduction target in the place where one would expect to find it, viz., the Resolutions adopted by the 51st National Conference of the ANC on Social Transformation

2 Maxwell (2004a, p.3) is eloquent on this point, as are many others. One would have to be both blind and deaf to have missed the debate on the inadequacies of a simple money metric of poverty. The same applies to the headcount measures that poverty lines yield. Their weaknesses, if used in isolation, are far too well-known to require recitation here.

3 Responding to the release in March 2004 of the then most recent Labour Force Survey (LFS) results, which registered a fall in the official rate of unemployment falling from 31.2 per cent in March 2003 to 28.4 per cent in September 2003, the Minister of Labour welcomed the development in a press release headed "THE RECENT EMPLOYMENT FIGURES INDICATES THAT THE ANC GOVERNMENT AND ITS SOCIAL PARTNERS ARE COMMITTED TO HALF (*sic*) UNEMPLOYMENT BY 2014".
The press release, replete with a reference to the (statistically insignificant) 57 000 jobs created over the period, ignores the explanation offered by Statistics South Africa for the decline in the official unemployment rate, namely that the number of not economically active persons increased by almost one million; the number of discouraged (non-searching) unemployed rising from 3.17 million in March 2003 to 3.82 million in September 2003 (Statistical Release P0210, 25 March 2004, p.iii).
The juxtaposition of references to the official rate of unemployment with the Minister's confident assertion that: "This government is on track to meeting its stated goal of halving unemployment by 2014" in the press release, makes it seem highly likely that the goal is indeed the official rate of unemployment.

4 Website http://www.info.gov.za/issues/poa/index.html checked on 19th September 2004.

section under the heading 'On Attacking Poverty and Comprehensive Social Security' (ANC, 2002c). None of the thirteen resolutions adopted refers to any poverty reduction target. Likewise, the place to find an unemployment target, one would have thought, would have been among the twelve resolutions in the section 'Unemployment & Under-employment' in the Resolutions on Economic Transformation. It is not there; instead it is to be found in the 'Appendix to Economic Resolutions: Comments on Key Performance Indicators for Outcomes: Employment'. In the Appendix, 'The unemployment rate' (which rate is not specified), is one of the key performance indicators identified. Below the list of indicators is a paragraph of comments, the first sentence of which reads:

"We want to halve the current level of unemployment by 2014".

Since 'The unemployment rate' (which one is not stated) is to serve as a key performance indicator, it seems safe to assume that 'level' means 'rate of unemployment'. Attempts to find a more specific commitment have not proved successful. The unemployment reduction target agreed upon at the Growth and Development Summit of 2003 (GDS) is very similar to the ANC Conference Resolution. Paragraph 2.2.1 of the GDS Agreement states simply that "The constituents aim to halve unemployment by 2014" (Nedlac, 2003). This succeeds, by virtue of its failure to indicate whether the goal is the rate of unemployment, or the number of unemployed, in being even less communicative than the ANC conference resolution. There is no indication of which of two measures – the official or the expanded – the constituents had in mind. Establishing that outcomes will differ when one, rather than the other, of these possible goals is chosen, is the work of but a few moments. That being so, it may seem a little surprising that greater effort was not devoted to achieving greater clarity. It may have been feared or suspected that an attempt to do so at the Summit, a step that would, inevitably, have exposed the large differences between different targets, would lead to serious disagreement. Difficult as it may be to believe, it is also possible that people simply took it for granted that if one form of unemployment is halved, the other(s) would follow suit. For the framers of the resolution to halve unemployment, the most attractive candidate would have been the 'official' rate, a target that is appealing both because of its official (i.e., internationally accepted) status, and because the official rate, being so much lower than the expanded rate, would appear to be easier to reach. Further speculation on this matter is pointless – interviews with participants in the discussions are necessary to settle the question.

Someone, somewhere, however, is, or has been working on the question. The website of the Expanded Public Works Programme (EPWP), a relative newcomer on the scene, informs us that:

> "To reach government's target of halving unemployment by 2014 (i.e. reducing the unemployment rate from 30% to 15%) 546,000 new jobs would have to be created each year – 276,000 more than has hitherto been the case."[5] Downloaded from http://www.epwp.gov.za/, 8th November 2004.

From this, one may infer that it is the official rate of unemployment which is to be halved. The statement is repeated in a paper by the person in charge of the EPWP, Dr Sean Phillips, Chief Operations Officer in the National Department of Public Works. The paper in question was delivered at a recent conference called "Overcoming Underdevelopment in South Africa's Second Economy".[6] As source for these figures, Phillips cites Statistics South Africa's September 2003 Labour Force Survey (Phillips, 2004, p.1). An examination of that document discloses it to be entirely innocent (as one would expect) of such information. At the time of writing, the source remains unknown.[7]

So much for the likely target – discovering which year is to constitute the base against which to measure progress in the attempt to halve unemployment is also not straightforward. The statement taken from Appendix to the Resolutions of the 51st National Conference of the ANC, suggests that it could be the year 2002. The official rate of unemployment was 25.8 per cent in September 2000, and 30.2 per cent in September 2002. By September 2003, it had dropped back to 28.2 per cent.[8] Given the volatility of the numbers, it is not unduly pedantic to request some clarity on this head.

Poverty eradication, rather than mere reduction, an ambitious goal,[9] exercised the minds of those who attended the Copenhagen World Summit on Social Development in 1995. Paragraph 25 of the Programme of Action said that there was an urgent need for:

5 The number of jobs created each year is a matter of lively dispute (discussed further below). If Casale, Muller and Posel (2004, p.16) are to be believed, the total number of jobs created between 1995 and 2003 could have been as low as 1.4 million, or about 175 000 per annum, rather than the 270 000 per annum implied by the figures that Phillips cites.

6 This conference, a joint effort whose main sponsor was the Development Bank of South Africa (DBSA), was held in Pretoria on 28th-29th October 2004.

7 A request for information on the source of the passage cited above has been made to Dr Phillips (*pers. comm.* 3rd November 2004).

8 Unemployment rates are from the Labour Force Surveys (Statistical Release P0210) for the relevant months.

9 Constituencies represented at the Growth and Development Summit (GDS) committed themselves to a vision that includes *poverty eradication* (Nedlac, 2003, paragraph 1.2.3), identifying it as a priority for national collaborative action (paragraph 1.2.4). The GDS document is silent on what targets this goal might imply.

> "National strategies to reduce overall poverty substantially, including measures to remove the structural barriers that prevent people from escaping poverty, with specific time-bound commitments to eradicate absolute poverty by a target date to be specified by each country in its national context …"

In Paragraph 26, governments were urged to give:

> "…greater focus to public efforts to eradicate absolute poverty and to reduce overall poverty substantially by (*inter alia*): … elaborating, at the national level, the measurements, criteria and indicators for determining the extent and distribution of absolute poverty. Each country should develop a precise definition and assessment of absolute poverty, preferably by 1996, the International Year for the Eradication of Poverty."

In the Programme of Action published after the Copenhagen gathering, there is a guideline for developing a precise definition of poverty. Absolute poverty, it says, is:

> "… a condition characterised by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information. It depends not only on income but also on access to social services." (Paragraph 19, Chapter 2).

In the year 2000, the UN Millennium Declaration added dates and specific targets to the Copenhagen exhortation.[10] Participating governments committed themselves:

> "To halve, by the year 2015, the proportion of the world's people whose income is less than one dollar a day[11] and the proportion of people who suffer from hunger and, by the same date, to halve the proportion of people who are unable to reach or to afford safe drinking water."

South Africa was committed to the Copenhagen Programme of Action – the Minister of Social Development may be found reaffirming this in the year 2000.[12] Numerous statements

10 A brief account of the emergence of the MDG and its targets may be found in Maxwell (2004b).

11 Although the dollar-a-day poverty line has attracted criticism, cogent reasons for adopting it have been offered by Chen and Ravallion (2001), and Deaton (2003a). Some of these are discussed below.

12 See the Foreword to the *National Report on Social Development, 1995 – 2000* (DSD, 2000).

affirming South Africa's commitment to the Millennium Development Goals (MDG), reaffirmed at the World Summit on Sustainable Development in Johannesburg in 2002, may be found. Once again, however, it is not clear what base year the state has in mind for setting its poverty reduction goal. If poverty has been increasing, the year 2000 may be a more attractive base year than 2002, or 2004.[13]

Although the MDG is quite specific, confusion has still managed to arise within the South African government. In its *Strategic Plan for the years 2002/03 – 2004/05*, the Department of Social Development states that:

> "The challenge for the Department is to ensure that its short term and medium term poverty relief and poverty alleviation measures contribute towards the Millennium Goal of *halving the number of people* who live in extreme poverty by 2015." (Emphasis added).

Misunderstandings of this sort are going to give rise in the future, to the sort of acrimonious debate that took place in the run-up to the 2004 election over the extent of job creation between 1995 and 2002.[14] If targets are not agreed upon with greater precision than is evident above, disparities between actual outcomes and people's understanding of the (loosely worded) targets could be the cause of considerable strife. In the absence of a clear statement of what, precisely, the targets are, commentators on the economy have already begun to insert their own interpretations into the discourse. Prof Sampie Terreblanche, for example, having done so, is adamant that the poverty and unemployment reduction targets, as he understands them, will not be met. Here he is in full cry, after having berated the ANC for being unwilling to acknowledge during its election campaign that "… the poverty problem has become more severe over the past decade", and after claiming that "[M]ore than 48 percent of the population – or 22 million – live under the poverty line":[15]

> "The ANC election manifesto", he says, "promises that poverty and unemployment will be cut by half over the next 10 years. This implies that by 2014 only 24 percent of

13 Unemployment rates are from the Labour Force Surveys (Statistical Release P0210) for the relevant months.

14 In the absence of an authoritative critique of the 'official' estimates, this debate was 'won' by the former Minister of Trade and Industry, simply by sticking to those official (statistical) 'facts'. He disarmed his opponents by admitting that most of the two million jobs allegedly created (particularly those in the informal sector) were not of the sort desired by government. See the articles 'Doomsayers take liberties with the facts on unemployment', *Sunday Times* (*Business Report*), February 22, 2004, and 'Erwin digs in his heels on employment data', *Mercury* (*Business Report*), February 23, 2004. Would-be contributors to the debate fumed and fulminated, some disclosing a woeful ignorance of South Africa's labour statistics in the process – the 'facts' were simply not to be controverted. A recent, unpublished paper by Casale, Muller and Posel (2004) suggests, however, that the true total may be much lower, possibly as low as 1.4 million.

15 These figures are close to those in the recently released UNDP estimates (UNDP, 2003, p.5). They are also similar to those used in the *Ten Year Review* (PCAS, 2003). We consider them, and their provenance below.

> the population will live below the poverty line and that unemployment will be cut from 42 percent to 21 percent of the labour force. These goals are completely unattainable, especially if the government is to stick to its economic approach of neo-liberalism and free marketeerism".

Owing to the sharp increase in the population over the past 20 years, the potential labour force will have 3 million more people in 2014 than at present. To cut unemployment to 21 percent will necessitate the creation of almost 7 million new jobs. That is impossible." (*This Day*, Thursday, 29th April 2004)[16]

The date when these chickens come home to roost lies quite far in the future – the fact that the article contains estimates of conditions at that distant point, implies that the figures must have been cranked out by a model, however crude. Some critical assumptions have to be made in order to convert unemployment reduction targets into 'numbers of jobs'. There are two major determinants of the level of unemployment that operate independently of the number of jobs created or destroyed. One of these is mentioned in the article cited above: the growth of the working age population (roughly, those between the ages of 15 and 64 years). The other is the growth of the participation rate – the proportion of the working age population that is either working or is unemployed.

Without access to Prof. Terreblanche's calculations, it is not easy to see how he arrived at his results. If he had used the same data as that used in the simulations reported on below (for the period 2003-2014), then a growth rate of 1.7 per cent per annum for the working age population, coupled with a static participation rate, would have been associated with a target of seven million jobs to meet the unemployment reduction target. The problem is that the working age population grows in this scenario by 5.7 million.[17] There is an important lesson to be learned from this experience, one that flows from the fact that making assumptions about the values these variables take is unavoidable. The lesson is the following: if sensible debate is going to take place, the assumptions used to arrive at any conclusion have to be spelled out in detail so that their plausibility may be considered. This is of particular importance in dealing with 'difficult to predict' numbers such as these. We consider the sort of assumptions that have to be made below. Before doing so, however, let us ponder for a while on the forms that an unemployment reduction target could take.

16 A recent article by Miriam Altman of the HSRC in *This Day* ("The Employment Equation", 8 July 2004), takes it for granted that it is the official (strict) rate that is to be halved (from 30 to 15 per cent). According to her, this would entail the creation of between 400 000-500 000 jobs per annum, a goal that is beyond the reach of the economy.

17 This is not to suggest that Prof Terreblanche's results are necessarily incorrect. It is also not to suggest that assumptions and data sources should be spelled out in detail in a newspaper article designed for popular consumption. It would have helped, though, if a reference to the work from which these results are drawn had been made.

Different ways to halve unemployment

Either of the two forms of unemployment measured by the official statistics, unemployment according to the 'official' definition, which counts as unemployed, only those actually seeking work, or unemployment according to the expanded definition – the officially unemployed plus the 'discouraged' (the non-searching unemployed), could have been specified as the goal. Although the evidence suggests that it is a rate that is targeted, it would also be possible to target the numbers of unemployed. Discovering what 'halving' implies if it is taken to mean reducing the number of unemployed to half their total at some date, is simplicity itself – simply divide the relevant total by two. The arithmetic involved in trying to determine the numbers by which unemployment totals have to be reduced if it is the rate of unemployment that is to be halved is not much more difficult. The presence, however, of two unknowns – the rate of growth of the population of working age (the potentially economically active population) and the participation rates – about which recent history is not very forthcoming, makes the always difficult job of guessing what the future holds, more difficult still.

Table 1 summarises the position as portrayed in the official statistics. The lines across the table below the 1999 and September 2002 results signify discontinuities. In the case of the 1999 figures, the break was caused by the changeover from the October Household Survey to the Labour Force Survey as the main instrument for collecting data on labour market activity. The break after September 2002 arises because the March 2003 and September 2003 LFS results have been weighted to the 2001 Population Census results, whereas the earlier LFS and the OHS figures are weighted to the 1996 census.

Since there are two definitions of unemployment, it follows that there must be two different participation rates, one corresponding to each definition of unemployment. The most remarkable features of the table are the ten percentage point rise in the official participation rate, and the eight percentage point rise in the expanded participation rate between October 1999 and February 2000.

Table 1: Participation rates and the working age population

	Participation rates (%)		Working age population	
	Official	Expanded	(1000s)	% change
Oct 96	46.7	56.2	24 657	-
Oct 97	46.6	57.5	25 112	1.85
Oct 98	48.8	58.4	25 710	2.38
Oct 99	51.5	61.8	26 280	2.22
Feb 00	61.3	69.7	26 455	0.67
Sept 00	58.7	67.9	26 894	1.66
Feb 01	59.3	69.3	27 121	0.84
Sept 01	56.1	67.7	27 364	0.90
Feb 02	58.3	69.6	27 673	1.13
Sept 02	56.7	67.7	27 984	1.12
March 03	56.9	67.6	29 555	-
Sept 03	54.1	66.7	29 917	1.22
Source: Labour Force Surveys and October Household Surveys for the relevant periods.				
Notes: See file 'Unempl_(1996-2001).xls'				

Better collection of statistics accounts for a significant part of these differences. There was an unprecedented increase of 2.7 million in the number of economically active, according to the official (strict) definition. The average for all other years (October to October for the OHSs, or September to September for the LFSs) is about 420 000.[18] The 2.7 million consist of 1.2 million additional officially unemployed, 1.2 million subsistence agricultural workers, and about 200 000 domestic workers. All other employment changes are trivial. To suggest that there could have been an increase in the number of subsistence agricultural workers from an improbably low 300 000 in October 1999 to a plausible 1.5 million in February 2000 (only to fall back to an unbelievable 360 000 by September 2001), is to stretch the imagination beyond breaking point. Both low figures simply have to be incorrect.

18 This average hides, however, quite a wide range of changes. The number of economically active according to the strict definition reportedly fell by 436 000 between September 2000 and September 2001, and rose by 974 000 between October 1998 and October 1999. See spreadsheet 'Unempl_(1996-2001).xls', worksheet 'Unemployment'. Copies of the relevant spreadsheets are obtainable from the author at meth@ukzn.ac.za or chasmeth@telkomsa.net.

On average, the number of officially unemployed grew by about 340 000 or so over the period 1996-2002. The changeover from the OHS to the LFS yields a figure almost four times greater than that average.[19] When the first Labour Force Survey results were published, Statistics South Africa included in the publication, an appendix in which a number of ways of reconciling the OHS and LFS unemployment totals, were considered Stats SA, 2000a, pp.12-13). The unemployment total that finally makes its way into the official statistics for the month of February 2000, 4 333 000, is one of several that could have been used. After adjustment, it can be reduced to 3 545 000. Instead of continuing the series with the relevant adjustments built into it, Statistics South Africa chose to use the definition that produces the higher figure. Some large part of the increase between October 1999 and February 2000 is therefore accounted for by this change. In other words, there is a radical discontinuity in the unemployment series at this point – the number of officially unemployed did not actually increase from 3 158 000 in October 1999 to 4 333 000 in February 2000, nor did the official rate of unemployment suddenly jump from 23.3 to 26.7 per cent. The numbers may not be compared because the series contains a break.

For all practical purposes, the apparent increase in participation rates from 1996 to the present can be ignored – it is extremely unlikely to have happened. This means that the explanation trumpeted by government in its *Ten Year Review* for the increase in unemployment rates, the 'fact' that "the economically active labour force grew by about 4% although the population growth was only 2% per year" (PCAS, 2003, p.96) is almost certainly wrong.[20] If, as seems likely, the LFSs were picking up about two million more economically active than the OHSs, then the probable growth rate of the economically active population over the period 1995-2002/3 could have been somewhere in the region of about 2.5-2.8 per cent per annum. This may have been greater than the rate of job creation (it was certainly

19 Once again, there are some large outliers. The October 1998 to October 1999 change was a fall of 5 000, while October 1997 to October 1998 figure was an increase of 712 000. The LFS figures are better behaved. See spreadsheet 'Participation.xls', worksheet 'Unemployment'.

20 The *Ten Year Review* claims that there were 11.5 million economically active in 1995, and 15.4 in 2002. These figures correspond well with the Statistics South Africa estimates of 11.5 million in October 1996, and 15.9 million in September 2002. As we have seen above, the 'true' figure for 1996 should have been larger by at least one million (and possibly more) because of the subsistence agricultural workers. The huge increase in the number of officially unemployed between October 1999 and February 2000, casts doubt on the validity of the series for official unemployment. The claimed increase in the number of economically active (almost four million, PCAS, 2003, p.96) is incorrect.
Seizing upon the alleged 'fact' of the substantial massive rise in participation rates, government has wasted no opportunity to advance it as an 'explanation' of rising unemployment. An article in *Business Day* of October 14, 2003, by Alan Hirsch, Chief Director: Economic Sector in the Policy Coordination and Advisory Services (PCAS) in the Presidency, headed 'Unemployment rises even as jobs are created' sees him dissolving the 'Jobs Paradox' by reference to the 'fact' that the economically active population grew at about five per cent per annum [the EAP reportedly grew from 11.5 million in 1995 to 16.8 million in 2003], while job growth averaged about 2.5 per cent per annum.
Suitably retreaded, a very similar article, again written by Hirsch, appeared in *This Day* on May 21, 2004, this time under the heading of 'The unemployment paradox'. Once more, the (imaginary) five per cent growth in the economically active population is contrasted with the 1.6 per cent growth in the population. The same explanation for the alleged rise as that used on earlier occasions, an increase in participation by African women, was trotted out.

greater than the rate of population growth), but not by so much as to be responsible for any significant proportion of the tremendous surge in the numbers of unemployed.[21]

Since the Labour Force Surveys were introduced, there has been a steady fall in participation rates, both the official and the expanded. The decline is more prominent, markedly so, in the case of the official participation rate. The September 2002 and March 2003 figures, as noted above, are not comparable because the former are weighted by the 1996 Population Census and the latter by its 2001 counterpart. If this does not affect ratios like the participation rate (as one assumes it will not) then the fall in the official participation rate between February 2000 and September 2003 is an astonishing 7.2 percentage points. If it is not appropriate to compare the 1996-weighted results with the 2001-weighted figures, the decline between February 2000 and September 2002 is a still not inconsiderable 4.6 percentage points.

There was a decline in the number of officially unemployed of 680 000 (from 5.25 million in March 2003 to 4.57 million in September 2003). Since there was not a similar fall in the number of expanded unemployed (the number fell from 8.4 to 8.3 million), the fall in the official unemployment rate from 31.2 to 28.2 per cent is accounted for mainly by an increase in the number of discouraged workseekers.[22] As matters stand, the September 2003 total number of economically active according to the official definition, is roughly the same size as the February 2000 total. What use the official statistics on participation rates (the figures in the first two columns of Table 1) are for peering into a murky future, is not easy to say. It is possible that the rate has now either stabilised or is declining slowly. This is suggested by the expanded participation rate, whose behaviour is a little more sedate than the official participation.

Accurate estimates for the other variable with which we are concerned, the working age population (the potential workforce), should, one would have thought, have been too difficult to construct. Inter-censal figures pop out of a demographic model.[23] These can then be revised as required when new population census figures become available. It is not unusual for a new census to inflict grievous bodily harm on existing series – the 2001 census is no exception. There is a jump of almost two million in the working age population from September 2002 to September 2003, much of it presumably caused mainly by the reweighting to the latest census. Scanning the figures, it would seem that the number of people of working age grows by about 600 000 to 700 000 per annum. When the LFSs have all been reweighted to the 2001 census, the jump at March 2003 will (may?) be ironed out. This looks as though it will leave us with a growth rate of the potential workforce of somewhere in the region of about two per cent per annum.

21 The article by Miriam Altman in *This Day* (8 July 2004) cited above, suggests that the labour force might be growing at about 2.5 per cent per annum. She goes on to argue that "[O]nce Aids starts having a larger impact, we could expect that the labour force might grow on average between 1 percent and 2 percent a year over the next 10 years."

22 Their numbers rose from 3.2 million in March 2003 to 3.8 million in September 2003, a jump of 590 000. See spreadsheet 'Participation.xls, worksheet 'Unemployment'.

23 Doubts have been expressed as to the reliability of the current mid-year estimates.

To guessstimate the numbers that may be involved if unemployment is to be 'halved', one has to engage in a little simulation. To do that, it is necessary to assume boundary values for the two growth rates discussed above. In the face of the confusion spelled out above, it is clear that the estimates of the values of the two variables at issue might take over the period that ends in 2014 must be, at best, one part science, and nine parts guesswork. If the major impact of AIDS on the working age population (which is also the sexually active population) has yet to be felt, it is likely that the growth rate of the working age population will fall. There is speculation that it could reach zero in a decade. That would imply a workforce growth rate of a little more than one per cent per annum over the period. Accordingly, a figure of one per cent is used as a lower bound in the simulations performed below. To be on the safe side, an upper bound of 2.5 per cent per annum has been selected.

As far as participation rates are concerned, rapid population growth and pent-up demand for additional years of schooling in the early 1990s (along with other aspects of the social transition described in the *Ten Year Review*) may have been responsible for a bulge in participation rates in the late 1990s. Those effects have, however, probably worked their way through the system. A possible scenario is a stabilisation or slow secular decline in participation rates, and a moderate increase in the size of the potential workforce. An upper bound of 0.3 per cent per annum, and a lower bound of –0.1 per cent have been used in the simulation whose results are presented in Table 2.[24] In the two simulations, one thus has the potential labour force growing relatively slowly and the participation rate falling (Scenario 1). In the other scenario, both grow rapidly (Scenario 2).

The boundary values selected, which attempt to capture the movements described above, serve to demarcate the area within which it is thought that the true values of these variables might lie.[25] Although they 'feel' feasible, they are not cast in stone – anyone who disagrees, can easily substitute figures that are believed to be more appropriate.

To judge whether or not the 'halving unemployment' target has been met, some base period figures are required. The outcome could be sensitive to the choice of period. The Growth and Development Summit (at which the 'halving unemployment' goal was formally adopted) took place in June 2003. One possible candidate is thus the latest set of figures available at the time that the commitment was made. The relevant base period figures would be those for September 2002. Another possibility is the latest set of figures available at the time the ANC resolved to 'halve the current level of unemployment by 2014'. Those would be the February 2002 figures, published in September 2002.[26] Fortunately (except, of course, for the unemployed), the results for the two periods do not differ greatly, so from that point of view, choosing one or t'other does not make a great deal of difference. The figures for September 2002 are used in the simulation whose results are presented in Table 2, partly because unlike

24 These values may be changed in the spreadsheet 'Halving unemployment.xls', worksheet 'Unemployment-1', cells M11:12, M25:26, M39:40).

25 Various combinations of growth rates in between have been tried – these produce results that lie between the extremes generated by the 'slow' and 'fast' growth scenarios.

26 See Statistical Release P0210, 25 September 2002.

the February figures, they are less susceptible to the effects of the flood of new entrants to the labour market at the beginning of the year.

In order of appearance, Table 2 presents the baseline statistics; the assumed values of the two variables that generate Scenarios 1 and 2, and the increases in working age population and economically active, implied by the assumed rates of growth of these variables. Following this are the reductions in the numbers of unemployed required to yield the various 'halvings'.[27] After that, the results for different 'halvings' of unemployment are given. Finally, we have the change that government policy has found most difficult to facilitate, the increases in employment required to deliver the various 'halvings'.

If the ease with which an unemployment reduction target could be met were to be measured by the number by which the unemployment total had to fall, then we see by inspection, that halving the number of unemployed would require of officially unemployed to drop by 2.4 million (Row 3), and the number of expanded unemployed by 3.95 million (Row 4). Under Scenario 2 conditions (the fast labour force growth option), the total number of officially unemployed would need to fall by only 1.5 million (Row 19) over a decade to halve the rate, apparently the easiest of targets. The Scenario 1 assumptions push this up a little, to 2.2 million (Row 17).

Were the reductions relevant to any of the targets in Rows 17-20, or the targets of halving unemployment numbers, to be met, unemployment levels (rates and numbers) in the year 2014 would be reflected in one or other of the sets of figures given in Rows 22-38. Which of the indicators of unemployment causes the most alarm and despondency is not known. Assuming that it is the absolute number that is most distressing, the table presents the estimates of the numbers of people who would still be unemployed after 'halving' had been achieved. Commencing with the worst result, we discover that 5.5 million people (Row 27) would still be unemployed under Scenario 2 conditions, if the target were a halving of the expanded rate of unemployment. This is more than twice the number that would remain if the target were the halving of the number of officially unemployed (some 2.4 million, Row 22). All other 'halvings' produce results between these extremes. If, as has been suggested above, it is the rate of unemployment that is being targeted, then from government's point of view, this first cut at the numbers suggests (rather obviously)[28] that the official rate is the one to target.

This conclusion is strengthened as we make our way down the table. Halving the number of unemployed (Rows 29-32) would more than halve unemployment rates in both scenarios. If the target were a halving of the official rate of unemployment (from 30.5 to 15.2 per cent, Row 1), the expanded rate of unemployment would be somewhere in the region of 28-29 per cent (Rows 34-35).

27 Certain numbers need not necessarily be presented—it is obvious, for example, that if the target is to halve the number of unemployed, either official or expanded, the number at the end of the period is obtained by dividing the number in the base period by two. The same reasoning applies to the halving of an unemployment rate. The halved rates have been omitted, the halved numbers have not.

28 This seems an obvious thing to do, because the numbers are all so much smaller at the start.

Table 2: 'Halving' unemployment by 2014 – some possibilities

Base year results - Unemployment in September 2002			
1	Official unemployment rate (%)		30.5
2	Expanded unemployed rate (%)		41.8
3	No. of officially unemployed (millions)		4.8
4	No. of expanded unemployed (millions)		7.9
Assumptions			
6	Growth rate of working age population (%/annum)	Scenario 1	1.0
7		Scenario 2	2.5
8	Growth of participation rate (%/annum)	Scenario 1	-0.1
9		Scenario 2	0.3
Increase in working age population, 2003-2014 (millions)			
11		Scenario 1	3.2
12		Scenario 2	8.7
Increase in number of economically active, 2003-2014 (millions)			
14		Scenario 1	1.5
15		Scenario 2	6.2
Reduction in no. of unemployed to halve unemployment rate by 2014 (millions)			
17	Scenario 1	Official	2.2
18		Expanded	3.6
19	Scenario 2	Official	1.5
20		Expanded	2.5
Number of unemployed in 2014 (millions)			
22	Halving the number of unemployed: Both scenarios	Official	2.4
23		Expanded	4.0
24	Halving the rate of unemployment: Scenario 1	Official	2.6
25		Expanded	4.3
26	Halving the rate of unemployment: Scenario 2	Official	3.4
27		Expanded	5.5
Rate of unemployment after number of unemployed has been halved by 2014 (%)			
29	Scenario 1	Official	13.9
30		Expanded	19.0
31	Scenario 2	Official	11.0
32		Expanded	15.2

Expanded rate of unemployment after official rate has been halved (2014)			
34	Scenario 1		29.3
35	Scenario 2		28.4
Official rate of unemployment after expanded rate has been halved (2014)			
37	Scenario 1		5.2
38	Scenario 2		6.4
Required increase in no. employed to halve no. unemployed by 2014 (millions)			
40	Scenario 1	Official	3.9
41		Expanded	5.8
42	Scenario 2	Official	8.6
43		Expanded	11.1
Required increase in no. employed to halve unemployment rate by 2014 (millions)			
45	Scenario 1	Official	3.7
46		Expanded	5.4
47	Scenario 2	Official	7.6
48		Expanded	9.6

Source: Own calculations. See spreadsheet 'Halving unemployment.xls'.

Associated with these high rates are the large numbers of expanded unemployed in Rows 25 and 27. Selecting the official rate of unemployment as the target thus has the undesirable effect of leaving some very large number of people still unemployed. If the more difficult task of halving the expanded rate were tackled successfully, the official rate would drop to five or six per cent (Rows 37 and 38), a highly desirable outcome.

The question is, of course, whether such a goal is achievable? The figures in Rows 46 and 48 suggest that it is not. These figures give the numbers of jobs that have to be created in order to get unemployment rates down to the desired levels. It is obvious that the Scenario 1 conditions (slow growth of the potential workforce and a slight decline in participation rates) set the easiest employment targets. Even so, the task of creating 540 000 jobs per annum (Row 46) would seem to lie well beyond the capacity of the economy. Were Scenario 2 conditions to obtain, almost ten million jobs (Row 48) would need to be created in a decade to halve the expanded rate of unemployment. Worse still than this are the job creation demands that would need to be met if the goal were a halving of the number of the expanded unemployed. In the probably, unlikely event that the Scenario 2 conditions were realised,

more than eleven million jobs (Row 43) would have had to have been created to meet the goal.[29]

Clearly, if a goal has to be specified, then from the point of view of feasibility of attainment, a halving of the official rate of unemployment is the most sensible, if not the most humane, candidate. Its achievement would require somewhere between 3.7 and 7.6 million jobs to be created (Rows 45 and 47), the number of officially unemployed would fall by between 2.2 and 1.5 million (Rows 17 and 19) between 2003 and 2014, and there would be between 2.6 and 3.4 million people officially unemployed in 2014 (Rows 24 and 26). The political problem, as pointed out above, would be the fact that after the target had been met, there would still be between 4.3-5.5 million unemployed according to the expanded definition (Rows 25 and 27), with rates of unemployment in the region of 28-29 per cent (Rows 34 and 35).

Another set of outcomes, suggested by the behaviour of the labour market over the period March-September 2003, is also possible (see footnote 3). Over this period, the official unemployment rate fell from 31.2 to 28.4 per cent, while the expanded rate remained roughly constant (42.1 per cent in March and 42.0 per cent in September). The upshot of this was that the decline in the number of officially unemployed (623 000) was more than matched by the increase in discouraged (non-searching) unemployed (648 000). The official participation rate dropped from 56.9 to 54.4 per cent, while the expanded rate fell more modestly from 67.6 to 67.2 per cent. In all of the simulations above, both participation rates were assumed to rise or fall by the same percentages. As the experience recounted here demonstrates, this assumption does not accord with labour market performance. Accordingly, a further set of simulations were run to examine the impact, over time, of differential changes in the two participation rates.[30]

Halving the official unemployment rate with the Scenario 1 assumptions (both participation rates fall at 0.1 per cent per annum, working age population grows at a rate of 1.0 per cent per annum) it will be recalled, sees the number of unemployed fall to 2.6 million, requiring some 3.7 million jobs to be created in the process. Using the 1.0 per cent working age population growth rate assumption, and allowing the official participation rate to fall at 0.5 per cent per annum, halving the unemployment rate would just about halve the number of unemployed (4.8 million to 2.4 million). The number of jobs required to reach this goal, however, is only 2.5 million. The impact on the expanded rate of unemployment is, however, disastrous. The Scenario 1, official rate halving leaves the economy with an expanded unemployment rate of 29.3 (6.1 million unemployed; 3.4 million discouraged). Adding those who fall out of the ranks of the officially unemployed to the expanded unemployed (i.e., allowing the expanded participation rate to be partly determined by changes in the official participation rate) arrests the fall in the expanded unemployment rate at 36.6 per cent in 2014. The total number of expanded unemployed is 7.8 million, of whom 5.4 million are discouraged.

29 From the point of view of the poor, the most beneficial outcome is that which generates the largest number of jobs – the interests of workers and the poor are best served if the number of unemployed is reduced by this means.

30 See worksheet 'Unemployment-4' in spreadsheet 'Halving unemployment.xls'.

Although the official participation rate (ignoring discontinuities in the series) has fallen from a high of 61.3 per cent in February 2003 to 54.4 per cent in September 2003, a further sustained fall of the magnitude required to yield the outcome portrayed above seems unlikely. That being so, the limiting case would probably require a minimum of about three million jobs to be created between 2003 and 2014 – a not impossible task.

It seems likely that government's concern is primarily with the officially unemployed. In the body of the text of the *Ten Year Review*, for example, when unemployment totals are discussed, it is only the officially unemployed to whom reference is made, and then only once (PCAS, 2003, p.36). The composite index of economic participation specifically excludes the discouraged (the non-searching unemployed), stating that "… this group is no longer considered economically active …" (p.126). Yet shortly before this, in the list of performance indicators, one finds under the heading 'Employment', "Number employed, broad definition, (alternate) Percentage unemployed, broad definition." (p.119). What 'broad definition' has to do with employment is not clear, nor indeed, is the reason for the sudden appearance of the 'broad' definition of unemployment.[31]

Whatever government's intentions, the analysis above suggests strongly that making a political commitment to a goal the achievement of which is at the mercy of three variables whose magnitude cannot be predicted with any accuracy, may not be a clever thing to do. As has been shown, the magnitude of the undertaking depends on the rate of growth of the working age population (the potential workforce) and the growth of the participation rate, with the outcome in the target year determined by the performance of these two over time, and by that of the third variable, the actual rate of job creation. The *ex ante* job creation tasks implied by assumed values that generate Scenarios 1 and 2 differ by some substantial amounts (the one scenario requires almost twice as many jobs to be created as its counterpart). Given the levels of uncertainty about the values the three variables are likely to assume in the future, it is extremely difficult to be confident that even the most modest of the requirements for unemployment halving can be met. That being so, we must ask why, in the first place, the social partners committed themselves to a halving of unemployment? A few speculations on this interesting matter are offered at the end of the paper – let us turn now to the 'halving' poverty goal.

Halving poverty

In this section of the paper, we commence with a glance at the state of existing academic studies. Hampered by paradoxical shortages of appropriate data (paradoxical because there is now more household survey data available than ever before), these studies languish in a state of relative impotence to help address the nation's most pressing problem. After that, we take a brief look at the contradictions (the antinomies) of definition and measurement. The assumption that a shared commitment to poverty eradication will somehow produce agreement on even the most basic of the steps that has to be taken, is shown to be naïve. This is followed by an overview of the steps that government has taken to gauge the extent of

31 These are the only references to the expanded unemployment rate in the document. The word 'expanded' is not used anywhere else in the text in relation to unemployment.

the poverty problem in South Africa, and of its attempts to monitor progress in the fight against this social evil. Widespread criticism of government's failure to stem an alleged increase in poverty and inequality, its numerous policies and programmes notwithstanding, has provoked a defensive response, visible in official publications and speeches by senior politicians. This polarisation bodes ill for the fight against poverty. It is almost with relief that we turn from this to a discussion on some of the technical hazards of estimating income poverty. The difficulties, however, as will be seen below, are formidable. Having mapped out the minefield through which the estimator must travel, some estimates of the numbers of poor in South Africa from research I have recently done (Meth, 2004) are presented. These form the basis of an attempt to gauge the size of the problem of halving by the year 2014, [32] the proportion of South Africa's people that is absolutely poor.

In the academic world, the Millennium Development Goals (with their dollar-a-day definition of the income part of absolute poverty) are beginning to attract increasing attention. The goal itself has come under scrutiny by Kanbur (2004), Maxwell (2004a; 2004b), and Clemens *et al* (2004), as has the likelihood of countries achieving it (Hanmer and Naschold, 2003). Accepting the MDG of halving 'by the year 2015, the proportion of the world's people' that is absolutely poor, Deaton (2003a) has offered a comprehensive analysis of ways in which MDGs could (should) be monitored. In the present paper we climb no further up Deaton's proposed list of steps than the questioning of the appropriateness, in South Africa's case, of starting "… from the $1993 PPP poverty lines in Chen and Ravallion (2001)… " (Deaton, 2003a, p.362). Instead, it is proposed that in the absence of an official poverty line to identify the absolutely poor in South Africa,[33] that a poverty proposed by Deaton himself (1997) and applied to the 1993 SALDU/World Bank data set, be used. The reasons for this will become clear as we proceed. As noted above, we also restrict ourselves mainly to income poverty, in full awareness of the artificiality of doing so – as everybody knows, poverty is multi-dimensional. Limiting ourselves in this way means that the estimates of the numbers of poor presented may well understate the real extent of poverty, something that ought be borne in mind before indulgence in premature congratulation at the extent of poverty reduction is contemplated.

Poverty: Definition, measurement, monitoring and politics

As will have been gathered from the summary above of the concerns of this section of the paper, the measurement of poverty and the monitoring of anti-poverty programmes and policies is beset by more than mere technical and managerial problems. Behind these problems is a struggle over the extent of redistribution required to eradicate poverty. To put the matter crudely, those on the 'left' argue that significant redistribution is necessary – on the 'right', the preferred option is to limit redistribution to some minimum, and to rely for the rest on

32 The MDG target year, it will be recalled, is 2015. In South Africa, it has been brought forward to 2014, the year that marks the 20th anniversary of democratic rule.

33 Saunders (1998, p.11) refers to an article by Tony Atkinson (1993) on the value of a poverty line that has some official status. General acceptance of a particular line (or lines) can help to keep debates from wandering away from wider research and policy issues into esoterica.

the workings of the market to lift the poor out of their poverty. Sandwiched awkwardly between the demands of the have-nots and their champions, and the defenders of (as much as possible of) the status quo as far as the distribution of income and wealth is concerned, is government (which, of course, is not without strong views of its own on the matter).

Little wonder then, that government goes to such lengths to reel off statistics on the magnanimity of redistributive policies introduced or reinforced and deracialised since its accession to power. This trumpet blowing has, however, to be done in such a way as not to antagonise the well-off too much. It must be reassuring for this jittery audience to hear the stand taken by government against such proposals as the Basic Income Grant (BIG). The President's repeated (and unfounded) assertion of the 'dependency' that would inevitably result from extensions of the social grant system to adults, must be music to the ears of conservatives. This struggle over the form of anti-poverty policy is the context within which the problems of definition, measurement and monitoring must be understood.

Poverty studies in South Africa: The current state of affairs

In the discussion on halving unemployment, it was argued that without a clear specification of the target, confusion must reign. The same applies to the goal of 'halving' poverty, although, as has been argued above, it is possible, at least for a while, for government to take refuge from its critics in the confusion. The poverty studies in South Africa that should be able to inform us of the progress (or lack thereof) in the fight against poverty, are not in good shape. There are two separate but related problems. It is not easy to say which is the more serious of them. The first is concerned with the absence of a rigorous distinction between conceptualization, definition and measurement of poverty. These terms feature in the title of a recent paper by Noble *et al* (2004), that argues for a consensual approach to the problem. Critically examining some of the more prominent poverty studies in South Africa (most of which are referred to in the present paper), the Noble *et al* piece (pp.15ff) discloses slippage between the three necessary stages of conducting a poverty study. Giving examples of cases where "… measurement that does not follow from a concept and definition employed …", they argue that:

> "Current South African poverty studies tend predominantly to be based around subsistence income or expenditure measures which do not necessarily have any firm definitional or conceptual underpinnings… " (2004, p.18)

The second problem is that the studies themselves have to work with data which, in some respects (e.g., sample frames) have improved over time, but in others (weighting, non-response rates) have deteriorated. Within the limitations described by Noble *et al* (2004) there exists a reasonably reliable[34] set of poverty estimates for 1995, a year or so after the

34 The word 'reliable' is used with some hesitation. Dr Ros Hirschowitz of Statistics South Africa reminded participants workshop on measuring poverty in South Africa hosted jointly by the National Treasury and the World Bank in Pretoria on 28th-29th June 2004, that the sample for the 1995 OHS and IES was poor.

advent of democracy in South Africa. Based, as they point out on subsistence expenditure measures, these use the information in the 1995 Income and Expenditure Survey, the 1995 October Household Survey and the 1996 Population Census (Woolard and Leibbrandt, 2001). Much had been hoped for from the results of the long-awaited Income and Expenditure Survey (IES) for the year 2000. The 2000 IES should have made it possible to gauge the extent of poverty (and inequality) in that year. This would have provided a report card on progress (or the lack of it) during the first five years of democratic rule. The publication based on the IES, *Earning and spending in South Africa* (Statistics South Africa, 2002), suggested substantial increases in income and expenditure poverty (p.29). The income share of the bottom quintile of households was also found to have fallen (p.46). Unfortunately, this analysis, which should been authoritative, was so beset by problems that its findings have been widely criticised, not least by government. In the wake of the failure of the 2000 IES to deliver definitive answers on poverty and inequality, the public debate has floundered in a morass of poorly supported assertions. These emanate both from those who claim poverty and inequality have worsened, and those who deny that this is so.[35]

Extensive work has been done by Statistics South Africa on the 2000 IES to repair (to the extent that it is possible to do so) its major deficiencies: faulty weighting of the survey results, and non-response, the latter, especially among better-off households. The debate will take another lurch forward when the revised figures are published. Out of this work of reconstructing the 2000 IES results has flowed a much-discussed paper, which although widely circulated, was hitherto non-quotable and non-citable (Hoogeveen and Özler, 2004). The paper, the subject of heated controversy, which recently received the public imprimatur of no less a luminary than Angus Deaton,[36] will probably become the received wisdom in South Africa. The authors find that both poverty, especially extreme poverty, and inequality increased over the period 1995-2000. They report that:

> "For any poverty line below 322 Rand per capita per month, the poverty gap and poverty severity (poverty gap squared) indices are significantly higher in 2000 than they were in 1995. These increases in poverty accompanied positive expenditure growth that was statistically insignificant. (2004, pp.10-11).

35 The figures in the publication *Earning and Spending in South Africa* do not tell a happy story. It is very different from that told by the wildly optimistic figures in the *Ten Year Review* (PCAS, 2003), considered below. Little wonder, then, that the state jumped at the opportunity offered by the problems experienced with the 2000 IES, to cast doubt on its results. Not long after the 2000 IES results were released, an article in the *Financial Mail* (31 January 2003) drew attention to the President's preference for the figures produced by SA Advertising Research Foundation's (Saarf) over those produced by Statistics South Africa. Ferial Haffajee, author of the piece, comments that the President is happier with Saarf's development index, which paints "… a more glowing record of delivery and a discernible rising tide. It's from this report that Mbeki chose to quote in his annual address to the National Council of Provinces last November and which his aides use to present a prettier picture."

36 This blessing was given during the workshop on measuring poverty in South Africa, organised jointly by the National Treasury and the World Bank, held in Pretoria on 28th-29th June 2004.

Inequality among the population as a whole fell slightly, but it rose among the African population (2004, pp.16). Hoogeveen and Özler refer to a paper by Lam and Leibbrandt (2003) which, using income data from the same data sources as they do, concludes "… that incomes deteriorated for most South Africans." Lam and Leibbrandt also:

> "… report that inequality within racial groups increased substantially while between group inequality declined only slightly, as a result of which total inequality increased in South Africa between 1995 and 2000."
> (cited in Hoogeveen and Özler, 2004, p.6).

Few other studies have appeared since the *Earning and spending* debacle. One of them (van der Berg and Louw, 2003) tries, *inter alia*, to reconcile survey income data with national accounting statistics. They estimate the poverty headcount at 16 033 948 in 1995, and either 16 261 294 (their 'Optimistic' estimate) or 17 239 710 (their 'Pessimistic' figure) in the year 2000. Corresponding poverty headcount ratios would have been 38.8 per cent in 1995, and either 36.4 per cent (Optimistic) or 38.6 per cent (pessimistic) in 2000. According to them, the sustained fall in the headcount ratio of poverty (it fell from 49.8 per cent in 1970 to 35.3 per cent in 1990) went into reverse at some point thereafter. The number of poor increased by about three or four million between 1990 and 2000, depending on whether their "Optimistic' or 'Pessimistic' figures are used (van der Berg and Louw, 2003, p.18).

A paper by Fedderke *et al* (2004) focussing more on inequality, is agnostic in its findings, the results being sensitive to choice of data set. There may be other studies that have been overlooked, but the sample above gives a flavour of academic endeavours on the topic. In short, the academic community is divided in its assessment of the conditions of the poor, ten years after the advent of democratic rule.

Addressing the problems that plague South African poverty studies (i) the absence of "firm definitional or conceptual underpinnings" and (ii) the weaknesses of the available data sets is no simple matter. The work by Noble and his collaborators, which should help to tighten the 'concept – definition – measurement' nexus, is still in its preliminary stages. There are some defects in data sets which, once created, cannot be removed.

Yet another problem with existing poverty studies in South Africa has had attention drawn to it by the state's response to claims of increasing poverty and inequality. Going on the offensive, state spokespersons have demanded (legitimately) that the impact on the welfare of the poor of the 'social wage' be taken into account. We return to this issue below.

The contradictions of definition and measurement

For purposes of measuring income poverty, a poverty line (or preferably, a "poverty critical range" between two poverty lines (Woolard and Leibbrandt, 2001, p.49), must be identified. South Africa does not have an official poverty line (or pair of lines identifying a poverty critical range). This is not a desirable state of affairs. As Everatt points out:

> "The failure to define poverty is not an academic matter: it directly impacts on delivery. If poverty is undefined, programmes lack focus: it is not clear why this or that service is being provided, or to whom, or where and measuring progress and impact becomes near-impossible." (2003, p.89)[37]

The conclusions of a paper by Ravallion and Sen capture, with admirable brevity, the central problems involved in choosing among poverty lines. They observe that:

> "Poverty measurement requires value judgements and behavioural assumptions to help interpret the available – and invariably imperfect – data. That will always be true. The more interesting question is how much bearing the choices made by analysts have on the key conclusions drawn" (1996, p.785).

If a poverty line (or range) is to be acceptable, it must satisfy two conditions:

> "… firstly, that the methods on which it is based reflect 'best practice' scientific research methodology and data; and second, that the judgments on which it is based are broadly in line with community opinion on the meaning and measurement of poverty. The poverty line should be regularly exposed to these two criteria of *scientific integrity* and *community credibility* if it is to be a valuable tool for monitoring trends and policy impacts." (Saunders, 2004, p.3)[38]

As far as scientific integrity is concerned, the criticisms made by Noble *et al* (2004) about the absence of "firm definitional or conceptual underpinnings" to current poverty studies in South

37 This comes shortly after Everatt has taken a (possibly well-deserved) sideswipe at the 'small craft industry … measuring poverty and deprivation', now grown into a "major trans-national industry (in inverse proportion to poverty reduction)". (2003, p.88)

38 Saunders points to the crisis in Australian poverty research caused by the failure of existing poverty lines to meet the criterion of scientific integrity. This weakness is exploited by conservatives keen to deny the persistence of poverty (2004, p.1).

Africa, cast something of a pall over proceedings which, ultimately, must do more of the same. It is not necessary, however, for paralysis to set in – Noble *et al* acknowledge that:

> "… there is a need for a measurement of poverty (or poverty line) for South Africa based on an absolute concept and defined, perhaps, by reference to the Copenhagen Declaration (1995) …" (2004, p.4)

Measurement of poverty using such a line, and variants of it, is what is attempted below. Community credibility, the second of the two criteria that have to be met to make a poverty line acceptable, is precisely what Noble *et al* seek in their quest for a poverty line based on a consensual approach. They draw attention to the:

> "… pressing need for a carefully thought out relative measure of poverty ...", and they argue "… that a 'consensual' or 'democratic' definition of poverty in South Africa is the most appropriate approach to help the country overcome the deep social divisions that are apartheid's legacy and become a more equal and unified society …" (2004, p.4)

There is an interesting tension between this passage, and the reference above in the citation from the Ravallion and Sen piece about "the choices made by analysts". In one instance, technocrats 'choose' the poverty measure – in the other, what constitutes poverty is discovered by consultation. Although it does not follow from this that Ravallion and Sen are insensitive to the need for consensus on poverty, the contrast between the two positions highlights the differences between technicians, politicians and the polity. Even if the poverty lines that are established meet with general acceptance, there can be no guarantee that they will be deployed by government in a manner that satisfies all concerned. This is because of the conflicting demands of politicians and programme managers, not to mention the public at large, a body whose heterogeneity is often the source of strong disagreements. The tensions between the needs of politicians and programme managers, and their relevance for the debate on poverty definition and measurement in South Africa are captured by Everatt (2003) in an excellent piece of work called "The Politics of Poverty". It offers a guide through the complex terrain within which the debate about definitions, and their use (or non-use) in the design of policies, and the more nebulous business of articulating goals, takes place. Everatt offers an analysis of the conflicting needs of the two constituencies, and then shows how the struggle for ownership of the concept of poverty has marginalised the poor. Having just insisted that the failure to define poverty is not merely academic, he goes on to qualify the claim by stressing as well, that:[39]

39 Everatt's prose is so spare and economical, and his argument so persuasive, that I shall not attempt to write a précis of it.

> "… we should be realistic: politicians and programme managers have opposing needs. The latter require specificity, while the former prioritise political above technical considerations and prefer opacity to a definition of poverty eradication that 'implies … [that] someone else will have to forego those resources'. Most poverty experts argue strongly that a detailed definition of poverty is a prerequisite for appropriate policy selection, but ignore the political realm and the balancing act it requires…."

Where poverty specialists are insufficiently sensitive to political considerations, political analysts pay inadequate attention to the programmatic needs of anti-poverty interventions. Balancing political and technical considerations is clearly needed.

Whether that would be sufficient (assuming it can be done) to return poverty eradication to its status as a national priority is questionable. While poverty has been repeatedly redefined and an unceasing string of indicators and targets provided, in South Africa its meaning has suffered a further hollowing out through endless repetition. Poverty and 'the poorest of the poor' have been both undefined since the days of the RDP and ubiquitous in political discourse. 'The poorest of the poor' are invoked by politicians, civil society activists, the private sector and others as the intended beneficiaries of (and thus justification for) their every action, from the privatisation of state assets to black economic empowerment to enhanced social security provision. The unceasing mantra-like invocation of poverty has drained it of urgency.

> "It is not that poverty is meaningless: it has too many meanings, in the ANC-led alliance and the public service… "
> (Everatt, 2003, pp.89-90)

If an explanation is sought for the absence of clarity on what is required to achieve the MDGs, it could do worse than to take the argument above as starting point. Promises to achieve this or that goal can be attractive. The very act of making such promises, however, carries with it the risk of having to explain why, in the event of the goal not being achieved, government has 'failed'. The unedifying debate on the extent of job creation in the run-up to this year's election is an example of how unpleasant the recriminations can become, and in this case, there were not even any specific promises over which to quarrel.[40] A promise to halve poverty is a double-edged sword.

40 Unless one wishes to count GEAR's 400 000 jobs a year that were supposed to be delivered from 2000 onwards (Friedman, 2004).

Government measurement and monitoring initiatives

On at least three occasions since taking office, the democratic government has commissioned research, directly or indirectly concerned to measure the extent of poverty (and inequality) in the country. The final report of the first of these, *Poverty and inequality in South Africa*, was completed in 1998 (May *et al*, 1998a). Next came the *Report of the Committee of Inquiry into a Comprehensive System of Social Security for South Africa*, commonly referred to as the Taylor Committee Report (2002). More recently, and not yet in the public domain,[41] is a report on *The Social and Economic Impact of South Africa's Social Security System*, a document prepared by EPRI, the Economic Policy Research Institute (Samson *et al*, 2003).

Recognising the urgency of the poverty problem, President Mbeki, while still Deputy President, commissioned the undertaking of a poverty and inequality review. The final report (May *et al*, 1998a), a monumental work, told government much of what it needed to know about poverty in the early days of democracy in South Africa. The report offered as well, a comprehensive set of recommendations, which, if carried out in the manner suggested, might have taken some of the sting out of the often acrimonious debates about poverty in South Africa. Aware of the critical importance of monitoring, the report devoted considerable energy to suggesting ways in which this could be carried out.[42] These recommendations were accepted by the then Minister of Welfare and Population Development (now the Department of Social Development), Ms Geraldine Fraser-Moleketi.[43] Like many other government departments, Social Development has been a little slow in implementing the recommendations on monitoring and evaluation that would make thorough analysis of the impact of its anti-poverty programmes (chiefly, but not exclusively social security grants) possible. This, however, as will be seen below, is changing.

Having examined South Africa's conditions through the prisms of most of the standard poverty measures, and having commented on the essentially arbitrary nature, in varying degrees, of all poverty lines, May *et al*, following the RDP (Reconstruction and Development Programme), described the bottom 40 per cent households as 'poor' (monthly adult equivalent expenditure of less than R352.23 in 1995). The bottom 20 per cent of households (where expenditure was less than R193.77 per adult equivalent) was described as 'ultra-poor'. A little under 50 per cent of the population (about 19 million people) fell into the 'poor' category', while the ultra-poor (about 27 per cent of the population) numbered about ten million (May *et al*, 1998a, p.27).

41 A copy of this report came into my possession because I was asked by the Department of Social Development, commissioners of the research, to act a reviewer.

42 See especially Section 76 (pp.277) in the main report. The PIR's conclusion in the Summary report in the section on the strategy for the reduction of poverty and inequality, that the: "Collection of social, economic and demographic information to monitor the extent and nature of change is a priority in managing the reduction of poverty and inequality." (see May *et al*, 1998b, Section 10.8) has not been treated with the urgency that it deserved.

43 Ms Fraser-Moleketi acknowledged that: "… much work still needs to be done to develop the appropriate poverty measurement tools by Government." (1998, p.2)

Chapter 5 of the Taylor Committee Report is devoted to an examination of the impact of existing and proposed (especially the Basic Income Grant, BIG) social policies on poverty. Figure 10 (on p.60) provides a graphic illustration of the numbers still in poverty (below a poverty line of about R400 per person in 1999 prices) assuming full take-up of existing social security benefits. Figure 11 (on p.63) superimposes on the Figure 10 results, the impact of a BIG of R100 per month, while Table 3 (also on p.63) gives figures for the headcount and poverty gap reductions of moving from actual to full take-up of existing policies, and of the adoption of a BIG.

Much of the work for the poverty chapter in the Taylor Committee Report was done by EPRI. The fruits of this are to be seen in EPRI's latest work for the Department of Social Development, the draft report referred above (Samson *et al*, 2003). Since the report has not yet been released, its findings may not be cited. Suffice it to say, however, that it delves deeply into the question of the construction of subsistence type poverty lines, performing simulations on the basis of a wide range of them. These examine the impact of existing and planned social grants on poverty (both headcounts and poverty gaps, the latter measured in three separate ways). With this report in hand, government will have some of the information required to make informed judgements about the extent to which its policies make possible the meeting of the MDGs.

Perhaps because it lacked the sort of information provided by Samson *et al* (2003), and possibly because the target date is so far in the future, the South African government, until recently, showed little sign of having applied its collective mind to the question of whether existing and proposed anti-poverty policies will enable it to meet the goal of halving poverty by 2014. That has started to change. Statistics South Africa has taken the first of the steps necessary for the performance of such an evaluation, the construction of poverty lines that define the levels of consumption that separate the poor from the rest of the population. In the discussion above on poverty lines, reference was made to what in due course, will probably become South Africa's official poverty lines. Although Hoogeveen and Özler (2004), to whom we owe our knowledge of the existence of the poverty lines, do not describe it as such in so many words, it appears that a poverty line set at about R174 per person in 2000 is to be the line marking off the absolutely poor. The document in which the derivation of this poverty line, and its slightly more generous counterparts for identifying the 'merely' poor[44] as opposed to the destitute, is explained (Babita *et al*, 2003), has not yet been made available for public scrutiny. Government will not have complied with the Copenhagen injunction until such time as the paper is released, and its contents have been found not wanting (i.e., it must be shown to have both scientific integrity and community credibility).[45]

44 The use of the word 'merely' is not intended to detract from the misery of poverty experienced by many whose expenditure levels exceed the boundary marking them off from the absolutely poor. One is tempted to use the expression 'relatively' poor to describe the condition. This is not appropriate, however, because the concept of 'relative' poverty is already used to mean something quite different.

45 Apparently the Cabinet social cluster requested the Department of Social Development to take the lead, with Statistics South Africa, in developing the poverty lines. It is not known if the Babita *et al* effort is the outcome. It was also rumoured that the National Treasury had, independently, commissioned an academic study whose goal it would be to construct a set of poverty lines. If this is so, it is much to be deplored. A single, joint effort by the departments concerned would be preferable.

Establishing what absolute poverty means is, however, merely the start. Rigorous research into the social wage is also long overdue. The Department of Social Development has made a good start with the commissioning of the report by Samson *et al* (2003) into the social and economic impact of the country's social security system. That investigation is, however, limited to social grants. Much more work is required before the effects on the poor of the very wide range of anti-poverty interventions initiated by the state can be ascertained. In his Budget Speech to Parliament on 3rd June 2004, the Minister of Social Development said that:

> "As part of the provision of basic social assistance services we will do further work to improve the understanding of the composition, value, distribution and targeting of the social wage. We will report to Cabinet on this matter by November 2004."

This study, according Dr Yasmin Dada-Jones of the Presidency, is supposed to cover all components of the social wage.[46] As is well known from the international literature, valuing publicly provided goods and services is extremely difficult. No satisfactory methodology for doing so exists. The benefit incidence (supply side) approach can lead to the kind of nonsense published in the *Ten Year Review* about dramatic falls in inequality (see below), while the 'behavioural' (demand side) starves in a "dataless void" (Cornes, 1995, p.88). It will be interesting to see how the problems of valuing the social wage are tackled.

Some progress on monitoring and evaluation appears to have been made, although just how much, remains to be seen. In his 2004 Budget Speech, the Minister of Social Development also said that:

> "… the Department of Social Development, Stats SA and The Presidency have commissioned research to audit poverty measures used by different departments. The final report and recommendations on poverty measures will be ready by September 2004."

It is not entirely clear what this means. The research could be a follow-up to that done for the report on monitoring and evaluation of anti-poverty programmes in 15 government departments, commissioned by the Department of Provincial and Local Government (DPLG, 2001). Attention was drawn in that report to the non-uniformity, and in the case of seven of the departments concerned, the absence of definitions of poverty (DPLG, 2001, pp.13-14;

46 Remarks made at the Treasury/World Bank workshop on poverty in Pretoria, 28th – 29th June 2004. The work is apparently to be carried out by the HSRC.

Everatt, 2003, p.86).[47] The authors of the DPLG report use the 'cart-before-horse' metaphor to describe the (then existing) practice of defining poverty in relation to anti-poverty programmes (para. 23).[48] Although one would hope that matters have improved since the DPLG report was published, the poor quality of the information on the social wage in the *Ten Year Review* does not encourage the belief that such improvements are widespread.

Government's response to claims of rising poverty and inequality

Alarmed at persistent claims in the media that poverty was on the increase, government has gone on the offensive against poverty studies that do not take into account the 'social wage'.[49] Government's attempt to deal with the social wage problem is, however, far from satisfactory. The basis of the challenge made by government against the 'rising poverty and inequality story' is a set of studies undertaken for the report on the decade of democracy, the *Ten Year Review* (PCAS, 2003). Although government's criticism of existing poverty studies in South Africa is useful insofar as it has stimulated research into the impact of the social wage on the welfare of the poor, the published figures in the *Ten Year Review* have given rise to confusion. If the *Ten Year Review* does represent the most recent thinking of the South African government on the extent of the poverty problem, then the consideration of what the poverty reduction goal might be, begins with the statement that in 1995:

> "According [to] Statistics South Africa, it is estimated that approximately 28% of households and 48% of the population were living below the estimated poverty line – calculated on the basis of expenditure, *thus excluding access to services* and assets. In 1999, there were 3.7 million such households out of 11.4 million (just under 33%) living below the poverty line.

47 The DPLG report is as generous with its praise as it is with its criticisms. The latter are revealing. The report refers to the "silo culture" (para. 43), and to the "fragmentation, overlap and lack of communication or co-ordination amongst (and often within) Departments, even those that are ostensibly doing similar types of things " (para 45). Further on it is said that "The majority of respondents reported that monitoring was either not going very well or that it was acceptable in places. Less than a third of respondents reported that they were happy with their monitoring system. Again, readers should note the difference between the responses of M&E officials and those of Chief Directors. The latter tended to regard current M&E performance as partially acceptable, compared to M&E officials who felt more strongly that performance was either going well or going badly and avoided the middle ground. This indicates the closer contact which M&E officials have with the practicalities of managing monitoring and evaluation." (para.59)

48 The 'government's programme of action' webpage notes that a study described as 'Poverty Measures-Research to audit poverty measures used by different departments' has been commissioned by the Presidency. Under the heading 'Progress' is stated "To be completed by August 2004". Extracted from www.info.gov.sa/issues/poa/index.html Site visited on 19th September 2004.

49 The failure of existing poverty studies to do so, as we noted above, added one more problem to the others discussed above (the failure to base measurement on adequate conceptualisation and definition, and the severe data problems). The problem is by no means unique to South Africa. Saunders (1998, pp.8ff) discusses the challenges posed for the measurement of poverty in Australia by increases in the value of the social wage. He notes that the practical problems involved in broadening the income concept (as is attempted in the present study) would be considerable.

> Of these, most were Africans. Part of this increase in income poverty would be due to large-sized poor households unbundling into smaller households. The unbundling has the effect of removing additional income earners from the household and would therefore reflect an increasing number of households being classified as poor …"[50] (PCAS, 2003, p.17, Emphasis added).

Elsewhere in the *Ten Year Review*, the indicator for income poverty is said to be the "Percentage below minimum living level (defined in terms of expenditure)" (PCAS, 2003, p.119). It is not clear what this is supposed to mean. A poverty measure with the name of the 'minimum living level' is estimated by the Bureau for Market Research in the University of South Africa (UNISA). Available only to subscribers (mainly businesses, presumably interested to know how far their wages are from starvation level), this surely cannot be the measure chosen by the state to disclose the extent of income poverty.

The phrase in italics in the passage cited immediately signals the likelihood of what promises to be a major debate about the extent to which the 'social wage' has reduced poverty (Meth, 2004). If the outrageous claims in the *Ten Year Review* about the reduction in inequality brought about by the social wage were to be believed, all existing estimates of income poverty would have to be called into question. The impact of social spending in 1997 was an alleged reduction in inequality as measured by the Gini coefficient, from a "pre-social transfer value" of 0.68 to 0.44. By the year 2000, pre-social transfer inequality is asserted to have fallen to 0.59. Social spending, it is claimed, reduces this to 0.35 (PCAS, 2003, pp.90ff).[51]

What this means for income poverty is not explained. I have argued that these results are fundamentally flawed, resulting as they do from the careless application of the benefit incidence measurement technique to social spending (Meth, 2004). It should be a relatively simple matter, given adequate administrative records, to determine the (first round) distributional impact of social grants (tax incidence studies are a lot harder to perform). Valuing the services that constitute a large proportion of social spending, (e.g., health and education) is another matter altogether. An important part of the cause of the huge drops in inequality reported above is the imputation of shares of the total costs of production of government services to the different deciles of the income distribution. By doing so, the analyst responsible for them has fallen into the trap of conflating these results with the values that would be placed upon them by those 'consuming' the services. As Demery (2000) points out, although the benefit incidence technique allows:

50 Evidence for the assertion that 'additional income' earners are removed from households in this process is not given. Those removed could well have been unemployed persons whom households could no longer afford to support. The 'social transition' to smaller households is discussed on pp.95-96 of the *Ten Year Review*. The reasons put forward include declining fertility rates and family sises, as well as "… the effect of new government policy on how citisens try to access services, encouraging "unbundling" … " The housing subsidy is rumoured to be the 'service' that most encourages 'unbundling'.

51 The Gini coefficients are said to be respectively for "Pre-transfer income share" and "Income share after social spending" (2003, p.91).

> "…benefit flows to *recipients* of government services [to be] distinguished from the income flows government spending generates to the *providers* of those services and other government administrators…"

This cannot be taken to imply that:

> "… benefit incidence analysis is an accurate tool for measuring benefits to service recipients. Perhaps a better term to describe the technique is *beneficiary* incidence since this avoids the suggestion that true benefits are measured, but simply conveys the message that spending is imputed to the beneficiaries" (Demery, 2000, p.50).

In place of the meaningless estimates of the impact of the social wage presented in the *Ten Year Review*, the present paper offers a set of estimates of the possible impact of the social wage on the ability of households to consume. These, admittedly rough and ready estimates, suggest that between 1997 and 2002, the poverty headcount rose, the social wage notwithstanding (Meth, 2004). The results are sensitive, amongst other things, to the assumptions underlying them, as are all poverty estimates. Nonetheless, the pre-social wage poverty headcounts are not wildly out of line with other estimates of the numbers of poor.[52]

As we have seen above, the 1995 Copenhagen Programme of Action required each country to 'develop a precise definition and assessment of absolute poverty', preferably by 1996. South Africa has been tardy in complying. Although as noted above, Statistics South Africa has worked on this problem, the poverty lines they have estimated lines have not as yet, been declared official. In the absence of an official poverty line with which to estimate the number of 'absolute poor', one on which it is possible to begin assessing the magnitude of the task of halving the proportion of absolute poor, some results from the work referred to above (Meth, 2004) are reproduced below. This makes use of poverty lines similar to those in the as yet unpublished Statistics South Africa paper (Babita *et al*, 2003). Before digging into those results, a small digression through the set of obstacles facing the would-be estimator of income (or expenditure) poverty levels is necessary.

52 When it came to guessing at the value to individuals of the social wage, every effort was made to err in a direction that would maximise this value, thus making it likely that poverty is under- rather than overstated.

Some hazards of poverty measurement

Several well-known obstacles to the production of reliable poverty estimates exist. They are dealt with in a substantial literature. The brief survey above on the state of poverty studies in South Africa referred to some of the major problems. The point of this section of the paper is not to review delve more deeply into the literature, but rather to discuss the way in which some of these problems affect the South African poverty estimates. These are sensitive to a wide range of factors. The particular sensitivities dealt with below are the following:

- Poverty lines, in particular, the dollar-a-day rate converted by purchasing power parity (PPP), and the differences between per capita and per adult equivalent poverty lines
- The factors required to yield adult equivalents: the child cost ratio, and the household economies of scale parameter
- The treatment of means and distributions in surveys that collect expenditure (or income) data in classes or categories
- The extent of under-reporting of expenditure (or income) in social surveys
- The reliability (consistency) of the surveys from which the basic data are drawn

Poverty lines

It is scarcely original to point out that when estimating poverty levels, the choice of a poverty line (itself a somewhat arbitrary construct) can have a significant effect on the level of poverty disclosed by whatever study it is that is being carried out. In the present case, the range of options open should be relatively small – we are concerned, after all, with the reduction of absolute poverty, and that has been defined in the Copenhagen Programme of Action. Absolute poverty, it may be recalled, is said to be:

> "… a condition characterised by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information. It depends not only on income but also on access to social services."

Focussing, as is our intention, mainly, but not solely on the income dimension of poverty, an interest in the absolute poor sends us initially to the MDG, where they are identified as those living below the dollar-a-day poverty line. Although there are numerous, well-documented problems associated with this poverty line, not least of them the need to convert it into local currencies using estimates of Purchasing Power Parity (PPP),[53] it is not without its defenders.[54] Chen and Ravallion (2001), re-evaluating the line (first introduced in 1991), in the light of a re-estimation of PPPs by the World Bank, argue that poverty rates estimated on the basis of the dollar-a-day (actually, $1.08) must be "conservative" ("… a close approximation to the poverty line one would expect to find in the poorest country …") (2001, p.288).

Having outlined both the general problems with PPP exchange rates, and the specific problems of 'PPP indexes used in world poverty counts', Deaton (2003a, pp.357-361) nevertheless proposes the use of the Chen and Ravallion (2001) PPP poverty lines as a starting point for monitoring poverty. This suggestion, he argues: "… recognizes the rhetorical value of the $1-a-day concept, retaining the trademark." Noting the arbitrariness of poverty lines, he goes on to say that:

> "The hope is that within that range of arbitrariness, we can find a poverty line for each country that is: (a) close to $1-a-day at 1993 PPP, and (b) meaningful and that makes sense to people in the country for the purpose of the international (not domestic) counts". (Deaton, 2003a, p.362)

Countries not included in the 'benchmark' sample have PPP exchange rates imputed them by:

> "… a regression procedure that effectively adjusts their official exchange rate by an amount that is similar to the adjustment for countries at a similar level of development for which benchmark data exist. This procedure, while clearly sensible, can also be subject to substantial error, and in some extreme cases in the past, the Bank has published PPPs and associated poverty rates that were clearly incorrect." (Deaton, 2003a, p.360)

53 Rao refers to two of the more prominent works highlighting such problems, those by Deaton (2000) and Reddy and Pogge (2002), then provides a summary of the major weaknesses (Rao, 2003, p.2). He cites a passage from a response by Ravallion (2000) to the effect that in:

> "the vast bulk of Bank's analytic and operational work on poverty, the '$/day" line is ignored, and with good reason. When one works on poverty in a given country, or region, one naturally tries to use a definition of poverty appropriate to that setting. Most of the time, the Bank's poverty analysts don't need to know what the local poverty line is worth in international currency at purchasing power parity ..."

54 It would be naïve to think that the specification of the dollar-a-day poverty line as the international standard in the MDG would enable controversy over the extent of poverty to be avoided. The call for each country to develop its own poverty line is an explicit recognition of the fact that although the dollar-a-day line does have some merit, it will not necessarily be appropriate for every poor country.

South Africa is not one of the benchmark countries–its PPPs are produced by the regression method. Adjustments to the PPP rate have had some strange effects on the $1-a-day rate when expressed in Rand terms. Woolard (2002, p.1) notes that the pre-1993 PPPs yielded a poverty line of R92 per month in 1993. The newly benchmarked figures reduced this to R55 (both in 1993 prices). According to Ahmad (2003?, Annex B, p.25), South Africa's 1993 PPP exchange rate (units of local currency per US $) was 1.672. This gives a dollar-a-day poverty line of R50.86 in 1993. Inflating this to the prices of the year 2002 using the very low income CPI as inflator, yields an amount of R103.88, or R3.42 per day.[55] Deaton (1997, p.157) used as poverty line, an amount of R105 per person per day in 1993, noting as he did that it was "… much lower than poverty lines commonly day …"[56] Inflating this poverty line to 2002 prices produces a figure of R214.48, or about R7.05 per day.[57] Because the consumption level it yields is so far below any poverty line in use in South Africa (and because it does not have its origins in a benchmark study) there would seem to be little further use that can be made of the PPP adjusted dollar-a-day line. It is, however, used below to illustrate the argument about the sensitivity of poverty estimates to the choice of poverty line.

A characteristic of the dollar-a-day poverty line (both the PPP version and the Deaton 1997 version above) is that they are per capita lines (as opposed to per adult equivalent lines). In the paper in which the dollar-a-day line was originally mooted (Ravallion, Datt and van de Walle, 1991), the poverty lines measure consumption per person (based on 'average families').[58] Apart from the problems inherent in working with such a nebulous concept as the 'average family', it is clear that poverty lines measured in this way (per capita) embody implicit values of the child cost ratio and the household economies of scale parameter. If these could be estimated, it should be possible to estimate the corresponding per adult equivalent poverty line. For a given per capita poverty line, the existence of reduced child costs, and the presence of household economies of scale, have the effect of raising the per adult equivalent poverty line.[59] First prize in the poverty measurement stakes would be an accurate per adult

55 Hoogeveen and Ösler estimate the value of the dollar-a-day line at R87 in the year 2000 (2004 p.9). Raised to 2002 prices, this would equal R104.5, reassuringly close to the figure of R103.88 referred to above. They observe that their $2/day line (R174) is close to Deaton's (1997) of R105 in 1993 (R178.46 in 2000). Their $2/day line they treat as an "extreme" poverty line. It corresponds roughly to what is described as absolute poverty ($1/day) above. The difference must be accounted for by the PPP exchange rate conversion.

56 Deaton's estimate of the headcount ratio (P_0) for the year 1993 puts it at 0.25 or 25 per cent of the total population (1997, Table 3.4, p.157). The World Bank's estimate for the number of people below the $1/day line in the same year was 11.5 per cent. See World Bank, 2001, Table 4, p.281.

57 It has not been possible to replicate this figure. An explanation of the method of construction will be sought from the authors.

58 Ravallion, Datt and van de Walle observe that: "When poverty lines are differentiated by family (*sic*) sise we have used the per capita value at roughly average family sise." (1991, p.347)

59 A household budget, for an 'average family' of, say, four persons (two adults and two children) would be $4 per day. Rather obviously, scaling this for child costs and household economies of scale yields a number of adult equivalents smaller than the number of persons in the 'family'. Dividing by the daily budget by this number yields an adult equivalent poverty line that is smaller than the per capita poverty line. In a two-adult, two-child household for example, to estimate per adult equivalent consumption, instead of dividing the expenditure level by 4.0 as one would to obtain per capita consumption, one divides it by 2.69 if á = 0.5 and è = 0.9.

equivalent poverty line. Such a measure is invariant to changes in household (and demographic) structures–coping with the social transitions experienced in South Africa in recent times (increasing proportions of single and two-adult households, falling household sizes generally) would present no problems. The errors involved in using per capita poverty measures are not easy to estimate. The problem with per adult equivalent poverty lines, of course, is precisely that child cost ratios and household economies of scale parameters are extremely difficult to determine.[60]

For the purposes of the present paper, the income (and expenditure) dimension of absolute poverty in South Africa follows Deaton (1997)—the absolutely poor are assumed to be all of those whose expenditure was less than R214.48 per month per person in 2002. In line with Woolard and Leibbrandt's suggested use of two poverty lines to create a "… 'poverty critical range' " (2001, p.49), we turn to a measure suggested by Chen and Ravallion to capture relative poverty. They argue that:

> "… to be deemed "not poor" a person must meet *both* the "$1 per day" absolute consumption standard and consume more than some constant proportion of the mean consumption in the country of residence. We set the constant of proportionality to avoid social exclusion[61] at one third … " (2001, p.294, emphasis in original)

In South Africa in 2002, mean monthly per capita consumption was about R1267, [62] one third of this is about R422. It follows that if that level of consumption is regarded as modest, leaving as it will do, most of those below it, and many above, far from being to able to participate fully in society, that the MDG goal itself, although laudable, is itself extremely modest. The poverty critical range in 2002 used in this study requires that people consume between R214-422[63] per month. The lower figure separates the absolutely poor from the poor, while the higher separates the poor from the non-poor.

60 The topic of converting per capita poverty lines to per adult equivalent poverty lines is dealt with in greater length in Meth (2004).

61 The concept of social exclusion is contested. Arguing against the uncritical transportation of such terms from First World debates into the developing country context, du Toit (2004) prefers the term 'adverse incorporation' to describe the conditions of many of the working poor whose mean monthly consumption would certainly lie well below the R422 mark.

62 Estimated from the *South African Reserve Bank Quarterly Bulletin*, March 2004, p.S-119.

63 Expressed in 2002 prices, Hoogeveen's and Özler's lower bound poverty line of R322 in 2000 prices would amount to about R387 per month. This is not all that far from the suggested Chen and Ravallion (2001) figure of R422 per month (in 2002 prices).

To place these figures in perspective, one of the more 'commonly discussed'[64] poverty lines in South Africa, Potgieter's Household Subsistence Level (HSL), in its adult equivalent form, would have had a value of about R557 per month in 2002 if what Woolard and Leibbrandt (2001, p.54) describe as the "widely accepted" (May *et al*, 1995) scales, i.e., a child cost ratio of 0.5, and an economies of scale parameter of 0.9,[65] were used to obtain the numbers of adult equivalents. Converting this to a per capita measure (by setting the child cost ratio and household economies of scale parameter to unity) would yield a poverty line of R344 per month. This is more modest than both the Hoogeveen and Özler line (R387), and the Chen and Ravallion line (R422).

Each of the three Poverty Line Sets contains six poverty lines. Presenting the results for all of them has the advantage of showing how the numbers in poverty change as the level of the poverty line changes. The interest of the paper is, however, focused on a limited number from each set. Most important, in Poverty Line Set No. 1, given the extent of deprivation it represents, (and given the MDG commitment), is the line measuring absolute poverty, taken here as R214 per capita per month in 2002. Next is the line derived from Chen and Ravallion's work, of R422 per capita per month. Falling between these are the scaled HSL 1 and 'Official' poverty lines. We look in passing at the poor unfortunates located below the R104 per month line, being careful not to suggest that this line has any validity as a poverty line. Poverty Line Sets Nos. 2 and 3 contain a series of scaled variants on the dollar-a-day line (the 'Deaton' version), the Chen line and the 'Official' line, in which household composition is allowed to vary between two adults and two children, or two adults and three children. The primary focus, however, is on the two per adult equivalent variants of the HSL, HSL 1 and HSL 2.

64 Alderman *et al* (2000, p.11n) used a figure of R800 per month in 1995 as a cut-off to identify households in poverty, and a figure of R250 per month for individuals. Their poverty estimates (the 28 per cent of households and 48 per cent of individuals cited in the *Ten Year Review*), are not adjusted for child costs or household economies of scale (p.10n). Hirschowits *et al* (2000, p.59) describe as "very poor" households with a total expenditure of less than R600 per month in 1995. Households in which expenditure was between R601 and R1000 per month were regarded as "poor". These are respectively, households in the bottom and second from bottom quintiles in the distribution. It is not obvious from the studies in question how the problem of varying household composition was treated.

65 The equivalence scale is of the standard form $E = (A + \acute{a}K)^{\grave{e}}$, where E = the number of adult equivalents, A = number of adults, á = the child cost ratio, K = number of children, and è the household economies of scale factor (Leibbrandt, Woolard and Bhorat, 2001, p40). Children in this study are treated as those under the age of 18 years. The process by means of which the values of this poverty line are estimated are described in Meth, 2004, in the section of the paper headed "Defending the chosen poverty line(s)".

Child cost ratios and household economies of scale parameters

In the model from which the results presented in this paper are extracted, children are 'converted' to adult equivalents[66] by the application of a child cost ratio of whatever level is deemed appropriate. Similarly, the household economies of scale parameters may assume any value between unity and zero. Setting the child cost ratio at 1.0 implies that the cost of living for a child is the same as that of an adult, while a household economies of scale parameter of 1.0 implies that there are no economies of scale. These, obviously, are the values for per capita poverty lines such as the dollar-a-day poverty line. A rough indication of the effect of the presence of 'non-average families' may be obtained by allowing child cost ratios to vary between 0.5 to 1.0, while household economies of scale parameters float between 0.8 and 1.0.

Changing either or both of the coefficients á (the child cost ratio), and è (the household economies of scale factor) is tantamount to changing the level of the corresponding per capita poverty line. When that happens, poverty estimates are affected. Woolard and Leibbrandt (2001, pp.53ff) have demonstrated that poverty headcounts are relatively insensitive to changes in á and è when poverty lines themselves are relatively high. As the value of a poverty line declines, say, towards bare subsistence, the sensitivity of the poverty estimates to changes in the level of the poverty line increases.[67] Whatever their shortcomings, the most common per adult equivalent poverty lines in South Africa, the HSLs, are based in surveys conducted over a number of years. Since data on child costs, and implicitly, on household economies of scale, are available, the effects of varying household composition can be simulated. The same cannot be said of the most important of the per capita poverty lines mooted above.[68] The sensitivity of the Deaton (1997) R105 line (which converts to R214 per capita in 2002 prices) to changes in the composition of whatever 'average family' (or household) it is based on cannot be established (i.e., the implicit values of á and è cannot be determined). There have been significant changes in household composition over the period in which we are interested (1997-2002).[69] The use of the same value for the poverty line in each year could thus lead to significant error. Until such time as an official poverty line that meets the 'scientific integrity and community credibility' criteria is created, the range within which the 'true' headcount of poverty might lie, must remain unknown. History will continue to be difficult to write because such a line (or lines) did not exist in the past.

66 See Woolard and Leibbrandt (2001, pp.50-51) for a discussion on adult equivalents.

67 For want of a better name, I call this phenomenon 'headcount elasticity' (see Meth, 2004).

68 The Chen and Ravallion 'one third of mean consumption figure' is purely arbitrary, so can be ignored.

69 Between 1997 and 2002, the proportion of households containing a single individual rose from 2.7 to 7.0 per cent; households containing two adults from 4.5 to 5.8 per cent, while the proportion of households containing adults and children fell from 87.1 to 82.5 per cent. Within the latter households, the ratio of adults to children appears to have risen from about 92.3 to about 96.6 adults per 100 children.

Means and distributions within each expenditure category

With the exception of the year 1997, the OHS and LFS data on which the results in the paper are based do not allow means and distributions within expenditure categories to be estimated with any ease. The 1997 October Household Survey collected point estimates of consumption. For 1999 and 2002,[70] all that is available are the expenditure estimates by category. For those years, means and distributions have to be guessed at, a tricky process. To address this problem, distributions of adults and children in the various households were extracted from the survey data. Households containing only adults have been sorted (categorised) into those containing one adult; those containing two adults, and those containing between three and ten adults. Households containing adults and children are sorted into those containing up to 12 children and six adults (households of the latter composition or type may exist, but the surveys did not discover any). There are thus 80 possible 'types' (household compositions) into which a household could be classified. Dividing the boundary values of the expenditure categories (R0-399 and R400-799 per month) by the numbers of people (or adult equivalents) in each household 'type', yields maximum and minimum potential per capita expenditure.

Within each of the household types where expenditure lies between R400-799, maximum and minimum potential expenditure are fixed by the boundaries (e.g., in a two-adult household, per capita expenditure must be between R200-399.50). What is not known is the distribution of individuals within each category. For people in the expenditure range R0-399 per month, in addition to the distribution of individuals within each category being unknown, it is unreasonable to have R0 as the bottom bound, even though there will have been people with close to zero expenditure during the survey month. Within each household 'type', expenditure is assumed to be distributed linearly. For the bottom expenditure category, the lower bound is assumed to be set at 50 per cent of the upper bound, i.e., approximately R200. With a linear distribution, mean expenditure within this category (for a household containing a single individual) would be about R300 per month, or 75 per cent of the upper bound of R399.[71] In the expenditure category R400-799, a linear distribution obviously yields a mean that lies at the midpoint of the range, i.e., about R600 per month (for a single individual).

These assumptions treat the effectiveness of anti-poverty policy with generosity, in that they are likely to understate the number of poor. Point estimates in the 1997 OHS allow for the examination of actual distributions in each of the 80 expenditure household 'types' in the two expenditure categories. Almost without exception, mean expenditure levels disclosed by the survey lie well below those predicted by the simple linear distributions that have been

70 The 1999 data (which are highly suspect) are from the 1999 October Household Survey (OHS). The 2002 data are from the September 2002 Labour Force Survey (LFS).

71 This assumption is generous. In other runs of the model, I have assumed a lower bound of 30 per cent. This gives a mean of 65 per cent of the upper bound, a figure that is close to the two-thirds sometimes assumed in poverty and income distribution studies.

assumed.[72] It is possible that the actual distributions of expenditure are log-normal. Given that point estimates are available for 1997, the data for that year, if used in the computations, might bring the results closer to the 'true' values. The complications that arise for the modelling exercise as a consequence of the mixture of actual and assumed distributions are, however, of such a nature as to render the use of assumed distributions for the 1997 figures acceptable. As we shall see, ignorance of the 'true' level of expenditure in each household probably overwhelms any errors introduced by the use of an assumed distribution for 1997.

Under-reporting of expenditure

Surveys have a reputation for under-reporting income and expenditure.[73] Population censuses do not do all that well either. Discovering the extent to which expenditure has been under-reported is no simple matter. A recent paper by Deaton (2003b) points to an almost universal mismatch between survey and national accounts consumption estimates. More acute in some countries than in others, it can reach spectacular proportions, even in the most advanced economies. In the United States, the ratio of survey consumption to national accounts consumption fell from 0.80 in 1984 to 0.64 in 2001 (Deaton, 2003b, p.15). Deaton claims that apart from extremes, what we have is:

> "… some combination of underestimation of poverty decline, underestimation of a widening in the distribution of consumption [growing inequality], and overestimation of growth. Quantifying the contribution of each is an urgent task for anyone interested in growth, poverty and inequality" (Deaton, 2003b, p.17).

Non-response, and the degree of inequality are shown by Deaton to be important in explaining (part of) the drift between surveys and national accounts figures. Having looked at the weaknesses in both, he comments that:

> "When rich households are less likely to cooperate with the survey than poor people, survey-based estimates of consumption will understate mean consumption, and overstate the fraction of people in poverty. The fraction by which consumption is understated

72 The finding that means lie below mid-points of linear distributions is in line with those reported by Keswell and Poswell (2002). Most responses in the 1997, 1998 and 1999 OHSs gave categorical (income bracket) estimates. They devised a technique for dealing with the problem caused by the absence of actual income (point) estimates from the October Household Surveys and Labour Force Surveys, and their (optional) replacement by estimates that lie within specified income brackets. Critical of approaches that use the mid-point of an income bracket, these authors (who prefer to assume a log normal distribution of income) show that the use of the mid-point assumption overstates true means, leading to over representation of better-off individuals (see their Appendix B, pp.42-43 and their Figure 1, p.50).

73 If the income and expenditure surveys on which poverty estimates depend are of the 'recall' rather than the 'diary' type, error can be introduced by virtue of the use of an inappropriate recall period. Both Chen and Ravallion (2001, p.285n) and Deaton (2003a, p.367) refer to the Indian experience where changing the recall period for food from 30 to seven days almost halved the poverty rate (from 36 to 21 per cent).

> will typically be larger the greater is the inequality of consumption. Unless consumption inequality is increasing over time, or the fraction of non-cooperating households is increasing, income-based non-cooperation does not, in and of itself, imply that the ratio of measured to true consumption is increasing over time" (Deaton, 2003b, p.33).

Both non-response, and the degree of inequality conspire to overstate poverty in South Africa – certainly as far as the most recent IES was concerned, non-compliance among the rich was very high.[74] Inequality, of course, is still high. Further than that, however, it is extremely hard to penetrate into South African reality. Rough calculations performed by Prof. Charles Simkins of the University of the Witwatersrand suggest that both the 1996 Population Census and the 2000 Income and Expenditure Survey captured only about 60 per cent of estimated national accounts income.[75] Professor Servaas van der Berg of Stellenbosch University claims that the 1995 IES found 90 per cent of national accounts income,[76] while the 2000 IES could find only 80 per cent of it (see *This Day*, February 25 2004). To the best of my knowledge, no-one has yet attempted to perform this operation for the OHSs and LFSs.

Even if an attempt were made, it is unlikely to get anywhere near the heart of the matter. According to the *Ten Year Review* (PCAS, 2003, p.91), the bottom 40 per cent of households received only 6.2 per cent of pre-transfer income. An under-reporting error of 50 per cent, which would raise their income share to a little over nine per cent of the total, could easily be accommodated in the reconciliation exercises referred to above, still leaving plenty of slack for under-reporting errors among the well-to-do. Although it might be possible to discover whether or not income-based non-cooperation has increased over the period of concern here (1997-2002), it cannot be said with any confidence, whether inequality is increasing or not. The project of reducing the possible margins of under-reporting of expenditure by attempted reconciliation of national accounts and survey estimates cannot succeed. In short, it is not possible to say whether the 'ratio of measured to true consumption is increasing over time'.

The only way out of this predicament is via simulation. The approach adopted here is to assume that the ratio of mean survey expenditure levels to national accounts consumption means lies within the range shown in Table 1 in Deaton (2003b). Using the population weighted figures, and ignoring the anomalous results for sub-Saharan African surveys, the

74 Under-reporting could, and probably does vary significantly by expenditure category, whether the poor are more likely than the well-off to understate their expenditure cannot readily be determined.

75 *pers. comm.*

76 Commenting on the poor quality of the 2000 Income and Expenditure Survey, van der Berg and Louw (2003, p.2) observe that about 25 per cent of the records are useless, either because recorded expenditure for food is zero, or because total expenditure and total income differ by more than 30 per cent. van der Berg's claims on the reconciliation of the different data sources get some support from Alderman *et al* (2000), cited by Hirschowitz *et al* as having found the IES consumption estimates to "aggregate closely" up to the consumption estimates in the national accounts (2000, p.55). By itself, however, this does not prove that expenditure is not seriously under-reported in poor households.

ratio lies between 0.569 (for South Asia) and 0.867 (Middle East). Ratios of this magnitude would be generated by errors of 70 to 15 per cent respectively.[77] Talk of error is, of course, somewhat misleading, because national accounts estimates themselves are widely believed to overstate growth rates (Deaton, 2003b, p.34).[78] This will have the effect of moderating the ratio furthest away from unity. In other words, the error is unlikely to be as high as 70 per cent (the ratio as low as 0.569).

Survey reliability (consistency)

Enough has been said above to raise suspicions about the quality of the data used, at least as far as the poverty analysis part of this paper is concerned. Expenditure data become available in an October Household Survey for the first time in 1996. Because the survey for that year sampled only 16 000 households (conducting the population census and a full-scale OHS in one year would have placed too great a demand on the resources of Statistics South Africa), the year 1997 has been used as starting point. The data are from a full survey (30 000 households). In the early days of the OHS, the sample frame, for a variety of reasons, was regarded as deficient. The 1997 figures appear to be reasonably consistent, but questions have been raised about the 1999 results. By September 2002, Statistics South Africa seemed reasonably confident that the sample frame was satisfactory. The September 2002 LFS results are, however, weighted by the 1996 population census results. This means that the numbers will probably all change when LFS figures reweighted to the 2001 population census appear.

The paper by Fedderke *et al* (2004) looking at inequality in South Africa in the period 1995-2000, and drawing on all available surveys conducted by Statistics South Africa in the period to do so, concludes that:

> "… there is much contradictory evidence that emerges from household data on inequality – suggesting that the choice of data set is non-trivial …" (2004, p.2)

For what it is worth, the 1997 data seem to behave a lot better than do the corresponding 1999 figures (see their Figure 1 on p.48, and the remarks on the quality of the income estimates on pp.29-31). Tests in the form of comparisons between the household forms (proportions of households containing varying numbers of adults, and adults and children) performed on the basic data do not reveal any wild inconsistencies (Meth, 2004). On those grounds, it seems reasonable to proceed, always with the thought at the back of the mind that the 1999 results are probably a bit suspect.

77 If reported expenditure is, say, R400 per month, a 15 per cent error would mean that actual expenditure is R460 per month. The ratio of reported to actual expenditure is thus 87 per cent.

78 Deaton observes, in making this point, that he knows of no plausible estimate of the sise of the bias.

The latter question, the answer to which is an unequivocal negative, was suggested by the title of a paper referred to in Deaton (2003a, p.378).[79] It arises because some of the results to be presented below suggest that while the goal has not already been achieved, with a greater effort by government, it possibly could be. The trick is performed by allowing the poverty line to sink towards the PPP based dollar-a-day poverty line. This *reductio ad absurdum* (the PPP based dollar-a-day poverty line is manifestly wrong) illustrates the importance of agreeing on an adequate poverty line to identify the absolutely poor. Allowing the poverty line to move away from a region of utter destitution soon puts paid to the enticing prospect of a goal well on the way to being achieved. It seems likely that the goal of halving poverty by 2014 is so ambitious that no reasonable hope of achieving it by the designated date should be entertained. Before looking at poverty at the PPP based dollar-a-day poverty line, however, a few words about the social wage are in order.

Estimates of the impact of the social wage on consumption are from Meth (2004). That paper presents a method valuing the social wage that differs from the two standard approaches, described, for example, in Demery (2000). It is not the intention to spell out in any detail, the method by which the estimates are obtained. Suffice it to say that if the social wage is to have any impact on income poverty, i.e., for it to be 'bankable', it must either place income directly in the hands of the poor (in the form of transfers), or it must reduce the amounts that households have to spend to achieve a given standard of living. Non-income transfers that have this effect, work either directly by allowing households to reallocate spending after the introduction of a component of the social wage, or indirectly, by making socially desirable goods and services available which households could not previously consume. In effect, this latter process lowers the poverty line. Apart from income transfers (cash grants such as the state old age pension and the child support grant), the social wage in South Africa is defined (pragmatically rather than rigorously) as consisting of half a dozen or so, goods and services. Free basic allowances of water and electricity, subsidised transport, health care (including school feeding schemes),[80] education, housing and sanitation make up the list. In the paper from which these results are drawn, the full value of the social wage is assumed to accrue to each intended beneficiary, i.e., targeting is assumed to be perfect. This assumption is generous to government's policy measures, overstating as it almost certainly does, the impact of anti-poverty policy.

For the most common adult and child household in the bottom expenditure categories (R0-399 and R400-799 per month), namely, those containing two adults and a child (about 12.7 per cent of households in the former category, and 11.0 per cent in the latter), the social wage was estimated to be worth about R60 per month per adult equivalent in 2002. For the next most common households, those containing two adults and two children (about 11.4 and 9.7 per cent respectively of all adult and child households), the social wage was worth about

79 The paper is by Ravallion (2002).

80 The major school feeding scheme is part of the Integrated Nutrition Project. The responsibility for carrying out this programme rests with the national Department of Health.

R58 per month per person. With the bottom boundary of the lower expenditure category assuming a value of 50 per cent of the upper boundary, maximum pre-social wage potential consumption at the very bottom end of the expenditure scale for the two-adult, two child household was a little over R85 per month per person (under-reporting assumed at 70 per cent). This means that the social wage would have raised potential consumption of these households by almost 71 per cent. The effect obviously falls as one ascends the expenditure scale. Even so, at the upper boundary of the bottom expenditure category for the two adult, two-child household, the social wage raises potential consumption by a hefty 35 per cent.[81]

There is one more issue to be addressed before we get to the results themselves. For many households, much of the expenditures on which data is captured in the surveys are made, is made using income paid out in the form of social grants, chiefly the state old age pension and the child support grant.[82] In earlier versions of the paper, the results referred, somewhat misleadingly, to estimates of poverty before and after the social wage, when, in fact, they included the pre-social wage estimates included the substantial amounts paid out in the form of grants.[83] An attempt has been made to correct this shortcoming in the present version.[84] The correct way to solve this problem would be to subtract from each household, the values of pensions (and disability grants, as well as the child support grant in the case of the 2002 figures) received. This would give a 'true' pre-social income position. It is not possible to

81 The settings that produce these values come from the Deaton (1997) poverty line. The child cost ratio and the household economies of scale parameter are both set at 1.0. The value of the social wage is estimated for assumed levels of under-reporting of expenditure of both 70 per cent and 15 per cent. Since the value of the social wage does not change with changing assumptions of the level of under-reporting, the impact of the social wage in proportional terms if a 15 per cent under-reporting assumption is used, is much larger. At the lower end of the bottom expenditure category, the social wage for a two-adult, two-child household raises potential consumption by more than 100 per cent (from the low base of R57 per person per month). For the two-adult three-child household, the effect is even greater.

82 The surveys seem do reasonably well at capturing the appropriate numbers of old-age pensioners. Recipients of child support grants are less well enumerated, so a correction is made when the 'social wage' is added in, to accommodate the under-counting of grants of this type. No attempt has been made to check whether the numbers of disability grants (by 2002, the third largest category of cash grant) captured by the surveys match administrative records of grants paid.

83 It is well-known that the state old age pension has a huge impact on poverty. In defence of the calculations in the earlier versions of the paper from which the results come, it needs to be pointed out that growth in the numbers of recipients of pensions over the period under consideration was modest. In April 1997 there were 1.7 million recipients. By July 2001, this had climbed to 1.9 million, a level it appears to have maintained in 2002. As I have shown elsewhere (Meth, 2004, Table 1), the real value of the state old age pension fell from R694 to R640 per month (in 2002 prices) between 1997 and 2002. Real transfers via pension grants probably fell slightly, because the fall in the real value of the pension more than offset the additional benefits paid out because of the increase in the number of pensioners. It was argued that if the two effects had neutralised each other, pensions could simply have been treated as a constant. As it is, the earlier years probably had a slightly higher social wage component from this source. Ignoring this would have biased the results in a conservative direction, i.e., increases in poverty would have been understated. Child support grant rollout commenced in earnest in 1999, the number of recipients in March of that year totalling about 28 000. The CSG replaced the Parent and Child Allowances, of which there were about 350 000 in 1997 (See *SA Statistics 2001*, p.6.4). The CSG therefore only became salient for the final year in the calculations, 2002. Disability grants appear not to have increased in number between 1997 and 2002. Like the state pension, their real value probably fell. They too, were ignored.

84 The need to make this correction was pointed out to me in discussions with Angus Deaton and Francois Bourguignon at the Treasury/World Bank poverty workshop in Pretoria on 28th-29th June 2004.

perform this trick with the simulation model used in the study from which the results are drawn.[85] As a compromise, it has been assumed that pensions in 2002, 1999 and 1997 were equally distributed over all households in the household expenditure categories in which we are interested, R0-399 and R400-799 per month. Child support grants for the year 2002 were treated in a similar way. With a minimum of juggling, the model returns values of social grants roughly equal to administrative record estimates of total payouts.[86]

So much for the social wage – it is time to look at the results of the simulation exercise conducted out in the paper 'What has happened to poverty in South Africa as unemployment has increased?' (Meth, 2004). Instead of playing with an endless number of outcomes produced by varying all major assumptions, the latest version of that paper fixes the least significant of them (the lower bound of the bottom expenditure category), then presents two sets of results in which the extent of under-reporting of expenditure is assumed to be either 15 per cent or 70 per cent.[87] Variations in the child cost ratio and the household economies of scales parameters are explored by switching between poverty line sets. The model offers a choice between three of these. Those in poverty line set No. 1 are all of the per capita type, i.e., the child cost ratios and household economies of scale parameters are set equal to unity. A movement away from unity for these two coefficients generates the per adult equivalent poverty lines in Sets Nos. 2 and 3.

For convenience, the numbering of the tables in Meth (2004) is retained for the present paper. That means that it does not have a Table 3. Most of the results are collected in an appendix at the end of the paper. Three tables numbered 4a, 4b, and 4c present headcounts for the six poverty lines in each of the three poverty line sets. Table 4a contains, in addition, estimates of poverty gaps (so does Table 5a). Expenditure under-reporting is set at 15 per cent. A similar set of tables numbered 5a, 5b, and 5c give the corresponding figures for a 70 per cent under-reporting error. The values in Tables 4 and 5 are based on the assumption that the value of the social wage has been correctly estimated. Following this is a set of tables (Tables 6, 7, 8 and 9) containing somewhat more detailed results for four per capita poverty lines (R214, R344, R387 and R422 per month). Tables 6 and 9 have three variants each. Tables 6a and 9a, like Tables 4a and 5a, are based on the assumption that the value of the social wage has been correctly estimated. Tables 6b and 9b are based on the assumption that the social wage has been under-valued in the model. To compensate for this, an additional 25 per cent has been loaded onto the five components electricity; water; transport; housing, and health. Tables 6c and 9c make the opposite assumption, namely that these components have been over-valued. To take account of this, the values of each of the five social wage components are reduced by 25 per cent. Table 10 presents similar results for the HSL 1 poverty line (R557 per adult equivalent per month) with a child cost ratio of 0.5 and a household economies of scale parameter of 0.9. Table 11 (in the text) decomposes the social

85 The limitation arises from the fact that the expenditure data are presented in categories, rather than as point estimates. This determines the form of the simulation model.

86 In the model, the grants are subtracted by raising the value of the poverty line in the pre-social wage module.

87 If reported expenditure is R400 per month, an error of 15 per cent suggests a 'true' value of R460. An error of 70 per cent suggests a 'true' expenditure level of R680 per month.

wage, showing the effects of each component on the poverty headcount. It also gives the approximate values of the transfers attributable to each of the components.

Before commencing the analysis in earnest, let us glance at the tantalising prospect raised in the heading of this section of the paper, namely the possibility that absolute poverty has already been halved by the social wage. Tables 4a and 5a illustrate a simple and rather obvious point – the lower the 'official' line demarcating absolute poverty, the greater the likelihood of the 'bankable' component of the social wage enabling the MD poverty reduction goal to be met with apparent ease. At very low expenditure levels, even though the value of the bankable components of the social wage is, itself, quite low (about R58-60 per person), it is capable of lifting large numbers of people above the poverty line. If it were assumed that the PPP $1/day line were correct, then the post-social wage headcount of people in absolute poverty could have fallen from 6.8 million in 1997 to 2.9 million in 2002 (at the 15 per cent expenditure under-reporting level), or from 2.7 million in 1997 to a mere 700 000 in 2002 (the 70 per cent under-reporting error figures). Expressed as rates, we would have witnessed a decline from a post-social wage poverty rate of 6.5 per cent in 1997 to 1.5 per cent in 2002 (at the 70 per cent error level). With a 15 per cent expenditure under-reporting error, the corresponding figures would have been 16.5 per cent and 6.4 per cent.

The results churned out by the model do not seem to be much out of line with the World Bank's figures. According to the *2004 World Development Indicators*, in 1995, 7.1 per cent of South Africa's population was below the $1/day line, while 23.8 per cent was below the $2/day line (Table 2.5, p.56). It is not suggested that the South African authorities will attempt, by sleight of hand, to make poverty disappear through the use of results like those disclosed above. There is, however, a risk that the poverty figures may be misunderstood. The Hoogeveen and Özler (2004) paper describes the Deaton (1997) poverty line of R105 in 1993 (R214 in 2002) as being close the $2/day poverty line.[88] If someone takes it into their head to make any claims about poverty reduction goals based on the $1/day criterion, which is, after all, the poverty line proposed in the MDG, they would have the (mistaken) authority of the World Bank on which to rest their case.

Apart from the starvation line of R104 per month (Table 4a), the 15 per cent error lines all generate pre-social wage poverty headcounts for the year 2002 that lie in the range of 19.6 to 21.8 million. This is so despite the fact that poverty lines range in magnitude from R214 per month to R684. This Catch-22 situation arises because the assumed under-reporting error is small. The reward for having collected expenditure information correctly would be a substantially larger number of poor, especially at the R214 line, than those found with an error of 70 per cent. From Table 4a it would appear that the social wage, if it reached its intended beneficiaries, could have lifted some 3.1 million people above the absolute poverty line of R214 per month in 2002. The smaller the under-reporting error, the smaller the social wage effect – at the 70 per cent error level, the social wage lifts five million people above the line of absolute poverty. There can be no doubt that the conditions of people subsisting on as little as

88 Hoogeveen and Özler say that "While [the $2/day] poverty line is significantly lower than our preferred poverty line for South Africa, it is useful for international comparisons, and to describe what has happened to the welfare of those at bottom end of the distribution." (2004, p.9)

R214 per month are bad. It therefore matters a great deal whether there were 12.1 million of them, as one would discover using the 70 per cent under-reporting assumption, or 16.5 million, as would be the case if under-reporting of expenditure were only 15 per cent.

To say that it matters greatly how many poor people there are, and what the extent (the depth) is of their poverty, is to state the obvious. As long as use is made of LFS data there is no way of narrowing the ranges of the estimates in Tables 4 and 5. The absence of point estimates for consumption (or income), in particular, for the bottom expenditure category, makes a resort to guesswork unavoidable. The guess (assumption) that expenditure (income) is distributed in linear fashion is almost certainly wrong. Made to ensure that poverty is under- rather than overstated, the scrap of comfort it provides would vanish if the true distribution is (or approaches) log-normal. Compounding this is the fact that ignorance of the true extent of under-reporting of expenditure is profound, as is that of the child cost ratios and household economies of scale parameters. Clearly, there can be no easy answer to the question of how many people are located in the various expenditure categories below the absolute poverty line, nor can it be known with any precision how much these numbers have changed over time.

Returning to the Table 4a results (after that dousing with cold water), we observe, as expected, that the effect of the social wage at very low income levels is substantial. If the fragile[89] estimates of the numbers at the R104 level in 2002 are to be believed, then more than 13 million people would have been lifted above this line if they had all received the social wage at the set of values assumed in the model. The relatively smaller number moving out of absolute poverty suggests that even after the social wage had been provided, the number of people stuck in the R104-214 region was still very large. A scan of the results for successive years shows two things, the first of them being the large increase in the numbers below the R104 and R214 levels; the second of them being the extent to which the social wage could have softened the blow that this implies. Assuming effective delivery, and plausibility of the social wage estimates in the model once again, the 2002 social wage package has a greater impact than its 1999 or 1997 counterparts. Consisting as it does in the model only of the old-age pension, its impact in 1997 and 1999 was still substantial, a finding confirmed by numerous other studies.

Tables 4b and 4c, whose two lowest poverty lines are described as scaled dollar-a-day equivalents to the R214 per capita line denoting absolute poverty, both find slightly larger numbers of poor than the per capita line. The differences are, however, not particularly large. Nor are the differences resulting from assuming that apart from the two adults in the standard household, there are either two or three children. Similar conclusions hold for the other two scaled poverty lines, the 'Official' and the Chen and Ravallion. In both cases, it does not make too much difference whether one assumes that there are two or three children in the standard household. The same conclusion holds for lines HSL 1 (Table 4b) and HSL 2 (Table 4c). Here, the switch to a child cost ratio of 0.8 sees differences emerge between the two sets of pre- and post-social wage numbers. They are not, however, large.

89 The numbers are fragile because the distribution of expenditure in the bottom expenditure category cannot be known with any certainty.

Halving the proportion of ultra-poor, as noted earlier, is a relatively modest target when compared with the Copenhagen goal of 'eradicating absolute poverty'. The modesty of this target is matched by a silence in the Millennium Declaration on the question of targets for reduction of poverty gaps. The absence of a benchmark makes evaluation of progress difficult, so in a sense, the discussion on poverty gaps that follows, takes place in a bit of a vacuum. That does not relieve us, however, of the need to consider the poverty gaps. In any case, doing so highlights the modesty of the MDG targets. Poverty gap estimates are only made for the per capita poverty line estimates in Table 4a. As the model presently stands, the poverty gap estimators are not able to cope with a change from a per capita poverty line (from Poverty line set No. 1) to per adult equivalent poverty lines (from Poverty line sets Nos. 2 and 3). The intuition that poverty gap estimates prepared by the two different methods should not differ by too much has, however, been tested on the pre-social wage figures for the bottom expenditure category (R0-399 per month) for the year 2002 for the R214 poverty line. The test result is satisfactory.[90]

Two aspects of the poverty gap results at the foot of Table 4a need to be considered, firstly, its absolute size, and secondly, the change in the poverty gap over time. As far as the absolute size is concern, the pre-social wage gap in 2002 grows from R36.6 billion per annum at the R214 per month level, to R88.3 billion at the R422 level (the Chen and Ravallion line).[91] In absolute terms, the post-social wage figures are very similar – a social wage of about R20 billion per annum in 2002 reduces the gap at the R214 level to R14.6 billion per annum, and at the R422 level, to R62.5 billion per annum. As one would expect, with increasing numbers of poor found by higher level poverty lines, the poverty gaps all rise quite substantially. The post-social wage figures, by contrast, offer one ray of hope amidst a generally gloomy outlook. At the absolute poverty line of R214 per month, the poverty gap falls quite substantially (the number of poor has increased at that level, so the severity of poverty has fallen as well). At higher poverty lines, the gap is roughly stable over time. Since the headcount increases over time at each level, the implication is that poverty is a little less severe (if the social wage is received by all of its intended beneficiaries, and if it has been correctly valued here).

With one exception (to be discussed below), the 70 per cent error figures in Tables 5a, 5b and 5c paint an altogether more optimistic picture of conditions, especially in the end year, 2002. Focusing on the Table 5a results (those obtained using the per capita poverty lines in Poverty

90 The calculations may be seen in cells O277:AY340 of worksheet 'A-02' in spreadsheet 'SocialWage-4.xls'. The per capita method yields a gap of R16.2 billion per annum (cell K313), and the per adult equivalent method, about R17.2 billion (cell P314).

91 It is perhaps useful to remind ourselves at this point of what the Chen and Ravallion line is supposed to be measuring. Admittedly arbitrary, the line seeks to label as 'poor', all those who do not consume more than some fraction of the mean consumption level for the country as a whole. The fraction selected is one-third. The line represents an attempt to grope towards a measure of the as yet, poorly defined concept of 'social exclusion'. Its proximity to the lower bound of what might become South Africa's official poverty line has already been remarked upon.
The concept of social exclusion is contested. Arguing against the uncritical transportation of such terms from First World debates into the developing country context, du Toit (2004) prefers the term 'adverse incorporation' to describe the conditions of many of the working poor whose mean monthly consumption would certainly lie well below the R422 mark.

line set No. 1), and comparing them with the corresponding Table 4a results, we observe a huge difference in the estimates of the numbers down in the starvation category of R104 per month. Instead of 16 million of these unfortunates in the pre-social wage setting, we find about 11.2 million people. Post-social wage, the numbers drop below one million (instead of almost three million with a 15 per cent error). At the Deaton dollar-a-day line (R214 per month) there are 17.4 million people[92] as opposed to 19.6 million. The social wage reduces these numbers to 12.1 and 16.5 million respectively. The big difference between changes at the 70 per cent error level and the 15 per cent level presumably results from the concentration of people not far below the R214 level. Whatever the explanation, the relief of absolute poverty (always assuming benefits are reaching their intended recipients) is almost palpable. With the 70 per cent error assumption, the number of absolutely poor stabilises, yielding as we shall see when we examine Table 6, a fairly substantial reduction in the poverty rate. Further up the expenditure scale, the numbers of poor begin to converge. At the R422 level, the numbers are within a million or so of each other.

Tables 4 and 5 make it possible to visualise upward movement resulting from the social wage. Consider for a moment Table 5a. In the column containing the pre-social wage headcounts, we observe that in 2002, the jump from the R214 poverty line to the R344 line (about R130) is associated with an increase in the number in poverty of 2.9 million. The increase in the poverty line from R344 to R422 (R78) is associated with an increase in the number of poor of only 1.1 million. The effect is much more noticeable when the post-social wage figures are considered. In 2002, the social wage, had it been distributed to every eligible beneficiary, would have lifted about 5.3 million of them above the absolute poverty line of R214 per month. By contrast, only 1.4 million are pushed by the social wage into the expenditure category R344-422. Given the high degree of inequality and the extreme poverty of some large number of South Africans, this is only to be expected.[93]

Deciding how many people lie beneath a line drawn arbitrarily in consumption space is not always a meaningful activity.[94] When, however, one is concerned to measure the impact of policy on a condition as dire as absolute poverty, estimates of the number of poor people have to be made, willy-nilly. Under these conditions, the sensitivity of the poverty line to

92 The population in 2002 was about 45.5 million. If the poverty rate increased slightly between 2000 and 2002, then the figure of 17.4 million absolutely poor, which yield a pre-social wage poverty rate of 38.3 per cent, would accord well with Hoogeveen's and Ösler's headcount estimate of 0.34 (34 per cent of the population). See their Table 1, p.38.

93 The manner in which pensions and child support grants have to be removed from the raw data in order to estimate pre-social wage expenditure levels (dictated by the nature of the data), makes it difficult to estimate the numbers of ultra-poor (those well below the R214 mark) with any precision. At the R104 mark, for example, there were about 6.4 million people before pensions and the CSG were taken away. After subtraction, this number rises to 11.2 million. This is with an expenditure under-reporting assumption of 70 per cent. Using the 15 per cent assumption, these totals rise to 11.7 and 16 million respectively. Somewhere in there lies the 'true' number. Clearly, whatever its value, it is unacceptably large.

94 Concern is often expressed that a poverty line, a construct of some arbitrariness, unrealistically divides the population into those who are poor, and those who are not. To a certain extent, poverty headcounts must be arbitrary. There is a tension between, on the one hand, the need for a benchmark against which to measure progress (or the lack thereof) in the struggle against poverty, and on the other, the knowledge of the unavoidable arbitrariness of such benchmarks.

changes in its level begins to assume some importance. At or near a poverty line whose level is sufficiently 'generous', not only are poverty headcounts relatively insensitive to the social wage; they are also relatively invariant to quite large changes in the assumptions used to construct the poverty lines. Although still responsive to changes in the (assumed) extent of under-reporting of expenditure, they do not display anything like the sensitivity to variation in under-reporting that is visible lower down the expenditure scale. This relationship may be expressed in the familiar terms of an elasticity (I have called it the headcount elasticity). If the percentage change in the number of people is divided by the percentage change in the level of the poverty line in each case, one finds that it has a value of 0.81 for the change from R214 to R344, and a value of 0.34 for the change from R344 to R422. For relatively 'high' poverty line levels, this curiosity is not of much consequence (or interest). As far as absolute poverty is concerned, however, it is a useful reminder of the need for caution in the interpretation of results (an important part of the assessment of the success or otherwise of government's anti-poverty policies).

Reference has been made above to the finding from the sensitivity tests on poverty lines conducted by Woolard and Leibbrandt (2001).[95] At the 'high' poverty line levels with which they worked, they found that headcounts were fairly insensitive to comparatively large changes in poverty line levels. The finding that this is not the case at low levels, such as the absolute poverty line tested in Tables 4a and 5a, highlights the importance of agreeing on a line, and then maintaining it in good condition during the period for which it is supposed to function as benchmark indicator. Maintenance of the line (it may be necessary to have more than one, say for rural and urban conditions) requires that careful attention be paid to selection of deflators.

At the foot of Table 5a (as is done in Table 4a), the poverty gap estimates are presented. Looking once more at the two aspects of the gap that are of concern here, it may be seen that at the R214 level, the pre-social wage gap was R26 billion per annum in 2002. This increases to R74.3 billion at the R422 level. As is the case with Table 4a figures, the post-social wage poverty gaps provide some light in the gloom. The social wage pushes the R214 gap from R26 billion to R8 billion per annum. Whereas the pre-social wage poverty gap rises (from R16 billion in 1997 to the aforementioned R26 billion in 2002), the post-social wage poverty gap appears to fall slightly. Given the apparent fall in the headcount over the time, the severity of absolute poverty declines over time. What these results suggest is that the social wage lifts some fairly substantial number of people to a consumption level not far below the R214 line. Although it seems unlikely that the poverty MDG will be met with existing anti-poverty policies, the reduction in the severity of poverty is still noteworthy. It must be noted, however, that for the purposes of reducing absolute poverty, the difference between the Table 4a post-social wage poverty gap in 2002 and its Table 5a counterpart (R15 billion vs. R8 billion)¯the indicator of the depth of our ignorance of the 'true' conditions of the poor¯is very

95 This is after having tested for a wide range of values of á, the child cost ratio, and è, the household economies of scale factor, Woolard and Leibbrandt (2001, pp.50-53). Changes in these two, it will be recalled, changes the level of the per adult equivalent poverty line.

important. Implications for financing the social wage, should the larger amount have to be found, are obvious.[96]

Poverty gaps estimated here differ from those in Bhorat (2001) and Samson *et al* (2003), but not by enough to make one lose confidence in the simulation exercise. Bhorat's (2001, p.160) figure for the year 1995 estimates that R12.8 billion (in 1995 prices) would have to reach the poor each year to eradicate poverty. Inflated to 2002 prices, the requisite amount would be R22.2 billion. Bhorat uses the HSL 1 poverty line (R293 per month in 1995, which translates into R557 per month per adult equivalent, or R344 per capita). The Table 5a pre-social wage poverty gap for 1997 (at the 70 per cent error level) is R37.7, while the post-social wage figure is R28.4. Bhorat's estimates would have included expenditure made using the old age pension, the most important element of the social wage available in 1995. It is plausible for the poverty gap to have increased by R6 billion over the two-year period 1995-97. Samson *et al* (2004, p.31) using an HSL poverty line, put the 2000 poverty gap at R44.6 excluding grant income, and R31.8 billion including it. Converted to 2002 prices, these yield poverty gaps of R53.6 and R38.1 billion respectively. Going to Table 5a once more, we see that the corresponding 1999 gaps were R38.3 and R29.5. The 2002 pre-social wage figure is R55.6 billion. It does not require much reduction in the under-reporting error assumption level to bring the estimates in the paper into line with those in the Samson *et al* piece.

Comparison of the pre- and post-social wage headcount estimates for the R319 poverty lines in Table 5b, the R271 poverty line in Table 5c with the R214 poverty line figures in Table 5a, shows (as one would hope) that although converting a per capita poverty line into a per adult equivalent line ('scaling' it), has some effect on the poverty headcount, the effect is not overwhelming. Changing mean household size pushes the figures out of agreement (compare the results for poverty lines R283 in Table 5c and R347 in Table 5b with the R214 line in Table 5a). Similar conclusions hold for each of the lines in Tables 5b and 5c when they are compared with the corresponding lines in Table 5a.

The final feature of the Table 5 results to which attention will be drawn arises from the rapid fall-off in the effectiveness of the social wage in raising people out of poverty as the level of monthly per capita expenditure assumed to demarcate the boundary between poverty and 'non' poverty increases. To explain this satisfactorily, it is necessary to examine the distribution of the poor with greater precision. One area possibly deserving closer attention is the region bounded by the R214 and R344 poverty lines. Unfortunately, doing so requires a substantial amount of reworking of the model, a task that will have to wait for the next revision of it. Let us, therefore, turn away from that *cul-de-sac* to the somewhat more detailed results in Tables 6 to 10.

96 Meeting the MDG of halving poverty by 2015 (2014) may be possible, but if underlying forces in the economy exert the kind of downward pressure of which the 15 per cent error results presented here are the outcome, doing so becomes increasingly unlikely.

The three versions of Table 6 present the estimates of poverty at the line separating the absolutely poor from the merely poor (R214 per capita per month).[97] One task the three tables make possible is a consideration of the consequences the value of the social wage not being correctly estimated. Only one set of figures in each tables is affected by assuming that the social wage has been over- or under-valued – the post-social wage estimates for 2002. Comparing headcounts for a 70 per cent expenditure under-estimate error, the zero error value for 2002 is 12.1 million (the pre-social wage headcount is 17.4 million). If the social wage has been under-valued by 25 per cent, the post-social wage headcount would fall to 11.3 million. If it had been over-valued by a similar percentage, the pre-social wage headcount would be 12.9 million. Results for the 15 per cent expenditure under-estimate error behave similarly. The impact of this on the change between 1997 and 2002 (one of the outcomes currently in dispute), could be that instead of growing by 700 000 (Table 6a), it either fell by 100 000 (Table 6b), or grew by 1.5 million (Table 6c). Similarly, the 15 per cent under-reporting figures suggest that the headcount could have grown by 300 000 (Table 6a), fallen by 400 000 (Table 6b), or grown by 900 000 (Table 6c).

Pre-social wage estimates, of course, are unaffected by all of this. So, in the absence of the social wage, the 70 per cent error figures would have the number of poor rising by 3.5 million between 1997 and 2002. The lower error (15 per cent) sees a smaller increase (1.7 million) in the headcount (its one bright feature), but to offset this, the initial headcounts are considerably higher. The impact of the social wage for both error conditions is more or less dramatic, depending (as ever) on the value of the social wage. Even the most pessimistic value assigned to the social wage takes the 3.5 million people who would have joined the ranks of the absolutely poor in the absence of the social wage, and reduces their number to 1.5 million. The more optimistic estimates of the value of the social wage see the number of absolutely poor falling.

Poverty rates, the critical variable for the poverty reduction goal, behave, as expected – for zero social wage error, and 70 per cent under-reporting of expenditure error, they fall slightly (from 27.7 per cent in 1997 to 26.6 per cent in 2002). If the value of the social has been under-estimated the rate falls to 24.9 per cent in 2002. An over-estimate of its value would see the rate climbing slightly, to 28.4 per cent. The 15 per cent expenditure under-reporting error results differ slightly, with falls in the poverty, from a much higher base, registered in each case. From a 1997 rate of 39.3 per cent, the final figure could be either 36.3 per cent (zero error), 34.8 per cent (25 per cent under estimate), or 37.6 (25 per cent over estimate). Poverty gaps, instead of being R8.2 or R14.6 billion per annum, now fall within the ranges of R7.1-9.4 billion and R12.8-R16.4 billion respectively, depending on whether the social wage has been over- or under-valued.

The variability of the numbers notwithstanding, if any of the headcounts figures is correct (as ever, the question of whether or not the benefits went to the most deserving hovers over us),

97 Note once more that the adjective ‘merely’ when placed before the word ‘poor’ is not intended to suggest that the condition is anything other than undesirable.

then what can only be described as a major catastrophe will have been averted.[98] That much acknowledged, it is sobering to reflect on the magnitude of the task of halving poverty rates. If the billions of rands poured into poverty alleviation have only brought down the poverty rate by between one and three percentage points over five years, then the goal of halving the rate (starting from high base rates) does not look as though it can be achieved.

Other than reinforcing the common-sense assertion that the social wage, if properly targeted and delivered, would have had a significant impact on the welfare of those below the line demarcating absolute poverty, the Table 6 results cannot tell us much. This represents a turning point in the analysis, forcing as it does, an acknowledgment of the fact that it is not possible to say with any certainty what has happened to absolute poverty – there are just too many 'ifs' for comfort. Before concluding from this that simulation is a worthless exercise, let us see what happens as the level of the poverty line is raised.

Pushing up the poverty line to R344 as is done in Table 7 represent a move to the per capita version of the Potgieter HSL 1 line of R557 per adult equivalent with 'conventional' child cost ratio and household economies of scale parameter of 0.5 and 0.9 respectively. The Table 7 figures assume zero social wage error. The, by now, familiar pattern of larger headcounts, coupled with smaller changes in headcounts as with the smaller error assumption appears once more. Headcounts and poverty rates appear to be approaching plateaux from which the social wage cannot dislodge them. Under the 70 per cent error assumption, the post-social wage poverty rate barely changes. The 2002 post-social wage headcount is larger than the 1997 pre-social wage figure. Between those two years, the poverty headcount rises by 1.5 million, the social wage notwithstanding. As before, the 15 per cent error figures show smaller headcount increases. The 2002 post-social wage headcount is the same size as the 1997 pre-social wage headcount. Associated with these large headcounts are correspondingly large poverty gaps. The 2002 post-social wage gap could be between R33-44 billion per annum.

The Table 10 figures should be read in conjunction with those in Table 7. These two tables, respectively present the HSL poverty line in its per capita form (R344 per month), and in its adult equivalent form with a child cost ratio of 0.5 and a household economies of scale parameter of 0.9 (R557 per month). In its per capita form the social wage appears to reduce the poverty headcount by a larger amount (1.6 million, as opposed to 1.1 million with a 70 per cent error). Increases in poverty headcounts over the period are larger when the per adult equivalent form of the poverty line is used. No simple explanation for why this should be suggests itself. The differences are not large enough to upset the overall pattern of the findings. This being so, there is probably some virtue in using per capita poverty measures, if only because of their simplicity.

The Table 8 figures, using the line that might be adopted as the official lower bound of the poverty critical range, R387 per capita per month (Table 8), show about 20-21 million people in poverty. Their number, post-social wage, might have increased by between 400 000 to 800 000 between 1997 and 2002. The social wage causes poverty rates to fall slightly more

98 It is not pleasant to contemplate the consequences of targeting and delivery being less than perfect.

than they would otherwise have done. The poverty rate is so high (in excess of 40 per cent), and the rate of decline so low, as to make it seem extremely unlikely that social security policy in its present form can reduce it to an acceptable level. Poverty gaps spiral, as one would expect.[99]

Arrived at the R422, below which Chen and Ravallion suggest social exclusion might lie, we investigate once more, the impact of assuming that the value of the social wage has not been correctly estimated. Comparing Tables 9a, 9b and 9c, the first thing to note is that the increase in the post-social wage poverty headcount between 1997 and 2002 does not disappear as the assumed level of under- or over-valuation of the social wage is allowed to vary. If the social wage had been under-valued by 25 per cent, then at the 70 expenditure under-reporting error level, the number below the line would have grown by about 800 000. Over-valuation of the social wage by a similar percentage would be associated with a post-social wage headcount increase of 1.3 billion. Corresponding figures for the 15 per cent expenditure under-reporting error level would be 300 000 and 600 000.

After taking the social wage (of whatever value) into account, there are still between 19.2 and 20.3 million people below the line. Differences between the three estimates of the post-social wage poverty rates in 2002 are trivial - from a low of 42.2 in Table 9b (down from 44.6 in 1997) to a high of 42.9 in Table 9c. At the 15 per cent expenditure under-reporting error level, the range is from 45.5 to 44.9 per cent (down from 48.8 per cent in 1997). Post-social wage poverty gap estimates obviously vary as the assumption about the value of the social wage is changed. The poverty gaps are so large, however, that these variations are comparatively small when expressed in percentage terms. At the 70 per cent expenditure under-reporting level, post-social wage poverty gaps rise between 1997 and 2002 regardless of whether or not the social wage is assumed to be correctly estimated. At the 15 per cent expenditure under-reporting level they are either static (Table 9a), they fall slightly (Table 9b), or they rise slightly (Table 9c). Once more, the variation in percentage terms is quite small.

Unlike results at or near the line of absolute poverty, the results that emerge as the poverty line is raised begin to look more and more robust. As a corollary, poverty looks more and more intractable. So, while the simulation exercises that have to be conducted in the face of data deficiencies cannot tell us much about changes in absolute poverty, it certainly looks as though the figures have something sensible to say about what happens as the goal of anti-poverty policy is elevated above just coping with absolute poverty. That something appears to be the conclusion that the social wage becomes less and less effective. To place out R422 per capita poverty line in perspective, if it useful to recall Hoogeveen's and Özler's finding that using a basic 'cost-of-needs' approach:

> "… a reasonable poverty line for South Africa must lie between 322 Rand (lower-bound poverty line) and 593 Rand (upper-bound poverty line) per capita in 2000 prices …" (2004, p.9)

99 In the bottom expenditure category, pre-social wage per capita mean expenditure levels for those living in households containing adults and children (about 88 per cent of the people in the category) were a tad under R100 per month.

Converted to 2002 prices, this yields a poverty range of R387 – R713 per capita per month. Working our way up from the line of absolute poverty (where findings are ambiguous), we observe that not long after climbing above the Hoogeveen and Özler lower bound poverty line (we are nowhere near the upper bound), the results begin to stabilise around the conclusion that the post-social wage headcount has risen, that the declines in poverty rates are small, and that poverty gaps are relatively insensitive to substantial variations in the assumed value of the social wage.[100] This inevitably poses the question of how much more the 'social wage' can do to lift people out of poverty. With the exception of housing, the model has already awarded everyone the full social wage. The only augmentation of the social security system is the proposed extension of the child grant to children under the age of 14 years. Although this will reduce poverty, there are not enough children in the poorest households to raise household consumption enough to lift the adults out of poverty.[101]

It may be worth noting that the results for some variants of the simulations reported on above suggest a slight improvement in conditions between 1997 and 1999. Where it occurs, it is made evident by a reduction in the numbers in poverty. So small, however, are most of the changes, that they are probably not statistically significant. These findings are not too wildly out of line with the labour market outcomes illustrated in the period. Between 1997 and 1999, unemployment appears to have risen by about 700 000, using either the official or expanded definitions. From 1999 to 2002, however, the number of unemployed rose. Using the expanded definition, the increase was probably in the region of two million.[102] Formal employment declined slightly between 1997 and 1999 (by about 160 000 or so), having hit a trough in 1998, out of which it climbed slowly but steadily. Informal sector employment probably increased.[103]

The final figures to be aired in this brief presentation of the model's results, give a rough indication of the impact of changes in the levels of individual components of the social wage on the numbers of poor. The figures refer to two scenarios: the Deaton dollar-a-day (R214 per month), and the Chen and Ravallion R422 line, both in their 70 per cent under-reporting settings. For convenience, they are collected and presented in Table 11.

100 Similar results are obtained using the 'arbitrary' R600 per capita line in Poverty Line Set No. 1.

101 In the households in expenditure category R0-399 per month, the Child:Adult ratio is 1.095:1.000.

102 Unemployment figures are from Meth (2004). There is a discontinuity in the estimates caused by the changeover from the OHS to the LFS. The figures can, however, be reconciled. In the first LFS, the reconciliation exercise suggests that the differences caused by the discontinuity would not be very large, at least for the estimates of unemployment, if similar definitions were used.

103 A barely plausible increase (given the subsequent behaviour of the series) of almost 800 000 occurs in the number of informal sector workers between 1997 and 1999. With the exception of a strange spike in the series at February 2001, the employment level is roughly constant, something that is as hard to believe as the sudden leaps in employment levels. The simple truth is that it is not known what has happened to employment in the informal sector.

Table 11: Impact of individual components of social wage on poverty

	Numbers (1000s) raised above		Value of transfer(R billions)	
Poverty line	R 214	R 422	R 214	R 422
Pensions and CSG	1710	360	8.8	10.6
Electricity	340	80	0.5	0.9
Water	260	60	0.3	0.7
Transport	270	60	0.4	0.7
Housing (Subsidy)	1150	260	1.7	3.2
Health	1180	130	2.1	3.4
Total - Listed benefits	4910	950	13.8	19.5

Source: Own calculations in spreadsheet Social Wage-4.xls

A few words of caution are necessary before looking at the figures in Table 11. In the first place, they are extracted from the zero-error social wage estimates. In the second, the method used to estimate the values of the transfers is rough and ready, consisting as it does of the difference between the poverty gaps with and without the benefit under consideration. Even so, its results appear to be within striking distance of the social security administrative data. About 57 per cent (R8.6 billion) of the total payout of the R15 billion on old age pensions accrued to people in the bottom two expenditure categories. The total amount paid out for child support grants looks as though it would have been in the region of about R3.7 billion. If about two-thirds of this accrued to people in the bottom two expenditure categories, then the figure of R10.6 billion as total pension and CSG payout would be roughly correct.[104]

Having established the pedigree of at least some of the results, we observe that the most striking of them is the huge number of people lifted out of absolute poverty by the two cash grants for which verifiable data are readily available; state old age pension and the child support grant. Next in line are health and housing, whose combined effect is even greater. Although individually, the other components of the social wage do not have much of an effect on the numbers in poverty, taken together, they do contribute to the achievement of the substantial impact the social wage has, if only at the R214 per month mark.

The true extent to which South Africa's anti-poverty policies have been able to counter absolute poverty must, however, remain conjectural – data with which to make a more precise assessment are not available. It seems likely that the anti-poverty measures have

104 See spreadsheet 'wklshhofun02b.xls', worksheet 'Raw data (Nos)'.

had, as it were, to run simply to stay still.[105] The likelihood of even the lowest of the observed poverty rates being halved by 2014 by social security policy of the existing stripe (the social wage) is slender.

There are two possible ways in which the values of the transfers that lift people out of poverty may be increased: one 'real and the other 'artificial'. The real method entails increases in the value of some or all of the components of the social wage. The artificial method requires corrections in the values of the components of the social wage where these have been under-estimated. The latter method has already been tried. It is, of course, possible to raise the error level still higher.[106] To examine the impact of the former, anyone so inclined may go back to the model and insert their own values.

The two areas of greatest promise are health and housing (pensions and child support grants are, as we have seen, almost fully accounted for). The allowance for health care seems generous, as does that for housing (scaled in proportion to the number of subsidies granted). Since we are dealing with income poverty, the poverty reducing capacity of any component of the social wage is the extent to which it is 'bankable', i.e., the extent to which it increases potential private consumption. As to increases in the value of state expenditure, if the demographic changes discussed above are real, and not merely an artefact of the data, then poverty eradication using existing policies is going to become harder. Raising the age of eligibility for the child support grant will have a substantial effect. Unfortunately, much of this will bypass households in the bottom expenditure category, where the child:adult ratio is low. Pensions will grow as the population ages, but once again, the poorest households are poor precisely because they do not have a pensioner in the household. Further efforts to distribute more housing subsidies will help, but by enough to make a sizable contribution to the achievement of the MDG? Recall now that we are talking here about the absolutely poor – as the poverty line is raised to reflect a more humane standard of living (still leaving people very

105 Our ignorance about the precise numbers of people in absolute poverty – are there 11.3 million such unfortunates, or are there 17.1 million of them? – is a serious problem. No effort should be spared in designing and implementing surveys that reduce this ignorance to a minimum. When official statisticians are caught napping by large errors, they can (and do) take refuge behind the claim that absolute levels do not matter too much as long as trends are accurately captured. This may be the case (in some instances) for the national accounts – it certainly cannot be true for poverty estimates. The precise number of poor, and the depth of their poverty matters greatly to the poor, and should do to policymakers as well.

106 This is easily done in cell B68 of worksheet 'Front page' in spreadsheet 'SocialWage-4SW.xls'.

poor), poverty reduction becomes more difficult.[107] The intensity of poverty (the poverty gap) becomes increasingly important – the greater the gap, the less the impact of the social wage on poverty levels.

Conclusion: And now, what?

As political rallying cries, commitments to loosely specified goals such as halving unemployment or halving poverty, have a certain appeal. When social scourges reach epidemic proportions, as they have in South Africa, the repeated invocation of the promise to halve one or the other, or both, may be of comfort, if not to those directly affected, then at least to those who worry over such things. Unless given greater precision, however, their value as indicators of what policy is supposed to achieve, is negligible. There is an interesting similarity between the setting of goals that are at once, too precise and too ambitious, and goals that by their lack of precision altogether are capable of different interpretations. Reflecting on the failure of GEAR to deliver economic growth of six per cent per annum and 400 000 jobs a year by 2000, Friedman argues that:

> "… raising expectations which cannot be met is not a cost-free exercise – indeed, it risks destroying over time precisely the confidence which the over-cheery projections are meant to create. Just as inflation targeting and Manuel's precise deficit reduction targets always run the risk of eroding confidence by setting an over-ambitious government goal and ensuring that failure to meet it obscures real progress, so, it could be argued, did Gear's growth and job creation targets create unnecessary political opposition to government's current macroeconomic strategy by fostering unrealistic expectations of what could be achieved by the proposed policy path."(2004, p.186)

In the absence of clarity over the meaning of the halving unemployment and halving poverty goals, people are likely to take it into their heads to interpret these goals in particular ways. What the consequences are of a failure to meet these imagined goals is difficult to say –

107 For what it is worth, a simulation exercise by Hanmer and Naschold (2003) found it unlikely that the high inequality sub-Saharan African countries would achieve the poverty halving goal by 2015. Those among them that switched to a 'broader-based' (more labour intensive) growth path required real average annual per capita growth in GDP of 3.5 per cent to do so. Countries in which the growth path did not change required a staggering 10.4 per cent per capita GDP growth to halve poverty (2003, p.269). Optimism about South Africa's growth prospects is a recurrent refrain in the popular and financial press. It is not obvious that this is justified. Lewis' (2001) paper put feasible GDP growth over a decade at about four per cent per annum on average. Even if the population growth rate falls to say, one-an-a-half per cent per annum, that would still only yield per capita GDP growth of about two-and-a-half per cent per annum. Where for Lewis, skills are a major constraint, for Leftwich (2000), the form of the state itself limits growth possibilities. He describes South Africa (and Venesuela) as "Class-compromise non-developmental democracies" (p.182), using the term 'non-developmental' to exaggerate the differences in growth possible in such democracies, and the "dynamic growth achievements of dominant-party and coalition democracies …" (p.182). Outlining a number of problems facing class-compromise states, he argues that they illustrate "why, *ceteris paribus*, [such states] are likely to have slow and limited developmental rates and why the agreements comprising these democracies tend to be so conservative in practice" (p.186).

cynicism, frustration and disappointment are some obvious contenders. We have seen Deaton (2003a) arguing in favour of the use of dollar-a-day poverty line, not because of its accuracy, but because of its rhetorical nature – it is useful because it has come to be accepted as a 'trademark' of poverty. By analogy, there is probably some merit in using catchy slogans as mobilising devices for campaigns such as the attacks on poverty and unemployment. The question is one of what goals should be formulated.

Considering first the unemployment target, this study has shown that as far as can be ascertained, neither government nor its social partners appear to have given serious consideration to what is entailed in the making of such a commitment. Since a choice has not, apparently, been made among the possible contenders for halving, no credible estimates of the numbers involved in such an exercise can be made. The three major variables that determine the rate of unemployment are:

- The rate of growth of the potential workforce
- The participation rate
- The rate of growth of employment

Over the first of these variables government has little or no control. Participation rates are affected by social protection policy (the introduction of unemployment benefits, for example, could encourage people to switch their labour market status from 'not economically active' to 'unemployed'). The rate of growth of employment in the private sector can be influenced indirectly. Speeding up the rate of job creation beyond the meagre achievement of the past decade is, however, no simple task. Over employment creation in the public sector, government has, of course, much greater control. With the exception of the planned expanded public works programme (EPWP), government's goal in recent years has been rather a reduction than an increase in public sector employment levels.

Given (a) the confusion shown to exist in the official statistics about participation rates, (b) the difficulties of guessing what these are likely to be in the future, and (c) the problem of guessing, in the face of the AIDS epidemic, the rate of growth of the potential workforce, it is a difficult matter even to hazard a guess at the number of jobs that would have to be created to achieve the halving goal. Simulations performed on the somewhat flaky information available suggest that at best, halving the official rate of unemployment would require their number to fall by about 1.5 million. To achieve this might require some seven million jobs to be created between now and the year 2014. Attempting to halve the number of according to the expanded definition, might demand as many as 11 million new jobs, a tall order.

The sensible thing to do is to re-open the debate, this time with a full set of simulations of possible outcomes placed before the participants. Only after these have been critically examined, should consideration be given to the setting of goals. In all likelihood, once the relevant figures have been scrutinised, the social partners will recognise the futility of attempting to set goals of this type. Once this is acknowledged, backing away from a meaningless promise with good grace, will be possible. Enough is known about unemployment and the variables associated with it, to make possible the early convening of a meeting of those most concerned (the people and organisations normally referred to by that

awful term, the 'stakeholders'). It should not be difficult to persuade them that a sensible approach to the unemployment problem would be to agree on an attainable goal, rather than to engage in pipe-dreaming (as should have been done with GEAR).

Although this is not the place to explore 'attainable goals 'at any length, it is worth noting that pointers to the area in which such a goals might lie, are provided by the analysis above, that suggests which of the variables that determine unemployment levels are most susceptible to the levers of policy. Obviously, everything that can be done to foster private sector employment creation should be done. The prospects for success need, however, to be measured against past performance and realistic assessment of future possibilities rather than political wishful thinking. As far as public sector employment creation is concerned, the only growth in jobs is likely to be indirect, resulting from the expanded public works programme (EPWP).[108] Critical analysis conducted by McCord (2004) suggests that the EPWP, in its present form, is too small to make much of a dent on unemployment.

The insight that participation rates can be influenced by social protection policy should lead directly to a consideration of forms of social protection that would not have the undesirable effect present in the example given above, namely, that of stimulating entry into the labour market merely to claim a social grant. One form of social protection policy that does not exert such a perverse incentive springs immediately to mind – the Benefit Transfer Programmes (BTP) promoted for many years by Dennis Snower (1995a, 1995b). The vouchers he suggested as an alternative to unemployment benefits could be used to reduce the costs to employers of providing employment with meaningful training. A South African version of this could commence by introducing a very modest social grant for all potentially economically active people. As the co-operation of employers is secured, the grant could be 'cashed in' by those seeking employment, who, in addition to receiving the grant and undergoing training, would be paid a wage. Those who choose not to seek employment via this route would continue to receive the grant. Participating employers, in addition to being able to pay a lower wage (by virtue of the grant system) would also be able to claim credit from the state for the training provided. A scheme such as this would achieve the dual aims of (a) providing social protection to the mass of people who currently drop straight through the large holes in South Africa's social protection system, and (b) reducing the cost of all labour by means of a generalised wage subsidy.[109] The requisite social institution within which the suggestions above may be considered already exists in the form of the National Economic Development

108 There will be a modest increase in the number of jobs in the construction sector because of the switch to more labour-intensive methods. For the rest, if the programme is to have a major impact, it will have to offer more than short-term employment with a genuflection towards training. In general, PWPs will not create significant skills or entrepreneurs. As a means of relieving poverty they will only be effective if the jobs offered are of relatively long duration (years rather than months). Although the private sector may be the nominal employers of those taking part in the programme, they will be indirectly employed by the state, almost as though it were outsourcing certain services. Confusion about what can be achieved by the EPWP, revealed by McCord's work, suggests that a thoroughgoing review of the project is required, and that before the programme has even begun.

109 The introduction of a benefit transfer programme was suggested by the members of the task team appointed by the Minister of Labour to examine the workings of the Unemployment Insurance Act (Meth, Naidoo and Shipman, 1996).

and Labour Council (Nedlac). All that is required is that the discussion above make its way onto the agenda of that august body.

Poverty is a somewhat different matter. Not only does government have the capacity to influence the number of poor directly (in particular, through the social grant system),[110] the number of poor, and the severity of their poverty, can, in principle, be determined with some precision. The fact that these have not been is an indictment of all concerned. Calls for 'more research' may elicit groans, and reasonably so – the appeal being sometimes little more than thinly disguised self-interest at work. That would clearly not be true in the present case. The problem of poverty is of such overwhelming importance, that no effort should have been spared in addressing the difficulties raised above. Government is plainly delinquent in having failed to comply with the Copenhagen Programme of Action stipulation of building an appropriate poverty line (that should have been done by 1996). Its efforts to monitor and evaluate its anti-poverty policies are also not beyond criticism. Statistics South Africa may be criticised for failing to design and implement surveys that would enable poverty to be measured with greater precision. The institution is wary of researchers who use social surveys for purposes other than those for which they are designed,[111] yet it has made no effort to introduce a survey specifically tailored to discovering the (changing) extent of poverty (and inequality). Poverty, as if anyone needed reminding, is public enemy number one. The academic community could have made greater efforts to solve the child cost ratio and household economies of scale problems.[112] It could also have devoted more time to addressing the social wage problem.[113]

110 Whether it has the will to do so is, however, a different matter altogether.

111 Statements to this effect were made more than once by Dr Ros Hirschowits of Statistics South Africa at the workshop on poverty held in Pretoria on 28th – 29th June 2004. The point is well taken there are problems involved in doing time series analysis on cross-section data. When, however, there is nothing else available, one has little choice in the matter. Incidentally, Income and Expenditure Surveys (IESs), useful in the past for reweighting the CPI, as well as for making poverty and inequality estimates, will henceforth be more amenable to the former, than the latter purpose. In the past, the IES was tied to the OHS (1995) or the LFS (2000). This link will not be maintained in the 2005 IES.

112 The pioneering efforts of the compiler of the Household Subsistence Level estimates, Prof. Potgieter, should have stimulated research aimed at the admittedly hard job of pinning down these two variables. It is ironic, but perhaps predictable, that the impetus to the most substantial research into the cost of living in South Africa should have come from the business community. Both the Bureau for Market Research (BMR) in the University of South Africa (UNISA), which estimates the value of the 'Minimum Living Level' and its more generous cousin, the 'Supplemented Living Level' and Prof. Potgieter's unit in the University of Port Elisabeth, which publishes the 'Household Subsistence Level' and its more generous counterpart, the 'Household Effective Level', depend heavily on corporate support.

113 In the magisterial "Measuring Poverty in South Africa", Woolard and Leibbrandt (2001) steer clear of the social wage. They note that for measuring wellbeing: "… a person's standard of living is generally taken to depend only on the consumption of *market* goods. While the limitations of this approach are well documented … the problems involved in valuing access to public goods are enormous. It is thus to a large extent for pragmatic reasons that current consumption or current income is used as the indicator of wellbeing." (2001, p.42, emphasis in original) Further on they observe that: "The choice of private consumption expenditure (PCE) per adult equivalent as an appropriate welfare measure has a strong theoretical as well as intuitive appeal." (2001, p.43)

If one played devil's advocate and accepted the most recent World Bank PPP, the absolutely poor (post social wage) could number as few as 700 000 (Table 3). By contrast, taking the Deaton (1997) dollar-a-day estimate, and assuming that the social wage was perfectly targeted (and that the error level in the social wage estimates was zero), could leave us with 16.5 million below the line that identifies the absolutely poor (Table 4a). Even if one did not play games like this, the range of ignorance is still unacceptably high. Table 5a does suggest, after all, that the post-social wage headcount could have been as low as 12.1 million in 2002 (11.3 million if the social wage is under-valued in the simulation model by 25 per cent). Which, if any, of these figures is correct, is a matter of no little importance. Compounding the difficulties of estimating the extent of the problem is the confusion that exists about the social wage. Once again, government has been remiss – this time, by its failure to approach the problem of estimating the overall impact of its anti-poverty policies on the poor, in a more systematic (and energetic) manner. At least one of the studies it has commissioned so far serves, if anything, only to heighten the confusion. Claims made by government about the reduction in inequality consequent upon the 'introduction' of the social wage deserve nothing but contempt – they are an insult to the poor.

Where should we go from here? A first step might be to put the MDGs into a proper perspective. Clemens, Kenny and Moss (2004, p.1) suggest that for some developing countries, insistence on an ability to meet these goals when realistic assessment shows this not to be possible, may undermine relations with donors abroad and impede reform at home. Although such a fate is unlikely to befall South Africa, the ignorance of poverty levels at the starting point of the journey to meet the goals, and the demonstrable inability to measure progress towards meeting them, suggest that, as is the case with the poorer developing countries that cannot meet them:

> "The MDGs might be better viewed not as realistic targets but as reminders of the stark contrast between the world we want and the world we have, and a call to redouble our search for interventions to close the gap." (Clemens, Kenny and Moss, 2004, p.1)

Following this advice would permit a focus on the essential questions related to poverty eradication in South Africa. Priorities in this regard, I would submit, are the following:

- A debate about the 'official' poverty lines must commence forthwith. If it is indeed true that Statistics South Africa is sitting on a report which contains the proposed future poverty lines (Babita *et al*, 2003), then this report must be released immediately forthwith for general scrutiny. That scrutiny, it will be recalled, entails the poverty lines meeting the criteria of *scientific integrity* and *community credibility.*

- The creation of a new survey instrument (or the re-engineering of an existing instrument like the General Household Survey) that enables reliable estimates of changes in absolute poverty to be made

- Bound up with this is a need, caused by the growing size of the social wage, and its impact on incomes at the bottom end of the income distribution, to open a debate on

the meaning of poverty along the lines proposed in Saunders (1998), and its measurement as suggested in Pyatt (2003).[114]

- Related in turn, is a social wage study supposedly being undertaken for government by the HSRC. Of such importance is this topic that it merits a heavy concentration of academic firepower on its redoubtable defences.

Until such time as satisfactory progress has been made with these endeavours, credible estimates of progress in the struggle against poverty at the level of the country as a whole will continue to be difficult, if not impossible to make.

114 Engagement with the work of Noble *et al* (2004) is also necessary.

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Appendix: Tables 4-9

Table 4a: Nos. of people (1000s) below various poverty lines

		Child cost ratio =	1.0	
		H/hold econs of scale parameter =	1.0	
		Error level (%) =	15	
2002				
2002 Poverty line (R/m in 2002 prices)	**Pre-social Wage**	**Post-social Wage**	**Change**	**Poverty line – short description**
		wage		
R 104	16 000	2 900	13 100	6. PPP $/d
R 214	19 600	16 500	3 100	5. Deaton $/d
R 344	20 900	19 800	1 100	4. HSL 1pc
R 387	21 200	20 300	900	3. Official
R 422	21 500	20 500	1 000	2. Chen
R 600	21 700	21 500	200	1. Arbitrary
1999				
	Pre-social Wage	Post-social Wage	Change	
R 104	12 200	7 600	4 600	
R 214	17 300	16 000	1 300	
R 344	18 900	18 400	500	
R 387	19 400	19 100	300	
R 422	19 500	19 200	300	
R 600	20 300	20 300	0	
1997				
	Pre-social Wagel	Post-social Wage	Change	
R 104	11 700	6 800	4 900	
R 214	17 900	16 200	1 700	
R 344	19 800	19 300	500	
R 387	20 300	19 900	400	
R 422	20 400	20 100	300	
R 600	21 000	20 900	100	

Table 4a: Continued...

Poverty gap estimates (R billion/annum in 2002 prices)

	2002	1999	1997	
	Pre-social Wage	**Pre-social Wage**	**Pre-social Wage**	
R 104	12.3	7.8	7.0	
R 214	36.6	28.1	27.4	
R 344	68.1	51.7	53.0	
R 387	79.0	66.5	67.9	
R 422	88.3	70.6	73.8	
	2002	**1999**	**1997**	
	Pre-social Wage	**Post-social wage**	**Post-social wage**	
R 104	0.3	2.6	2.1	
R 214	14.6	19.2	18.1	
R 344	43.6	41.9	42.3	
R 387	53.9	56.4	57.0	
R 422	62.5	60.5	62.8	

Table 4b: Nos. of people (1000s) below various poverty lines

		Child cost ratio =	0.5	
		H/hold econs of scale parameter =	0.9	
		Error level (%) =	15	
2002				
2002 Poverty line (R/m in 2002 prices)	**Pre-social wage**	**Post-social wage**	**Change**	**Poverty line – short description**
R 319	20 300	17 500	2 800	6. $1, 2A + 2C
R 347	20 700	18 500	2 200	5. $1, 2A + 3C
R 557	21 600	21 200	400	4. HSL 1
R 576	21 600	21 300	300	3. Off, 2A + 2C
R 628	21 700	21 500	200	2. Chen, 2A + 2C
R 684	21 800	21 600	200	1. Chen, 2A + 3C
1999				
	Pre-social wage	**Post-social wage**	**Change**	
R 319	17 600	16 500	1 100	
R 347	18 200	17 300	900	
R 557	19 900	19 600	300	
R 576	20 200	20 000	200	
R 628	20 200	20 100	100	
R 684	20 300	20 200	100	
1997				
	Pre-social wage	**Post-social wage**	**Change**	
R 319	17 900	16 500	1 400	
R 347	18 600	17 400	1 200	
R 557	20 500	20 200	300	
R 576	20 700	20 500	200	
R 628	20 800	20 700	100	
R 684	21 000	20 900	100	

Table 4c: Nos. of people (1000s) below various poverty lines

		Child cost ratio =	0.8	
		H/hold econs of scale parameter =	0.9	
		Error level (%) =	15	
2002				
2002 Poverty line (R/m in 2002 prices)	**Pre-social wage**	**Post-social wage**	**Change**	**Poverty line – short description**
R 271	20 000	17 000	3 000	6. $1, 2A + 2C
R 283	20 100	17 500	2 600	5. $1, 2A + 3C
R 454	21 500	20 600	900	4. HSL 2
R 489	21 500	20 800	700	3. Off, 2A + 2C
R 533	21 600	21 100	500	2. Chen, 2A + 2C
R 556	21 600	21 300	300	1. Chen, 2A + 3C
1999				
	Pre-social wage	**Post-social wage**	**Change**	
R 271	17 400	16 200	1 200	
R 283	17 700	16 600	1 100	
R 454	19 500	19 000	500	
R 489	19 800	19 600	200	
R 533	19 900	19 700	200	
R 556	20 000	19 800	200	
1997				
	Pre-social wage	**Post-social wage**	**Change**	
R 271	17 800	16 300	1 500	
R 283	18 200	16 800	1 400	
R 454	20 200	19 800	400	
R 489	20 500	20 300	200	
R 533	20 700	20 500	200	
R 556	20 700	20 600	100	

Table 5a: Nos. of people (1000s) below various poverty lines

		Child cost ratio =	1.0	
		H/hold econs of scale parameter =	1.0	
		Error level (%) =	70	
2002				
2002 Poverty line (R/m in 2002 prices)	**Pre-social wage**	**Post-social wage**	**Change**	**Poverty line – short Description**
R 104	11 200	700	10 500	6. PPP $/d
R 214	17 400	12 100	5 300	5. Deaton $/d
R 344	19 600	18 000	1 600	4. HSL 1pc
R 387	20 100	18 800	1 300	3. Official
R 422	20 300	19 400	900	2. Chen
R 600	21 300	20 600	700	1. Arbitrary
1999				
	Pre-social wage	**Post-social wage**	**Change**	
		wage		
R 104	7 100	3 300	3 800	
R 214	14 100	11 900	2 200	
R 344	17 000	16 100	900	
R 387	18 000	17 300	700	
R 422	18 100	17 600	500	
R 600	19 400	19 200	200	
1997				
	Pre-social wage	**Post-social wage**	**Change**	
R 104	6 400	2 700	3 700	
R 214	13 900	11 400	2 500	
R 344	17 600	16 500	1 100	
R 387	18 700	18 000	700	
R 422	19 000	18 400	600	
R 600	20 300	20 100	200	

Table 5a: Continued...

Poverty gap estimates (R billion/annum in 2002 prices)

	2002	1999	1997	
	Pre-social wage	**Pre-social wage**	**Pre-social wage**	
R 104	6.5	3.4	2.8	
R 214	26.2	17.7	16.4	
R 344	55.6	38.3	37.7	
R 387	65.8	52.1	51.3	
R 422	74.3	56.0	56.7	
	2002	**1999**	**1997**	
	Post-social wage	**Post-social wage**	**Post-social wage**	
IR 104	0.0	0.8	0.6	
R 214	8.2	10.9	9.6	
R 344	32.7	29.5	28.4	
R 387	42.2	42.5	41.3	
R 422	50.5	46.3	46.6	

Table 5b: Nos. of people (1000s) below various poverty lines

		Child cost ratio =	0.5	
		H/hold econs of scale parameter =	0.9	
		Error level (%) =	70	
2002				
2002 Poverty line (R/m in 2002 prices)	**Pre-social wage**	**Post-social wage**	**Change**	**Poverty line – short Description**
R 319	17 600	12 900	4 700	6. $1, 2A + 2C
R 347	18 300	14 400	3 900	5. $1, 2A + 3C
R 557	20 800	19 700	1 100	4. HSL 1
R 576	20 900	19 900	1 000	3. Off, 2A + 2C
R 628	21 200	20 300	900	2. Chen, 2A + 2C
R 684	21 400	20 700	700	1. Chen, 2A + 3C
1999				
	Pre-social wage	**Post-social wage**	**Change**	
R 319	13 500	11 800	1 700	
R 347	14 500	12 900	1 600	
R 557	18 000	17 400	600	
R 576	18 600	18 100	500	
R 628	18 900	18 400	500	
R 684	19 200	18 900	300	
1997				
	Pre-social wage	**Post-socia lwage**	**Change**	
R 319	13 000	10 900	2 100	
R 347	14 100	12 300	1 800	
R 557	18 400	17 700	700	
R 576	19 000	18 500	500	
R 628	19 400	18 900	500	
R 684	19 800	19 500	300	

Table 5c: Nos. of people (1000s) below various poverty lines

	Child cost ratio =		0.8	
	H/hold econs of scale parameter =		0.9	
	Error level (%) =		70	
2002				
2002 Poverty line (R/m in 2002 prices)	**Pre-social wage**	**Post-social wage**	**Change**	**Poverty line – short description**
R 271	17 400	12 400	5 000	6. $1, 2A + 2C
R 283	17 800	13 200	4 600	5. $1, 2A + 3C
R 454	20 300	19 000	1 300	4. HSL 2
R 489	20 600	19 500	1 100	3. Off, 2A + 2C
R 533	20 800	19 900	900	2. Chen, 2A + 2C
R 556	20 900	20 100	800	1. Chen, 2A + 3C
1999				
	Pre-social wage	**Post-social wage**	**Change**	
R 271	13 700	11 700	2 000	
R 283	14 100	12 200	1 900	
R 454	17 500	16 700	800	
R 489	18 300	17 800	500	
R 533	18 500	18 000	500	
R 556	18 700	18 300	400	
1997				
	Pre-social wage	**Post-socialw age**	**Change**	
R 271	13 200	10 900	2 300	
R 283	13 700	11 500	2 200	
R 454	18 000	17 000	1 000	
R 489	18 900	18 200	700	
R 533	19 200	18 700	500	
R 556	19 500	19 000	500	

Table 6a: Poverty at R214 level in 2002

Parameters			
Child cost ratio =	1.0		
Hh econs of scale =	1.0		
Bottom bound (%)	50.0		
Social wage error	0.0		
Poverty headcount (1000s)			
(*z* = R214 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	17 400	14 100	13 900
Post-social wage	12 100	11 900	11 400
15 per cent under-reporting of expenditure			
Pre-social wage	19 600	17 300	17 900
Post-social wage	16 500	16 000	16 200
Changes in numbers of people below *z*			
(*z* = R214 per month per person in 2002)			
	02-99	02-97	99-97
70 per cent under-reporting of expenditure			
Pre-social wage	3 300	3 500	200
Post-social wage	200	700	500
15 per cent under-reporting of expenditure			
Pre-social wage	2 300	1 700	-600
Post-social wage	500	300	-200
Poverty rate (%)			
(*z* = R214 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	38.3	32.7	33.7
Post-social wage	26.6	27.6	27.7
15 per cent under-reporting of expenditure			
Pre-social wage	43.1	40.2	43.4
Post-social wage	36.3	37.2	39.3
Poverty gap (R billions/ per annum)			
(*z* = R214 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	26.2	17.7	16.4
Post-social wage	8.2	10.9	9.6
15 per cent under-reporting of expenditure			
Pre-social wage	36.6	28.1	27.4
Post-social wage	14.6	19.2	18.1

Table 6b:Poverty at R214 level in 2002

Parameters			
Child cost ratio =	1.0		
Hh econs of scale =	1.0		
Bottom bound (%)	50.0		
Social wage error	25.0		
Poverty headcount (1000s)			
(*z* = R214 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	17 400	14 100	13 900
Post-social wage	11 300	11 900	11 400
15 per cent under-reporting of expenditure			
Pre-social wage	19 600	17 300	17 900
Post-social wage	15 800	16 000	16 200
Changes in numbers of people below *z*			
(*z* = R214 per month per person in 2002)			
	02-99	02-97	99-97
70 per cent under-reporting of expenditure			
Pre-social wage	3 300	3 500	200
Post-social wage	-600	-100	500
15 per cent under-reporting of expenditure			
Pre-social wage	2 300	1 700	-600
Post-social wage	-200	-400	-200
Poverty rate (%)			
(*z* = R214 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	38.3	32.7	33.7
Post-social wage	24.9	27.6	27.7
15 per cent under-reporting of expenditure			
Pre-social wage	43.1	40.2	43.4
Post-social wage	34.8	37.2	39.3
Poverty gap (R billions/ per annum)			
(*z* = R214 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	26.2	17.7	16.4
Post-social wage	7.1	10.9	9.6
15 per cent under-reporting of expenditure			
Pre-social wage	36.6	28.1	27.4
Post-social wage	12.8	19.2	18.1

Table 6c: Poverty at R214 level in 2002

Parameters			
Child cost ratio =	1.0		
Hh econs of scale =	1.0		
Bottom bound (%)	50.0		
Social wage error	-25.0		
Poverty headcount (1000s)			
(*z* = R214 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	17 400	14 100	13 900
Post-social wage	12 900	11 900	11 400
15 per cent under-reporting of expenditure			
Pre-social wage	19 600	17 300	17 900
Post-social wage	17 100	16 000	16 200
Changes in numbers of people below *z*			
(*z* = R214 per month per person in 2002)			
	02-99	02-97	99-97
70 per cent under-reporting of expenditure			
Pre-social wage	3 300	3 500	200
Post-social wage	1 000	1 500	500
15 per cent under-reporting of expenditure			
Pre-social wage	2 300	1 700	-600
Post-social wage	1 100	900	-200
Poverty rate (%)			
(*z* = R214 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	38.3	32.7	33.7
Post-social wage	28.4	27.6	27.7
15 per cent under-reporting of expenditure			
Pre-social wage	43.1	40.2	43.4
Post-social wage	37.6	37.2	39.3
Poverty gap (R billions/ per annum)			
(*z* = R214 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	26.2	17.7	16.4
Post-social wage	9.4	10.9	9.6
15 per cent under-reporting of expenditure			
Pre-social wage	36.6	28.1	27.4
Post-social wage	16.4	19.2	18.1

Table 7: Poverty at R344 level in 2002

Parameters			
Child cost ratio =	1.0		
Hh econs of scale =	1.0		
Bottom bound (%)	50.0		
Poverty headcount (1000s)			
(*z* = R344 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	19 600	17 000	17 600
Post-social wage	18 000	16 100	16 500
15 per cent under-reporting of expenditure			
Pre-social wage	20 900	18 900	19 800
Post-social wage	19 800	18 400	19 300
Changes in numbers of people below *z*			
(*z* = R344 per month per person in 2002)			
	02-99	02-97	99-97
70 per cent under-reporting of expenditure			
Pre-social wage	2 600	2 000	-600
Post-social wage	1 900	1 500	-400
15 per cent under-reporting of expenditure			
Pre-social wage	2 000	1 100	-900
Post-social wage	1 400	500	-900
Poverty rate (%)			
(*z* = R344 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	43.1	39.5	42.7
Post-social wage	39.6	37.4	40.0
15 per cent under-reporting of expenditure			
Pre-social wage	46.0	43.9	48.0
Post-social wage	43.6	42.7	46.8
Poverty gap (R billions/ per annum)			
(*z* = R344 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	55.6	38.3	37.7
Post-social wage	32.7	29.5	28.4
15 per cent under-reporting of expenditure			
Pre-social wage	68.1	51.7	53.0
Post-social wage	43.6	41.9	42.3

Table 8: Poverty at R387 level in 2002

Parameters			
Child cost ratio =	1.0		
Hh econs of scale =	1.0		
Bottom bound (%)	50.0		
Poverty headcount (1000s)			
(*z* = R387 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	20 100	18 000	18 700
Post-social wage	18 800	17 300	18 000
15 per cent under-reporting of expenditure			
Pre-social wage	21 200	19 400	20 300
Post-social wage	20 300	19 100	19 900
Changes in numbers of people below *z*			
(*z* = R387 per month per person in 2002)			
	02-99	02-97	99-97
70 per cent under-reporting of expenditure			
Pre-social wage	2 100	1 400	-700
Post-social wage	1 500	800	-700
15 per cent under-reporting of expenditure			
Pre-social wage	1 800	900	-900
Post-social wage	1 200	400	-800
Poverty rate (%)			
(*z* = R387 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	44.2	41.8	45.4
Post-social wage	41.4	40.2	43.7
15 per cent under-reporting of expenditure			
Pre-social wage	46.6	45.1	49.2
Post-social wage	44.7	44.4	48.3
Poverty gap (R billions/ per annum)			
(*z* = R387 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	65.8	52.1	51.3
Post-social wage	42.2	42.5	41.3
15 per cent under-reporting of expenditure			
Pre-social wage	79.0	66.5	67.9
Post-social wage	53.9	56.4	57.0

Table 9a: Poverty at R422 level in 2002

Parameters			
Child cost ratio =	1.0		
Hh econs of scale =	1.0		
Bottom bound (%)	50.0		
Social wage error	0.0		
Poverty headcount (1000s)			
(*z* = R422 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	20 300	18 100	19 000
Post-social wage	19 400	17 600	18 400
15 per cent under-reporting of expenditure			
Pre-social wage	21 500	19 500	20 400
Post-social wage	20 500	19 200	20 100
Changes in numbers of people below *z*			
(*z* = R422 per month per person in 2002)			
	02-99	02-97	99-97
70 per cent under-reporting of expenditure			
Pre-social wage	2 200	1 300	-900
Post-social wage	1 800	1 000	-800
15 per cent under-reporting of expenditure			
Pre-social wage	2 000	1 100	-900
Post-social wage	1 300	400	-900
Poverty rate (%)			
(*z* = R422 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	44.7	42.0	46.1
Post-social wage	42.7	40.9	44.6
15 per cent under-reporting of expenditure			
Pre-social wage	47.3	45.3	49.5
Post-social wage	45.1	44.6	48.8
Poverty gap (R billions/ per annum)			
(*z* = R422 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	74.3	56.0	56.7
Post-social wage	50.5	46.3	46.6
15 per cent under-reporting of expenditure			
Pre-social wage	88.3	70.6	73.8
Post-social wage	62.5	60.5	62.8

Table 9b: Poverty at R422 level in 2002

Parameters			
Child cost ratio =	1.0		
Hh econs of scale =	1.0		
Bottom bound (%)	50.0		
Social wage error	25.0		
Poverty headcount (1000s)			
(*z* = R422 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	20 300	18 100	19 000
Post-social wage	19 200	17 600	18 400
15 per cent under-reporting of expenditure			
Pre-social wage	21 500	19 500	20 400
Post-social wage	20 400	19 200	20 100
Changes in numbers of people below *z*			
(*z* = R422 per month per person in 2002)			
	02-99	02-97	99-97
70 per cent under-reporting of expenditure			
Pre-social wage	2 200	1 300	-900
Post-social wage	1 600	800	-800
15 per cent under-reporting of expenditure			
Pre-social wage	2 000	1 100	-900
Post-social wage	1 200	300	-900
Poverty rate (%)			
(*z* = R422 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	44.7	42.0	46.1
Post-social wage	42.2	40.9	44.6
15 per cent under-reporting of expenditure			
Pre-social wage	47.3	45.3	49.5
Post-social wage	44.9	44.6	48.8
Poverty gap (R billions/ per annum)			
(*z* = R422 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	74.3	56.0	56.7
Post-social wage	48.2	46.3	46.6
15 per cent under-reporting of expenditure			
Pre-social wage	88.3	70.6	73.8
Post-social wage	60.1	60.5	62.8

Table 9c: Poverty at R422 level in 2002

Parameters			
Child cost ratio =	1.0		
Hh econs of scale =	1.0		
Bottom bound (%)	50.0		
Social wage error	-25.0		
Poverty headcount (1000s)			
(*z* = R422 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	20 300	18 100	19 000
Post-social wage	19 500	17 600	18 400
15 per cent under-reporting of expenditure			
Pre-social wage	21 500	19 500	20 400
Post-social wage	20 700	19 200	20 100
Changes in numbers of people below *z*			
(*z* = R422 per month per person in 2002)			
	02-99	02-97	99-97
70 per cent under-reporting of expenditure			
Pre-social wage	2 200	1 300	-900
Post-social wage	1 900	1 100	-800
15 per cent under-reporting of expenditure			
Pre-social wage	2 000	1 100	-900
Post-social wage	1 500	600	-900
Poverty rate (%)			
(*z* = R422 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	44.7	42.0	46.1
Post-social wage	42.9	40.9	44.6
15 per cent under-reporting of expenditure			
Pre-social wage	47.3	45.3	49.5
Post-social wage	45.5	44.6	48.8
Poverty gap (R billions/ per annum)			
(*z* = R422 per month per person in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	74.3	56.0	56.7
Post-social wage	52.7	46.3	46.6
15 per cent under-reporting of expenditure			
Pre-social wage	88.3	70.6	73.8
Post-social wage	64.9	60.5	62.8

Table 10: Poverty at R557 level in 2002

Parameters			
Child cost ratio =	0.5		
Hh econs of scale =	0.9		
Bottom bound (%)	50.0		
Poverty headcount (1000s)			
(*z* = R557 per month per adult equivalent in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	20 800	18 000	18 400
Post-social wage	19 700	17 400	17 700
15 per cent under-reporting of expenditure			
Pre-social wage	21 600	19 900	20 500
Post-social wage	21 200	19 600	20 200
Changes in numbers of people below *z*			
(*z* = R557 per month per adult equivalent in 2002)			
	02-99	02-97	99-97
70 per cent under-reporting of expenditure			
Pre-social wage	2 800	2 400	-400
Post-social wage	2 300	2 000	-300
15 per cent under-reporting of expenditure			
Pre-social wage	1 700	1 100	-600
Post-social wage	1 600	1 000	-600
Poverty rate (%)			
(*z* = R557 per month per adult equivalent in 2002)			
	Sept 2002	Oct 1999	Oct 1997
70 per cent under-reporting of expenditure			
Pre-social wage	45.8	41.8	44.6
Post-social wage	43.3	40.4	42.9
15 per cent under-reporting of expenditure			
Pre-social wage	47.5	46.2	49.7
Post-social wage	46.6	45.5	49.0