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### Methodological Issues in evaluating Poverty Policy

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## EXECUTIVE SUMMARY

This paper discusses the issues involved in the methodology of measuring poverty and poor living conditions. This paper shows that methodology has a significant impact on the analysis of anti-poverty programmes. In theory, choice of methodology can actually change the ordinal ranking of policy reforms. In the analysis of social security reforms for South Africa, however, the ordinal rankings proved remarkably robust across the various methodologies employed, although the quantitative and qualitative impacts varied significantly.

## 1. INTRODUCTION

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This paper<sup>1</sup> discusses the issues involved in the methodology of measuring poverty and poor living conditions. The paper consists of an introduction, two main sections, and a conclusion. The first main section (Section 2) defines key poverty measurement concepts and highlights the associated methodological issues. Section 3, the second main section, shows how the choice of methodology impacts on analysis and results. Section 4 provides a conclusion.

## 2. LITERATURE REVIEW AND CONCEPTUAL ISSUES

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An extensive literature exists on the methodology involved in analysing poverty and poverty policy. This section outlines the main mechanisms used to measure poverty, and draws attention to problems associated with the methodology.

### 2.1 MEASURING POVERTY

Poverty can be measured in two different ways<sup>2</sup>:

- In absolute terms: *absolute poverty*.
- In relative terms: *relative poverty*.

#### 2.1.1 Measuring absolute poverty

Absolute poverty measures try to define a minimum standard, for example, for income or nutrition which is thought to be required for a basic living. One tries to find an absolute cut-off point and from there to determine who and how many are living below

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<sup>1</sup> This paper draws heavily on Haarmann (1998).

<sup>2</sup> See also Giddens (1994:245-246); Nohlen (1993:58-59) and Deaton (1997:144).

this poverty line. In principle, this seems to be the superior method of measuring poverty.

However, there are several problems with this method, namely:

- Absolute poverty measures are subjective, as they always have a 'relative' component. 'Relative' here means relative to a certain standard and not, as in 'relative poverty' to other people.
- Absolute poverty lines cannot define absolute values for each case but by definition have to generalise, for example, an income which might be sufficient in one area might be insufficient in another area, because of differences in purchasing power or because of different needs.
- Absolute poverty lines need to be redefined over time. Sen raises a valuable point when arguing that growing urbanisation might raise, for example, costs of living, as time and travel costs to and from work increase. A poverty line set 5 to 10 years ago might have been sufficient then but no longer today. Hence, absolute poverty lines must not be kept fixed.<sup>3</sup>
- There are ideological disputes about what is actually needed for a basic living: Is the satisfaction of nutritional and health needs sufficient? Or should, as this paper argues, means and resources like education, employment and rights of self-determination be taken into account?<sup>4</sup>

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<sup>3</sup> Deaton (1997:144).

<sup>4</sup> Note that Deaton and others for example argue that a poverty line based on nutrition is adequate for developing countries but not for example the United States: "For the United States or other developed economies, where few people spend more than a third of their incomes on food, such a definition is clearly inadequate on its own and must be supplemented by reference to commodities other than food. However, in countries such as India and Pakistan, where a substantial fraction of the population spend three quarters or more of their budgets on food, a hunger-based definition makes sense ." (Deaton, 1997:206)

### 2.1.2 Measuring relative poverty

Relative poverty measures define poverty in relation to other members of a respective group. For example, the World Bank defines 'poor' as the poorest 40% of households, and 'ultra poor' as the poorest 20% of households. The advantage this definition offers is that this figure is relatively easy to determine.<sup>5</sup>

Although this approach is said to be an alternative to the definition of minimum standards, the 40% cut-off is, in fact, used like a minimum standard. Hence, this leads to the discussion of why the adequate cut-off point is not set at levels such as 50% or 30%? The World Bank justifies its choice of 40% by saying, "it turns out that these cut-offs indicate an extent of poverty in the same range as that produced by the minimum food need lines."<sup>6</sup>

### 2.1.3 Poverty line

Both relative and absolute poverty measures try to define a poverty line also referred to as the poverty datum line or poverty datum income.<sup>7</sup> Those people below this line are regarded as the 'poor' and those above as the 'non-poor'. There are several problems associated with a poverty line:

- Defining such an income involves an element of arbitrariness and a small change in the stipulated poverty datum income can have great impact on the extent of measured poverty.<sup>8</sup>
- A poverty line gives an indication of how many people are regarded as poor (headcount index). However, the line in itself does not yet indicate *how* poor those

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<sup>5</sup> World Bank (1995:8).

<sup>6</sup> World Bank (1995:8).

<sup>7</sup> See also Ramphela & Wilson (1989:16).

<sup>8</sup> Whiteside (1995:18).

people are. The real value of poverty datum lines is thus in measuring *changes* in poverty levels over time as opposed to measuring the *absolute* extent of poverty at a particular time.<sup>9</sup>

Different methods are used to try to rectify this shortcoming (for example, the poverty gap index, discussed in the next section). This analysis mainly divides quintiles, deciles or deprivation ranking groups into divisions, which at least allows for a differentiation into two groups among the poor.

#### 2.1.4 Poverty gap index

The *poverty gap index* expresses the mean of a defined group below the poverty line.<sup>10 11</sup>

### 2.2 TYPOLOGY OF INDICATORS

Effective measures of poverty depend on the choice of poverty indicators as it is the indicators themselves that determine what is actually measured. Clarity on what the indicators are measuring and moreover, what they are not measuring, is therefore needed, especially if these indicators are to be used as proxies for complex social structures and phenomena like poverty.<sup>12</sup> This section attempts to look at the relevance of different indicators in determining the living conditions of poor people.

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<sup>9</sup> Whiteside (1995:18).

<sup>10</sup> Often the squared poverty gap index is used, which gives greater weight to those further below the poverty line. (Carvalho & White 1994:26)

<sup>11</sup> For more detail see also Deaton (1997:141-148): He explains the underlying calculations in detail and further critiques Sen's poverty index. Sen's poverty index is in essence a poverty gap index weighted according to the Gini coefficient.

<sup>12</sup> See also Neuman, 1997:130-175 (especially 168-170).

### 2.2.1 Defining poverty through income / expenditure indicators

Carvalho and White from the World Bank argue that data on income or consumption most directly measure well being.<sup>13</sup> However, one has to accept that poverty is a more complex and diverse phenomenon than purely a monetary matter: "Poverty is like illness. It shows itself in different ways in different historical situations, and it has diverse causes. (...) Not only are there several different dimensions of material and non-material poverty but there is also a complex interaction between cause and effect, which makes it difficult to describe a state of poverty without considering those factors, themselves aspects of poverty, that cause further misery".<sup>14</sup>

This paper argues that in any given poverty definition, the economic characteristics play an important role, therefore income or consumption are important and relevant indicators to assess the living conditions. Nevertheless, there are limitations, and reducing the poverty definition to one indicator seems only to be an oversimplification. Thus, the paper also argues that income/expenditure data should be one in a list of several other indicators.<sup>15</sup>

#### 2.2.1.1 Income versus expenditure

In regards to whether income or expenditure data is better, Carvalho and White argue that "consumption is usually preferred over income since income varies over time whereas consumption is smoothed over time. Consumption also captures people's access to publicly provided goods".<sup>16</sup> Whiteside argues that it depends on what the

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<sup>13</sup> Carvalho & White (1994:22).

<sup>14</sup> Ramphel & Wilson (1989:14).

<sup>15</sup> See also Carvalho & White (1994:12-25).

<sup>16</sup> Carvalho & White (1994:22).



indicator is used for: Expenditure is said to be more adequate for measuring poverty, while income is preferred to determine inequality.<sup>17</sup>

Income has been criticised for being incorrectly measured<sup>18</sup>. Arguments against the use of income data have occurred especially in the context of South Africa's means test. The means test is based on SALDRU income data – the 1993 South African Integrated Household Survey, (after the University of Cape Town's South African Labour and Development Research Unit, which administered the survey together with the World Bank).

An argument against the SALDRU income data is that interviewees did not declare all sources of income, or at least declared less than they actually received, partly because they might have been afraid of being caught for tax evasion.<sup>19</sup> Further, as Deaton points out, surveys in developing countries are less likely to produce reliable income than expenditure data: "At the practical level (...) the difficulties of measuring income are much more severe than those of measuring consumption, especially for rural households whose income comes largely from self-employment in agriculture".<sup>20</sup>

Another argument might be that the person in the household, who answered the questionnaire, might not have known about all the income sources of the other household members. For these reasons, it is worthwhile to examine the actual difference between income and expenditure in the SALDRU data.

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<sup>17</sup> Whiteside (1995:23). See also Pillay (1996:23, 25) and Anand & Harris (1994:226).

<sup>18</sup> Department of Welfare (1997:13).

<sup>19</sup> In fact, the data was confidential and in reality this danger did not exist, however, especially in the South African context at that time, people might have had good reasons for being cautious about 'official' collections of statistics.

<sup>20</sup> Deaton (1997:149).

**Figure 1: Percentage of total household income under- or over-counted comparison to the total household expenditure for all children up to 6 years (incl.) according to ranking groups<sup>21 22</sup>**

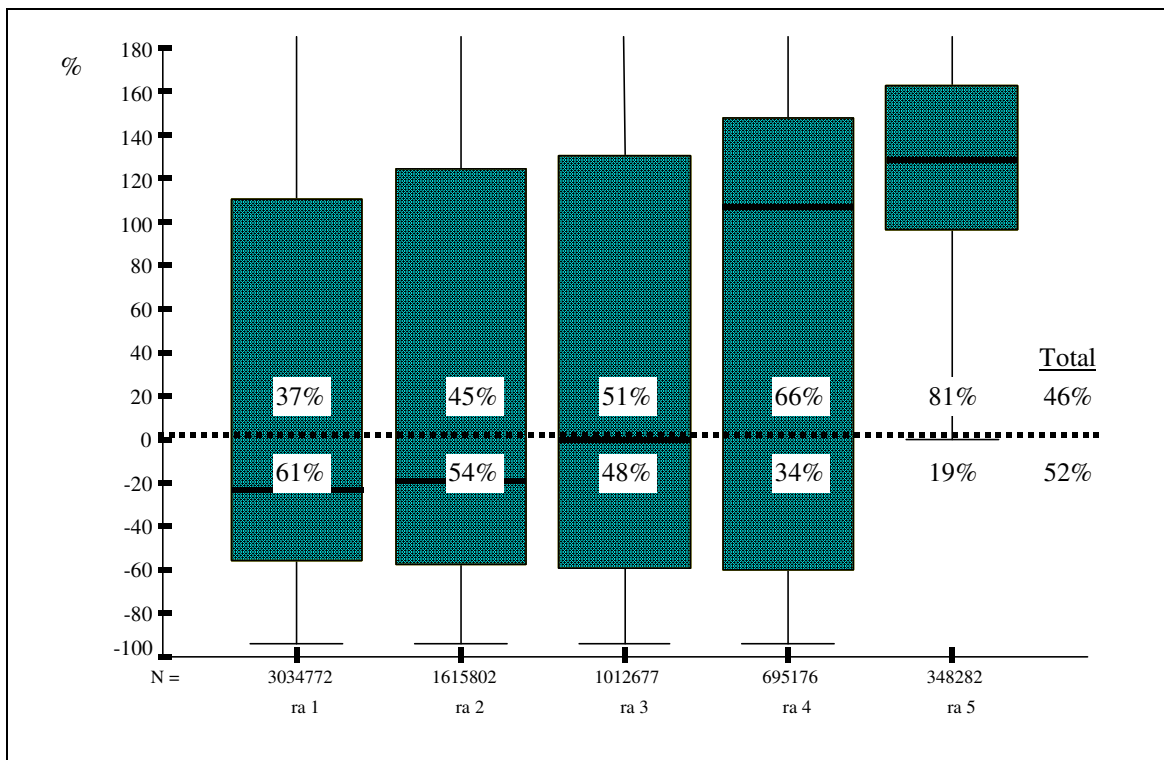


Figure 1 compares the *total household income* to the *total household expenditure* recorded. The graph indicates the percentage of how much more or less income was recorded compared to the expenditure. The children where the income and expenditure matches are located on the zero line. In fact, this should be the case if the household does not make any savings or debts and the expenditure as well as the income data are correctly collected.

Figure 1 shows that, in total, the undercount of the income is not exceptionally high. Moreover, for a considerable number of children in all ranking groups the household income is in fact up to 100% higher than the actual expenditure recorded. A

<sup>21</sup> It is just important that the children in ra. 1 are classified as the poorest group of children, whereas the children in ra. 5 belong to the richest classification.

<sup>22</sup> For a detailed explanation of this type of graph see Haarmann 2000.

comparison of the different ranking groups clearly shows that in the poorer groupings, it is the income which tends to be undercounted whereas in the wealthier groupings it is the expenditure.

These findings can be explained in the following way: Income determines the opportunity to purchase goods, whereas expenditure shows what is actually been purchased. The poorer households have to spend more than their actual income, meaning they are either in a constantly increasing debt crisis or they have some - mainly irregular - income sources which they did not declare, or both. The richer households do not spend their full income every month, but save some of the money and spend it later (for example, on a car or a house). This money is then not regarded as a regular expenditure and not accounted for in the data. It is surprising that this is the case for nearly all households in the top ranking group. They are the ones who had the greatest interest in not declaring all their income if they were worried about being penalised for tax evasion.

Therefore, the assertion that income sources on a large scale are not accounted for in the SALDRU data, cannot be substantiated. Even in the poorer groupings the undercount is below expected levels. However, it is apparent that *income* rather *underestimates the resources available* in the poorer groupings and *expenditure* rather overestimates it (debts affect the future income). In the richer groupings these tendencies are reversed.

#### **2.2.1.2 Units measured**

If one uses income or expenditure as an indicator for poverty, one has to decide which unit is to be measured. Usually three different categories are used, namely

household, *per capita* and household equivalents, each of which are outlined below.<sup>23</sup>

The household is very often the unit analysed for poverty measurement. There are mainly two reasons for this:

- The information on income and expenditure is usually derived from a household survey. This, especially in the case of expenditure data, does not allow for a smaller differentiation than the household. From this point of view the household income or expenditure is often the most practical unit.<sup>24</sup>
- It is argued that the household is the unit where the economic decisions are taken<sup>25</sup>, for example, Ardington and Lund (1995) argue that old-age pensions benefit not only the aged themselves, but also other family members, for example, children are fed, their school fees are paid or even farming activities are supported. This is seen as evidence that the money - especially in poorer families - is pooled.

Despite the importance of including households in units measured, there are several problems associated with measuring households:

1. Even for the use of a household survey it is difficult to define the concept of a household in practical terms.
  - a) If one follows a definition based on location, for example, all people under one roof form a household, then migrant workers would be excluded. However, their income might be an important source for the wealth of the members of a particular household.

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<sup>23</sup> See also Whiteside (1995:8-10).

<sup>24</sup> See also Deaton (1997:150,205).

<sup>25</sup> See also Haddad, Hoddinott and Alderman (1997).

- b) If one includes all people who contribute to the household (for example, migrant labourers would be counted for in multiple households) then one has to decide what proportion of their income is part of which household income.
  - c) Households are not static. Children might live in one household for the time of schooling but in another during school holidays.<sup>26</sup>
2. All evidence points to the existence of some kind of 'income pool' in poor households<sup>27</sup>. However, in the South African context, not much research has been done into the question of who controls the pool and into the extent to which different people within the same household benefit from these resources. Different gender roles, for example, seem also to be crucial to understand this phenomenon. There is reason to believe that a bigger share of the income is contributed to the pool and in the end to the benefit of the children, if it is earned by women. Men are believed to spend more of their money on their own needs. This is supported in the South African context by various authors who point to the fact that: "evidence elsewhere suggests that often income earned by women is more likely to be distributed to the benefit of other household members - particularly children - than the same income earned by men. Women generally put higher priority on the basic needs of the family - including nutritional - than men rather than concentrating only on their own needs". (Budlender, 1993:6)<sup>28</sup>

However, more research has to be done in order to really understand the intra-household distribution of resources.<sup>29</sup>

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<sup>26</sup> See also Lund Committee (1996:18).

<sup>27</sup> For a discussion on developing countries in general, see Haddad, Hoddinott, and Alderman (1997).

<sup>28</sup> See also Case and Deaton (1996:23).

<sup>29</sup> See also Deaton (1997:223-240).

3. Larger families are discriminated against if one only compares the household income / expenditure. It is obvious that it makes a substantial difference if a single person household has an income of R2000 or a household of 11 people has the same income.<sup>30</sup>

To counter this discrimination against larger households, it seems to be useful to look at the income an individual gets. However, this does not take into account the question of how many dependants or other supporters this individual might have.

Another possibility is to calculate the *per capita* income / expenditure by dividing the household income by the number of people living in the household. At first sight, this seems to be superior to the method of taking only the household income into account. However, it is far from being really accurate, as differences in the economies of scale between larger and smaller households are not accounted for. There are mainly two reasons why economies of scale apply at the household level: First, buying goods in bulk usually works out cheaper than buying goods in smaller quantities. Second, households buy 'public' goods, like radios, which lose no value if they are used by more than one person.<sup>31</sup>

Deaton points out that: "(...) in all household survey data of which I am aware, total household expenditure rises with household size, but not as rapidly, so that PCE decreases with household size" (Deaton, 1997:243). In this case smaller households, like single parent households, would be discriminated against, if poverty was determined through simple *per capita* income / expenditure.

The usage of household equivalents was developed because of the shortcomings of the household *per capita* calculations. This concept tries to standardise

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<sup>30</sup> This becomes especially important when one looks at the different means test suggestions.

<sup>31</sup> See also Deaton (1997:241-242).

the different households through mathematical adjustments to one ideal type of household, which then allows for direct comparison. The different households are adjusted in the following ways:

1. The household income is powered by a figure smaller than 1 to allow for economies of scale.
2. Often different weights are used for different groups, for example, children or elderly women are weighted less than adult men, or households in the rural areas more than in urban areas.

The different weights are intended to reflect different needs, which in itself poses problems. It has to be decided from where the weighting can be derived. The method used by the World Bank argues that children and older women have less nutritional needs than adult males. Therefore, Deaton argues that they should be weighted as half an adult male (1997:244).<sup>32</sup>

However, consumption does not only mean nutrition. For example, the cost of proper health care for a baby is most probably higher than that of an adult male. Furthermore the nutritional requirements for a child of 16 years are not necessarily lower and might be even higher than for an adult male. While it is acknowledged that differences in need especially concerning nutrition during different phases of life exist, the estimate indicating that children and older women need half the money of an adult male, seems to be an oversimplification. Deaton himself quotes an interesting example with reference to the weighting of the aged: "for example, the 'fact' that there is less

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<sup>32</sup> Note that Deaton acknowledges that no agreement on the use of equivalent scales exists: "Although the construction of scales is of importance for any enterprise that uses household survey data to draw conclusions about welfare, the state of knowledge and agreement in the area is not such as to allow incontrovertible conclusions or recommendations." (Deaton 1997:205).

poverty among the elderly in the United States depends on the assumption in the official counts that the elderly need less than other adults" (Deaton, 1997:243).<sup>33</sup>

Carvalho and White argue therefore that one has to be cautious as to what weighting is attached. They warn against the use of weighting based on intra-household consumption patterns, "since these patterns reflect inequalities in intra-household distribution as well as in need" (1994:22). Due to these problems, it was decided to allocate no special weighting for differences in age and sex. This analysis uses household equivalents only by taking account of economies of scale.<sup>34</sup>

### 2.2.2 Defining poverty through non-income based indicators

As argued earlier, poverty is constituted by various factors and not only by the economic situation measured by income / expenditure data (see Section 2.2.1). Furthermore the income and expenditure data which is available from household surveys does not in all cases present a reliable picture, not even of the economic situation of the household.<sup>35</sup> Ramphela and Wilson comment on the limitations of quantitative analysis: "We do not wish to be misunderstood: statistical analysis is essential, and the effort to toughen up the soft social sciences by improving the quality of statistics is one of the most significant intellectual advances of our time. But precisely because the numbers are so important it is vital to pause at the beginning to consider what we are measuring and, perhaps even more significant, what we are not measuring. In the social sciences there has to be a constant tension between the case-study methodology as practised by anthropologists, and the representative statistical sample derived from questionnaires beloved by sociologists and economists. Each is

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<sup>33</sup> See Deaton and Paxson (1997).

<sup>34</sup> See Haarmann (2000).

<sup>35</sup> See also Webster (1990:15-23) and Neuman (1997:14-15).



periodically driven to distraction by the other. But each badly needs the other in order to avoid the Scylla of assuming that a particular case study is typical of a whole population and the Charybdis of asserting that what has been enumerated (and statistically analysed) is necessarily the whole (or even the most important part) of the truth.”<sup>36</sup>

It therefore seems to be important to consider non-income based indicators when measuring poverty.<sup>37</sup> The FFC argue that '*ruralness*' is the best available indicator to determine poverty on the level of the different provinces: “It should be noted that other socio-economic indicators such as poverty levels and the Human Development Index (HDI) were considered for weighting. In the end it was felt that “ruralness” of the population would be the most appropriate and least contentious of the indicators for weighting given the nature of the data in this country. The reasons include the reliability of the data, the consistent collection of the information, the national and inter-provincial applicability of the measure and the close correlation between the different measures”<sup>38</sup>. (FFC, 1996b:33)

It is true that many of the households in rural areas in South Africa are poor<sup>39</sup>, however, it has to be argued that the reverse is not necessarily true. One cannot say that people living in an urban area are not as poor as people living in a rural area, especially since living people in informal settlements or townships would be excluded by such a definition. 'Ruralness' seems to be important to describe the living conditions, but not reliable to function as an indicator.

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<sup>36</sup> Ramphele & Wilson (1989:15).

<sup>37</sup> See also Pillay (1996:29-32).

<sup>38</sup> The targeting error which occurs will decline as credible income and demographic data are established.

<sup>39</sup> See Ramphele & Wilson (1989:25).

### 3. THE IMPACT OF METHODOLOGY ON ANALYSIS AND RESULTS

The purpose of this section is to identify how the methodological issues discussed in the previous section have an impact on poverty analysis and policy implications. The purpose is not to explore the policy implications, but rather to identify how different measures and modelling assumptions influence the quantitative and qualitative results.

Table 1 compares different social security reform options evaluated using alternative methodologies. Although the relative rankings vary depending on the methodology employed, the cardinal ranking of the policy options does not change.

**Table 1: A comparison of alternative social security reform options**

#### 1a: Headcount analysis using the poverty line

	Headcount measure:		Reduction in Headcount Measure
	Poverty line		
	Below	Above	
Current programmes (current take-up):	22,799,099	19,925,519	--
""plus Child Support Grant up to 18 years (current take-up rate)	22,797,777	19,926,840	1,321
""plus Child Support Grant (universal grant)	19,755,874	22,968,744	3,043,225
Current programme (full take-up):	21,955,935	20,768,683	843,164
Basic Income Grant	16,541,908	26,182,709	6,257,190

The headcount measure provides a crude measure of the poverty impact of the social reforms evaluated. Using current programmes with current take-up rates as a baseline, extending the Child Support Grant up to age 18 with current take-up rates has a minimal impact on poverty. Making the current programmes work better, by ensuring full take-up, on the other hand, frees 843 thousand people from poverty. Extending the Child Support Grant to age 18 with universal take-up has several times the impact—freeing more than three million people from poverty. A universal basic income grant frees more than six million people from poverty.

The analysis changes significantly if we measure the headcount index using a destitution line instead of a poverty line. This reflects the sensitivity of the results to the chosen poverty line measure. Again using current programmes with current take-up rates as a baseline, extending the Child Support Grant up to age 18 with current take-up rates frees more than a million people from destitution, even though a minimal number actually escape poverty. Making the current programmes work better, by ensuring full take-up, continues to be more effective by this measure, freeing 2.75 million people from destitution. Extending the Child Support Grant to age 18 with universal take-up more than twice the impact—freeing more than six million people from destitution. A universal basic income grant frees more than ten million people from destitution. In all cases, the relative ranking of the policy reforms remains the same with both the poverty headcount measure and the destitution headcount measure. The extent of the success, however, is significantly greater using the destitution measure as opposed to the poverty measure. The main qualitative change is that extending the Child Support Grant to age 18 without improving take-up rates yields significant results using the destitution headcount measure, while it proves minimally effective using the poverty headcount measure.

#### 1b: Headcount analysis using the destitution line

	Headcount measure:		Reduction in Headcount Measure
	Destitution line		
	Below	Above	
Current programmes (current take-up):	13,063,820	29,660,797	--
""plus Child Support Grant up to 18 years (current take-up rate)	11,941,406	30,783,212	1,122,415
""plus Child Support Grant (universal grant)	6,624,112	36,100,506	6,439,709
Current programme (full take-up):	10,308,848	32,415,769	2,754,972
Basic Income Grant	2,883,225	39,841,393	10,180,596

Two other measures also yield different quantitative results without changing the ranking of the reforms. The poverty gap measure shows the response of both destitution and poverty even if the policy reform frees no-one from either destitution or poverty. The gap measures the average difference between the actual income of a poor

household and the poverty line. Alternative poverty gap measures weight the poverty of the poorest more heavily. The “poor in households with no grants” measure identifies those poor households who are unaffected by the country’s social security system. Currently, half the poor households in South Africa receive no social grants at all. Extending the Child Support Grant to age 18 with current take-up rates reduces this proportion to a third. Of all the measures, this indicator shows the greatest impact for this policy reform. The poverty gap measure, however, only shows an improvement of 4.6 percentage points with this reform. Increasing the take-up rate to 100% for all existing programmes reduces the “no grants” proportion to 20.5%, and the average reduction in the poverty gap rises to 36.6%.

Extending the Child Support Grant to age 18 with universal take-up reduces the number of poor households not receiving grants to 4.4%—very close to the proportion for a Basic Income Grant, which is zero by definition. The poverty gap measure, however, shows a greater distinction between these two reforms—an average reduction of 55.8% with the universal Child Support Grant, compared to an average reduction of 73.7% with the Basic Income Grant.

### 1c: Poverty measure analysis

	Reduction in Poverty Headcount	Reduction in Destitution Headcount	Poverty Gap Measure (%)	Poor in HHs with no grants (%)
<b>Current programmes (current take-up):</b>	--	--	22.9	49.7
<b>“”plus Child Support Grant up to 18 years (current take-up rate)</b>	1,321	1,122,415	27.5	33.6
<b>“”plus Child Support Grant (universal grant)</b>	3,043,225	6,439,709	55.8	4.4
<b>Current programme (full take-up):</b>	843,164	2,754,972	36.6	20.5
<b>Basic Income Grant</b>	6,257,190	10,180,596	73.7	0.0

## 4. CONCLUSIONS

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This paper shows that methodology has a significant impact on the analysis of anti-poverty programmes. In theory, choice of methodology can actually change the ordinal ranking of policy reforms. In the analysis of social security reforms for South Africa, however, the ordinal rankings proved remarkably robust across the various methodologies employed, although the quantitative and qualitative impacts varied significantly.

## REFERENCES

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Carvalho, Soniya; White, Howard: *Indicators of monitoring poverty reduction*. World Bank discussion papers. 254. Washington, D.C (The World Bank) 1994.

Case, Ann and Deaton, Angus. 1996. "Large cash transfers to the elderly in South Africa". NBER Working Paper Series. No. W5572. pp. 7, 23-24.

Department of Welfare: (White Paper) *White Paper for Social Welfare. Principles, guidelines, recommendations, proposed policies and programmes for developmental social welfare in South Africa*. Pretoria (Government Printers) 1997.

Haarmann, Claudia. 2000. "Social assistance in South Africa: Its potential impact on poverty". University of the Western Cape, Institute for Social Development, Doctoral thesis. Printed for private circulation.

Haarmann, Dirk and Haarmann, Claudia. 1998. "Towards a comprehensive social security system in South Africa". Cape Town. Printed for private circulation.

Haddad, Lawrence; Hoddinott, John; Alderman, Harold. (ed.) 1997. *Intrahousehold resource allocation in developing countries. Models, methods and policy*. Baltimore, London (The International Food Policy Research Institute).

Lund Committee on Child and Family Support 1996. "Report of the Lund committee on child and family support". n.p. p. 18, 92, 139.

Neuman, W. Lawrence: *Social research methods. Qualitative and quantitative approaches*. Boston, London, Toronto et al. (Allyn and Bacon) 1997.

Nohlen, Dieter (ed.): *Lexikon Dritte Welt. Länder, Organisationen, Theorien, Begriffe; Personen. Vollständig überarbeitete Neuausgabe* Hamburg (Rowohlt) 1993.

Wilson, Francis and Ramphela, Mamphela, 1989, "*Uprooting Poverty – the South African Challenge*". David Philip.

World Bank 1995. *Key indicators of poverty in South Africa*. Pretoria.