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Core Poverty, Basic Capabilities and Vagueness: An Application to the South African Context

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David A. Clark and Mozaffar Qizilbash

Global Poverty Research Group

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*Global Poverty Research Group (GPRG) and Institute for Development Policy and Management (IDPM), University of Manchester, Harold Hankins Building, Prescient Centre, Booth Street West, Manchester, M13 9QH, UK; and e-mail: david_a_clark@hotmail.com

**School of Economics, University of East Anglia, Norwich, NR4 7TJ. Tel: ++ 44 1603 593667; Fax: ++ 44 1603 250434; and e-mail: mozaffarq@hotmail.com

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African Context.

This paper applies a framework which addresses the vagueness of poverty. The 'core poor' are those who are unambiguously poor. In applying the framework we use Sen's capability approach and results from a recent survey. These results suggest that some South Africans set tough standards for someone to qualify as poor. Even by these standards, our lower bound estimate of core poverty is higher than existing estimates of the 'most deprived' and 'ultra-poor'. This result is sensitive to the criteria used in applying the framework, though other results are more robust. While there is evidence that respondents adapted to their living conditions, it was not merely those who were deprived in specific dimensions who endorsed very low cut-offs in those dimensions.

Keywords: poverty, vagueness, capability, perceptions of the poor, multi-dimensionality, Africa, South Africa.

0. Introduction

A growing literature has attempted to apply Amartya Sen's capability approach to the measurement of poverty (Sen, 1992, 1993 and 1999, Chiappero-Martinetti, 1994, 1996 and 2000, Balestrino, 1996, Klasen, 1997 and 2000 and Majumdar and Subramanian, 2001 *inter alia*). Related literatures suggest that we need to recognize the many different dimensions of poverty as well as distinct groups amongst the poor, such as the ultra poor, the chronic poor and the transient poor. The differences between these groups relate primarily to the depth, or the duration, of poverty. In this paper, we apply Mozaffar Qizilbash's work which pursues Sen's suggestion (Sen, 1981, p.13) that poverty is a fuzzy or vague concept (Qizilbash, 2003). Qizilbash's work develops on the insights in Kit Fine's 'supervaluationist' account of vagueness (Fine, 1975) and involves the notion of 'core poverty' – which relates to lack of *ambiguity* about whether some person or household is poor.

In making the notion of core poverty operational, we also take our cue from insights in the literature on vagueness. These allow us to use the results from a survey on the ‘Essentials of Life’ (henceforth, ‘the survey’) which was administered in three locations in South Africa in 2001. A central aim of the survey was to select dimensions and critical levels which are relevant to judging deprivation in terms of ‘basic capabilities’. Our methodology connects the literatures on vagueness and the capability approach with work on the perceptions of the poor and ‘subjective’ poverty lines (Narayan et al, 2000, Colastanto, Kapteyn and van der Gaag, 1984 and Pradhan and Ravallion, 2000 *inter alia*). It is also informed by Stephan Klasen’s application of the capability approach in the South African context (Klasen, 1997 and 2000). We compare our methodology and results with Klasen’s throughout the paper to highlight the distinctiveness of our approach. Finally, we consider one potential objection to our methodology which focuses on the worry that deprived groups can adapt to their living conditions and that their responses can be misleading for this reason.

The paper is structured as follows: in section 1, we explain the framework; in section 2 related work on South Africa is discussed; in section 3, we describe the survey and fieldwork methodology; in section 4 we relate the survey results to the framework; section 5 focuses on the nature and extent of core poverty; the issue of adaptation is addressed in section 6; and section 7 concludes.

1. Core Poverty and Vagueness

There have recently been various attempts to develop a framework which allows for the vagueness of poverty (Cerioli and Zani, 1990, Cheli and Lemmi, 1995, Chiappero-Martinetti, 1994, 1996 and 2000, and Qizilbash, 2002 and 2003). Amongst these attempts, Qizilbash’s framework is distinct because it involves two kinds of

vagueness. The first of these is ‘horizontal vagueness’, which relates to vagueness about the dimensions of poverty. For example, if poverty is thought of in terms of a failure to meet basic needs or to realize ‘basic capabilities’, there may be some imprecision about which needs or capabilities are ‘basic’. The second kind of vagueness – ‘vertical vagueness’ – is about the minimal critical level in some dimension at or below which someone must fall to classify as poor in that dimension.¹

In developing a framework which allows for these two types of vagueness, Qizilbash takes his inspiration from Kit Fine’s (1975) ‘supervaluationist’ account of vagueness. In the context of poverty, this involves allowing for a set of ‘admissible’ specifications of poverty. On Fine’s account, a specification of poverty is ‘admissible’ if (roughly speaking) it *makes sense* as a way of articulating the notion of poverty. Furthermore, on this account, a vague statement is ‘super-true’ if and only if it is true on all admissible ways of making it more precise. In the poverty context, for example, ‘x is poor’ is super-true if and only if x is poor on all admissible ways of making ‘poor’ more precise. Since this is a stringent requirement for someone to classify as poor, anyone who is poor in this sense is ‘core poor’.² Given the multi-dimensionality of poverty, judging whether or not some person (household) is core poor involves two steps. Firstly, a person (household) is *definitely* poor in some specific dimension if she (it) falls *at or below* the lowest admissible minimal critical level in that dimension. This is not in itself sufficient to establish that the relevant person (household) is core poor. For person (household) x to count as ‘core poor’, it must also be true that she (it) must be definitely poor in a ‘core dimension’ – a dimension that is part of all admissible specifications of poverty.

An important characteristic of this approach is that if some person (household) is doing sufficiently badly in terms of any one dimension, she (it) is core poor, as long as

that dimension is core. For example, if nutrition is a core dimension, someone who is very seriously malnourished would count as core poor, and we could make this judgement without checking how she is doing on all dimensions. This is a plausible feature of the approach, and it involves taking a view on an important debate about how to deal with the multi-dimensionality of poverty.³ An alternative approach would only classify a person (household) as unambiguously poor if she (it) is judged to be definitely poor in terms of all dimensions.⁴ Information on all core dimensions is necessary, nonetheless, if we want to estimate the headcount ratio index of core poverty (i.e. the proportion of the population which is core poor). To see why, consider two alternative scenarios, involving only two core dimensions, d_1 and d_2 . In the first scenario, 15% of the population fall at or below the lowest minimal critical level on both d_1 and d_2 , while no individual (or household) falls below the minimal critical level on only one of these dimensions. The headcount index of the core poor is 15% in this scenario. In the second scenario, while it is still the case that 15% of the population falls below the minimal critical level on each of d_1 and d_2 those who are definitely poor on d_1 and d_2 are mutually exclusive. In this second scenario, the headcount index is 30%. Without knowledge of the overlap between those individuals (households) who (that) are definitely poor on d_1 and d_2 , we cannot distinguish between the two scenarios.

2. Related Work on Poverty in South Africa

There is now a considerable literature on poverty in South Africa. In this section, we focus on two relevant contributions. In an attempt to allow for vagueness which is informed by Sen's capability approach, Qizilbash (2002) applied fuzzy set theoretic measures with data from the 1996 South African Census. While no attempt was made to examine 'core poverty', inter-provincial rankings relating to 'definite poverty' in specific

dimensions for the provinces of South Africa were presented. Somewhat arbitrary judgements were made about the choice of dimensions and critical levels used in applying fuzzy measures. The same general issue of arbitrariness arises in much of the related literature including Klasen's attempt to apply Sen's capability approach. This approach involves two foundational concepts: 'capability' and 'functioning'. For Sen (1993, p. 31) a person's life is constituted by various 'being' and 'doings' or *functionings* and her capability is the set of lives from which she can choose one. Poverty is seen in terms of a shortfall of 'basic capabilities' or 'basic capability failure'. Such failure involves the inability to achieve certain minimally adequate levels of crucially important functionings (Sen, 1993, p. 41), such as being nourished and being sheltered. Sen explicitly relates the relevant functionings to 'basic needs' (Sen, 1993, p. 40).

Since we compare our methodology and results with Klasen's, we describe his work in some detail here. Klasen uses indices relating to fourteen 'components' of poverty which are related to basic capabilities. His choice of indices is motivated by data from the 1993 Project for Statistics on Living Standards and Development (PSLSD) undertaken by the Southern Africa Labour and Development Research Unit (SALDRU). His estimates of poverty and deprivation also use these data. Interestingly, Klasen includes 'perceived well-being' as one of the dimensions related to capability, whereas data on this indicator is usually used to measure happiness (Easterlin, 1974, Oswald, 1997 *inter alia*) rather than capability. Nonetheless, Sen (1993, pp. 36-7) does treat the ability to achieve happiness as a valuable capability, and to this degree Klasen's approach is consistent with Sen's writings. However, it is not at all obvious that this capability is 'basic'.

The indices that Klasen (2000, p. 41) uses, and the rank order numbers he assigns to levels of achievement in terms of these indices, are shown in Table 1. For illustrative purposes, consider the first row in Table 1 which relates to the average educational attainment of household members. In this case, rank orders are assigned so that: less than two years of education is given a rank order of 1; between 3 and 5 years of education is given a rank order of 2; and so on. Similar exercises are carried out for the other indicators. While Klasen notes difficulties with ranking some categories, he suggests that the 'scoring is quite intuitive and unlikely to stir much debate' (Klasen, 2000, p. 39). Each household is assigned a rank order score on the basis of its achievements in each dimension. Klasen's deprivation index is an unweighted average of a household's rank order scores.⁵

Klasen goes on to classify households as more or less deprived on the basis of their score on these indices. Using the worst-off 40% in terms of these indices yields a cut-off average rank order score of 2.9 for 'deprivation' and applying the worst-off 20% gives a cut-off average rank order score of 2.4 for the 'most deprived'. Since Klasen thinks that a score of below 3 signals basic capability deprivation in any dimension, he associates the 2.9 cut off line with Sen's notion of poverty.⁶

While Klasen's work makes no attempt to address vagueness, his approach to multi-dimensionality differs from that outlined above. Firstly, Klasen takes a household to be deprived if it falls below the relevant cut-off in terms of an average of rank order scores across the various dimensions. By contrast, in Qizilbash's framework a person (household) can count as core poor if she (it) is doing badly enough in terms of any *one* dimension, if that dimension is considered core. It does not matter, in this framework, if the relevant person or household is doing better on other dimensions, so that the average

rank order score is high enough to cross some average of relevant deprivation thresholds. Since the survey provides information on many of the indicators used in Klasen's study, we can contrast the selected indicators, thresholds and estimates which follow from our methodology with his. However, to apply the framework we also need an approach to defining the range of admissible critical levels and identifying core dimensions. The approach we adopt in this paper uses survey responses along the lines developed in related work by David Clark (2002 and 2003).

3. The Survey: Background, Methodology and Key Results

In June and July 2001 a survey was administered in three locations in South Africa to investigate how ordinary people view the essential things in life. An effort was made to select survey sites that are fundamentally different in terms of culture, race and occupation to generate useful comparisons. The first area, Kwanonqaba, is a township adjacent to Mossel Bay in the Southern Cape region of the Western Cape Province. At the time of the survey, the township consisted of around 8,300 people most of whom are classified as Black African.⁷ Those with jobs were mostly employed as wage labourers.

The second location, Murraysburg, is a magisterial district on the cusp of the Northern, Eastern and Western Cape Provinces.⁸ It consists of a small town and sparsely populated countryside and farmland. The town accounts for the bulk of Murraysburg's population (of about 5,900 people in 2001), which is predominantly Coloured with small Black African and White minorities. At the time of the survey, unemployment was high and many local people were forced to migrate to find work. Those fortunate enough to find work in Murraysburg itself were typically employed as domestic servants, contractors, farm labourers or municipality workers (Dokter, 1996, p.3).

The third area, Khubus, is a small isolated village situated in the Northern Cape on the banks of the Orange River, overlooking Namibia. In 2001 around 800 people were living in the village, most of whom were the descendants of the aboriginal Nama people. Virtually the whole population was classified as Coloured for official purposes. The majority of people with jobs were either working in the diamond mines of the Richtersveld or grazing sheep and goats to make a living.

The principal aim of the questionnaire was to find out which needs and capabilities ordinary South Africans think are basic, and where they draw the line between the poor and non-poor in specific dimensions. Responses to the questionnaire are highly relevant to the framework described in section 1, since they provide information about the dimensions of poverty and the critical minimal levels in each dimension. Most poverty surveys are concerned with people's living conditions rather than with what people think the essentials of life are. While some of these surveys include a question on the priorities of life, such questions are usually regarded as supplementary. For example, the PSLSD questionnaire asked: '[w]hat in your opinion could government do to most help this household improve its living conditions? In other words, what do you need most?' (PSLSD, 1994, p. 288). Respondents were asked to name three items and to rank them in order of importance. Responses to such questions are helpful but exclude concerns that lie outside the government's sphere of influence. They are also likely to under report those basic needs that are already satisfied. In short, this question encourages people to provide a 'wish list'. Answers to this question justify the selection of indices which proxy for basic capabilities in Klasen's study (2000, pp. 38-9). To elicit a more complete information base, the survey questionnaire asked respondents to think about the 'most basic aspects of life'. These were described as 'the

bare essentials without which A PERSON cannot *cope or manage at all* and without which *life is unbearable*' (SALDRU, 2001, p. 2). Respondents were reminded that 'these can be aspects of life that people have, or don't have and need' (SALDRU, 2001, p.2). While some studies have asked people to define the characteristics of poverty (e.g. Moller, 1996, SA-PPA, 1998 and Narayan et al, 2000), participants have not generally been asked to abstract from their own situations.

As the main objective of the survey was to investigate the components of a minimally decent life (i.e. the crucially important functionings relevant to basic capability) rather than some higher standard of living, interviewers asked people about the level of achievement in terms of the 'basic aspects of life' required to 'get by' as opposed to that required to 'live well'. To ensure that respondents fully appreciated the significance of these two levels they were repeatedly required to distinguish between them during the course of the interview. The questionnaire was divided into three main parts. Part one consisted of open-ended questions that asked respondents to identify the most basic aspects of life. Respondents were then invited to weigh the aspects they mentioned (by giving a mark out of ten) and to suggest minimal critical levels in terms of these aspects which were necessary to 'get by' and 'live well'. Interviewers were instructed not to suggest possible answers. Part two of the questionnaire asked respondents questions about more 'specific aspects of life, such as housing, education, jobs and health' (SALDRU, 2001, p.5) which were pre-defined. It asked them to endorse or reject these predefined dimensions and select specific cut-offs relating to them. The final part of the questionnaire collected background information regarding personal circumstances and living conditions. The design, wording and translation of the questionnaire were informed by the results of previous studies (e.g. Wilson and

Ramphela, 1989; PSLSD, 1994; Moller, 1996; SA-PPA, 1998; Clark, 2002 and 2003) and issues raised by experienced local researchers and interviewers at brain storming sessions in Cape Town.⁹ The methodology of using two kinds of question – one of which is open-ended and the other involving predefined aspects of life – is in line with the approach adopted by Clark (2002 and 2003). This procedure allows researchers to avoid influencing initial responses (by asking purely open-ended questions at the start), look for consensus (by requesting an assessment of pre-defined needs or capabilities from all people) and test for inconsistencies (by comparing the answers to open and pre-defined questions) that might reflect preferences which are ill-informed or have adapted to personal circumstances.

A balanced sampling frame was employed to ensure that each survey area was properly represented. Random sampling techniques were used for the selection of households and suitable respondents. In each location households were listed by enumerator area (EA) prior to selection. Sample intervals were then calculated by dividing the total number of households in each area by the number of questionnaires allocated to that area. The first household in each EA was selected randomly. Interviewers then proceeded to visit every *n*th household, where *n* represents the sample interval.¹⁰ One person was selected from each household visited using a table developed by Kish (1995, pp. 398-401), which is designed to ensure that the age and gender skew of the sample drawn match the characteristics of the local population. When the selected respondent was unavailable, no other member of the household substituted for him or her.

A total of 941 people aged 18 or over made up the survey sample (see Table 2).¹¹ The sample was split unevenly between the three survey sites as follows: 568 interviews in Kwanonqaba (60.4% of the total sample); 313 interviews in Murraysburg (33.2% of

the sample); and 60 interviews in Khubus (6.4% of the sample). In Murraysburg 297 interviews were completed in the town (31.6% of the sample) and a further 16 interviews (1.7% of the sample) were completed on the surrounding farms. Overall the sample consisted of slightly more women (52.7%) than men (47.3%). The respondents could be classified in terms of the racial categories used in South Africa as follows: 61.4% Black African; 34.5% Coloured; 0.1% Indian/Asian; and 1.4% White.¹² In Kwanonqaba and Khubus the sample was skewed in favour of young people. In Murraysburg the sample was skewed towards middle aged and older people (see Table 2). The sample is, nonetheless, broadly representative of the population in the survey areas, though a strict comparison with 2001 Census statistics (which were not available at the time of the survey) suggests that people in the 18-24 and 25-34 age cohorts (who accounted for 51.6% of the adult population in the survey areas) may have been under-represented.

Tables 3 and 4 summarize some key survey findings. Table 3 presents an ordinal ranking of answers to the open-ended question about the basic aspects of life. Each response was assigned to one of thirty different categories, which are ranked in Table 3. In this table, 1 is the rank of the response that received most mentions, 2, second, and so on. If two or more items have the same number of mentions, they are given the same rank.¹³ Several items ranked in Table 3 can be thought of as distinct *components* of well-being, though sometimes the items are interrelated (e.g. blankets and heat) and some of them (like income) relate primarily to means, rather than the ends these help people to realise (such as respect). It is worth emphasizing that people defined these items without *any* external assistance or interference, which makes them strong candidates for inclusion in any framework for identifying the poor.

Table 3 indicates that 'housing/shelter' category is mentioned by the largest proportion of people followed, in order, by: food; water; work/jobs and; money/income. Each of these items was mentioned by well over 400 respondents (i.e. over 42.5% of the survey sample). Clothing, education, health, electricity and safety also received a large number of mentions (well over 100 each). Only a handful of people mentioned the last ten items in Table 3. Several items at the top of Table 3 relate to the goals of South Africa's Reconstruction and Development Programme (RDP). This suggests that responses may have been influenced by political factors (Clark, 2002 and 2003). Responses to the second part of the questionnaire – which involve an evaluation of predefined categories – may give us a more complete picture, and help to iron out the distortions which can emerge from such incentives. Table 4 summarises the relevant responses. Virtually all the prominent categories in Table 3 were covered in one form or another in the pre-defined list. So the predefined categories do cover the items which emerged when respondents themselves defined the basic aspects of life. Finally, the last column in table 4 suggests that almost all the predefined dimensions were given, on average, a similar weight.

4. The Selection of Core Dimensions and Admissible Critical Levels

There remains the issue of how to relate the survey results to the conceptual framework outlined above. Some hints on how one might do this can be found in the writings of Max Black (1937). Black thought that in cases of vague terms, various people specify the relevant term in different ways. The degree of ambiguity about the use of the relevant terms might then be measured by the extent of assent or dissent about its use by those who use it (Keefe and Smith, 1996, p. 40). Following this line of thought, one might judge that a dimension of poverty is core if there is little or no dissent about it

being a dimension of poverty. Similarly we might judge that a dimension is admissible if even a small proportion of people see it as a dimension of poverty. In the framework described above, however, a dimension counts as core if it is part of *all* admissible specifications of the poverty concept. If we were to use Black's insight in conjunction with the supervaluationist framework discussed above a natural criterion for a dimension to meet would be unanimity about it being a dimension of poverty. Thus we might require 100% endorsement by the sample population for a dimension to count as core. This effectively involves treating all those interviewed as having a 'say' about what constitutes a meaningful notion of poverty, and treating a dimension as non-core if *anyone* failed to endorse it. It involves the assumption that everyone interviewed was, in effect, attempting to articulate their notion of poverty and that there were no errors in the interviewing process.

On this reading none of the items in Table 4 would classify as 'core' despite the fact that many of these items were endorsed by virtually everyone. The fact that very small numbers of people fail to endorse certain dimensions (e.g. health, clean water, etc.) does not, however, constitute a compelling case for regarding such items as non-core. It is sensible to allow for some margin of error in the interviewing process and to allow for at least a tiny proportion of answers which can be excluded. A small number of answers might be excluded, even in the absence of errors in the interview process, because the framework is concerned with lack of ambiguity, and virtual unanimity, rather than endorsement by everyone interviewed can establish this.

These considerations suggest that we might treat a dimension as core even if a relatively small proportion of respondents – say 1% or 5 % of the survey sample – fail to endorse it. 'Relatively small' is clearly somewhat vague itself, and 1% and 5% suggest

themselves because they are salient. Nonetheless, 10% – which may not seem ‘relatively small’ to some – is also one possible salient way of defining ‘relatively small’. One might, thus, judge that a dimension is core if 99%, 95% or 90% of those who were interviewed, or those who responded to the question, endorsed it. A 99% rule still leaves us with no core dimensions if we look at the full sample (see Table 4). However, a 95% rule does identify various dimensions. Going further and using a 90% rule leads to the result that virtually all the dimensions listed are core. This seems rather implausible, and the 90% rule does not help to distinguish core from non-core dimensions. Of the salient criteria, the 95% rule is thus the most suitable for the purposes of implementing the framework and we adopt it in this paper. It might be argued that the use of this rule is arbitrary. Yet there seems to be no stronger justification for the use of any particular rule, in the present context, other than the fact that it is the only salient rule that adequately distinguishes core and non-core dimensions.

The 95% rule may be sensitive to the manner in which it is interpreted. Here are four ways of making the 95% rule more precise: (1) endorsement by at least 95.00% of those (a) interviewed or (b) who responded; and (2) endorsement by at least 94.50% of those (a) interviewed or (b) who responded. Rules 2(a) and 2(b) imply that if the proportion of endorsements of a dimension is at least 95% when numbers are rounded up the dimension is core. These are suitably ‘relaxed’ versions of the rule, and given our general concern with imprecision, they are used in the remainder of the paper. It is not obvious, however, whether to opt for 2(a) or 2(b). If we opt for rule 2(a), it is clear from Table 4 that twelve dimensions are core: clean water, health, access to health care,¹⁴ housing, jobs, education, freedom, nutrition, safety, self worth and respect, survival and

religion. Rule 2(b) actually yields exactly the same list. To this degree, the selection of core dimensions is robust.¹⁵

Table 5 gives the breakdown of the responses according to location. It shows that in the smaller sub-samples – Murraysburg and Khubus – a relaxed 100% version of rule 2(b) – i.e. one which would treat a dimension as core if it was endorsed by 99.50% or more of the sub-sample which responded – selects various core dimensions. For Murraysburg they are: clean water, health, housing, nutrition, jobs and religion. In the case of Khubus they are: access to health care, clean water, education, family and friends, freedom, nutrition, religion, safety, self-worth and respect, economic resources and survival. The larger Kwanonqaba sub-sample does not, however, produce any core dimensions with a relaxed 100% rule, or even with rule 2(a). Indeed, only three dimensions – housing, education and clean water – pass the test using rule 2(b) on this sub-sample. It is not clear how far this difference relates to the nature of the locations – Kwanonqaba is urban, whereas Murraysburg and Khubus are rural – rather than the quality of the data.¹⁶ It is clear, nonetheless, that despite some variation across the regions, some items appear repeatedly on these lists. Furthermore, virtually all the relevant items are among the twelve selected by rules 2(a) and 2(b) when they are used with the full sample. This suggests that these rules are credible, and we treat these twelve items as core for the remainder of the paper. Notice that much the same set of dimensions classify using rules 2(a) and 2(b) when the sample is broken down in terms of gender. Table 6 gives the gender breakdown of responses. It is surprising that ‘economic resources’ only appears in one of the lists just presented. Finally, a happy and carefree state of mind does not appear on any of these lists. This suggests that the ability to ‘be

happy' is not a basic capability (at least as long as happiness is seen in terms of mental states).

If we use a relaxed 95% rule for a dimension to be core – thus excluding up to 5% of respondents – consistency suggests that we ought to use a 'relaxed' 5% rule – which requires endorsement by at least 4.50% of the sample – for admissibility of critical minimal levels. However, the case of admissibility of critical minimal levels is more complex than that of core dimensions. This is because the survey questionnaire asked people what was needed to just get by. The level at which one is definitely poor must, thus, fall *below* the lowest level to get an endorsement of at least 5%. However, in the framework outlined in section 1, the lowest admissible minimal critical level in a dimension is that *at or below* which a person is definitely poor. So the notion of admissibility involved in using the 5% rule is subtly different to that involved in the framework when it comes to the lowest admissible critical level.

In this case, as with the 95% rule, there is also the issue of whether to use 5% of those interviewed, or 5% of those who responded. It turns out that both alternatives give the same results. To see how the 5% rule works, consider Table 7. This shows the proportion of people interviewed who endorsed a specific level in terms of some indicator. With the exception of perceived well-being, sanitation facilities and energy source for cooking, the indicators chosen relate exclusively to dimensions which have been identified as core. In Table 7, all those levels which have been shaded satisfy the relaxed 5% rule. Consider, for example, a case where there is a clear horizontal band of grey: years of schooling. In this case, our methodology implies that only someone with no schooling is definitely poor.

In some cases, use of the 5% rule results in apparent anomalies. For example, in the case of sanitation (toilet facilities) the 5% rule implies that a bucket or latrine is admissible but that an improved pit latrine or chemical toilet is not. In cases where the ordering of categories is well defined, it makes sense to use an 'adjusted 5% rule' which treats categories as admissible even when they score less than 5%, if they lie between the lowest and highest admissible minimal levels as defined by the 5% rule. Using the adjusted 5% rule, the category 'improved pit latrine or chemical toilet' would automatically qualify. Similarly in the case of water source, if, as seems plausible, we can rank a borehole, well etc. above a dam or standing water, the adjusted 5% rule implies that access to a protected spring, well or borehole (which does not qualify using 5%) is admissible.¹⁷

While the use of the 5% rule for admissibility is consistent with the use of a 95% rule for a dimension to count as core, it is worth considering alternative rules for admissibility. Salient alternatives would treat a critical level as admissible if it were endorsed by 1% and 10% (interpreted in the same 'relaxed' manner as before) of those who responded. The implications of using these rules are clear from a brief inspection of Tables 8 and 9. They are unsurprising. The use of a 1% rule means that virtually all levels are admissible, so that virtually no-one would count as definitely poor in the relevant dimensions. Only the homeless would count as definitely poor in the dimension of housing and those without any form of toilet at all would count in the dimension of sanitation. On the other hand, the use of a 10% rule means that many groups which do not qualify under the 5% rule would qualify as definitely poor in specific dimensions. For example, anyone who does not have a flush toilet (either inside the house or outside the house) would qualify as definitely poor as regards sanitation. This is surely too

permissive. Like the 95% rule, the 5% rule yields results which are more plausible than salient alternatives.

The lowest admissible cut-offs implied by the survey results with the 5% rule are quite different from those used in Klasen's work, which involve a rank order score of 3 in Table 1. The survey results do, nonetheless, sometimes support Klasen's choices, when combined with another rule. Consider a rule which selects the crucial critical minimal level as the category which achieves the *highest* level of endorsement.¹⁸ In Table 7, this category is indicated for each dimension with an asterisk. Of the dimensions presented in Table 7, access to health care and energy source for cooking are ones where the cut-off Klasen uses is selected according to this rule. In some cases – such as toilet facilities and water source – the category which is endorsed by the largest proportion of people falls *above* a rank order score of 3 in Table 1. So it is the particular framework we employ, and the choice of the 5% rule that leads us to such a low 'bottom line' for 'definite' poverty in various dimensions.

5. The Nature and Extent of Core Poverty

In this section, we restrict our attention to the twelve core dimensions. This means that we exclude a number of indicators (including income and perceived well-being) which were used in Klasen's study. Since we are interested in various different ways of applying the capability approach and in comparing the implications of our methodology with Klasen's, we focus on the 1993 PSLSD data. These data can be used in conjunction with the survey results for indicators relating to: the type of housing; the source of clean water; access to health care; educational attainment; and jobs.¹⁹ In particular, Table 7 suggests that a number of groups might classify as definitely poor in these dimensions, so

that they are core poor. These include: the homeless; those living in traditional dwellings; those with no access to water at all; those with no education; and the unemployed.

How widespread was core poverty in 1993 if we restrict attention to these groups? The core poor would include the 17.7% of South Africans with no access to health care. As regards housing, those living in shacks would *not* classify as core poor. Furthermore, since there were no homeless people in the PSLSD sample (which was restricted to residences), only the 10.3% of households living in traditional dwellings might count as core poor. It is not obvious, however, whether we should treat this group as core poor. On Klasen's ordering of the various levels of disadvantage, it is classified as better off than those living in shacks. That suggests that they should not count as core poor. Yet one may want to allow for the possibility that those living in traditional dwellings are core poor, given that some such dwellings are worse than shacks.

In terms of water source, our methodology suggests that only those with no source of water at all (even from a dam or standing water) count as core poor and this group is not picked up in the PSLSD survey. It also suggests that the 14.7% of South Africans with no schooling are core poor. Finally, as regards jobs, 30.1% of the workforce was unemployed (if one includes 'discouraged workers'). This estimate relates to individuals rather than households. In the PSLSD data, the proportion of households with no adult member in employment is 27.4%, while Klasen (1997, p. 71) estimates that in 29.5% of households there was 'nobody working'. Finally, in Klasen's classification (in Table 1) households with 0-19% of adult members in work are the most disadvantaged. In 1993, 31.5% of households fell into this category. While it is not easy to choose between these estimates, 30% is a plausible rough estimate of core poverty for households in this dimension.

Nutrition is also a core dimension. We have not discussed this dimension, since no question in the survey related to the standard anthropometric measures of under-nourishment. Nonetheless, it might be argued that those who are classed as seriously malnourished according to such measures should be counted as core poor. The PSLSD data does contain information on a measure of ‘stunting’ (PSLSD, 1994, p. 280). According to this data about 25.4% of South Africans were chronically malnourished in 1993.

While we are primarily concerned here with the disaggregated picture of poverty across the various dimensions, it is interesting to ask whether the use of our methodology implies a very low headcount index of core poverty because it implies such low cut-offs. In particular, does our methodology lead to a much lower estimate than Klasen’s estimate of the most deprived? Estimating a headcount index of the core poor is riddled with difficulties. The chief problem lies in the fact that in some dimensions (such as access to health care, undernourishment and educational qualifications) the data relate to individuals, while in other cases (such as water source and type of dwelling) the data relate to households. In rare cases (such as employment), data are available for both households and individuals. Issues about multi-dimensionality which are relevant to arriving at a headcount index of core poverty were discussed in section 1, and these also pose problems. In combination, these difficulties mean that providing a headcount index of core poverty is beyond the scope of this paper. Nonetheless, a lower bound estimate of core poverty is implied by the disaggregated picture, since all the estimates given above are of groups who were core poor. A lower bound estimate of core poverty amongst households would thus be the highest headcount index for the specific core dimensions listed. The highest such index relates to unemployment, and it stands at roughly 30% for

households. Even though this is a lower bound estimate, it is nonetheless considerably higher than Klasen's estimate of 25.4% 'most deprived' households. It is also higher than the estimated headcount index of 'ultra-poor' households (defined as those in the lowest quintile of the distribution of adult equivalent expenditures) for 1993, which stood at 28.8% (Klasen, 1997, p. 56). So while our approach implies lower cut-offs for definite poverty than Klasen's thresholds for basic capability failure in specific dimensions, it implies a higher lower bound estimate of core poverty for households than estimates of the 'most deprived' and the 'ultra-poor'.²⁰ This is a surprising result, though it is easy to see how it follows from our methodology.

It might be argued that the picture of core poverty implied by our methodology is not robust. This certainly is true. In particular, we have already seen that if a 99% rule were used for the selection of core dimensions, none would be selected so that there would be no core poverty. Equally, if a 90% rule were used virtually all the dimensions listed in Table 4 would be core and many groups which do not classify as core poor under the 95% rule would be so classified. Similar observations can be made about the use of alternative rules (such as the 1% rule and a 10% rule) for the selection of critical levels. However, it is easy to check that whichever of these rule is used for critical levels, those living in shacks are not core poor. That is a robust result. The homeless are also definitely poor irrespective of which rule is used. Nonetheless, given the lack of robustness of some of the results, our justification of the use of 95% and 5% rules is particularly important.

6. Adaptation

One serious worry about our methodology relates to the possibility of adaptation. This worry is of particular importance in the context of this paper, since advocates of the capability approach see adaptation as a problem for *alternatives* to that approach. Sen

often argues, for example, that desire satisfaction and happiness views of the quality of life are unreliable because severely deprived groups might adjust to their living conditions and sometimes learn to be happy or satisfied with those conditions (Sen, 1987, 45-46, 1992, 6-7 and 1999, 62).

Inasmuch as our work is informed by the capability perspective and is concerned with basic capability failure, this worry must be addressed. In the context of the survey, in particular, it might be argued that respondents may simply have become accustomed to their living circumstances, and were happy or satisfied with these circumstances even though they were seriously deprived. This argument might be made in relation to those respondents who endorsed the category of 'traditional healer, family member or friend' in the dimension of health care. Similarly, it can be argued that only those who are genuinely poor and have become accustomed to their poverty would think that a shack is enough to just get by. These arguments challenge our methodology for selecting core dimensions and admissible critical levels on the basis of questionnaires administered in deprived areas. They might also undermine the case for 'listening' to the poor in forming a qualitative picture of poverty and in formulating poverty eradication policy more generally. Similar objections can be levelled at studies of 'subjective' well-being and 'subjective' poverty lines.

There are at least three distinct, albeit crude, ways of testing for adaptation using the survey results. The first involves comparing the responses to open and closed questions – in line with the methodology outlined in section 3 – in order to see if respondents systematically changed their view of the essentials of life or whether they raised their aspirations after some alternatives were suggested. The results of this exercise suggest that deprivation did not significantly diminish aspirations, as most respondents

could imagine the defining features of a minimally decent form of life (compare the results summarised in Tables 3 and 4).²¹

The second way of testing for adaptation involves asking whether *all*, or an *overwhelming majority* of those who endorsed categories such as a shack or a traditional healer were themselves living in very straitened conditions in the relevant dimension. If this were true, then the endorsement of particularly low thresholds would indeed be a worry. However, it turns out to be false in the case of two dimensions for which data was available. In fact, in the case of shacks over half (52%) of those who endorsed this category were living in a house, while 45% were living in shacks. Of those who said that a traditional healer was enough to get by, 51% had received no health care at all during their last illness. Nonetheless, 39% had used a public hospital, clinic or shop during their last illness. Our results thus suggest that on this way of checking for adaptation – which is particularly relevant to our results – there is none.

The third, more general, way of testing the adaptation hypothesis involves checking whether people living in deprived conditions are satisfied with their living conditions. Unfortunately, relevant information about respondents' level of satisfaction was only recorded in Murraysburg and Khubus. It is fairly easy to establish on the basis of the questionnaire responses that these would be classified as deprived communities on the basis of most standard indicators. In Murraysburg, 19% of respondents had never been to school, 39% were unemployed, and around 33% of respondents did not have access to health care during their last illness. In Khubus, while only 1.67% of respondents had never been to school, 37% of them were unemployed and 53% of them had no access to health care during their last illness. Yet the level of satisfaction in these communities was remarkably high. In Khubus around 73% of respondents were either satisfied or very

satisfied. Similarly, in Murraysburg around 82% of respondents were either satisfied or very satisfied. This appears to be strong evidence of adaptation. It leads one to doubt that data on satisfaction levels are, on their own, an adequate basis for evaluating the quality of life. This observation is quite compatible with the capability approach. While that approach does not exclude the use of satisfaction data – so that Klasen’s use of satisfaction data is not, in itself, inconsistent with it – it does suggest that such data is itself an incomplete and potentially misleading guide to people’s well-being. Worries about life satisfaction data may not, however, undermine the use of survey results to identify basic capabilities and needs in deprived communities.

Before concluding, it is worth emphasising that the exceptionally low cut offs that emerge from the application of our approach has more to do with the methodology used to deal with vagueness than the use of survey responses. For example, as has already been noted if cut offs were selected on the basis of the categories endorsed by the largest proportion of respondents, the poverty thresholds selected would have been much higher for a number of dimensions. The use of the 10 per cent rule for admissibility would also lead to the identification of a more generous range of poverty thresholds for most indicators.

7. Conclusions

In this paper, we have developed a methodology which uses survey responses to make the notion of core poverty operational. Our application was informed by Sen’s capability approach, and Klasen’s application of it. Using the views of ordinary South Africans in three locations, we find that a significant proportion of respondents set the ‘bottom line’ much lower than Klasen does. This means that our disaggregated picture of poverty is quite different from Klasen’s. Nonetheless, our lower bound estimate of core

poverty in 1993 is higher than Klasen's estimate of the 'most deprived'. This is surprising to the degree that our methodology also implies that many of those who have traditionally been regarded as very deprived in the South African context (such as shack dwellers) are not core poor. Since some of our results are sensitive to the rules used to select core dimensions and admissible critical levels, their significance crucially depends on our justification of their use. While there appears to be evidence of adaptation inasmuch as a large proportion of people living in two deprived communities reported that they were either satisfied or very satisfied with life, it is not true that it is only, or overwhelmingly, those who are particularly deprived in specific dimensions who endorsed very low cut-offs in those dimensions. To this degree, adaptation does not pose a problem for our methodology for the selection of critical levels and dimensions which is crucial to our results.

Notes

¹ Vagueness about the critical level is easily confused with 'incompleteness' of welfare judgements and the use of multiple poverty lines in this context, which is the focus of the 'dominance' or 'stochastic dominance' approach discussed by Atkinson (1987) and Foster and Shorrocks (1988) *inter alia*. The contrast between these approaches is discussed in Qizilbash (2003).

² Notions such as 'hardcore poverty' and 'core deprivation' are already used in various senses that are distinct from the one advanced in this paper. For example, Matin and Hulme (2003, p. 468) define the 'hardcore poor' as 'those who experience the deepest deprivations and are the least likely to be able to overcome their poverty and/or give their children childhoods that will allow them to escape from poverty.'

³ The framework developed by Bourguignon and Chakravarty (2003) and adopted in Brandolini and D'Alessio (2001) also has the feature that a person (household) is classed as poor if she (it) is poor in terms of just one dimension. See also Dutta, Pattanaik and Xu (2003) and Atkinson (2003).

⁴ While they are not concerned with vagueness, Bradshaw and Finch's (2003) work has this flavour.

⁵ Klasen considers two methods of arriving at an overall deprivation index. One involves using principal-components analysis to assign weights to different dimensions, while the other involves calculating an unweighted average. However, both methods generate similar results and which method is used is not especially important (Klasen, 2000, p. 37).

⁶ It is worth noting that Klasen here uses a relativist approach to defining cut-offs. His purpose is to compare the 20% and 40% worst off in terms of capability failure and income poverty. Yet this might not be consistent with Sen's claim that there is an 'absolutist core' of poverty (Sen, 1983).

⁷ A new housing development on the outskirts of the township was not included in the survey. Many of these houses were vacant at the time of the survey. As the primary goal was to investigate perceptions of poverty in a typical squatter camp the survey was confined to the old established part of the township, where living conditions are relatively bad. In terms of the 1996 Census boundaries enumerator area 1200106 was excluded from the survey.

⁸ For administrative purposes Murraysburg is included in the Province of the Western Cape (one of South Africa's wealthiest provinces in terms of per capita income), but exhibits levels of expenditure poverty associated with the Eastern or Northern Cape (which are both among South Africa's least wealthy provinces). According to Statistics South Africa (SSA), Murraysburg has the lowest average household expenditure level of any magisterial district in the Western Cape (SSA, 2000, p.50).

⁹ In particular, the use of potentially insulting words such as 'poverty' and 'deprivation' was avoided.

¹⁰ Sample intervals of 1:4 were employed in Kwanonqaba, 1:2 in Murraysburg and 1:3 in Khubus. It was necessary to over represent Murraysburg (in relation to the other fieldwork sites) to realise statistically significant samples in sparsely populated rural areas.

¹¹ Local researchers and interviewers felt that children would not be able to comprehend many of the questions (especially those asking respondents to abstract from their own situation). Ethical issues were also raised about the nature and content of some questions (e.g. relating to family planning), which some interviewers felt were unsuitable for children. The sample was thus restricted to those who were over 18. A further 36 questionnaires were completed but excluded from the sample on the grounds that the wrong person was selected for interview. A total of 130 people were not available for interview and there were 25 refusals.

¹² 2.5 per cent were unspecified.

¹³ In such cases, if two categories both have a score of 5, this means that there are four categories that are better than these categories.

¹⁴ While it might appear that we are double counting health by considering both health

and access to health, it can be argued that the first is a functioning while the latter relates to capability.

¹⁵ All but one of these dimensions also qualify using rules 1(a) and 1(b).

¹⁶ On the whole the quality of data collection was probably slightly better in Murraysburg and Khubus – largely because smaller interview teams were required and it was possible to retain some of the more experienced interviewers from the Kwanonqaba survey.

¹⁷ There are some variations in the categories which are selected using the 5% rule, if we breakdown the data according to location and gender. None of these would, however, seriously alter the conclusions of this paper. Furthermore, most of these disappear once we use the ‘adjusted 5% rule’.

¹⁸ This rule, like the 5% rule, is, nonetheless, sensitive to the way in which the categories are actually defined.

¹⁹ Notice that our application of the capability approach represents a distinct way of combining a more qualitative approach (which explores common perceptions of basic capabilities and needs) with quantitative information on living standards and development in an effort to conceptualise, measure and analyse poverty (see White, 2002, *inter alia*).

²⁰ Note that this estimate is the upper bound of the estimate for ‘chronic poverty’ which Michael Aliber (2003) presents – which is 24-30% of households. However, Aliber’s estimate is based on the literature which emerges from the KwaZulu-Natal Income Dynamics Study in 1998 and thus is not comparable to the estimate quoted in the text. Kingdon and Knight (2005, p.10) report ‘a steady increase in unemployment rates in South Africa over the eight year period between 1995 and 2003’ using different definitions and datasets. Their results suggest that core poverty is probably increasing in line with unemployment.

²¹ In addition Clark’s (2002, ch.4) analysis of perceptions of well-being suggests that many South Africans living in deprived communities have relatively high wants, hopes and expectations. Clark (2002, pp.103, 129-131) and Moller (1996) both found that South Africans typically exhibit high levels of ‘political consciousness’ and are generally able to articulate their most urgent interests and basic needs.

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Table 1 Components of Klasen's Composite Measure of Deprivation

Component	Description of indicator used	Rank Order Score (1 signifying most deprived, 5 least)				
		1	2	3	4	5
Education	Average years of schooling of all adult (16+) household members	<2	3-5	6-9	10-11	12+
Income	Expenditure quintiles (as used throughout [Klasen's] paper)	Poorest quintile	Quintile 2	Quintile 3	Quintile 4	Richest quintile
Wealth	Number of household durables (list includes vehicles, phone, radio, TV, geyser, stoves, kettle, bicycles)	0-1	2-4	5-7	8-10	11+
Housing	Housing characteristic	Shack	Traditional dwelling hostel, outbuilding	Combination of buildings	Flat, masionette	House
Water	Type of water access	River/stream, dam, standing water	Rainwater, protected spring, well, borehole	Public standpipe, water tanker/ carrier	Piped water on Premises	Piped water inside house
Sanitation	Type of sanitation facilities	No toilet	Bucket	Latrine	Imp. latrine, chem. toilet, flush toilet outside	Flush toilet inside
Energy	Main source of energy for cooking	Wood	Dung	Paraffin, coal	Gas from bottle, dry battery	Electricity from grid, town gas
Employment	Share of adult members of households Employed	0-19%	20-39%	40-59%	60-79%	80-100%
Transport	Type of transport used to get to work	Walk	Bicycle	Bus, train, taxis		car
Financial services *	Ratio of monthly debt service to total debtstock	30%+	20-30%	10-20%	5-10%	0-5%
Nutrition *	Share of children stunted in household	80-100%	60-79%	40-59%	20-39%	0-19%
Health care	Use of health facilities during last illness	None	Family/ friend, traditional healer	Clinic, public hospital, shop	Pharmacy, visit by PHC nurse	Private doctor
Safety	Perception of safety inside (i) and outside (o) of house compared to 5 years ago	Less safe (i) - less safe (o)	Less safe (i)-same (o) less safe (o)-same (i)	Same (i)-same (o) less safe (i)-safer(o) safer(i)-less safe (o)	Safer (i)-same(o) same (i)-safer(o)	safer(i)-safer(o)
Perceived Well-being	Level of satisfaction of household	Very dissatisfied	Dissatisfied	Neither/ Nor	Satisfied	Very satisfied

Source: Klasen (2000), table 2.

* The scoring for this category has been corrected following correspondence with Stephan Klasen.

Table 2 The Characteristics of the Survey Sample (Total Number of People)

Location		Age Cohorts					Unspecified	Total
		18-24	25-34	35-44	45-59	60 Plus		
Kwanonqaba	Men	34	80	79	51	23	4	271
	Women	61	88	76	44	28	0	297
	All	95	168	155	95	51	4	568
Murraysburg	Men	21	19	51	30	27	0	148
	Women	14	30	33	54	34	0	165
	All	35	49	84	84	61	0	313
Khubus	Men	6	3	11	5	1	0	26
	Women	4	10	5	10	5	0	34
	All	10	13	16	15	6	0	60
Grand Total	Men	61	102	141	86	51	4	445
	Women	79	128	114	108	67	0	496
	All	140	230	255	194	118	4	941

Source: Fieldwork Database

*Table 3 Ordinal Ranking of the Essentials of Life in three
Impoverished communities in South Africa*

1 Housing/ Shelter	16 Land and Livestock
2 Food	16 Own Business/ Enterprise
3 Water	16 Religion and Church
4 Work/ Jobs	19 Furniture
5 Money/ Income	20 Happiness and Peace of Mind
6 Clothes	21 Community Development
7 Education/ Schools	21 Love
8 Health/ Health Care	23 Freedom/ Independence
9 Electricity/ Energy	24 Better Life
10 Safety and Security	24 Oxygen
11 Transport/ Car	24 Respect
12 Family and Friends	27 Blankets
13 Sanitation	27 Heat/ Temperature
14 Infrastructure	29 Sexuality
15 Leisure/ Leisure Facilities	29 Sunlight

Source: Fieldwork Database

Table 4 Normative Assessment of 20 Pre-Defined Human Needs or Capabilities

	Regarded as necessary to “get by”			Average mark out of ten (4)
	Total (1)	Percentage of sample (2)	Percentage of responses (3)	
Access to Health Care	893	95.82%	96.02%	9.23
Clean Water	898	96.35%	96.87%	9.44
Clothing	874	93.78%	94.08%	8.89
Economic Resources	867	93.03%	93.63%	9.04
Education	893	95.82%	96.13%	9.24
Family and Friends	876	93.99%	94.40%	8.69
Freedom	890	95.49%	95.60%	9.13
Happy and Care Free State of Mind	871	93.45%	93.96%	8.87
Health	895	96.03%	96.24%	9.34
Housing	898	96.35%	96.66%	9.44
Infrastructure	875	93.88%	94.39%	8.98
Jobs	894	95.92%	96.34%	9.41
Leisure	806	86.48%	86.76%	8.24
Nutrition	889	95.39%	95.80%	9.30
Religion	889	95.39%	96.00%	8.96
Safety	888	95.28%	95.59%	9.04
Sanitation	859	92.17%	92.77%	9.02
Self Worth and Respect	888	95.28%	95.48%	8.84
Survival	883	94.74%	95.46%	9.10
Taking Part in Community Life	824	88.41%	88.51%	8.22
Sample =941				

Note: The percentages in column 2 exclude nine questionnaires for which an interviewer in Kwanonqaba failed to ask the relevant question.

Source: Fieldwork database.

Table 5 Normative Assessment of 20 Pre-Defined Human Needs or Capabilities by Location

	KWANONQABA			MURRAYSBURG			KHUBUS		
	Regarded as necessary to “get by”			Regarded as necessary to “get by”			Regarded as necessary to “get by”		
	Total	% of sample*	% of responses	Total	% of sample	% of responses	Total	% of sample	% of responses
Access to Health Care	523	93.56%	93.90%	310	99.04%	99.04%	60	100.00%	100.00%
Clean Water	525	93.92%	94.77%	313	100.00%	100.00%	60	100.00%	100.00%
Clothing	506	90.52%	91.01%	309	98.72%	98.72%	59	98.33%	98.33%
Economic Resources	512	91.59%	92.42%	296	94.57%	94.57%	59	98.33%	100.00%
Education	528	94.45%	94.96%	305	97.44%	97.44%	60	100.00%	100.00%
Family and Friends	511	91.41%	92.07%	305	97.44%	97.44%	60	100.00%	100.00%
Freedom	522	93.38%	93.55%	308	98.40%	98.40%	60	100.00%	100.00%
Happy and Care Free State of Mind	511	91.41%	92.24%	301	96.17%	96.17%	59	98.33%	98.33%
Health	523	93.56%	93.90%	313	100.00%	100.00%	59	98.33%	98.33%
Housing	526	94.10%	94.60%	313	100.00%	100.00%	59	98.33%	98.33%
Infrastructure	512	91.59%	92.42%	305	97.44%	97.44%	58	96.67%	96.67%
Jobs	524	93.74%	94.25%	312	99.68%	100.00%	58	96.67%	96.67%
Leisure	457	81.75%	82.19%	290	92.65%	92.65%	59	98.33%	98.33%
Nutrition	516	92.31%	92.97%	313	100.00%	100.00%	60	100.00%	100.00%
Religion	519	92.84%	93.51%	310	99.04%	99.68%	60	100.00%	100.00%
Safety	518	92.67%	93.17%	310	99.04%	99.04%	60	100.00%	100.00%
Sanitation	496	88.73%	89.69%	304	97.13%	97.13%	59	98.33%	98.33%
Self Worth and Respect	521	93.20%	93.54%	307	98.08%	98.08%	60	100.00%	100.00%
Survival	524	93.74%	94.41%	299	95.53%	96.45%	60	100.00%	100.00%
Taking Part in Community Life	473	84.62%	84.77%	293	93.61%	93.61%	58	96.67%	96.67%
	Sample = 568			Sample = 313			Sample = 60		

* Figures exclude nine questionnaires for which an interviewer failed to ask the relevant question.

Source: Fieldwork Database.

Table 6 Normative Assessment of 20 Pre-Defined Human Needs or Capabilities by Gender

	MEN			WOMEN		
	Regarded as necessary to “get by”			Regarded as necessary to “get by”		
	Total % of sample *	% of responses		Total % of sample **	% of responses	
Access to Health Care	422	95.48%	95.91%	471	96.12%	96.12%
Clean Water	425	96.15%	96.59%	473	96.53%	97.13%
Clothing	413	93.44%	93.86%	461	94.08%	94.27%
Economic Resources	412	93.21%	93.85%	455	92.86%	93.43%
Education	420	95.02%	95.24%	473	96.53%	96.93%
Family and Friends	416	94.12%	94.76%	460	93.88%	94.07%
Freedom	420	95.02%	95.24%	470	95.92%	95.92%
Happy and Care Free State of Mind	411	92.99%	93.62%	460	93.88%	94.26%
Health	419	94.80%	95.23%	476	97.14%	97.14%
Housing	422	95.48%	95.91%	476	97.14%	97.34%
Infrastructure	417	94.34%	94.99%	458	93.47%	93.85%
Jobs	420	95.02%	95.46%	474	96.73%	97.13%
Leisure	387	87.56%	87.96%	419	85.51%	85.69%
Nutrition	421	95.25%	96.12%	468	95.51%	95.51%
Religion	419	94.80%	95.23%	470	95.92%	96.71%
Safety	418	94.57%	95.00%	470	95.92%	96.12%
Sanitation	405	91.63%	92.47%	454	92.65%	93.03%
Self Worth and Respect	421	95.25%	95.68%	467	95.31%	95.31%
Survival	415	93.89%	94.75%	468	95.51%	96.10%
Taking Part in Community Life	395	89.37%	89.57%	429	87.55%	87.55%
	Sample = 445			Sample = 496		

* Figures exclude three questionnaires for which an interviewer failed to ask the relevant question.

** Figures excludes six questionnaires for which an interviewer failed to ask the relevant question.

Source: Fieldwork database

Table 7 Normative Evaluation of Some Pre-Defined Critical Minimal Levels (5 per cent rule)

Dimension/ Indicator	Categories							
Education #1 (Years of schooling)	None	1-3	4-6	7-9	9-12 *	12-15	15 +	No response
	1.91%	6.06%	12.12%	21.79%	37.83%	15.30%	1.81%	3.19%
Education #2 (Formal qualifications)	No qualifications	Pass some primary school	Pass std. 6 or std. 7	Std. 8 or junior certificate	Matric *	Matric plus diploma	Technikon/degree or prof. qualif.	No response
	2.02%	9.78%	14.35%	17.32%	46.65%	7.12%	1.81%	0.96%
Housing (Type of dwelling)	None (homeless)	Traditional dwelling	shack	Wendy house	Part of house/ hostel	House/ flat *	No response	
	0.21%	1.81%	35.81%	18.92%	5.53%	37.09%	0.64%	
Water (Water source)	Dam or standing water	Protected spring well or borehole	Public standpipe, water tanker/carrier	Piped on premises *	Piped (inside home)	No response		
	5.10%	2.87%	7.65%	67.06%	16.90%	0.43%		
Sanitation (Toilet facilities)	No toilet	Bucket	Latrine	Improved pit latrine or chemical toilet	Flush toilet (outside house) *	Flush toilet (inside house)	No response	
	0.21%	5.85%	4.79%	3.72%	63.34%	21.68%	0.43%	
Energy (Source of energy for cooking)	Wood	Dung	Paraffin, coal *	Gas from bottle, dry battery	Electricity from grid, town gas	No response		
	18.81%	0.32%	46.33%	17.43%	14.13%	2.98%		
Jobs (Type of contract)	None (no Job)	Part time casual	Full time casual *	Full time, short term contract	Full time, long term contract	No response		
	2.34%	17.00%	45.70%	16.37%	17.54%	1.60%		
Health/ health care (Type of health care)	No health care	Traditional healer, family/ friend	Clinic, public hospital, shop *	Pharmacy, visit by PHC nurse	Private doctor	No response		
	0.64%	11.58%	78.11%	4.57%	4.78%	0.32%		
Perceived Well-Being (Level of satisfaction)	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied	No response		
	2.23%	6.48%	38.47%	42.08%	9.67%	1.06%		

Note: "no-reponse" includes non-responses (empty data cells) as well as cases in which the "no response" option was selected.

Source: Fieldwork database.

Table 8 Normative Evaluation of Some Pre-Defined Critical Minimal Levels (1 Percent Rule)

Dimension/ Indicator	Categories							
Education #1 (Years of schooling)	None	1-3	4-6	7-9	9-12 *	12-15	15 +	No response
	1.91%	6.06%	12.12%	21.79%	37.83%	15.30%	1.81%	3.19%
Education #2 (Formal qualifications)	No qualifications	Pass some primary school	Pass std. 6 or std. 7	Std. 8 or junior certificate	Matric *	Matric plus diploma	Technikon/degree or prof. qualif.	No response
	2.02%	9.78%	14.35%	17.32%	46.65%	7.12%	1.81%	0.96%
Housing (Type of dwelling)	None (homeless)	Traditional dwelling	Shack	Wendy house	Part of house/ hostel	House/ flat *	No response	
	0.21%	1.81%	35.81%	18.92%	5.53%	37.09%	0.64%	
Water (Water source)	Dam or standing water	Protected spring well or borehole	Public standpipe, Water tanker/carrier	Piped on premises *	Piped (inside home)	No response		
	5.10%	2.87%	7.65%	67.06%	16.90%	0.43%		
Sanitation (Toilet facilities)	No toilet	Bucket	Latrine	Improved pit latrine or chemical toilet	Flush toilet (outside house) *	Flush toilet (inside house)	No response	
	0.21%	5.85%	4.79%	3.72%	63.34%	21.68%	0.43%	
Energy (Source of energy for cooking)	Wood	Dung	Paraffin, coal *	Gas from bottle, dry battery	Electricity from grid, town gas	No response		
	18.81%	0.32%	46.33%	17.43%	14.13%	2.98%		
Jobs (Type of contract)	None (no Job)	Part time casual	Full time casual *	Full time, short term contract	Full time, long term contract	No response		
	2.34%	17.00%	45.70%	16.37%	17.54%	1.60%		
Health/ health care (Type of health care)	No health care	Traditional healer, family/ friend	Clinic, public hospital, shop *	Pharmacy, visit by PHC nurse	Private doctor	No response		
	0.64%	11.58%	78.11%	4.57%	4.78%	0.32%		
Perceived Well-Being (Level of satisfaction)	Very dissatisfied	Dissatisfied	Neither satisfied Nor dissatisfied	Satisfied	Very satisfied	No response		
	2.23%	6.48%	38.47%	42.08%	9.67%	1.06%		

Note: "no-reponse" includes non-responses (empty data cells) as well as cases in which the "no response" option was selected.

Source: Fieldwork database.

Table 9 Normative Evaluation of Some Pre-Defined Critical Minimal Levels (10 Percent Rule)

Dimension/ Indicator	Categories							
Education #1 (Years of schooling)	None	1-3	4-6	7-9	9-12 *	12-15	15 +	No response
	1.91%	6.06%	12.12%	21.79%	37.83%	15.30%	1.81%	3.19%
Education #2 (Formal qualifications)	No qualifications	Pass some primary school	Pass std. 6 or std. 7	Std. 8 or junior certificate	Matric *	Matric plus diploma	Technikon/degree or prof. qualif.	No response
	2.02%	9.78%	14.35%	17.32%	46.65%	7.12%	1.81%	0.96%
Housing (Type of dwelling)	None (homeless)	Traditional dwelling	Shack	Wendy house	Part of house/ hostel	House/ flat *	No response	
	0.21%	1.81%	35.81%	18.92%	5.53%	37.09%	0.64%	
Water (Water source)	Dam or standing water	Protected spring well or borehole	Public standpipe, water tanker/carrier	Piped on premises *	Piped (inside home)	No response		
	5.10%	2.87%	7.65%	67.06%	16.90%	0.43%		
Sanitation (Toilet facilities)	No toilet	Bucket	Latrine	Improved pit latrine or chemical toilet	Flush toilet (outside house) *	Flush toilet (inside house)	No response	
	0.21%	5.85%	4.79%	3.72%	63.34%	21.68%	0.43%	
Energy (Source of energy for cooking)	Wood	Dung	Paraffin, coal *	Gas from bottle, dry battery	Electricity from grid, town gas	No response		
	18.81%	0.32%	46.33%	17.43%	14.13%	2.98%		
Jobs (Type of contract)	None (no Job)	Part time casual	Full time casual *	Full time, short term contract	Full time, long term contract	No response		
	2.34%	17.00%	45.70%	16.37%	17.54%	1.60%		
Health/ health care (Type of health care)	No health care	Traditional healer, family/ friend	Clinic, public hospital, shop *	Pharmacy, visit by PHC nurse	Private doctor	No response		
	0.64%	11.58%	78.11%	4.57%	4.78%	0.32%		
Perceived Well-Being (Level of satisfaction)	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied	No response		
	2.23%	6.48%	38.47%	42.08%	9.67%	1.06%		

Note: "no-reponse" includes non-responses (empty data cells) as well as cases in which the "no response" option was selected.

Source: Fieldwork database.