

# Simple Poverty Scorecard<sup>®</sup> Poverty-Assessment Tool India

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## Abstract

The Simple Poverty Scorecard-brand poverty-assessment tool uses ten low-cost indicators from India's 2009/10 Socio-Economic Survey to estimate the likelihood that a household has expenditure below a given poverty line. Field workers can collect responses in about ten minutes. The scorecard's accuracy is reported for a range of poverty lines. The scorecard is a practical way for pro-poor programs in India to measure poverty rates, to track changes in poverty rates over time, and to segment clients for targeted services.

## Version note

This paper uses 2009/10 data. It replaces Schreiner (2008a) and Schreiner (2006a) which use data from 2005/6 and 2003. The new 2009/10 scorecard here should be used from now on. Existing users of Schreiner (2008a or 2006a) can still measure change over time using supported poverty lines with a baseline from an old scorecard and a follow-up from the new 2009/10 scorecard.

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# Simple Poverty Scorecard<sup>®</sup> Poverty-Assessment Tool

Interview ID: _____	<u>Name</u>	<u>Identifier</u>
Interview date: _____	Participant: _____	_____
Country: <u>IND</u>	Field agent: _____	_____
Scorecard: <u>003</u>	Service point: _____	_____
Sampling wgt.: _____	Number of household members: _____	

Indicator	Value	Points	Score
1. How many household members are 17-years-old or younger?	A. Four or more	0	
	B. Three	7	
	C. Two	11	
	D. One	17	
	E. Zero	26	
2. What is the general education level of the male head/spouse?	A. No male head/spouse	0	
	B. Not literate, no formal school, or primary or below	0	
	C. Middle	3	
	D. Secondary or higher secondary	5	
	E. Diploma/certificate course, graduate, or postgraduate and above	7	
3. What is the household type?	A. Labour (agricultural, casual, or other)	0	
	B. Self-employed (agriculture or non-agriculture), regular wage/salary-earning, or others	5	
4. What is the primary source of energy for cooking in the last 30 days?	A. Firewood and chips, dung cake, kerosene, charcoal, coke or coal, gobar gas, or others	0	
	B. LPG or electricity	3	
	C. No cooking arrangement	9	
5. Does the household possess any casseroles, thermos, or thermoware?	A. No	0	
	B. Yes	5	
6. Does the household possess a television and a VCR/VCD/DVD player?	A. No, neither one	0	
	B. Yes, only one	4	
	C. Yes, both	9	
7. Does the household possess a mobile handset and a telephone instrument (landline)?	A. No, neither one	0	
	B. Yes, only a mobile	9	
	A. Yes, a landline, regardless of mobile	15	
8. Does the household possess a sewing machine?	A. No	0	
	B. Yes	1	
9. Does the household possess an almirah/dressing table?	A. No	0	
	B. Yes	5	
10. Does the household possess a bicycle, motorcycle/scooter, or motor car/jeep?	A. No, none	0	
	B. Yes, bicycle only, no motorcycle/scooter, or car	1	
	C. Motorcycle/scooter, but no car (regardless of bicycle)	13	
	D. Motor car/jeep (regardless of others)	18	

## Back-page Worksheet: Household Members and Age

After introducing yourself and the survey, write down the name and identifier of the client and of yourself as the enumerator, as well as the service point that the client uses. Record the date of the interview and the date when the client first participated with the organization.

Then read to the respondent: *Please tell me the first name and the age of each member of your household. A household is a group of people who normally live together under the same roof and who take food from the same kitchen. Exclude temporary visitors (whose expected stay is less than six months) and include temporary stay-aways (whose expected absence is less than six months) as well as resident employees and paying guests.*

In case of doubt, the head of the household should make the final determination as to whether someone is a member of the household.

Write down the first name and the age of each household member, noting who is the male head/spouse (if he exists). Then record the total number of members in the scorecard header next to “# HH members:”.

Count the number of household members who are 17-years-old or younger, marking the corresponding response for the first scorecard indicator. Finally ask the remaining nine questions from the scorecard.

Please keep in mind the full definition of *household* found in the “Guidelines for the Interpretation of Scorecard Indicators”.

First name	Age	Is <name> 17-years-old or younger?	
1.		No	Yes
2.		No	Yes
3.		No	Yes
4.		No	Yes
5.		No	Yes
6.		No	Yes
7.		No	Yes
8.		No	Yes
9.		No	Yes
10.		No	Yes
11.		No	Yes
12.		No	Yes
13.		No	Yes
14.		No	Yes
# HH members:		# “Yes”:	





# Simple Poverty Scorecard<sup>®</sup> Poverty-Assessment Tool India

## 1. Introduction

The Simple Poverty Scorecard-brand poverty-assessment tool is a low-cost way for pro-poor programs in India to estimate the likelihood that a household has expenditure below a given poverty line, to monitor groups' poverty rates at a point in time, to track changes in groups' poverty rates between two points in time, and to target services to households.

The new scorecard here uses the most recent available data for India. It updates two earlier scorecards for India (Schreiner, 2008a and 2006a).

The direct approach to poverty measurement uses a survey to ask households about a long list of expenditure items. This is difficult and costly. As a case in point, the Consumer Expenditure Module of India's 2009/10 (Round 66) Socio-Economic Survey runs 21 pages and covers about 340 expenditure items. As an example, one such item is: "How much home-produced *gram* (split) has the household consumed during the last 30 days? What is its value in rupees? How much total *gram* (split) has the household consumed during the last 30 days? What is its value in rupees? Now then, how much home-produced *gram* (whole) has the household consumed during the last 30 days? . . ."

In contrast, the indirect approach via the scorecard is simple, quick, and inexpensive. It uses ten verifiable indicators (such as "What is the primary source of

energy for cooking in the last 30 days?” and “What is the general education level of the male head/spouse?”) to get a score that is highly correlated with poverty status as measured by the exhaustive survey.

The scorecard here differs from “proxy-means tests” (Coady, Grosh, and Hoddinott, 2002) in that it is tailored to the capabilities and purposes not of national governments but rather of local pro-poor organizations. The feasible poverty-measurement options for local organizations are typically subjective and relative (such as participatory wealth ranking by skilled field agents) or blunt (such as rules based on land-ownership or housing quality). Measurements from these approaches may not be comparable across organizations, they may be costly, and their accuracy is unknown.

Local pro-poor organizations can use the scorecard here to measure the share of their participants who are below a given poverty line, for example, the Millennium Development Goals’ \$1.25/day line at 2005 purchase-power parity. USAID microenterprise partners can use the scorecard to report how many of their participants are among the poorest half of people below India’s national poverty line. Local organizations can also use the tool to measure movement across a poverty line. For all these purposes, the scorecard provides an expenditure-based, objective tool with known accuracy. While expenditure surveys are costly even for governments, some small, local organizations may be able to implement an inexpensive scorecard that can serve for monitoring and targeting.

The statistical approach here aims to be understood by non-specialists. After all, if managers are to adopt the scorecard on their own and apply it to inform their decisions, they must first trust that it works. Transparency and simplicity build trust. Getting “buy-in” matters; proxy-means tests and regressions on the “determinants of poverty” have been around for decades, but they are rarely used to inform decisions, not because they do not work, but because they are often presented (if they are presented at all) as tables of regression coefficients incomprehensible to non-specialists (with cryptic indicator names such as “LGHHSZ\_2”, negative values, and many decimal places). Thanks to the predictive-modeling phenomenon known as the “flat maximum”, simple scorecards are often about as accurate as complex ones.

The technical approach here is also innovative in how it associates scores with poverty likelihoods, in the extent of its accuracy tests, and in how it derives formulas for standard errors. Although these techniques are simple and commonplace in statistical practice and in for-profit credit-risk scoring, they have rarely or never been applied to poverty-measurement tools.

The scorecard is based on the 2009/10 (Round 66) Consumer Expenditure Module of the Socio-Economic Survey conducted by India’s National Sample Survey Organisation (NSSO).<sup>1</sup> Indicators are selected to be:

- Inexpensive to collect, easy to answer quickly, and simple to verify
- Strongly correlated with poverty
- Liable to change over time as poverty status changes

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<sup>1</sup> Since R66, *Organisation* in “National Sample Survey Organisation” changed to *Office*.



All points in the scorecard are non-negative integers, and total scores range from 0 (most likely below a poverty line) to 100 (least likely below a poverty line). Non-specialists can collect data and tally scores on paper in the field in five to ten minutes.

The scorecard can be used to estimate three basic quantities. First, it can estimate a particular household's "poverty likelihood", that is, the probability that the household has per-capita expenditure below a given poverty line.

Second, the scorecard can be used to estimate the poverty rate of a group of households at a point in time. This estimate is the average of the poverty likelihoods among the households in the group.

Third, the scorecard can be used to estimate changes in the poverty rate for a group of households (or for two independent samples of households that are representative of the same population) between two points in time. This estimate is the change in the average poverty likelihood of the group(s) over time.

The scorecard can also be used for targeting. To help managers choose an appropriate targeting cut-off for their purposes, this paper reports several measures of targeting accuracy for a range of possible cut-offs.

This paper presents a single scorecard whose indicators and points are derived from household expenditure data and India's national (Tendulkar MMRP) poverty line.<sup>2</sup> Scores from this one scorecard are calibrated to poverty likelihoods for 19

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<sup>2</sup> The distinction between MMRP expenditure and MRP expenditure is discussed later.

definitions of poverty status. In particular, it is calibrated to all the definitions used in earlier scorecards (Schreiner, 2008a and 2006a). Thus, users of those scorecards can switch to the new scorecard here and measure change over time by combining existing estimates from the older scorecards with estimates from the new scorecard.

The scorecard is constructed and calibrated using half the households in the R66 data, and its accuracy is validated on the other half.

All three scoring estimators are *unbiased*: they match the true value on average in repeated samples when applied to the same population from which the scorecard was constructed. Like all predictive models, however, the scorecard estimators are biased to some extent when applied to a different population or at a different point in time.<sup>3</sup>

Thus, while the indirect-scoring approach is less costly than the direct-survey approach, it is also biased. There is bias because scoring must assume that future relationships between indicators and poverty will be the same as in the data used to build the scorecard and that the scorecard will be applied to nationally representative samples.<sup>4</sup> These assumptions—inevitable in predictive modeling—hold only partly.

When applied to the MMRP validation sample for India with bootstrap samples of  $n = 16,384$ , the difference between scorecard estimates of groups' poverty rates and the true rates at a point in time for the national (Tendulkar MMRP) poverty line is +0.6 percentage points. The average difference across all seven non-RBI MMRP lines is

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<sup>3</sup> Important cases in practice include nationally representative samples at a different point in time or non-nationally representative sub-groups (Tarozzi and Deaton, 2009).

<sup>4</sup> Bias may also result from changes in data quality or data definitions.

+0.6 percentage points, and none of these differences exceeds 0.7 percentage points in absolute value. These differences are due to sampling variation and not bias; the average of each difference would be zero if the entire R66 expenditure survey were to be repeatedly redone and divided into sub-samples before repeating the entire process of constructing, calibrating, and validating scorecards.

The 90-percent confidence intervals for these estimates (again excluding the RBI lines) are  $\pm 0.6$  percentage points or less. For  $n = 1,024$ , these intervals are  $\pm 2.5$  percentage points or less.

Section 2 below describes data and definitions of poverty status. Sections 3 and 4 describe scorecard construction and offer guidelines for use in practice. Sections 5 and 6 detail the estimation of households' poverty likelihoods and the estimation of groups' poverty rates at a point in time. Section 7 discusses estimating changes in poverty rates over time, and Section 8 covers targeting. Section 9 compares the new scorecard here to existing poverty-measurement tools for India, and Section 10 is a summary. The two appendices provide a guide to the interpretation of indicators and response options and documentation of the definitions of poverty status.

## 2. Data and definitions of poverty status

This section discusses the data and the definitions of expenditure used to construct and validate the scorecard. After discussing the concepts of person- and household-level poverty rates, this section presents the definitions of poverty status to which scores from the new R66 scorecard are calibrated.

### 2.1 Data and definitions of expenditure

The scorecard is based on data from the 201,649 households in India's nationally representative R66 expenditure survey that was conducted from 1 July 2009 to 30 June 2010.

As detailed in the appendix "Definitions of Poverty Lines and Expenditure", R66 is divided in two sub-samples, each with its own definition of expenditure:

- MRP: Mixed Reference Period
- MMRP: Modified Mixed Reference Period

The *reference period* refers to the time frame for which households report consumption expenditure. The two definitions differ in that frequently purchased staple foods have a reference period of seven days under MMRP but 30 days under MRP.

MRP expenditure was used before R66, while MMRP is new in R66. MMRP is more in line with international practice, and it probably will be used in India from now on. Because R66 includes both definitions, changes in poverty rates in India can be

measured both backwards for periods ending with R66 and forwards for periods beginning with R66.

For the purposes of the scorecard, the households in R66 are randomly divided into the following sub-samples (Figure 1):

- *Construction* for selecting indicators and points. This uses half the MMRP households
- *Calibration* for associating scores with poverty likelihoods. For MMRP poverty statuses, calibration uses the same households as the construction sub-sample. For MRP poverty statuses, calibration uses a random half of the MRP households.
- *Validation* for testing accuracy on data not used in construction or calibration. For MMRP poverty statuses, validation uses the half of MMRP households that are not in the construction sample. For MRP poverty statuses, validation uses the half of MRP households who are not in the calibration sample

The average household in R66 represents about 2,300 households. Before random assignment to sub-samples, households representing more than 10,000 households are replicated—and their weights evenly divided among the replicates—until each replicate represents less than 10,000 households.<sup>5</sup> The newly replicated households together represent the same number of households as the original heavily weighted household. This replication helps spread heavily weighted households across the construction and validation sub-samples, which in turn reduces the influence of any single heavily weighted household on scorecard construction or validation. This does not affect the unbiasedness of scoring estimators in repeated samples. In a given sample, it increases

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<sup>5</sup> For example, the most heavily weighted household represents 99,134 households. It is divided into 10 replicates, each representing 9,913 households. The replicates in general are distributed among the construction, calibration, and validation sub-samples.

precision and thus decreases differences between estimates and true values. It also helps prevent bootstrap estimates from breaking down (Singh, 1998).

## 2.2 Poverty-rate concepts

As a general definition, the *poverty rate* is the share of people in a group who live in households whose total household expenditure (divided by the number of household members) is below a given poverty line.

Beyond this general definition, there two special cases, *household-level poverty rates* and *person-level poverty rates*. With household-level rates, each household is counted as if it had only one person, regardless of true household size, so all households are counted equally. With person-level rates (the “head-count index”), each household is weighted by the number of people in it, so larger households count more.

For example, consider a group of two households, the first with one member and the second with two members. Suppose further that the first household has per-capita expenditure above a poverty line (it is “non-poor”) and that the second household has per-capita expenditure below a poverty line (it is “poor”). The household-level rate counts both households as if they had only one person and so gives a poverty rate of  $1 \div (1 + 1) = 50$  percent. In contrast, the person-level rate weighs each household by the number of people in it and so gives a poverty rate of  $2 \div (1 + 2) = 67$  percent.

Whether the household-level rate or the person-level rate is relevant depends on the situation. If an organization’s “participants” include all the people in a household,

then the person-level rate is relevant. Governments, for example, are concerned with the well-being of people, regardless of how people are arranged in households, so governments typically report person-level poverty rates.

If an organization has only one “participant” per household, however, then the household-level rate may be relevant. For example, if a microlender has only one borrower in a household, then it might prefer to report household-level poverty rates.

Figure 1 reports R66 poverty rates for a range of definitions of poverty status for India at both the household-level and the person-level. The tables following the appendix “Definitions of Poverty Lines and Expenditure” provide poverty rates (and poverty lines) for people and households in R59, R62, and R66, by urban and rural, for all states and Union Territories in India as well as for India as a whole and for all-urban and all-rural.

The scorecard is constructed at the household level with data from R66 and the national (Tendulkar MMRP) poverty line (Tendulkar Committee, 2009). Scores are calibrated to household-level poverty likelihoods, and accuracy is measured for household-level rates. This assumes that the household level is relevant for most pro-poor organizations.

Person-level poverty rates can be estimated by taking a household-size-weighted average of the household-level poverty likelihoods. It is possible to construct and validate a scorecard based on person-level weights, but it is not done here.

## 2.3 Poverty status and poverty lines

A household's *poverty status* as poor or non-poor depends on whether its per-capita expenditure is below a poverty line. Thus, poverty status is defined by a definition of a poverty line and a definition of expenditure.

Because local pro-poor organizations in India may want to use different or various definitions of poverty status, and because measuring changes in poverty rates between two points in time requires that the same definition of poverty status be used at both points, scores from the new R66 scorecard here are calibrated with 19 versions of poverty status:

- R59 legacy lines that use MRP expenditure:
  - National (Saxena R59)
  - \$1.08/day 1993 PPP (R59)
  - \$2.16/day 1993 PPP (R59)
- R62 legacy lines that use MRP expenditure:
  - National (Saxena R62)
  - \$1.08/day 1993 PPP (R62)
  - \$0.81/day 1993 PPP (R62)
  - \$1.35/day 1993 PPP (R62)
  - \$1.62/day 1993 PPP (R62)
  - \$2.16/day 1993 PPP (R59)
  - National (Tendulkar MRP)
- R66 lines that use MMRP expenditure
  - National (Tendulkar MMRP)
  - 150% of national (Tendulkar MMRP)
  - 200% of national (Tendulkar MMRP)
  - USAID “extreme” (derived from the national Tendulkar MMRP line)
  - \$1.25/day 2005 PPP
  - \$1.88/day 2005 PPP
  - \$2.50/day 2005 PPP
  - RBI urban
  - RBI rural



The detailed definitions of each of the 19 poverty statuses are in the appendix “Definitions of Poverty Lines and Expenditure”.

The R59 legacy poverty statuses are calibrated to scores from India’s original R59 scorecard (Schreiner, 2006a). Calibrating them now to scores from the new R66 scorecard allows measuring changes in poverty rates between two points in time in which the baseline comes from the R59 scorecard and the follow-up comes from the R66 scorecard. This allows current users of the R59 scorecard to switch to the R66 scorecard without having to start from scratch when measuring change over time.

R62 legacy statuses were calibrated to scores from the first update to India’s scorecard (Schreiner, 2008a). Calibrating these now to the new R66 scorecard lets existing users switch without losing baseline estimates from the R62 scorecard.<sup>6</sup>

The R66 statuses use the latest definitions of poverty lines and expenditure. Unless users want to measure change over time with a baseline from the R59 or R62 scorecards, they should use the R66 definitions of poverty status.

For policy discussions in India, the most relevant lines will usually be the national (Tendulkar MMRP) lines with MMRP expenditure (Tendulkar Committee, 2009). Urban poverty rates for the Tendulkar MMRP lines in R66 are 16.0 percent for people and 11.6 percent for households, and the rural figures are 25.5 and 21.3 percent (Figure 1). Poverty status in terms of 150% and 200% of the Tendulkar MMRP lines is

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<sup>6</sup> The R59 and R62 national (Saxena) statuses are not comparable, so changes in poverty cannot be estimated with the R59 scorecard at baseline and the R62 scorecard at follow-up. The R59 and R62 \$1.08/day 1993 PPP statuses are also not comparable.

also provided here for pro-poor organizations with some clients who are not poor by the national (Tendulkar MMRP) line, but who may be poor by a higher line.

The USAID “extreme” line with MMRP is for USAID microenterprise partners who must report their clients’ poverty rate using this line. By definition, the USAID “extreme” line gives a person-level poverty rate that is half the person-level rate given by the national (Tendulkar MMRP) line.

The \$1.25/day 2005 PPP line (and its multiples) with MMRP is often relevant for international organizations. Poverty rates based on these lines are meant to be comparable across countries, supposing that:

- PPP factors are valid (Deaton, 2010)
- Each country measures expenditure (and not income)
- Each country measure expenditure in the same way

In urban India, the person-level poverty rate by the \$1.25/day 2005 PPP line is 25.9 percent, and the household-level rate is 19.6 percent (Figure 1). The corresponding figures for rural India are 43.0 and 36.9 percent.

Finally, Indian microlenders are supposed to use the RBI urban and rural lines to determine whether their loans qualify for priority-sector funding (Reserve Bank of India, 2011a and 2011b). Unlike all the other poverty lines, there is one RBI line for urban areas, and one for rural areas, and the lines do not vary by state or Union Territory. For the precise definitions of *urban* and *rural* to be used with the RBI lines, see Section 2.1.6 of National Sample Survey Organisation (2001).

At the household level, the RBI lines implies poverty rates of 74.2 percent (urban) and 63.6 percent (rural). At the person level, the rates are 69.0 percent (urban) and 54.2 percent (rural). Among all the poverty lines in the about 50 countries covered by the scorecard,<sup>7</sup> the RBI lines are unique in that they:

- Gives higher poverty rates for urban than rural
- Gives higher poverty rates for households than for people

The poverty-line appendix lists other severe weaknesses of the RBI lines. If the RBI is going to require microlenders to prove their poverty outreach to qualify for subsidized funding, then it should certify the use of scorecard here and replace the RBI lines with a multiple of the national Tendulkar MMRP line.

Except for the national (Saxena) poverty lines, all of these lines are new. In particular, the values in rupees of the national (Tendulkar MMRP) lines and the \$1.25/day 2005 PPP lines are not documented elsewhere. This paper is also the first to present poverty rates based on R66 data. The appendix “Definitions of Poverty Lines and Expenditure” documents the details of the 19 definitions of poverty status.

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<sup>7</sup> [microfinance.com/#Poverty\\_Scoring](https://microfinance.com/#Poverty_Scoring)

### 3. Scorecard construction

For India, about 70 potential indicators are tested in the areas of:

- Household composition (such as number of members)
- Education (such as the education level of the male head/spouse)
- Employment (such as the presence of a regular salary earner)
- Housing (such as type of cooking fuel)
- Ownership of durable goods (such as sewing machines)
- Agriculture (such as possession of land)

Figure 2 lists all potential indicators, ordered by the entropy-based “uncertainty coefficient” that measures how well a given indicator predicts poverty on its own (Goodman and Kruskal, 1979).

The scorecard also aims to measure *changes* in poverty through time. This means that, when selecting indicators and holding other considerations constant, preference is given to more sensitive indicators. For example, the possession of a sewing machine is probably more likely to change in response to changes in poverty than is the age of the male head/spouse.

The scorecard itself is built using Logit regression on the construction/calibration sub-sample with poverty status defined by the national (Tendulkar MMRP) poverty line. Indicator selection uses both judgment and statistics. The first step is to use Logit to build one scorecard for each candidate indicator. Each scorecard’s power is taken as “c”, a measure of ability to rank by poverty status (SAS Institute Inc., 2004).

One of these one-indicator scorecards is then selected based on several factors (Schreiner *et al.*, 2004; Zeller, 2004). These include improvement in accuracy, likelihood

of acceptance by users (determined by simplicity, cost of collection, and “face validity” in terms of experience, theory, and common sense), sensitivity to changes in poverty status, variety among indicators, and verifiability.

A series of two-indicator scorecards are then built, each based on the one-indicator scorecard selected from the first step, with a second candidate indicator added. The best two-indicator scorecard is then selected, again based on “c” and judgment. These steps are repeated until the scorecard has 10 indicators.

The final step is to transform the Logit coefficients into non-negative integers such that total scores range from 0 (most likely below a poverty line) to 100 (least likely below a poverty line).

This algorithm is the Logit analogue to the common  $R^2$ -based stepwise least-squares regression. It differs from naïve stepwise in that the criteria for selecting indicators include not only statistical accuracy but also judgment and non-statistical factors. This can improve robustness through time, and it helps ensure that indicators are simple and make sense to users.

The single scorecard here applies to all of India. Evidence from India and Mexico (Schreiner, 2006b and 2005a), Sri Lanka (Narayan and Yoshida, 2005), and Jamaica (Grosh and Baker, 1995) suggests that segmenting scorecards by urban/rural does not improve targeting accuracy much, although it may improve the accuracy of estimates of poverty rates for sub-groups (Tarozzi and Deaton, 2009).

Nevertheless, India is a huge country, and some users may find it difficult to believe that an all-India scorecard can work well in all regions. Thus, segmented scorecards were tested (and discussed with key current users) for four regions:

- South and west urban
- South and west rural
- North, central, and east urban
- North, central, and east rural

Two types of segmentation were tested:

- Calibrate scores from the all-India scorecard to segment-specific poverty likelihoods
- Construct and calibrate region-specific scorecards from scratch

For several reasons, it was decided to stay with a single all-India scorecard with a single set of all-India poverty likelihoods. First, this is the situation in all other countries covered by the scorecard. Second, having a single scorecard simplifies implementation and management. Third, while segmentation usually improves accuracy, the improvement is not dramatic and will not usually make a material difference for the most common uses of the scorecard. Fourth, segmentation is less accurate in some regions for some definitions of poverty status. This suggests that the possible improvement available from segmentation is limited by the types of poverty indicators available in the data. Fifth and finally, even though segmentation generally improves accuracy, the key difficulty to using the scorecard to improve social-performance management in practice is not accuracy but rather run-of-the-mill issues such as getting a representative sample of clients, recording scorecard results in a form that can be analyzed, estimating poverty rates correctly, placing results in a context

that is meaningful for addressing business questions, and generally managing the process of organizational change involved in the adoption of the scorecard.

## 4. Practical guidelines for scorecard use

The main challenge of scorecard design is not to maximize statistical accuracy but rather to improve the chances that the scorecard is actually adopted and used in practice (Schreiner, 2005b). When scoring projects fail, the reason is not usually statistical inaccuracy but rather the failure of an organization to decide to do what is needed to integrate scoring in its processes and to learn to use it properly (Schreiner, 2002). After all, most reasonable scorecards have similar predictive power, thanks to the empirical phenomenon known as the “flat maximum” (Falkenstein, 2008; Hand, 2006; Baesens *et al.*, 2003; Lovie and Lovie, 1986; Kolesar and Showers, 1985; Stillwell, Barron, and Edwards, 1983; Dawes, 1979; Wainer, 1976; Myers and Forgy, 1963). The bottleneck is less technical and more human, not statistics but organizational-change management. Accuracy is easier to achieve than adoption.

The scorecard here is designed to encourage understanding and trust so that users will adopt it and use it properly. Of course, accuracy matters, but it is balanced against simplicity, ease-of-use, and “face validity”. Programs are more likely to collect data, compute scores, and pay attention to the results if, in their view, scoring does not make a lot of additional work and if the whole process generally seems to make sense.



To this end, the scorecard here fits on one page. The construction process, indicators, and points are simple and transparent. There is little additional field work; non-specialists can compute scores by hand in the field because the scorecard has:

- Only 10 indicators
- Only categorical indicators
- Simple weights (zeros and whole numbers, no arithmetic beyond addition)

A field agent using the paper scorecard would:

- Record participant identifiers at the top of the scorecard
- Read each question one-by-one from the scorecard
- Circle the household's response and its point value
- Write the point value in the far-right column
- Add up the points to get the total score
- Implement targeting policy (if any)
- Deliver the paper scorecard to a central office for data entry and filing

## 4.1 Data quality

Of course, field agents must be trained. Quality outputs depend on quality inputs. If organizations or field agents gather their own data and if they believe that they have an incentive to exaggerate poverty rates (for example, if funders reward them for higher poverty rates), then it is wise to do on-going quality control via data review and audits (Matul and Kline, 2003).<sup>8</sup> IRIS Center (2007a) and Toohig (2008) are useful

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<sup>8</sup> If an organization does not want field agents to know the points associated with indicators, then they can use a version of the scorecard without points and apply the points later at the central office. Schreiner (2011) argues, however, that experience in Colombia (Camacho and Conover, 2011) suggests that hiding points does little to deter cheating and that cheating by an organization's central office may be more likely or more damaging than cheating by field agents and respondents.

nuts-and-bolts guides for budgeting, training field agents and supervisors, managing logistics, sampling, interviewing, piloting, recording data, and controlling quality.

In particular, while collecting scorecard indicators is relatively easier than alternatives, it is still absolutely difficult. Ideally, field agents will ask questions and interpret answers in the same way as NSSO enumerators did for the R66 Socio-Economic Survey. Training and explicit definitions of terms and concepts in the scorecard is essential (see the Appendix for India in this document, “Guidelines for the Interpretation of Scorecard Indicators”, which is based on the NSSO’s guide for enumerators).

For the example of Nigeria, Onwujekwe, Hanson, and Fox-Rushby (2006) found distressingly low inter-rater and test/retest correlations for indicators as seemingly simple and obvious as car ownership. At the same time, Grosh and Baker (1995) find that gross underreporting of assets does not affect targeting. For the first stage of targeting in a Mexican social program, Martinelli and Parker (2007) find that “underreporting [of asset ownership] is widespread but not overwhelming, except for a few goods . . . [and] overreporting is common for a few goods, which implies that self-reporting may lead to the exclusion of deserving households” (pp. 24–25). Still, as is done in Mexico in the second stage of its targeting process, self-reports can be checked by field agents who verify responses with a home visit, and this is suggested for India.

## 4.2 Sampling design

In terms of sampling design, an organization must make choices about:

- Who will do the scoring
- How scores will be recorded
- What participants will be scored
- How many participants will be scored
- How frequently participants will be scored
- Whether scoring will be applied at more than one point in time
- Whether the same participants will be scored at more than one point in time

In general, the sampling design should follow from the organization's goals for the exercise and from the business questions that the analysis seeks to inform.

Determining these goals and questions before sampling and analysis is the key to the entire process.

The non-specialists who apply the scorecard with participants in the field can be:

- Employees of the organization
- Third-party contractors

Responses, scores, and poverty likelihoods can be recorded:

- On paper at the respondent's homestead and then filed at an office
- On paper at the home and then keyed into a database or spreadsheet at an office
- On portable electronic devices at the home and downloaded to a database

Given a population relevant for a question, the subjects to be scored can be:

- All participants in the population
- A representative sample of all participants in the population
- All participants in the population in a representative sample of service points
- A representative sample of all participants in the population in a representative sample of service points

If not determined by other factors, the number of participants to be scored can be derived from sample-size formulas (presented later) for a desired level of confidence and a desired confidence interval.

Frequency of application in a given population can be:

- As a once-off project (precluding measuring change)
- Once a year, or at some other fixed time interval (allowing measuring change)
- Each time a field agent visits a participant at home (allowing measuring change)

When the scorecard is applied more than once in order to measure change in poverty rates, it can be applied:

- With a different sample of participants
- With the same set of participants

An example set of design choices is illustrated by BRAC and ASA, two microlenders in Bangladesh. Each has more than 7 million participants, and each is using the scorecard (Chen and Schreiner, 2009a). Their design is that loan officers in a random sample of branches score all their participants each time they visit a homestead (about once a year) as part of their standard due diligence prior to loan disbursement. Responses are recorded on paper in the field before being sent to a central office to be entered into a spreadsheet database. ASA's and BRAC's sampling plans cover more than 50,000 participants (far more than most pro-poor organizations would need).

## 5. Estimates of household poverty likelihoods

The sum of scorecard points for a household is called the *score*. For India, scores range from 0 (most likely below a poverty line) to 100 (least likely below a poverty line). While higher scores indicate less likelihood of being below a line, the scores themselves have only relative units. For example, doubling the score increases the likelihood of being above a given poverty line, but it does not double the likelihood.

To get absolute units, scores are converted to *poverty likelihoods*, that is, probabilities of being below a poverty line. This is done via simple look-up tables. For the example of the national (Tendulkar MMRP) line, scores of 20–24 have a poverty likelihood of 25.9 percent, and scores of 25–29 have a poverty likelihood of 21.9 percent (Figure 3).

The poverty likelihood associated with a score varies by poverty line. For example, scores of 20–24 are associated with a poverty likelihood of 25.9 percent for the national (Tendulkar MMRP) line but 49.7 percent for the \$1.25/day 2005 PPP line.<sup>9</sup>

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<sup>9</sup> From Figure 3 on, many figures have 19 versions, one for each of the 19 poverty statuses. To keep them straight, they are grouped by poverty line. Single tables pertaining to all statuses appear with the first group of tables for the national (Tendulkar R66) line.

## 5.1 Calibrating scores with poverty likelihoods

A given score is associated (“calibrated”) with a poverty likelihood by defining the poverty likelihood as the share of households in the calibration sub-sample who have the score and who have per-capita expenditure below a given poverty line.

For the example of the national (Tendulkar MMRP) line (Figure 4), there are 8,161 (normalized) households in the calibration sub-sample with a score of 20–24, of whom 2,112 (normalized) are below the poverty line. The estimated poverty likelihood associated with a score of 20–24 is then 25.9 percent, because  $2,112 \div 8,161 = 25.9$  percent.

To illustrate with the national (Tendulkar MMRP) line and a score of 25–29, there are 10,067 (normalized) households in the construction/calibration sample, of whom 2,208 (normalized) are below the line (Figure 4). Thus, the poverty likelihood for this score range is  $2,208 \div 10,067 = 21.9$  percent.

This method is used to calibrate scores with estimated poverty likelihoods for all 19 poverty lines.

Figure 5 shows, for all scores, the likelihood that expenditure falls in a range demarcated by two adjacent poverty statuses based on MMRP expenditure. For example, the expenditure of someone with a score of 20–24 falls in the following ranges with probability:

- 11.1 percent below the USAID “extreme” line
- 14.8 percent between USAID “extreme” and 100% of national (Tendulkar MMRP)
- 23.8 percent between 100% of natl. (Tendulkar MMRP) and \$1.25/day 2005 PPP
- 26.2 percent between \$1.25/day 2005 PPP and 150% of natl. (Tendulkar MMRP)
- 13.6 percent between 150% of natl. (Tendulkar MMRP) and \$1.88/day 2005 PPP
- 3.5 percent between \$1.88/day 2005 PPP and 200% of natl. (Tendulkar MMRP)
- 5.1 percent between 200% of natl. (Tendulkar MMRP) and \$2.50/day 2005 PPP
- 1.9 percent above \$2.50/day 2005 PPP

The two RBI lines are omitted from Figure 5 because they are not sensible poverty lines and cannot reasonably be compared to the other lines.

Even though the scorecard is constructed partly based on judgment, the calibration process produces poverty likelihoods that are objective, that is, derived from survey data on expenditure and quantitative poverty lines. The poverty likelihoods would be objective even if indicators and/or points were selected without any data at all. In fact, objective scorecards of proven accuracy are often constructed using only expert judgment (Fuller, 2006; Caire, 2004; Schreiner *et al.*, 2004). Of course, the scorecard here is constructed with both data and judgment. The fact that this paper acknowledges that some choices in scorecard construction—as in any statistical analysis—are informed by judgment in no way impugns the objectivity of the poverty likelihoods, as this depends on using data in score calibration, not on using data (and nothing else) in scorecard construction.

It is possible to calibrate many definitions of poverty status—even the legacy poverty statuses based on MRP expenditure—to scores from a single scorecard constructed with poverty status based on MMRP expenditure because scorecard construction and calibration are completely separate. The scores serve to rank households, and then those ranks are associated with a poverty status. This is not possible with approaches that estimate poverty without this non-parametric calibration step (*e.g.*, Zeller and Alcaraz V., 2005).

Although the points in the India scorecard are transformed coefficients from a Logit regression, scores are not converted to poverty likelihoods via the Logit formula of  $2.718281828^{\text{score}} \times (1 + 2.718281828^{\text{score}})^{-1}$ . This is because the Logit formula is esoteric and difficult to compute by hand. Non-specialists find it more intuitive to define the poverty likelihood as the share of households with a given score in the calibration sample who are below a poverty line. In the field, going from scores to poverty likelihoods in this way requires no arithmetic at all, just a look-up table. This calibration can also improve accuracy, especially with large samples.

## **5.2 Accuracy of estimates of households' poverty likelihoods**

As long as the relationships between indicators and poverty do not change, and as long as the scorecard is applied to households that are representative of the same population from which the scorecard is constructed, then this calibration process produces unbiased estimates of households' poverty likelihoods. *Unbiased* means that in



repeated samples from the same population, the average estimate matches the true value. The scorecard also produces unbiased estimates of groups' poverty rates at a point in time, as well as unbiased estimates of changes in groups' poverty rates between two points in time.<sup>10</sup>

Of course, the relationship between indicators and poverty does change to some unknown extent over time and also across sub-groups in India. Thus, the scorecard will generally be biased when applied after June 2010 (when fieldwork for R66 ended) or when applied with non-nationally representative sub-groups.

How accurate are estimates of households' poverty likelihoods, if all the required assumptions hold? To measure, the scorecard is applied to 1,000 bootstrap samples of size  $n = 16,384$  from the validation sub-sample. Bootstrapping entails (Efron and Tibshirani, 1993):

- Score each household in the validation sample
- Draw a new bootstrap sample *with replacement* from the validation sample
- For each score, compute the true poverty likelihood in the bootstrap sample, that is, the share of households with the score and expenditure below a poverty line
- For each score, record the difference between the estimated poverty likelihood (Figure 3) and the true poverty likelihood in the bootstrap sample
- Repeat the previous three steps 1,000 times
- For each score, report bias as the average difference between estimated and true poverty likelihoods across the 1,000 bootstrap samples
- For each score, report precision as the two-sided interval containing the central 900, 950, or 990 differences between estimated and true poverty likelihoods

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<sup>10</sup> This follows because these estimates of groups' poverty rates are linear functions of the unbiased estimates of households' poverty likelihoods.

For each score range and for  $n = 16,384$ , Figure 6 shows the average difference between estimated and true poverty likelihoods. It also shows confidence intervals for the differences.

For the national (Tendulkar MMRP) line, the average poverty likelihood across bootstrap samples for scores of 20–24 in the validation sample is too high by 1.6 percentage points. For scores of 15–19, the estimate is too low by 0.4 percentage points.<sup>11</sup>

The 90-percent confidence interval for the differences for scores of 20–24 is  $\pm 2.1$  percentage points (Figure 6). This means that in 900 of 1,000 bootstraps, the average difference between the estimate and the true value for households in this score range is between  $-0.5$  and  $+3.7$  percentage points (because  $+1.6 - 2.1 = -0.5$ , and  $+1.6 + 2.1 = +3.7$ ). In 950 of 1,000 bootstraps (95 percent), the difference is  $+1.6 \pm 2.5$  percentage points, and in 990 of 1,000 bootstraps (99 percent), the difference is  $+1.6 \pm 3.6$  percentage points.

For most scores, Figure 6 shows differences—most of them small—between estimated poverty likelihoods and true values. This is because the validation sub-sample is a single sample that—thanks to sampling variation—differs in distribution from the construction/calibration sub-samples and from India’s population. For targeting,

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<sup>11</sup> These differences are not zero, in spite of the estimator’s unbiasedness, because the scorecard comes from a single sample. The average difference by score would be zero if samples were repeatedly drawn from the population and split into sub-samples before repeating the entire process of scorecard construction/calibration and validation.

however, what matters is less the difference in all score ranges and more the difference in score ranges just above and below the targeting cut-off. This mitigates the effects of bias and sampling variation on targeting (Friedman, 1997). Section 8 below looks at targeting accuracy in detail.

Of course, if estimates of groups' poverty rates are to be usefully accurate, then errors for individual households must largely balance out. This is generally the case, as discussed in the next section.

Another possible source of differences between estimates and true values is overfitting. By construction, the scorecard here is unbiased, but it may still be *overfit* when applied in practice. That is, it may fit the construction data from R66 so closely that it captures not only some timeless patterns but also some random patterns that, due to sampling variation, show up only in the construction data. Or the scorecard may be overfit in the sense that its bias is highly sensitive to changes over time in the relationships between indicators and poverty or to applications with non-nationally representative sub-groups.

Overfitting can be mitigated by simplifying the scorecard and by not relying only on data but rather also considering experience, judgment, and theory. Of course, the scorecard here does this. Combining scorecards can also help, at the cost of complexity.

Most errors in individual households' likelihoods, however, cancel out in the estimates of groups' poverty rates (see later sections). Furthermore, accuracy is heavily dependent on data quantity and quality (which is beyond the scope of the scorecard).

## 6. Estimates of a group's poverty rate at a point in time

A group's estimated poverty rate at a point in time is the average of the estimated poverty likelihoods of the individual households in the group.

To illustrate, suppose a program samples three households on 1 January 2012 and that they have scores of 20, 30, and 40, corresponding to poverty likelihoods of 25.9, 14.6, and 6.5 percent (national Tendulkar MMRP line, Figure 3). The group's estimated poverty rate is the households' average poverty likelihood of  $(25.9 + 14.6 + 6.5) \div 3 = 15.7$  percent.

Be careful; the group's poverty rate is *not* the poverty likelihood associated with the average score. Here, the average score is 30, which corresponds to a poverty likelihood of 14.6 percent. This differs from the 15.7 percent found as the average of the three individual poverty likelihoods associated with each of the three scores. Unlike poverty likelihoods, scores are ordinal symbols, not cardinal numbers, and so scores cannot be added up or averaged across households. Only two operations are valid for scores: conversion to poverty likelihoods and comparison—if desired—with a cut-off for targeting. Always analyze poverty likelihoods, never scores.

### 6.1 Accuracy of estimated poverty rates at a point in time

For the India scorecard applied to the validation sample with  $n = 16,384$ , the difference between the estimated poverty rate at a point in time and the true rate for the national (Tendulkar MMRP) line is +0.6 percentage points (Figure 8, summarizing

Figure 7 for all MMRP poverty lines). Across all seven non-RBI MMRP lines, all absolute differences are 0.7 percentage points or less, and the average difference is +0.6 percentage points. Part of these differences is due to sampling variation.

When estimating poverty rates, the bias reported in Figure 8 should be subtracted from the average poverty likelihood to make the estimate unbiased. For India's scorecard and the national (Tendulkar MMRP) line, bias is +0.6 percentage points, so the unbiased estimate in the three-household example above is  $15.7 - 0.6 = 15.1$  percent.

In terms of precision, the 90-percent confidence interval for a group's estimated poverty rate at a point in time with  $n = 16,384$  for non-RBI lines is  $\pm 0.6$  percentage points or less (Figure 8). This means that in 900 of 1,000 bootstraps of this size, the estimate (after subtracting off bias) is within 0.6 percentage points of the true value.

For example, if the average poverty likelihood in a sample of  $n = 16,384$  with the India scorecard and the national (Tendulkar MMRP) line is 15.7 percent, then estimates in 90 percent of samples of  $n = 16,384$  would be expected to fall in the range of  $15.7 - 0.6 - 0.5 = 14.6$  percent to  $15.7 - 0.6 + 0.5 = 15.6$  percent, with the most likely true value being the unbiased estimate in the middle of this range ( $15.7 - 0.6 = 15.1$  percent). This is because the original (biased) estimate is 15.7 percent, bias is +0.6 percentage points, and the 90-percent confidence interval for the national (Tendulkar MMRP) line is  $\pm 0.5$  percentage points.

## 6.2 Formula for standard errors for estimates of poverty rates

How precise are the point-in-time estimates? Because they are averages of binary (0/1, or poor/non-poor) variables, the estimates (in “large” samples) have a Normal distribution and can be characterized by their average difference vis-à-vis true values, together with the standard error of the average difference.

To derive a formula for the standard errors of estimated poverty rates at a point in time from indirect measurement via scorecards (Schreiner, 2008b), note that the textbook formula (Cochran, 1977) that relates confidence intervals with standard errors in the case of direct measurement of a proportion is  $\pm c = \pm z \cdot \sigma$ , where:

$\pm c$  is a confidence interval as a proportion (*e.g.*, 0.02 for  $\pm 2$  percentage points),

$z$  is from the Normal distribution and is  $\begin{cases} 1.28 \text{ for confidence levels of 80 percent} \\ 1.64 \text{ for confidence levels of 90 percent,} \\ 1.96 \text{ for confidence levels of 95 percent} \end{cases}$

$\sigma$  is the standard error of the estimated poverty rate, that is,  $\sqrt{\frac{\hat{p} \cdot (1 - \hat{p})}{n}} \cdot \phi$ ,

$\hat{p}$  is the estimated proportion of households below the poverty line in the sample,

$\phi$  is the finite population correction factor of  $\sqrt{\frac{N - n}{N - 1}}$ ,

$N$  is the population size, and

$n$  is the sample size.

For example, India’s R66 Socio-Economic Survey estimates a household-level poverty rate for the national (Tendulkar MMRP) line of  $\hat{p} = 18.4$  percent (Figure 1) by

direct measurement. If this estimate came from a sample of  $n = 16,384$  households from a population  $N$  of 230,823,167 households (India's actual population size), then the

finite population correction  $\phi$  is  $\sqrt{\frac{230,823,167 - 16,384}{230,823,167 - 1}} = 0.999965$ , which can be taken

as one (1). If the desired confidence level is 90-percent ( $z = 1.64$ ), then the confidence

interval  $\pm c$  is  $\pm z \cdot \sqrt{\frac{\hat{p} \cdot (1 - \hat{p})}{n}} \cdot \sqrt{\frac{N - n}{N - 1}} = \pm 1.64 \cdot \sqrt{\frac{0.184 \cdot (1 - 0.184)}{16,384}} \cdot 1 = \pm 0.496$

percentage points.

Scorecards, however, do not measure poverty directly, so this formula is not immediately applicable. To derive a formula for the India scorecard, consider Figure 7, which reports empirical confidence intervals  $\pm c$  for the estimates for the scorecard applied to 1,000 bootstrap samples of various sizes from the validation sample. For  $n = 16,384$  and the national (Tendulkar MRRP) line, the 90-percent confidence interval is 0.545 percentage points.<sup>12</sup>

Thus, the 90-percent confidence interval with  $n = 16,384$  is  $\pm 0.545$  percentage points for the India scorecard and  $\pm 0.496$  percentage points for direct measurement.

The ratio of the two intervals is  $0.545 \div 0.496 = 1.10$ .

Now consider the same case, but with  $n = 8,192$ . The confidence interval under direct measurement is  $\pm 1.64 \cdot \sqrt{\frac{0.184 \cdot (1 - 0.184)}{8,192}} \cdot 1 = \pm 0.702$  percentage points. The

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<sup>12</sup> Due to rounding, Figure 7 displays 0.5, not 0.545.

empirical confidence interval with the India scorecard (Figure 7) is 0.795 percentage points. Thus for  $n = 8,192$ , the ratio of the two intervals is  $0.795 \div 0.702 = 1.13$ .

This ratio of 1.13 for  $n = 8,192$  is close to the ratio of 1.10 for  $n = 16,384$ . Across all sample sizes of 256 or more in Figure 7, the average ratio turns out to be 1.06, implying that confidence intervals for indirect estimates of poverty rates via the India scorecard and the national (Tendulkar MMRP) poverty line are about 6 percent wider than for direct estimates via the R66 data. This 1.06 appears in Figure 8 as the “ $\alpha$  factor” because if  $\alpha = 1.06$ , then the formula relating confidence intervals  $\pm c$  and standard errors  $\sigma$  for the India scorecard is  $\pm c = \pm z \cdot \alpha \cdot \sigma$ . That is, the formula for the standard error  $\sigma$  for point-in-time estimates of poverty rates via scoring is

$$\alpha \cdot \sqrt{\frac{\hat{p} \cdot (1 - \hat{p})}{n}} \cdot \sqrt{\frac{N - n}{N - 1}}.$$

In general,  $\alpha$  can be more or less than 1.00. When  $\alpha$  is more than 1.00, it means that the scorecard is less precise than direct measurement. This occurs for four of the seven non-RBI MMRP poverty lines in Figure 8.

The formula relating confidence intervals with standard errors for the scorecard can be rearranged to give a formula for determining sample size before measurement.<sup>13</sup>

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<sup>13</sup> IRIS Center (2007a and 2007b) says that a sample size of  $n = 300$  is sufficient for USAID reporting. If a scorecard is as precise as direct measurement, if the population  $N$  is large relative to the sample  $n$ , if the expected (before measurement) poverty rate is 50 percent, and if the confidence level is 90 percent, then  $n = 300$  implies a confidence interval of  $\pm 2.2$  percentage points. In fact, USAID has not specified confidence levels or intervals. Furthermore, the expected poverty rate may not be 50 percent, and the scorecard could be more or less precise than direct measurement.



If  $\tilde{p}$  is the expected poverty rate before measurement, then the formula for sample size  $n$  from a population of size  $N$  that is based on the desired confidence level that corresponds to  $z$  and the desired confidence interval  $\pm c$  is

$$n = N \cdot \left( \frac{z^2 \cdot \alpha^2 \cdot \tilde{p} \cdot (1 - \tilde{p})}{z^2 \cdot \alpha^2 \cdot \tilde{p} \cdot (1 - \tilde{p}) + c^2 \cdot (N - 1)} \right). \text{ If the population } N \text{ is "large" relative to the}$$

sample size  $n$ , then the finite population correction factor  $\phi$  can be taken as one and

$$\text{the formula becomes } n = \left( \frac{\alpha \cdot z}{c} \right)^2 \cdot \tilde{p} \cdot (1 - \tilde{p}).$$

To illustrate how to use this, suppose the population  $N$  is 230,823,167 households (as for India overall), suppose  $c = 0.03995$ ,  $z = 1.64$  (90-percent confidence), and the relevant poverty line is the national (Tendulkar MMRP) line so that the most sensible expected poverty rate  $\tilde{p}$  is India's overall poverty rate for that line (18.4 percent) and the  $\alpha$  factor is 1.06. Then the sample-size formula gives

$$n = 230,823,167 \cdot \left( \frac{1.64^2 \cdot 1.06^2 \cdot 0.184 \cdot (1 - 0.184)}{1.64^2 \cdot 1.06^2 \cdot 0.184 \cdot (1 - 0.184) + 0.03995^2 \cdot (230,823,167 - 1)} \right) = 285,$$

in the same ballpark as the sample size of 256 observed for these parameters in Figure 7 for the national (Tendulkar MMRP) line. Taking the finite population correction factor

$$\phi \text{ as one gives the same answer, as } n = \left( \frac{1.06 \cdot 1.64}{0.03995} \right)^2 \cdot 0.184 \cdot (1 - 0.184) = 285.$$

Of course, the  $\alpha$  factors in Figure 8 are specific to India, its poverty lines, its poverty rates, and this scorecard. The derivation of the formulas, however, is valid for any scorecard following the approach in this paper.

In practice after June 2010 (the end of fieldwork for R66), an organization would select a poverty line (say, the national Tendulkar MMRP line), note its population size (say,  $N = 10,000$  participants), select a desired confidence level (say, 90 percent, or  $z = 1.64$ ), select a desired confidence interval (say,  $\pm 2.0$  percentage points, or  $c = 0.02$ ), make an assumption about  $\tilde{p}$  (perhaps based on a previous measurement such as 18.4 percent for the national Tendulkar MMRP line in R66 in Figure 1), look up  $\alpha$  (here, 1.06), assume that the scorecard will still work in the future and/or for non-nationally representative sub-groups,<sup>14</sup> and then compute the required sample size. In this

$$\text{illustration, } n = 10,000 \cdot \left( \frac{1.64^2 \cdot 1.06^2 \cdot 0.184 \cdot (1 - 0.184)}{1.64^2 \cdot 1.06^2 \cdot 0.184 \cdot (1 - 0.184) + 0.02^2 \cdot (10,000 - 1)} \right) = 1,019.$$

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<sup>14</sup> This paper reports accuracy for the scorecard applied to the validation sample, but it cannot test accuracy for later years or for other groups. Performance after June 2010 will resemble that in R66 with deterioration to the extent that the relationships between indicators and poverty status change over time.

## 7. Estimates of changes in group poverty rates over time

The change in a group's poverty rate between two points in time is estimated as the change in the average poverty likelihood of the households in the group. This paper does not test estimates of change over time for India,<sup>15</sup> and it can only suggest approximate formulas for standard errors. Nevertheless, the relevant concepts are presented here because, in practice, pro-poor organizations can apply the scorecard to collect their own data and to measure change through time.

When measuring change, the same definition of poverty status must be used at both baseline and follow-up, but it is not necessary to use same scorecard at both points. For example, the baseline estimate could be based on the R59 scorecard and poverty likelihoods for the \$1.08/day 1993 PPP MRP poverty line, and the follow-up estimate could be based on that same line with the R66 scorecard.

### 7.1 Warning: Change is not impact

Scoring can estimate change. Of course, poverty could get better or worse, and scoring does not indicate what caused change. This point is often forgotten or confused, so it bears repeating: the scorecard simply estimates change, and it does not, in and of itself, indicate the reason for the change. In particular, estimating the impact of program participation on poverty requires knowing what would have happened to

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<sup>15</sup> There is no test because some R66 indicators are not available for R59 and R62.

participants if they had not been participants. Knowing this requires either strong assumptions or a control group that resembles participants in all ways except participation. To belabor the point, the scorecard can help estimate program impact only if there is some way to know what would have happened in the absence of the program. And that information must come from somewhere beyond the scorecard.

## 7.2 Calculating estimated changes in poverty rates over time

Consider the illustration begun in the previous section. On 1 January 2012, a program samples three households who score 20, 30, and 40 and so have poverty likelihoods of 25.9, 14.6, and 6.5 percent (national Tendulkar MRRP line, Figure 3). The group's baseline estimated poverty rate is the households' average poverty likelihood of  $(25.9 + 14.6 + 6.5) \div 3 = 15.7$  percent. After subtracting off the known bias of +0.6 percentage points, the unbiased estimate is 15.1 percent.

After baseline, two sampling approaches are possible for the follow-up round:

- Score a new, independent sample, measuring change by cohort across samples
- Score the same sample at follow-up as at baseline

By way of illustration, suppose that a year later on 1 January 2013, the program samples three additional households who are in the same cohort as the three households originally sampled (or suppose that the program scores the same three original households a second time) and finds that their scores are 25, 35, and 45 (poverty likelihoods of 21.9, 9.4, and 3.6 percent, national Tendulkar MMRP line, Figure 3).

Their average poverty likelihood at follow-up is now  $(21.9 + 9.4 + 3.6) \div 3 = 11.6$  percent. After subtracting off the known bias of +0.6 percentage points, the unbiased estimate is 11.0 percent. From 2012 2013, the poverty rate decreased by  $15.1 - 11.0 = 4.1$  percentage points.<sup>16</sup>

This suggests that about one in 24 participants in this hypothetical example crossed the poverty line in 2012.<sup>17</sup> Among those who started below the line, about one in four ( $4.1 \div 15.1 = 27.2$  percent) on net ended up above the line.<sup>18</sup>

### 7.3 Accuracy for estimated change in two independent samples

Because some of the indicators in the R66 scorecard were not collected in R59 or R62, it is not possible to measure the accuracy of scorecard estimates of changes in groups' poverty rates over time. In practice, of course, local pro-poor organizations can still apply the India scorecard to estimate change. The rest of this section suggests approximate formulas for standard errors and sample sizes that may be used until there is additional data.

For two equal-sized independent samples, the same logic as in the previous section can be used to derive a formula relating the confidence interval  $\pm c$  with the standard error  $\sigma$  of a scorecard's estimate of the change in poverty rates over time:

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<sup>16</sup> Of course, such a large reduction in poverty in one year would be miraculous, but this is just an example to show how the scorecard can be used to estimate change.

<sup>17</sup> This is a net figure; some people start above the line and end below it, and vice versa.

<sup>18</sup> The scorecard does not reveal the reasons for this change.

$$\pm c = \pm z \cdot \sigma = \pm z \cdot \alpha \cdot \sqrt{\frac{2 \cdot \hat{p} \cdot (1 - \hat{p})}{n}} \cdot \sqrt{\frac{N - n}{N - 1}}.$$

$z$ ,  $c$ ,  $\hat{p}$  and  $N$  are defined as above,  $n$  is the sample size at both baseline and follow-up,<sup>19</sup> and  $\alpha$  is the average (across a range of bootstrapped sample sizes) of the ratio of the observed confidence interval from a scorecard and the theoretical confidence interval under direct measurement.

As before, the formula for standard errors can be rearranged to give a formula for sample sizes before indirect measurement via a scorecard, where  $\tilde{p}$  is based on previous measurements and is assumed equal at both baseline and follow-up:

$$n = 2 \cdot N \cdot \left( \frac{z^2 \cdot \alpha^2 \cdot \tilde{p} \cdot (1 - \tilde{p})}{z^2 \cdot \alpha^2 \cdot \tilde{p} \cdot (1 - \tilde{p}) + c^2 \cdot (N - 1)} \right). \text{ If } \phi \text{ can be taken as one, then the}$$

$$\text{formula becomes } n = 2 \cdot \left( \frac{\alpha \cdot z}{c} \right)^2 \cdot \tilde{p} \cdot (1 - \tilde{p}).$$

For countries for which  $\alpha$  for this formula has been measured (Schreiner, 2010, 2009a, 2009b, 2009c, 2009d, 2009e, and 2008b; Schreiner and Woller, 2010a and 2010b; and Chen and Schreiner, 2009a and 2009b), the simple average of  $\alpha$  across poverty lines and years for a given country and then across countries is 1.19. This is as reasonable a number as any to use for India.

To illustrate the use of the formula above to determine sample size for estimating changes in poverty rates across two independent samples, suppose the desired

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<sup>19</sup> This means that, for a given precision and with direct measurement, estimating the change in a poverty rate between two points in time requires four times as many measurements (not twice as many) as does estimating a poverty rate at a point in time.

confidence level is 90 percent ( $z = 1.64$ ), the desired confidence interval is 2 percentage points ( $c = 0.02$ ), the poverty line is the national (Tendulkar MMRP) line,  $\alpha = 1.19$ ,  $\hat{p} = 0.184$  (from Figure 1), and the population  $N$  is large enough relative to the expected sample size that the finite population correction factor  $\phi$  can be taken as one. Then the baseline sample size is  $n = 2 \cdot \left( \frac{1.19 \cdot 1.64}{0.02} \right)^2 \cdot 0.184 \cdot (1 - 0.184) \cdot 1 = 2,860$ , and the follow-up sample size is also 2,860.

#### 7.4 Accuracy for estimated change for one sample, scored twice

Analogous to previous derivations, the general formula relating the confidence interval  $\pm c$  to the standard error  $\sigma$  when using a scorecard to estimate change for a single group of households, all of whom are scored at two points in time, is:<sup>20</sup>

$$\pm c = \pm z \cdot \sigma = \pm z \cdot \alpha \cdot \sqrt{\frac{\hat{p}_{12} \cdot (1 - \hat{p}_{12}) + \hat{p}_{21} \cdot (1 - \hat{p}_{21}) + 2 \cdot \hat{p}_{12} \cdot \hat{p}_{21}}{n}} \cdot \sqrt{\frac{N - n}{n - 1}},$$

where  $z$ ,  $c$ ,  $\alpha$ ,  $N$ , and  $n$  are defined as usual,  $\hat{p}_{12}$  is the share of all sampled households that move from below the poverty line to above it, and  $\hat{p}_{21}$  is the share of all sampled households that move from above the line to below it.

The formula for standard errors can be rearranged to give a formula for sample size before measurement. This requires an estimate (based on information available before measurement) of the expected shares of all households who cross the poverty line

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<sup>20</sup> McNemar (1947) and Johnson (2007). John Pezzullo helped find this formula.

$\tilde{p}_{12}$  and  $\tilde{p}_{21}$ . Before measurement, it is reasonable to assume that the change in the poverty rate will be zero, which implies  $\tilde{p}_{12} = \tilde{p}_{21} = \tilde{p}_*$ , giving:

$$n = 2 \cdot \left( \frac{\alpha \cdot z}{c} \right)^2 \cdot \tilde{p}_* \cdot \sqrt{\frac{N - n}{n - 1}}.$$

Because  $\tilde{p}_*$  can range from 0–0.5, more information is needed to apply this formula. In Peru (Schreiner, 2009a), the observed relationship between  $\tilde{p}_*$ , the number of years  $y$  between baseline and follow-up, and  $p_{\text{baseline}} \cdot (1 - p_{\text{baseline}})$  is close to:

$$\tilde{p}_* = -0.02 + 0.016 \cdot y + 0.47 \cdot [p_{\text{pre-baseline}} \cdot (1 - p_{\text{pre-baseline}})].$$

Given this, a sample-size formula for a group of households to whom the India scorecard is applied twice (once after June 2010 and then again later) is

$$n = 2 \cdot \left( \frac{\alpha \cdot z}{c} \right)^2 \cdot \left\{ -0.02 + 0.016 \cdot y + 0.47 \cdot [p_{\text{pre-baseline}} \cdot (1 - p_{\text{pre-baseline}})] \right\} \cdot \sqrt{\frac{N - n}{n - 1}}.$$

Peru is the only country with an estimate of  $\alpha$  for this case (Schreiner 2009a).

There, the average  $\alpha$  across years and poverty lines is about 1.30.

To illustrate the use of this formula, suppose the desired confidence level is 90 percent ( $z = 1.64$ ), the desired confidence interval is 2.0 percentage points ( $c = 0.02$ ), the poverty line is the national (Tendulkar MMRP) line, the sample will first be scored in 2012 and then again in 2015 ( $y = 3$ ), and the population  $N$  is so large relative to the expected sample size that the finite population correction factor  $\phi$  can be taken as one. The pre-baseline poverty rate is 18.4 percent ( $p_{2012} = 0.184$ , Figure 1), and suppose  $\alpha = 1.30$ . Then the baseline sample size is



$$n = 2 \cdot \left( \frac{1.30 \cdot 1.64}{0.02} \right)^2 \cdot \{ -0.02 + 0.016 \cdot 3 + 0.47 \cdot [0.184 \cdot (1 - 0.184)] \} \cdot 1 = 2,241. \text{ The}$$

same group of 2,241 households is scored at follow-up as well.

## 8. Targeting

When a program uses the scorecard for targeting, households with scores at or below a cut-off are labeled *targeted* and treated—for program purposes—as if they are below a given poverty line. Households with scores above a cut-off are labeled *non-targeted* and treated—for program purposes—as if they are above a given poverty line.

There is a distinction between *targeting status* (scoring at or below a targeting cut-off) and *poverty status* (having expenditure below a poverty line). Poverty status is a fact that depends on whether expenditure is below a poverty line as directly measured by an expenditure survey. In contrast, targeting status is a program’s policy choice that depends on a cut-off and on an indirect estimate from a scorecard.

Targeting is successful when households truly below a poverty line are targeted (*inclusion*) and when households truly above a poverty line are not targeted (*exclusion*). Of course, no scorecard is perfect, and targeting is unsuccessful when households truly below a poverty line are not targeted (*undercoverage*) or when households truly above a poverty line are targeted (*leakage*). Figure 9 depicts these four possible targeting outcomes. Targeting accuracy varies with the cut-off score; a higher cut-off has better inclusion (but greater leakage), while a lower cut-off has better exclusion (but higher undercoverage).

Programs should weigh these trade-offs when setting a cut-off. A formal way to do this is to assign net benefits—based on a program’s values and mission—to each of

the four possible targeting outcomes and then to choose the cut-off that maximizes total net benefits (Adams and Hand, 2000; Hoadley and Oliver, 1998).

Figure 10 shows the distribution of households in India by targeting outcome. For an example cut-off of 20–24, outcomes for the national (Tendulkar MMRP) line in the validation sample are:

- Inclusion: 12.6 percent are below the line and correctly targeted
- Undercoverage: 5.9 percent are below the line and mistakenly not targeted
- Leakage: 15.9 percent are above the line and mistakenly targeted
- Exclusion: 65.7 percent are above the line and correctly not targeted

Increasing the cut-off to 25–29 improves inclusion and undercoverage but worsens leakage and exclusion:

- Inclusion: 14.7 percent are below the line and correctly targeted
- Undercoverage: 3.7 percent are below the line and mistakenly not targeted
- Leakage: 23.8 percent are above the line and mistakenly targeted
- Exclusion: 57.7 percent are above the line and correctly not targeted

Which cut-off is preferred depends on total net benefit. If each targeting outcome has a per-household benefit or cost, then the total net benefit for a given cut-off is:

$$\begin{aligned}
 &(\text{Benefit per household correctly included} \quad \times \quad \text{Households correctly included}) \quad - \\
 &(\text{Cost per household mistakenly not covered} \times \text{Households mistakenly not covered}) \quad - \\
 &(\text{Cost per household mistakenly leaked} \quad \times \quad \text{Households mistakenly leaked}) \quad + \\
 &(\text{Benefit per household correctly excluded} \quad \times \quad \text{Households correctly excluded}).
 \end{aligned}$$

To set an optimal cut-off, a program would:

- Assign benefits and costs to possible outcomes, based on its values and mission
- Tally total net benefits for each cut-off using Figure 10 for a given poverty line
- Select the cut-off with the highest total net benefit

The most difficult step is assigning benefits and costs to targeting outcomes. A program that uses targeting—with or without scoring—should thoughtfully consider

how it values successful inclusion and exclusion versus errors of undercoverage and leakage. It is healthy to go through a process of thinking explicitly and intentionally about how possible targeting outcomes are valued.

A common choice of benefits and costs is “Total Accuracy” (IRIS Center, 2005; Grootaert and Braithwaite, 1998). With “Total Accuracy”, total net benefit is the number of households correctly included or correctly excluded:

$$\begin{array}{rclcl}
 \text{Total Accuracy} = & 1 & \times & \text{Households correctly included} & - \\
 & 0 & \times & \text{Households mistakenly undercovered} & - \\
 & 0 & \times & \text{Households mistakenly leaked} & + \\
 & 1 & \times & \text{Households correctly excluded.} & 
 \end{array}$$

Figure 10 shows “Total Accuracy” for all cut-offs for the India scorecard. For the national (Tendulkar MMRP) line in the validation sample, total net benefit is greatest (83.8) for a cut-off of 14 or less, with about five in six households in India correctly classified.

“Total Accuracy” weighs successful inclusion of households below the line the same as successful exclusion of households above the line. If a program values inclusion more (say, twice as much) than exclusion, it could reflect this by setting the benefit for inclusion to 2 and the benefit for exclusion to 1. Then the chosen cut-off would maximize  $(2 \times \text{Households correctly included}) + (1 \times \text{Households correctly excluded})$ .<sup>21</sup>

As an alternative to assigning benefits and costs to targeting outcomes and then choosing a cut-off to maximize total net benefit, a program could set a cut-off to

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<sup>21</sup> Figure 10 also reports “BPAC”, a measure discussed in the next section.

achieve a desired poverty rate among targeted households. The third column of Figure 11 (“% targeted who are poor”) shows, for the India scorecard applied to the validation sample, the expected poverty rate among households who score at or below a given cut-off. For the example of the national (Tendulkar MMRP) line, targeting households who score 24 or less would target 28.5 percent of all households (second column), and that targeted group would have a poverty rate of 44.1 percent (third column).

Figure 11 also reports two other measures of targeting accuracy. The first is a version of inclusion (“% of poor who are targeted”). For the example of the national (Tendulkar MMRP) line in the validation sample and a cut-off of 24 or less, 68.1 percent of all poor households are covered.

The final targeting measure in Figure 11 is the number of successfully targeted poor households for each non-poor household mistakenly targeted (right-most column). For the national (Tendulkar MMRP) line in the validation sample and a cut-off of 24 or less, covering 0.8 poor households means leaking to 1 non-poor household.

## 9. The context of poverty measurement tools in India

This section discusses six existing poverty-measurement tools for India in terms of their goals, methods, poverty lines, data, indicators, cost, bias, and precision.

Compared with these other tools, the main advantages of the new scorecard here are its use of the latest nationally representative data, its simplicity, and its reporting of formulas for standard errors.

### 9.1 Gwatkin *et al.*

Gwatkin *et al.* (2007) apply to India an approach used in 56 countries with Demographic and Health Surveys (Rutstein and Johnson, 2004). They use Principal Components Analysis to make an asset index from simple, low-cost indicators available for the 91,196 households in India's 1998/9 DHS. The PCA index is like the scorecard here except that, because the DHS does not collect data on expenditure, the index is based on a different conception of poverty, its accuracy vis-à-vis expenditure-based poverty is unknown, and it can only be assumed to be a proxy for long-term wealth/economic status.<sup>22</sup> Well-known examples of the PCA asset-index approach include Sahn and Stifel (2000 and 2003). The asset index is the most common way to measure socio-economic status in the field of public health.

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<sup>22</sup> Still, carefully built PCA indexes and expenditure-based poverty-assessment tools may pick up the same underlying construct (perhaps "permanent income", see Bollen, Glanville, and Stecklov, 2007). Tests of how well rankings by PCA indexes correspond with rankings by expenditure-based scorecards include Howe *et al.* (2009), Filmer and Scott (2008), Lindelow (2006), Sahn and Stifel (2003), Wagstaff and Watanabe (2003), and Montgomery *et al.* (2000).

Gwatkin *et al.* discuss three basic uses for their index:

- Segmenting households by quintiles to see how health, population, and nutrition vary with socio-economic status
- Monitoring (via exit surveys) the poverty outreach of local health-service posts
- Measuring coverage of health services via local, small-scale surveys

The first goal is akin to targeting, and the last two goals resemble the monitoring goals here, so the uses of the asset index are similar to those of the scorecard here.

Most of the 34 indicators in Gwatkin *et al.* are similar to those in the scorecard here in terms of their simplicity, low cost, and verifiability:

- Characteristics of the residence:
  - Source of drinking water
  - Fuel for cooking
  - Source of energy for lighting
  - Type of toilet arrangement
  - Presence of electricity
  - Has a separate room used as a kitchen
  - Quality of material of construction of the residence
  - Number of people per sleeping room
- Main material of cooking utensils
- Presence of a domestic worker not related to the household head
- Ownership of consumer durables:
  - Radio
  - Television
  - Clock or watch
  - Telephone
  - Chair
  - Table
  - Cot or bed
  - Mattress
  - Fan
  - Pressure cooker
  - Refrigerator
  - Sewing machine
  - Bicycle
  - Motorcycle
  - Car
  - Water pump
  - Bullock cart

- Thresher
- Tractor
- Agriculture:
  - Members of the household work their own or family's agricultural land
  - Owns agricultural land
  - Hectares of irrigated land owned
  - Hectares of land under cultivation
  - Owns livestock

In practice, the Gwatkin *et al.* index is more difficult and costly than the scorecard here because it has triple the number of indicators and because it cannot be computed by hand in the field due to its 143 point values, half of which are negative and all of which have five decimal places.

Unlike the PCA index, the scorecard here is linked directly to an absolute, expenditure-based poverty line. Thus, while both approaches can rank households, only the scorecard can estimate expenditure-based poverty status.

In essence, Gwatkin *et al.*—like all PCA asset indexes—define poverty in terms of the indicators and the points in the index itself. Thus, the index can be seen not as a proxy standing in for something else (such as expenditure) but rather as a direct measure of a non-expenditure-based definition of poverty. There is nothing wrong—and a lot right—about defining poverty in this way, but it is not as common or as well-understood as an expenditure-based definition.<sup>23</sup>

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<sup>23</sup> Arguments in favor of the asset-based view include Carter and Barrett (2006), Schreiner and Sherraden (2006), and Sherraden (1991). In practice, the two views are distinct but tightly linked, as income/consumption are flows of resources received/consumed from the use of stocks of assets. Both views are low-dimensional simplifications—due to practical limits on definitions and measurement—of a higher-dimensional and more complete conception of the production of human well-being.



## 9.2 Filmer and Pritchett

Filmer and Pritchett's (2001) asset index for India is the most well-known index of any country. It is based on older DHS data than Gwatkin *et al.* (1992/3 instead of 1998/9). Filmer and Pritchett use it as a proxy not for expenditure but rather for long-term wealth for the purpose of predicting educational outcomes. While they cannot test the accuracy of the India index directly, they test the PCA asset-index approach with expenditure data from Indonesia, Nepal, and Pakistan. They find that "the asset index predicts enrollments as accurately as expenditures, or more so" (p. 115).

The 16 indicators in Filmer and Pritchett are similar to those in the scorecard here in terms of their simplicity, low cost, and verifiability:

- Characteristics of the residence:
  - Source of drinking water
  - Type of toilet arrangement
  - Fuel for cooking
  - Source of energy for lighting
  - Number of rooms
  - Has a separate room used as a kitchen
  - Quality of material of construction of the residence
- Ownership of consumer durables:
  - Radio
  - Television
  - Clock or watch
  - Refrigerator
  - Sewing machine
  - Bicycle
  - Motorcycle/scooter
  - Car
- Hectares of land owned

Filmer and Pritchett's asset index for India shares many of the strengths of Gwatkin *et al.* in that it can be used for targeting and in that it is flexible, low-cost,

and adaptable to diverse contexts. Because it does not require price adjustments over time or between countries—or even expenditure data—it is more adaptable in those dimensions than the scorecard here. At the same time, Filmer and Pritchett is simpler and thus more feasible in practice than Gwatkin *et al.*, with fewer indicators and only 21 point values (although some are negative and all have three decimal places).

Filmer and Pritchett also share with Gwatkin *et al.* the disadvantages of using a less-common definition of poverty and of not reporting formula for standard errors. Also, their purpose is to inform governments and donors about education policy, not to provide a tool to help local pro-poor organizations in their poverty-alleviation efforts.

### **9.3 Zeller *et al.***

Like this paper, Zeller *et al.* (2006) seek to develop a practical, low-cost, accurate way to assess the poverty of participants in local pro-poor programs. Their benchmark for assessment is not absolute poverty status according to an expenditure-based poverty line but rather relative poverty compared with other households in the area.

Like Gwatkin *et al.* and Filmer and Pritchett, Zeller *et al.* use PCA to combine indicators into an index. They pilot their approach with microfinance organizations in four countries, one of which is India. They apply a special-purpose survey to a random sample of 200 program participants and a comparison group of 300 non-participants in the credit program SHARE in rural areas of Andhra Pradesh, comparing the indexes' distribution by terciles to see whether program participants tend to be poorer.

Zeller *et al.* start the construction process with a long list of potential indicators and narrow it down based on their correlations with expenditure on clothing, eventually selecting 20 indicators in the PCA analysis:

- Characteristics of the residence:
  - Type of wall
  - Type of roof
  - Type of floor
  - Type of toilet arrangement
  - Fuel for cooking
  - Presence of electricity
  - Number of rooms per person
  - Value of the dwelling
- Education:
  - Highest educational attainment by a household member
  - Educational attainment of the household head
- Employment: Share of adults who are wage laborers
- Assets:
  - Number of radios
  - Number of fans
  - Ownership of irrigated land
- Food security and resilience:
  - Number of meals served in the past two days
  - Episodes of hunger in the past 30 days
  - Episodes of hunger in the past 12 months
  - Number of days with luxury food 1
  - Number of days with luxury food 2
  - Number of days with inferior food

Like all asset indexes (and like the scorecard here), Zeller *et al.*'s index can rank households and be applied in diverse contexts. Its weakness is its less-common definition of poverty as well as its small, non-nationally representative sample. Most important, many of the specific indicators for India are difficult and costly to collect. For example, most households cannot easily estimate the value of their dwelling. Also, the food-security indicators relate to historical events and so are inherently non-verifiable. Even if all these indicators could be collected accurately, they would

probably not rank households much better—thanks to the “flat maximum”—than indexes using only easier-to-collect indicators. Finally, Zeller *et al.* do not report the precise wording of their indicators (for example, the specific types of luxury and inferior foods) nor do they report points, so a local pro-poor organization in India cannot simply pick up their tool and use it.

## 9.4 Kijima and Lanjouw

Kijima and Lanjouw (2003) use R50 data to build a poverty-measurement tool to apply to R55.<sup>24</sup> They seek comparable estimates for measuring change in poverty rates, as R50 collects URP expenditure while R55 collects both URP and MRP, and collecting both is suspected to have led to contamination. Kijima and Lanjouw estimate that poverty fell less from R50 to R55 than estimated by Deaton and Drèze (2003).

Kijima and Lanjouw construct their tool with least-squares regression on the logarithm of per-capita expenditure, controlling for clustered disturbances and heteroskedasticity. To get poverty rates, estimated per-capita expenditure is compared to the national poverty line, which is adjusted for cost-of-living as in Deaton (2003). Because the data on ownership of consumer durables seems obviously inaccurate for many states in R50, one tool is built for each of the states of Gujarat, Andhra Pradesh, West Bengal, Himachal Pradesh, Karnataka, and Madhya Pradesh.

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<sup>24</sup> This is the “poverty mapping” approach of Elbers, Lanjouw, and Lanjouw (2003). Similar exercises for other countries are Christiaensen *et al.* (2008), Stifel and Christiaensen (2007), and the ten citations to Schreiner and co-authors in section 7 which test the accuracy of scorecard estimates of changes in poverty rates over time.

Kijima and Lanjouw’s 12-indicator tool<sup>25</sup> is even simpler than the new one here:

- Household size
- District
- Ownership of consumer durables:
  - Almirah/dressing table
  - Chair
  - Radio
  - Television or VCR
  - Electric fan
  - Stove
  - Bicycle
  - Motorcycle
  - Clock or watch
  - Pressure cooker

Kijima and Lanjouw state that the “wholesale application” of their tool would be “very appealing” (p. 22), although its use (as they present it) would require multiplication, logarithms, and exponentiation. Still, it could be presented in a simple format (like the new scorecard here) or implemented in a simple spreadsheet that would allow local pro-poor organizations to use it for monitoring and targeting.

In terms of accuracy, Kijima and Lanjouw’s estimates of poverty rates are biased (Coudouel, Hentschel, and Wodon, 2002; Hentschel *et al.*, 2000). Also, they cannot test accuracy, as the true (uncontaminated) values of expenditure in Round 55 are unknown. Like this paper, Kijima and Lanjouw must assume that the relationship between indicators and poverty is constant over time.

Kijima and Lanjouw derive standard errors that account for survey stratification and multi-stage clustering. In contrast, standard errors in this paper do not account for

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<sup>25</sup> Kijima and Lanjouw build two other scorecards, but they are not relevant here. The first uses components of expenditure to predict total expenditure, and the second uses several indicators that would be infeasible to collect from households.

sample design (beyond household weights), and so they are understated. This is because there is no way to know what sample designs will be used when the scorecard is applied by pro-poor organizations in India.

## 9.5 Jalan and Murgai

Jalan and Murgai (2007) use R55 to assess targeting in rural areas by the “Below Poverty Line scorecard” that the Indian government prescribed for classifying households for purposes of public assistance.<sup>26</sup> Jalan and Murgai also test an “augmented scorecard” that shores up several of the weaknesses of the “BPL scorecard”. With a cut-off that targets 27.3 percent of rural people (the share below the national line in R55), the BPL tool fails to target 49 percent of the poor, while Jalan and Murgai’s augmented tool fails to target 34.5 percent.

Jalan and Murgai also analyze who is mistargeted and how far they are from the poverty line. They conclude that—compared with direct measurement—targeting via scoring leads to high undercoverage of the poor and that “with a high density of the population with income close to the poverty line, arriving at an effective proxy means test is an inherently problematic and difficult exercise” (p. 1).<sup>27</sup>

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<sup>26</sup> Implementation of the BPL scorecard has been slow and uneven.

<sup>27</sup> Of course, a census that measures expenditure directly to establish BPL status is not feasible. Nor is there an obvious alternative that is more accurate than scoring and yet not prohibitively costly. For example, Jalan and Murgai show that low-cost geographical targeting is also less accurate than their augmented scorecard.

The BPL tool has 14 indicators, three of them present in R55 data:

- Highest educational attainment of an adult
- Means of livelihood
- Educational and labour status of children ages 5–14

The other 11 indicators do not have matches in R55, and the last six are difficult to verify:

- Whether the house is temporary (*katcha*), semi-permanent, or permanent (*pucca*)
- Type of toilet arrangement
- Labour-force status
- Ownership of consumer durables:
  - Radio
  - Television
  - Electric fan
  - Pressure cooker or pan
  - Refrigerator
  - Electric heating appliance
  - Other appliance
  - Motorcycle/scooter
  - Motor car/jeep
- Reasons for migration
- Indebtedness
- Size of operational land-holding
- Pieces of normal-wear clothing per person
- Food security (annual pattern of number of meals per day)
- Forms of public assistance currently received

Jalan and Murgai match these BPL indicators with R55 indicators to the extent possible. Each indicator has five responses, with points of 0/1/2/3/4, from poorest to least poor.

Jalan and Murgai test whether undercoverage by the BPL tool is caused by the simple 0/1/2/3/4 point scheme. As the “flat maximum” phenomenon would suggest, this turns out not to be the major driver of undercoverage.

To test whether indicator selection and geographic segmentation matter, Jalan and Murgai construct an augmented tool for each of the 16 major states using least-squares regression of per-capita expenditure on indicators for rural households in R55.<sup>28</sup>

Five of the indicators are in the BPL tool, the last three of which are difficult to verify:

- Means of livelihood
- Ownership of consumer durables
- Size of operational land-holding
- Pieces of normal-wear clothing per person
- Forms of public assistance received

The augmented tool also includes 11 indicators not in the BPL tool:

- Fuel for cooking
- Type of energy for lighting
- Principle industry of the household
- Sex of the household head
- Highest educational attainment of an adult male
- Highest educational attainment of an adult female
- Social group (caste)
- Household size (and its square)
- Share of children in the household
- Source of income
- Region of residence

While these augmented indicators are verifiable, computing scores requires multiplication, division, and adjusting points by region. Thus, if BPL cards are to be handed out on the spot, the augmented tool would be difficult to use. In addition, Jalan and Murgai do not report points, as their purpose is solely to test targeting accuracy, not to help anyone actually to target. In line with this goal, they do not report bias or standard errors for estimating poverty rates.

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<sup>28</sup> It is not clear why the Indian government did not do this in the first place instead of making its BPL scorecard without data and then mandating its use without testing.



Compared with Jalan and Murgai's augmented tool, the one here is simpler, shorter, based on more-recent data, and more feasible in practice. Targetin accuracy is reported, as are the bias and standard errors of estimates of poverty rates.

Which approach targets better? When the cut-off is set to target 27.3 percent of rural people (that is, the share below the national line in R55), Jalan and Murgai's augmented tool misses 34.5 percent of those below the line in R55. When the scorecard here is used in the same way with the R66 MRP validation sample (using \$1.08/day 1993 PPP MRP poverty status because its poverty rate for people of 25.5 percent is the closest to the 27.3 percent used by Jalan and Murgai), 27.6 percent of poor people are not targeted.

The better targeting performance by the scorecard here is remarkable because:

- It uses fewer scorecards (1 for all of India, versus one for each of 16 major states)
- It uses fewer indicators (10 versus 16)
- It uses fewer difficult-to-collect indicators (zero versus three)
- It covers both urban and rural, while Jalan and Murgai cover only rural. Targeting the urban poor is more difficult because:
  - A lower share of urban household are poor
  - Most of India is rural, so scorecard indicators, responses, and points are more optimized for rural
- It is built with household weights, but it is applied here to people, reducing accuracy vis-à-vis construction and application with person weights, as in Jalan and Murgai
- It is tested *out-of-sample*, that is, using different data for testing than for scorecard construction. In contrast, Jalan and Murgai's test is *in-sample*, using the same data in both testing and construction. In-sample tests are known to overstate accuracy

Despite facing an uphill climb, the new scorecard here is 20 percent more accurate than the tool of Jalan and Murgai. This may serve as a counterpoint to their conclusion that effective targeting by poverty-measurement tools is inherently problematic.

## 9.6 IRIS Center

USAID commissioned IRIS Center (2010) to build a “Poverty Assessment Tool” (PAT) so that USAID’s microenterprise partners in India could report on their participants’ poverty rates. The USAID/IRIS PAT for India is built with data from a 1997/8 Living Standards Measurement Survey in rural north and central Bihar and rural south and eastern Uttar Pradesh ( $n = 2,133$ ).

In general, the IRIS PAT is like the scorecard here, except that it:

- Is based on data that is older, smaller and non-nationally representative
- Estimates expenditure directly (rather than estimating poverty likelihoods)
- Uses more indicators
- Supports only one definition of poverty status
- Does not adjust poverty lines for differences in cost-of-living by urban/rural or state
- Uses in-sample tests
- Does not report standard errors

The IRIS PAT applies a poverty line of \$1.08/day 1993 PPP (Rs10.38 as of April 1998). It gives a poverty rate for households in rural Bihar and Uttar Pradesh of 79.9 percent (IRIS, 2006).

IRIS tests four approaches to tool construction (Zeller and Alcaraz V., 2005), each in one-stage and two-stage versions.<sup>29</sup> They settle on a quantile regression that estimates not poverty likelihoods but rather the 66<sup>th</sup> percentile of the logarithm of per-capita household expenditure. The 18 indicators (selected before the quantile regression using stepwise linear regression based on  $R^2$ ) are straightforward, verifiable, and inexpensive to collect:

- Household demographics:
  - Household size (and its square)
  - Age of household head (and its square)
  - Marital status of household head
- Education: Share of household members (excluding the head) who are:
  - Illiterate, or literate without formal schooling
  - Matriculate or intermediate
- Employment: Whether the household head was a casual laborer in the past year
- Characteristics of the residence:
  - Type of toilet arrangement
  - Number of rooms
  - Quality (*pucca*, *katcha*) of structure
- Ownership of durable goods:
  - Presence of:
    - Radio
    - Pressure lamp/petromax
    - Watch
    - Television
    - Camera
    - Thresher
  - Number of:
    - Buffaloes
    - Cows
- State of residence

The purpose of the IRIS PAT is to estimate poverty rates for USAID. Its bias is virtually zero (IRIS, 2006), its Total Accuracy is 84.0 percent, and its “Balanced

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<sup>29</sup> All methods give roughly the same results, thanks to the “flat maximum”.

Poverty Accuracy Criterion” is 89.7. IRIS (2005) invented BPAC. USAID adopted BPAC as its criterion for certifying its poverty-assessment tools. BPAC considers accuracy in terms of the estimated poverty rate (the purpose of the PAT) and in terms of inclusion (a targeting purpose that IRIS disavows). The formula is:

$$\text{BPAC} = (\text{Inclusion} - |\text{Undercoverage} - \text{Leakage}|) \times [100 \div (\text{Inclusion} + \text{Undercoverage})].$$

Because the highest poverty rate associated with any of the poverty lines for the new R66 scorecard is 70 percent for households (versus almost 80 percent for IRIS in 1997/8), no accuracy comparisons are possible.

IRIS states that the PAT should not be used for targeting,<sup>30</sup> and IRIS doubts that the PAT can be useful for measuring changes in poverty rates, noting that “it is unclear that the tools will be able to identify real changes in poverty over time due to their inherent measurement errors. Unless the changes in the poverty rate are exceptionally large and the tools exceptionally accurate, the changes identified are likely to be contained within the margin of error.”<sup>31</sup> In contrast, this paper supports these uses, reporting various aspects of targeting accuracy and margins of error for measures of change over time so that users can decide for themselves whether accuracy is adequate for their purposes.

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<sup>30</sup> <http://www.povertytools.org/faq/faq.html#11>, retrieved 19 February 2009.

<sup>31</sup> <http://www.povertytools.org/faq/faq.html#12>, retrieved 19 February 2009.

## 10. Conclusion

This paper presents the scorecard, a low-cost way for pro-poor programs in India to estimate the likelihood that a household has expenditure below a given poverty line, to estimate the poverty rate of a group of households at a point in time, and to estimate changes in the poverty rate of a group of households between two points in time. The scorecard can also be used for targeting.

The scorecard is inexpensive to use and can be understood by non-specialists. It is designed to be practical for local pro-poor organizations who want to improve how they manage their social performance.

The scorecard is built with a sub-sample of data from the consumer expenditure module of Round 66 of India's Socio-Economic Survey, tested with a different sub-sample, and calibrated to 19 poverty lines. Existing users of India's R59 or R62 scorecards can switch to the new R66 scorecard here without having to start over from scratch when measuring change in poverty rates between two points in time.

Bias and precision are reported for estimates of households' poverty likelihoods, groups' poverty rates at a point in time, and changes in groups' poverty rates over time. Of course, the scorecard's estimates of change are not the same as estimates of program impact. Targeting accuracy is also reported.

When the scorecard is applied to the validation sample with  $n = 16,384$  for non-RBI poverty statuses that use the MMRP definition of expenditure, the absolute difference (bias) between estimates versus true poverty rates for groups of households at

a point in time is 0.7 percentage points or less and averages—across the seven poverty lines—about 0.6 percentage points. For  $n = 16,384$  and 90-percent confidence, the precision of these differences is  $\pm 0.6$  percentage points or better.

For targeting, programs can use the results reported here to select a cut-off that fits their values and mission.

Although the statistical technique is innovative, and although technical accuracy is important, the design of the scorecard here focuses on transparency and ease-of-use. After all, a perfectly accurate scorecard is worthless if programs feel so daunted by its complexity or its cost that they do not even try to use it. For this reason, the scorecard is kept simple, using ten indicators that are inexpensive to collect and that are straightforward to verify. Points are all zeroes or positive whole numbers, and scores range from 0 to 100. Scores are related to poverty likelihoods via simple look-up tables, and targeting cut-offs are likewise simple to apply. The design attempts to facilitate adoption by helping managers understand and trust scoring and by allowing non-specialists to generate scores quickly in the field.

In sum, the scorecard is a practical, objective way for pro-poor programs in India to estimate poverty rates, track changes in poverty rates over time, and target services. The same approach can be applied to any country with similar data.

## References

- Adams, Niall M.; and David J. Hand. (2000) “Improving the Practice of Classifier Performance Assessment”, *Neural Computation*, Vol. 12, pp. 305–311.
- Baesens, Bart; Van Gestel, Tony; Viaene, Stijn; Stepanova, Maria; Suykens, Johan A. K.; and Jan Vanthienen. (2003) “Benchmarking State-of-the-Art Classification Algorithms for Credit Scoring”, *Journal of the Operational Research Society*, Vol. 54, pp. 627–635.
- Bollen, Kenneth A.; Glanville, Jennifer L.; and Guy Stecklov. (2007) “Socio-Economic Status, Permanent Income, and Fertility: A Latent-Variable Approach”, *Population Studies*, Vol. 61, No. 1, pp. 15–34.
- Caire, Dean. (2004) “Building Credit Scorecards for Small-Business Lending in Developing Markets”, [microfinance.com/English/Papers/Scoring\\_SMEs\\_Hybrid.pdf](http://microfinance.com/English/Papers/Scoring_SMEs_Hybrid.pdf), retrieved 15 October 2011.
- Camacho, Adriana; and Emily Conover. (2011) “Manipulation of Social-Program Eligibility”, *American Economic Journal: Economic Policy*, Vol. 3, No. 2, pp. 41–65.
- Carter, Michael R.; and Christopher B. Barrett. (2006) “The Economics of Poverty Traps and Persistent Poverty: An Asset-Based Approach”, *Journal of Development Studies*, Vol. 42, No. 2, pp. 178–199.
- Chen, Shiyuan; and Mark Schreiner. (2009a) “Simple Poverty Scorecard Poverty-Assessment Tool: Bangladesh”, [SimplePovertyScorecard.com/BGD\\_2005\\_ENG.pdf](http://SimplePovertyScorecard.com/BGD_2005_ENG.pdf), retrieved 15 October 2011.
- (2009b) “Simple Poverty Scorecard Poverty-Assessment Tool: Vietnam”, [SimplePovertyScorecard.com/VNM\\_2006\\_ENG.pdf](http://SimplePovertyScorecard.com/VNM_2006_ENG.pdf), retrieved 15 October 2011.
- Christiaensen, Luc; Lanjouw, Peter; Luoto, Jill; and David Stifel. (2008) “The Reliability of Small-Area Estimation Prediction Methods to Track Poverty”, [www.wider.unu.edu/publications/working-papers/2010/en\\_GB/wp2010-99/](http://www.wider.unu.edu/publications/working-papers/2010/en_GB/wp2010-99/), retrieved 15 October 2011.
- Coady, David; Grosh, Margaret; and John Hoddinott. (2004) *Targeting of Transfers in Developing Countries*, [hdl.handle.net/10986/14902](http://hdl.handle.net/10986/14902), retrieved 13 May 2016.
- Cochran, William G. (1977) *Sampling Techniques, Third Edition*.

- Coudouel, Aline; Hentschel, Jesko S.; and Quentin T. Wodon. (2002) “Poverty Measurement and Analysis”, pp. 27–74 in *The PRSP Sourcebook*, [siteresources.worldbank.org/INTPRS1/Resources/383606-1205334112622/5467\\_chap1.pdf](http://siteresources.worldbank.org/INTPRS1/Resources/383606-1205334112622/5467_chap1.pdf), retrieved 15 October 2011.
- Dawes, Robyn M. (1979) “The Robust Beauty of Improper Linear Models in Decision Making”, *American Psychologist*, Vol. 34, No. 7, pp. 571–582.
- Deaton, Angus. (2010) “Price Indexes, Inequality, and the Measurement of World Poverty”, *American Economic Review*, Vol. 100, No. 1, pp. 5–34.
- (2008) “Price Trends in India and Their Implications for Measuring Poverty”, [ssrn.com/abstract=1085876](http://ssrn.com/abstract=1085876), retrieved 15 October 2011.
- (2003) “Prices and Poverty in India, 1987–2000”, *Economic and Political Weekly*, January 25, pp. 362–368.
- ; and Jean Drèze. (2002) “Poverty and Inequality in India: A Re-Examination”, *Economic and Political Weekly*, September 7, pp. 3729–3748.
- ; and Valerie Kozel. (2005) *The Great Indian Poverty Debate*.
- ; and Alessandro Tarozzi. (2000) “Prices and Poverty in India”, [econ.duke.edu/~taroz/DeatonTarozzi.pdf](http://econ.duke.edu/~taroz/DeatonTarozzi.pdf), retrieved 15 October 2011.
- Efron, Bradley; and Robert J. Tibshirani. (1993) *An Introduction to the Bootstrap*.
- Elbers, Chris; Lanjouw, Jean O.; and Peter Lanjouw. (2003) “Micro-Level Estimation of Poverty and Inequality”, *Econometrica*, Vol. 71, No. 1, pp. 355–364.
- Falkenstein, Eric. (2008) “DefProb<sup>TM</sup>: A Corporate Probability-of-Default Model”, [papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1103404](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1103404), retrieved 15 October 2011.
- Filmer, Deon; and Lant Pritchett. (2001) “Estimating Wealth Effects without Expenditure Data—or Tears: An Application to Educational Enrollments in States of India”, *Demography*, Vol. 38, No. 1, pp. 115–132.
- ; and Kinnon Scott. (2008) “Assessing Asset Indexes”, World Bank Policy Research Working Paper No. 4605, [papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1149108](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1149108), retrieved 15 October 2011.



- Friedman, Jerome H. (1997) “On Bias, Variance, 0–1 Loss, and the Curse-of-Dimensionality”, *Data Mining and Knowledge Discovery*, Vol. 1, pp. 55–77.
- Fuller, Rob. (2006) “Measuring the Poverty of Microfinance Clients in Haiti”, [microfinance.com/English/Papers/Scoring\\_Poverty\\_Haiti\\_Fuller.pdf](http://microfinance.com/English/Papers/Scoring_Poverty_Haiti_Fuller.pdf), retrieved 15 October 2011.
- Goodman, Leo A.; and Kruskal, William H. (1979) *Measures of Association for Cross Classification*.
- Government of India. (2011a) “Key Indicators of Household Consumer Expenditure in India, 2009–10”, Ministry of Statistics and Programme Implementation, National Sample Survey Office, July 8, [pib.nic.in/newsite/PrintRelease.aspx?relid=73098](http://pib.nic.in/newsite/PrintRelease.aspx?relid=73098), retrieved 15 October 2011.
- (2011b) “Press Note on Poverty Estimates”, Planning Commission, [planningcommission.nic.in/reports/genrep/Press\\_pov\\_27Jan11.pdf](http://planningcommission.nic.in/reports/genrep/Press_pov_27Jan11.pdf), retrieved 15 October 2011.
- (2007) “Poverty Estimates for 2004–5”, [www.planningcommission.gov.in/news/prmar07.pdf](http://www.planningcommission.gov.in/news/prmar07.pdf), retrieved 15 October 2011.
- Grootaert, Christiaan; and Jeanine Braithwaite. (1998) “Poverty Correlates and Indicator-Based Targeting in Eastern Europe and the Former Soviet Union”, World Bank Policy Research Working Paper No. 1942, [go.worldbank.org/VPMWVLU8E0](http://go.worldbank.org/VPMWVLU8E0), retrieved 15 October 2011.
- Grosh, Margaret; and Judy L. Baker. (1995) “Proxy Means Tests for Targeting Social Programs: Simulations and Speculation”, World Bank LSMS Working Paper No. 118, [go.worldbank.org/W90WN57PD0](http://go.worldbank.org/W90WN57PD0), retrieved 15 October 2011.
- Gwatkin, Davidson R.; Rutstein, Shea; Johnson, Kiersten; Suliman, Eldaw; Wagstaff, Adam; and Agbessi Amouzou. (2007) “Socio-Economic Differences in Health, Nutrition, and Population in India”, [go.worldbank.org/T6LCN5A340](http://go.worldbank.org/T6LCN5A340), retrieved 15 October 2011.
- Hand, David J. (2006) “Classifier Technology and the Illusion of Progress”, *Statistical Science*, Vol. 22, No. 1, pp. 1–15.

- Hentschel, Jesko; Lanjouw, Jean Olson; Lanjouw, Peter; and Javier Poggi. (2000) “Combining Census and Survey Data to Trace the Spatial Dimensions of Poverty: A Case Study of Ecuador”, *World Bank Economic Review*, Vol. 14, No. 1, pp. 147–165.
- Himanshu. (2011) “Re: Has someone (you?) computed poverty lines based on Tendulkar Committee report for India’s R66 NSSO Expenditure survey?”, message to [mark@microfinance.com](mailto:mark@microfinance.com), August 20, 4:59 p.m.
- Hoadley, Bruce; and Robert M. Oliver. (1998) “Business Measures of Scorecard Benefit”, *IMA Journal of Mathematics Applied in Business and Industry*, Vol. 9, pp. 55–64.
- Howe, Laura D.; Hargreaves, James R.; Gabrysch, Sabine; and Sharon R.A. Huttly. (2009) “Is the Wealth Index a Proxy for Consumption Expenditure? A Systematic Review”, *Journal of Epidemiology and Community Health*, Vol. 63, pp. 871–880.
- IRIS Center. (2010) “Client Assessment Survey—India”, [povertytools.org/countries/India/USAID\\_PAT\\_India\\_10\\_19\\_2010.xls](http://povertytools.org/countries/India/USAID_PAT_India_10_19_2010.xls), retrieved 15 October 2011.
- (2007a) “Manual for the Implementation of USAID Poverty Assessment Tools”, [povertytools.org/training\\_documents/Manuals/USAID\\_PAT\\_Manual\\_Eng.pdf](http://povertytools.org/training_documents/Manuals/USAID_PAT_Manual_Eng.pdf), retrieved 15 October 2011.
- (2007b) “Introduction to Sampling for the Implementation of PATs”, [povertytools.org/training\\_documents/Sampling/Introduction\\_Sampling.pdf](http://povertytools.org/training_documents/Sampling/Introduction_Sampling.pdf), retrieved 15 October 2011.
- (2006) “Certification Criteria: Accuracy, USAID/IRIS Tool for India (Bihar and Uttar Pradesh)”, [povertytools.org/countries/India/USAID\\_PAT\\_India.pdf](http://povertytools.org/countries/India/USAID_PAT_India.pdf), retrieved 15 October 2011.
- (2005) “Notes on Assessment and Improvement of Tool Accuracy”, [povertytools.org/other\\_documents/AssessingImproving\\_Accuracy.pdf](http://povertytools.org/other_documents/AssessingImproving_Accuracy.pdf), retrieved 15 October 2011.
- Jain, Jayesh Kr. (2011) “Serving Poor People: In Words or Action?” Grameen Foundation India Concept Note Series 1, [jjain@grameenfoundation.in](mailto:jjain@grameenfoundation.in).

- Jalan, Jyotsna; and Rinku Murgai. (2007) “An Effective ‘Targeting Shortcut’? An Assessment of the 2002 Below-Poverty Line Census Method”, [www.cdcdse.org/conf2007/rmurgai.pdf](http://www.cdcdse.org/conf2007/rmurgai.pdf), retrieved 15 October 2011.
- Johnson, Glenn. (2007) “Lesson 3: Two-Way Tables—Dependent Samples”, <https://onlinecourses.science.psu.edu/stat504/node/96>, retrieved 15 October 2011.
- Kijima, Yoko; and Peter Lanjouw. (2003) “Poverty in India during the 1990s: A Regional Perspective”, World Bank Policy Research Working Paper No. 3141, [ideas.repec.org/p/wbk/wbrwps/3141.html](http://ideas.repec.org/p/wbk/wbrwps/3141.html), retrieved 15 October 2011.
- Kolesar, Peter; and Janet L. Showers. (1985) “A Robust Credit-Screening Model Using Categorical Data”, *Management Science*, Vol. 31, No. 2, pp. 124–133.
- Lindelow, Magnus. (2006) “Sometimes More Equal Than Others: How Health Inequalities Depend on the Choice of Welfare Indicator”, *Health Economics*, Vol. 15, pp. 263–279.
- Lovie, Alexander D.; and Patricia Lovie. (1986) “The Flat-Maximum Effect and Linear Scoring Models for Prediction”, *Journal of Forecasting*, Vol. 5, pp. 159–168.
- Martinelli, César; and Susan W. Parker. (2007) “Deception and Misreporting in a Social Program”, *Journal of the European Economic Association*, Vol. 4, No. 6, pp. 886–908.
- Matul, Michal; and Sean Kline. (2003) “Scoring Change: Prizma’s Approach to Assessing Poverty”, Microfinance Centre for Central and Eastern Europe and the New Independent States Spotlight Note No. 4, [www.mfc.org.pl/doc/Research/ImpAct/SN/MFC\\_SN04\\_eng.pdf](http://www.mfc.org.pl/doc/Research/ImpAct/SN/MFC_SN04_eng.pdf), retrieved 15 October 2011.
- McNemar, Quinn. (1947) “Note on the Sampling Error of the Difference between Correlated Proportions or Percentages”, *Psychometrika*, Vol. 17, pp. 153–157.
- Montgomery, Mark; Gragnolati, Michele; Burke, Kathleen A.; and Edmundo Paredes. (2000) “Measuring Living Standards with Proxy Variables”, *Demography*, Vol. 37, No. 2, pp. 155–174.
- Myers, James H.; and Edward W. Forgy. (1963) “The Development of Numerical Credit-Evaluation Systems”, *Journal of the American Statistical Association*, Vol. 58, No. 303, pp. 779–806.

- Narayan, Ambar; and Nobuo Yoshida. (2005) “Proxy Means Tests for Targeting Welfare Benefits in Sri Lanka”, World Bank Report No. SASPR-7, [documents.worldbank.org/curated/en/2005/07/6209268/proxy-means-test-targeting-welfare-benefits-sri-lanka](http://documents.worldbank.org/curated/en/2005/07/6209268/proxy-means-test-targeting-welfare-benefits-sri-lanka), retrieved 5 May 2016.
- National Sample Survey Organisation. (2001) “Concepts and Definitions Used in NSS: Golden Jubilee Publication”.
- Onwujekwe, Obinna; Hanson, Kara; and Julia Fox-Rushby. (2006) “Some Indicators of Socio-Economic Status May Not Be Reliable and Use of Indexes with These Data Could Worsen Equity”, *Health Economics*, Vol. 15, pp. 639–644.
- Reserve Bank of India (2011a) “Circular RBI/2010-11/505, RPCD.CO.PLAN. 66 /04.09.01/2010-11”, [rbidocs.rbi.org.in/rdocs/Notification/PDFs/CIMAC030511.pdf](http://rbidocs.rbi.org.in/rdocs/Notification/PDFs/CIMAC030511.pdf), 15 October 2011.
- (2011b) “Monetary Policy Statement 2011–12 (Including Developmental and Regulatory Policies)”, [rbidocs.rbi.org.in/rdocs/notification/PDFs/APS030511F.pdf](http://rbidocs.rbi.org.in/rdocs/notification/PDFs/APS030511F.pdf), 15 October 2011.
- Rutstein, Shea Oscar; and Kiersten Johnson. (2004) “The DHS Wealth Index”, DHS Comparative Reports No. 6, [measuredhs.com/pubs/pdf/CR6/CR6.pdf](http://measuredhs.com/pubs/pdf/CR6/CR6.pdf), retrieved 15 October 2011.
- Sahn, David E.; and David C. Stifel. (2003) “Exploring Alternative Measures of Welfare in the Absence of Expenditure Data”, *Review of Income and Wealth*, Series 49, No. 4, pp. 463–489.
- (2000) “Poverty Comparisons over Time and across Countries in Africa”, *World Development*, Vol. 28, No. 12, pp. 2123–2155.
- SAS Institute Inc. (2004) “The LOGISTIC Procedure: Rank Correlation of Observed Responses and Predicted Probabilities”, in *SAS/STAT User’s Guide, Version 9*, [support.sas.com/documentation/cdl/en/statug/63033/HTML/default/viewer.htm#statug\\_logistic\\_sect035.htm](http://support.sas.com/documentation/cdl/en/statug/63033/HTML/default/viewer.htm#statug_logistic_sect035.htm), retrieved 15 October 2011.
- Saxena, N.C. (2001) “Poverty Estimates for 1999–00”, Government of India Press Information Bureau, [planningcommission.nic.in/reports/articles/ncsxna/ar\\_pvrty.htm](http://planningcommission.nic.in/reports/articles/ncsxna/ar_pvrty.htm), retrieved 15 October 2011.

- Schreiner, Mark. (2011) "Simple Poverty Scorecard Poverty-Assessment Tool: Colombia", [SimplePovertyScorecard.com/COL\\_2009\\_ENG.pdf](http://SimplePovertyScorecard.com/COL_2009_ENG.pdf), retrieved 15 October 2011.
- (2010) "Simple Poverty Scorecard Poverty-Assessment Tool: Honduras", [SimplePovertyScorecard.com/HND\\_2007\\_ENG.pdf](http://SimplePovertyScorecard.com/HND_2007_ENG.pdf), retrieved 15 October 2011.
- (2009a) "Simple Poverty Scorecard Poverty-Assessment Tool: Peru", [SimplePovertyScorecard.com/PER\\_2007\\_ENG.pdf](http://SimplePovertyScorecard.com/PER_2007_ENG.pdf), retrieved 15 October 2011.
- (2009b) "Simple Poverty Scorecard Poverty-Assessment Tool: Philippines", [SimplePovertyScorecard.com/PHL\\_2002\\_ENG.pdf](http://SimplePovertyScorecard.com/PHL_2002_ENG.pdf), retrieved 15 October 2011.
- (2009c) "Simple Poverty Scorecard Poverty-Assessment Tool: Pakistan", [SimplePovertyScorecard.com/PAK\\_2005\\_ENG.pdf](http://SimplePovertyScorecard.com/PAK_2005_ENG.pdf), retrieved 15 October 2011.
- (2009d) "Simple Poverty Scorecard Poverty-Assessment Tool: Bolivia", [SimplePovertyScorecard.com/BOL\\_2007\\_ENG.pdf](http://SimplePovertyScorecard.com/BOL_2007_ENG.pdf), retrieved 15 October 2011.
- (2009e) "Simple Poverty Scorecard Poverty-Assessment Tool: Mexico", [SimplePovertyScorecard.com/MEX\\_2008\\_ENG.pdf](http://SimplePovertyScorecard.com/MEX_2008_ENG.pdf), retrieved 15 October 2011.
- (2008a) "Simple Poverty Scorecard Poverty-Assessment Tool: India", [SimplePovertyScorecard.com/IND\\_2005\\_ENG.pdf](http://SimplePovertyScorecard.com/IND_2005_ENG.pdf), retrieved 15 October 2011.
- (2008b) "Simple Poverty Scorecard Poverty-Assessment Tool: Peru", [SimplePovertyScorecard.com/PER\\_2003\\_ENG.pdf](http://SimplePovertyScorecard.com/PER_2003_ENG.pdf), retrieved 15 October 2011.
- (2006a) "Simple Poverty Scorecard Poverty-Assessment Tool: India", [SimplePovertyScorecard.com/IND\\_2003\\_ENG.pdf](http://SimplePovertyScorecard.com/IND_2003_ENG.pdf), retrieved 15 October 2011.
- (2006b) "Is One Simple Poverty Scorecard Poverty-Assessment Tool Enough for India?", [microfinance.com/English/Papers/Scoring\\_Poverty\\_India\\_Segments.pdf](http://microfinance.com/English/Papers/Scoring_Poverty_India_Segments.pdf), retrieved 15 October 2011.
- (2005a) "La Herramienta del Índice de Calificación de la Pobreza™: México", [SimplePovertyScorecard.com/MEX\\_2002\\_SPA.pdf](http://SimplePovertyScorecard.com/MEX_2002_SPA.pdf), retrieved 15 October 2011.
- (2005b) "IRIS Questions on the Simple Poverty Scorecard Poverty-Assessment Tool", [microfinance.com/English/Papers/Scoring\\_Poverty\\_Response\\_to\\_IRIS.pdf](http://microfinance.com/English/Papers/Scoring_Poverty_Response_to_IRIS.pdf), retrieved 15 October 2011.

- (2002) *Scoring: The Next Breakthrough in Microfinance?* CGAP Occasional Paper No. 7, [microfinance.com/English/Papers/Scoring\\_Breakthrough\\_CGAP.pdf](http://microfinance.com/English/Papers/Scoring_Breakthrough_CGAP.pdf), retrieved 13 May 2016.
- ; Matul, Michal; Pawlak, Ewa; and Sean Kline. (2004) "Poverty Scoring: Lessons from a Microlender in Bosnia-Herzegovina", [microfinance.com/English/Papers/Scoring\\_Poverty\\_in\\_BiH\\_Short.pdf](http://microfinance.com/English/Papers/Scoring_Poverty_in_BiH_Short.pdf), retrieved 15 October 2011.
- ; and Michael Sherraden. (2006) *Can the Poor Save? Saving and Asset Accumulation in Individual Development Accounts*.
- ; and Gary Woller. (2010a) "Simple Poverty Scorecard Poverty-Assessment Tool: Ghana", [SimplePovertyScorecard.com/GHA\\_2005\\_ENG.pdf](http://SimplePovertyScorecard.com/GHA_2005_ENG.pdf), retrieved 15 October 2011.
- ; and Gary Woller. (2010b) "Simple Poverty Scorecard Poverty-Assessment Tool: Guatemala", [SimplePovertyScorecard.com/GTM\\_2006\\_ENG.pdf](http://SimplePovertyScorecard.com/GTM_2006_ENG.pdf), retrieved 15 October 2011.
- Sherraden, Michael. (1991) *Assets and the Poor: A New American Welfare Policy*.
- Sillers, Don. (2006) "National and International Poverty Lines: An Overview", [pdf.usaid.gov/pdf\\_docs/Pnadh069.pdf](http://pdf.usaid.gov/pdf_docs/Pnadh069.pdf), retrieved 13 May 2016.
- (2005) "Annex: Calculating PPP Conversion Factors and '\$1-a-day' Poverty Lines", [povertyfrontiers.org/ev.php?ID=1081\\_201&ID2=D0\\_TOPIC](http://povertyfrontiers.org/ev.php?ID=1081_201&ID2=D0_TOPIC), retrieved 15 October 2011.
- Singh, Kesar. (1998) "Breakdown Theory for Bootstrap Quantiles", *Annals of Statistics*, Vol. 26, pp. 1719–1732.
- Stifel, David; and Luc Christiaensen. (2007) "Tracking Poverty over Time in the Absence of Comparable Consumption Data", *World Bank Economic Review*, Vol. 21, No. 2, pp. 317–341.
- Stillwell, William G.; Barron, F. Hutton; and Ward Edwards. (1983) "Evaluating Credit Applications: A Validation of Multi-Attribute Utility-Weight Elicitation Techniques", *Organizational Behavior and Human Performance*, Vol. 32, pp. 87–108.

- Tarozzi, Alessandro; and Angus Deaton. (2009) “Using Census and Survey Data to Estimate Poverty and Inequality for Small Areas”, *Review of Economics and Statistics*, Vol. 91, No. 4, pp. 773–792.
- Tendulkar Committee. (2009) “Report of the Expert Group to Review the Methodology for Estimation of Poverty”, Government of India Planning Commission, [planningcommission.nic.in/reports/genrep/rep\\_pov.pdf](http://planningcommission.nic.in/reports/genrep/rep_pov.pdf), retrieved 15 October 2011.
- Toohig, Jeff. (2007) “Progress out of Poverty Index: Training Guide”, [progressoutofpoverty.org/toolkit](http://progressoutofpoverty.org/toolkit), retrieved 15 October 2011.
- United States Congress. (2004) “Microenterprise Results and Accountability Act of 2004 (HR 3818 RDS)”, November 20, [smith4nj.com/laws/108-484.pdf](http://smith4nj.com/laws/108-484.pdf), retrieved 13 May 2016.
- Wagstaff, Adam; and Naoko Watanabe. (2003) “What Difference Does the Choice of SES Make in Health-Inequality Measurement?”, *Health Economics*, Vol. 12, No. 10, pp. 885–890.
- Wainer, Howard. (1976) “Estimating Coefficients in Linear Models: It Don’t Make No Nevermind”, *Psychological Bulletin*, Vol. 83, pp. 223–227.
- World Bank. (2008) “International Comparison Project: Tables of Results”, [siteresources.worldbank.org/ICPINT/Resources/icp-final-tables.pdf](http://siteresources.worldbank.org/ICPINT/Resources/icp-final-tables.pdf), retrieved 15 October 2011.
- Zeller, Manfred. (2004) “Review of Poverty Assessment Tools”, [pdf.usaid.gov/pdf\\_docs/PNADH120.pdf](http://pdf.usaid.gov/pdf_docs/PNADH120.pdf), retrieved 15 October 2011.
- ; and Gabriela Alcaraz V. (2005) “Developing and Testing Poverty-Assessment Tools: Results from Accuracy Tests in Uganda”, [povertytools.org/other\\_documents/Uganda%20Accuracy%20Report.pdf](http://povertytools.org/other_documents/Uganda%20Accuracy%20Report.pdf), retrieved 15 October 2011.
- ; Sharma, Manohar; Henry, Carla; and Cécile Lapenu. (2006) “An Operational Method for Assessing the Poverty Outreach Performance of Development Policies and Projects: Results of Case Studies in Africa, Asia, and Latin America”, *World Development*, Vol. 34, No. 3, pp. 446–464.

## Appendix: Guidelines for the Interpretation of Scorecard Indicators

The following is taken from:

National Sample Survey Organisation. (2009) “Instructions to Field Staff, Volume I: Design, Concepts, Definitions, and Procedures, Socio-Economic Survey, 66<sup>th</sup> Round (July 2009 to June 2010)”, Government of India, Ministry of Statistics and Programme Implementation. (the *Manual*)

and

National Sample Survey Organisation. (2001) “Concepts and Definitions Used in NSS: Golden Jubilee Publication”, Government of India, Ministry of Statistics and Programme Implementation. (the *Jubilee Glossary*)



## 1. How many household members are 17-years-old or younger?

According to p. A-7 to A-8 of the *Manual*, a *household* is “a group of persons normally living together and taking food from a common kitchen. . . . It will include temporary stay-aways (those whose total period of absence from the household is expected to be less than 6 months) but exclude temporary visitors and guests (expected total period of stay less than 6 months). Even though the determination of the actual composition of a household will be left to the judgment of the head of the household, the following procedures will be adopted as guidelines:

- Each inmate (including residential staff) of a hostel, mess, hotel, boarding and lodging house, etc., will constitute a single-member household. If, however, a group of persons among them normally pool their income for spending, they will together be treated as forming a single household. For example, a family living in a hotel will be treated as a single household
- In deciding the composition of a household, more emphasis is to be placed on ‘normally living together’ than on ‘ordinarily taking food from a common kitchen’. In case the place of residence of a person is different from the place of boarding, he or she will be treated as a member of the household with whom he or she resides
- A resident employee, or domestic servant, or a paying guest (but not just a tenant in the household) will be considered as a member of the household with whom he or she resides even though he or she is not a member of the same family.
- When a person sleeps in one place (say, in a shop or in a room in another house because of space shortage) but usually takes food with his or her family, he or she should be treated not as a single-member household but as a member of the household in which other members of his or her family stay
- If a member of a family (say, a son or a daughter of the head of the family) stays elsewhere (say, in hostel for studies or for any other reason), he/she will not be considered as a member of his/her parent’s household. However, he/she will be listed as a single-member household if the hostel is listed.”

According to p. C-10 of the *Manual*, *household size* is “the total number of persons normally residing together (i.e., under the same roof) and taking food from the same kitchen (including temporary stay-aways and excluding temporary visitors).”

## 2. What is the general education level of the male head/spouse?

For the purposes of the scorecard, the *male head/spouse* is defined as:

- The household head, if the head is a man
- The spouse of the household head, if the head is a woman
- Non existent, if neither of the previous two criteria are met

According to pp. C-14 to C-15 of the *Manual*, “only courses successfully completed will be considered. For instance, for a person who has studied up to say, first-year B.A., educational attainment will be considered to be ‘higher secondary’. For a person who has studied up to 12<sup>th</sup> standard but has not appeared for the final examination or has failed, educational attainment will be considered under ‘secondary’.”

“A person who can both read and write a simple message with understanding in at least one language is to be considered *literate*. Those who are not able to do so are to be considered *not literate*.”

“The criteria for deciding primary, middle, secondary, etc. levels will be that followed in the concerned States/Union Territories. Persons who have attained proficiency in Oriental languages (*e.g.*, Sanskrit, Persian, etc.) through formal but not through the general type of education will be classified appropriately at the equivalent level of general-education standard. Those who have completed some diploma or certificate course in general, technical education or vocational education which is equivalent to below-graduation level, will be counted as [diploma/certificate course, graduate, or postgraduate and above]. . . . Those who have obtained degree or diploma or certificate in general, technical education or vocational education, which is equivalent to graduation level, will [also be counted as diploma/certificate course, graduate, or postgraduate and above]. This is also true for those who have obtained a degree or diploma or certificate in general or technical education which is equivalent to post-graduation level and above.”

### 3. What is the household type?

According to pp. A-8 to A-9 of the *Manual*, “The household type . . . is decided on the basis of the sources of the household’s income during the 365 days preceding the date of the survey. For this purpose, only the household’s income (net income, not gross) from economic activities is to be considered; the incomes of servants and paying guests are not to be taken into account.

“In rural areas, a household will belong to one of the following five types:

- Self-employed in non-agriculture
- Agricultural labour
- Other labour
- Self-employed in agriculture
- Others

“For urban areas, the household types are:

- Self-employed
- Regular wage/salary-earning
- Casual labour
- Others

“Determining household type in the rural sector: For a rural household, if a single source (among the five sources of income listed above) contributes 50 percent or more of the household’s income from economic activities during the last 365 days, it will be assigned the type corresponding to that source.

For a household to be classified as ‘Agricultural labour’ or ‘Self-employed in agriculture’, its income from that source must be 50 percent or more of its total income. If there is no such source yielding 50 percent or more of the household’s total income, it will be assigned one of the remaining types (‘Self-employed in non-agriculture’, ‘Other labour’ or ‘Others’) according to the following procedure.

To be classified as ‘Self-employed in non-agriculture’, the household’s income from that source must be greater than its income from rural labour (all wage-paid manual labour) as well as that income from all other economic activities put together (a three-way division is to be considered here).

A household not assigned one of the types ‘Self-employed in non-agriculture’, ‘Agricultural labour’ or ‘Self-employed in agriculture’ will be classified as ‘Other labour’ if its income from rural labour (all wage-paid manual labour) is greater than that from self-employment as well as that from other economic activities (again, a three-way division). All other [rural] households will be classified under ‘Others’.

Determining household type in the urban sector: “The different urban types correspond to four sources of household income, unlike the rural sector where five sources are considered. An urban household will be assigned the type ‘Self-employed’, ‘Regular wage/salary-earning’ ‘Casual labour’ or ‘Others’ corresponding to the major source of its income from economic activities during the last 365 days. A household which does not have any income from economic activities will be classified under ‘Others’.”

According to pp. 5–6 of *Jubilee Glossary*, “The rural and urban areas of the country are taken as adopted in the latest population census for which the required information is available with the Survey Design and Research Division of the NSSO. The lists of census villages as published in the *Primary Census Abstracts* (PCA) constitute the rural areas, and the lists of cities, towns, cantonments, non-municipal urban areas and notified areas constitute the urban areas.

“The *urban area* of the country was defined in 1971 census as follows:

- All places with a municipality, corporation, or cantonment, and places notified as town area
- All other places which satisfied the following criteria:
  - Minimum population of 5,000
  - At least 75 percent of the male working population are non-agriculturists, and
  - Density of population of at least 1,000 per sq. mile (390 per sq. km.)

The *rural sector* covers areas other than the urban areas.”

#### 4. What is the primary source of energy for cooking in the last 30 days?

According to p. C–11 of the *Manual*, the *primary source of energy for cooking* is that “used by the household for cooking . . . during the last 30 days. . . . If more than one type of energy is used, the primary or principal one on the basis of its extent of use will have to be identified.”

According to p. C–45 of the *Manual*, coal briquettes should be counted under “coke or coal”.

5. Does the household possess any casseroles, thermos, or thermoware?

According to p. C-39 of the *Manual*, “out-of-order and likely-to-be-discarded items are to be left out of consideration. But items currently out-of-order which are likely to be put into use after repair are to be considered as ‘possessed’.”

The *Manual* provides no additional information about this item.

6. Does the household possess a television and a VCR/VCD/DVD player?

According to p. C-39 of the *Manual*, “out-of-order and likely-to-be-discarded items are to be left out of consideration. But items currently out-of-order which are likely to be put into use after repair are to be considered as ‘possessed’.”

The *Manual* provides no additional information about this item.

7. Does the household possess a mobile handset and a telephone instrument (landline)?

According to p. C-39 of the *Manual*, “out-of-order and likely-to-be-discarded items are to be left out of consideration. But items currently out-of-order which are likely to be put into use after repair are to be considered as ‘possessed’.”

The *Manual* provides no additional information about this item.

8. Does the household possess a sewing machine?

According to p. C-39 of the *Manual*, “out-of-order and likely-to-be-discarded items are to be left out of consideration. But items currently out-of-order which are likely to be put into use after repair are to be considered as ‘possessed’.”

According to p. C-41 of the *Manual*, “machines used mainly for household-enterprise purposes will *not* be included here.”

9. Does the household possess an almirah/dressing table?

According to p. C-39 of the *Manual*, “out-of-order and likely-to-be-discarded items are to be left out of consideration. But items currently out-of-order which are likely to be put into use after repair are to be considered as ‘possessed’.”

According to p. C-40 of the *Manual*, full-size wardrobes count as “almirah/dressing tables”. Waist-high (usually wooden) almirahs are not to be counted.

10. Does the household possess a bicycle, motorcycle/scooter, or a motor car/jeep?

According to p. C-39 of the *Manual*, “out-of-order and likely-to-be-discarded items are to be left out of consideration. But items currently out-of-order which are likely to be put into use after repair are to be considered as ‘possessed’.”

The *Manual* provides no additional information about this item.

**Figure 1 (MRP): Sample sizes, poverty lines, and poverty rates by all-India, all-urban, and all-rural, and by type of sub-sample for both people and households for poverty statuses defined for MRP expenditure, R66**

Sub-sample	# households	Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)									
		Legacy R59			Legacy R62					R66	
		National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP					National Tendulkar
			\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
<b><u>All India</u></b>											
Poverty line	100,855	20.77	23.95	47.90	20.46	22.17	16.63	27.71	33.25	44.34	24.36
Poverty rate for people	100,855	19.1	31.4	80.0	17.3	25.5	8.4	44.3	59.1	76.5	31.4
Poverty rate for households	100,855	15.1	26.1	73.9	13.6	20.9	6.6	37.9	52.2	70.1	25.6
<b><u>All-urban poverty rates (%)</u></b>											
Poverty line	41,736	26.39	25.89	51.77	26.61	23.37	17.53	29.21	35.05	46.74	28.39
Poverty rate for people	41,736	16.5	15.3	58.0	16.7	10.7	3.2	22.3	33.6	51.6	20.4
Poverty rate for households	41,736	12.2	11.3	48.8	12.3	7.8	2.1	16.8	26.2	42.6	15.2
<b><u>All-rural poverty rates (%)</u></b>											
Poverty line	59,119	18.68	23.23	46.46	18.17	21.72	16.29	27.16	32.59	43.45	22.86
Poverty rate for people	59,119	20.1	37.3	88.1	17.5	31.0	10.4	52.5	68.6	85.7	35.5
Poverty rate for households	59,119	16.3	32.3	84.4	14.1	26.5	8.5	46.7	63.0	81.6	30.0
<b><u>Calibration: Associating scores with likelihoods</u></b>											
Poverty rate for people	53,219	19.0	31.3	80.1	17.2	25.2	8.4	44.3	59.3	76.5	31.3
Poverty rate for households	53,219	15.1	26.0	73.9	13.6	20.8	6.7	37.8	52.3	70.0	25.6
<b><u>Validation: Measuring accuracy</u></b>											
Poverty rate for people	53,599	19.2	31.5	79.9	17.3	25.8	8.4	44.3	58.9	76.5	31.5
Poverty rate for households	53,599	15.1	26.2	73.9	13.5	21.1	6.5	38.0	52.0	70.1	25.7

Source: R66 Socio-Economic Survey, consumer expenditure module type 1 (MRP expenditure). MRP-based poverty status is not used in the construction sample.

**Figure 1 (MMRP): Sample sizes, poverty lines, and poverty rates by all-India, all-urban, and all-rural, and by type of sub-sample for both people and households for poverty statuses defined for MMRP expenditure, R66**

Sub-sample	# households	Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)								
		R66								
		National Tendulkar			USAID	Intl. 2005 PPP			RBI	
		100%	150%	200%	'extreme'	\$1.25	\$1.88	\$2.50	Urban	Rural
<b>All India</b>										
Poverty line	100,794	24.36	36.55	48.73	20.44	29.29	44.05	58.58	329	164
Poverty rate for people	100,794	22.9	57.4	76.7	11.4	38.4	71.0	85.3	69.0	54.2
Poverty rate for households	100,794	18.4	49.7	69.6	8.8	31.8	63.5	79.5	74.2	63.6
<b>All-urban poverty rates (%)</b>										
Poverty line	41,697	28.40	42.60	56.80	23.57	34.09	51.27	68.17	329	—
Poverty rate for people	41,697	16.0	39.7	58.6	7.9	25.9	52.1	69.8	69.0	—
Poverty rate for households	41,697	11.6	31.4	49.2	5.6	19.6	42.9	60.8	74.2	—
<b>All-rural poverty rates (%)</b>										
Poverty line	59,097	22.86	34.29	45.72	19.28	27.50	41.36	55.00	—	164
Poverty rate for people	59,097	25.5	63.9	83.4	12.7	43.0	78.0	91.1	—	54.2
Poverty rate for households	59,097	21.3	57.4	78.1	10.1	36.9	72.1	87.4	—	63.6
<b>Construction and calibration: Selecting indicators and points, and associating scores with likelihoods</b>										
Poverty rate for people	N/A	23.0	57.5	76.6	11.3	38.7	70.8	85.1	68.9	54.2
Poverty rate for households	N/A	18.5	49.9	69.6	8.7	32.1	63.4	79.3	74.1	63.7
<b>Validation: Measuring accuracy</b>										
Poverty rate for people	N/A	22.8	57.2	76.7	11.5	38.0	71.1	85.5	69.0	54.3
Poverty rate for households	N/A	18.3	49.5	69.5	8.9	31.4	63.5	79.7	74.3	63.5

Source: R66 Socio-Economic Survey, consumer expenditure module type 1 (MMRP expenditure)

RBI poverty lines are per household per day.



**Figure 2: Poverty indicators by uncertainty coefficient**

<u>Uncertainty coefficient</u>	<u>Indicator (Answers ordered starting with those most strongly linked with higher poverty likelihoods)</u>
10,891	Does the household possess a mobile handset and a telephone instrument (landline)? (No, neither one; Yes, only a mobile; Yes, a landline, regardless of mobile)
9,731	Does the household possess a television and a VCR/VCD/DVD player? (No, neither one; Yes, only one; Yes, both)
9,476	Does the household possess a mobile handset? (No; Yes)
8,586	Does the household possess a television? (No; Yes)
8,501	How many family members are 18-years-old or younger? (Five or more; Four; Three; Two; One; None)
8,501	How many family members are 16-years-old or younger? (Four or more; Three; Two; One; None)
8,403	How many family members are 17-years-old or younger? (Four or more; Three; Two; One; None)
8,281	How many family members are 15-years-old or younger? (Four or more; Three; Two; One; None)
8,246	How many family members are 14-years-old or younger? (Four or more; Three; Two; One; None)
8,080	What is the primary source of energy for cooking in the last 30 days? (Firewood and chips, dung cake, kerosene, charcoal, coke or coal, gobar gas, or others; LPG or electricity; No cooking arrangement)
8,047	How many family members are 13-years-old or younger? (Four or more; Three; Two; One; None)
7,996	How many family members are 12-years-old or younger? (Four or more; Three; Two; One; None)
7,939	Does the household possess a bedstead and an almirah/dressing table? (No, neither one; Only a bedstead, but no almirah; Only an almirah, but no bedstead; Both a bedstead and an almirah)
7,887	Does the household possess an almirah/dressing table? (No; Yes)
7,881	Does the household possess a pressure cooker/pressure pan and any casseroles, thermos, or thermoware? (No, none; Yes, only a pressure cooker/pressure pan or only a casserole, thermos, or thermoware; Yes, both types)

**Figure 2 (cont.): Poverty indicators by uncertainty coefficient**

<u>Uncertainty coefficient</u>	<u>Indicator (Answers ordered starting with those most strongly linked with higher poverty likelihoods)</u>
7,700	Does the household possess an electric fan? (No; Yes)
7,388	What is the household's principal occupation? (Elementary occupations (agricultural, fishery, and related labourers); Elementary occupations (labourers in mining, construction, manufacturing, and transport), or in elementary occupations (sales and services); Skilled agricultural and fishery workers (subsistence agricultural and fishery workers), craft and related trades workers (extraction and building trades workers), or craft and related trades workers (metal, machinery, and related trades workers); Workers not classified by occupations (new workers seeking employment, workers reporting occupations unidentifiable or inadequately described, or workers not reporting any occupations), or service workers and shop and market sales workers (personal and protective service workers); Plant and machine operators and assemblers (stationary plant and related operators), skilled agricultural and fishery workers (market-oriented skilled agricultural and fishery workers), or legislators, senior officials, and managers (corporate managers); Professionals, technicians, associate professionals, and clerks))
7,171	How many family members are 11-years-old or younger? (Four or more; Three; Two; One; None)
6,882	How many family member are there? (Eight or more; Seven; Six; Five; Four; Three; Two; One)
6,637	What is the general education level of the female head/spouse? (Not literate; No female head/spouse; Literate without formal schooling through EGS/NFEC/AEC, TLC, or others, or literate with formal schooling, below primary; Primary; Middle, secondary, or higher secondary; Higher than higher secondary)

**Figure 2 (cont.): Poverty indicators by uncertainty coefficient**

<u>Uncertainty coefficient</u>	<u>Indicator (Answers ordered starting with those most strongly linked with higher poverty likelihoods)</u>
6,432	Does the household possess a bicycle, motorcycle/scooter, or a motor car/jeep? (No, none; Yes, bicycle only, no motorcycle/scooter, or car; Motorcycle/scooter, but no car (regardless of bicycle); Motor car/jeep (regardless of others))
6,398	What is the general education level of the male head/spouse? (No male head/spouse; Not literate, no formal school, or primary or below; Middle; Secondary or higher secondary; Diploma/certificate course, graduate, or post-graduate and above)
6,159	What is the household type? (Labour (agricultural, casual, or other); Self-employed (agriculture or non-agriculture), regular wage/salary-earning, or others)
6,012	Does the household possess a motorcycle/scooter? (No; Yes)
5,847	Does the household possess a pressure cooker/pressure pan? (No; Yes)
5,784	Does the household possess a refrigerator? (No; Yes)
5,510	What is the household's primary source of energy for lighting? (Something other than electricity; Electricity)
5,104	Does the household possess a chair, stool, bench, or table? (No; Yes)

**Figure 2 (cont.): Poverty indicators by uncertainty coefficient**

<u>Uncertainty coefficient</u>	<u>Indicator (Answers ordered starting with those most strongly linked with higher poverty likelihoods)</u>
4,810	How many family members are 6-years-old or younger? (Three or more Two; One; None)
4,616	Does the household possess any casseroles, thermos, or thermoware? (No; Yes)
4,407	What is the household's principal industry? (Income from non-economic activities only, (e.g. for a beggar/prostitute/pensioner household), or activities of private households as employers and undifferentiated production activities of private households; Construction; Other community, social and personal service activities; Manufacturing; Agriculture, hunting and forestry; Transport, storage and communications, wholesale and retail trade, or repair of motor vehicles, motorcycles and personal and household goods; Fishing, mining and quarrying, electricity, gas and water supply, or hotels and restaurants; Financial intermediation, real estate, renting and business activities, public administration and defense, compulsory social security, education, health and social work, or extraterritorial organizations and bodies)
4,393	Does the household possess a VCR/VCD/DVD player? (No; Yes)
4,390	Does the household possess a stove? (No; Yes)
4,006	Does the household possess a radio or 2-in-1, and a CD, DVD, audio-video cassette, etc.? (No, neither one; Only radio or 2-in-1, no CD, DVD, audio-video cassette, etc.; Only CD, DVD, audio-video cassette, etc., no radio or 2-in-1; Both radio or 2-in-1, and CD, DVD, audio-video cassette, etc.)
3,812	What is the social group of the household? (Scheduled tribe; Scheduled class, or other backward class; Other)
3,738	Does the household possess a CD, DVD, audio-video cassette, etc.? (No; Yes)
3,373	Does the household possess a clock or watch? (No; Yes)
3,134	Is any member of the household a regular salary earner? (No; Yes)
2,657	Does the household possess a washing machine? (No; Yes)

**Figure 2 (cont.): Poverty indicators by uncertainty coefficient**

<u>Uncertainty coefficient</u>	<u>Indicator (Answers ordered starting with those most strongly linked with higher poverty likelihoods)</u>
2,479	Does the household possess a telephone instrument (landline)? (No; Yes)
2,425	How many hectares of land does the household own, cultivate, and/or irrigate? (No land owned; Land owned, at least some cultivated, but none irrigated (0.001 to 0.999 hectares); Land owned, but none cultivated (0.001 to 0.019 hectares); Land owned, but none cultivated (0.020 or more hectares); Land owned, at least some cultivated, but none irrigated (1.000 to 1.499 hectares); Land owned, at least some cultivated, and at least some irrigated (0.001 to 0.199 hectares); Land owned, at least some cultivated, and at least some irrigated (0.200 to 0.799 hectares); Land owned, at least some cultivated, but none irrigated (2.000 or more); Land owned, at least some cultivated, and at least some irrigated (0.800 or more hectares))
2,225	What is the tenancy status of the household in its dwelling unit? (Others; Owned; Hired, or no dwelling unit)
2,188	Does the household possess an air conditioner or air cooler? (No; Yes)
2,098	Does the household possess a camera and photographic equipment? (No; Yes)
2,053	How many hectares of land does the household possess (owned, leased-in, or otherwise possessed [neither owned nor leased-in])? (0.001 to 0.007; 0.008 to 0.029; 0.030 to 0.799; None; 0.800 to 1.499; 1.500 or more)
1,984	Does the household possess a sewing machine? (No; Yes)
1,846	Does the household possess a water purifier? (No; Yes)
1,284	Does the household own any land, and if so, is any of it cultivated or irrigated? (Land owned, but none cultivated or irrigated; Land owned, at least some cultivated, but none irrigated; No land owned; Land owned, at least some cultivated, and at least some irrigated)
1,087	Does the household possess a PC/laptop or other peripherals including software? (No; Yes)
1,036	Does the household possess a motor car or jeep? (No; Yes)
1,013	Does the household own any land? (Yes; No)

**Figure 2 (cont.): Poverty indicators by uncertainty coefficient**

<u>Uncertainty coefficient</u>	<u>Indicator (Answers ordered starting with those most strongly linked with higher poverty likelihoods)</u>
844	How many hectares of land does the household cultivate? (None; 0.001 to 0.299; 0.300 to 0.999; 1.000 to 1.499; 1.500 or more)
820	Does the household possess a musical instrument? (No; Yes)
786	What is the age of the female head/spouse? (No female head/spouse; 25 or younger; 26 to 30; 31 to 35; 36 to 40; 41 to 45; 46 to 50; 51 to 55; 56 to 60; 61 to 65; 66 or older)
761	How many hectares of irrigated land does the household possess? (0.001 to 0.007; 0.008 to 0.015; 0.016 to 0.029; 0.030 to 0.799; None; 0.800 to 0.999; 1.000 to 1.499; 1.500 to 1.999; 2.000 to 3.999; 4.000 or more)
707	What is the marital status of the male head/spouse? (No male head/spouse; Widowed; Currently married; Never-married, or divorced/separated)
474	ass_radio Does the household possess a radio or 2-in-1?
435	What is the marital status of the female head/spouse? (Never-married; Widowed, or divorced/separated; Currently married; No female head/spouse)
421	What is the structure of household headship? (Female head/spouse only; Both male and female heads/spouses; Male head/spouse only)
399	What is the household's religion? (Hinduism; Islam, Buddhism, or others; Christianity, Sikhism, Jainism, or Zoroastrianism)
372	What is the age of the male head/spouse? (No male head/spouse; 25 or younger; 26 to 30; 31 to 35; 36 to 40; 41 to 45; 46 to 50; 51 to 55; 56 to 60; 61 to 65; 66 or older)
365	Does the household possess a bedstead? (No; Yes)
299	How many hectares of uncultivated land does the household possess? (0.001 to 0.009; 0.010 to 0.019; 0.020 or more; None, or cultivates)
30	Does the household possess a bicycle? (No; Yes)
2	Does the household possess any stainless steel utensils? (No; Yes)

Source: R66 consumer-expenditure survey and the national (Tendulkar MMRP) poverty line

**Tables for  
the National (Tendulkar MMRP) Poverty Line**

**(and tables pertaining to  
the other eight MMRP poverty lines  
and the nine MRP poverty lines)**

**Figure 3 (National Tendulkar MMRP line): Estimated poverty likelihoods associated with scores**

If a household's score is . . .	. . . then the likelihood (%) of being below the poverty line is:
0-4	73.7
5-9	63.5
10-14	53.5
15-19	38.0
20-24	25.9
25-29	21.9
30-34	14.6
35-39	9.4
40-44	6.5
45-49	3.6
50-54	2.0
55-59	1.1
60-64	0.5
65-69	0.2
70-74	0.2
75-79	0.0
80-84	0.0
85-89	0.0
90-94	0.0
95-100	0.0



**Figure 4 (National Tendulkar MMRP line): Derivation of estimated poverty likelihoods associated with scores**

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0-4	1,282	÷	1,740	=	73.7
5-9	2,396	÷	3,776	=	63.5
10-14	3,369	÷	6,295	=	53.5
15-19	3,229	÷	8,503	=	38.0
20-24	2,112	÷	8,161	=	25.9
25-29	2,208	÷	10,067	=	21.9
30-34	1,645	÷	11,300	=	14.6
35-39	850	÷	9,082	=	9.4
40-44	537	÷	8,333	=	6.5
45-49	245	÷	6,817	=	3.6
50-54	120	÷	6,027	=	2.0
55-59	59	÷	5,189	=	1.1
60-64	24	÷	4,371	=	0.5
65-69	7	÷	3,239	=	0.2
70-74	6	÷	2,503	=	0.2
75-79	0	÷	2,081	=	0.0
80-84	0	÷	1,315	=	0.0
85-89	0	÷	797	=	0.0
90-94	0	÷	405	=	0.0
95-100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.

**Figure 5: Distribution of household poverty likelihoods across expenditure ranges demarcated by poverty lines per person per day (R66 MMRP poverty lines)**

Likelihood of having expenditure in ranges demarcated by MMRP poverty lines per person per day								
	<b>&lt;USAID</b>	<b>=&gt;USAID</b>	<b>=&gt;100% Natl.</b>	<b>=&gt;\$1.25/day</b>	<b>=&gt;150% Natl.</b>	<b>=&gt;\$1.88/day</b>	<b>=&gt;200% Natl.</b>	<b>=&gt;\$2.50/day</b>
		<b>and</b>	<b>and</b>	<b>and</b>	<b>and</b>	<b>and</b>	<b>and</b>	
	<b>&lt;100% Natl.</b>	<b>&lt;\$1.25/day</b>	<b>&lt;150% Natl.</b>	<b>&lt;\$1.88/day</b>	<b>&lt;200% Natl.</b>	<b>&lt;\$2.50/day</b>		
	<b>=&gt;Rs20.44</b>	<b>=&gt;Rs24.36</b>	<b>=&gt;Rs29.29</b>	<b>=&gt;Rs36.55</b>	<b>=&gt;Rs44.05</b>	<b>=&gt;Rs48.73</b>		
<b>Score</b>	<b>&lt;Rs20.44</b>	<b>and</b>	<b>and</b>	<b>and</b>	<b>and</b>	<b>and</b>	<b>and</b>	<b>=&gt;Rs58.58</b>
	<b>&lt;Rs24.36</b>	<b>&lt;Rs29.29</b>	<b>&lt;Rs36.55</b>	<b>&lt;Rs44.05</b>	<b>&lt;Rs48.73</b>	<b>&lt;Rs58.58</b>		
0-4	47.6	26.1	18.3	7.0	0.8	0.2	0.1	0.0
5-9	36.1	27.4	20.2	11.2	4.0	0.8	0.4	0.0
10-14	28.1	25.4	23.2	14.8	5.3	1.3	1.6	0.3
15-19	18.9	19.1	24.0	21.5	9.9	2.6	3.1	0.9
20-24	11.1	14.8	23.8	26.2	13.6	3.5	5.1	1.9
25-29	8.2	13.7	19.8	26.6	16.4	5.4	6.1	3.7
30-34	5.9	8.7	15.9	24.6	19.7	6.9	10.0	8.3
35-39	3.4	6.0	12.4	24.6	19.1	8.2	12.6	13.7
40-44	2.0	4.4	9.5	21.7	19.7	9.6	13.8	19.3
45-49	1.0	2.6	7.2	16.9	19.9	10.0	16.0	26.4
50-54	0.5	1.5	4.4	13.5	14.8	10.9	18.7	35.8
55-59	0.2	1.0	2.6	9.5	14.1	9.4	18.5	44.8
60-64	0.1	0.5	2.1	8.2	12.1	8.1	16.2	52.8
65-69	0.0	0.2	1.4	5.1	8.6	8.2	16.7	59.9
70-74	0.0	0.2	0.5	3.2	6.7	5.5	14.9	69.0
75-79	0.0	0.0	0.4	1.0	5.5	4.0	12.0	77.0
80-84	0.0	0.0	0.4	1.1	2.9	2.3	8.8	84.5
85-89	0.0	0.0	0.0	0.4	1.5	0.7	5.8	91.6
90-94	0.0	0.0	0.0	0.1	0.6	0.4	1.2	97.7
95-100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Note: All poverty likelihoods in percentage units. The RBI lines are omitted because they are not sensible, comparable poverty lines.

**Figure 6 (National Tendulkar MMRP line):**

**Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample ( $n = 16,384$ ) with confidence intervals, scorecard applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	-1.6	4.7	5.6	6.8
5-9	+3.0	3.7	4.3	5.5
10-14	+1.1	2.9	3.5	4.5
15-19	-0.4	2.5	3.0	3.9
20-24	+1.6	2.1	2.5	3.6
25-29	+1.3	1.9	2.2	2.8
30-34	+0.6	1.5	1.8	2.5
35-39	+0.5	1.4	1.7	2.1
40-44	+0.5	1.2	1.4	1.9
45-49	-0.6	1.1	1.4	1.8
50-54	+0.1	0.8	1.1	1.4
55-59	+0.4	0.5	0.6	0.8
60-64	+0.4	0.1	0.1	0.2
65-69	-0.3	0.7	0.8	0.9
70-74	+0.2	0.2	0.2	0.3
75-79	-0.1	0.1	0.2	0.2
80-84	-0.6	0.9	1.1	1.5
85-89	+0.0	0.0	0.0	0.0
90-94	+0.0	0.0	0.0	0.0
95-100	+0.0	0.0	0.0	0.0

**Figure 7 (National Tendulkar MMRP line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	+0.0	61.9	69.5	78.5
4	+0.2	33.7	39.2	49.5
8	+0.2	24.4	29.0	36.6
16	+0.3	16.5	20.2	27.3
32	+0.5	12.2	14.3	18.9
64	+0.8	8.4	9.9	13.9
128	+0.6	5.9	6.8	9.1
256	+0.7	4.0	4.8	6.2
512	+0.7	2.8	3.2	4.7
1,024	+0.6	2.1	2.5	3.1
2,048	+0.6	1.5	1.8	2.3
4,096	+0.6	1.0	1.2	1.6
8,192	+0.6	0.8	0.9	1.1
16,384	+0.6	0.5	0.6	0.8

**Figure 8 (MRP poverty statuses): Differences, precision of differences, and the  $\alpha$  factor for bootstrapped estimates of poverty rates for groups of households at a point in time, scorecard applied to the validation sample with MRP expenditure**

	Poverty line										
	Legacy R59			Legacy R62							R66
	National	Intl. 1993 PPP		National	Intl. 1993 PPP					National	
	Saxena	\$1.08	\$2.16	Saxena	\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	Tendulkar	
<b><u>Estimate minus true value</u></b>											
Scorecard applied to validation sample	+0.8	-0.4	+0.4	+1.1	-0.6	+0.2	-0.8	-0.1	-0.0	+0.5	
<b><u>Precision of difference</u></b>											
Scorecard applied to validation sample	0.5	0.6	0.5	0.5	0.6	0.4	0.6	0.6	0.5	0.6	
<b><u><math>\alpha</math> factor for standard errors</u></b>											
Scorecard applied to validation sample	1.05	1.01	0.86	1.04	1.05	1.14	0.96	0.89	0.84	1.00	
Precision is measured as 90-percent confidence intervals in units of +/- percentage points.											
Differences and precision estimated from 1,000 bootstraps of size $n = 16,384$ .											
$\alpha$ is estimated from 1,000 bootstrap samples of $n = 256, 512, 1,024, 2,048, 4,096, 8,192, \text{ and } 16,384$ .											

**Figure 8 (MMRP poverty statuses): Differences, precision of differences, and the  $\alpha$  factor for bootstrapped estimates of poverty rates for groups of households at a point in time, scorecard applied to the validation sample with MMRP expenditure**

		Poverty line									
		R66									
		National Tendulkar			USAID	Intl. 2005 PPP			RBI		
		100%	150%	200%	'extreme'	\$1.25	\$1.88	\$2.50	Urban	Rural	
<b>Estimate minus true value</b>											
Scorecard applied to validation sample		+0.6	+0.6	+0.7	+0.4	+0.5	+0.5	+0.7	+1.0	-1.5	
<b>Precision of difference</b>											
Scorecard applied to validation sample		0.5	0.6	0.5	0.4	0.6	0.5	0.5	0.6	0.7	
<b><math>\alpha</math> factor for standard errors</b>											
Scorecard applied to validation sample		1.06	0.95	0.92	1.08	1.01	0.91	0.91	1.15	0.96	
Precision is measured as 90-percent confidence intervals in units of +/- percentage points.											
Differences and precision estimated from 1,000 bootstraps of size $n = 16,384$ .											
$\alpha$ is estimated from 1,000 bootstrap samples of $n = 256, 512, 1,024, 2,048, 4,096, 8,192, \text{ and } 16,384$ .											

**Figure 9 (All poverty lines): Possible types of outcomes from targeting by poverty score**

		<u>Targeting segment</u>	
		<u>Targeted</u>	<u>Non-targeted</u>
<u>True poverty status</u>	<u>Below poverty line</u>	<u>Inclusion</u> Under poverty line Correctly Targeted	<u>Undercoverage</u> Under poverty line Mistakenly Non-targeted
	<u>Above poverty line</u>	<u>Leakage</u> Above poverty line Mistakenly Targeted	<u>Exclusion</u> Above poverty line Correctly Non-targeted

**Figure 10 (National Tendulkar MMRP line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	<u>Inclusion:</u>	<u>Undercoverage:</u>	<u>Leakage:</u>	<u>Exclusion:</u>	<u>Total Accuracy</u>	<u>BPAC</u>
	< poverty line correctly targeted	< poverty line mistakenly non-targeted	=> poverty line mistakenly targeted	=> poverty line non-targeted	Inclusion + Exclusion	See text
0-4	1.3	17.1	0.4	81.2	82.5	-83.4
5-9	3.7	14.8	1.8	79.7	83.4	-50.1
10-14	7.0	11.4	4.8	76.8	83.8	+2.3
15-19	10.4	8.0	9.9	71.7	82.1	+46.4
20-24	12.6	5.9	15.9	65.7	78.2	+13.6
25-29	14.7	3.7	23.8	57.7	72.4	-29.4
30-34	16.4	2.0	33.4	48.2	64.6	-81.4
35-39	17.3	1.1	41.6	40.0	57.3	-125.8
40-44	17.9	0.5	49.4	32.2	50.1	-168.0
45-49	18.2	0.2	55.9	25.7	43.9	-203.3
50-54	18.3	0.1	61.8	19.8	38.1	-235.3
55-59	18.4	0.0	66.9	14.7	33.0	-263.2
60-64	18.4	0.0	71.3	10.3	28.7	-286.9
65-69	18.4	0.0	74.5	7.1	25.5	-304.4
70-74	18.4	0.0	77.0	4.6	23.0	-317.9
75-79	18.4	0.0	79.1	2.5	20.9	-329.2
80-84	18.4	0.0	80.4	1.2	19.6	-336.3
85-89	18.4	0.0	81.2	0.4	18.8	-340.6
90-94	18.4	0.0	81.6	0.0	18.4	-342.8
95-100	18.4	0.0	81.6	0.0	18.4	-342.8

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.



**Figure 11 (National Tendulkar MMRP line):** For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0-4	1.7	76.1	7.2	3.2:1
5-9	5.5	66.5	19.9	2.0:1
10-14	11.8	59.5	38.1	1.5:1
15-19	20.3	51.4	56.7	1.1:1
20-24	28.5	44.1	68.1	0.8:1
25-29	38.5	38.1	79.8	0.6:1
30-34	49.8	33.0	89.2	0.5:1
35-39	58.9	29.4	94.0	0.4:1
40-44	67.3	26.6	97.1	0.4:1
45-49	74.1	24.6	98.8	0.3:1
50-54	80.1	22.9	99.5	0.3:1
55-59	85.3	21.6	99.8	0.3:1
60-64	89.7	20.5	99.8	0.3:1
65-69	92.9	19.8	99.9	0.2:1
70-74	95.4	19.3	100.0	0.2:1
75-79	97.5	18.9	100.0	0.2:1
80-84	98.8	18.6	100.0	0.2:1
85-89	99.6	18.5	100.0	0.2:1
90-94	100.0	18.4	100.0	0.2:1
95-100	100.0	18.4	100.0	0.2:1

**Tables for  
150% of the National (Tendulkar MMRP) Poverty Line**

**Figure 3 (150% of the national Tendulkar MMRP line):  
 Estimated poverty likelihoods associated with scores**

If a household's score is . . .	. . . then the likelihood (%) of being below the poverty line is:
0-4	99.0
5-9	94.8
10-14	91.5
15-19	83.5
20-24	75.9
25-29	68.4
30-34	55.1
35-39	46.4
40-44	37.7
45-49	27.7
50-54	19.8
55-59	13.2
60-64	10.8
65-69	6.7
70-74	3.9
75-79	1.5
80-84	1.5
85-89	0.4
90-94	0.1
95-100	0.0

**Figure 4 (150% of the national Tendulkar MMRP line):  
Derivation of estimated poverty likelihoods  
associated with scores**

<b>Score</b>	<b>Households below poverty line</b>		<b>All households at score</b>		<b>Poverty likelihood (estimated, %)</b>
0-4	1,722	÷	1,740	=	99.0
5-9	3,580	÷	3,776	=	94.8
10-14	5,761	÷	6,295	=	91.5
15-19	7,099	÷	8,503	=	83.5
20-24	6,194	÷	8,161	=	75.9
25-29	6,882	÷	10,067	=	68.4
30-34	6,220	÷	11,300	=	55.1
35-39	4,217	÷	9,082	=	46.4
40-44	3,138	÷	8,333	=	37.7
45-49	1,888	÷	6,817	=	27.7
50-54	1,196	÷	6,027	=	19.8
55-59	686	÷	5,189	=	13.2
60-64	473	÷	4,371	=	10.8
65-69	216	÷	3,239	=	6.7
70-74	98	÷	2,503	=	3.9
75-79	31	÷	2,081	=	1.5
80-84	19	÷	1,315	=	1.5
85-89	3	÷	797	=	0.4
90-94	0	÷	405	=	0.1
95-100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.

**Figure 6 (150% of the national Tendulkar MMRP line):  
 Bootstrapped differences between estimated and true  
 poverty likelihoods for households in a large sample  
 ( $n = 16,384$ ) with confidence intervals, scorecard  
 applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	+0.2	1.1	1.3	1.5
5-9	+2.8	2.0	2.4	3.1
10-14	+1.9	1.7	2.0	2.7
15-19	-2.9	2.3	2.4	2.8
20-24	+0.8	2.2	2.5	3.3
25-29	+1.6	2.2	2.5	3.1
30-34	-1.8	2.2	2.7	3.5
35-39	+1.9	2.5	3.0	3.8
40-44	-0.4	2.5	3.1	4.0
45-49	+2.9	2.5	2.9	3.6
50-54	+0.9	2.5	2.9	3.6
55-59	+1.8	2.0	2.3	3.1
60-64	+3.0	1.9	2.2	3.1
65-69	+0.5	2.1	2.5	3.2
70-74	-0.2	1.7	2.0	2.6
75-79	+0.7	0.6	0.7	1.0
80-84	+0.1	1.5	1.7	2.1
85-89	+0.2	0.4	0.5	0.6
90-94	+0.1	0.0	0.0	0.0
95-100	+0.0	0.0	0.0	0.0

**Figure 7 (150% of the national Tendulkar MMRP line):  
Differences and precision of differences for  
bootstrapped estimates of poverty rates for groups of  
households at a point in time, by sample size,  
scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	+0.1	65.4	78.0	91.4
4	+0.9	38.9	45.6	61.8
8	+1.0	26.3	31.4	40.7
16	+0.4	18.8	23.1	31.3
32	+0.4	13.7	16.3	20.7
64	+0.6	9.1	11.4	15.1
128	+0.8	6.9	8.2	10.6
256	+0.7	4.9	5.9	7.9
512	+0.6	3.3	3.9	5.1
1,024	+0.6	2.4	2.9	3.7
2,048	+0.6	1.8	2.0	2.5
4,096	+0.6	1.2	1.4	1.8
8,192	+0.6	0.9	1.0	1.3
16,384	+0.6	0.6	0.7	0.9

**Figure 10 (150% of the national Tendulkar MMRP line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	Inclusion:	Undercoverage:	Leakage:	Exclusion:	Total Accuracy	BPAC
	< poverty line correctly targeted	< poverty line mistakenly non-targeted	=> poverty line mistakenly targeted	=> poverty line non-targeted	Inclusion + Exclusion	See text
0-4	1.7	48.1	0.0	50.2	51.9	-93.1
5-9	5.2	44.6	0.3	49.9	55.1	-78.4
10-14	10.9	38.9	0.9	49.3	60.2	-54.4
15-19	18.3	31.6	2.1	48.1	66.4	-22.6
20-24	24.5	25.3	4.0	46.2	70.7	+6.3
25-29	31.3	18.5	7.2	43.0	74.3	+40.2
30-34	37.8	12.0	12.1	38.1	75.9	+75.8
35-39	42.1	7.7	16.8	33.4	75.4	+66.2
40-44	45.3	4.5	22.0	28.2	73.5	+55.9
45-49	47.1	2.7	27.0	23.2	70.4	+45.9
50-54	48.3	1.5	31.8	18.4	66.7	+36.2
55-59	49.0	0.8	36.3	13.9	62.9	+27.2
60-64	49.4	0.4	40.2	10.0	59.4	+19.2
65-69	49.6	0.2	43.3	6.9	56.6	+13.1
70-74	49.7	0.1	45.7	4.5	54.3	+8.3
75-79	49.8	0.0	47.7	2.5	52.3	+4.2
80-84	49.8	0.0	49.0	1.2	51.0	+1.6
85-89	49.8	0.0	49.8	0.4	50.2	+0.0
90-94	49.8	0.0	50.2	0.0	49.8	-0.8
95-100	49.8	0.0	50.2	0.0	49.8	-0.8

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.

**Figure 11 (150% of the national Tendulkar MMRP line): For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample**

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0-4	1.7	98.3	3.4	58.0:1
5-9	5.5	94.6	10.5	17.7:1
10-14	11.8	92.2	21.9	11.9:1
15-19	20.3	89.8	36.6	8.8:1
20-24	28.5	85.9	49.1	6.1:1
25-29	38.5	81.2	62.8	4.3:1
30-34	49.8	75.8	75.9	3.1:1
35-39	58.9	71.4	84.5	2.5:1
40-44	67.3	67.3	90.9	2.1:1
45-49	74.1	63.6	94.6	1.7:1
50-54	80.1	60.3	97.0	1.5:1
55-59	85.3	57.5	98.4	1.4:1
60-64	89.7	55.1	99.2	1.2:1
65-69	92.9	53.4	99.6	1.1:1
70-74	95.4	52.1	99.9	1.1:1
75-79	97.5	51.1	100.0	1.0:1
80-84	98.8	50.4	100.0	1.0:1
85-89	99.6	50.0	100.0	1.0:1
90-94	100.0	49.8	100.0	1.0:1
95-100	100.0	49.8	100.0	1.0:1



**Tables for  
200% of the National (Tendulkar MMRP) Poverty Line**

**Figure 3 (200% of the national Tendulkar MMRP line):  
 Estimated poverty likelihoods associated with scores**

If a household's score is . . .	. . . then the likelihood (%) of being below the poverty line is:
0-4	99.9
5-9	99.6
10-14	98.1
15-19	96.0
20-24	93.0
25-29	90.2
30-34	81.7
35-39	73.7
40-44	66.9
45-49	57.7
50-54	45.5
55-59	36.7
60-64	31.0
65-69	23.5
70-74	16.1
75-79	11.0
80-84	6.7
85-89	2.6
90-94	1.1
95-100	0.0

**Figure 4 (200% of the national Tendulkar MMRP line):  
Derivation of estimated poverty likelihoods  
associated with scores**

Score	Households below poverty line		All households at score	=	Poverty likelihood (estimated, %)
0-4	1,738	÷	1,740	=	99.9
5-9	3,761	÷	3,776	=	99.6
10-14	6,176	÷	6,295	=	98.1
15-19	8,163	÷	8,503	=	96.0
20-24	7,590	÷	8,161	=	93.0
25-29	9,077	÷	10,067	=	90.2
30-34	9,226	÷	11,300	=	81.7
35-39	6,689	÷	9,082	=	73.7
40-44	5,576	÷	8,333	=	66.9
45-49	3,931	÷	6,817	=	57.7
50-54	2,742	÷	6,027	=	45.5
55-59	1,904	÷	5,189	=	36.7
60-64	1,355	÷	4,371	=	31.0
65-69	761	÷	3,239	=	23.5
70-74	403	÷	2,503	=	16.1
75-79	229	÷	2,081	=	11.0
80-84	88	÷	1,315	=	6.7
85-89	21	÷	797	=	2.6
90-94	5	÷	405	=	1.1
95-100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.

**Figure 6 (200% of the national Tendulkar MMRP line):  
 Bootstrapped differences between estimated and true  
 poverty likelihoods for households in a large sample  
 ( $n = 16,384$ ) with confidence intervals, scorecard  
 applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	-0.1	0.1	0.1	0.1
5-9	+1.6	1.1	1.3	1.7
10-14	-0.5	0.7	0.8	1.0
15-19	-0.6	0.9	1.0	1.4
20-24	+1.5	1.5	1.8	2.3
25-29	+1.8	1.5	1.8	2.3
30-34	-0.3	1.7	2.0	2.6
35-39	+0.6	2.2	2.7	3.5
40-44	+0.7	2.4	2.8	3.7
45-49	+3.7	2.8	3.5	4.2
50-54	-2.6	3.2	3.7	4.9
55-59	+2.5	3.2	3.8	5.1
60-64	+2.1	3.2	4.0	4.9
65-69	+1.1	3.8	4.4	5.9
70-74	+0.0	3.6	4.3	5.4
75-79	+3.1	2.8	3.4	4.4
80-84	-0.7	3.3	3.9	5.4
85-89	+0.1	2.3	2.8	3.5
90-94	+1.0	0.3	0.4	0.5
95-100	+0.0	0.0	0.0	0.0

**Figure 7 (200% of the national Tendulkar MMRP line):  
Differences and precision of differences for  
bootstrapped estimates of poverty rates for groups of  
households at a point in time, by sample size,  
scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	-2.1	68.5	79.6	90.0
4	+0.6	34.0	41.4	51.8
8	+0.6	24.6	28.7	36.9
16	+0.4	16.8	20.5	28.8
32	+0.2	12.0	14.2	19.6
64	+0.6	8.1	10.1	13.3
128	+0.6	6.1	7.2	9.7
256	+0.7	4.3	5.0	6.4
512	+0.7	3.2	3.7	4.7
1,024	+0.6	2.2	2.5	3.4
2,048	+0.7	1.5	1.8	2.4
4,096	+0.7	1.1	1.4	1.8
8,192	+0.7	0.8	0.9	1.2
16,384	+0.7	0.5	0.6	0.8

**Figure 10 (200% of the national Tendulkar MMRP line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	Inclusion:	Undercoverage:	Leakage:	Exclusion:	Total Accuracy	BPAC
	< poverty line correctly targeted	< poverty line mistakenly non-targeted	=> poverty line mistakenly targeted	=> poverty line correctly non-targeted	Inclusion + Exclusion	See text
0-4	1.7	67.9	0.0	30.4	32.1	-95.0
5-9	5.5	64.2	0.1	30.3	35.8	-84.2
10-14	11.7	58.0	0.2	30.2	41.9	-66.3
15-19	19.9	49.7	0.4	30.0	49.8	-42.3
20-24	27.4	42.2	1.1	29.3	56.7	-19.7
25-29	36.3	33.3	2.2	28.2	64.5	+7.5
30-34	45.7	24.0	4.2	26.2	71.8	+37.2
35-39	52.5	17.1	6.4	23.9	76.4	+60.0
40-44	58.1	11.6	9.2	21.2	79.3	+80.0
45-49	61.9	7.7	12.2	18.2	80.1	+82.5
50-54	64.8	4.8	15.3	15.1	79.9	+78.1
55-59	66.8	2.8	18.5	11.9	78.7	+73.4
60-64	68.1	1.5	21.5	8.9	77.0	+69.1
65-69	68.9	0.8	24.0	6.3	75.2	+65.5
70-74	69.3	0.3	26.1	4.3	73.6	+62.5
75-79	69.5	0.1	28.0	2.4	71.9	+59.8
80-84	69.6	0.0	29.2	1.2	70.8	+58.0
85-89	69.6	0.0	30.0	0.4	70.0	+56.9
90-94	69.6	0.0	30.4	0.0	69.6	+56.4
95-100	69.6	0.0	30.4	0.0	69.6	+56.4

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.

**Figure 11 (200% of the national Tendulkar MMRP line): For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample**

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0-4	1.7	99.9	2.5	896.5:1
5-9	5.5	98.8	7.8	85.0:1
10-14	11.8	98.7	16.7	76.0:1
15-19	20.3	97.9	28.6	46.5:1
20-24	28.5	96.3	39.4	25.7:1
25-29	38.5	94.2	52.2	16.4:1
30-34	49.8	91.6	65.6	10.9:1
35-39	58.9	89.1	75.4	8.1:1
40-44	67.3	86.3	83.4	6.3:1
45-49	74.1	83.6	88.9	5.1:1
50-54	80.1	80.9	93.1	4.2:1
55-59	85.3	78.3	95.9	3.6:1
60-64	89.7	76.0	97.9	3.2:1
65-69	92.9	74.1	98.9	2.9:1
70-74	95.4	72.6	99.5	2.7:1
75-79	97.5	71.3	99.8	2.5:1
80-84	98.8	70.4	100.0	2.4:1
85-89	99.6	69.9	100.0	2.3:1
90-94	100.0	69.6	100.0	2.3:1
95-100	100.0	69.6	100.0	2.3:1

**Tables for  
the USAID “Extreme” MMRP Poverty Line**



**Figure 3 (USAID “extreme” MMRP line): Estimated poverty likelihoods associated with scores**

If a household's score is . . .	. . . then the likelihood (%) of being below the poverty line is:
0–4	47.6
5–9	36.1
10–14	28.1
15–19	18.9
20–24	11.1
25–29	8.2
30–34	5.9
35–39	3.4
40–44	2.0
45–49	1.0
50–54	0.5
55–59	0.2
60–64	0.1
65–69	0.0
70–74	0.0
75–79	0.0
80–84	0.0
85–89	0.0
90–94	0.0
95–100	0.0

**Figure 4 (USAID “extreme” MMRP line): Derivation of estimated poverty likelihoods associated with scores**

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0–4	828	÷	1,740	=	47.6
5–9	1,361	÷	3,776	=	36.1
10–14	1,771	÷	6,295	=	28.1
15–19	1,608	÷	8,503	=	18.9
20–24	904	÷	8,161	=	11.1
25–29	828	÷	10,067	=	8.2
30–34	664	÷	11,300	=	5.9
35–39	307	÷	9,082	=	3.4
40–44	170	÷	8,333	=	2.0
45–49	65	÷	6,817	=	1.0
50–54	28	÷	6,027	=	0.5
55–59	10	÷	5,189	=	0.2
60–64	2	÷	4,371	=	0.1
65–69	1	÷	3,239	=	0.0
70–74	0	÷	2,503	=	0.0
75–79	0	÷	2,081	=	0.0
80–84	0	÷	1,315	=	0.0
85–89	0	÷	797	=	0.0
90–94	0	÷	405	=	0.0
95–100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.

**Figure 6 (USAID “extreme” MMRP line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample ( $n = 16,384$ ) with confidence intervals, scorecard applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	-6.5	5.9	6.3	8.0
5-9	+3.7	3.4	4.0	5.3
10-14	-1.5	2.7	3.1	4.3
15-19	+0.2	1.9	2.2	3.0
20-24	+1.7	1.4	1.6	2.2
25-29	+0.8	1.1	1.3	1.7
30-34	+1.0	0.9	1.1	1.4
35-39	+0.6	0.8	0.9	1.2
40-44	+0.4	0.5	0.7	0.9
45-49	+0.1	0.5	0.6	0.7
50-54	+0.0	0.4	0.5	0.7
55-59	-0.2	0.4	0.4	0.6
60-64	+0.0	0.0	0.0	0.0
65-69	+0.0	0.0	0.0	0.1
70-74	+0.0	0.0	0.0	0.0
75-79	+0.0	0.0	0.0	0.0
80-84	+0.0	0.0	0.0	0.0
85-89	+0.0	0.0	0.0	0.0
90-94	+0.0	0.0	0.0	0.0
95-100	+0.0	0.0	0.0	0.0

**Figure 7 (USAID “extreme” MMRP line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	-0.9	50.0	62.5	72.1
4	+0.5	23.1	29.2	43.6
8	+0.1	17.6	21.8	28.9
16	+0.1	12.9	14.9	20.4
32	+0.4	9.0	10.4	14.1
64	+0.6	6.1	7.3	9.0
128	+0.6	4.4	5.2	6.9
256	+0.5	3.0	3.7	4.7
512	+0.5	2.2	2.6	3.2
1,024	+0.5	1.6	1.9	2.4
2,048	+0.4	1.1	1.3	1.7
4,096	+0.4	0.8	0.9	1.3
8,192	+0.4	0.6	0.7	0.9
16,384	+0.4	0.4	0.5	0.6

**Figure 10 (USAID “extreme” MMRP line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	Inclusion:	Undercoverage:	Leakage:	Exclusion:	Total Accuracy	BPAC
	< poverty line correctly targeted	< poverty line mistakenly non-targeted	=> poverty line mistakenly targeted	=> poverty line correctly non-targeted	Inclusion + Exclusion	See text
0–4	0.9	7.9	0.8	90.4	91.3	–69.6
5–9	2.3	6.5	3.2	87.9	90.2	–11.6
10–14	4.1	4.7	7.7	83.5	87.7	+12.8
15–19	5.8	3.0	14.5	76.7	82.5	–64.6
20–24	6.7	2.1	21.8	69.4	76.1	–147.5
25–29	7.5	1.3	31.0	60.2	67.7	–252.5
30–34	8.2	0.6	41.7	49.5	57.7	–373.5
35–39	8.5	0.3	50.5	40.7	49.2	–473.4
40–44	8.7	0.1	58.6	32.6	41.3	–565.9
45–49	8.7	0.1	65.3	25.9	34.6	–642.3
50–54	8.8	0.0	71.3	19.9	28.7	–710.5
55–59	8.8	0.0	76.5	14.7	23.5	–769.2
60–64	8.8	0.0	80.9	10.3	19.1	–818.9
65–69	8.8	0.0	84.1	7.1	15.9	–855.7
70–74	8.8	0.0	86.6	4.6	13.4	–884.1
75–79	8.8	0.0	88.7	2.5	11.3	–907.7
80–84	8.8	0.0	90.0	1.2	10.0	–922.7
85–89	8.8	0.0	90.8	0.4	9.2	–931.7
90–94	8.8	0.0	91.2	0.0	8.8	–936.3
95–100	8.8	0.0	91.2	0.0	8.8	–936.3

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.

**Figure 11 (USAID “extreme” MMRP line):** For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0–4	1.7	53.7	10.6	1.2:1
5–9	5.5	41.1	25.8	0.7:1
10–14	11.8	35.0	47.0	0.5:1
15–19	20.3	28.7	66.2	0.4:1
20–24	28.5	23.5	76.1	0.3:1
25–29	38.5	19.5	85.5	0.2:1
30–34	49.8	16.4	92.9	0.2:1
35–39	58.9	14.4	96.2	0.2:1
40–44	67.3	12.9	98.4	0.1:1
45–49	74.1	11.8	99.4	0.1:1
50–54	80.1	11.0	99.7	0.1:1
55–59	85.3	10.3	99.9	0.1:1
60–64	89.7	9.8	100.0	0.1:1
65–69	92.9	9.5	100.0	0.1:1
70–74	95.4	9.2	100.0	0.1:1
75–79	97.5	9.0	100.0	0.1:1
80–84	98.8	8.9	100.0	0.1:1
85–89	99.6	8.8	100.0	0.1:1
90–94	100.0	8.8	100.0	0.1:1
95–100	100.0	8.8	100.0	0.1:1

**Tables for  
\$1.25/day 2005 PPP MMRP Poverty Line**

**Figure 3 (\$1.25/day 2005 PPP MMRP line): Estimated poverty likelihoods associated with scores**

If a household's score is . . .	. . . then the likelihood (%) of being below the poverty line is:
0-4	91.9
5-9	83.6
10-14	76.7
15-19	62.0
20-24	49.7
25-29	41.8
30-34	30.5
35-39	21.8
40-44	15.9
45-49	10.8
50-54	6.4
55-59	3.7
60-64	2.6
65-69	1.6
70-74	0.7
75-79	0.4
80-84	0.4
85-89	0.0
90-94	0.0
95-100	0.0



**Figure 4 (\$1.25/day 2005 PPP MMRP line): Derivation of estimated poverty likelihoods associated with scores**

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0-4	1,599	÷	1,740	=	91.9
5-9	3,159	÷	3,776	=	83.6
10-14	4,830	÷	6,295	=	76.7
15-19	5,270	÷	8,503	=	62.0
20-24	4,057	÷	8,161	=	49.7
25-29	4,205	÷	10,067	=	41.8
30-34	3,444	÷	11,300	=	30.5
35-39	1,980	÷	9,082	=	21.8
40-44	1,327	÷	8,333	=	15.9
45-49	736	÷	6,817	=	10.8
50-54	385	÷	6,027	=	6.4
55-59	193	÷	5,189	=	3.7
60-64	114	÷	4,371	=	2.6
65-69	52	÷	3,239	=	1.6
70-74	18	÷	2,503	=	0.7
75-79	9	÷	2,081	=	0.4
80-84	5	÷	1,315	=	0.4
85-89	0	÷	797	=	0.0
90-94	0	÷	405	=	0.0
95-100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.

**Figure 6 (\$1.25/day 2005 PPP MMRP line):**

**Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample ( $n = 16,384$ ) with confidence intervals, scorecard applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	-0.9	2.6	3.1	4.1
5-9	+2.5	2.8	3.3	4.0
10-14	+2.0	2.4	3.0	4.3
15-19	-2.3	2.4	2.9	3.7
20-24	+2.5	2.5	3.0	4.1
25-29	+1.8	2.2	2.7	3.3
30-34	-1.1	2.0	2.4	3.2
35-39	+1.4	1.9	2.3	2.9
40-44	+0.1	1.8	2.2	3.2
45-49	-0.2	1.8	2.1	2.7
50-54	+0.3	1.5	1.7	2.3
55-59	+1.1	0.9	1.1	1.4
60-64	+1.2	0.7	0.8	1.1
65-69	-0.1	1.1	1.3	1.8
70-74	+0.1	0.5	0.6	0.8
75-79	+0.2	0.3	0.4	0.5
80-84	-0.4	1.1	1.2	1.7
85-89	+0.0	0.0	0.0	0.0
90-94	+0.0	0.0	0.0	0.0
95-100	+0.0	0.0	0.0	0.0

**Figure 7 (\$1.25/day 2005 PPP MMRP line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	-0.5	59.6	70.1	88.6
4	+0.9	35.7	43.5	53.8
8	+0.4	26.5	30.1	38.0
16	+0.2	18.7	21.8	30.3
32	+0.3	13.7	16.1	20.3
64	+0.6	9.3	11.1	14.1
128	+0.7	6.4	7.4	10.1
256	+0.7	4.7	5.4	7.0
512	+0.6	3.2	3.9	5.1
1,024	+0.6	2.5	2.8	3.6
2,048	+0.6	1.7	2.0	2.6
4,096	+0.6	1.2	1.4	1.8
8,192	+0.6	0.9	1.0	1.3
16,384	+0.5	0.6	0.7	0.9

**Figure 10 (\$1.25/day 2005 PPP MMRP line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	Inclusion:	Undercoverage:	Leakage:	Exclusion:	Total Accuracy	BPAC
	< poverty line correctly targeted	< poverty line mistakenly non-targeted	=> poverty line mistakenly targeted	=> poverty line correctly non-targeted	Inclusion + Exclusion	See text
0–4	1.6	30.2	0.1	68.1	69.7	–89.5
5–9	4.7	27.1	0.8	67.4	72.1	–67.9
10–14	9.4	22.4	2.4	65.8	75.3	–33.2
15–19	15.0	16.8	5.3	62.9	77.8	+10.9
20–24	19.0	12.8	9.5	58.7	77.7	+49.2
25–29	23.1	8.7	15.4	52.8	75.9	+51.5
30–34	26.8	5.0	23.0	45.1	71.9	+27.6
35–39	28.8	3.0	30.1	38.1	66.9	+5.4
40–44	30.2	1.6	37.0	31.2	61.4	–16.4
45–49	31.0	0.8	43.1	25.1	56.1	–35.4
50–54	31.4	0.4	48.7	19.5	50.9	–53.1
55–59	31.6	0.2	53.7	14.5	46.1	–68.7
60–64	31.7	0.1	57.9	10.2	42.0	–82.2
65–69	31.8	0.0	61.1	7.1	38.8	–92.2
70–74	31.8	0.0	63.6	4.6	36.4	–100.0
75–79	31.8	0.0	65.7	2.5	34.3	–106.5
80–84	31.8	0.0	67.0	1.2	33.0	–110.6
85–89	31.8	0.0	67.8	0.4	32.2	–113.1
90–94	31.8	0.0	68.2	0.0	31.8	–114.4
95–100	31.8	0.0	68.2	0.0	31.8	–114.4

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.

**Figure 11 (\$1.25/day 2005 PPP MMRP line): For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample**

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0-4	1.7	92.4	5.1	12.1:1
5-9	5.5	85.1	14.8	5.7:1
10-14	11.8	79.9	29.7	4.0:1
15-19	20.3	73.7	47.1	2.8:1
20-24	28.5	66.7	59.7	2.0:1
25-29	38.5	60.0	72.7	1.5:1
30-34	49.8	53.8	84.2	1.2:1
35-39	58.9	48.9	90.6	1.0:1
40-44	67.3	44.9	95.0	0.8:1
45-49	74.1	41.9	97.5	0.7:1
50-54	80.1	39.2	98.7	0.6:1
55-59	85.3	37.1	99.4	0.6:1
60-64	89.7	35.4	99.7	0.5:1
65-69	92.9	34.2	99.9	0.5:1
70-74	95.4	33.3	99.9	0.5:1
75-79	97.5	32.6	100.0	0.5:1
80-84	98.8	32.2	100.0	0.5:1
85-89	99.6	31.9	100.0	0.5:1
90-94	100.0	31.8	100.0	0.5:1
95-100	100.0	31.8	100.0	0.5:1

**Tables for  
\$1.88/day 2005 PPP MMRP Poverty Line**

**Figure 3 (\$1.88/day 2005 PPP MMRP line): Estimated poverty likelihoods associated with scores**

If a household's score is . . .	. . . then the likelihood (%) of being below the poverty line is:
0-4	99.7
5-9	98.8
10-14	96.8
15-19	93.4
20-24	89.5
25-29	84.7
30-34	74.7
35-39	65.5
40-44	57.3
45-49	47.6
50-54	34.6
55-59	27.3
60-64	23.0
65-69	15.3
70-74	10.6
75-79	7.0
80-84	4.4
85-89	1.9
90-94	0.7
95-100	0.0

**Figure 4 (\$1.88/day 2005 PPP MMRP line): Derivation of estimated poverty likelihoods associated with scores**

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0-4	1,735	÷	1,740	=	99.7
5-9	3,729	÷	3,776	=	98.8
10-14	6,096	÷	6,295	=	96.8
15-19	7,943	÷	8,503	=	93.4
20-24	7,303	÷	8,161	=	89.5
25-29	8,530	÷	10,067	=	84.7
30-34	8,445	÷	11,300	=	74.7
35-39	5,949	÷	9,082	=	65.5
40-44	4,776	÷	8,333	=	57.3
45-49	3,247	÷	6,817	=	47.6
50-54	2,086	÷	6,027	=	34.6
55-59	1,418	÷	5,189	=	27.3
60-64	1,004	÷	4,371	=	23.0
65-69	494	÷	3,239	=	15.3
70-74	266	÷	2,503	=	10.6
75-79	146	÷	2,081	=	7.0
80-84	57	÷	1,315	=	4.4
85-89	15	÷	797	=	1.9
90-94	3	÷	405	=	0.7
95-100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.



**Figure 6 (\$1.88/day 2005 PPP MMRP line):**

**Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample ( $n = 16,384$ ) with confidence intervals, scorecard applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	-0.2	0.1	0.1	0.2
5-9	+2.0	1.4	1.7	2.1
10-14	-1.2	1.0	1.0	1.1
15-19	-1.0	1.1	1.3	1.8
20-24	+2.0	1.6	2.0	2.7
25-29	+1.1	1.7	2.1	2.7
30-34	-0.1	1.9	2.3	3.1
35-39	+1.3	2.3	2.8	3.7
40-44	+1.2	2.5	3.0	4.0
45-49	+1.9	2.8	3.3	4.3
50-54	-3.1	3.0	3.6	4.8
55-59	+0.8	2.9	3.6	4.8
60-64	+2.0	3.0	3.5	4.6
65-69	+0.9	2.9	3.4	5.0
70-74	+0.8	2.9	3.5	4.7
75-79	+2.1	2.2	2.7	3.4
80-84	-1.4	3.1	3.7	5.4
85-89	+1.0	1.2	1.4	1.7
90-94	+0.6	0.3	0.4	0.5
95-100	+0.0	0.0	0.0	0.0

**Figure 7 (\$1.88/day 2005 PPP MMRP line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	-0.5	70.1	80.9	90.2
4	+0.7	35.0	43.7	55.0
8	+0.4	24.9	29.1	36.9
16	+0.2	17.8	21.6	29.8
32	+0.2	12.7	14.8	19.7
64	+0.5	8.9	10.3	12.7
128	+0.6	6.6	7.8	10.0
256	+0.6	4.6	5.6	7.5
512	+0.6	3.2	3.9	5.2
1,024	+0.5	2.2	2.7	3.4
2,048	+0.5	1.6	1.8	2.3
4,096	+0.5	1.1	1.3	1.9
8,192	+0.5	0.8	1.0	1.3
16,384	+0.5	0.5	0.7	0.9

**Figure 10 (\$1.88/day 2005 PPP MMRP line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	Inclusion:	Undercoverage:	Leakage:	Exclusion:	Total Accuracy	BPAC
	< poverty line correctly targeted	< poverty line mistakenly non-targeted	=> poverty line mistakenly targeted	=> poverty line correctly non-targeted	Inclusion + Exclusion	See text
0–4	1.7	61.8	0.0	36.5	38.2	–94.5
5–9	5.4	58.1	0.1	36.4	41.8	–82.8
10–14	11.6	52.0	0.2	36.2	47.8	–63.2
15–19	19.6	43.9	0.7	35.8	55.4	–37.2
20–24	26.8	36.7	1.7	34.8	61.6	–13.0
25–29	35.2	28.3	3.3	33.2	68.4	+16.1
30–34	43.8	19.8	6.1	30.4	74.2	+47.3
35–39	49.8	13.8	9.1	27.3	77.1	+71.1
40–44	54.6	9.0	12.7	23.8	78.3	+80.0
45–49	57.8	5.7	16.3	20.2	78.0	+74.4
50–54	60.1	3.4	20.0	16.5	76.5	+68.5
55–59	61.6	1.9	23.7	12.8	74.4	+62.7
60–64	62.6	1.0	27.1	9.4	71.9	+57.4
65–69	63.1	0.5	29.8	6.6	69.7	+53.0
70–74	63.3	0.2	32.1	4.4	67.7	+49.5
75–79	63.4	0.1	34.0	2.4	65.9	+46.4
80–84	63.5	0.0	35.3	1.2	64.7	+44.5
85–89	63.5	0.0	36.1	0.4	63.9	+43.2
90–94	63.5	0.0	36.5	0.0	63.5	+42.6
95–100	63.5	0.0	36.5	0.0	63.5	+42.6

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.

**Figure 11 (\$1.88/day 2005 PPP MMRP line):** For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0-4	1.7	99.7	2.7	370.8:1
5-9	5.5	98.0	8.5	48.5:1
10-14	11.8	97.9	18.2	46.8:1
15-19	20.3	96.5	30.9	27.5:1
20-24	28.5	94.2	42.2	16.2:1
25-29	38.5	91.4	55.5	10.7:1
30-34	49.8	87.8	68.9	7.2:1
35-39	58.9	84.5	78.3	5.4:1
40-44	67.3	81.1	85.9	4.3:1
45-49	74.1	78.0	91.0	3.6:1
50-54	80.1	75.0	94.6	3.0:1
55-59	85.3	72.2	97.0	2.6:1
60-64	89.7	69.8	98.5	2.3:1
65-69	92.9	67.9	99.2	2.1:1
70-74	95.4	66.4	99.7	2.0:1
75-79	97.5	65.1	99.9	1.9:1
80-84	98.8	64.3	100.0	1.8:1
85-89	99.6	63.8	100.0	1.8:1
90-94	100.0	63.5	100.0	1.7:1
95-100	100.0	63.5	100.0	1.7:1

**Tables for  
\$2.50/day 2005 PPP MMRP Poverty Line**

**Figure 3 (\$2.50/day 2005 PPP MMRP line): Estimated poverty likelihoods associated with scores**

If a household's score is . . .	. . . then the likelihood (%) of being below the poverty line is:
0-4	100.0
5-9	100.0
10-14	99.8
15-19	99.1
20-24	98.1
25-29	96.3
30-34	91.7
35-39	86.3
40-44	80.7
45-49	73.6
50-54	64.2
55-59	55.2
60-64	47.2
65-69	40.2
70-74	31.0
75-79	23.0
80-84	15.5
85-89	8.4
90-94	2.3
95-100	0.0

**Figure 4 (\$2.50/day 2005 PPP MMRP line): Derivation of estimated poverty likelihoods associated with scores**

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0-4	1,740	÷	1,740	=	100.0
5-9	3,776	÷	3,776	=	100.0
10-14	6,280	÷	6,295	=	99.8
15-19	8,425	÷	8,503	=	99.1
20-24	8,008	÷	8,161	=	98.1
25-29	9,693	÷	10,067	=	96.3
30-34	10,358	÷	11,300	=	91.7
35-39	7,837	÷	9,082	=	86.3
40-44	6,721	÷	8,333	=	80.7
45-49	5,020	÷	6,817	=	73.6
50-54	3,868	÷	6,027	=	64.2
55-59	2,865	÷	5,189	=	55.2
60-64	2,062	÷	4,371	=	47.2
65-69	1,300	÷	3,239	=	40.2
70-74	775	÷	2,503	=	31.0
75-79	479	÷	2,081	=	23.0
80-84	204	÷	1,315	=	15.5
85-89	67	÷	797	=	8.4
90-94	9	÷	405	=	2.3
95-100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.

**Figure 6 (\$2.50/day 2005 PPP MMRP line):**

**Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample ( $n = 16,384$ ) with confidence intervals, scorecard applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	+0.0	0.0	0.0	0.0
5-9	+0.4	0.5	0.6	0.7
10-14	+0.3	0.4	0.5	0.6
15-19	+0.2	0.5	0.6	0.8
20-24	+1.2	0.9	1.0	1.3
25-29	+1.0	1.0	1.2	1.5
30-34	-1.7	1.4	1.5	1.6
35-39	+0.5	1.8	2.2	2.8
40-44	-0.4	2.1	2.4	3.2
45-49	+3.8	2.7	3.2	4.0
50-54	-0.8	3.0	3.5	4.5
55-59	+3.4	3.4	4.0	5.5
60-64	+3.5	3.6	4.5	5.5
65-69	+2.5	4.2	5.0	7.1
70-74	+1.3	4.7	5.5	6.6
75-79	+2.8	4.2	5.3	6.5
80-84	+1.4	4.6	5.4	7.0
85-89	-3.8	5.6	6.4	8.8
90-94	+1.4	1.3	1.5	1.9
95-100	+0.0	0.0	0.0	0.0



**Figure 7 (\$2.50/day 2005 PPP MMRP line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	-0.8	63.2	73.1	84.6
4	+1.3	30.3	36.5	47.2
8	+0.7	20.3	25.6	32.7
16	+0.6	15.0	18.5	24.3
32	+0.4	10.6	12.7	16.6
64	+0.5	7.4	8.8	11.9
128	+0.7	5.3	6.4	7.8
256	+0.6	3.8	4.7	5.9
512	+0.6	2.7	3.1	4.0
1,024	+0.6	1.8	2.2	3.0
2,048	+0.7	1.3	1.6	2.1
4,096	+0.7	0.9	1.2	1.5
8,192	+0.7	0.6	0.8	1.1
16,384	+0.7	0.5	0.5	0.7

**Figure 10 (\$2.50/day 2005 PPP MMRP line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	Inclusion:	Undercoverage:	Leakage:	Exclusion:	Total Accuracy	BPAC
	< poverty line correctly targeted	< poverty line mistakenly non-targeted	=> poverty line mistakenly targeted	=> poverty line non-targeted	Inclusion + Exclusion	See text
0–4	1.7	77.8	0.0	20.5	22.2	–95.6
5–9	5.5	74.0	0.0	20.5	26.0	–86.1
10–14	11.8	67.7	0.0	20.4	32.2	–70.3
15–19	20.2	59.3	0.1	20.3	40.5	–49.1
20–24	28.1	51.4	0.4	20.1	48.2	–28.8
25–29	37.7	41.8	0.8	19.6	57.3	–4.1
30–34	48.2	31.3	1.6	18.9	67.1	+23.3
35–39	56.1	23.4	2.8	17.7	73.8	+44.7
40–44	63.0	16.6	4.3	16.2	79.1	+63.8
45–49	67.9	11.7	6.2	14.3	82.1	+78.5
50–54	71.8	7.7	8.3	12.2	84.0	+89.6
55–59	74.7	4.8	10.6	9.9	84.6	+86.7
60–64	76.7	2.8	12.9	7.6	84.3	+83.7
65–69	78.0	1.5	14.9	5.6	83.6	+81.3
70–74	78.8	0.7	16.6	3.9	82.6	+79.1
75–79	79.2	0.3	18.3	2.2	81.4	+77.0
80–84	79.4	0.1	19.4	1.1	80.5	+75.6
85–89	79.5	0.0	20.1	0.4	79.9	+74.7
90–94	79.5	0.0	20.5	0.0	79.5	+74.2
95–100	79.5	0.0	20.5	0.0	79.5	+74.2

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.

**Figure 11 (\$2.50/day 2005 PPP MMRP line):** For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0-4	1.7	100.0	2.2	Only poor targeted
5-9	5.5	99.8	6.9	400.1:1
10-14	11.8	99.6	14.8	249.0:1
15-19	20.3	99.3	25.4	147.0:1
20-24	28.5	98.7	35.3	75.3:1
25-29	38.5	97.8	47.4	44.9:1
30-34	49.8	96.8	60.7	29.8:1
35-39	58.9	95.3	70.6	20.2:1
40-44	67.3	93.6	79.2	14.6:1
45-49	74.1	91.6	85.3	10.9:1
50-54	80.1	89.7	90.3	8.7:1
55-59	85.3	87.6	93.9	7.1:1
60-64	89.7	85.6	96.5	5.9:1
65-69	92.9	84.0	98.1	5.2:1
70-74	95.4	82.6	99.1	4.7:1
75-79	97.5	81.3	99.6	4.3:1
80-84	98.8	80.4	99.9	4.1:1
85-89	99.6	79.8	100.0	4.0:1
90-94	100.0	79.5	100.0	3.9:1
95-100	100.0	79.5	100.0	3.9:1

**Tables for  
the RBI Urban Poverty Line**

**Figure 3 (RBI urban line): Estimated poverty likelihoods associated with scores**

If a household's score is . . .	. . . then the likelihood (%) of being below the poverty line is:
0-4	99.8
5-9	98.9
10-14	98.3
15-19	95.4
20-24	95.4
25-29	95.4
30-34	94.8
35-39	91.0
40-44	90.5
45-49	83.0
50-54	79.8
55-59	77.5
60-64	61.2
65-69	55.5
70-74	46.7
75-79	39.1
80-84	29.5
85-89	22.3
90-94	13.2
95-100	0.0

**Figure 4 (RBI urban line): Derivation of estimated poverty likelihoods associated with scores**

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0-4	1,736	÷	1,740	=	99.8
5-9	3,736	÷	3,776	=	98.9
10-14	6,186	÷	6,295	=	98.3
15-19	8,111	÷	8,503	=	95.4
20-24	7,786	÷	8,161	=	95.4
25-29	9,606	÷	10,067	=	95.4
30-34	10,708	÷	11,300	=	94.8
35-39	8,261	÷	9,082	=	91.0
40-44	7,537	÷	8,333	=	90.5
45-49	5,656	÷	6,817	=	83.0
50-54	4,811	÷	6,027	=	79.8
55-59	4,021	÷	5,189	=	77.5
60-64	2,673	÷	4,371	=	61.2
65-69	1,798	÷	3,239	=	55.5
70-74	1,167	÷	2,503	=	46.7
75-79	813	÷	2,081	=	39.1
80-84	387	÷	1,315	=	29.5
85-89	177	÷	797	=	22.3
90-94	54	÷	405	=	13.2
95-100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.

**Figure 6 (RBI urban line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample ( $n = 16,384$ ) with confidence intervals, scorecard applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	+2.8	3.5	3.9	5.1
5-9	+6.2	4.7	5.4	6.7
10-14	+0.9	2.0	2.3	2.6
15-19	-0.1	1.9	2.3	3.1
20-24	+0.0	1.7	1.8	2.6
25-29	-1.9	1.5	1.7	1.9
30-34	-0.8	1.2	1.5	2.1
35-39	+1.9	2.1	2.5	3.0
40-44	+1.6	1.5	1.8	2.3
45-49	+1.0	1.9	2.4	3.2
50-54	+6.4	2.6	3.1	3.8
55-59	-0.9	2.1	2.5	3.1
60-64	-1.2	2.7	3.2	3.7
65-69	+2.0	3.1	3.8	5.7
70-74	-2.3	3.2	3.8	4.5
75-79	+5.1	2.6	3.5	5.6
80-84	-7.0	5.4	5.9	6.4
85-89	+0.6	3.7	4.4	5.4
90-94	+10.4	1.5	2.1	2.3
95-100	+0.0	0.0	0.0	0.0

**Figure 7 (RBI urban line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	-4.9	69.8	75.7	80.5
4	+0.2	37.2	43.4	47.7
8	+0.2	29.5	32.6	38.9
16	+1.1	18.0	19.8	26.4
32	+0.6	11.9	14.9	20.6
64	+1.1	9.7	10.5	15.4
128	+1.2	6.2	7.2	9.2
256	+1.0	4.7	5.3	6.3
512	+1.1	3.6	4.1	5.8
1,024	+1.1	2.7	3.5	3.7
2,048	+1.0	2.0	2.3	2.6
4,096	+1.0	1.4	1.7	2.0
8,192	+0.9	0.9	1.0	1.5
16,384	+1.0	0.6	0.7	1.2



**Figure 10 (RBI urban line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	Inclusion:	Undercoverage:	Leakage:	Exclusion:	Total Accuracy	BPAC
	< poverty line correctly targeted	< poverty line mistakenly non-targeted	=> poverty line mistakenly targeted	=> poverty line non-targeted	Inclusion + Exclusion	See text
0–4	0.3	74.0	0.0	25.7	26.0	–99.1
5–9	1.4	72.9	0.1	25.6	27.0	–96.2
10–14	3.0	71.3	0.1	25.6	28.6	–91.8
15–19	5.8	68.5	0.2	25.5	31.3	–84.1
20–24	9.2	65.1	0.4	25.3	34.5	–74.7
25–29	13.9	60.4	0.5	25.2	39.1	–62.0
30–34	20.9	53.4	0.8	24.8	45.7	–42.7
35–39	27.7	46.6	1.5	24.2	51.9	–23.5
40–44	36.4	38.0	2.5	23.2	59.5	+1.2
45–49	44.1	30.2	4.0	21.6	65.7	+24.0
50–54	51.2	23.1	6.1	19.5	70.8	+46.1
55–59	58.1	16.3	8.2	17.5	75.5	+67.3
60–64	63.5	10.9	11.2	14.4	77.9	+84.9
65–69	67.3	7.0	14.5	11.1	78.5	+80.4
70–74	70.2	4.2	17.5	8.1	78.3	+76.4
75–79	72.2	2.2	20.8	4.9	77.1	+72.1
80–84	73.7	0.6	22.9	2.7	76.4	+69.2
85–89	74.2	0.1	24.6	1.1	75.4	+67.0
90–94	74.3	0.0	25.7	0.0	74.3	+65.5
95–100	74.3	0.0	25.7	0.0	74.3	+65.5

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.

**Figure 11 (RBI urban line):** For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0-4	1.7	96.2	2.3	25.1:1
5-9	5.5	95.7	7.1	22.5:1
10-14	11.8	96.9	15.4	31.0:1
15-19	20.3	96.8	26.5	30.7:1
20-24	28.5	96.2	36.8	25.1:1
25-29	38.5	96.5	50.0	27.6:1
30-34	49.8	96.2	64.5	25.3:1
35-39	58.9	94.9	75.3	18.7:1
40-44	67.3	93.6	84.7	14.6:1
45-49	74.1	91.6	91.3	11.0:1
50-54	80.1	89.3	96.2	8.3:1
55-59	85.3	87.6	100.5	7.1:1
60-64	89.7	84.9	102.5	5.6:1
65-69	92.9	82.2	102.8	4.6:1
70-74	95.4	80.0	102.7	4.0:1
75-79	97.5	77.7	101.8	3.5:1
80-84	98.8	76.3	101.4	3.2:1
85-89	99.6	75.1	100.7	3.0:1
90-94	100.0	74.3	100.0	2.9:1
95-100	100.0	74.3	100.0	2.9:1

**Tables for  
the RBI Rural MMRP Poverty Line**

**Figure 3 (RBI rural line): Estimated poverty likelihoods associated with scores**

If a household's score is . . .	. . . then the likelihood (%) of being below the poverty line is:
0-4	80.9
5-9	79.9
10-14	79.0
15-19	75.3
20-24	74.5
25-29	74.5
30-34	72.3
35-39	61.6
40-44	54.5
45-49	46.4
50-54	40.7
55-59	28.7
60-64	22.7
65-69	20.2
70-74	19.6
75-79	10.5
80-84	5.7
85-89	2.9
90-94	0.0
95-100	0.0

**Figure 4 (RBI rural line): Derivation of estimated poverty likelihoods associated with scores**

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0-4	1,407	÷	1,740	=	80.9
5-9	3,019	÷	3,776	=	79.9
10-14	4,974	÷	6,295	=	79.0
15-19	6,405	÷	8,503	=	75.3
20-24	6,076	÷	8,161	=	74.5
25-29	7,496	÷	10,067	=	74.5
30-34	8,170	÷	11,300	=	72.3
35-39	5,594	÷	9,082	=	61.6
40-44	4,542	÷	8,333	=	54.5
45-49	3,165	÷	6,817	=	46.4
50-54	2,455	÷	6,027	=	40.7
55-59	1,487	÷	5,189	=	28.7
60-64	990	÷	4,371	=	22.7
65-69	653	÷	3,239	=	20.2
70-74	490	÷	2,503	=	19.6
75-79	218	÷	2,081	=	10.5
80-84	75	÷	1,315	=	5.7
85-89	23	÷	797	=	2.9
90-94	0	÷	405	=	0.0
95-100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.

**Figure 6 (RBI rural line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample ( $n = 16,384$ ) with confidence intervals, scorecard applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	+0.1	3.7	4.1	4.6
5-9	+2.9	2.5	2.9	3.4
10-14	-0.8	1.9	2.3	3.1
15-19	-2.8	2.3	2.4	2.9
20-24	+4.2	2.1	2.3	2.8
25-29	-3.0	2.2	2.4	2.6
30-34	-5.2	3.3	3.6	3.7
35-39	-1.0	2.3	2.8	4.2
40-44	-4.6	3.9	4.0	4.2
45-49	-1.9	3.1	3.7	4.4
50-54	-0.4	3.0	3.8	4.5
55-59	-1.2	3.4	4.2	5.6
60-64	+1.9	3.2	3.4	4.3
65-69	-9.4	7.9	8.0	9.1
70-74	+6.6	6.0	6.8	8.3
75-79	+0.4	4.6	5.6	9.1
80-84	-3.2	7.4	9.8	11.6
85-89	+2.3	1.4	1.5	1.7
90-94	-0.3	1.3	1.5	2.0
95-100	+0.0	0.0	0.0	0.0

**Figure 7 (RBI rural line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	+4.4	67.1	69.1	69.1
4	-0.5	36.8	40.4	45.0
8	+0.4	32.7	37.1	41.1
16	-0.8	21.1	25.4	32.0
32	-2.0	14.0	15.1	20.6
64	-1.9	9.4	10.7	13.5
128	-1.8	7.5	8.7	9.5
256	-1.7	5.0	5.9	8.7
512	-1.6	3.1	4.1	4.6
1,024	-1.6	2.5	2.8	3.2
2,048	-1.7	1.4	1.9	2.3
4,096	-1.5	1.2	1.3	1.6
8,192	-1.5	0.8	0.9	1.2
16,384	-1.5	0.7	0.7	1.0

**Figure 10 (RBI rural line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	Inclusion:	Undercoverage:	Leakage:	Exclusion:	Total Accuracy	BPAC
	< poverty line correctly targeted	< poverty line mistakenly non-targeted	=> poverty line mistakenly targeted	=> poverty line non-targeted	Inclusion + Exclusion	See text
0–4	1.9	61.6	0.4	36.0	37.9	–93.4
5–9	5.6	57.9	1.6	34.9	40.5	–79.9
10–14	12.1	51.5	3.3	33.1	45.2	–56.7
15–19	20.5	43.0	5.8	30.7	51.2	–26.5
20–24	27.5	36.1	8.8	27.6	55.1	+0.4
25–29	36.6	26.9	11.9	24.5	61.2	+34.0
30–34	46.3	17.2	15.2	21.3	67.6	+69.7
35–39	52.3	11.2	18.9	17.6	69.9	+70.3
40–44	56.7	6.8	22.3	14.2	70.9	+64.9
45–49	59.5	4.1	25.4	11.1	70.6	+60.1
50–54	61.3	2.2	28.2	8.3	69.6	+55.6
55–59	62.3	1.2	30.8	5.7	68.0	+51.5
60–64	62.9	0.6	32.9	3.5	66.5	+48.2
65–69	63.3	0.3	34.2	2.3	65.5	+46.1
70–74	63.4	0.1	35.2	1.3	64.7	+44.6
75–79	63.5	0.0	35.9	0.6	64.1	+43.5
80–84	63.5	0.0	36.2	0.3	63.8	+43.0
85–89	63.5	0.0	36.4	0.1	63.6	+42.7
90–94	63.5	0.0	36.5	0.0	63.5	+42.6
95–100	63.5	0.0	36.5	0.0	63.5	+42.6

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.



**Figure 11 (RBI rural line):** For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0-4	1.7	80.9	2.2	4.2:1
5-9	5.5	77.8	6.8	3.5:1
10-14	11.8	78.3	14.6	3.6:1
15-19	20.3	78.1	25.0	3.6:1
20-24	28.5	75.6	33.9	3.1:1
25-29	38.5	75.4	45.8	3.1:1
30-34	49.8	75.3	59.1	3.1:1
35-39	58.9	73.5	68.2	2.8:1
40-44	67.3	71.8	76.0	2.5:1
45-49	74.1	70.1	81.8	2.3:1
50-54	80.1	68.5	86.3	2.2:1
55-59	85.3	66.9	89.8	2.0:1
60-64	89.7	65.6	92.7	1.9:1
65-69	92.9	64.9	94.9	1.8:1
70-74	95.4	64.3	96.6	1.8:1
75-79	97.5	63.9	98.0	1.8:1
80-84	98.8	63.7	99.1	1.8:1
85-89	99.6	63.6	99.7	1.7:1
90-94	100.0	63.5	100.0	1.7:1
95-100	100.0	63.5	100.0	1.7:1

**Tables for  
The National (Saxena R59) MRP Poverty Line**

**Figure 3 (National Saxena R59 MRP line): Estimated poverty likelihoods associated with scores**

If a household's score is . . .	. . . then the likelihood (%) of being below the poverty line is:
0-4	66.2
5-9	58.8
10-14	41.4
15-19	31.5
20-24	22.9
25-29	15.8
30-34	11.8
35-39	6.9
40-44	4.6
45-49	2.8
50-54	2.0
55-59	1.4
60-64	0.8
65-69	0.4
70-74	0.2
75-79	0.1
80-84	0.1
85-89	0.0
90-94	0.0
95-100	0.0

**Figure 4 (National Saxena R59 MRP line): Derivation of estimated poverty likelihoods associated with scores**

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0-4	1,184	÷	1,788	=	66.2
5-9	2,104	÷	3,575	=	58.8
10-14	2,757	÷	6,657	=	41.4
15-19	2,635	÷	8,356	=	31.5
20-24	1,773	÷	7,740	=	22.9
25-29	1,683	÷	10,642	=	15.8
30-34	1,344	÷	11,432	=	11.8
35-39	648	÷	9,415	=	6.9
40-44	366	÷	7,987	=	4.6
45-49	189	÷	6,794	=	2.8
50-54	115	÷	5,755	=	2.0
55-59	70	÷	5,002	=	1.4
60-64	32	÷	4,320	=	0.8
65-69	12	÷	3,357	=	0.4
70-74	5	÷	2,730	=	0.2
75-79	3	÷	1,984	=	0.1
80-84	1	÷	1,232	=	0.1
85-89	0	÷	847	=	0.0
90-94	0	÷	384	=	0.0
95-100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.

**Figure 6 (National Saxena R59 MRP line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample ( $n = 16,384$ ) with confidence intervals, scorecard applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	-4.1	4.7	5.4	7.2
5-9	+1.3	3.7	4.5	6.0
10-14	+1.9	2.8	3.2	4.5
15-19	-2.9	2.6	2.9	3.4
20-24	+0.9	2.1	2.6	3.3
25-29	+3.6	1.4	1.7	2.2
30-34	+1.4	1.3	1.6	2.0
35-39	+1.3	1.0	1.2	1.6
40-44	+0.8	0.9	1.0	1.3
45-49	+0.7	0.7	0.8	1.0
50-54	-0.1	0.9	1.1	1.5
55-59	-0.1	0.8	0.9	1.2
60-64	+0.3	0.5	0.6	0.8
65-69	+0.3	0.1	0.1	0.1
70-74	+0.0	0.2	0.2	0.3
75-79	+0.0	0.3	0.3	0.4
80-84	+0.1	0.0	0.0	0.0
85-89	+0.0	0.0	0.0	0.0
90-94	+0.0	0.0	0.0	0.0
95-100	###	-50.0	-50.0	-50.0

**Figure 7 (National Saxena R59 MRP line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	+0.0	62.8	64.8	81.9
4	+1.1	29.5	36.2	50.3
8	+0.8	21.4	25.9	33.7
16	+0.7	14.9	17.9	24.8
32	+1.1	10.6	13.0	16.3
64	+0.9	8.0	9.8	12.5
128	+0.8	5.6	6.8	8.7
256	+0.7	3.9	4.7	5.9
512	+0.8	2.7	3.2	4.2
1,024	+0.8	2.0	2.3	3.1
2,048	+0.8	1.4	1.7	2.1
4,096	+0.8	1.0	1.2	1.5
8,192	+0.8	0.7	0.8	1.1
16,384	+0.8	0.5	0.6	0.8

**Figure 10 (National Saxena R59 MRP line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	Inclusion:	Undercoverage:	Leakage:	Exclusion:	Total Accuracy	BPAC
	< poverty line correctly targeted	< poverty line mistakenly non-targeted	=> poverty line mistakenly targeted	=> poverty line correctly non-targeted	Inclusion + Exclusion	See text
0-4	1.3	13.9	0.5	84.3	85.6	-79.9
5-9	3.4	11.8	2.0	82.9	86.2	-42.4
10-14	6.1	9.1	5.9	78.9	85.0	+19.6
15-19	9.0	6.1	11.3	73.5	82.6	+25.2
20-24	10.8	4.3	17.3	67.6	78.4	-14.0
25-29	12.3	2.9	26.5	58.4	70.7	-74.7
30-34	13.6	1.5	36.6	48.3	61.9	-141.3
35-39	14.3	0.9	45.3	39.5	53.8	-199.2
40-44	14.7	0.5	52.9	31.9	46.6	-249.3
45-49	14.9	0.3	59.5	25.4	40.2	-292.7
50-54	15.0	0.1	65.1	19.7	34.8	-329.8
55-59	15.1	0.0	70.0	14.8	29.9	-362.3
60-64	15.1	0.0	74.3	10.5	25.7	-390.6
65-69	15.1	0.0	77.7	7.2	22.3	-412.8
70-74	15.1	0.0	80.4	4.4	19.6	-430.7
75-79	15.1	0.0	82.4	2.5	17.6	-443.8
80-84	15.1	0.0	83.6	1.2	16.4	-451.9
85-89	15.1	0.0	84.5	0.4	15.5	-457.5
90-94	15.1	0.0	84.9	0.0	15.1	-460.1
95-100	15.1	0.0	84.9	0.0	15.1	-460.1

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.

**Figure 11 (National Saxena R59 MRP line):** For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0-4	1.8	70.3	8.3	2.4:1
5-9	5.4	62.7	22.2	1.7:1
10-14	12.0	50.7	40.2	1.0:1
15-19	20.4	44.4	59.7	0.8:1
20-24	28.1	38.6	71.6	0.6:1
25-29	38.8	31.7	81.2	0.5:1
30-34	50.2	27.2	90.0	0.4:1
35-39	59.6	23.9	94.2	0.3:1
40-44	67.6	21.7	96.9	0.3:1
45-49	74.4	20.0	98.3	0.3:1
50-54	80.1	18.7	99.2	0.2:1
55-59	85.1	17.7	99.7	0.2:1
60-64	89.5	16.9	99.9	0.2:1
65-69	92.8	16.3	99.9	0.2:1
70-74	95.6	15.9	100.0	0.2:1
75-79	97.5	15.5	100.0	0.2:1
80-84	98.8	15.3	100.0	0.2:1
85-89	99.6	15.2	100.0	0.2:1
90-94	100.0	15.1	100.0	0.2:1
95-100	100.0	15.1	100.0	0.2:1



**Tables for  
\$1.08/day 1993 PPP R59 MRP Poverty Line**

**Figure 3 (\$1.08/day 1993 PPP R59 MRP line):**

**Estimated poverty likelihoods associated with scores**

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<b>If a household's score is . . .</b>	<b>. . . then the likelihood (%) of being below the poverty line is:</b>
0-4	83.9
5-9	75.5
10-14	66.4
15-19	56.5
20-24	41.6
25-29	32.5
30-34	25.0
35-39	15.7
40-44	9.3
45-49	5.7
50-54	3.2
55-59	1.9
60-64	1.2
65-69	0.3
70-74	0.1
75-79	0.0
80-84	0.0
85-89	0.0
90-94	0.0
95-100	0.0

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**Figure 4 (\$1.08/day 1993 PPP R59 MRP line):  
Derivation of estimated poverty likelihoods  
associated with scores**

Score	Households below poverty line		All households at score	=	Poverty likelihood (estimated, %)
0-4	1,500	÷	1,788	=	83.9
5-9	2,700	÷	3,575	=	75.5
10-14	4,419	÷	6,657	=	66.4
15-19	4,718	÷	8,356	=	56.5
20-24	3,220	÷	7,740	=	41.6
25-29	3,463	÷	10,642	=	32.5
30-34	2,860	÷	11,432	=	25.0
35-39	1,473	÷	9,415	=	15.7
40-44	740	÷	7,987	=	9.3
45-49	388	÷	6,794	=	5.7
50-54	185	÷	5,755	=	3.2
55-59	96	÷	5,002	=	1.9
60-64	51	÷	4,320	=	1.2
65-69	11	÷	3,357	=	0.3
70-74	2	÷	2,730	=	0.1
75-79	1	÷	1,984	=	0.0
80-84	0	÷	1,232	=	0.0
85-89	0	÷	847	=	0.0
90-94	0	÷	384	=	0.0
95-100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.

**Figure 6 (\$1.08/day 1993 PPP R59 MRP line):**

**Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample ( $n = 16,384$ ) with confidence intervals, scorecard applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	+0.7	3.9	4.5	5.9
5-9	-1.8	3.1	3.5	4.7
10-14	+1.6	2.6	3.0	4.1
15-19	-2.2	2.4	2.9	3.8
20-24	-0.3	2.6	3.0	4.0
25-29	+0.9	2.1	2.6	3.4
30-34	-0.9	1.9	2.2	3.0
35-39	+0.1	1.6	2.0	2.8
40-44	-1.6	1.6	2.0	2.6
45-49	+0.0	1.4	1.6	2.1
50-54	-2.1	1.8	1.9	2.1
55-59	-0.7	1.1	1.4	1.7
60-64	+0.4	0.7	0.8	1.1
65-69	+0.1	0.4	0.4	0.5
70-74	-0.1	0.2	0.3	0.4
75-79	+0.0	0.0	0.0	0.0
80-84	+0.0	0.0	0.0	0.0
85-89	+0.0	0.0	0.0	0.0
90-94	+0.0	0.0	0.0	0.0
95-100	###	-50.0	-50.0	-50.0

**Figure 7 (\$1.08/day 1993 PPP R59 MRP line):  
Differences and precision of differences for  
bootstrapped estimates of poverty rates for groups of  
households at a point in time, by sample size,  
scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	-1.3	65.7	75.4	85.5
4	-0.9	36.6	43.4	56.3
8	-0.1	27.1	31.9	40.1
16	-0.4	17.8	21.3	28.5
32	-0.3	12.2	14.9	22.1
64	-0.3	9.2	11.7	15.2
128	-0.4	6.7	8.2	10.2
256	-0.3	4.6	5.4	6.9
512	-0.4	3.2	3.9	5.4
1,024	-0.4	2.2	2.7	3.5
2,048	-0.4	1.6	1.8	2.4
4,096	-0.4	1.1	1.4	1.9
8,192	-0.4	0.8	0.9	1.2
16,384	-0.4	0.6	0.7	0.9

**Figure 10 (\$1.08/day 1993 PPP R59 MRP line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	Inclusion:	Undercoverage:	Leakage:	Exclusion:	Total Accuracy	BPAC
	< poverty line correctly targeted	< poverty line mistakenly non-targeted	=> poverty line mistakenly targeted	=> poverty line correctly non-targeted	Inclusion + Exclusion	See text
0–4	1.5	24.7	0.3	73.5	75.0	–87.5
5–9	4.3	21.9	1.1	72.7	77.0	–63.3
10–14	8.6	17.6	3.5	70.3	78.9	–21.4
15–19	13.4	12.8	7.0	66.9	80.3	+29.0
20–24	16.7	9.5	11.4	62.4	79.1	+56.5
25–29	20.1	6.1	18.7	55.1	75.2	+28.7
30–34	23.0	3.2	27.2	46.6	69.5	–4.0
35–39	24.4	1.8	35.2	38.6	63.0	–34.3
40–44	25.3	0.9	42.3	31.5	56.9	–61.3
45–49	25.7	0.5	48.6	25.2	50.9	–85.7
50–54	26.0	0.2	54.1	19.7	45.7	–106.6
55–59	26.1	0.1	59.0	14.8	41.0	–125.2
60–64	26.2	0.0	63.3	10.5	36.7	–141.6
65–69	26.2	0.0	66.6	7.2	33.4	–154.4
70–74	26.2	0.0	69.4	4.4	30.6	–164.8
75–79	26.2	0.0	71.3	2.5	28.7	–172.3
80–84	26.2	0.0	72.6	1.2	27.4	–177.0
85–89	26.2	0.0	73.4	0.4	26.6	–180.3
90–94	26.2	0.0	73.8	0.0	26.2	–181.7
95–100	26.2	0.0	73.8	0.0	26.2	–181.7

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.

**Figure 11 (\$1.08/day 1993 PPP R59 MRP line):** For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0-4	1.8	83.2	5.7	5.0:1
5-9	5.4	79.4	16.3	3.9:1
10-14	12.0	71.2	32.7	2.5:1
15-19	20.4	65.9	51.3	1.9:1
20-24	28.1	59.4	63.8	1.5:1
25-29	38.8	51.8	76.7	1.1:1
30-34	50.2	45.7	87.6	0.8:1
35-39	59.6	41.0	93.2	0.7:1
40-44	67.6	37.5	96.7	0.6:1
45-49	74.4	34.6	98.3	0.5:1
50-54	80.1	32.5	99.3	0.5:1
55-59	85.1	30.7	99.8	0.4:1
60-64	89.5	29.3	99.9	0.4:1
65-69	92.8	28.2	100.0	0.4:1
70-74	95.6	27.4	100.0	0.4:1
75-79	97.5	26.9	100.0	0.4:1
80-84	98.8	26.5	100.0	0.4:1
85-89	99.6	26.3	100.0	0.4:1
90-94	100.0	26.2	100.0	0.4:1
95-100	100.0	26.2	100.0	0.4:1

**Tables for  
\$2.16/day 1993 PPP R59 MRP Poverty Line**



**Figure 3 (\$2.16/day 1993 PPP R59 MRP line):**

**Estimated poverty likelihoods associated with scores**

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<b>If a household's score is . . .</b>	<b>. . . then the likelihood (%) of being below the poverty line is:</b>
0-4	99.9
5-9	99.9
10-14	99.0
15-19	98.5
20-24	97.3
25-29	94.1
30-34	87.1
35-39	81.0
40-44	71.9
45-49	63.7
50-54	54.3
55-59	44.1
60-64	34.3
65-69	24.9
70-74	17.9
75-79	10.5
80-84	6.3
85-89	3.2
90-94	0.7
95-100	0.0

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**Figure 4 (\$2.16/day 1993 PPP R59 MRP line):  
Derivation of estimated poverty likelihoods  
associated with scores**

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0-4	1,786	÷	1,788	=	99.9
5-9	3,570	÷	3,575	=	99.9
10-14	6,589	÷	6,657	=	99.0
15-19	8,229	÷	8,356	=	98.5
20-24	7,530	÷	7,740	=	97.3
25-29	10,010	÷	10,642	=	94.1
30-34	9,954	÷	11,432	=	87.1
35-39	7,624	÷	9,415	=	81.0
40-44	5,743	÷	7,987	=	71.9
45-49	4,326	÷	6,794	=	63.7
50-54	3,127	÷	5,755	=	54.3
55-59	2,206	÷	5,002	=	44.1
60-64	1,481	÷	4,320	=	34.3
65-69	835	÷	3,357	=	24.9
70-74	489	÷	2,730	=	17.9
75-79	208	÷	1,984	=	10.5
80-84	77	÷	1,232	=	6.3
85-89	27	÷	847	=	3.2
90-94	3	÷	384	=	0.7
95-100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.

**Figure 6 (\$2.16/day 1993 PPP R59 MRP line):**

**Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample ( $n = 16,384$ ) with confidence intervals, scorecard applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	-0.1	0.1	0.1	0.1
5-9	+0.0	0.2	0.3	0.4
10-14	-0.3	0.4	0.5	0.6
15-19	+0.4	0.6	0.8	1.0
20-24	+0.3	0.8	1.0	1.4
25-29	+0.5	1.1	1.3	1.7
30-34	-1.2	1.4	1.6	2.2
35-39	+1.8	2.1	2.4	3.0
40-44	-2.8	2.5	2.8	3.4
45-49	-0.1	2.7	3.2	4.5
50-54	+1.9	3.0	3.7	4.7
55-59	+3.6	3.3	4.0	5.1
60-64	+3.2	3.5	4.2	5.4
65-69	+4.8	3.3	4.1	5.1
70-74	+1.8	3.4	4.0	5.6
75-79	-1.3	3.5	4.1	5.3
80-84	+0.6	3.2	3.8	5.2
85-89	+1.3	1.7	2.0	2.6
90-94	-0.0	1.5	1.7	2.1
95-100	###	-50.0	-50.0	-50.0

**Figure 7 (\$2.16/day 1993 PPP R59 MRP line):**  
**Differences and precision of differences for**  
**bootstrapped estimates of poverty rates for groups of**  
**households at a point in time, by sample size,**  
**scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	-0.6	63.9	76.4	89.7
4	+0.1	29.4	35.3	52.4
8	+0.8	21.2	24.7	36.0
16	+0.7	14.9	17.8	24.0
32	+0.7	10.4	12.5	16.2
64	+0.3	7.5	8.8	11.1
128	+0.4	5.4	6.4	8.7
256	+0.4	3.8	4.4	5.9
512	+0.4	2.7	3.2	4.1
1,024	+0.4	1.8	2.3	3.0
2,048	+0.4	1.4	1.6	2.1
4,096	+0.4	1.0	1.2	1.5
8,192	+0.4	0.7	0.8	1.1
16,384	+0.4	0.5	0.6	0.7

**Figure 10 (\$2.16/day 1993 PPP R59 MRP line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	Inclusion:	Undercoverage:	Leakage:	Exclusion:	Total Accuracy	BPAC
	< poverty line correctly targeted	< poverty line mistakenly non-targeted	=> poverty line mistakenly targeted	=> poverty line correctly non-targeted	Inclusion + Exclusion	See text
0–4	1.8	72.1	0.0	26.1	27.9	–95.2
5–9	5.4	68.5	0.0	26.1	31.4	–85.5
10–14	12.0	61.9	0.1	26.0	38.0	–67.6
15–19	20.1	53.8	0.2	25.9	46.0	–45.2
20–24	27.6	46.3	0.5	25.6	53.3	–24.6
25–29	37.6	36.3	1.2	24.9	62.5	+3.3
30–34	47.6	26.3	2.6	23.5	71.1	+32.4
35–39	55.2	18.7	4.4	21.7	76.9	+55.4
40–44	61.2	12.7	6.4	19.7	80.9	+74.3
45–49	65.6	8.3	8.8	17.3	82.8	+88.1
50–54	68.7	5.2	11.5	14.6	83.3	+84.5
55–59	70.9	3.0	14.3	11.8	82.7	+80.7
60–64	72.3	1.6	17.1	9.0	81.3	+76.8
65–69	73.1	0.8	19.7	6.4	79.4	+73.3
70–74	73.6	0.3	22.0	4.1	77.7	+70.2
75–79	73.8	0.1	23.7	2.4	76.1	+67.9
80–84	73.9	0.0	24.9	1.2	75.1	+66.3
85–89	73.9	0.0	25.7	0.4	74.3	+65.2
90–94	73.9	0.0	26.1	0.0	73.9	+64.7
95–100	73.9	0.0	26.1	0.0	73.9	+64.7

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.

**Figure 11 (\$2.16/day 1993 PPP R59 MRP line):** For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0-4	1.8	100.0	2.4	4,747.0:1
5-9	5.4	99.8	7.2	638.7:1
10-14	12.0	99.5	16.2	188.5:1
15-19	20.4	98.9	27.3	86.2:1
20-24	28.1	98.3	37.4	58.0:1
25-29	38.8	96.9	50.8	31.8:1
30-34	50.2	94.9	64.4	18.5:1
35-39	59.6	92.7	74.7	12.6:1
40-44	67.6	90.6	82.8	9.6:1
45-49	74.4	88.1	88.7	7.4:1
50-54	80.1	85.7	92.9	6.0:1
55-59	85.1	83.2	95.9	5.0:1
60-64	89.5	80.8	97.9	4.2:1
65-69	92.8	78.7	98.9	3.7:1
70-74	95.6	77.0	99.5	3.3:1
75-79	97.5	75.7	99.8	3.1:1
80-84	98.8	74.8	100.0	3.0:1
85-89	99.6	74.2	100.0	2.9:1
90-94	100.0	73.9	100.0	2.8:1
95-100	100.0	73.9	100.0	2.8:1

**Tables for  
the National (Saxena R62) MRP Poverty Line**

**Figure 3 (National Saxena R62 MRP line): Estimated poverty likelihoods associated with scores**

If a household's score is . . .	. . . then the likelihood (%) of being below the poverty line is:
0-4	61.5
5-9	53.2
10-14	37.5
15-19	28.1
20-24	20.6
25-29	13.3
30-34	10.1
35-39	7.1
40-44	4.3
45-49	2.9
50-54	2.1
55-59	1.4
60-64	0.8
65-69	0.4
70-74	0.2
75-79	0.1
80-84	0.1
85-89	0.0
90-94	0.0
95-100	0.0



**Figure 4 (National Saxena R62 MRP line): Derivation of estimated poverty likelihoods associated with scores**

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0-4	1,099	÷	1,788	=	61.5
5-9	1,902	÷	3,575	=	53.2
10-14	2,493	÷	6,657	=	37.5
15-19	2,349	÷	8,356	=	28.1
20-24	1,593	÷	7,740	=	20.6
25-29	1,413	÷	10,642	=	13.3
30-34	1,157	÷	11,432	=	10.1
35-39	666	÷	9,415	=	7.1
40-44	342	÷	7,987	=	4.3
45-49	197	÷	6,794	=	2.9
50-54	119	÷	5,755	=	2.1
55-59	70	÷	5,002	=	1.4
60-64	32	÷	4,320	=	0.8
65-69	13	÷	3,357	=	0.4
70-74	5	÷	2,730	=	0.2
75-79	3	÷	1,984	=	0.1
80-84	1	÷	1,232	=	0.1
85-89	0	÷	847	=	0.0
90-94	0	÷	384	=	0.0
95-100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.

**Figure 6 (National Saxena R62 MRP line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample ( $n = 16,384$ ) with confidence intervals, scorecard applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	-3.3	4.9	5.7	7.3
5-9	+4.5	3.8	4.6	5.8
10-14	+2.7	2.7	3.3	4.2
15-19	-2.5	2.4	2.6	3.3
20-24	+0.8	2.0	2.4	3.0
25-29	+2.7	1.4	1.6	2.0
30-34	+2.4	1.1	1.3	1.7
35-39	+1.8	1.0	1.2	1.5
40-44	+0.8	0.8	0.9	1.3
45-49	+0.9	0.7	0.8	1.0
50-54	-0.2	0.9	1.1	1.5
55-59	-0.1	0.8	1.0	1.2
60-64	+0.0	0.6	0.8	0.9
65-69	+0.3	0.1	0.1	0.1
70-74	+0.0	0.2	0.2	0.3
75-79	-0.1	0.3	0.4	0.5
80-84	+0.1	0.0	0.0	0.0
85-89	+0.0	0.0	0.0	0.0
90-94	+0.0	0.0	0.0	0.0
95-100	###	-50.0	-50.0	-50.0

**Figure 7 (National Saxena R62 MRP line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	+0.9	58.4	70.0	79.3
4	+1.4	28.3	34.2	46.4
8	+1.1	20.2	24.4	32.0
16	+1.2	14.3	17.3	23.9
32	+1.4	9.9	12.5	16.3
64	+1.3	7.4	8.8	11.8
128	+1.1	5.3	6.4	8.1
256	+1.1	3.6	4.2	5.8
512	+1.1	2.6	3.0	4.0
1,024	+1.1	1.8	2.3	3.0
2,048	+1.1	1.3	1.6	2.0
4,096	+1.1	0.9	1.1	1.5
8,192	+1.1	0.6	0.8	1.1
16,384	+1.1	0.5	0.6	0.7

**Figure 10 (National Saxena R62 MRP line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	Inclusion: < poverty line correctly targeted	Undercoverage: < poverty line mistakenly non-targeted	Leakage: => poverty line mistakenly targeted	Exclusion: => poverty line correctly non-targeted	Total Accuracy Inclusion + Exclusion	BPAC See text
	0-4	1.2	12.4	0.6	85.8	87.0
5-9	3.0	10.5	2.4	84.1	87.1	-38.3
10-14	5.4	8.1	6.6	79.9	85.3	+28.9
15-19	8.1	5.5	12.3	74.2	82.2	+9.2
20-24	9.7	3.8	18.4	68.0	77.7	-36.0
25-29	11.0	2.6	27.8	58.7	69.6	-105.3
30-34	12.1	1.5	38.1	48.3	60.4	-181.6
35-39	12.7	0.9	46.9	39.5	52.2	-246.6
40-44	13.0	0.5	54.5	31.9	45.0	-302.8
45-49	13.3	0.3	61.1	25.3	38.6	-351.5
50-54	13.4	0.1	66.7	19.7	33.1	-392.9
55-59	13.5	0.1	71.7	14.8	28.3	-429.2
60-64	13.5	0.0	75.9	10.5	24.0	-460.8
65-69	13.5	0.0	79.3	7.2	20.7	-485.6
70-74	13.5	0.0	82.0	4.4	18.0	-505.7
75-79	13.5	0.0	84.0	2.5	16.0	-520.3
80-84	13.5	0.0	85.2	1.2	14.8	-529.4
85-89	13.5	0.0	86.1	0.4	13.9	-535.7
90-94	13.5	0.0	86.5	0.0	13.5	-538.5
95-100	13.5	0.0	86.5	0.0	13.5	-538.5

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.

**Figure 11 (National Saxena R62 MRP line):** For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0-4	1.8	65.0	8.6	1.9:1
5-9	5.4	55.9	22.1	1.3:1
10-14	12.0	45.2	40.1	0.8:1
15-19	20.4	39.6	59.7	0.7:1
20-24	28.1	34.5	71.6	0.5:1
25-29	38.8	28.3	81.0	0.4:1
30-34	50.2	24.0	89.0	0.3:1
35-39	59.6	21.3	93.6	0.3:1
40-44	67.6	19.3	96.4	0.2:1
45-49	74.4	17.8	97.9	0.2:1
50-54	80.1	16.7	99.0	0.2:1
55-59	85.1	15.8	99.6	0.2:1
60-64	89.5	15.1	99.9	0.2:1
65-69	92.8	14.6	99.9	0.2:1
70-74	95.6	14.2	100.0	0.2:1
75-79	97.5	13.9	100.0	0.2:1
80-84	98.8	13.7	100.0	0.2:1
85-89	99.6	13.6	100.0	0.2:1
90-94	100.0	13.5	100.0	0.2:1
95-100	100.0	13.5	100.0	0.2:1

**Tables for  
\$1.08/day 1993 PPP R62 MRP Poverty Line**

**Figure 3 (\$1.08/day 1993 PPP R62 MRP line):**

**Estimated poverty likelihoods associated with scores**

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<b>If a household's score is . . .</b>	<b>. . . then the likelihood (%) of being below the poverty line is:</b>
0-4	77.4
5-9	68.8
10-14	56.2
15-19	46.6
20-24	32.9
25-29	24.9
30-34	17.7
35-39	10.3
40-44	6.4
45-49	3.3
50-54	1.9
55-59	0.9
60-64	0.5
65-69	0.1
70-74	0.0
75-79	0.0
80-84	0.0
85-89	0.0
90-94	0.0
95-100	0.0

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**Figure 4 (\$1.08/day 1993 PPP R62 MRP line):  
Derivation of estimated poverty likelihoods  
associated with scores**

Score	Households below poverty line		All households at score	=	Poverty likelihood (estimated, %)
0-4	1,384	÷	1,788	=	77.4
5-9	2,458	÷	3,575	=	68.8
10-14	3,744	÷	6,657	=	56.2
15-19	3,897	÷	8,356	=	46.6
20-24	2,548	÷	7,740	=	32.9
25-29	2,647	÷	10,642	=	24.9
30-34	2,027	÷	11,432	=	17.7
35-39	972	÷	9,415	=	10.3
40-44	507	÷	7,987	=	6.4
45-49	223	÷	6,794	=	3.3
50-54	111	÷	5,755	=	1.9
55-59	46	÷	5,002	=	0.9
60-64	21	÷	4,320	=	0.5
65-69	3	÷	3,357	=	0.1
70-74	1	÷	2,730	=	0.0
75-79	0	÷	1,984	=	0.0
80-84	0	÷	1,232	=	0.0
85-89	0	÷	847	=	0.0
90-94	0	÷	384	=	0.0
95-100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.



**Figure 6 (\$1.08/day 1993 PPP R62 MRP line):**

**Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample ( $n = 16,384$ ) with confidence intervals, scorecard applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	+1.1	4.4	5.2	6.4
5-9	-0.0	3.4	4.1	5.3
10-14	+0.8	2.7	3.2	4.4
15-19	-3.6	3.1	3.4	3.9
20-24	-0.9	2.5	2.9	3.8
25-29	+0.7	1.9	2.3	2.9
30-34	-0.7	1.7	2.0	2.6
35-39	+0.1	1.4	1.7	2.1
40-44	-1.7	1.6	1.8	2.5
45-49	-0.8	1.1	1.3	1.8
50-54	-0.6	1.1	1.2	1.6
55-59	-0.9	1.0	1.2	1.5
60-64	+0.4	0.1	0.2	0.2
65-69	+0.1	0.1	0.1	0.1
70-74	-0.1	0.2	0.2	0.3
75-79	+0.0	0.0	0.0	0.0
80-84	+0.0	0.0	0.0	0.0
85-89	+0.0	0.0	0.0	0.0
90-94	+0.0	0.0	0.0	0.0
95-100	###	-50.0	-50.0	-50.0

**Figure 7 (\$1.08/day 1993 PPP R62 MRP line):  
Differences and precision of differences for  
bootstrapped estimates of poverty rates for groups of  
households at a point in time, by sample size,  
scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	-1.0	60.9	73.0	82.0
4	-1.4	34.7	41.4	54.6
8	-0.3	24.9	29.9	39.9
16	-0.5	17.8	20.2	26.0
32	-0.2	12.9	15.3	18.9
64	-0.4	9.6	11.3	14.4
128	-0.5	6.5	7.8	10.0
256	-0.5	4.4	5.3	7.0
512	-0.5	3.1	3.5	4.7
1,024	-0.6	2.2	2.6	3.5
2,048	-0.6	1.5	1.8	2.5
4,096	-0.6	1.1	1.3	1.8
8,192	-0.6	0.8	0.9	1.2
16,384	-0.6	0.6	0.7	0.9

**Figure 10 (\$1.08/day 1993 PPP R62 MRP line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	Inclusion:	Undercoverage:	Leakage:	Exclusion:	Total Accuracy	BPAC
	< poverty line correctly targeted	< poverty line mistakenly non-targeted	=> poverty line mistakenly targeted	=> poverty line correctly non-targeted	Inclusion + Exclusion	See text
0-4	1.4	19.7	0.4	78.5	79.9	-85.0
5-9	3.9	17.2	1.5	77.4	81.3	-56.3
10-14	7.6	13.5	4.4	74.5	82.0	-7.1
15-19	11.7	9.4	8.7	70.2	81.9	+52.1
20-24	14.4	6.7	13.8	65.1	79.5	+34.7
25-29	16.9	4.2	21.9	57.0	73.9	-3.7
30-34	19.0	2.1	31.2	47.7	66.7	-48.0
35-39	20.0	1.1	39.7	39.3	59.2	-88.0
40-44	20.6	0.5	47.0	31.9	52.5	-122.9
45-49	20.9	0.2	53.5	25.4	46.2	-153.8
50-54	21.0	0.1	59.1	19.8	40.8	-180.4
55-59	21.1	0.0	64.1	14.8	35.9	-203.8
60-64	21.1	0.0	68.4	10.5	31.6	-224.2
65-69	21.1	0.0	71.7	7.2	28.3	-240.1
70-74	21.1	0.0	74.5	4.4	25.5	-253.0
75-79	21.1	0.0	76.4	2.5	23.6	-262.4
80-84	21.1	0.0	77.7	1.2	22.3	-268.3
85-89	21.1	0.0	78.5	0.4	21.5	-272.3
90-94	21.1	0.0	78.9	0.0	21.1	-274.1
95-100	21.1	0.0	78.9	0.0	21.1	-274.1

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.

**Figure 11 (\$1.08/day 1993 PPP R62 MRP line):** For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0-4	1.8	76.5	6.5	3.2:1
5-9	5.4	71.8	18.3	2.6:1
10-14	12.0	63.0	35.9	1.7:1
15-19	20.4	57.4	55.5	1.3:1
20-24	28.1	51.0	68.0	1.0:1
25-29	38.8	43.6	80.1	0.8:1
30-34	50.2	37.8	89.9	0.6:1
35-39	59.6	33.5	94.6	0.5:1
40-44	67.6	30.4	97.5	0.4:1
45-49	74.4	28.0	98.9	0.4:1
50-54	80.1	26.2	99.6	0.4:1
55-59	85.1	24.8	99.9	0.3:1
60-64	89.5	23.6	100.0	0.3:1
65-69	92.8	22.7	100.0	0.3:1
70-74	95.6	22.1	100.0	0.3:1
75-79	97.5	21.6	100.0	0.3:1
80-84	98.8	21.4	100.0	0.3:1
85-89	99.6	21.2	100.0	0.3:1
90-94	100.0	21.1	100.0	0.3:1
95-100	100.0	21.1	100.0	0.3:1

**Tables for  
\$0.81/day 1993 PPP R62 MRP Poverty Line**

**Figure 3 (\$0.81/day 1993 PPP R62 MRP line):**

**Estimated poverty likelihoods associated with scores**

---

<b>If a household's score is . . .</b>	<b>. . . then the likelihood (%) of being below the poverty line is:</b>
0-4	40.4
5-9	31.5
10-14	21.7
15-19	14.3
20-24	8.2
25-29	6.8
30-34	4.1
35-39	2.1
40-44	0.9
45-49	0.5
50-54	0.2
55-59	0.2
60-64	0.1
65-69	0.0
70-74	0.0
75-79	0.0
80-84	0.0
85-89	0.0
90-94	0.0
95-100	0.0

---

**Figure 4 (\$0.81/day 1993 PPP R62 MRP line):  
Derivation of estimated poverty likelihoods  
associated with scores**

Score	Households below poverty line		All households at score	=	Poverty likelihood (estimated, %)
0-4	723	÷	1,788	=	40.4
5-9	1,125	÷	3,575	=	31.5
10-14	1,446	÷	6,657	=	21.7
15-19	1,198	÷	8,356	=	14.3
20-24	631	÷	7,740	=	8.2
25-29	718	÷	10,642	=	6.8
30-34	468	÷	11,432	=	4.1
35-39	201	÷	9,415	=	2.1
40-44	74	÷	7,987	=	0.9
45-49	33	÷	6,794	=	0.5
50-54	12	÷	5,755	=	0.2
55-59	8	÷	5,002	=	0.2
60-64	2	÷	4,320	=	0.1
65-69	0	÷	3,357	=	0.0
70-74	0	÷	2,730	=	0.0
75-79	0	÷	1,984	=	0.0
80-84	0	÷	1,232	=	0.0
85-89	0	÷	847	=	0.0
90-94	0	÷	384	=	0.0
95-100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.

**Figure 6 (\$0.81/day 1993 PPP R62 MRP line):**

**Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample ( $n = 16,384$ ) with confidence intervals, scorecard applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	-3.0	5.1	6.1	8.0
5-9	+4.3	3.4	4.1	5.2
10-14	-0.1	2.3	2.7	3.5
15-19	-2.4	2.2	2.4	2.7
20-24	+0.0	1.4	1.7	2.2
25-29	+1.7	0.9	1.1	1.6
30-34	+1.0	0.7	0.9	1.2
35-39	+0.3	0.7	0.8	1.1
40-44	-0.4	0.6	0.7	0.9
45-49	+0.0	0.4	0.4	0.5
50-54	-0.1	0.4	0.4	0.5
55-59	-0.3	0.5	0.6	0.7
60-64	+0.1	0.0	0.0	0.0
65-69	+0.0	0.0	0.0	0.0
70-74	+0.0	0.0	0.0	0.0
75-79	+0.0	0.0	0.0	0.0
80-84	+0.0	0.0	0.0	0.0
85-89	+0.0	0.0	0.0	0.0
90-94	+0.0	0.0	0.0	0.0
95-100	###	-50.0	-50.0	-50.0



**Figure 7 (\$0.81/day 1993 PPP R62 MRP line):  
Differences and precision of differences for  
bootstrapped estimates of poverty rates for groups of  
households at a point in time, by sample size,  
scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	+0.7	45.1	58.6	67.5
4	+0.4	21.8	26.2	37.2
8	+0.3	15.5	18.4	25.9
16	+0.4	11.3	13.3	18.9
32	+0.5	7.9	9.3	12.2
64	+0.3	5.8	6.8	8.7
128	+0.3	4.0	4.7	6.1
256	+0.2	2.9	3.6	4.5
512	+0.3	2.0	2.4	3.2
1,024	+0.3	1.5	1.7	2.3
2,048	+0.2	1.0	1.2	1.6
4,096	+0.2	0.7	0.8	1.1
8,192	+0.2	0.5	0.6	0.8
16,384	+0.2	0.4	0.4	0.6

**Figure 10 (\$0.81/day 1993 PPP R62 MRP line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	Inclusion:	Undercoverage:	Leakage:	Exclusion:	Total Accuracy	BPAC
	< poverty line correctly targeted	< poverty line mistakenly non-targeted	=> poverty line mistakenly targeted	=> poverty line correctly non-targeted	Inclusion + Exclusion	See text
0-4	0.8	5.8	1.0	92.5	93.2	-60.7
5-9	1.8	4.7	3.6	89.9	91.7	+9.6
10-14	3.3	3.3	8.7	84.7	88.0	-33.6
15-19	4.6	1.9	15.7	77.7	82.3	-140.5
20-24	5.3	1.3	22.8	70.6	75.9	-248.8
25-29	5.8	0.7	33.0	60.5	66.3	-403.5
30-34	6.2	0.3	44.0	49.5	55.7	-572.2
35-39	6.4	0.2	53.2	40.2	46.6	-713.4
40-44	6.5	0.1	61.1	32.3	38.8	-833.9
45-49	6.5	0.0	67.9	25.6	32.1	-937.2
50-54	6.5	0.0	73.6	19.8	26.4	-1,024.8
55-59	6.5	0.0	78.6	14.9	21.4	-1,101.0
60-64	6.5	0.0	82.9	10.5	17.1	-1,167.0
65-69	6.5	0.0	86.3	7.2	13.7	-1,218.3
70-74	6.5	0.0	89.0	4.4	11.0	-1,260.0
75-79	6.5	0.0	91.0	2.5	9.0	-1,290.4
80-84	6.5	0.0	92.2	1.2	7.8	-1,309.2
85-89	6.5	0.0	93.1	0.4	6.9	-1,322.1
90-94	6.5	0.0	93.5	0.0	6.5	-1,328.0
95-100	6.5	0.0	93.5	0.0	6.5	-1,328.0

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.

**Figure 11 (\$0.81/day 1993 PPP R62 MRP line): For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample**

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0-4	1.8	43.9	12.0	0.8:1
5-9	5.4	33.8	27.7	0.5:1
10-14	12.0	27.3	50.1	0.4:1
15-19	20.4	22.7	70.8	0.3:1
20-24	28.1	18.8	80.8	0.2:1
25-29	38.8	15.0	88.8	0.2:1
30-34	50.2	12.3	94.7	0.1:1
35-39	59.6	10.7	97.4	0.1:1
40-44	67.6	9.6	98.9	0.1:1
45-49	74.4	8.8	99.5	0.1:1
50-54	80.1	8.1	99.7	0.1:1
55-59	85.1	7.7	100.0	0.1:1
60-64	89.5	7.3	100.0	0.1:1
65-69	92.8	7.1	100.0	0.1:1
70-74	95.6	6.8	100.0	0.1:1
75-79	97.5	6.7	100.0	0.1:1
80-84	98.8	6.6	100.0	0.1:1
85-89	99.6	6.6	100.0	0.1:1
90-94	100.0	6.5	100.0	0.1:1
95-100	100.0	6.5	100.0	0.1:1

**Tables for  
\$1.35/day 1993 PPP R62 MRP Poverty Line**

**Figure 3 (\$1.35/day 1993 PPP R62 MRP line):**

**Estimated poverty likelihoods associated with scores**

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<b>If a household's score is . . .</b>	<b>. . . then the likelihood (%) of being below the poverty line is:</b>
0-4	96.3
5-9	87.0
10-14	83.1
15-19	73.6
20-24	62.4
25-29	50.6
30-34	42.2
35-39	29.0
40-44	18.7
45-49	13.3
50-54	8.3
55-59	5.2
60-64	3.0
65-69	0.9
70-74	0.7
75-79	0.4
80-84	0.2
85-89	0.0
90-94	0.0
95-100	0.0

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**Figure 4 (\$1.35/day 1993 PPP R62 MRP line):  
Derivation of estimated poverty likelihoods  
associated with scores**

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0-4	1,722	÷	1,788	=	96.3
5-9	3,112	÷	3,575	=	87.0
10-14	5,531	÷	6,657	=	83.1
15-19	6,152	÷	8,356	=	73.6
20-24	4,830	÷	7,740	=	62.4
25-29	5,384	÷	10,642	=	50.6
30-34	4,823	÷	11,432	=	42.2
35-39	2,734	÷	9,415	=	29.0
40-44	1,490	÷	7,987	=	18.7
45-49	902	÷	6,794	=	13.3
50-54	478	÷	5,755	=	8.3
55-59	261	÷	5,002	=	5.2
60-64	130	÷	4,320	=	3.0
65-69	31	÷	3,357	=	0.9
70-74	19	÷	2,730	=	0.7
75-79	9	÷	1,984	=	0.4
80-84	2	÷	1,232	=	0.2
85-89	0	÷	847	=	0.0
90-94	0	÷	384	=	0.0
95-100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.

**Figure 6 (\$1.35/day 1993 PPP R62 MRP line):**

**Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample ( $n = 16,384$ ) with confidence intervals, scorecard applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	-0.2	1.7	2.0	2.6
5-9	-2.9	2.5	2.7	3.4
10-14	-0.2	2.0	2.2	2.9
15-19	-2.9	2.4	2.6	3.6
20-24	+1.5	2.6	3.2	3.9
25-29	+0.2	2.2	2.6	3.4
30-34	-2.1	2.1	2.4	3.3
35-39	+0.9	2.1	2.6	3.3
40-44	-3.3	2.8	3.1	3.5
45-49	-0.9	2.0	2.3	3.1
50-54	-1.0	1.8	2.1	2.6
55-59	-0.4	1.5	1.8	2.3
60-64	+0.9	1.1	1.4	1.6
65-69	-0.1	0.7	0.9	1.1
70-74	-0.1	0.8	1.0	1.2
75-79	+0.2	0.3	0.4	0.5
80-84	+0.1	0.3	0.4	0.4
85-89	+0.0	0.0	0.0	0.0
90-94	+0.0	0.0	0.0	0.0
95-100	###	-50.0	-50.0	-50.0

**Figure 7 (\$1.35/day 1993 PPP R62 MRP line):  
Differences and precision of differences for  
bootstrapped estimates of poverty rates for groups of  
households at a point in time, by sample size,  
scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	-0.2	66.7	77.5	89.9
4	-1.0	38.8	44.6	57.5
8	-0.5	27.5	31.4	40.5
16	-0.5	18.8	22.5	27.1
32	-0.8	13.5	16.4	20.1
64	-0.9	10.1	12.0	14.9
128	-0.9	6.8	8.5	10.3
256	-0.7	4.9	5.7	7.4
512	-0.8	3.4	4.1	5.3
1,024	-0.8	2.3	2.7	3.8
2,048	-0.8	1.7	2.0	2.7
4,096	-0.7	1.2	1.4	1.8
8,192	-0.8	0.8	1.0	1.2
16,384	-0.8	0.6	0.7	0.9



**Figure 10 (\$1.35/day 1993 PPP R62 MRP line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	Inclusion:	Undercoverage:	Leakage:	Exclusion:	Total Accuracy	BPAC
	< poverty line correctly targeted	< poverty line mistakenly non-targeted	=> poverty line mistakenly targeted	=> poverty line correctly non-targeted	Inclusion + Exclusion	See text
0–4	1.7	36.3	0.1	61.9	63.6	–90.8
5–9	4.9	33.1	0.5	61.5	66.5	–73.0
10–14	10.4	27.6	1.6	60.4	70.8	–41.0
15–19	16.7	21.3	3.6	58.4	75.1	–2.3
20–24	21.5	16.5	6.7	55.3	76.8	+30.5
25–29	26.8	11.2	12.0	50.0	76.9	+68.5
30–34	31.7	6.3	18.5	43.5	75.2	+51.3
35–39	34.3	3.7	25.3	36.7	71.0	+33.5
40–44	36.1	1.9	31.5	30.5	66.5	+17.0
45–49	37.0	1.0	37.4	24.6	61.6	+1.6
50–54	37.5	0.5	42.6	19.4	56.9	–12.1
55–59	37.8	0.2	47.3	14.7	52.5	–24.6
60–64	37.9	0.1	51.5	10.5	48.4	–35.7
65–69	38.0	0.0	54.9	7.1	45.1	–44.4
70–74	38.0	0.0	57.6	4.4	42.4	–51.5
75–79	38.0	0.0	59.5	2.5	40.5	–56.7
80–84	38.0	0.0	60.8	1.2	39.2	–59.9
85–89	38.0	0.0	61.6	0.4	38.4	–62.2
90–94	38.0	0.0	62.0	0.0	38.0	–63.2
95–100	38.0	0.0	62.0	0.0	38.0	–63.2

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.

**Figure 11 (\$1.35/day 1993 PPP R62 MRP line):** For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0-4	1.8	95.2	4.5	19.9:1
5-9	5.4	91.5	12.9	10.8:1
10-14	12.0	86.5	27.3	6.4:1
15-19	20.4	82.1	44.0	4.6:1
20-24	28.1	76.3	56.5	3.2:1
25-29	38.8	69.2	70.5	2.2:1
30-34	50.2	63.2	83.4	1.7:1
35-39	59.6	57.6	90.3	1.4:1
40-44	67.6	53.4	94.9	1.1:1
45-49	74.4	49.8	97.4	1.0:1
50-54	80.1	46.8	98.8	0.9:1
55-59	85.1	44.4	99.5	0.8:1
60-64	89.5	42.4	99.8	0.7:1
65-69	92.8	40.9	99.9	0.7:1
70-74	95.6	39.8	100.0	0.7:1
75-79	97.5	39.0	100.0	0.6:1
80-84	98.8	38.5	100.0	0.6:1
85-89	99.6	38.1	100.0	0.6:1
90-94	100.0	38.0	100.0	0.6:1
95-100	100.0	38.0	100.0	0.6:1

**Tables for  
\$1.62/day 1993 PPP R62 MRP Poverty Line**

**Figure 3 (\$1.62/day 1993 PPP R62 MRP line):**

**Estimated poverty likelihoods associated with scores**

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<b>If a household's score is . . .</b>	<b>. . . then the likelihood (%) of being below the poverty line is:</b>
0-4	99.2
5-9	97.5
10-14	93.5
15-19	89.5
20-24	81.4
25-29	72.1
30-34	62.1
35-39	50.3
40-44	36.7
45-49	28.5
50-54	20.7
55-59	14.2
60-64	8.3
65-69	4.8
70-74	2.6
75-79	1.5
80-84	0.7
85-89	0.0
90-94	0.0
95-100	0.0

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**Figure 4 (\$1.62/day 1993 PPP R62 MRP line):  
Derivation of estimated poverty likelihoods  
associated with scores**

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0-4	1,775	÷	1,788	=	99.2
5-9	3,485	÷	3,575	=	97.5
10-14	6,226	÷	6,657	=	93.5
15-19	7,476	÷	8,356	=	89.5
20-24	6,300	÷	7,740	=	81.4
25-29	7,674	÷	10,642	=	72.1
30-34	7,094	÷	11,432	=	62.1
35-39	4,736	÷	9,415	=	50.3
40-44	2,930	÷	7,987	=	36.7
45-49	1,936	÷	6,794	=	28.5
50-54	1,191	÷	5,755	=	20.7
55-59	708	÷	5,002	=	14.2
60-64	357	÷	4,320	=	8.3
65-69	160	÷	3,357	=	4.8
70-74	72	÷	2,730	=	2.6
75-79	31	÷	1,984	=	1.5
80-84	9	÷	1,232	=	0.7
85-89	0	÷	847	=	0.0
90-94	0	÷	384	=	0.0
95-100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.

**Figure 6 (\$1.62/day 1993 PPP R62 MRP line):**

**Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample ( $n = 16,384$ ) with confidence intervals, scorecard applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	-0.2	0.6	0.7	0.8
5-9	-0.9	0.8	0.9	1.2
10-14	-0.1	1.2	1.5	2.0
15-19	-1.2	1.4	1.7	2.2
20-24	-0.0	2.0	2.4	3.2
25-29	+0.6	2.0	2.3	3.0
30-34	-2.1	2.0	2.5	3.1
35-39	+1.1	2.4	2.8	3.5
40-44	+0.3	2.6	3.1	4.1
45-49	+1.1	2.5	3.1	3.9
50-54	+0.0	2.6	3.1	3.8
55-59	+0.9	2.3	2.7	3.4
60-64	+1.3	1.9	2.2	3.0
65-69	+0.5	1.7	2.0	2.7
70-74	-1.1	1.9	2.2	2.7
75-79	+0.5	0.9	1.1	1.4
80-84	+0.4	0.5	0.5	0.7
85-89	+0.0	0.0	0.0	0.1
90-94	+0.0	0.0	0.0	0.0
95-100	###	-50.0	-50.0	-50.0

**Figure 7 (\$1.62/day 1993 PPP R62 MRP line):  
Differences and precision of differences for  
bootstrapped estimates of poverty rates for groups of  
households at a point in time, by sample size,  
scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	+0.2	67.7	76.4	91.5
4	+0.2	35.9	43.2	55.2
8	+0.6	25.4	30.9	41.6
16	+0.6	18.0	21.5	28.1
32	+0.0	12.3	14.6	20.2
64	-0.1	8.8	10.6	14.2
128	-0.1	6.3	7.3	9.7
256	-0.1	4.5	5.3	6.8
512	-0.0	3.3	3.8	5.1
1,024	-0.1	2.3	2.6	3.4
2,048	-0.1	1.6	1.9	2.4
4,096	-0.1	1.1	1.3	1.7
8,192	-0.1	0.8	0.9	1.2
16,384	-0.1	0.6	0.7	1.0

**Figure 10 (\$1.62/day 1993 PPP R62 MRP line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	Inclusion:	Undercoverage:	Leakage:	Exclusion:	Total Accuracy	BPAC
	< poverty line correctly targeted	< poverty line mistakenly non-targeted	=> poverty line mistakenly targeted	=> poverty line correctly non-targeted	Inclusion + Exclusion	See text
0–4	1.8	50.3	0.0	48.0	49.7	–93.2
5–9	5.3	46.8	0.1	47.9	53.1	–79.6
10–14	11.5	40.6	0.6	47.4	58.9	–54.9
15–19	19.0	33.1	1.4	46.5	65.5	–24.4
20–24	25.2	26.8	2.9	45.1	70.3	+2.6
25–29	32.8	19.2	6.0	42.0	74.8	+37.5
30–34	40.0	12.0	10.2	37.8	77.8	+73.3
35–39	44.7	7.4	15.0	33.0	77.7	+71.3
40–44	47.6	4.4	20.0	28.0	75.6	+61.6
45–49	49.5	2.5	24.9	23.1	72.6	+52.1
50–54	50.7	1.3	29.4	18.5	69.2	+43.4
55–59	51.4	0.6	33.7	14.2	65.7	+35.2
60–64	51.7	0.3	37.7	10.3	62.0	+27.5
65–69	51.9	0.1	40.9	7.1	59.0	+21.3
70–74	52.0	0.0	43.6	4.4	56.4	+16.3
75–79	52.0	0.0	45.5	2.5	54.5	+12.5
80–84	52.0	0.0	46.7	1.2	53.3	+10.2
85–89	52.0	0.0	47.6	0.4	52.4	+8.5
90–94	52.0	0.0	48.0	0.0	52.0	+7.8
95–100	52.0	0.0	48.0	0.0	52.0	+7.8

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.



**Figure 11 (\$1.62/day 1993 PPP R62 MRP line):** For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0-4	1.8	99.0	3.4	99.7:1
5-9	5.4	98.1	10.1	52.8:1
10-14	12.0	95.4	22.0	20.7:1
15-19	20.4	93.0	36.4	13.3:1
20-24	28.1	89.8	48.5	8.8:1
25-29	38.8	84.6	63.0	5.5:1
30-34	50.2	79.7	76.9	3.9:1
35-39	59.6	74.9	85.8	3.0:1
40-44	67.6	70.4	91.5	2.4:1
45-49	74.4	66.5	95.1	2.0:1
50-54	80.1	63.3	97.5	1.7:1
55-59	85.1	60.4	98.8	1.5:1
60-64	89.5	57.8	99.5	1.4:1
65-69	92.8	55.9	99.8	1.3:1
70-74	95.6	54.4	99.9	1.2:1
75-79	97.5	53.3	100.0	1.1:1
80-84	98.8	52.7	100.0	1.1:1
85-89	99.6	52.2	100.0	1.1:1
90-94	100.0	52.0	100.0	1.1:1
95-100	100.0	52.0	100.0	1.1:1

**Tables for  
\$2.16/day 1993 PPP R62 MRP Poverty Line**

**Figure 3 (\$2.16/day 1993 PPP R62 MRP line):**

**Estimated poverty likelihoods associated with scores**

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<b>If a household's score is . . .</b>	<b>. . . then the likelihood (%) of being below the poverty line is:</b>
0-4	99.9
5-9	99.8
10-14	98.6
15-19	98.0
20-24	95.6
25-29	91.4
30-34	83.6
35-39	76.5
40-44	65.4
45-49	57.4
50-54	47.0
55-59	36.6
60-64	26.9
65-69	18.5
70-74	12.6
75-79	6.6
80-84	4.7
85-89	2.1
90-94	0.3
95-100	0.0

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**Figure 4 (\$2.16/day 1993 PPP R62 MRP line):  
Derivation of estimated poverty likelihoods  
associated with scores**

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0-4	1,786	÷	1,788	=	99.9
5-9	3,569	÷	3,575	=	99.8
10-14	6,564	÷	6,657	=	98.6
15-19	8,193	÷	8,356	=	98.0
20-24	7,401	÷	7,740	=	95.6
25-29	9,725	÷	10,642	=	91.4
30-34	9,555	÷	11,432	=	83.6
35-39	7,200	÷	9,415	=	76.5
40-44	5,223	÷	7,987	=	65.4
45-49	3,898	÷	6,794	=	57.4
50-54	2,706	÷	5,755	=	47.0
55-59	1,831	÷	5,002	=	36.6
60-64	1,160	÷	4,320	=	26.9
65-69	620	÷	3,357	=	18.5
70-74	344	÷	2,730	=	12.6
75-79	130	÷	1,984	=	6.6
80-84	58	÷	1,232	=	4.7
85-89	18	÷	847	=	2.1
90-94	1	÷	384	=	0.3
95-100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.

**Figure 6 (\$2.16/day 1993 PPP R62 MRP line):**

**Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample ( $n = 16,384$ ) with confidence intervals, scorecard applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	-0.2	0.1	0.1	0.1
5-9	+0.0	0.2	0.3	0.4
10-14	-0.2	0.6	0.7	0.8
15-19	+0.1	0.7	0.8	1.0
20-24	-0.2	1.0	1.2	1.6
25-29	-0.2	1.2	1.5	1.8
30-34	-2.6	2.0	2.2	2.3
35-39	+1.4	2.1	2.5	3.2
40-44	-2.3	2.5	2.9	4.0
45-49	+0.9	2.7	3.4	4.5
50-54	-0.5	3.1	3.6	4.9
55-59	+3.7	3.2	3.7	4.8
60-64	+2.2	3.2	3.9	5.0
65-69	+3.4	3.1	3.6	4.5
70-74	+0.7	2.9	3.4	4.6
75-79	-2.2	3.1	3.7	4.8
80-84	+2.7	1.6	1.9	2.5
85-89	+1.1	1.3	1.5	2.0
90-94	+0.2	0.1	0.1	0.1
95-100	###	-50.0	-50.0	-50.0

**Figure 7 (\$2.16/day 1993 PPP R62 MRP line):  
Differences and precision of differences for  
bootstrapped estimates of poverty rates for groups of  
households at a point in time, by sample size,  
scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	-0.9	64.7	73.5	91.5
4	-0.3	30.0	35.3	53.5
8	+0.5	21.7	25.9	36.2
16	+0.3	15.9	18.8	25.0
32	+0.2	10.6	12.6	17.2
64	-0.1	8.1	9.4	11.5
128	-0.0	5.4	6.5	8.6
256	-0.0	3.9	4.6	6.0
512	-0.0	2.8	3.3	4.1
1,024	-0.0	2.0	2.4	3.1
2,048	-0.1	1.4	1.6	2.1
4,096	-0.1	1.0	1.2	1.5
8,192	-0.1	0.7	0.9	1.1
16,384	-0.0	0.5	0.6	0.8

**Figure 10 (\$2.16/day 1993 PPP R62 MRP line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	Inclusion:	Undercoverage:	Leakage:	Exclusion:	Total Accuracy	BPAC
	< poverty line correctly targeted	< poverty line mistakenly non-targeted	=> poverty line mistakenly targeted	=> poverty line correctly non-targeted	Inclusion + Exclusion	See text
0–4	1.8	68.3	0.0	29.9	31.7	–94.9
5–9	5.4	64.7	0.0	29.9	35.2	–84.7
10–14	11.9	58.2	0.1	29.8	41.7	–65.8
15–19	20.1	50.0	0.3	29.6	49.7	–42.3
20–24	27.5	42.6	0.6	29.3	56.8	–20.7
25–29	37.2	32.9	1.6	28.3	65.5	+8.3
30–34	46.9	23.2	3.3	26.6	73.6	+38.5
35–39	54.1	16.0	5.5	24.4	78.4	+62.2
40–44	59.5	10.6	8.1	21.8	81.2	+81.2
45–49	63.3	6.8	11.1	18.8	82.1	+84.2
50–54	66.0	4.1	14.1	15.8	81.8	+79.9
55–59	67.8	2.3	17.3	12.6	80.4	+75.3
60–64	69.0	1.1	20.5	9.4	78.4	+70.8
65–69	69.5	0.5	23.3	6.6	76.2	+66.8
70–74	69.9	0.2	25.7	4.2	74.1	+63.4
75–79	70.1	0.0	27.5	2.4	72.5	+60.8
80–84	70.1	0.0	28.7	1.2	71.3	+59.1
85–89	70.1	0.0	29.5	0.4	70.5	+57.9
90–94	70.1	0.0	29.9	0.0	70.1	+57.3
95–100	70.1	0.0	29.9	0.0	70.1	+57.3

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.

**Figure 11 (\$2.16/day 1993 PPP R62 MRP line):** For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0-4	1.8	100.0	2.6	4,747.0:1
5-9	5.4	99.8	7.6	527.8:1
10-14	12.0	99.2	17.0	124.2:1
15-19	20.4	98.6	28.7	68.8:1
20-24	28.1	97.8	39.2	43.7:1
25-29	38.8	95.9	53.0	23.6:1
30-34	50.2	93.5	66.9	14.4:1
35-39	59.6	90.7	77.1	9.8:1
40-44	67.6	88.0	84.8	7.3:1
45-49	74.4	85.1	90.3	5.7:1
50-54	80.1	82.4	94.2	4.7:1
55-59	85.1	79.7	96.8	3.9:1
60-64	89.5	77.1	98.4	3.4:1
65-69	92.8	74.9	99.2	3.0:1
70-74	95.6	73.1	99.7	2.7:1
75-79	97.5	71.8	99.9	2.5:1
80-84	98.8	71.0	100.0	2.4:1
85-89	99.6	70.4	100.0	2.4:1
90-94	100.0	70.1	100.0	2.3:1
95-100	100.0	70.1	100.0	2.3:1



**Tables for  
The National (Tendulkar MRP) Poverty Line**

**Figure 3 (National Tendulkar R66 MRP line): Estimated poverty likelihoods associated with scores**

If a household's score is . . .	. . . then the likelihood (%) of being below the poverty line is:
0-4	86.8
5-9	75.7
10-14	65.2
15-19	55.5
20-24	42.1
25-29	30.7
30-34	23.5
35-39	14.5
40-44	9.5
45-49	5.5
50-54	3.5
55-59	2.4
60-64	1.5
65-69	0.6
70-74	0.3
75-79	0.2
80-84	0.1
85-89	0.0
90-94	0.0
95-100	0.0

**Figure 4 (National Tendulkar R66 MRP line): Derivation of estimated poverty likelihoods associated with scores**

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0-4	1,553	÷	1,788	=	86.8
5-9	2,706	÷	3,575	=	75.7
10-14	4,340	÷	6,657	=	65.2
15-19	4,636	÷	8,356	=	55.5
20-24	3,260	÷	7,740	=	42.1
25-29	3,271	÷	10,642	=	30.7
30-34	2,687	÷	11,432	=	23.5
35-39	1,363	÷	9,415	=	14.5
40-44	761	÷	7,987	=	9.5
45-49	376	÷	6,794	=	5.5
50-54	203	÷	5,755	=	3.5
55-59	118	÷	5,002	=	2.4
60-64	65	÷	4,320	=	1.5
65-69	20	÷	3,357	=	0.6
70-74	9	÷	2,730	=	0.3
75-79	3	÷	1,984	=	0.2
80-84	1	÷	1,232	=	0.1
85-89	0	÷	847	=	0.0
90-94	0	÷	384	=	0.0
95-100	0	÷	0	=	0.0

Number of all households normalized to sum to 100,000.

**Figure 6 (National Tendulkar R66 MRP line):**

**Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample ( $n = 16,384$ ) with confidence intervals, scorecard applied to the validation sample**

Score	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
0-4	+5.1	4.1	4.9	5.9
5-9	-0.7	3.1	3.7	4.6
10-14	+2.7	2.7	3.2	4.1
15-19	-1.2	2.4	2.9	4.2
20-24	+0.5	2.5	3.0	4.0
25-29	+2.0	2.0	2.4	3.2
30-34	+0.6	1.8	2.1	2.8
35-39	+0.0	1.6	1.9	2.5
40-44	-0.3	1.5	1.8	2.5
45-49	+0.2	1.3	1.5	1.9
50-54	+0.1	1.1	1.3	1.6
55-59	-0.4	1.1	1.3	1.8
60-64	+0.8	0.6	0.7	0.9
65-69	+0.3	0.4	0.4	0.5
70-74	+0.1	0.3	0.3	0.4
75-79	-0.1	0.3	0.4	0.5
80-84	+0.1	0.0	0.0	0.0
85-89	+0.0	0.0	0.0	0.1
90-94	+0.0	0.0	0.0	0.0
95-100	###	-50.0	-50.0	-50.0

**Figure 7 (National Tendulkar R66 MRP line):  
Differences and precision of differences for  
bootstrapped estimates of poverty rates for groups of  
households at a point in time, by sample size,  
scorecard applied to the validation sample**

Sample Size n	Difference between estimate and true value			
	Diff.	Confidence interval (+/- percentage points)		
		90-percent	95-percent	99-percent
1	-0.9	66.0	75.4	85.6
4	-0.6	36.0	43.9	55.5
8	+0.6	25.3	30.8	40.0
16	+0.5	17.5	20.6	26.6
32	+0.6	12.6	15.2	20.5
64	+0.6	9.6	11.5	15.5
128	+0.6	6.9	8.0	10.3
256	+0.6	4.6	5.5	6.9
512	+0.6	3.2	4.0	5.0
1,024	+0.5	2.2	2.7	3.5
2,048	+0.5	1.5	1.9	2.4
4,096	+0.6	1.1	1.4	1.8
8,192	+0.6	0.8	0.9	1.2
16,384	+0.5	0.6	0.6	0.9

**Figure 10 (National Tendulkar R66 MRP line): Households by targeting classification and score, along with “Total Accuracy” and BPAC, scorecard applied to the validation sample**

Score	Inclusion:	Undercoverage:	Leakage:	Exclusion:	Total Accuracy	BPAC
	< poverty line correctly targeted	< poverty line mistakenly non-targeted	=> poverty line mistakenly targeted	=> poverty line non-targeted	Inclusion + Exclusion	See text
0–4	1.5	24.2	0.3	74.0	75.5	–87.3
5–9	4.2	21.4	1.1	73.2	77.4	–62.6
10–14	8.5	17.2	3.6	70.8	79.2	–20.2
15–19	13.2	12.4	7.1	67.2	80.4	+30.9
20–24	16.5	9.1	11.6	62.8	79.3	+54.9
25–29	19.7	5.9	19.0	55.3	75.1	+25.9
30–34	22.5	3.2	27.7	46.6	69.0	–8.1
35–39	23.9	1.8	35.7	38.6	62.5	–39.1
40–44	24.8	0.9	42.8	31.5	56.3	–66.8
45–49	25.2	0.5	49.2	25.2	50.4	–91.6
50–54	25.4	0.2	54.7	19.6	45.1	–113.1
55–59	25.6	0.1	59.6	14.8	40.4	–132.0
60–64	25.6	0.0	63.8	10.5	36.1	–148.7
65–69	25.7	0.0	67.2	7.2	32.8	–161.7
70–74	25.7	0.0	69.9	4.4	30.1	–172.3
75–79	25.7	0.0	71.9	2.5	28.1	–180.0
80–84	25.7	0.0	73.1	1.2	26.9	–184.8
85–89	25.7	0.0	73.9	0.4	26.1	–188.1
90–94	25.7	0.0	74.3	0.0	25.7	–189.6
95–100	25.7	0.0	74.3	0.0	25.7	–189.6

Inclusion, undercoverage, leakage, and exclusion normalized to sum to 100.

**Figure 11 (National Tendulkar R66 MRP line):** For a given score cut-off, the percentage of all households who are targeted (that is, have a score equal to or less than the cut-off), the percentage of targeted households who are poor (that is, below the poverty line), the percentage of poor households who are targeted, and the number of poor households who are successful targeted (coverage) per non-poor household mistakenly targeted (leakage), scorecard applied to the validation sample

Targeting cut-off	% all households who are targeted	% targeted who are poor	% of poor who are targeted	Poor households targeted per non-poor household targeted
0-4	1.8	82.4	5.7	4.7:1
5-9	5.4	79.0	16.5	3.8:1
10-14	12.0	70.3	32.9	2.4:1
15-19	20.4	64.9	51.6	1.9:1
20-24	28.1	58.8	64.4	1.4:1
25-29	38.8	50.9	76.9	1.0:1
30-34	50.2	44.7	87.5	0.8:1
35-39	59.6	40.1	93.1	0.7:1
40-44	67.6	36.7	96.5	0.6:1
45-49	74.4	33.9	98.2	0.5:1
50-54	80.1	31.8	99.1	0.5:1
55-59	85.1	30.1	99.7	0.4:1
60-64	89.5	28.7	99.9	0.4:1
65-69	92.8	27.6	99.9	0.4:1
70-74	95.6	26.9	100.0	0.4:1
75-79	97.5	26.3	100.0	0.4:1
80-84	98.8	26.0	100.0	0.4:1
85-89	99.6	25.8	100.0	0.3:1
90-94	100.0	25.7	100.0	0.3:1
95-100	100.0	25.7	100.0	0.3:1

## Appendix: Definitions of Poverty Lines and Expenditure

The *poverty status* of a household (poor or non-poor) derives from a definition of a poverty line and a definition of expenditure. This appendix documents the definitions used for India's R66 scorecard. This is useful because:

- There are no other published poverty lines for use with R66
- India has added definitions of national poverty lines over time
- India has added definitions of expenditure over time
- There are some errors in the implementation of the definitions of the poverty lines calibrated with the earlier R59 and R62 scorecards
- When measuring changes in poverty rates for a group, the same definitions of poverty lines and expenditure—and thus the same definition of poverty status—must be used at both baseline and follow-up

The following rounds of data from the Consumption Expenditure Module of the NSSO's Socio-Economic Survey are used for constructing scorecards and poverty lines:

- R59 (January to December 2003) is used to construct India's original scorecard (Schreiner, 2006a)
- R62 (July 2005 to June 2006) is used to construct the first update to India's scorecard (Schreiner, 2008a)
- R66 (July 2009 to June 2010) is used in this paper, India's second scorecard update

Price indexes are also used for the periods that the following rounds were in the field:

- R55 (July 1999 to June 2000)
- R61 (July 2004 to June 2005)



## Definitions of expenditure

Since 1999, the NSSO has measured expenditure using three definitions:

- URP: Uniform Reference Period
- MRP: Mixed Reference Period
- MMRP: Modified Mixed Reference Period

The *reference period* is the time frame over which a household is asked to report consumption expenditure. Reference periods are defined for four broad groups of items:

- Frequently purchased staple foods (edible oil, eggs, fish, meat, vegetables, fruit, beverages, *pan*, tobacco, and intoxicants)
- Infrequently purchased staple foods (cereals, pulses, milk and dairy, sugar, and salt)
- Non-food consumables, fuel, toiletries, services, transport, and rent
- Durable goods, clothing, education, and health care

URP defines the reference period for all four categories as 30 days. None of the poverty lines here use the URP definition of expenditure.

Under MRP, the reference period for durable goods, clothing, education, and health care is changed to 365 days, and the reference period for the other three categories is left at 30 days. The switch from URP to MRP led to non-comparable estimates of expenditure between R50 (July 1993 to June 1994) and R55 and thus bedeviled estimates of changes in poverty rates for that period (Deaton and Kozel, 2005). The MRP definition is used in R59, R62, and for half the sample in R66.

The MMRP definition changes MRP so that the reference period for frequently purchased staple foods is 7 days (Government of India, 2011a). This is in line with international practice for expenditure surveys, and MMRP is endorsed by the Tendulkar Committee (2009). MMRP is used for half the sample in R66. Still, MMRP is considered experimental, and Himanshu (2011) says that an official, final decision on whether to adopt MMRP is not expected until after the results of R68 are available.

The NSSO split the R66 sample between MRP and MMRP to enable measurement of changes in poverty rates between R66 and the past (when MRP was used) and between R66 and the future (when MMRP will probably be used, although an official, final decision has yet to be made).

## Calibration to legacy definitions to enable measuring change with estimates from both old and new scorecards

The new R66 scorecard here is calibrated to poverty lines associated with MRP expenditure (for “legacy” lines originally used with the R59 and R62 scorecards) and MMRP expenditure (for all other lines used with the new R66 scorecard).

The R66 scorecard is calibrated to “legacy” MRP lines to let existing users measure changes in poverty rates. Such measures of change are valid, apples-to-apples comparisons as long as both the baseline and follow-up use the same poverty line<sup>32</sup> and the same definition of expenditure. This works even if baseline uses the R59 or R62 scorecard and follow-up uses the R66 scorecard; comparability of estimates depends on using a single definition of poverty status, not on using a single scorecard. Therefore, users of the R59 or R62 scorecard can switch to the new R66 scorecard without having to start from scratch when measuring change over time.

For a given definition of poverty status (that is, a definition of a poverty line and a definition of expenditure), estimates of poverty rates with any scorecard following the approach in this paper are unbiased.<sup>33</sup> This means that the difference between estimates (the estimate of change) is also unbiased. The precision (standard error) of multi-scorecard estimates of change can be measured, but it is not done here.

The new R66 scorecard is constructed with a single definition of poverty status: the National (Tendulkar) poverty line with MMRP expenditure. Nevertheless, scores from the new R66 scorecard are calibrated to multiple poverty lines (including R59 and R62 legacy lines with MRP expenditure). This is possible because the scorecard serves only to rank households by score. This ranking is separate from the calibration that relates scores to poverty likelihoods for a given definition of poverty status.

The rest of this appendix documents the definitions of three classes of poverty lines:

- Legacy lines associated with the R59 scorecard and MRP expenditure
- Legacy lines associated with the R62 scorecard and MRP expenditure
- New lines associated with the new R66 scorecard and MMRP expenditure

All legacy lines from R59 and R62 in Schreiner (2008a and 2006a) are calibrated to the R66 scorecard. Thus, change can be measured from a baseline using R59 or R62 scorecards to a follow-up using the R66 scorecard. The legacy lines from R59 and R62, however, are not comparable with each other, so change cannot be measured from a baseline using the R59 scorecard and a follow-up using the R62 scorecard.

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<sup>32</sup> In constant real terms, that is, adjusted for changes in cost-of-living over time.

<sup>33</sup> *Unbiased* means that the average estimate in repeated samples equals the true value.

## **MRP legacy poverty lines for the R59 scorecard**

The scorecard that uses data from R59 (Schreiner, 2006a) is calibrated to two poverty lines. The R62 legacy lines with MRP expenditure in the R66 data are calibrated to the new R66 scorecard to allow existing R59 scorecard users to measure change over time with the new scorecard without having to start from scratch.

### **National (Saxena R59) poverty line**

India's poverty lines are defined at the level of states and by urban/rural areas within states. For the national line with the R59 scorecard, smaller states and union territories are grouped with larger neighboring states as follows (Deaton, 2003):

- Andaman and Nicobar Islands and Pondicherry are grouped with Tamil Nadu
- Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura are grouped with Assam
- Chandigarh is grouped with Punjab
- Chhattisgarh is grouped with Madhya Pradesh
- Dadra and Nagar Haveli, Daman and Diu, and Gao are grouped with Maharashtra
- Rural Delhi is grouped with rural Haryana
- Jammu and Kashmir is grouped with Himachal Pradesh
- Jharkhand is grouped with Bihar
- Lakshadweep is grouped with Kerala
- Uttaranchal/Uttarakhand is grouped with Uttar Pradesh

Saxena (2001) gives the national poverty lines for R55. They are adjusted for changes in cost-of-living between R55 and R59 using the Consumer Price Index for industrial workers (urban areas) and the CPI for rural labourers (rural areas).<sup>34</sup> The national (Saxena R59) poverty line is the R55 state- and region-specific line multiplied by the R59 regional (urban or rural) CPI and divided by the R55 regional CPI.

Expenditure data provided by the NSSO is not adjusted for changes in cost-of-living over the twelve months of survey fieldwork. This means that the cost-of-living deflator for a given round is the average monthly CPI (urban or rural) while the survey is in the field.

R55 ran from July 1999 to June 2000, so the price index for R55 should be the average monthly CPI from July 1999 to June 2000 (433.33 urban and 309.75 rural). The R59 scorecard, however, incorrectly uses the average CPI from January to December 2000. These indexes—rounded to the nearest integer—are 441 (urban) and 307 (rural).

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<sup>34</sup> <http://labourbureau.nic.in/indtab.html>, retrieved 10 September 2011.

For R59, the scorecard used rounded price indexes of 496 (urban) and 328 (rural). The rural index mistakenly comes from the CPI for *agricultural* laborers (not *rural* labourers), so better, non-rounded indexes are 495.50 (urban) and 330.50 (rural).

This means that the factor for converting urban R55 Saxena lines to urban R59 Saxena lines is  $496 \div 441 = 1.124717$  instead of  $495.50 \div 433.33 = 1.142316$ . Thus, the R59 urban lines are too low by 1.54 percent. In the same way, the R59 rural lines are too high by 0.132 percent.

Still, the lines are not too far off, and the effects of the mistakes may not be material. The correct line and the one used here can be compared in the tables following this appendix. The national Saxena line under “Legacy R59” has mistakes, but the national Saxena line under “Legacy R62” does not. For example, for R59 in urban areas, the mistaken line is Rs17.11, while the correct line is Rs16.96. This leads to the estimated poverty rate (at the household level) being 16.9 percent instead of the correct 16.3 percent. For R62 and R66 in urban areas, the poverty rates differ by 0.1 percentage points. Differences in rural areas are larger, about 2 percentage points. To ensure comparability when measuring change across scorecards, the errors have been replicated when updating the national (Saxena R59) line to R66.

In any case, the national (Saxena R59) line is not calibrated to the R59 scorecard, and Schreiner (2006a) does not report poverty likelihoods for this line. Thus, no one has used the India scorecard to estimate poverty rates based on this line. It is discussed here because it is used in the derivation of the next two lines.

### **\$1.08/day 1993 PPP R59 poverty line**

The R59 scorecard documentation presents what it labels a “\$1.00/day” poverty line, but in fact—and in line with its international definition—the line is based on \$1.08/day (Sillers, 2006). For clarity, it is called here “\$1.08/day”.

The all-India \$1.08/day 1993 purchasing-power parity (PPP) R59 poverty line is derived from:

- 1993 PPP exchange rate of Rs7.02 per \$1.00 (Sillers, 2006)
- Average monthly CPI in 1993 of 252 for both urban and rural
- Average monthly CPI for R59 of 496 for both urban and rural

Given this, the all-India \$1.08/day 1993 PPP R59 line is (Sillers, 2006):

$$(2005 \text{ PPP exchange rate}) \cdot \$1.08 \cdot \left( \frac{\text{CPI}_{\text{Ave R59}}}{\text{CPI}_{\text{Ave. 1993}}} \right), \text{ or}$$

$$\left( \frac{\text{Rs7.02}}{\$1.00} \right) \cdot \$1.08 \cdot \left( \frac{496}{252} \right) = \text{Rs14.9225}.$$

Unfortunately, this derivation has errors because it:

- Applies the urban CPI to all of India, rather than a population-weighted average of the urban and rural CPIs
- Uses a rounded CPI for 1993 (252) instead of 252.08
- Uses a rounded CPI for R59 (496) instead of 495.50
- Uses a rounded 1993 PPP factor of 7.02 instead of 7.0162

Of the four errors, the first (using only the urban CPI) has the largest effect.

All-rural and all-urban \$1.08/day 1993 PPP R59 lines are derived in three steps. The first step assumes that the ratio between the all-urban and all-rural \$1.08/day lines is the same as the ratio between the all-urban and all-rural lines in Deaton (2003, Table 5, column “Recalculated Using New Prices”, PL<sub>55</sub>). These lines adjust for weaknesses that Deaton documents in the national (Saxena) lines for R55, so they are the best indexes of relative prices across states and by urban/rural in India. The all-urban and all-rural Deaton lines for R55 are 11.641972 and 10.169424. This implies:

$$\frac{\text{All - urban } \$1.08/\text{day 1993 PPP}}{\text{All - rural } \$1.08/\text{day 1993 PPP}} = \frac{\text{Deaton All - urban line}}{\text{Deaton All - rural line}} = \frac{11.641972}{10.169424} = 1.144802.$$

The second step asserts that the population-weighted average of the all-urban \$1.08/day line and the all-rural \$1.08/day line should give the all-India \$1.08/day line. Given that 25.18 percent of people in R59 live in urban areas, this implies:

$$0.2518 \cong \text{All-urban } \$1.08/\text{day} + (1-0.2518) \cong \text{All-rural } \$1.08/\text{day} = 14.9225.$$

The third step is to solve these two equations, giving (in average rupees in 2003):

- All-rural \$1.08/day 1993 PPP R59 of Rs14.40
- All-urban \$1.08/day 1993 PPP R59 of Rs16.48

The ratio between the all-urban \$1.08/day line for R59 and the all-urban Deaton line for R55 is  $16.48 \div 11.641972 = 1.416$ . Likewise, the ratio for the all-rural lines is  $14.40 \div 10.169424 = 1.416$ . Thus, multiplying Deaton’s R55 lines by 1.416 gives \$1.08/day 1993 PPP lines for R59 that adjust for regional differences in the prices and that produce the appropriate all-urban, all-rural, and all-India lines.

Like the national (Saxena R59) line, the errors in the calculation of the \$1.08/day R59 line have been replicated when updating the line to R66 for comparability when measuring change over time.

In 2003 in urban areas, 19.4 percent of people (and 14.4 percent of households) had per-capita expenditure below \$1.08/day 1993 PPP (tables after this appendix). The rural figures are 43.2 and 37.7 percent.

### **\$2.16/day 1993 PPP poverty line**

For an urban or rural area in a given state, the \$2.16/day 1993 PPP line for R59 is twice the \$1.08/day 1993 PPP line. In Schreiner (2006a), this is labeled “\$2.00/day”, but it is really \$2.16/day.

### **MRP legacy poverty lines for the R62 scorecard**

The R62 scorecard (Schreiner, 2008a) is calibrated to six poverty lines. As for the R59 legacy lines, the R62 legacy lines are calibrated to MRP expenditure in the R66 data to allow existing users of the R62 scorecard to measure change over time in tandem with the new R66 scorecard without having to start from scratch.

As noted above, the R59 and R62 poverty lines are not comparable. That is, the national (Saxena R59) line has a different definition (thanks to errors) than the national (Saxena R62) line, and the \$1.08/day 1993 PPP line (and its multiples) for R59 has a different definition (thanks to errors) than the \$1.08/day 1993 PPP line (and its multiples) for R62. Thus, estimated changes in poverty rates cannot be measured at baseline with the R59 scorecard and at follow-up with the R62 scorecard. The R62 scorecard could be calibrated to R59 lines, but it has not been done here.

### **National (Saxena R62) poverty line**

The national (Saxena R62) poverty line is based on the R61 lines in Government of India (2007). These R61 lines are the lines in Saxena (2001), updated by the government using the CPI series cited earlier. Smaller states and union territories are grouped as before, except that Chhattisgarh, Dadra and Nagar Haveli, rural Delhi, Goa, Jammu and Kashmir, Jharkhand, and Uttaranchal/Uttarakhand are no longer grouped with a larger neighboring state.

Here, the R61 poverty lines are converted to real, constant units as of R59, R61, and R66 using:

<b>Round</b>	<b>Price index</b>	
	<b>Urban</b>	<b>Rural</b>
59	495.50	330.50
61	524.58	344.08
62	550.77	360.25
66	777.47	529.58

For example, the R62 lines are the R61 lines, multiplied by the relevant R62 index and divided by the relevant R61 index. The resulting poverty lines and poverty rates are reported in the tables following this appendix. These differ slightly from Schreiner (2008a); the figures here correctly use the full sample, but the R62

documentation uses the construction sample after splitting up heavily-weighted cases. The urban poverty rate for R62 by this line is 20.5 percent for people and 15.4 percent for households, while the corresponding rural figures are 20.4 and 17.5 percent.

**\$1.08/day 1993 PPP R62 poverty line**

Like the R59 scorecard documentation, the R62 scorecard documentation presents a “\$1.00/day” poverty line when the line is actually \$1.08/day. The correspondence between the old and new (more accurate) names of the 1993 PPP poverty lines calibrated to the R62 scorecard are:

Old name	New name
\$1.00	\$1.08 (= 1.00 x 1.08)
\$0.75	\$0.81 (= 0.75 x 1.08)
\$1.25	\$1.35 (= 1.25 x 1.08)
\$1.50	\$1.62 (= 1.50 x 1.08)
\$2.00	\$2.16 (= 2.00 x 1.08)

The all-India \$1.08/day 1993 PPP poverty for R62 is the population-weighted average of the all-urban and all-rural lines. The derivation uses:

- 1993 PPP exchange rate of Rs7.0162 per \$1.00 (Sillers, 2005)
- Average monthly urban CPI in 1993 of 252.08
- Average monthly rural CPI in 1993 of 184.75
- Average monthly urban CPI for R62 of 550.77
- Average monthly rural CPI for R62 of 360.25

Applying the formula in Sillers (2006) separately to urban and rural gives an all-urban \$1.08/day line of Rs16.56 and an all-rural line of Rs14.78. With an urban population share of 23.6495 percent, the all-India \$1.08/day 1993 PPP R62 poverty line is Rs15.20/day.

To adjust for state-level differences in cost-of-living (with smaller states and union territories grouped with larger neighboring states as in Table 4a in Deaton, 2003), the all-region line (urban or rural) is multiplied by the Törnqvist index for the state from Deaton (2003, Table 4a) and divided by the average Törnqvist index for the region. The population-weighted regional averages of the Törnqvist indexes are:

Round	Törnqvist index	
	Urban	Rural
59	101.2744	102.1038
62	102.0348	101.0028
66	102.0532	101.4538

In R62, the urban poverty rates by the \$1.08/day line are 13.6 percent for people and 10.0 percent for households. The rural figures are 34.8 and 30.8 percent.

An error in this is that the Törnqvist index for Chhattisgarh is taken from Punjab (97.3 urban, 104.3 rural) instead of Madhya Pradesh (92.7 urban, 95.2 rural).

A larger error is that the process above takes the starting point of the all-urban and all-rural lines as being the same in 1993, rather than recognizing that the all-urban line should be higher. The correct formula for the all-India \$1.08/day 1993 PPP R62 line multiplies \$1.08 by the PPP factor (7.0162) and by the population-weighted average ratios of the urban and rural CPI from 1993 to R62:

$$\$1.08 \cdot 7.0162 \cdot \left[ (1 - 0.7635) \cdot \left( \frac{550.77}{252.08} \right) + 0.7635 \cdot \left( \frac{360.25}{184.75} \right) \right] = \text{Rs}15.20$$

This gives the same all-India line as above, but now the all-urban and all-rural lines are (as in R59) the solution to two equations. The first equates the ratio of the regional \$1.08/day lines to the ratio of Deaton's all-urban and all-rural lines after bringing them to R62:

$$\frac{\$1.08/\text{day all - urban}}{\$1.08/\text{day all - rural}} = \frac{\text{Deaton}_{R55} \text{ all - urban} \cdot \left( \frac{\text{Urban CPI}_{R62}}{\text{Urban CPI}_{R55}} \right)}{\text{Deaton}_{R55} \text{ all - rural} \cdot \left( \frac{\text{Rural CPI}_{R62}}{\text{Rural CPI}_{R55}} \right)} = \frac{11.64 \cdot \left( \frac{550.77}{433.33} \right)}{10.18 \cdot \left( \frac{360.25}{309.75} \right)} = 1.250283.$$

The second equation relates the population-weighted average of the regional lines to the all-India line:

$$(1 - 0.7635) \cong \$1.08/\text{day all-urban} + 0.7635 \cong \$1.08/\text{day all-rural} = \text{Rs}15.20.$$



Solving these two equations gives the correct regional lines:

- All-urban \$1.08/day 1993 PPP = Rs17.94
- All-rural \$1.08/day 1993 PPP = Rs14.35

These correct urban/rural figures should then be adjusted for state-wise cost-of-living by multiplying by the region- and state-specific Deaton line for R62 and dividing by the population-weighted average regional (all-urban or all-rural) Deaton line for R62, rather than the Törnqvist procedure outlined above.

Compared with the incorrect figures actually used, the correct ones for R62 are higher for urban and lower for rural. Nevertheless, the errors are deliberately repeated when updating to R66 to allow measuring change over time. The R62 documentation (Schreiner, 2008a) matches the figures here on p. 10 and in Figure A38, but it is slightly different in Figures A2 to A37, as those tables incorrectly use the construction sub-sample after splitting heavily weighted cases.

#### **\$0.81/day 1993 PPP R62 poverty line**

For an urban or rural area in a given state, the \$0.81/day 1993 PPP line for R62 is the \$1.08/day 1993 PPP line for R62, multiplied by 0.75.

#### **\$1.35/day 1993 PPP R62 poverty line**

The \$1.35/day 1993 PPP line for R62 is the \$1.08/day 1993 PPP line for R62, multiplied by 1.25.

#### **\$1.62/day 1993 PPP R62 poverty line**

The \$1.62/day 1993 PPP line for R62 is the \$1.08/day 1993 PPP line for R62, multiplied by 1.50.

#### **\$2.16/day 1993 PPP R62 poverty line**

The \$2.16/day 1993 PPP line for R62 is the \$1.08/day 1993 PPP line for R62, multiplied by 2.00.

#### **National (Tendulkar MRP) poverty line**

Tendulkar Committee (2009) recommends a new national poverty line for India and provides estimates of person-level poverty rates for R50 and R61 based on the MRP definition of expenditure. The Tendulkar lines address the concern that rural poverty

rates by the Saxena lines seem too low as well as other critiques in Deaton (2008 and 2003) and Deaton and Tarozzi (2000).

Each state and union territory has its own Tendulkar line, except:

- Andaman and Nicobar Islands is grouped with Tamil Nadu
- Chandigarh is grouped with Punjab
- Dadra and Nagar Haveli and Daman and Diu are grouped with Maharashtra
- Lakshadweep is grouped with Kerala

This line is not reported for the R62 scorecard in Schreiner (2008a) because it did not exist then, and no organizations in India have used it with a scorecard. It is included here as a benchmark and to allow the application of the new R66 scorecard and the Tendulkar lines with MRP expenditure, should that be desired.

The R61 lines are adjusted to R59, R62, and R66 using the urban and rural CPIs documented above for the national (Saxena R62) poverty line.

### **MMRP lines for the R66 scorecard**

In R66, expenditure by the MRP definition was collected for half the sample, and expenditure by the MMRP definition was collected for the other half. This is prescient, because it permits calibrating the R59 and R62 legacy lines to the new R66 scorecard as well as calibrating the new scorecard to the lines likely to be relevant from now on.

Poverty status based on MMRP exists only for R66, as MMRP expenditure was not collected in earlier rounds. MMRP is closer than MRP to international practice, and Tendulkar Committee (2009, p. 31) suggests that MMRP should be the standard for future NSSO expenditure surveys. “For the present”, the Tendulkar lines are accepted as official (Government of India, 2011b, p. 5).

MMRP expenditure is higher (Rs65.24 per person per day on average in R66 for urban, Rs34.64 for rural) than MRP expenditure (Rs61.02 urban, Rs31.33 rural). Thus, MMRP poverty rates are lower than MRP poverty rates. For example, the rural MMRP rate for the Tendulkar line in R66 is 25.5 percent, while the rural MRP rate for the same line is 35.5 percent.

### **National (Tendulkar MMRP) poverty line**

The proper way to adjust the R61 Tendulkar lines to R66 is a complex procedure described at a high level in Tendulkar Committee (2009). A developer of this procedure (Himanshu, 2011) said that the R66 adjustments are “in process, but it will be a while before they are officially accepted.” In the meantime, “an easier way would be to simply extend the R61 poverty lines to R66 by using the relevant CPIs in rural and urban

areas. While they may not be accurate, they will not be off the mark. The final poverty line is expected to be close to the one arrived at using this simplification.”

Thus, the Tendulkar lines for R66 are derived from the R61 lines by multiplying them by  $(777.47 \div 524.58)$  for urban and by  $(529.58 \div 344.08)$  for rural. This gives a national poverty line for urban India in R66 of Rs28.40 per person per day (Rs22.86 rural). The corresponding urban poverty rates are 16.0 percent for people and 11.6 percent for households, while the rural figures are 25.5 and 21.3 percent.

In some tables, the national (Tendulkar MMRP) line is referred to as “100% of the national (Tendulkar MMRP) line”.

### **150% of the national (Tendulkar MMRP) poverty line**

150% of the national (Tendulkar MMRP) line is the national (Tendulkar MMRP) line, multiplied by 1.50.

### **200% of the national (Tendulkar MMRP) poverty line**

200% of the national (Tendulkar MMRP) line is the national (Tendulkar MMRP) line, multiplied by 2.00.

### **USAID “extreme” poverty line**

For a given state and by urban/rural, the USAID “extreme” line is defined as the median MMRP expenditure of people (not households) below the national (Tendulkar MMRP) poverty line (U.S. Congress, 2004).

This means that the person-level poverty rate by the USAID “extreme” line for urban areas in R66 (7.9 percent) is half the corresponding rate by the national (Tendulkar MMRP) line (16.0 percent). Likewise, the USAID “extreme” rural poverty rate for people is 12.7 percent, half the 25.5-percent rural rate by the national line.

Schreiner (2008a and 2006a) presents USAID “extreme” lines for the R59 and R62 scorecards. In R59, this line is based on the \$1.08/day 1993 PPP line, and in R62, it is based on the national (Saxena R62) line. These “legacy” lines are not calibrated to scores from the new R66 scorecard here because the real value of the USAID “extreme” line changes over time, so it cannot be used to measure changes in poverty rates. This is because the line depends on the number of people below the national poverty line and the distribution of their expenditure, two things that change over time. Apples-to-apples comparisons over time are not possible with the USAID “extreme” line.

### **\$1.25/day 2005 PPP poverty line**

The all-India \$1.25/day 2005 PPP poverty line for R66 is the population-weighted average of the all-urban and all-rural lines. It is applied with MMRP expenditure. The derivation of the poverty line uses:

- 2005 PPP exchange rate for “individual consumption expenditure by households” (World Bank, 2008) of Rs15.60 per \$1.00
- Average monthly urban CPI for R61 of 524.58
- Average monthly urban CPI for R66 of 777.47
- Average monthly urban CPI in 2005 of 536.00
- Average monthly rural CPI for R61 of 344.08
- Average monthly rural CPI for R66 of 529.58
- Average monthly rural CPI in 2005 of 348.33
- Rural population share in R66 of 0.7290
- Average all-urban national (Tendulkar) line for R66 of Rs28.40
- Average all-rural national (Tendulkar) line for R66 of Rs22.86

The all-India \$1.25/day 2005 PPP line is:

$$\$1.25 \cdot 15.60 \cdot \left[ (1 - 0.7290) \cdot \left( \frac{777.47}{536.00} \right) + 0.7290 \cdot \left( \frac{529.58}{348.33} \right) \right] = \text{Rs}29.29.$$

Given this all-India line, the all-urban and all-rural lines are—as usual—the solution to two equations. The first equates the ratio of the urban and rural \$1.25/day lines to the ratio of the Tendulkar all-urban and all-rural lines in R66 terms:

$$\frac{\$1.25/\text{day all - urban}}{\$1.25/\text{day all - rural}} = \frac{\text{Tendulkar}_{R61} \text{ all - urban} \cdot \left( \frac{\text{Urban CPI}_{R66}}{\text{Urban CPI}_{R61}} \right)}{\text{Tendulkar}_{R61} \text{ all - rural} \cdot \left( \frac{\text{Rural CPI}_{R66}}{\text{Rural CPI}_{R61}} \right)} = \frac{20.04 \cdot \left( \frac{777.47}{524.58} \right)}{15.56 \cdot \left( \frac{529.58}{344.08} \right)} = 1.240189.$$

The second equation relates the population-weighted average of the regional lines to the all-India line:

$$(1 - 0.7290) \cdot \$1.25/\text{day all-urban} + 0.7290 \cdot \$1.25/\text{day all-rural} = \text{Rs}29.29.$$

Solving these two equations gives the regional lines:

- All-urban \$1.25/day 2005 PPP = Rs34.09
- All-rural \$1.25/day 2005 PPP = Rs27.50

These urban/rural figures are adjusted for state-wise cost-of-living by multiplying by the region-and-state-specific Tendulkar line for R61 (updated to R66) and dividing by the population-weighted average regional (all-urban or all-rural) Tendulkar line for R66. The results are urban poverty rates of 25.9 percent for people and 19.6 percent for households, and rural figures of 43.0 and 36.9 percent.

#### **\$1.88/day 2005 PPP poverty line**

The \$1.88/day 2005 PPP line is the \$1.25/day 2005 PPP line, multiplied by 1.504.

#### **\$2.50/day 2005 PPP poverty line**

The \$2.50/day 2005 PPP line is the \$1.25/day 2005 PPP line, multiplied by 2.50.

#### **RBI urban and rural poverty lines**

The RBI lines are defined by a committee of the Reserve Bank of India (RBI) chaired by Shri Y.H. Malegam (RBI, 2011a and 2011b) as:

- Rs120,000 per year per household in urban areas
- Rs60,000 per year per household in rural areas

The RBI lines are not poverty lines in the same sense as any of the other 17 lines because they are set by decree. In particular, the RBI lines are not derived as the cost of a basket of good and services determined via economic theory, logic, and analysis of NSSO data. The source of the RBI lines is not documented.

Non-banking financial companies who make microloans can receive below-market-rate “priority-sector” funding from the RBI only if 85 percent of their loans are “qualifying assets” that—besides fulfilling other criteria—go to households below the relevant RBI line. According to Jain (2011), the new policy responds to a perception that microlenders had shifted their focus away from the poor: “The objective of this guideline is to push microfinance institutions to reach poor people (who also tend to be financially excluded) instead of serving better-off (so-called low-hanging fruit) clients who are usually lower-cost and lower-risk for the microfinance institutions to serve but who do not advance the agenda of poverty alleviation or financial inclusion” (p. 1).

But the RBI lines have unintended consequences. While their focus on meeting explicit goals for outreach to the poor may or may not turn out to serve its stated purpose, several aspects of the lines' definition tend to promote outreach to those who are under the RBI line but who would not be under a poverty line that produces the same overall poverty rate but is defined following international practice. The is because:

- The RBI lines are in terms of (cash) income, not expenditure. Relative to expenditure, income understates the resources used up by households (such as small-scale farmers) that consume some of their own production. Some households in these groups that would be non-poor by expenditure are poor by income, while there is no expected compensating net shift of those who would be poor by expenditure to non-poor by income. This aspect of the RBI lines weakens poverty outreach
- The RBI lines are defined in terms of *total* household income rather than *per-capita* household income. Thus, the share of all poor households who have below-average household size—and who are less likely to be poor with a per-capita definition—increases, weakening incentives to reach those who would be under non-RBI lines
- The RBI lines define urban cost-of-living as twice that of rural. In contrast, the Tendulkar line suggests that urban cost-of-living is about 25 percent higher than rural. This increases the share of India's poor who are urban and who fall below the RBI lines vis-à-vis a more standard definition, again working against RBI's stated purpose
- The RBI lines do not adjust for cost-of-living differences by state/Union Territory. This means that the RBI line is too high in rural areas and in poorer states because those places have both higher poverty rates (by other poverty lines) and lower cost-of-living. The opposite holds for urban areas and less-poor states. The net effect of these countervailing forces on incentives for poverty outreach is ambiguous
- The RBI lines do not adjust for changes in cost-of-living over time. As time passes, more households will qualify as poor who would not be poor if the line were adjusted for inflation, again weakening outreach those who are below standard poverty lines

The RBI lines for R66 appear in the tables following this appendix.<sup>35</sup> The urban line is Rs120,000 per household per year (Rs329 per household per day), giving a poverty rate (with MMRP expenditure) of 69.0 percent for people and of 74.2 percent for households. For rural areas, the line is Rs60,000 per household per year (Rs164 per household per day), and the corresponding poverty rates are 54.2 percent (people) and 63.6 percent (households).

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<sup>35</sup> MMRP expenditure is substituted for income, as income is not measured in the NSSO expenditure module.

Among all the poverty lines in the about 50 countries with scorecards,<sup>36</sup> the RBI lines are unique in that they:

- Imply that urban poverty rates are higher than rural
- Produce household-level poverty rates that are higher than person-level rates
- Ignore changes in cost-of-living over time
- Ignore the number of household members

Calibration of the new R66 scorecard here to the RBI lines does not constitute an endorsement of the RBI policy nor of the RBI poverty lines themselves. Rather, it recognizes that if the RBI policy is to be taken seriously, then microlenders need an inexpensive, standardized tool that can measure poverty objectively and transparently so as to facilitate comparisons and audits (Jain, 2011). The scorecard is well-suited to this task.<sup>37</sup> No poverty tool—other than the NSSO expenditure module—can determine a household’s poverty status with certainty. Nevertheless, the scorecard gives data-based estimates of poverty rates for groups of households with known accuracy. With the scorecard, proving compliance with the RBI mandate should be as simple as showing that a representative sample of a microlender’s clients have an estimated household-level poverty rate<sup>38</sup> by the RBI lines of 85 percent or higher, with (say) an 80-percent confidence interval of  $\pm 5$  percentage points.

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<sup>36</sup> [microfinance.com/#Poverty\\_Scoring](https://microfinance.com/#Poverty_Scoring)

<sup>37</sup> For the RBI rural line, however, no scores have poverty likelihoods above 85 percent, so a microlender with only rural clients could never qualify for priority-sector funding. This is not a scorecard defect; rather, it reflects the RBI lines’ birth by decree rather than via international best practice. For the RBI urban line, scores of 44 or less do have poverty likelihoods above 85 percent, so urban lenders could use the scorecard and still qualify for priority-sector funding. Microlenders with both urban and rural clients would need very high poverty rates among both urban clients and rural clients to end up with a weighted poverty rate in excess of 85 percent.

<sup>38</sup> The relevant rate is for households rather than people because RBI defines the line in household terms.

The RBI has not said how microlenders can prove compliance, other than to require that any methods be certified by a chartered accountant (Jain, 2011). It is unclear, however, how such certification will itself be certified, as few tools other than the scorecard have known accuracy. Jain (2011) reports that microfinance stakeholders have discussed the following approaches:

- Count households as “poor” if they have a ration card or a “Below Poverty Line” card, although such markers are not very accurate (Jalan and Murgai, 2007)
- Idiosyncratic mechanisms designed by microlenders themselves, although such tools would be non-standardized, non-comparable, and of unknown accuracy
- Replicating the NSSO expenditure module, although it would be very costly
- Self-declaration by clients, although they would have incentives to lie
- Declaration by community leaders, although they also would have incentives to lie

Jain (2011) argues that the scorecard is a good, feasible alternative. If the RBI is going to require microlenders to prove their poverty outreach to qualify for subsidized funding, then it should certify the use of the scorecard here and also abandon the RBI lines, replacing them with a multiple of the national Tendulkar MMRP line.



**All India: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
All-India	59	Line	12.93	14.92	29.84	12.74	13.89	10.42	17.37	20.84	27.79	15.22
		Rate (people)	23.7	37.2	83.9	22.0	31.4	11.7	50.7	64.9	80.6	37.9
		Rate (households)	18.9	31.3	78.8	17.5	26.2	9.3	44.2	58.1	75.1	31.6
	62	Line	14.11	16.38	32.77	13.89	15.20	11.40	19.00	22.79	30.39	16.62
		Rate (people)	22.3	35.2	83.5	20.4	29.8	11.1	48.5	63.2	80.2	35.2
		Rate (households)	18.5	30.3	78.4	17.0	25.4	9.5	42.6	56.9	74.9	29.9
	66	Line	20.77	23.95	47.89	20.46	22.17	16.63	27.71	33.25	44.34	24.36
		Rate (people)	19.1	31.4	80.0	17.3	25.5	8.4	44.3	59.1	76.5	31.4
		Rate (households)	15.1	26.1	73.9	13.6	20.9	6.6	37.9	52.2	70.1	25.6

**All India: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
All-India	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	24.36	36.55	48.73	20.44	29.29	44.05	58.58	329	164
		Rate (people)	22.9	57.4	76.7	11.4	38.4	71.0	85.3	69.0	54.2
		Rate (households)	18.4	49.7	69.6	8.8	31.8	63.5	79.5	74.2	63.6

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**All-urban India and all-rural India: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	17.11	16.48	32.97	16.96	14.89	11.17	18.62	22.34	29.79	18.08
		Rate (people)	22.4	19.4	65.4	21.5	13.7	4.3	28.0	39.2	59.1	25.6
		Rate (households)	16.9	14.4	56.6	16.3	10.0	3.0	21.4	31.0	50.2	19.3
	62	Line	18.63	18.25	36.50	18.77	16.56	12.42	20.69	24.83	33.11	20.04
		Rate (people)	20.4	18.8	63.9	20.5	13.6	4.5	25.9	38.1	57.3	23.9
		Rate (households)	15.3	14.2	55.3	15.4	10.0	3.3	19.7	30.3	48.9	18.0
	66	Line	26.39	25.88	51.77	26.61	23.37	17.53	29.21	35.05	46.74	28.39
		Rate (people)	16.5	15.3	58.0	16.7	10.7	3.2	22.3	33.6	51.6	20.4
		Rate (households)	12.2	11.3	48.8	12.3	7.8	2.1	16.8	26.2	42.6	15.2
Rural	59	Line	11.52	14.40	28.79	11.32	13.56	10.17	16.94	20.33	27.11	14.26
		Rate (people)	24.1	43.2	90.2	22.1	37.3	14.2	58.4	73.5	87.9	42.1
		Rate (households)	19.7	37.7	87.1	17.9	32.3	11.7	52.7	68.2	84.5	36.2
	62	Line	12.71	15.80	31.61	12.38	14.78	11.08	18.47	22.16	29.55	15.56
		Rate (people)	22.9	40.2	89.5	20.4	34.8	13.2	55.5	70.9	87.3	38.7
		Rate (households)	19.6	35.9	86.6	17.5	30.8	11.6	50.6	66.2	84.1	34.1
	66	Line	18.68	23.23	46.46	18.17	21.72	16.29	27.16	32.59	43.45	22.86
		Rate (people)	20.1	37.3	88.1	17.5	31.0	10.4	52.5	68.6	85.7	35.5
		Rate (households)	16.3	32.3	84.4	14.1	26.5	8.5	46.7	63.0	81.6	30.0

**All-urban India and all-rural India: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	28.40	42.60	56.80	23.57	34.09	51.27	68.17	329	—
		Rate (people)	16.0	39.7	58.6	7.9	25.9	52.1	69.8	69.0	—
		Rate (households)	11.6	31.4	49.2	5.6	19.6	42.9	60.8	74.2	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	22.86	34.29	45.72	19.28	27.50	41.36	55.00	—	164
		Rate (people)	25.5	63.9	83.4	12.7	43.0	78.0	91.1	—	54.2
		Rate (households)	21.3	57.4	78.1	10.1	36.9	72.1	87.4	—	63.6

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Andaman and Nicobar Islands: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	17.59	17.04	34.08	17.00	15.38	11.54	19.23	23.08	30.77	17.38
		Rate (people)	4.2	2.0	55.9	2.0	0.0	0.0	7.6	18.4	45.8	2.0
		Rate (households)	3.1	1.5	44.1	1.5	0.0	0.0	5.5	12.6	35.3	1.5
	62	Line	19.21	18.92	37.84	18.90	17.14	12.86	21.43	25.72	34.29	19.32
		Rate (people)	3.8	3.8	26.5	3.8	0.0	0.0	3.8	3.8	26.5	3.8
		Rate (households)	2.7	2.7	15.5	2.7	0.0	0.0	2.7	2.7	15.5	2.7
	66	Line	27.11	26.71	53.42	26.67	24.09	18.07	30.12	36.14	48.19	27.27
		Rate (people)	0.0	0.0	21.4	0.0	0.0	0.0	0.5	4.6	17.4	0.0
		Rate (households)	0.0	0.0	14.9	0.0	0.0	0.0	0.4	2.9	11.6	0.0
Rural	59	Line	10.81	15.66	31.33	11.11	14.72	11.04	18.40	22.08	29.45	13.95
		Rate (people)	0.0	9.7	64.3	0.0	8.3	0.0	27.8	34.9	50.8	7.0
		Rate (households)	0.0	7.2	60.4	0.0	6.1	0.0	22.1	29.2	44.5	5.3
	62	Line	11.88	17.20	34.41	12.11	16.06	12.04	20.07	24.08	32.11	15.20
		Rate (people)	0.0	4.1	52.3	0.0	2.6	0.0	12.6	31.4	51.1	2.2
		Rate (households)	0.0	4.3	44.7	0.0	3.0	0.0	10.3	23.8	43.1	1.2
	66	Line	17.47	25.29	50.58	17.80	23.62	17.71	29.52	35.42	47.23	22.35
		Rate (people)	0.0	0.8	50.8	0.0	0.4	0.0	4.4	13.0	43.1	0.4
		Rate (households)	0.0	2.6	45.6	0.0	1.6	0.0	4.7	11.8	37.5	1.6

**Andaman and Nicobar Islands: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	27.27	40.91	54.55	—	32.74	49.24	65.47	329	—
		Rate (people)	0.0	6.8	17.6	0.0	0.3	12.8	32.4	46.7	—
		Rate (households)	0.0	4.0	12.0	0.0	0.2	7.8	23.9	54.8	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	22.35	33.53	44.70	20.37	26.89	40.44	53.77	—	164
		Rate (people)	0.2	8.2	29.3	0.0	0.2	15.6	52.2	—	12.2
		Rate (households)	0.8	7.3	24.6	0.0	0.8	13.8	45.5	—	23.9

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Andhra Pradesh: Poverty lines and poverty rates (at person level and household level),  
by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP \$1.08 \$2.16		National Saxena	Intl. 1993 PPP \$1.08 \$0.81 \$1.35 \$1.62 \$2.16				National Tendulkar	
Urban	59	Line	16.91	16.05	32.09	16.86	14.37	10.78	17.96	21.55	28.74	17.49
		Rate (people)	23.0	19.5	63.7	22.9	11.5	3.2	26.9	36.3	58.0	24.3
		Rate (households)	20.4	18.0	59.0	20.3	11.3	3.6	24.0	32.2	54.1	21.8
	62	Line	18.47	17.82	35.64	18.74	16.01	12.01	20.02	24.02	32.03	19.44
		Rate (people)	18.7	17.4	60.9	19.7	12.8	5.0	24.8	34.8	52.8	22.4
		Rate (households)	15.6	14.6	56.1	16.4	10.6	4.4	20.6	29.2	47.5	18.5
	66	Line	26.08	25.15	50.31	26.45	22.51	16.88	28.13	33.76	45.01	27.44
		Rate (people)	11.2	9.3	51.0	11.8	6.1	1.6	14.1	23.5	44.2	13.3
		Rate (households)	8.8	7.5	42.6	9.3	4.6	1.1	11.4	18.9	36.9	10.4
Rural	59	Line	9.24	14.41	28.82	9.25	13.54	10.16	16.93	20.31	27.08	13.69
		Rate (people)	10.4	42.3	91.0	10.4	35.2	14.2	57.2	71.3	87.7	36.3
		Rate (households)	7.8	37.0	88.6	7.8	31.2	11.4	52.2	67.4	85.4	32.3
	62	Line	10.16	15.83	31.66	10.08	14.77	11.08	18.46	22.15	29.54	14.92
		Rate (people)	7.6	35.2	87.1	7.5	30.3	9.9	49.0	67.7	85.4	31.4
		Rate (households)	8.7	32.8	85.9	8.7	28.1	10.7	46.1	65.6	83.9	29.1
	66	Line	14.93	23.27	46.54	14.82	21.72	16.29	27.15	32.58	43.44	21.93
		Rate (people)	4.6	24.5	82.4	4.5	19.9	6.1	37.6	56.3	79.2	20.3
		Rate (households)	3.8	20.9	76.7	3.6	16.8	4.9	32.9	50.4	73.2	17.3

**Andhra Pradesh: Poverty lines and poverty rates (at person level and household level),  
by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	27.44	41.16	54.88	23.45	32.93	49.53	65.87	329	—
		Rate (people)	7.8	30.0	50.6	3.9	16.8	43.3	61.6	71.4	—
		Rate (households)	6.5	24.5	42.5	3.1	13.7	36.1	53.2	76.1	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	21.93	32.90	43.86	19.11	26.38	39.68	52.77	—	164
		Rate (people)	11.9	44.7	69.2	6.0	23.9	62.5	84.0	—	60.0
		Rate (households)	11.1	40.9	65.2	5.0	21.6	57.9	79.8	—	68.2

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.



**Arunachal Pradesh: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	12.72	17.64	35.28	11.76	15.87	11.90	19.84	23.80	31.74	19.21
		Rate (people)	3.4	12.8	72.4	1.9	10.7	1.9	18.5	33.0	66.7	18.4
		Rate (households)	2.7	9.9	66.1	1.3	7.4	1.3	13.9	27.4	57.8	13.3
	62	Line	13.89	19.59	39.18	13.08	17.69	13.26	22.11	26.53	35.37	21.35
		Rate (people)	0.0	3.7	71.7	0.0	0.5	0.0	11.3	25.0	61.6	10.2
		Rate (households)	0.0	3.9	68.8	0.0	0.3	0.0	10.9	25.1	60.6	10.1
	66	Line	19.61	27.65	55.30	18.46	24.85	18.64	31.07	37.28	49.71	30.13
		Rate (people)	4.7	19.4	63.6	3.4	14.5	3.6	25.7	37.9	56.9	24.5
		Rate (households)	4.0	15.0	58.8	2.9	11.6	3.0	21.0	32.5	52.7	19.8
Rural	59	Line	12.84	15.82	31.64	12.24	14.87	11.15	18.59	22.30	29.74	17.28
		Rate (people)	8.7	18.6	76.5	6.8	14.2	5.1	31.6	49.7	73.4	24.8
		Rate (households)	6.6	14.9	70.8	5.1	11.1	3.8	25.3	42.9	68.1	20.1
	62	Line	14.12	17.38	34.76	13.34	16.22	12.16	20.27	24.32	32.43	18.83
		Rate (people)	11.9	27.7	81.7	8.8	19.7	5.1	44.9	57.3	76.4	35.4
		Rate (households)	7.9	21.1	74.6	6.0	13.8	3.7	35.2	48.9	69.0	26.2
	66	Line	20.75	25.55	51.09	19.62	23.85	17.89	29.81	35.77	47.70	27.69
		Rate (people)	13.5	26.6	79.7	10.8	21.1	6.9	40.0	55.7	77.3	34.4
		Rate (households)	10.2	21.2	72.1	8.0	16.6	5.1	33.4	48.0	68.9	27.8

**Arunachal Pradesh: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	30.13	45.20	60.27	23.98	36.17	54.40	72.34	329	—
		Rate (people)	16.1	39.3	58.7	7.6	24.2	50.5	68.1	68.5	—
		Rate (households)	12.7	33.6	54.3	5.4	19.8	45.9	63.5	74.6	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	27.69	41.53	55.37	22.64	33.31	50.09	66.61	—	164
		Rate (people)	21.4	51.9	67.4	10.6	36.9	63.5	78.7	—	27.9
		Rate (households)	17.8	44.2	59.7	8.3	31.3	55.7	72.2	—	34.2

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Assam: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	12.72	17.64	35.28	11.76	15.87	11.90	19.84	23.80	31.74	18.63
		Rate (people)	9.2	20.7	82.4	6.2	16.4	6.2	28.2	45.1	78.2	22.9
		Rate (households)	6.4	16.1	72.8	4.0	12.1	4.0	23.3	35.5	68.0	18.7
	62	Line	13.89	19.59	39.18	13.08	17.69	13.26	22.11	26.53	35.37	20.71
		Rate (people)	2.8	8.5	61.5	2.5	6.2	2.5	12.8	28.8	50.9	9.9
		Rate (households)	1.6	6.2	45.2	1.5	4.0	1.5	9.2	17.8	37.1	7.3
	66	Line	19.61	27.65	55.30	18.46	24.85	18.64	31.07	37.28	49.71	29.24
		Rate (people)	6.9	23.4	66.4	5.1	17.7	5.9	30.4	40.5	57.4	27.6
		Rate (households)	5.8	20.6	58.3	4.1	15.1	4.8	26.4	34.9	49.5	24.1
Rural	59	Line	12.84	15.82	31.64	12.24	14.87	11.15	18.59	22.30	29.74	15.09
		Rate (people)	23.4	48.2	97.1	20.3	41.3	15.6	67.0	84.8	96.1	43.3
		Rate (households)	19.8	42.0	94.6	16.9	35.3	12.9	60.3	79.6	93.4	37.2
	62	Line	14.12	17.38	34.76	13.34	16.22	12.16	20.27	24.32	32.43	16.45
		Rate (people)	18.9	40.9	94.1	16.0	32.2	10.7	57.8	74.3	91.6	33.5
		Rate (households)	16.9	38.1	92.3	14.4	29.7	9.7	54.7	71.9	89.6	30.9
	66	Line	20.75	25.55	51.09	19.62	23.85	17.89	29.81	35.77	47.70	24.19
		Rate (people)	29.1	51.1	94.6	23.4	44.0	14.2	66.2	78.1	92.5	45.2
		Rate (households)	26.0	47.6	93.2	20.9	40.5	12.4	62.5	75.5	90.7	41.8

**Assam: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	29.24	43.85	58.47	22.27	35.09	52.78	70.18	329	—
		Rate (people)	20.9	45.1	60.8	10.4	31.1	56.7	76.5	74.9	—
		Rate (households)	17.5	37.5	51.9	9.0	26.0	48.2	69.8	76.3	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	24.19	36.28	48.37	20.07	29.10	43.76	58.19	—	164
		Rate (people)	29.1	67.7	87.5	14.5	47.8	82.5	94.8	—	52.2
		Rate (households)	25.9	64.4	85.0	12.3	44.1	79.9	93.5	—	59.9

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Bihar: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	14.04	14.97	29.94	13.51	13.44	10.08	16.80	20.16	26.88	16.34
		Rate (people)	33.9	36.4	82.9	26.8	26.4	8.2	46.0	58.7	77.9	44.8
		Rate (households)	23.1	25.3	69.3	19.3	18.8	4.8	33.6	45.1	63.6	32.5
	62	Line	15.34	16.62	33.25	15.02	14.98	11.24	18.73	22.47	29.96	18.16
		Rate (people)	38.0	45.1	85.6	33.7	33.7	14.5	55.0	67.4	81.6	54.1
		Rate (households)	27.9	35.1	76.5	25.8	25.7	10.4	44.3	57.1	71.7	43.2
	66	Line	21.65	23.47	46.93	21.20	21.05	15.79	26.32	31.58	42.11	25.64
		Rate (people)	28.4	31.8	81.0	27.2	26.4	9.0	43.2	56.7	75.9	39.7
		Rate (households)	21.6	24.8	69.8	20.6	19.8	6.3	34.6	46.8	64.1	31.1
Rural	59	Line	11.70	13.82	27.64	11.19	12.98	9.74	16.23	19.48	25.97	13.69
		Rate (people)	43.0	61.5	97.8	38.5	54.0	22.8	75.8	88.5	96.9	60.8
		Rate (households)	36.7	54.2	96.0	32.5	47.1	18.1	69.9	83.6	94.4	53.6
	62	Line	12.87	15.18	30.35	12.20	14.16	10.62	17.70	21.24	28.32	14.92
		Rate (people)	35.3	56.6	97.9	30.6	49.5	20.1	73.9	86.7	97.1	55.7
		Rate (households)	32.1	51.3	96.2	28.0	44.9	17.7	69.1	82.4	95.0	50.4
	66	Line	18.91	22.31	44.62	17.93	20.83	15.62	26.03	31.24	41.65	21.93
		Rate (people)	41.5	59.2	96.4	36.3	50.5	22.2	72.7	85.4	95.5	57.2
		Rate (households)	34.4	52.1	94.4	29.6	43.7	17.3	66.2	80.2	93.1	50.1

**Bihar: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	25.64	38.46	51.28	20.22	30.77	46.28	61.54	329	—
		Rate (people)	32.2	61.9	79.5	15.9	48.5	75.6	84.1	85.1	—
		Rate (households)	24.5	50.8	68.1	11.3	38.8	64.0	74.2	88.2	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	21.93	32.90	43.86	17.76	26.38	39.68	52.77	—	164
		Rate (people)	42.1	82.0	93.7	20.7	63.1	91.4	97.6	—	69.6
		Rate (households)	35.9	75.7	89.8	16.5	55.9	86.5	95.7	—	77.2

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Chandigarh: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP			National Tendulkar		
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	14.35	16.32	32.63	14.48	14.31	10.73	17.89	21.46	28.62	19.95
		Rate (people)	2.3	3.0	41.5	2.7	2.3	0.1	3.0	5.3	31.1	5.0
		Rate (households)	2.0	2.6	28.7	2.2	2.0	0.5	2.6	4.4	22.4	4.2
	62	Line	15.68	18.12	36.24	16.09	15.95	11.96	19.94	23.92	31.90	22.18
		Rate (people)	7.5	17.2	26.4	7.5	7.5	0.6	18.8	19.7	25.8	19.1
		Rate (households)	3.3	9.6	18.1	3.3	3.3	0.3	10.8	11.7	16.8	11.1
	66	Line	22.13	25.57	51.15	22.71	22.41	16.81	28.02	33.62	44.83	31.31
		Rate (people)	1.8	4.2	25.4	2.3	2.3	0.0	7.2	11.5	18.8	9.1
		Rate (households)	1.0	2.5	16.8	1.2	1.2	0.0	4.5	7.0	12.4	5.6
Rural	59	Line	12.74	14.73	29.46	12.96	13.85	10.39	17.31	20.77	27.69	17.16
		Rate (people)	3.0	3.0	57.0	3.0	3.0	0.0	11.6	34.4	50.0	11.6
		Rate (households)	1.9	1.9	44.2	1.9	1.9	0.0	6.5	21.8	37.9	6.5
	62	Line	14.01	16.18	32.36	14.13	15.10	11.33	18.88	22.65	30.20	18.71
		Rate (people)	0.0	0.0	56.6	0.0	0.0	0.0	0.0	38.2	53.5	0.0
		Rate (households)	0.0	0.0	50.1	0.0	0.0	0.0	0.0	37.9	47.6	0.0
	66	Line	20.60	23.78	47.57	20.77	22.21	16.66	27.76	33.31	44.42	27.50
		Rate (people)	0.0	0.0	14.6	0.0	0.0	0.0	10.0	10.2	11.8	10.0
		Rate (households)	0.0	0.0	8.5	0.0	0.0	0.0	5.8	5.9	7.5	5.8

**Chandigarh: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	31.31	46.96	62.61	28.68	37.58	56.51	75.15	329	—
		Rate (people)	5.4	17.4	28.8	2.7	9.6	25.1	40.4	43.5	—
		Rate (households)	3.4	10.5	18.7	1.6	5.6	15.5	28.4	56.2	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	27.50	41.25	55.00	27.35	33.08	49.76	66.17	—	164
		Rate (people)	8.3	9.8	12.7	2.3	8.5	10.7	56.8	—	22.8
		Rate (households)	6.9	8.9	15.6	1.1	7.1	9.7	44.8	—	46.2

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.



**Chhattisgarh: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	17.81	14.95	29.91	17.39	14.31	10.73	17.89	21.46	28.62	15.95
		Rate (people)	54.0	36.1	70.8	51.3	34.2	15.2	55.7	60.2	69.0	41.1
		Rate (households)	44.3	28.1	63.4	42.8	26.9	11.6	45.8	50.7	60.9	33.7
	62	Line	19.45	16.61	33.21	19.33	15.95	11.96	19.94	23.92	31.90	17.73
		Rate (people)	23.4	17.9	53.3	23.4	16.5	2.5	24.3	32.0	50.6	19.5
		Rate (households)	18.9	13.9	52.4	18.9	12.5	2.0	20.2	29.8	49.6	15.4
	66	Line	27.46	23.44	46.88	27.29	22.41	16.81	28.02	33.62	44.83	25.03
		Rate (people)	25.0	18.5	64.1	24.5	16.9	5.4	27.6	43.9	60.6	21.6
		Rate (households)	24.6	17.1	57.8	23.3	15.6	5.4	26.8	40.1	55.2	20.2
Rural	59	Line	10.94	13.45	26.89	10.18	13.85	10.39	17.31	20.77	27.69	12.60
		Rate (people)	40.1	64.0	95.9	28.4	65.8	31.7	84.2	91.5	95.9	57.8
		Rate (households)	32.4	55.5	94.1	23.6	57.5	25.9	78.0	87.9	94.1	48.2
	62	Line	12.03	14.77	29.54	11.10	15.10	11.33	18.88	22.65	30.20	13.73
		Rate (people)	44.2	62.7	99.0	37.3	63.2	38.1	81.8	91.9	99.0	55.2
		Rate (households)	39.9	57.2	97.7	33.0	57.6	33.7	80.0	91.0	97.7	50.8
	66	Line	17.68	21.71	43.42	16.31	22.21	16.66	27.76	33.31	44.42	20.19
		Rate (people)	39.4	63.2	95.4	28.6	63.9	30.6	78.9	86.2	95.7	55.4
		Rate (households)	34.2	57.2	94.1	23.8	58.0	25.6	76.1	84.6	94.5	48.9

**Chhattisgarh: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	25.03	37.54	50.06	20.54	30.04	45.18	60.08	329	—
		Rate (people)	16.5	35.2	57.3	7.9	21.6	47.8	70.8	67.5	—
		Rate (households)	14.4	32.4	52.0	7.2	19.7	44.3	64.7	79.0	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	20.19	30.28	40.37	16.77	24.28	36.52	48.57	—	164
		Rate (people)	37.8	76.3	89.7	18.5	56.0	86.6	95.4	—	72.5
		Rate (households)	32.8	71.2	86.8	15.4	50.1	83.3	93.6	—	80.0

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Dadra and Nagar Haveli: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	19.96	17.94	35.87	20.68	16.12	12.09	20.15	24.18	32.24	19.62
		Rate (people)	30.6	3.6	51.5	30.6	3.6	0.0	30.6	42.5	51.5	30.6
		Rate (households)	14.8	1.8	32.7	14.8	1.8	0.0	14.8	23.6	32.7	14.8
	62	Line	21.80	19.92	39.84	22.99	17.96	13.47	22.46	26.95	35.93	21.81
		Rate (people)	0.0	0.0	27.6	0.0	0.0	0.0	0.0	0.0	15.3	0.0
		Rate (households)	0.0	0.0	21.7	0.0	0.0	0.0	0.0	0.0	15.0	0.0
	66	Line	30.77	28.12	56.23	32.45	25.25	18.93	31.56	37.87	50.49	30.79
		Rate (people)	9.4	9.3	81.4	17.7	0.1	0.0	17.7	37.6	66.4	9.4
		Rate (households)	6.8	6.7	73.5	13.4	0.1	0.0	13.4	29.3	56.1	6.8
Rural	59	Line	11.19	14.89	29.77	11.44	13.99	10.49	17.49	20.99	27.99	15.31
		Rate (people)	17.6	40.2	76.1	17.6	26.6	14.8	53.3	60.9	68.5	40.2
		Rate (households)	9.0	26.8	59.6	9.0	16.8	6.9	38.0	46.0	52.1	26.8
	62	Line	12.31	16.35	32.70	12.47	15.26	11.45	19.08	22.89	30.52	16.69
		Rate (people)	0.0	40.9	76.8	0.0	39.2	0.0	63.3	67.3	76.8	40.9
		Rate (households)	0.0	21.0	64.4	0.0	19.8	0.0	49.7	53.0	64.4	21.0
	66	Line	18.09	24.04	48.07	18.33	22.44	16.83	28.06	33.67	44.89	24.54
		Rate (people)	19.1	50.3	92.9	19.1	40.3	13.9	67.6	75.8	92.0	56.0
		Rate (households)	18.3	44.7	91.1	18.3	38.7	13.1	64.4	73.4	90.3	51.3

**Dadra and Nagar Haveli: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	30.79	46.18	61.57	27.07	36.95	55.58	73.90	329	—
		Rate (people)	3.8	42.2	69.7	1.1	17.3	61.4	84.3	81.0	—
		Rate (households)	2.2	32.1	55.5	0.6	12.5	46.8	72.3	81.8	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	24.54	36.80	49.07	21.81	29.52	44.39	59.03	—	164
		Rate (people)	49.3	78.1	88.6	24.5	69.3	84.5	96.0	—	65.5
		Rate (households)	42.7	73.3	84.1	18.6	62.4	79.9	93.1	—	66.6

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Daman and Diu: Poverty lines and poverty rates (at person level and household level),  
by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP \$1.08 \$2.16		National Saxena	Intl. 1993 PPP \$1.08 \$0.81 \$1.35 \$1.62 \$2.16				National Tendulkar	
Urban	59	Line	19.96	17.94	35.87	20.68	16.12	12.09	20.15	24.18	32.24	19.62
		Rate (people)	20.0	8.3	76.1	20.0	8.3	0.0	20.0	42.8	53.0	8.3
		Rate (households)	12.5	5.2	50.8	12.5	5.2	0.0	12.5	27.8	38.6	5.2
	62	Line	21.80	19.92	39.84	22.99	17.96	13.47	22.46	26.95	35.93	21.81
		Rate (people)	0.0	0.0	77.9	13.3	0.0	0.0	0.0	38.9	74.1	0.0
		Rate (households)	0.0	0.0	71.6	11.6	0.0	0.0	0.0	30.1	60.1	0.0
	66	Line	30.77	28.12	56.23	32.45	25.25	18.93	31.56	37.87	50.49	30.79
		Rate (people)	18.6	6.5	64.3	28.9	5.9	0.3	25.9	39.4	59.1	18.6
		Rate (households)	15.5	5.0	55.8	22.5	4.3	0.3	19.9	30.4	50.3	15.5
Rural	59	Line	11.19	14.89	29.77	11.44	13.99	10.49	17.49	20.99	27.99	15.31
		Rate (people)	0.0	3.6	55.7	0.0	3.6	0.0	21.5	29.0	49.3	16.2
		Rate (households)	0.0	2.4	37.8	0.0	2.4	0.0	15.5	19.7	33.2	12.5
	62	Line	12.31	16.35	32.70	12.47	15.26	11.45	19.08	22.89	30.52	16.69
		Rate (people)	0.0	0.0	42.0	0.0	0.0	0.0	0.0	0.0	21.4	0.0
		Rate (households)	0.0	0.0	27.6	0.0	0.0	0.0	0.0	0.0	14.3	0.0
	66	Line	18.09	24.04	48.07	18.33	22.44	16.83	28.06	33.67	44.89	24.54
		Rate (people)	0.9	4.0	55.8	0.9	1.1	0.9	32.0	42.1	53.2	11.9
		Rate (households)	0.5	2.2	42.7	0.5	0.6	0.5	23.8	31.5	40.8	6.8

**Daman and Diu: Poverty lines and poverty rates (at person level and household level),  
by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	30.79	46.18	61.57	25.57	36.95	55.58	73.90	329	—
		Rate (people)	4.2	64.4	76.0	1.9	38.2	72.3	78.2	59.8	—
		Rate (households)	5.4	46.6	57.7	1.5	25.9	54.4	60.9	69.2	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	24.54	36.80	49.07	21.33	29.52	44.39	59.03	—	164
		Rate (people)	10.6	32.9	52.9	2.7	16.5	36.5	63.6	—	14.8
		Rate (households)	7.3	25.3	43.6	1.7	13.8	28.3	56.4	—	13.1

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Delhi: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	18.69	18.64	37.28	19.03	16.87	12.65	21.09	25.30	33.74	19.95
		Rate (people)	14.4	13.9	65.8	15.5	10.0	1.8	24.1	36.0	59.5	16.9
		Rate (households)	9.1	8.8	55.8	10.0	6.1	1.0	16.6	26.4	49.3	11.5
	62	Line	20.41	20.70	41.39	21.16	18.80	14.10	23.50	28.20	37.60	22.18
		Rate (people)	3.2	3.3	44.4	4.2	0.6	0.0	7.2	22.5	41.2	6.5
		Rate (households)	2.2	2.3	37.3	3.0	0.4	0.0	5.8	19.3	33.2	4.6
	66	Line	28.82	29.22	58.43	29.86	26.42	19.82	33.03	39.63	52.84	31.30
		Rate (people)	8.3	8.8	49.2	9.1	5.1	1.9	13.1	24.9	42.4	10.2
		Rate (households)	5.2	5.5	37.8	5.8	3.4	1.3	8.7	17.1	30.9	6.5
Rural	59	Line	12.74	14.46	28.93	12.96	13.59	10.20	16.99	20.39	27.19	17.10
		Rate (people)	8.6	20.4	71.1	14.9	14.9	5.9	24.7	66.2	70.4	39.7
		Rate (households)	6.9	15.3	61.9	10.4	10.4	3.8	18.6	55.5	60.7	32.1
	62	Line	14.02	15.89	31.77	14.13	14.83	11.12	18.53	22.24	29.65	18.64
		Rate (people)	0.2	0.2	59.6	0.2	0.2	0.0	2.4	14.7	57.8	2.4
		Rate (households)	0.2	0.2	54.9	0.2	0.2	0.0	1.8	11.1	53.2	1.8
	66	Line	20.60	23.35	46.71	20.77	21.81	16.35	27.26	32.71	43.61	27.39
		Rate (people)	0.0	0.0	45.9	0.0	0.0	0.0	7.7	28.8	42.3	7.8
		Rate (households)	0.0	0.0	32.7	0.0	0.0	0.0	4.5	16.9	26.3	4.5

**Delhi: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	31.30	46.96	62.61	26.83	37.57	56.51	75.15	329	—
		Rate (people)	6.9	24.4	42.5	3.3	13.2	36.8	54.9	51.4	—
		Rate (households)	4.2	17.8	35.3	1.9	9.2	29.2	48.2	62.7	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	27.39	41.09	54.79	—	32.96	49.56	65.91	—	164
		Rate (people)	0.0	25.1	42.8	0.0	12.5	34.3	60.2	—	31.7
		Rate (households)	0.0	11.1	32.2	0.0	6.4	15.4	48.3	—	48.7

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.



**Goa: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	19.96	17.94	35.87	20.68	16.12	12.09	20.15	24.18	32.24	20.84
		Rate (people)	16.7	13.9	65.3	18.6	13.9	2.1	18.6	32.3	65.0	18.6
		Rate (households)	14.2	11.2	56.0	15.2	11.2	2.5	15.2	27.8	54.9	15.2
	62	Line	21.80	19.92	39.84	22.99	17.96	13.47	22.46	26.95	35.93	23.17
		Rate (people)	10.1	10.1	31.3	10.1	10.1	3.8	10.1	15.8	25.4	10.1
		Rate (households)	8.0	8.0	27.5	8.0	8.0	2.1	8.0	12.7	21.9	8.0
	66	Line	30.77	28.12	56.23	32.45	25.25	18.93	31.56	37.87	50.49	32.70
		Rate (people)	5.3	3.9	37.6	6.4	1.9	0.5	5.4	9.3	27.3	6.4
		Rate (households)	3.7	2.1	27.5	4.6	1.0	0.2	3.8	6.2	19.7	4.6
Rural	59	Line	11.19	14.89	29.77	11.44	13.99	10.49	17.49	20.99	27.99	19.22
		Rate (people)	17.0	19.0	63.8	17.0	19.0	10.1	19.0	37.6	55.1	26.0
		Rate (households)	12.4	13.8	52.6	12.4	13.8	7.2	13.9	26.6	45.1	18.9
	62	Line	12.31	16.35	32.70	12.47	15.26	11.45	19.08	22.89	30.52	20.95
		Rate (people)	0.0	0.0	24.1	0.0	0.0	0.0	7.8	11.5	19.6	7.9
		Rate (households)	0.0	0.0	20.4	0.0	0.0	0.0	5.6	8.5	15.9	5.7
	66	Line	18.09	24.04	48.07	18.33	22.44	16.83	28.06	33.67	44.89	30.80
		Rate (people)	0.0	1.9	45.0	0.0	1.8	0.0	5.6	15.1	43.8	11.3
		Rate (households)	0.0	1.4	39.2	0.0	1.3	0.0	4.6	12.5	37.5	9.6

**Goa: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	32.70	49.05	65.40	30.80	39.25	59.03	78.50	329	—
		Rate (people)	7.3	17.4	40.0	3.6	9.9	26.2	54.5	46.4	—
		Rate (households)	4.4	13.1	32.1	3.1	6.2	20.9	46.0	52.7	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	30.80	46.21	61.61	29.58	37.06	55.73	74.11	—	164
		Rate (people)	4.7	13.7	45.8	1.9	11.0	30.2	69.2	—	7.8
		Rate (households)	3.5	11.3	37.2	1.4	8.9	26.0	61.7	—	11.1

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Gujarat: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	17.54	17.19	34.38	16.81	15.80	11.85	19.74	23.69	31.59	20.47
		Rate (people)	8.9	7.9	64.6	6.2	4.6	0.8	19.8	34.8	59.2	21.5
		Rate (households)	7.0	6.4	57.9	5.6	4.1	0.5	16.3	30.2	52.3	17.6
	62	Line	19.16	19.09	38.18	18.68	17.60	13.20	22.00	26.41	35.21	22.75
		Rate (people)	13.4	13.3	69.0	12.9	10.1	1.5	19.6	33.2	58.2	20.5
		Rate (households)	9.4	9.4	61.6	9.1	6.5	0.7	14.1	26.6	53.1	14.9
	66	Line	27.05	26.95	53.90	26.37	24.74	18.55	30.92	37.11	49.48	32.12
		Rate (people)	11.0	11.0	50.2	9.7	8.1	1.4	17.3	27.4	44.6	18.9
		Rate (households)	8.4	8.4	42.9	7.5	6.3	1.2	13.1	22.1	37.4	14.5
Rural	59	Line	11.20	15.70	31.40	11.18	14.75	11.06	18.44	22.12	29.50	15.84
		Rate (people)	13.4	34.8	89.3	13.4	31.9	13.4	51.2	68.1	86.5	35.0
		Rate (households)	10.7	30.7	85.0	10.7	27.6	10.7	46.6	62.0	81.2	31.3
	62	Line	12.32	17.24	34.49	12.18	16.09	12.06	20.11	24.13	32.17	17.27
		Rate (people)	11.0	37.1	90.2	10.6	32.3	10.6	53.8	63.0	86.4	37.1
		Rate (households)	10.0	33.1	86.0	9.7	28.8	9.7	47.3	57.9	82.1	33.1
	66	Line	18.11	25.35	50.70	17.91	23.66	17.74	29.57	35.49	47.32	25.38
		Rate (people)	7.2	32.2	89.0	5.7	26.4	5.7	48.3	66.8	85.6	32.4
		Rate (households)	6.1	28.9	85.3	4.9	23.5	4.9	43.6	60.8	81.8	29.3

**Gujarat: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	32.12	48.18	64.24	26.85	38.55	57.98	77.10	329	—
		Rate (people)	18.4	45.0	62.2	9.2	31.5	55.5	74.9	64.3	—
		Rate (households)	13.4	36.4	54.0	6.7	24.1	47.3	67.4	69.5	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	25.38	38.07	50.76	21.14	30.53	45.92	61.06	—	164
		Rate (people)	25.9	66.6	86.6	12.7	44.6	80.4	93.3	—	43.2
		Rate (households)	22.3	61.3	81.8	10.5	39.2	75.0	90.4	—	52.9

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Haryana: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	15.54	16.68	33.36	15.67	14.78	11.09	18.48	22.17	29.56	19.45
		Rate (people)	8.3	12.9	57.1	8.3	7.6	1.6	16.0	28.2	46.3	18.5
		Rate (households)	5.0	7.8	50.1	5.0	4.3	1.4	10.5	20.3	39.0	13.5
	62	Line	16.97	18.52	37.05	17.41	16.47	12.35	20.59	24.71	32.95	21.62
		Rate (people)	13.5	15.3	56.6	14.0	12.3	5.1	22.6	34.2	50.8	23.7
		Rate (households)	10.2	11.6	50.9	10.6	9.5	3.7	17.6	28.0	44.4	18.6
	66	Line	23.96	26.15	52.29	24.58	23.15	17.36	28.94	34.73	46.30	30.52
		Rate (people)	5.5	11.7	53.7	5.9	5.0	1.0	18.2	28.6	48.5	21.1
		Rate (households)	4.5	9.3	44.9	4.8	4.2	0.8	14.6	22.5	40.0	16.7
Rural	59	Line	12.74	14.46	28.93	13.10	13.59	10.20	16.99	20.39	27.19	16.72
		Rate (people)	5.7	11.3	73.3	5.9	6.5	1.3	22.1	44.3	64.0	21.0
		Rate (households)	4.9	9.2	64.2	5.1	5.5	1.1	18.1	37.3	55.3	17.1
	62	Line	14.02	15.89	31.77	14.28	14.83	11.12	18.53	22.24	29.65	18.22
		Rate (people)	20.6	22.0	82.0	20.6	21.1	5.1	36.0	52.0	79.3	35.0
		Rate (households)	19.7	21.2	78.5	19.7	20.1	4.3	34.8	48.8	76.0	33.8
	66	Line	20.60	23.35	46.71	20.99	21.81	16.35	27.26	32.71	43.61	26.79
		Rate (people)	8.3	12.6	60.2	9.0	10.1	2.0	21.0	32.9	55.7	20.0
		Rate (households)	7.0	10.9	57.7	7.6	8.6	1.6	18.5	30.1	53.1	17.7

**Haryana: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	30.52	45.78	61.04	24.65	36.63	55.10	73.27	329	—
		Rate (people)	11.9	29.6	48.4	5.9	19.1	41.7	66.6	54.7	—
		Rate (households)	8.5	23.6	41.5	4.0	14.6	35.1	61.9	63.5	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	26.79	40.18	53.58	23.31	32.23	48.47	64.45	—	164
		Rate (people)	14.6	46.5	67.9	7.3	25.9	60.3	80.9	—	24.2
		Rate (households)	13.0	42.9	63.0	6.4	24.1	55.3	76.7	—	33.7

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Himachal Pradesh: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	15.54	17.58	35.16	15.67	15.34	11.50	19.17	23.01	30.68	18.81
		Rate (people)	0.1	1.6	57.7	0.1	0.1	0.0	6.0	20.4	46.2	6.0
		Rate (households)	0.1	0.9	42.2	0.1	0.1	0.0	4.1	13.2	31.7	4.1
	62	Line	16.97	19.52	39.04	17.41	17.10	12.82	21.37	25.64	34.19	20.91
		Rate (people)	1.5	5.6	34.8	2.8	1.5	0.6	10.1	13.2	29.9	9.7
		Rate (households)	2.8	6.3	28.8	3.7	2.8	2.1	9.7	11.6	22.5	9.2
	66	Line	23.96	27.55	55.11	24.58	24.03	18.02	30.03	36.04	48.05	29.51
		Rate (people)	5.2	10.3	43.2	5.9	5.2	1.2	15.6	22.0	36.2	13.9
		Rate (households)	2.7	5.7	30.9	3.2	2.7	0.5	8.7	13.6	24.3	7.5
Rural	59	Line	12.91	16.82	33.64	12.45	15.80	11.85	19.75	23.70	31.60	16.43
		Rate (people)	6.6	24.7	79.8	4.1	20.0	2.7	37.9	52.6	77.4	22.6
		Rate (households)	4.0	19.0	69.8	2.8	14.8	2.0	30.0	43.2	66.6	17.1
	62	Line	14.19	18.47	36.94	13.57	17.23	12.92	21.54	25.84	34.46	17.91
		Rate (people)	6.9	26.1	79.5	4.7	20.0	4.1	40.2	55.8	76.3	23.5
		Rate (households)	4.6	21.2	73.0	3.1	15.8	2.7	32.9	45.8	69.1	18.8
	66	Line	20.87	27.15	54.31	19.95	25.34	19.01	31.68	38.01	50.68	26.33
		Rate (people)	4.9	19.3	75.6	3.8	14.2	2.9	33.3	50.2	70.7	16.7
		Rate (households)	3.5	14.8	67.4	2.7	10.4	2.1	26.6	40.9	62.4	12.3

**Himachal Pradesh: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	29.51	44.27	59.03	25.69	35.43	53.28	70.85	329	—
		Rate (people)	9.5	30.6	42.9	3.5	15.6	38.6	53.8	64.8	—
		Rate (households)	5.6	18.8	27.7	1.8	9.9	24.8	37.3	72.8	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	26.33	39.50	52.67	22.13	31.68	47.64	63.35	—	164
		Rate (people)	7.3	43.3	67.7	3.6	21.6	60.0	79.9	—	27.3
		Rate (households)	5.7	35.9	60.0	2.6	16.8	52.0	72.8	—	38.2

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.



**Jammu and Kashmir: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	15.54	17.58	35.16	17.20	15.74	11.80	19.67	23.60	31.47	18.72
		Rate (people)	7.6	10.5	46.0	10.5	7.6	6.4	14.4	20.6	39.8	11.2
		Rate (households)	3.8	6.2	40.8	6.2	3.8	2.9	8.2	13.0	34.3	6.6
	62	Line	16.97	19.52	39.04	19.11	17.54	13.15	21.92	26.31	35.08	20.81
		Rate (people)	2.1	4.1	60.1	4.1	2.7	0.2	9.1	21.3	48.4	6.7
		Rate (households)	1.8	3.2	52.4	3.2	2.1	0.1	7.6	16.5	40.5	5.4
	66	Line	23.96	27.55	55.11	26.98	24.65	18.49	30.81	36.97	49.29	29.38
		Rate (people)	5.6	12.5	69.7	11.9	6.6	0.8	20.0	35.9	62.2	15.9
		Rate (households)	4.5	10.5	61.3	9.9	5.5	0.5	16.1	29.8	53.3	12.8
Rural	59	Line	12.91	16.82	33.64	12.36	15.23	11.42	19.03	22.84	30.46	16.49
		Rate (people)	6.5	23.7	84.0	6.4	12.4	3.9	30.8	52.3	76.5	22.9
		Rate (households)	4.8	20.3	81.1	4.7	10.1	2.9	28.8	48.9	73.0	19.7
	62	Line	14.19	18.47	36.94	13.47	16.61	12.45	20.76	24.91	33.21	17.98
		Rate (people)	3.9	14.7	87.9	1.6	9.0	0.8	26.0	50.8	82.1	14.1
		Rate (households)	3.0	12.5	83.4	1.3	7.7	0.7	20.2	46.3	77.7	11.9
	66	Line	20.87	27.15	54.31	19.80	24.42	18.32	30.53	36.64	48.85	26.43
		Rate (people)	3.0	16.1	85.9	2.3	9.2	1.7	29.1	52.4	80.0	15.2
		Rate (households)	2.1	13.0	82.5	1.7	7.3	1.2	24.0	45.6	74.7	12.3

**Jammu and Kashmir: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	29.38	44.06	58.75	24.45	35.26	53.03	70.52	329	—
		Rate (people)	10.9	42.8	67.5	5.4	21.7	58.4	78.6	70.3	—
		Rate (households)	8.8	35.9	59.4	4.2	17.6	50.6	72.0	75.9	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	26.43	39.64	52.86	23.46	31.79	47.82	63.59	—	164
		Rate (people)	10.7	50.3	74.5	5.3	25.5	67.2	89.9	—	20.4
		Rate (households)	8.8	45.8	72.1	4.4	22.2	64.0	88.6	—	29.2

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Jharkhand: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	14.04	14.97	29.94	14.01	13.44	10.08	16.80	20.16	26.88	16.50
		Rate (people)	13.3	15.8	70.2	13.3	11.7	4.8	30.2	42.9	55.3	29.6
		Rate (households)	9.0	10.7	57.2	9.0	7.6	3.0	21.3	31.9	44.4	20.7
	62	Line	15.34	16.62	33.25	15.58	14.98	11.24	18.73	22.47	29.96	18.34
		Rate (people)	16.1	18.3	65.2	16.3	13.5	6.4	24.0	39.6	58.4	21.9
		Rate (households)	10.8	12.8	52.1	11.0	9.1	4.0	17.2	27.6	46.0	15.6
	66	Line	21.65	23.47	46.93	21.99	21.05	15.79	26.32	31.58	42.11	25.89
		Rate (people)	17.1	21.0	62.6	19.3	15.2	5.5	28.4	40.4	57.7	27.8
		Rate (households)	13.5	16.6	54.4	15.2	11.9	3.8	23.0	33.9	49.3	22.4
Rural	59	Line	11.70	13.82	27.64	11.58	12.98	9.74	16.23	19.48	25.97	12.78
		Rate (people)	42.5	63.6	95.4	40.6	56.8	24.5	78.9	87.5	94.3	55.2
		Rate (households)	35.7	57.1	93.6	33.7	50.7	20.2	72.3	83.6	92.3	48.9
	62	Line	12.87	15.18	30.35	12.62	14.16	10.62	17.70	21.24	28.32	13.93
		Rate (people)	40.6	60.3	96.7	38.0	52.0	17.2	72.4	88.4	96.1	49.2
		Rate (households)	36.6	54.7	96.1	34.3	46.9	15.5	68.9	85.5	95.0	44.5
	66	Line	18.91	22.31	44.62	18.55	20.83	15.62	26.03	31.24	41.65	20.48
		Rate (people)	35.7	51.6	95.8	34.8	43.5	17.1	70.1	81.9	94.6	42.2
		Rate (households)	30.1	45.5	93.3	29.1	37.5	14.1	62.8	77.1	91.6	36.4

**Jharkhand: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	25.89	38.83	51.78	20.78	31.07	46.74	62.15	329	—
		Rate (people)	24.9	47.4	67.8	12.5	34.1	57.5	76.3	69.6	—
		Rate (households)	20.6	42.2	61.1	10.1	28.2	51.8	70.3	75.8	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	20.48	30.72	40.97	18.13	24.64	37.06	49.28	—	164
		Rate (people)	35.3	74.5	87.6	17.4	56.3	83.8	92.7	—	71.3
		Rate (households)	30.6	68.8	84.9	15.0	50.7	80.0	91.6	—	78.9

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Karnataka: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
			\$1.08	\$2.16	\$1.08	\$0.81	\$1.35	\$1.62	\$2.16			
Urban	59	Line	18.91	17.09	34.19	18.62	15.22	11.42	19.03	22.83	30.44	18.26
		Rate (people)	28.0	20.5	67.5	27.6	14.7	3.5	28.6	40.1	62.0	25.3
		Rate (households)	21.7	14.4	58.2	21.2	10.0	2.7	22.1	31.8	53.1	18.5
	62	Line	20.66	18.98	37.96	20.70	16.96	12.72	21.21	25.45	33.93	20.30
		Rate (people)	26.0	21.4	63.4	26.0	16.0	5.9	27.2	37.0	57.0	24.8
		Rate (households)	20.7	17.6	56.9	20.7	12.6	4.5	22.2	31.5	51.3	19.8
	66	Line	29.16	26.79	53.58	29.22	23.84	17.88	29.80	35.76	47.68	28.65
		Rate (people)	18.5	14.1	51.9	18.6	10.0	2.6	19.5	28.4	45.7	17.4
		Rate (households)	13.7	10.1	43.7	13.8	6.9	1.7	14.5	22.1	37.4	12.6
Rural	59	Line	10.87	15.02	30.03	10.24	14.11	10.58	17.64	21.17	28.23	13.20
		Rate (people)	11.9	42.8	92.3	7.4	38.9	9.7	59.8	73.7	90.8	31.7
		Rate (households)	9.5	36.2	89.9	5.8	32.0	7.9	53.8	69.2	87.8	26.2
	62	Line	11.96	16.49	32.98	11.16	15.39	11.54	19.24	23.09	30.78	14.38
		Rate (people)	18.7	51.9	92.2	16.0	44.9	16.8	69.7	78.9	91.6	36.3
		Rate (households)	16.3	46.8	89.4	13.7	40.0	14.5	65.1	75.3	88.8	32.4
	66	Line	17.58	24.24	48.49	16.40	22.64	16.98	28.29	33.95	45.27	21.14
		Rate (people)	14.4	43.2	92.0	8.4	34.8	11.1	59.8	75.5	90.1	28.2
		Rate (households)	11.3	36.9	88.9	6.7	28.5	8.9	54.2	70.1	86.8	22.8

**Karnataka: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	28.65	42.98	57.31	24.00	34.39	51.72	68.78	329	—
		Rate (people)	14.4	34.2	52.7	7.1	21.5	46.2	65.8	69.4	—
		Rate (households)	10.5	27.1	44.3	5.1	16.0	37.9	55.3	75.3	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	21.14	31.71	42.29	18.53	25.43	38.25	50.87	—	164
		Rate (people)	17.6	58.4	78.4	8.7	36.0	72.2	88.8	—	57.9
		Rate (households)	14.4	54.0	74.9	7.2	30.7	68.6	85.6	—	67.4

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Kerala: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	17.64	17.98	35.96	17.37	15.96	11.97	19.95	23.94	31.91	18.16
		Rate (people)	15.3	15.7	60.5	14.6	8.7	2.5	21.1	34.3	51.3	16.9
		Rate (households)	10.0	10.2	52.5	9.4	5.2	1.2	14.6	26.1	42.7	10.9
	62	Line	19.27	19.96	39.93	19.31	17.78	13.34	22.23	26.68	35.57	20.18
		Rate (people)	14.2	15.5	60.3	14.2	9.4	5.0	18.3	32.9	53.3	15.8
		Rate (households)	11.3	12.6	51.6	11.3	7.2	3.8	14.7	27.9	45.5	12.9
	66	Line	27.20	28.18	56.36	27.26	24.99	18.74	31.24	37.49	49.99	28.49
		Rate (people)	11.9	14.0	53.6	12.0	8.4	2.2	20.3	30.1	46.3	14.8
		Rate (households)	8.8	10.6	44.9	8.8	5.9	1.1	15.5	23.7	38.0	11.2
Rural	59	Line	13.16	17.41	34.81	13.58	16.36	12.27	20.45	24.53	32.71	16.97
		Rate (people)	9.1	23.6	71.5	9.6	17.6	7.0	34.2	46.1	66.3	20.8
		Rate (households)	6.6	18.2	66.2	7.0	13.6	5.2	28.3	39.3	60.7	16.0
	62	Line	14.48	19.12	38.23	14.81	17.84	13.38	22.30	26.76	35.67	18.50
		Rate (people)	9.1	20.4	71.9	9.6	16.6	6.3	31.9	45.6	67.6	18.9
		Rate (households)	7.0	16.2	65.5	7.3	12.5	4.7	27.6	40.2	61.8	14.6
	66	Line	21.28	28.10	56.20	21.76	26.23	19.68	32.79	39.35	52.47	27.19
		Rate (people)	5.6	17.2	67.7	6.3	13.1	3.9	27.0	42.3	63.7	15.2
		Rate (households)	3.9	13.0	60.9	4.2	9.6	2.5	22.0	35.8	56.8	11.5

**Kerala: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	28.49	42.73	56.98	24.41	34.19	51.43	68.39	329	—
		Rate (people)	11.9	31.6	49.3	5.8	17.9	41.3	62.1	65.7	—
		Rate (households)	8.3	23.6	39.4	4.3	12.9	32.5	52.8	70.2	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	27.19	40.78	54.38	23.72	32.71	49.19	65.41	—	164
		Rate (people)	9.0	38.4	60.8	4.4	20.7	52.5	72.3	—	26.8
		Rate (households)	7.7	31.7	53.2	3.8	16.6	45.2	65.6	—	34.1

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.



**Lakshadweep: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)												
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	17.64	17.98	35.96	17.37	15.96	11.97	19.95	23.94	31.91	18.16
		Rate (people)	0.0	0.0	50.3	0.0	0.0	0.0	11.1	25.0	43.8	0.0
		Rate (households)	0.0	0.0	40.8	0.0	0.0	0.0	4.9	22.0	37.5	0.0
	62	Line	19.27	19.96	39.93	19.31	17.78	13.34	22.23	26.68	35.57	20.18
		Rate (people)	7.5	10.8	54.7	7.5	6.0	3.8	17.2	23.4	35.4	10.8
		Rate (households)	3.5	5.8	39.9	3.5	2.6	1.6	9.3	15.1	25.1	5.8
	66	Line	27.20	28.18	56.36	27.26	24.99	18.74	31.24	37.49	49.99	28.49
		Rate (people)	1.0	1.8	47.4	1.0	1.0	0.0	3.0	11.7	38.2	1.9
		Rate (households)	0.4	1.1	36.4	0.4	0.4	0.0	1.8	6.5	27.3	1.2
Rural	59	Line	13.16	17.41	34.81	13.58	16.36	12.27	20.45	24.53	32.71	16.97
		Rate (people)	0.0	0.0	81.3	0.0	0.0	0.0	1.1	11.9	60.6	0.0
		Rate (households)	0.0	0.0	69.6	0.0	0.0	0.0	1.0	14.5	47.3	0.0
	62	Line	14.48	19.12	38.23	14.81	17.84	13.38	22.30	26.76	35.67	18.50
		Rate (people)	1.6	1.6	37.4	1.6	1.6	1.6	4.5	35.8	37.4	1.6
		Rate (households)	0.8	0.8	20.4	0.8	0.8	0.8	1.9	19.3	20.4	0.8
	66	Line	21.28	28.10	56.20	21.76	26.23	19.68	32.79	39.35	52.47	27.19
		Rate (people)	0.9	20.6	77.2	0.9	20.6	0.0	34.3	38.1	69.2	20.6
		Rate (households)	0.4	8.4	56.4	0.4	8.4	0.0	18.8	21.9	49.6	8.4

**Lakshadweep: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	28.49	42.73	56.98	24.42	34.19	51.43	68.39	329	—
		Rate (people)	3.1	14.7	42.3	0.5	6.0	28.3	52.3	26.4	—
		Rate (households)	1.9	9.4	33.9	0.4	3.9	24.8	46.0	46.8	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	27.19	40.78	54.38	—	32.71	49.19	65.41	—	164
		Rate (people)	0.0	34.4	53.4	0.0	14.2	47.4	67.8	—	6.1
		Rate (households)	0.0	22.3	42.3	0.0	11.2	34.5	57.8	—	19.9

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Madhya Pradesh: Poverty lines and poverty rates (at person level and household level),  
by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP \$1.08 \$2.16		National Saxena	Intl. 1993 PPP \$1.08 \$0.81 \$1.35 \$1.62 \$2.16				National Tendulkar	
Urban	59	Line	17.81	14.95	29.91	17.71	13.63	10.23	17.04	20.45	27.27	16.53
		Rate (people)	36.7	23.4	61.8	36.6	19.2	4.8	33.3	44.0	58.9	31.8
		Rate (households)	31.1	19.2	55.4	30.9	15.3	3.2	27.5	38.8	52.5	26.5
	62	Line	19.45	16.61	33.21	19.68	15.19	11.40	18.99	22.79	30.39	18.37
		Rate (people)	30.8	19.7	72.4	31.2	14.2	4.5	28.9	42.7	67.7	26.7
		Rate (households)	25.2	16.3	62.9	25.6	11.7	3.3	23.8	36.1	58.6	21.9
	66	Line	27.46	23.44	46.88	27.78	21.35	16.02	26.69	32.03	42.71	25.93
		Rate (people)	28.8	19.2	62.7	29.8	15.3	5.5	27.6	39.4	56.7	24.7
		Rate (households)	23.0	14.6	53.6	23.6	11.5	3.9	21.8	31.6	47.5	19.7
Rural	59	Line	10.94	13.45	26.89	10.35	12.64	9.48	15.80	18.96	25.28	12.90
		Rate (people)	29.1	47.2	94.7	24.3	42.4	17.2	61.3	80.9	93.9	43.5
		Rate (households)	25.5	42.7	92.5	20.9	37.8	14.6	57.0	75.7	91.6	39.0
	62	Line	12.03	14.77	29.54	11.28	13.78	10.34	17.23	20.67	27.57	14.06
		Rate (people)	33.6	54.2	94.8	27.7	49.7	19.7	70.5	83.3	93.1	50.3
		Rate (households)	29.3	48.8	92.1	24.3	44.4	17.3	64.0	78.6	90.1	45.0
	66	Line	17.68	21.71	43.42	16.59	20.27	15.20	25.34	30.41	40.54	20.67
		Rate (people)	29.2	47.2	90.8	24.4	40.4	18.5	61.4	75.5	88.8	41.7
		Rate (households)	25.3	43.0	88.7	20.8	36.5	15.8	57.0	71.7	86.2	37.8

**Madhya Pradesh: Poverty lines and poverty rates (at person level and household level),  
by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	25.93	38.90	51.87	20.14	31.13	46.82	62.26	329	—
		Rate (people)	21.7	47.5	63.6	10.7	32.5	57.5	72.0	72.8	—
		Rate (households)	17.0	39.1	54.8	7.8	26.4	48.9	63.6	78.4	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	20.67	31.00	41.33	16.66	24.86	37.39	49.72	—	164
		Rate (people)	33.0	67.0	83.9	16.5	49.3	79.3	91.0	—	64.4
		Rate (households)	29.2	62.5	79.6	13.9	44.9	74.8	87.4	—	72.9

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Maharashtra: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	19.96	17.94	35.87	20.68	16.12	12.09	20.15	24.18	32.24	19.62
		Rate (people)	25.5	20.6	61.4	27.4	13.8	4.9	26.1	35.1	54.1	25.3
		Rate (households)	18.3	14.2	49.3	20.0	9.3	3.1	18.9	26.0	42.5	18.1
	62	Line	21.80	19.92	39.84	22.99	17.96	13.47	22.46	26.95	35.93	21.81
		Rate (people)	23.4	17.9	59.6	25.7	12.3	4.9	24.9	34.7	50.9	23.4
		Rate (households)	16.8	12.6	50.2	18.6	8.9	3.3	17.9	26.0	41.4	16.8
	66	Line	30.77	28.12	56.23	32.45	25.25	18.93	31.56	37.87	50.49	30.79
		Rate (people)	17.0	12.3	52.3	19.1	8.7	2.8	18.1	27.2	45.1	17.3
		Rate (households)	12.2	8.7	43.1	13.7	6.1	1.9	12.9	20.0	36.1	12.3
Rural	59	Line	11.19	14.89	29.77	11.44	13.99	10.49	17.49	20.99	27.99	15.31
		Rate (people)	17.5	40.5	89.6	19.2	32.9	11.7	55.4	71.5	87.6	43.0
		Rate (households)	14.1	34.7	87.0	15.6	27.8	9.4	49.3	66.2	85.1	37.1
	62	Line	12.31	16.35	32.70	12.47	15.26	11.45	19.08	22.89	30.52	16.69
		Rate (people)	11.7	32.1	85.4	12.0	26.2	8.3	46.3	60.9	82.6	33.1
		Rate (households)	11.4	28.7	82.9	11.8	23.3	7.9	41.0	55.4	79.1	29.8
	66	Line	18.09	24.04	48.07	18.33	22.44	16.83	28.06	33.67	44.89	24.54
		Rate (people)	7.9	28.2	85.0	8.6	23.0	4.4	42.8	59.9	82.1	29.7
		Rate (households)	6.0	24.4	81.5	6.6	19.4	3.4	37.2	55.1	78.2	25.6

**Maharashtra: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	30.79	46.18	61.57	25.78	36.95	55.58	73.90	329	—
		Rate (people)	11.9	33.7	53.3	5.9	20.2	47.0	65.0	59.1	—
		Rate (households)	8.6	25.8	43.7	4.2	14.9	37.6	55.9	65.0	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	24.54	36.80	49.07	20.32	29.52	44.39	59.03	—	164
		Rate (people)	18.7	57.3	83.4	9.3	34.8	76.7	91.7	—	46.9
		Rate (households)	15.2	51.6	78.7	7.2	29.7	71.5	88.8	—	57.6

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Manipur: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	—	17.64	35.28	11.76	15.87	11.90	19.84	23.80	31.74	19.91
		Rate (people)	3.8	26.2	89.7	2.4	8.2	2.4	32.3	55.2	77.3	32.6
		Rate (households)	2.5	21.7	88.0	1.4	6.1	1.4	27.1	50.7	73.3	27.4
	62	Line	13.89	19.59	39.18	13.08	17.69	13.26	22.11	26.53	35.37	22.13
		Rate (people)	0.0	13.8	90.2	0.0	3.8	0.0	36.0	72.6	87.4	36.0
		Rate (households)	0.0	10.7	84.0	0.0	2.6	0.0	32.0	66.1	81.4	32.0
	66	Line	19.61	27.65	55.30	18.46	24.85	18.64	31.07	37.28	49.71	31.24
		Rate (people)	8.6	29.3	93.5	3.7	17.6	4.1	44.8	71.0	89.1	45.8
		Rate (households)	7.9	26.9	90.7	3.1	15.9	3.4	41.4	67.0	86.0	42.4
Rural	59	Line	12.84	15.82	31.64	12.24	14.87	11.15	18.59	22.30	29.74	18.26
		Rate (people)	4.2	18.8	93.3	2.9	15.2	1.0	39.2	61.0	89.8	35.9
		Rate (households)	3.6	16.6	91.2	2.5	13.5	0.9	33.4	55.4	86.4	30.5
	62	Line	14.12	17.38	34.76	13.34	16.22	12.16	20.27	24.32	32.43	19.90
		Rate (people)	1.9	25.4	95.6	1.3	4.7	0.0	40.2	73.9	94.6	38.9
		Rate (households)	1.8	22.5	95.3	1.3	4.4	0.0	36.3	70.9	94.1	35.0
	66	Line	20.75	25.55	51.09	19.62	23.85	17.89	29.81	35.77	47.70	29.25
		Rate (people)	5.4	28.1	95.8	3.1	19.9	0.4	54.6	78.0	94.2	52.0
		Rate (households)	4.7	26.2	95.0	2.7	18.1	0.2	51.6	75.6	93.0	48.9

**Manipur: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	31.24	46.86	62.48	26.98	37.49	56.39	74.99	329	—
		Rate (people)	43.3	83.9	94.5	21.6	71.0	91.6	97.3	94.2	—
		Rate (households)	39.9	79.7	91.6	19.8	67.4	88.3	95.1	95.8	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	29.25	43.88	58.51	25.61	35.19	52.93	70.38	—	164
		Rate (people)	39.0	85.0	97.1	19.5	65.0	95.0	99.2	—	42.6
		Rate (households)	37.9	83.4	96.8	18.7	63.7	94.6	99.0	—	52.0

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.



**Meghalaya: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
			\$1.08	\$2.16	\$1.08	\$0.81	\$1.35	\$1.62	\$2.16			
Urban	59	Line	12.72	17.64	35.28	11.76	15.87	11.90	19.84	23.80	31.74	23.16
		Rate (people)	0.0	1.7	51.5	0.0	1.0	0.0	1.7	14.7	44.8	10.7
		Rate (households)	0.0	1.1	44.4	0.0	0.5	0.0	1.1	12.6	37.8	8.2
	62	Line	13.89	19.59	39.18	13.08	17.69	13.26	22.11	26.53	35.37	25.74
		Rate (people)	0.0	2.8	47.1	0.0	2.7	0.0	4.8	13.7	39.4	13.6
		Rate (households)	0.0	1.7	32.8	0.0	1.7	0.0	3.1	7.9	26.2	7.8
	66	Line	19.61	27.65	55.30	18.46	24.85	18.64	31.07	37.28	49.71	36.34
		Rate (people)	0.5	16.8	68.5	0.5	9.9	0.5	23.0	35.0	61.0	32.3
		Rate (households)	0.3	10.8	57.5	0.3	6.1	0.3	16.0	25.8	49.6	23.6
Rural	59	Line	12.84	15.82	31.64	12.24	14.87	11.15	18.59	22.30	29.74	15.89
		Rate (people)	3.8	22.5	90.8	2.6	17.2	0.3	42.7	69.8	89.9	22.5
		Rate (households)	3.2	17.0	85.1	1.7	13.6	0.2	35.3	60.4	84.0	17.0
	62	Line	14.12	17.38	34.76	13.34	16.22	12.16	20.27	24.32	32.43	17.33
		Rate (people)	5.1	12.6	87.7	1.8	9.2	1.1	34.5	60.6	84.0	12.6
		Rate (households)	3.5	11.6	82.1	1.2	8.0	0.8	29.3	52.8	77.5	11.6
	66	Line	20.75	25.55	51.09	19.62	23.85	17.89	29.81	35.77	47.70	25.47
		Rate (people)	7.0	29.2	94.3	3.7	21.2	2.2	52.3	76.9	92.6	28.2
		Rate (households)	5.0	24.9	91.2	2.5	17.0	1.4	45.4	70.3	88.9	23.8

**Meghalaya: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	36.34	54.50	72.67	25.22	43.61	65.59	87.22	329	—
		Rate (people)	23.5	61.5	86.3	11.1	38.0	75.6	92.1	67.1	—
		Rate (households)	17.6	52.0	81.2	7.6	30.4	67.0	87.4	74.9	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	25.47	38.20	50.94	23.06	30.64	46.08	61.28	—	164
		Rate (people)	17.2	68.5	89.3	8.6	35.7	82.7	95.1	—	31.2
		Rate (households)	13.7	60.2	83.8	5.9	29.9	75.8	91.5	—	41.5

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Mizoram: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	12.72	17.64	35.28	11.76	15.87	11.90	19.84	23.80	31.74	21.73
		Rate (people)	0.0	1.0	56.6	0.0	0.0	0.0	4.6	13.0	37.4	10.3
		Rate (households)	0.0	0.6	50.0	0.0	0.0	0.0	2.5	8.2	32.6	6.6
	62	Line	13.89	19.59	39.18	13.08	17.69	13.26	22.11	26.53	35.37	24.15
		Rate (people)	0.0	0.0	40.4	0.0	0.0	0.0	1.8	3.2	30.5	3.2
		Rate (households)	0.0	0.0	37.0	0.0	0.0	0.0	1.8	3.4	26.1	3.3
	66	Line	19.61	27.65	55.30	18.46	24.85	18.64	31.07	37.28	49.71	34.10
		Rate (people)	0.5	7.3	50.1	0.4	3.9	0.5	11.6	20.3	37.7	15.8
		Rate (households)	0.5	6.7	46.6	0.4	3.5	0.5	10.6	18.1	36.0	14.2
Rural	59	Line	12.84	15.82	31.64	12.24	14.87	11.15	18.59	22.30	29.74	20.19
		Rate (people)	1.3	8.1	81.0	1.1	5.9	1.1	23.7	41.9	78.0	31.9
		Rate (households)	1.0	6.3	74.8	0.8	4.6	0.7	19.5	35.2	70.1	27.4
	62	Line	14.12	17.38	34.76	13.34	16.22	12.16	20.27	24.32	32.43	22.00
		Rate (people)	0.7	3.2	78.8	0.7	1.6	0.0	12.6	28.4	70.2	21.1
		Rate (households)	0.5	2.5	72.2	0.5	1.2	0.0	10.6	24.9	63.6	18.3
	66	Line	20.75	25.55	51.09	19.62	23.85	17.89	29.81	35.77	47.70	32.35
		Rate (people)	6.9	19.2	88.4	2.4	16.2	1.1	36.5	59.8	83.8	48.6
		Rate (households)	5.4	17.1	86.0	2.0	14.2	1.0	33.3	56.0	81.5	45.5

**Mizoram: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	34.10	51.14	68.19	26.84	40.92	61.55	81.85	329	—
		Rate (people)	13.0	32.1	64.9	6.5	18.0	53.0	80.8	54.3	—
		Rate (households)	11.3	28.9	61.4	5.8	16.3	48.4	77.2	61.4	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	32.35	48.52	64.70	26.84	38.91	58.53	77.83	—	164
		Rate (people)	30.4	73.5	93.0	14.4	50.1	88.6	96.8	—	31.0
		Rate (households)	28.2	70.0	90.6	13.4	47.6	85.1	95.1	—	38.9

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Nagaland: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	12.72	17.64	35.28	11.76	15.87	11.90	19.84	23.80	31.74	24.31
		Rate (people)	0.0	5.5	31.0	0.0	5.5	0.0	5.5	5.5	18.0	5.5
		Rate (households)	0.0	5.7	28.5	0.0	5.7	0.0	5.7	5.7	16.6	5.7
	62	Line	13.89	19.59	39.18	13.08	17.69	13.26	22.11	26.53	35.37	27.03
		Rate (people)	0.0	0.0	17.6	0.0	0.0	0.0	0.0	6.4	15.3	6.4
		Rate (households)	0.0	0.0	13.7	0.0	0.0	0.0	0.0	4.6	12.0	4.6
	66	Line	19.61	27.65	55.30	18.46	24.85	18.64	31.07	37.28	49.71	38.15
		Rate (people)	0.0	0.8	57.5	0.0	0.0	0.0	5.2	24.5	45.1	25.5
		Rate (households)	0.0	0.7	53.9	0.0	0.0	0.0	4.6	23.0	41.5	23.9
Rural	59	Line	12.84	15.82	31.64	12.24	14.87	11.15	18.59	22.30	29.74	21.70
		Rate (people)	0.0	0.0	58.6	0.0	0.0	0.0	2.4	17.1	53.3	12.4
		Rate (households)	0.0	0.0	55.6	0.0	0.0	0.0	2.4	15.2	50.9	10.8
	62	Line	14.12	17.38	34.76	13.34	16.22	12.16	20.27	24.32	32.43	23.66
		Rate (people)	0.0	0.0	49.9	0.0	0.0	0.0	0.0	4.5	39.3	2.0
		Rate (households)	0.0	0.0	44.6	0.0	0.0	0.0	0.0	3.6	34.7	1.2
	66	Line	20.75	25.55	51.09	19.62	23.85	17.89	29.81	35.77	47.70	34.78
		Rate (people)	0.8	3.4	74.5	0.7	2.4	0.0	8.0	30.1	67.2	25.0
		Rate (households)	0.6	2.6	71.3	0.5	1.9	0.0	6.9	26.8	63.0	22.1

**Nagaland: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	38.15	57.22	76.30	33.23	45.79	68.86	91.57	329	—
		Rate (people)	25.9	52.3	75.7	12.8	36.5	70.7	84.8	63.6	—
		Rate (households)	24.4	47.9	72.3	12.4	33.7	66.7	82.3	67.0	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	34.78	52.17	69.56	31.93	41.84	62.92	83.67	—	164
		Rate (people)	16.3	69.7	90.5	8.1	41.2	86.1	95.9	—	11.2
		Rate (households)	13.9	65.4	87.4	6.8	37.9	82.6	93.3	—	16.0

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Orissa: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	17.49	14.54	29.08	16.41	13.03	9.77	16.29	19.55	26.06	15.44
		Rate (people)	33.1	23.0	61.3	29.5	16.0	9.6	29.2	36.3	56.6	24.5
		Rate (households)	27.1	18.8	53.2	23.6	13.1	7.6	23.4	29.8	47.9	19.9
	62	Line	19.11	16.14	32.29	18.24	14.52	10.89	18.15	21.78	29.04	17.17
		Rate (people)	37.9	26.2	67.7	34.2	18.3	6.4	33.9	42.8	59.3	31.3
		Rate (households)	31.5	21.0	60.7	29.0	13.8	4.9	28.8	36.1	53.3	26.4
	66	Line	26.97	22.79	45.58	25.75	20.41	15.31	25.51	30.61	40.82	24.23
		Rate (people)	34.0	21.6	65.7	32.7	13.5	5.8	32.1	42.5	59.3	25.9
		Rate (households)	26.1	16.7	55.8	24.7	10.3	3.7	24.1	34.0	49.2	20.1
Rural	59	Line	11.38	13.98	27.96	10.29	13.14	9.86	16.43	19.72	26.29	12.88
		Rate (people)	53.1	69.2	94.4	41.8	65.6	38.4	79.0	88.6	94.0	64.7
		Rate (households)	49.5	66.4	94.6	38.9	62.7	35.4	77.6	87.1	93.9	61.8
	62	Line	12.51	15.35	30.71	11.21	14.33	10.75	17.92	21.50	28.67	14.04
		Rate (people)	48.2	68.0	95.1	38.2	61.8	32.9	78.6	86.8	93.8	59.5
		Rate (households)	43.6	62.0	93.8	34.9	56.3	31.0	73.3	81.0	90.6	54.2
	66	Line	18.39	22.57	45.14	16.49	21.08	15.81	26.35	31.62	42.16	20.63
		Rate (people)	37.9	58.6	95.2	28.6	51.8	24.2	72.2	83.2	93.6	49.5
		Rate (households)	34.4	55.0	93.5	25.9	47.3	21.9	69.3	80.8	91.7	45.1

**Orissa: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	24.23	36.35	48.46	19.59	29.08	43.74	58.17	329	—
		Rate (people)	18.1	45.8	63.7	8.9	31.0	57.3	75.7	82.6	—
		Rate (households)	13.8	37.6	53.8	6.8	24.5	47.8	66.6	86.4	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	20.63	30.95	41.27	16.60	24.82	37.33	49.64	—	164
		Rate (people)	37.8	73.1	87.5	18.7	56.0	83.3	94.4	—	74.6
		Rate (households)	33.8	69.0	84.1	16.0	50.7	79.7	91.0	—	82.0

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.



**Pondicherry: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	17.59	17.04	34.08	17.00	15.38	11.54	19.23	23.08	30.77	15.72
		Rate (people)	13.3	13.1	64.2	13.1	8.1	5.8	16.5	25.8	53.3	12.0
		Rate (households)	12.3	12.1	57.5	12.1	7.8	4.8	15.5	24.5	46.5	10.9
	62	Line	19.21	18.92	37.84	18.90	17.14	12.86	21.43	25.72	34.29	17.47
		Rate (people)	25.7	25.7	72.3	25.7	25.0	25.0	30.9	47.3	66.0	25.0
		Rate (households)	20.7	20.7	64.2	20.7	19.8	19.8	24.0	33.6	56.4	19.8
	66	Line	27.11	26.71	53.42	26.67	24.09	18.07	30.12	36.14	48.19	24.66
		Rate (people)	2.1	1.8	38.8	1.8	0.3	0.0	4.1	10.8	33.4	0.9
		Rate (households)	2.0	1.7	32.9	1.7	0.4	0.1	3.3	10.4	27.3	0.8
Rural	59	Line	10.81	15.66	31.33	11.11	14.72	11.04	18.40	22.08	29.45	12.17
		Rate (people)	1.7	10.8	58.4	1.7	10.8	1.7	31.0	48.1	54.9	1.7
		Rate (households)	7.0	13.6	56.5	7.0	13.6	7.0	33.4	49.1	53.0	7.0
	62	Line	11.88	17.20	34.41	12.11	16.06	12.04	20.07	24.08	32.11	13.27
		Rate (people)	15.0	50.7	81.4	15.0	46.4	15.0	51.1	51.8	79.7	26.5
		Rate (households)	13.9	44.8	72.8	13.9	41.0	13.9	45.2	45.9	71.3	21.5
	66	Line	17.47	25.29	50.58	17.80	23.62	17.71	29.52	35.42	47.23	19.50
		Rate (people)	0.0	0.8	66.3	0.0	0.3	0.0	8.7	25.5	59.4	0.0
		Rate (households)	0.0	0.8	62.2	0.0	0.3	0.0	8.1	23.9	55.2	0.0

**Pondicherry: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	24.66	36.99	49.33	20.11	29.60	44.52	59.20	329	—
		Rate (people)	1.7	12.6	26.8	0.5	3.3	20.4	38.1	57.5	—
		Rate (households)	0.9	10.4	22.2	0.3	2.1	17.3	32.7	63.6	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	19.50	29.26	39.01	18.76	23.46	35.29	46.93	—	164
		Rate (people)	0.4	6.3	32.7	0.1	0.6	19.6	47.0	—	20.1
		Rate (households)	0.2	5.8	25.9	0.1	0.4	14.5	38.0	—	29.7

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Punjab: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	14.35	16.32	32.63	14.48	14.31	10.73	17.89	21.46	28.62	19.95
		Rate (people)	3.2	6.5	53.8	3.2	3.2	0.6	10.8	22.7	43.5	17.1
		Rate (households)	2.1	5.1	44.7	2.1	2.1	0.5	8.1	16.4	35.2	12.0
	62	Line	15.68	18.12	36.24	16.09	15.95	11.96	19.94	23.92	31.90	22.18
		Rate (people)	2.4	5.2	44.3	3.0	2.7	0.1	8.8	14.2	36.5	11.7
		Rate (households)	2.0	4.2	39.6	2.5	2.2	0.0	6.8	10.8	30.7	9.0
	66	Line	22.13	25.57	51.15	22.71	22.41	16.81	28.02	33.62	44.83	31.31
		Rate (people)	4.1	8.9	51.1	5.4	4.7	0.7	13.8	21.1	40.1	17.7
		Rate (households)	3.3	7.0	44.9	4.2	3.8	0.5	10.8	17.1	34.7	14.0
Rural	59	Line	12.74	14.73	29.46	12.96	13.85	10.39	17.31	20.77	27.69	17.16
		Rate (people)	6.4	12.8	64.9	7.9	10.1	2.3	24.9	39.0	61.0	24.6
		Rate (households)	5.1	10.1	61.2	6.1	8.0	1.9	20.5	34.2	56.3	20.3
	62	Line	14.01	16.18	32.36	14.13	15.10	11.33	18.88	22.65	30.20	18.71
		Rate (people)	6.4	11.0	60.1	6.4	8.1	1.0	21.9	32.8	54.7	21.9
		Rate (households)	5.4	10.2	56.8	5.4	6.9	1.0	19.6	30.5	52.9	19.6
	66	Line	20.60	23.78	47.57	20.77	22.21	16.66	27.76	33.31	44.42	27.50
		Rate (people)	2.4	6.2	59.2	2.7	4.2	0.4	15.8	28.5	53.6	14.8
		Rate (households)	1.9	5.2	55.2	2.2	3.4	0.4	14.4	26.3	49.9	13.5

**Punjab: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	31.31	46.96	62.61	25.00	37.58	56.51	75.15	329	—
		Rate (people)	13.6	39.2	58.6	6.8	23.7	50.5	70.2	61.2	—
		Rate (households)	10.0	31.3	48.6	5.1	18.0	41.4	61.3	68.7	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	27.50	41.25	55.00	24.29	33.08	49.76	66.17	—	164
		Rate (people)	11.3	42.7	66.8	5.5	23.9	58.3	78.0	—	19.6
		Rate (households)	9.1	37.9	61.1	4.5	20.2	52.8	73.0	—	26.8

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Rajasthan: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
			\$1.08	\$2.16	\$1.08	\$0.81	\$1.35	\$1.62	\$2.16			
Urban	59	Line	17.23	16.44	32.88	17.38	14.57	10.93	18.22	21.86	29.15	17.64
		Rate (people)	27.4	21.4	70.9	27.4	12.2	3.5	30.3	45.5	65.9	27.7
		Rate (households)	21.6	17.5	61.7	21.6	9.7	3.2	23.9	36.8	56.1	21.9
	62	Line	18.82	18.25	36.51	19.32	16.24	12.18	20.30	24.36	32.49	19.61
		Rate (people)	20.5	18.2	74.0	22.3	11.4	2.6	29.8	45.1	63.9	23.3
		Rate (households)	16.0	13.7	63.9	17.1	8.6	1.8	23.2	35.4	54.6	17.8
	66	Line	26.56	25.77	51.53	27.27	22.83	17.12	28.53	34.24	45.66	27.68
		Rate (people)	17.5	14.7	66.1	18.6	9.1	2.3	21.7	37.1	56.3	19.8
		Rate (households)	13.3	10.9	55.2	14.1	6.5	1.4	16.8	29.8	45.8	15.5
Rural	59	Line	12.08	15.08	30.15	11.83	14.17	10.62	17.71	21.25	28.33	15.09
		Rate (people)	21.4	43.0	90.2	19.9	36.6	11.1	61.0	73.8	88.6	43.0
		Rate (households)	17.0	34.9	87.4	15.8	29.3	8.6	52.4	66.3	85.6	34.9
	62	Line	13.29	16.56	33.12	12.89	15.45	11.59	19.31	23.17	30.90	16.45
		Rate (people)	14.0	31.4	89.1	13.2	24.0	7.2	44.2	67.4	86.4	30.8
		Rate (households)	11.9	26.4	85.6	11.3	20.2	5.4	39.1	61.2	83.4	25.7
	66	Line	19.54	24.34	48.69	18.95	22.72	17.04	28.40	34.08	45.44	24.19
		Rate (people)	7.3	25.3	88.0	6.0	19.1	2.8	40.4	63.3	85.5	24.1
		Rate (households)	5.8	20.4	84.4	4.6	15.2	2.1	34.4	56.5	81.1	19.4

**Rajasthan: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	27.68	41.52	55.37	22.85	33.23	49.97	66.45	329	—
		Rate (people)	17.7	43.6	66.1	8.7	28.8	57.9	75.3	65.1	—
		Rate (households)	12.7	34.7	55.5	6.1	21.8	47.9	65.6	73.5	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	24.19	36.28	48.37	21.61	29.10	43.76	58.19	—	164
		Rate (people)	15.4	59.6	84.2	7.7	33.9	77.4	91.7	—	32.9
		Rate (households)	12.7	52.1	78.8	6.0	28.2	70.9	88.2	—	44.4

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Sikkim: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	12.72	17.64	35.28	11.76	15.87	11.90	19.84	23.80	31.74	23.03
		Rate (people)	0.7	4.2	50.9	0.7	1.3	0.7	25.6	26.4	44.1	25.6
		Rate (households)	2.5	6.5	40.7	2.5	4.5	2.5	16.6	19.4	35.5	16.6
	62	Line	13.89	19.59	39.18	13.08	17.69	13.26	22.11	26.53	35.37	25.60
		Rate (people)	0.8	3.9	55.2	0.8	3.9	0.8	7.9	17.9	38.7	17.9
		Rate (households)	2.8	5.4	44.1	2.8	5.4	2.8	7.4	13.7	29.5	13.7
	66	Line	19.61	27.65	55.30	18.46	24.85	18.64	31.07	37.28	49.71	36.14
		Rate (people)	0.0	3.0	25.0	0.0	0.6	0.0	3.0	10.6	16.3	6.1
		Rate (households)	0.1	2.2	19.4	0.0	0.4	0.0	2.2	7.7	12.7	5.4
Rural	59	Line	12.84	15.82	31.64	12.24	14.87	11.15	18.59	22.30	29.74	16.78
		Rate (people)	19.2	36.7	87.9	13.0	31.6	10.5	52.7	69.4	85.5	44.0
		Rate (households)	13.9	27.9	78.7	9.2	23.3	7.2	41.7	58.5	76.1	33.9
	62	Line	14.12	17.38	34.76	13.34	16.22	12.16	20.27	24.32	32.43	18.30
		Rate (people)	7.7	30.3	91.1	3.2	23.7	0.8	47.6	60.3	90.1	34.3
		Rate (households)	6.9	28.6	85.7	1.9	20.2	0.5	44.9	56.1	83.0	31.6
	66	Line	20.75	25.55	51.09	19.62	23.85	17.89	29.81	35.77	47.70	26.89
		Rate (people)	7.9	21.5	82.8	5.2	15.2	1.5	34.6	55.6	78.6	24.0
		Rate (households)	5.1	16.4	71.2	3.7	11.2	0.9	27.6	45.7	66.7	18.4

**Sikkim: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	36.14	54.21	72.28	29.93	43.38	65.24	86.75	329	—
		Rate (people)	12.5	27.3	61.1	3.3	16.9	50.5	85.5	74.0	—
		Rate (households)	7.3	17.8	44.9	2.2	10.0	37.6	79.7	86.0	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	26.89	40.34	53.79	23.03	32.35	48.66	64.71	—	164
		Rate (people)	18.9	60.2	80.8	9.3	35.7	73.9	88.5	—	46.0
		Rate (households)	15.4	50.6	70.0	7.2	29.6	62.7	78.9	—	55.1

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.



**Tamil Nadu: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	17.59	17.04	34.08	17.00	15.38	11.54	19.23	23.08	30.77	17.38
		Rate (people)	17.1	14.5	62.4	14.1	9.5	3.0	23.1	34.2	54.9	16.2
		Rate (households)	15.3	13.0	56.6	12.7	8.4	2.6	20.4	30.2	49.4	14.6
	62	Line	19.21	18.92	37.84	18.90	17.14	12.86	21.43	25.72	34.29	19.32
		Rate (people)	16.7	16.0	63.5	15.7	10.7	4.2	22.6	38.2	59.5	16.9
		Rate (households)	13.0	12.6	56.3	12.4	7.8	2.7	17.8	31.8	52.2	13.2
	66	Line	27.11	26.71	53.42	26.67	24.09	18.07	30.12	36.14	48.19	27.27
		Rate (people)	14.4	13.8	58.5	13.7	8.3	2.1	20.0	33.4	51.5	14.5
		Rate (households)	12.3	11.8	53.1	11.8	7.4	1.7	17.4	29.1	46.4	12.4
Rural	59	Line	10.81	15.66	31.33	11.11	14.72	11.04	18.40	22.08	29.45	13.95
		Rate (people)	15.1	43.3	88.2	17.5	37.7	17.2	57.3	71.9	86.2	32.7
		Rate (households)	11.8	37.5	85.4	13.4	31.5	13.1	51.6	66.7	83.2	26.9
	62	Line	11.88	17.20	34.41	12.11	16.06	12.04	20.07	24.08	32.11	15.20
		Rate (people)	16.0	43.6	86.2	16.3	38.4	16.2	55.3	67.3	84.9	34.7
		Rate (households)	13.1	37.2	84.1	13.6	32.4	13.5	48.5	62.1	82.5	28.6
	66	Line	17.47	25.29	50.58	17.80	23.62	17.71	29.52	35.42	47.23	22.35
		Rate (people)	9.9	36.0	88.1	11.6	30.1	11.4	53.3	69.4	85.2	25.2
		Rate (households)	8.3	31.6	85.4	9.5	26.1	9.4	47.6	64.6	82.0	21.4

**Tamil Nadu: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	27.27	40.91	54.55	23.40	32.74	49.24	65.47	329	—
		Rate (people)	10.2	32.4	54.6	5.1	19.3	47.7	66.5	79.8	—
		Rate (households)	8.5	28.2	49.0	4.4	16.3	42.2	61.1	83.7	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	22.35	33.53	44.70	18.88	26.89	40.44	53.77	—	164
		Rate (people)	16.1	51.5	75.5	8.0	28.8	68.0	85.7	—	64.6
		Rate (households)	13.8	46.5	71.2	6.7	25.5	62.9	82.5	—	71.3

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Tripura: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	12.72	17.64	35.28	11.76	15.87	11.90	19.84	23.80	31.74	17.26
		Rate (people)	5.6	26.3	67.3	3.7	15.6	3.7	33.9	40.0	56.4	21.4
		Rate (households)	2.9	21.9	62.3	1.9	11.1	1.9	29.1	35.0	51.0	17.7
	62	Line	13.89	19.59	39.18	13.08	17.69	13.26	22.11	26.53	35.37	19.18
		Rate (people)	11.0	22.5	65.0	5.0	18.3	5.0	29.9	40.9	59.3	22.3
		Rate (households)	8.2	17.9	57.4	4.0	14.3	4.0	24.7	34.7	51.5	17.7
	66	Line	19.61	27.65	55.30	18.46	24.85	18.64	31.07	37.28	49.71	27.08
		Rate (people)	2.1	13.2	60.7	1.0	8.9	1.0	21.7	35.4	52.1	12.9
		Rate (households)	1.5	10.4	54.3	0.8	6.8	0.8	18.0	29.8	46.6	10.1
Rural	59	Line	12.84	15.82	31.64	12.24	14.87	11.15	18.59	22.30	29.74	14.23
		Rate (people)	21.6	44.6	93.5	17.9	36.0	11.2	62.8	80.3	92.6	32.6
		Rate (households)	19.4	41.0	91.2	15.9	33.0	9.5	58.4	76.4	89.8	29.7
	62	Line	14.12	17.38	34.76	13.34	16.22	12.16	20.27	24.32	32.43	15.51
		Rate (people)	35.8	62.7	98.3	30.8	58.0	22.6	80.5	89.0	97.9	51.4
		Rate (households)	33.9	62.4	97.7	29.1	57.2	21.1	80.0	87.6	97.2	50.7
	66	Line	20.75	25.55	51.09	19.62	23.85	17.89	29.81	35.77	47.70	22.80
		Rate (people)	14.9	32.8	93.8	9.7	26.8	4.2	48.8	71.2	91.6	22.9
		Rate (households)	12.4	29.1	92.1	8.2	23.2	3.8	45.2	67.6	89.5	19.8

**Tripura: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	27.08	40.62	54.16	25.01	32.50	48.89	65.01	329	—
		Rate (people)	9.1	34.5	54.5	4.2	23.4	49.1	69.6	79.5	—
		Rate (households)	7.0	30.0	48.1	3.5	20.0	42.1	62.6	81.8	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	22.80	34.19	45.59	21.26	27.42	41.24	54.84	—	164
		Rate (people)	7.3	47.9	77.0	3.6	21.5	69.2	87.4	—	48.0
		Rate (households)	6.0	42.8	73.1	2.8	18.2	65.0	84.1	—	57.0

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Uttar Pradesh: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	15.39	14.91	29.83	15.01	13.87	10.40	17.34	20.80	27.74	16.52
		Rate (people)	30.7	28.3	74.4	28.9	22.1	7.4	39.0	51.4	70.2	35.4
		Rate (households)	23.3	21.5	66.0	21.9	16.5	4.9	30.2	41.1	61.5	26.9
	62	Line	16.81	16.56	33.12	16.68	15.46	11.59	19.32	23.18	30.91	18.37
		Rate (people)	28.0	27.5	71.3	27.6	21.8	5.6	37.2	49.6	67.3	34.8
		Rate (households)	20.4	20.0	60.9	20.1	15.8	4.1	28.0	39.0	56.7	25.9
	66	Line	23.73	23.38	46.76	23.55	21.72	16.29	27.15	32.58	43.44	25.93
		Rate (people)	24.9	23.8	67.6	24.3	18.6	5.6	34.0	46.8	63.7	30.8
		Rate (households)	18.2	17.3	56.4	17.7	13.1	3.7	25.2	35.8	52.8	23.0
Rural	59	Line	11.83	13.06	26.11	11.55	12.27	9.20	15.33	18.40	24.53	13.74
		Rate (people)	30.1	39.8	90.2	27.7	33.8	10.5	57.0	73.2	87.7	45.0
		Rate (households)	25.6	34.5	87.3	23.3	29.0	8.7	50.9	68.1	84.3	39.3
	62	Line	13.01	14.34	28.68	12.59	13.38	10.03	16.72	20.07	26.76	14.98
		Rate (people)	28.6	33.9	91.6	24.8	29.9	9.1	50.4	71.0	88.8	39.0
		Rate (households)	23.4	29.7	87.7	20.4	24.9	7.0	44.9	65.5	84.5	34.1
	66	Line	19.13	21.08	42.16	18.51	19.68	14.76	24.59	29.51	39.35	22.02
		Rate (people)	25.3	35.3	90.2	21.7	28.5	6.8	52.9	70.4	87.7	40.4
		Rate (households)	21.1	29.7	86.5	18.3	23.8	5.7	46.2	64.1	83.4	34.1

**Uttar Pradesh: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	25.93	38.89	51.85	20.89	31.12	46.80	62.24	329	—
		Rate (people)	24.7	53.2	70.1	12.3	37.4	64.9	78.6	73.9	—
		Rate (households)	17.6	42.3	58.0	8.3	28.2	52.9	67.3	75.0	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	22.02	33.03	44.04	18.29	26.49	39.84	52.98	—	164
		Rate (people)	31.3	72.2	89.9	15.6	51.8	85.3	94.9	—	50.4
		Rate (households)	27.0	66.2	85.1	13.0	45.5	79.9	92.2	—	61.9

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.

**Uttaranchal/Uttarakhand: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	15.39	14.91	29.83	19.80	13.87	10.40	17.34	20.80	27.74	18.71
		Rate (people)	18.8	16.4	63.7	33.1	13.1	1.1	27.6	34.7	61.3	31.5
		Rate (households)	13.2	12.3	53.4	27.0	9.9	0.4	20.5	27.7	50.9	26.0
	62	Line	16.81	16.56	33.12	22.01	15.46	11.59	19.32	23.18	30.91	20.79
		Rate (people)	12.6	12.6	67.0	25.5	5.2	0.0	14.0	40.1	64.7	25.5
		Rate (households)	10.3	10.3	57.9	22.4	3.5	0.0	11.6	36.0	55.2	22.4
	66	Line	23.73	23.38	46.76	31.07	21.72	16.29	27.15	32.58	43.44	29.35
		Rate (people)	10.8	10.8	52.8	27.7	9.3	0.8	18.3	29.9	50.7	24.8
		Rate (households)	7.2	7.2	42.9	19.4	5.8	0.4	12.2	21.3	41.0	17.4
Rural	59	Line	11.83	13.06	26.11	15.10	12.27	9.20	15.33	18.40	24.53	15.36
		Rate (people)	18.0	25.5	85.2	34.0	20.0	3.7	34.8	55.4	77.7	34.8
		Rate (households)	12.3	18.7	74.3	26.4	15.1	2.5	27.0	46.7	66.9	27.0
	62	Line	13.01	14.34	28.68	16.45	13.38	10.03	16.72	20.07	26.76	16.74
		Rate (people)	4.5	6.8	54.8	12.2	4.5	1.4	12.4	31.3	50.8	12.5
		Rate (households)	4.8	6.8	60.0	12.8	4.8	1.2	13.4	35.6	56.1	13.4
	66	Line	19.13	21.08	42.16	24.19	19.68	14.76	24.59	29.51	39.35	24.60
		Rate (people)	3.4	6.0	69.8	15.8	4.5	1.4	17.6	36.9	66.0	17.6
		Rate (households)	2.4	4.0	52.0	11.0	3.1	1.0	12.4	25.6	48.4	12.4

**Uttaranchal/Uttarakhand: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	29.35	44.03	58.70	24.39	35.23	52.98	70.46	329	—
		Rate (people)	20.9	44.9	64.2	10.3	30.0	56.0	74.4	70.6	—
		Rate (households)	15.2	35.6	52.9	6.5	23.0	45.4	64.3	74.1	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	24.60	36.91	49.21	22.56	29.60	44.52	59.20	—	164
		Rate (people)	14.6	53.1	76.1	6.7	29.6	68.4	84.8	—	34.3
		Rate (households)	9.2	37.1	57.5	4.4	19.9	50.0	66.6	—	37.3

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.



**West Bengal: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MRP expenditure**

		Poverty lines (Rs/person/day in MRP expenditure) and poverty rates (%)										
Region	Round	Line/rate	Legacy R59			Legacy R62					R66	
			National Saxena	Intl. 1993 PPP		National Saxena	Intl. 1993 PPP				National Tendulkar	
				\$1.08	\$2.16		\$1.08	\$0.81	\$1.35	\$1.62	\$2.16	
Urban	59	Line	15.13	15.99	31.98	13.95	14.47	10.85	18.09	21.71	28.94	17.78
		Rate (people)	13.1	14.6	63.0	9.9	11.2	3.5	25.7	35.3	54.1	23.9
		Rate (households)	9.3	10.6	56.8	7.0	8.1	2.6	18.7	27.4	47.6	17.2
	62	Line	16.53	17.75	35.51	15.51	16.13	12.10	20.16	24.19	32.26	19.76
		Rate (people)	15.8	19.7	61.5	13.2	14.5	4.9	24.2	36.6	54.6	23.3
		Rate (households)	12.6	15.7	53.2	10.5	11.6	4.0	19.2	29.4	47.1	18.2
	66	Line	23.33	25.06	50.12	21.89	22.67	17.00	28.33	34.00	45.33	27.90
		Rate (people)	12.5	16.2	60.2	9.4	10.3	3.4	24.2	36.6	54.8	23.4
		Rate (households)	8.9	11.8	51.7	6.8	7.4	2.3	17.9	28.7	46.3	17.4
Rural	59	Line	12.30	14.28	28.56	12.09	13.42	10.07	16.78	20.13	26.84	14.06
		Rate (people)	23.6	40.7	92.0	22.4	32.8	8.6	57.2	73.7	89.4	39.0
		Rate (households)	20.2	35.9	89.2	19.0	28.7	6.8	51.7	68.9	86.0	34.3
	62	Line	13.53	15.69	31.37	13.18	14.64	10.98	18.30	21.96	29.27	15.33
		Rate (people)	25.7	39.3	91.3	23.2	32.3	13.4	59.2	74.4	89.3	37.8
		Rate (households)	21.5	33.8	88.9	18.9	27.9	10.6	53.7	69.4	86.7	32.8
	66	Line	19.89	23.06	46.12	19.37	21.53	16.15	26.91	32.29	43.06	22.54
		Rate (people)	23.2	40.0	92.9	21.4	31.0	8.8	57.6	76.3	91.3	37.0
		Rate (households)	19.9	35.1	91.0	18.1	26.9	7.2	52.3	71.5	89.1	32.1

**West Bengal: Poverty lines and poverty rates (at person level and household level), by round and by urban/rural, for MMRP expenditure**

		Poverty lines (Rs/person/day in MMRP expenditure) and poverty rates (%)									
Region	Round	Line/rate	R66							RBI	
			National Tendulkar			USAID	Intl. 2005 PPP			Urban	Rural
			100%	150%	200%	"extreme"	\$1.25	\$1.88	\$2.50		
Urban	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	27.90	41.84	55.79	23.40	33.48	50.36	66.96	329	—
		Rate (people)	18.2	42.6	59.4	9.1	28.1	53.4	71.2	75.8	—
		Rate (households)	13.7	35.2	52.0	6.8	22.2	45.7	64.0	79.6	—
Rural	59	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	62	Line	—	—	—	—	—	—	—	—	—
		Rate (people)	—	—	—	—	—	—	—	—	—
		Rate (households)	—	—	—	—	—	—	—	—	—
	66	Line	22.54	33.81	45.07	18.68	27.11	40.77	54.22	—	164
		Rate (people)	26.3	69.1	87.6	13.2	44.7	83.4	94.3	—	71.1
		Rate (households)	21.6	63.1	84.4	10.0	38.7	79.1	92.2	—	78.7

The RBI lines are in Rs per household per day. MMRP expenditure was measured only in R66.