Simple Poverty Scorecard® Poverty-Assessment Tool Peru

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Un índice más actualizado que éste en Castellano está en `SimplePovertyScorecard.com`.
A more-current scorecard than this one is in English at `SimplePovertyScorecard.com`.

Abstract

The Simple Poverty Scorecard-brand poverty-assessment tool uses ten low-cost indicators from Peru's 2007 National Household Survey to estimate the likelihood that a household has income 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 Peru to measure poverty rates, to track changes in poverty rates over time, and to segment clients for targeted services.

Version note

This paper uses 2007 data, replacing Schreiner (2008), which uses 2003 data. The new 2007 scorecard here should be used from now on. Existing users of Schreiner (2008) can still measure change over time using the food poverty line or the national poverty line with a baseline from the old 2003 scorecard and a follow-up from the new 2007 scorecard.

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Simple Poverty Scorecard® Poverty-Asssessment Tool

			Name	Identifier
Interview ID:				
Interview date:		Participant:		
Country:	PER	Field agent:		
Scorecard:	002	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	5	
	C. Two	9	
	D. One	16	
	E. None	24	
2. What is the highest educational level that the female head/spouse completed?	A. None, pre-school, or kindergarten	0	
	B. Grade school (incomplete)	5	
	C. Grade school (complete)	7	
	D. High school (incomplete)	9	
	E. High school (complete), non-university superior (incomplete) or no female head	10	
	F. Non-university superior (complete) or higher	16	
3. What is the main material of the floors?	A. Earth, wood planks, other, or no residence	0	
	B. Cement	2	
	C. Parquet, polished wood, linoleum, vinyl, tile, or similar	15	
4. What is the main material of the exterior walls?	A. Adobe, mud, or matting	0	
	B. Wattle and daub, wood, matting, brick or cement blocks, stone blocks with lime or cement, other, or no residence	2	
5. Excluding bathrooms, kitchen, hallways, and garage, how many rooms does the residence have?	A. One	0	
	B. Two	1	
	C. Three, four, or five	5	
	D. Six or more	10	
6. What fuel does the household most frequently use for cooking?	A. Other	0	
	B. Firewood, charcoal, or kerosene	5	
	C. Gas (LPG or natural)	9	
	D. Electricity or does not cook	16	
7. Does the household have a refrigerator/freezer?	A. No	0	
	B. Yes	5	
8. How many color televisions does the household have?	A. None	0	
	B. One	3	
	C. Two or more	7	
9. Does the household have a blender?	A. No	0	
	B. Yes	3	
10. Does the household have an iron?	A. No	0	
	B. Yes	2	

Score:

Simple Poverty Scorecard® Poverty-Assessment Tool Peru

1. Introduction

The Simple Poverty Scorecard poverty-assessment tool is a low-cost way for pro-poor programs in Peru 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 direct approach to poverty measurement via surveys is difficult and costly, asking households about a lengthy list of expenditure categories such as "How many carrots did you eat last week? If you bought carrots, what price did you pay? If you grew carrots yourself, what price would they have sold for? Now then, how many cabbages did you eat last week? . . .").

In contrast, the indirect approach via the scorecard is simple, quick, and inexpensive. It uses ten verifiable indicators (such as "What fuel does the household most frequently use for cooking?" or "What is the main material of the floors") to get a score that is highly correlated with poverty status as measured by the exhaustive survey.

The scorecard 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 these organizations are typically subjective and relative (such as participatory wealth ranking by skilled field workers) or blunt (such as rules based on land-ownership or housing quality). These approaches may be costly, their results are not comparable across organizations nor across countries, and their accuracy and precision are unknown.

Suppose an organization wants to know what share of its participants are below a poverty line; for example, it might want to report using the USD1.25/day poverty line at 2005 purchase-power parity for the Millennium Development Goals, or it might want to report how many participants are among the poorest half of people below the national poverty line (as required of USAID microenterprise partners). Or suppose an organization wants to measure movement across a poverty line (for example, to report to the Microcredit Summit Campaign). In all these cases, the organization needs an expenditure-based, objective tool with known accuracy. While expenditure surveys are costly even for governments, many small, local organizations can implement an inexpensive scorecard that can serve for monitoring, management, 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 three decades, but they are rarely used to inform

decisions. This is not because they do not work, but because they are presented (when they are presented at all) as tables of regression coefficients incomprehensible to non-specialists (with cryptic indicator names such as "`HHSIZE_2`", negative values, many decimal places, and standard errors). Thanks to the predictive-modeling phenomenon known as the "flat max", simple scorecards are about 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 standard in the for-profit field of credit-risk scoring, they have rarely or never been applied to poverty-assessment tools.

The scorecard (Figure 1) is based on the 2007 *Encuesta Nacional de Hogares Condiciones de Vida y Pobreza* (National Household Survey on Living Standards and Poverty) conducted by Peru's *Instituto Nacional de Estadística e Informática*. 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

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 estimate the poverty rate of a given group of households at a point in time. This is simply the average poverty likelihood among the households in the group.

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

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

This paper presents a single scorecard (Figure 1) whose indicators and points are derived from household expenditure data and Peru's national poverty line. Scores from this scorecard are calibrated to poverty likelihoods for eight poverty lines.

The scorecard is constructed and calibrated using a sub-sample of the data from the 2007 ENAHO. Its accuracy is validated on a different sub-sample from the 2007 ENAHO as well as on ENAHO data for 2005 and 2006.[1] While all three scoring

[1] Except where otherwise noted, all analyses here exclude "panel" households that are interviewed in more than one ENAHO. An earlier version of this paper validated the

estimators are unbiased when applied to the population from which they were derived (that is, they match the true value on average in repeated samples from the same population from which the scorecard was built), they are—like all predictive models—biased to some extent when applied to a different population.[2]

Thus, while the indirect scoring approach is less costly than the direct survey approach, it is also always biased in practice. (The direct survey approach is unbiased by definition.) There is bias because scoring must assume that the future relationship between indicators and poverty will be the same as in the data used to build the scorecard as well as the same in all sub-groups as it is in the population.[3] Of course, this assumption—ubiquitous and inevitable in predictive modeling—holds only partly.

When applied to the 2007 validation sample for Peru with $n = 16{,}384$, the difference between scorecard estimates of groups' poverty rates and the true rates at a point in time is +0.3 percentage points for the national line, and the average absolute difference is 0.8 percentage points across all eight lines. Because the 2007 validation sample is representative of the same population as the data that was used to construct the scorecard and all the data comes from the same time frame, the scorecard

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2007 scorecard on data from the 2002, 2003, and 2004 ENAHO as well. It was later discovered, however, that the indicator for cooking fuel was asked differently in 2002–4 than in 2005–7, so the earlier years had to be dropped from this paper.

[2] Examples of "different populations" include a nationally representative sample at a different point in time or a non-representative sub-group (Tarozzi and Deaton, 2007).

[3] Bias may also result from changes in the quality of data collection, from changes over time to the real value of the national poverty lines, from imperfect adjustment of poverty lines to account for differences in cost-of-living across time or geographic regions, or from sampling variation across expenditure surveys.

estimators are unbiased and these differences are due to sampling variation; the average difference would be zero if the whole 2007 ENAHO were to be repeatedly redrawn and divided into sub-samples before repeating the entire scorecard-building and accuracy-testing process.

For n = 16,384, the 90-percent confidence intervals for these estimates are ±0.6 percentage points or less for estimates of a poverty rate at a point in time for the 2007 validation sample, the 2006 ENAHO, and the 2005 ENAHO. For n = 1,024, these intervals are ±2.5 percentage points or less.

When the scorecard built from the 2007 construction and calibration samples is applied both to the 2007 validation sample and to the entire 2006 ENAHO with n = 16,384, the difference between scorecard estimates and true values for changes in groups' poverty rates is –3.0 percentage points for the national line. While the true change was –6.8 percentage points, the scorecard estimates a change of –3.8 percentage points. Across all eight lines and across the two year-pairs of 2007 with 2005 and 2006, the average estimated change is about 50 percent too small. The main driver of this is probably the changing relationship between indicators and poverty, with some of the difference also due to sampling variation and changes in poverty lines. These results underline the importance of stable data—and stable reality—when using scoring to measure change.

Section 2 below describes data and poverty lines. Section 3 places the new scorecard here in the context of existing exercises for Peru. Sections 4 and 5 describe

scorecard construction and offer practical guidelines for use. Sections 6 and 7 detail the estimation of households' poverty likelihoods and of groups' poverty rates at a point in time. Section 8 discusses estimating changes in poverty rates, and Section 9 covers targeting. The final section is a summary.

2. Data and poverty lines

This section discusses the data used to construct and test the scorecard. It also presents the poverty lines to which scores are calibrated.

2.1 Data

The scorecard is based on data from the 2007 ENAHO.[4] This is the best, most recent national expenditure survey available. Households are randomly divided into three sub-samples (Figure 2):

- *Construction* for selecting indicators and points
- *Calibration* for associating scores with poverty likelihoods
- *Validation* for testing accuracy on data not used in construction or calibration

In addition, the 2005 and 2006 ENAHO surveys are used in the validation of estimates of changes in poverty rates between two points in time.

2.2 Poverty rates and poverty lines

2.2.1 Rates

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

[4] `http://www1.inei.gob.pe/srienaho/index.htm`, accessed February 13, 2009.

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 have greater weight.

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-person expenditure above a poverty line (it is "non-poor") and that the second household has per-person 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) (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) (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 those 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 is relevant. For example, if a microlender has only one borrower in a household, then it could report household-level poverty rates.

This paper reports poverty rates and poverty lines at both the household-level and the person-level, by urban/rural for all regions in Peru in all years from 2002 to 2007 (Figures A1 to A27 at the end of the paper).[5] The scorecard is constructed using the 2007 ENAHO and household-level lines, scores are calibrated to household-level poverty likelihoods, and accuracy is measured for household-level rates. This use of household-level rates reflects the belief that they are relevant for most pro-poor organizations.

Organizations can estimate person-level poverty rates by taking a household-size-weighted average of the household-level poverty likelihoods. It is also possible to construct a scorecard based on person-level lines, to calibrate scores to person-level likelihoods, and to measure accuracy for person-level rates, but it is not done here.

2.2.2 Poverty lines

Peru has two official poverty lines. The "food" line is based on the assumed caloric needs of individual household members, per age and sex. For 2007, the average food line was 3.96 Nuevos Soles/person/day (Figure A1).

This paper focuses on the "national" poverty line, which adjusts the food line downwards for economies of size in the household (for example, because kitchen facilities are shared) and upwards to match the total food plus non-food expenditure observed for households who just meet their caloric needs (*Instituto Nacional de*

[5] Some poverty rates in Figures A3 to A27 are not very precise due to small samples.

Estadística e Información, 2006). For 2007, the average national poverty line for all of Peru is NS7.40/person/day (Figure A1).

For Peru overall, the household-level poverty rates in the 2007 ENAHO are 34.0 percent for the national line and 11.5 percent for the food line (Figure 2). Compared with the 2006 ENAHO, these are reductions of 6.8 and 3.8 percentage points. Compared with the 2005 ENAHO, the reductions are 9.8 and 4.6 percentage points.

Because local pro-poor organizations may want to use different or various poverty lines, this paper calibrates scores from its single scorecard to poverty likelihoods for eight lines:

- National
- 150 percent of national
- 200 percent of national
- Food
- USAID "extreme"
- USD1.25/day 2005 PPP
- USD2.50/day 2005 PPP
- USD3.75/day 2005 PPP

The national and food lines are part of the ENAHO data.[6] The "150 percent of national" line and the "200 percent of national" line are multiples of the national line.

The USAID "extreme" line is defined as the median expenditure of people (not households) below the national line (U.S. Congress, 2002).

[6] A STATA program to compute the lines is available at `http://www1.inei.gob.pe/srienaho/Consulta_por_Documentos.asp`.

The USD1.25/day line (2005 PPP) is derived from:

- 2005 PPP exchange rate for "individual consumption expenditure by households":[7] NS1.65 per USD1.00
- Average annual Consumer Price Index (CPI)[8]
  - — 2002: 92.78
  - — 2003: 94.91
  - — 2004: 98.43
  - — 2005: 100.0
  - — 2006: 102.0
  - — 2007: 103.8

Given this, the USD1.25/day 2005 PPP line for Peru as a whole for the 2007 ENAHO is:[9]

$$(\text{2005 PPP exchange rate}) \cdot \text{USD1.25} \cdot \left(\frac{\text{CPI}_{\text{2007 average}}}{\text{CPI}_{\text{2005 average}}} \right) =$$

$$\left(\frac{\text{NS1.65}}{\text{USD1.00}} \right) \cdot \text{USD1.25} \cdot \left(\frac{103.82}{100.0} \right) = \text{NS2.14}.$$

The USD2.50/day and USD3.75/day 2005 PPP lines are multiples of the USD1.25/day line.

The lines just discussed apply to Peru as a whole. For each ENAHO round, they are adjusted for regional and urban/rural differences in prices using:

- L, a given all-Peru poverty line
- p_i, population proportion by urban/rural in each of Peru's 25 regions
- π_i, the national poverty line by region (used as a price deflator) from ENAHO

[7] `http://siteresources.worldbank.org/ICPINT/Resources/icp-final-tables.pdf`, accessed February 13, 2009.

[8] `http://www.bcrp.gob.pe/bcr/dmdocuments/Estadistica/Cuadros/Anuales/ACuadro_09.xls`, accessed December 29, 2008.

[9] The formula is from Sillers (2006). Figure A1 differs slightly due to rounding.

The cost-of-living-adjusted poverty line L_i for area i is then:

$$L_i = \frac{L \cdot \pi_i}{\sum_{j=1}^{25} p_j \cdot \pi_j}.$$

The all-Peru line L is the person-weighted average of local lines L_i. The differences in local lines reflect the differences in local prices.

3. Context of poverty-assessment tools for Peru

This section discusses existing poverty-assessment tools for Peru in terms of their goals, methods, poverty lines, indicators, accuracy, precision, and costs. There are at least six existing tools for Peru; why one more? First, estimates from the scorecard here are tested out-of-sample and out-of-time, and bias, precision, and formulas for sample size and standard errors are reported. Second, the new scorecard is based on the largest sample and on the latest nationally representative data. Finally, the accuracy of the new scorecard compares well with that of the others.

3.1 Grosh and Baker

Grosh and Baker (1995) built the first poverty-assessment tool for Peru. They use data from the 1990 Living Standards Measurement Survey of 1,500 households in Lima (Glewwe and Hall, 1991). The poverty line is set at the 30^{th} percentile of expenditure. Stepwise regression with ordinary least-squares is used to select five simple, verifiable indicators:

- Household size
- Level of education
- Ownership of a telephone
- Ownership of a television
- Ownership of a car

As is traditional for proxy means tests, the focus is targeting, not estimating poverty rates. Accuracy is measured as successful "hits" (*inclusion* when someone truly below a poverty line is predicted to have per capita expenditure below the line, or

exclusion when someone truly above a line is predicted to be above) versus unsuccessful "misses" (*undercoverage* when someone truly below a line is predicted to be above, or *leakage* when someone truly above a line is predicted to be below). Grosh and Baker also look at who is mistargeted, and by how far.

Grosh and Baker's tool, when targeting households in the lowest three deciles of their index, has inclusion of 46.2 percent and exclusion of 34.9 percent (p. 20). For comparison, the 2007 scorecard here, when applied out-of-sample and out-of-time to the 2006 ENAHO and the $3.75/day 2005 PPP line (which gives a poverty rate of 31.1 percent, comparable to the 30 percent in Grosh and Baker), has inclusion of 71 percent and exclusion (when defined as in Grosh and Baker) of 86 percent (Figures 13 and 14).

Grosh and Baker overstate accuracy to some unknown extent because they test "in-sample", that is, using the same data that was used to construct the tool.

Grosh and Baker is a seminal paper in the field, and it is the first to document several key properties of poverty-assessment tools:

- Simple statistical techniques can be almost as accurate as complex ones
- Focusing the tool on poorer segments (supposing those segments can be identified in the first place) can improve accuracy
- Accuracy can be robust to households' misrepresentation or to enumerators' errors
- There are rapidly diminishing returns to additional indicators
- Fine-tuning for regional differences has low returns
- "Among all targeting mechanisms, proxy means tests [poverty-assessment tools] produce the best incidence outcomes" (p. 1).

3.2 Meyer, Nagarajan, and Dunn

Meyer, Nagarajan, and Dunn ("MND", 2000) highlight simplicity. The data are from a special-purpose 1997 survey of 700 households in metro Lima (Dunn and Arbuckle, 2001). The poverty line is the then-country-wide national line. Ordinary least-squares is used to estimate per capita expenditure, which is then compared to poverty status from the survey. Three indicators are tested, both individually and jointly:

- Household income (obtained via recall)
- Household size
- Housing index based on number of stories and materials of walls and roof

Like Grosh and Baker, MND test accuracy in-sample with "hit-or-miss" tables and targeting the lowest three deciles of their index, obtaining inclusion of 47.2 percent and exclusion of 68.9 percent, both figures lower than what the scorecard here gives for the 2006 ENAHO and the $3.75/day 2005 PPP line.

3.3 Copestake *et al.*

As in this paper, Copestake *et al.* (2005) focus on monitoring poverty accurately and inexpensively. The poverty-assessment tool is constructed from a special-purpose 2001 survey of 1,375 households, some of whom were clients of two microlenders. Accuracy is tested on a 2002 repeat survey of 937 of the original households (Fanning, 2004). This "out-of-sample" test is better than an "in-sample" test because it mimics how the tool is actually used. Accuracy out-of-sample is about 17 percent less than in-sample.

Copestake *et al.* define poverty in terms of income (NS5.16/person/day in 1997), adjusted for caloric guidelines per age and sex. The tool is constructed using backward stepwise ordinary least-squares, augmented with analyst judgment to ensure that indicators are quantitative and verifiable and that they make sense to users. Accuracy is tested by comparing predicted and actual quintile ranks based on income, precluding a comparison with the scorecard here. The indicators in Copestake *et al.* are few, simple, and verifiable:

- Household size
- Number of students
- Number of self-employed
- Number of unemployed
- Type of floor
- Cooking fuel
- Ownership of refrigerator
- Ownership of VCR
- Ownership of cars

3.4 Zeller, Alcaraz V., and Johannsen

Zeller, Alcaraz V., and Johannsen ("ZAJ", 2005) discuss more than 20 poverty-assessment tools for Peru, some of them including indicators that are difficult to collect and verify such as "Share of food expenditures from total household expenditures" (which, if it could be measured, would eliminate the need for a poverty-assessment tool), "Total value of household assets", and "Average daily per-capita clothing expenditures". ZAJ's Model 9 is the most relevant here, as it uses only indicators

available from typical household expenditure surveys (although it still includes some high-cost indicators).

ZAJ conduct their own nationally representative expenditure survey of 800 households. They derive a national poverty line by finding, for each of Peru's seven regions in 2004, the income percentile that reproduces regional poverty rates based on expenditure from Peru's 2000 *Encuesta Nacional de Hogares Sobre Medición de Niveles de Vida* and that also matches the national poverty rate in Webb and Fernández (2003). They then base their tool on the USAID "extreme" poverty line that defines the poorest half of those under this line, giving a poverty rate of 26.9 percent.

ZAJ test a wide range of statistical techniques, some estimating expenditure which is then compared to poverty status from the survey, and some estimating poverty likelihood which is then compared to an arbitrary cut-off of 50 percent. Their preferred tool uses quantile regression. They focus on estimating poverty rates at a point in time, and they select indicators using stepwise. Among the Peru poverty-assessment tools reviewed here, ZAJ is the largest (19 indicators) and the most complex (using continuous indicators, averages, squares, medians, and logarithms):

- Logarithm of total value of household assets
- Logarithm of average daily per-capita clothing expenditures
- Logarithm of remittances sent out
- Logarithm of value of metal pots
- Median education of adult household members
- Demographics
    - — Household size (and its square)
    - — Marital status of head
    - — Age of head
- Residence:

    - — Presence of electricity
    - — Number of rooms
    - — Type of walls
    - — Type of cooking fuel
- Asset ownership:
    - — Fixed-line telephone
    - — Number of cars
    - — Microwave
    - — Sheep/goats
    - — Horses
- Region

ZAJ do not report their tools' points. Like the others, ZAJ measure accuracy in terms of inclusion (67 percent) and exclusion (79 percent). When the targeting cut-off is set so that inclusion with the 2007 validation sample and the $3.75/day 2005 PPP line (the case whose poverty rate is closest to ZAJ) matches ZAJ's 67 percent, exclusion is 86 percent, so the scorecard here is more accurate in terms of targeting. Furthermore, ZAJ use in-sample tests and do not report bias or precision.

ZAJ introduce the Balanced Poverty Assessment Criteria, a measure later adopted as the preferred yardstick for tool accuracy by USAID. A higher BPAC means more accuracy; for ZAJ, BPAC is 72.1.

BPAC is one way to value inclusion, undercoverage, leakage, and exclusion, but of course not the only way (see Section 9). IRIS Center (2005) says that the purpose of BPAC is to consider accuracy both in terms of the estimated poverty rate and in terms of targeting inclusion. The BPAC formula is:

(Inclusion – |Undercoverage – Leakage|) x [100 ÷ (Inclusion + Undercoverage)].

3.5 Johannsen

Johannsen (2006) differs from ZAJ in three ways. First, it classifies a household as "below poverty line" if the percentile of estimated expenditure is below the USAID "extreme" line (27.1 percent). Second, it uses the nationally representative 2000 Living Standards Measurement Survey. Third, it follows Schreiner (2006a) in the use of bootstrapped out-of-sample tests to estimate bias and precision. (Standard-error formula are not reported.) For the 19-indicator tool and the USAID "extreme" line, Johannsen's in-sample BPAC is 65.4. Out-of-sample BPAC is 59.8, a reduction of 8.5 percent. Johannesen's indicators are similar to—but different than—ZAJ:

- Logarithm of annual per-capita clothing expenditures
- Logarithm of the value of VCR
- Logarithm of the value of consumer durables
- Logarithm of remittances sent out
- Logarithm of the value of vacuum cleaners
- Education:
    - — Number of household members who are literate
    - — Number of household members with a college education
- Demographics
    - — Household size (and its square)
    - — Age of head
- Residence:
    - — Lighting source
    - — Type of floor
    - — Type of cooking fuel
- Asset ownership:
    - — Fixed-line telephone
    - — Cell phones
    - — Shovels/rakes
- Number of household members who use the internet
- Region

Johannsen reports inclusion of 63 percent and exclusion of 75 percent. When the targeting cut-off is set so that inclusion with the 2007 validation sample and the $3.75/day 2005 PPP line (the case whose poverty rate is closest to Johannsen's) matches Johannsen's 63 percent, exclusion is 86 percent, so the scorecard here is again more accurate in terms of targeting.

3.6 IRIS Center

IRIS Center (2007a) is like ZAJ, except that it omits high-cost indicators. Its in-sample BPAC for the USAID "extreme" line is 68.8. IRIS also reports inclusion of 69.3 percent and exclusion of 68.8 percent. Again setting the targeting cut-off so that inclusion with the 2007 validation sample and the $3.75/day 2005 PPP line (again the case with the closest poverty rate) matches IRIS' 69.3 percent, exclusion is 86 percent, so the scorecard here is again more accurate in terms of targeting.

3.7 The scorecard

How is the scorecard here different? In terms of data, it uses the most recent data, the largest sample, and—like ZAJ, Johannsen, and IRIS—its data are nationally representative.

In terms of testing, the only other out-of-sample tests are Copestake *et al.* and Johannsen. No other tool reports formulas for standard errors or sample sizes, and no one except Johannsen reports bias or precision. The analysis here is the only one to look

at estimates for individual poverty likelihoods, and Copestake *et al.* is the only other to look at estimates of changes in groups' poverty rates over time. Finally, this paper is the only one to measure accuracy for a range of possible targeting cut-offs.

In terms of simplicity, the new scorecard here has 10 indicators (more than NMD and Grosh and Baker, the same as Copestake *et al.*, and fewer than ZAJ, Johannsen, and IRIS), and all indicators are categorical (like Grosh and Baker). Furthermore, the new scorecard has the simplest indicators, the most straightforward derivation, and the simplest weighting scheme.

Finally, the new scorecard is probably about as accurate as ZAJ, Johanssen, and IRIS, the only ones using a similar poverty line. When the new scorecard based on 2007 data is applied out-of-sample (and out-of-time) to the USD3.75 2005 PPP line[10] in the 2007 validation sample, BPAC is 58.6 (Figure 13). Using non-ENAHO data, ZAJ's in-sample BPAC is 72.1, IRIS's in-sample BPAC is 68.8, and Johannsen's out-of-sample BPAC is 59.8. If going from in-sample to out-of-sample causes BPAC in ZAJ and IRIS to fall 8.5 percent (as in Johannsen) to 66.0 and 63.0, or if going from in-sample to out-of-sample causes BPAC to fall 17 percent (as in Copestake *et al.* for non-BPAC accuracy measures) to 59.8 and 57.1, then the new scorecard's accuracy in terms of poverty rates at a point in time compares well with that of the others. It was shown above that the new scorecard is the most accurate for targeting.

[10] This is the appropriate line for comparison, as its poverty rate of 25.5 and 31.1 percent in 2007 and 2006 are closest to those used for BPAC for the other tools.

4. Scorecard construction

About 150 potential indicators are initially prepared in the areas of:

- Family composition (such as household size and female headship)
- Education (such as the education level of the female head/spouse)
- Housing (such as the main material of the exterior walls)
- Ownership of durable goods (such as televisions and refrigerators)

Each indicator is first screened with the entropy-based "uncertainty coefficient" (Goodman and Kruskal, 1979) that measures how well the indicator predicts poverty on its own. Figure 3 lists the candidate indicators, ranked by uncertainty coefficient. Responses for each indicator in Figure 3 are ordered starting with those most strongly associated with poverty.

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, ownership of a blender is probably more likely to change in response to changes in poverty than is the marital status of the male head/spouse.

The scorecard itself is built using Peru's national poverty line and Logit regression on the construction sub-sample (Figure 2). Indicator selection uses both judgment and statistics (forward stepwise, based on "c"). The first step is to use Logit to build one scorecard for each candidate indicator. Each scorecard's accuracy 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), including 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 familiar R^2-based stepwise with 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. The use of non-statistical criteria can improve robustness through time and helps ensure that indicators are simple and make sense to users.

The single scorecard here applies to all of Peru. 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 accuracy much.

5. Practical guidelines for scorecard use

The main challenge of scorecard design is not to squeeze out the last drops of accuracy but rather to improve the chances that scoring is actually used (Schreiner, 2005b). When scoring projects fail, the reason is not usually technical 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 predict tolerably well, thanks to the empirical phenomenon known as the "flat max" (Hand, 2006; Baesens *et al.*, 2003; Lovie and Lovie, 1986; Kolesar and Showers, 1985; Stillwell, Hutton, 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 "extra" work and if the whole process generally seems to make sense.

To this end, the scorecard here fits on one page (Figure 1). The construction process, indicators, and points are simple and transparent. "Extra" work is minimized; non-specialists can compute scores by hand in the field because the scorecard has:

- Only 10 indicators
- Only categorical indicators
- Simple weights (non-negative integers, no arithmetic beyond addition)

A field worker using the paper scorecard would:

- Record participant identifiers
- Read each question from the scorecard
- Circle each response and its points
- Write the points 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 filing or data entry

Of course, field workers must be trained. Quality outputs depend on quality inputs. If organizations or field workers gather their own data and 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 random audits (Matul and Kline, 2003).[11] IRIS Center (2007a) and Toohig (2007) are useful nuts-and-bolts guides for planning, budgeting, training field workers and supervisors, logistics, sampling, interviewing, piloting, recording data, and controlling quality.

In particular, while collecting scorecard indicators is relatively easier than most alternatives, it is still absolutely difficult. Training and explicit definitions of terms and concepts in the scorecard is essential. For the example of Nigeria, Onwujekwe, Hanson, and Fox-Rushby (2006) find distressingly low inter-rater and test-retest correlations for indicators as seemingly simple and obvious as whether the household owns an automobile. In Mexico, in contrast, Martinelli and Parker (2007) find that errors by

[11] If an organization does not want field workers to know the points associated with indicators, then they can use the version of Figure 1 without points and apply the points later in a spreadsheet or database at the central office.

interviewers and lies by respondents have negligible effects on targeting accuracy. Grosh and Baker (1995) also find that gross underreporting of assets does not affect targeting. It is unknown whether these results are universal or country-specific.

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

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 in the field and then filed at an office
- On paper in the field and then keyed into a database or spreadsheet at an office
- On portable electronic devices in the field and downloaded to a database

The subjects to be scored can be:

- All participants (or all new participants)
- A representative sample of all participants (or of all new participants)
- All participants (or all new participants) in a representative sample of branches
- A representative sample of all participants (or of all new participants) in a representative sample of branches

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 can be:

- At in-take of new clients only (precluding measuring change in poverty rates)
- As a once-off project for current participants (precluding measuring change)
- Once a year or at some other fixed time interval (allowing measuring change)
- Each time a field worker visits a participant at home (allowing measuring change)

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

- With a different set 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 with 7 million participants) who are applying the Simple Poverty Scorecard tool for Bangladesh (Schreiner, 2006a). Their design is that loan officers in a random sample of branches score all their clients 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 database. The sampling plans of ASA and BRAC cover 50,000–100,000 participants each.

6. Estimates of household poverty likelihoods

The sum of scorecard points for a household is called the *score*. For Peru, 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 poverty line, the scores themselves have only relative units. For example, doubling the score does not double the likelihood of being above a poverty line.

To get absolute units, scores must be 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 line, scores of 10–14 have a poverty likelihood of 90.0 percent, and scores of 40–44 have a poverty likelihood of 23.3 percent (Figure 4).

The poverty likelihood associated with a score varies by poverty line. For example, scores of 40–44 are associated with a poverty likelihood of 23.3 percent for the national line but 2.2 percent for the food line.[12]

[12] Starting with Figure 4, many figures have 24 versions, one for each of the eight poverty lines for the 2007 scorecard applied to the 2007 validation sample, and one for each of the eight poverty lines for the 2007 scorecard applied to the entire 2006 ENAHO, and one for each of the eight poverty lines for the 2007 scorecard applied to the entire 2005 ENAHO. To keep them straight, they are grouped by poverty line and by the ENAHO round used in testing. Single tables that pertain to all poverty lines are placed with the tables for the national line.

6.1 Calibrating scores with poverty likelihoods

A given score is non-parametrically 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 are below a given poverty line.

For the example of the national line (Figure 5), there are 7,710 (normalized) households in the calibration sub-sample with a score of 20–24, of whom 5,892 (normalized) are below the poverty line. The estimated poverty likelihood associated with a score of 20–24 is then 76.4 percent, because 5,892 ÷ 7,710 = 76.4 percent.

To illustrate with the national line and a score of 40–44, there are 9,982 (normalized) households in the calibration sample, of whom 2,328 (normalized) are below the line (Figure 5). Thus, the poverty likelihood for this score is 2,328 ÷ 9,982 = 23.3 percent.

The same method is used to calibrate scores with estimated poverty likelihoods for the other poverty lines.

Figure 6 shows, for all scores, the likelihood that expenditure falls in a range demarcated by two adjacent poverty lines. For example, the daily expenditure of someone with a score of 25–29 falls in the following ranges with probability:

- 1.5 percent below the USD1.25/day 2005 PPP line
- 16.7 percent between the USD1.25/day 2005 PPP and the food lines
- 9.0 percent between the food and the USAID "extreme" lines
- 21.6 percent between the USAID "extreme" and USD3.75/day 2005 PPP lines
- 15.2 percent between the USD3.75/day 2005 PPP and the national lines
- 27.3 percent between the national and 150 percent of national lines
- 7.2 percent between 150 percent of national and 200 percent of national lines
- 1.6 percent above the 200 percent of national line

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 based only on 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.

Although the points in Peru's 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, converting scores to poverty likelihoods requires no arithmetic at all, just a look-up table. This non-parametric calibration can also improve accuracy, especially with large calibration samples.

6.2 Accuracy of estimates of households' poverty likelihoods

As long as the relationship between indicators and poverty does not change and the scorecard is applied to households that are representative of the same population from which it was constructed, this calibration process produces unbiased estimates of poverty likelihoods. *Unbiased* means that in repeated samples from the same population, the average estimate matches the true poverty likelihood. The scorecard also produces unbiased estimates of poverty rates at a point in time, as well as unbiased estimates of changes in poverty rates between two points in time.[13]

Of course, the relationship between indicators and poverty does change with time and also across sub-groups in Peru's population, so the scorecard will generally be biased when applied after the December 2007 end date of the 2007 ENAHO (as it must be in practice) or when applied with non-nationally representative groups (as it probably would be for any local, pro-poor organization).

[13] This follows because these estimates of groups' poverty rates are linear functions of the unbiased estimates of households' poverty likelihoods.

How accurate are estimates of households' poverty likelihoods? To measure, the scorecard is applied to 500 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 4) and the true poverty likelihood in the bootstrap sample
- Repeat the previous three steps 1,000 times
- For each score, report the average difference between estimated and true poverty likelihoods across the 1,000 bootstrap samples
- For each score, report the two-sided interval containing the central 900, 950, or 990 differences between estimated and true poverty likelihoods

For each score range and for $n = 16{,}384$, Figure 7 shows the average difference between estimated and true poverty likelihoods as well as confidence intervals for the differences.

For the national line in the validation sample, the average poverty likelihood across bootstrap samples for scores of 25–29 in the validation sample is too high by 5.7 percentage points (Figure 7). For scores of 30–34, the estimate is too low by 2.9 percentage points.[14]

[14] 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 construction and calibration process.

The 90-percent confidence interval for the differences for scores of 25–29 is ±2.7 percentage points (Figure 7).[15] This means that in 900 of 1,000 bootstraps, the difference between the estimate and the true value is between 3.0 and 8.4 percentage points (because 5.7 – 2.7 = 3.0, and 5.7 + 2.7 = 8.4). In 950 of 1,000 bootstraps (95 percent), the difference is 5.7 ±3.3 percentage points, and in 990 of 1,000 bootstraps (99 percent), the difference is 5.7 ±4.1 percentage points.

For almost all score ranges, Figure 7 shows differences—sometimes large ones—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 Peru's population. For targeting, 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 9 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 cancel each other out. This is generally the case, as discussed in the next section.

Another possible source of bias is overfitting. By construction, the scorecard here is unbiased, but it may still be *overfit* when applied after December 2007 (the end date of the 2007 ENAHO). That is, it may fit the 2007 ENAHO data so closely that it

[15] Confidence intervals are a standard, widely understood measure of precision.

captures not only some timeless patterns but also some random patterns that, due to sampling variation, show up only in the 2007 ENAHO. Or the scorecard may be overfit in the sense that it becomes biased as the relationships between indicators and poverty change or when it is applied to non-nationally representative samples.

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. Bootstrapping scorecard construction—which is not done here—can also mitigate overfitting by reducing (but not eliminating) dependence on a single sampling instance. 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, much of the differences between scorecard estimates and true values may come from non-scorecard sources such as changes in the relationship between indicators and poverty, sampling variation, changes in poverty lines, inconsistencies in data quality across time, and inconsistencies/imperfections in cost-of-living adjustments across time and space. These factors can be addressed only by improving data quantity and quality (which is beyond the scope of the scorecard) or by reducing overfitting (which likely has limited returns, given the scorecard's parsimony).

7. 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 Jan. 1, 2009 and that they have scores of 20, 30, and 40, corresponding to poverty likelihoods of 76.4, 51.1, and 23.3 percent (national line, Figure 4). The group's estimated poverty rate is the households' average poverty likelihood of $(76.4 + 51.1 + 23.3) \div 3 = 50.3$ percent.[16]

7.1 Accuracy of estimated poverty rates at a point in time

For the Peru scorecard applied to the 2007 validation sample with $n = 16{,}384$, the absolute differences between the estimated poverty rate at a point in time and the true rate are 2.3 percentage points or less (Figure 8, which summarizes Figure 9 across poverty lines and years). The average absolute difference across the eight poverty lines for the 2007 validation sample is 0.8 percentage points. At least part of these differences is due to sampling variation in the validation sample as part of the random division of the 2007 ENAHO into three sub-samples.

In terms of precision, the 90-percent confidence interval for a group's estimated poverty rate at a point in 2007 and with $n = 16{,}384$ is 0.6 percentage points or less

[16] The group's poverty rate is *not* the poverty likelihood associated with the average score. Here, the average score is $(20 + 30 + 40) \div 3 = 30$, and the poverty likelihood associated with the average score is 51.1 percent. This is not the 50.3 percent found as the average of the three poverty likelihoods associated with each of the three scores.

(Figure 8). This means that in 900 of 1,000 bootstraps of this size, the difference between the estimate and the true value is within 0.6 percentage points of the average difference. In the specific case of the national line and the 2007 validation sample, 90 percent of all samples of $n = 16{,}384$ produce estimates that differ from the true value in the range of 0.3 – 0.5 = –0.2 to 0.3 + 0.5 = 0.8 percentage points. This is because +0.3 is the average difference, and ±0.5 is its 90-percent confidence interval. The average difference is 0.3 because the average scorecard estimate is too high by 0.3 percentage points; it estimates a poverty rate of 33.7 percent for the 2007 validation sample, but the true value is 33.4 percent (Figure 2).

7.2 Standard-error formula for estimates of poverty rates at a point in time

How precise are these point-in-time estimates? For a range of sample sizes, Figure 9 reports average differences between estimated and true poverty rates at a point in time as well as precision (confidence intervals for the differences) for the scorecard applied to 1,000 bootstrap samples from the 2007 validation sample and the entire ENAHO for 2005 and 2006.

A related question is, How many households should an organization sample if it wants to estimate their poverty rate at a point in time for a desired confidence interval

and a desired confidence level? This practical question was first addressed in Schreiner (2008).[17] It turns out that the answer lies in Figure 9.

To derive a sample-size formula (or equivalently, a formula for standard errors), note that with direct measurement, the poverty rate can be estimated as the number of households observed to be below the poverty line, divided by the number of all observed households. The textbook formula for sample size n in this case is (Cochran, 1977):

$$n = \left(\frac{z}{c}\right)^2 \cdot \hat{p} \cdot (1 - \hat{p}), \tag{1}$$

where

z is $\begin{cases} 1.64 \text{ for confidence levels of 90 percent} \\ 1.96 \text{ for confidence levels of 95 percent} \\ 2.58 \text{ for confidence levels of 99 percent} \end{cases}$,

c is the confidence interval as a proportion (for example, 0.02 for an interval of ±2 percentage points), and

$\hat{p}$ is the expected (before measurement) proportion of households below the poverty line.

Scorecards, however, do not measure poverty directly, so this formula is not applicable. To derive a similar sample-size formula for the Peru scorecard, consider the scorecard applied to the 2007 validation sample. Figure 2 shows that the expected

[17] IRIS Center (2007b and 2007c) says that $n = 300$ is sufficient for USAID reporting. If a poverty-assessment tool is as precise as direct measurement, 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 ±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 poverty-assessment tool could be more or less precise than direct measurement.

(before measurement) poverty rate $\hat{p}$ for the national line is 34.25 percent (that is, the average poverty rate in the construction and calibration sub-samples). In turn, a sample size n of 16,384 and a 90-percent confidence level correspond to a confidence interval of ±0.47 percentage points (Figure 9).[18] Plugging these into the direct-measurement sample-size formula (1) above gives not $n = 16{,}384$ but rather $n = \left(\frac{1.64}{0.0047}\right)^2 \cdot 0.3425 \cdot (1 - 0.3425) = 27{,}419$. The ratio of the sample size for scoring (derived empirically) to the sample size for direct measurement (derived from theory) is 16,384 ÷ 27,419 = 0.60.

Applying the same method to $n = 8{,}192$ (confidence interval of ±0.67 percentage points) gives $n = \left(\frac{1.64}{0.0067}\right)^2 \cdot 0.3425 \cdot (1 - 0.3425) = 13{,}493$. This time, the ratio of the sample size using scoring to the sample size using direct measurement is 8,192 ÷ 13,493 = 0.61. This ratio for $n = 8{,}192$ is close to that for $n = 16{,}384$. Applying this same procedure for all $n \geq 256$ in Figure 9 gives ratios that average to 0.60.

This approach can be used to define a straightforward sample-size formula for the scorecard applied to the population in the 2007 validation sample:

$$n = \alpha \cdot \left(\frac{z}{c}\right)^2 \cdot \hat{p} \cdot (1 - \hat{p}), \qquad (2)$$

where $\alpha = 0.60$ and z, c, and $\hat{p}$ are defined as in (1) above. It is this α that appears in Figure 8 as "α for sample size".

[18] Due to rounding, Figure 10 displays 0.5, not 0.47.

To illustrate the use of (2), suppose $c = 0.0390$ (confidence interval of ± 3.90 percentage points) and $z = 1.64$ (90-percent confidence). Then (2) gives $n = 0.60 \cdot \left(\frac{1.64}{0.0390}\right)^2 \cdot 0.3425 \cdot (1 - 0.3425) = 239$, which is close to the sample size of 256 for these parameters in Figure 9.

When the sample-size factor α is less than 1.0, it means that the scorecard is more precise than direct measurement. This occurs for all but three of the 24 cases for the eight poverty lines for the 3 years of validation data in Figure 8.

Of course, the sample-size formulas here are specific to Peru, its poverty lines, its poverty rates, and this scorecard. The derivation method, however, is valid for any poverty-assessment tool following the approach in this paper.

In practice after December 2007 (the end date of the 2007 ENAHO), an organization would select a poverty line (say, the national line), select a desired confidence level (say, 90 percent, or $z = 1.64$), select a desired confidence interval (say, ± 2.0 percentage points, or $c = 0.02$), make an assumption about $\hat{p}$ (perhaps based on a previous measurement such as the 34.0 percent national average for the 2007 ENAHO in Figure 2), look up α (here, 0.60 for the national line), assume that the scorecard will still work in the future and/or for non-nationally representative sub-groups,[19] and then

[19] The next sub-section discusses accuracy when applied out-of-sample and out-of-time to the 2005 and 2006 ENAHO surveys. In general, the best guess about performance after the 2007 ENAHO is that it will probably resemble performance in the 2007 ENAHO, with some deterioration as time passes. In particular, performance x years in the future need not resemble performance x years in the past.

compute the required sample size. In this illustration,

$$n = 0.60 \cdot \left(\frac{1.64}{0.02}\right)^2 0.340 \cdot (1 - 0.340) = 906.$$

Given the sample-size formula, the standard error σ of estimates of group poverty rates at a point in time is $\sigma = \sqrt{\frac{\alpha \cdot \hat{p} \cdot (1 - \hat{p})}{n}}$. If the scorecard has already been applied to a sample n, then $\hat{p}$ is the scorecard's estimated poverty rate, and the confidence interval is $\pm z \cdot \sigma$.

8. 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.

8.1 Warning: Change is not impact

Scoring can estimate change. Of course, change could be for the better or for the worse, and scoring does not indicate what caused change. This point is often forgotten, confused, or ignored, 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 requires knowing what would have happened to participants if they had not been participants (Moffitt, 1991). 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. Even measuring simple change usually requires assuming that the population is constant over time and that program drop-outs do not differ from non-drop-outs.

8.2 Calculating estimated changes in poverty rates over time

Consider the illustration begun in the previous section. On Jan. 1, 2009, a program samples three households who score 20, 30, and 40 and so have poverty

likelihoods of 76.4, 51.1, and 23.3 percent (national line, Figure 4). The group's baseline estimated poverty rate is the households' average poverty likelihood of (76.4 + 51.1 + 23.3) ÷ 3 = 50.3 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 Jan. 1, 2010, 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 64.0, 37.0, and 16.6 percent, national line, Figure 4). Their average poverty likelihood at follow-up is now (64.0 + 37.0 + 16.6) ÷ 3 = 39.2 percent, an improvement of 50.3 – 39.2 = 11.1 percentage points.

This suggests that about one of nine participants crossed the poverty line in 2009.[20] Among those who started below the line, about one in five (11.1 ÷ 50.3 = 22.1 percent) ended up above the line.[21]

8.3 Accuracy for estimated change in two independent samples

Given the scorecard built from the construction and calibration samples from the 2007 ENAHO, an estimate of the change in the poverty rate between 2007 and 2006 or

[20] This is a net figure; some people start above the line and end below it, and vice versa.
[21] The scorecard does not reveal the reasons for this change.

2007 in Peru is the difference between the estimated poverty rate in the validation sample and the estimated poverty rate in the entire ENAHO for the year. In Figure 10 for 2006, the absolute differences between this estimate and the true value is –3.3 percentage points for the national line, as the true change was –6.8 percentage points (an astounding one-year reduction in poverty, if it can be believed), while the scorecard estimates a change of –3.5 percentage points. Across all eight lines for 2006, the average absolute difference is 1.5 percentage points, while the true change in ENAHO averaged 4.2 percentage points.

In general, across all poverty lines and years, the average estimated change is more than half of the true change. The main driver of this difference is probably changes in the relationship between indicators and poverty, with some also due to sampling variation and to changes in poverty lines and/or data collection over time. These results underline the importance of stable data and stable reality when using scoring to measure change. In any case, the differences here are not far in percentage terms from those in the other tests of estimates of change over time (Schreiner, 2009 and 2008b; Mathiassen, 2008).

Under direct measurement, the sample-size formula for the estimate of change in poverty rates between two points in time with two independent samples. is:

$$n = 2 \cdot \left(\frac{z}{c}\right)^2 \cdot \hat{p} \cdot (1 - \hat{p}), \tag{3}$$

where z, c, and $\hat{p}$ are defined as in (1). Before measurement, $\hat{p}$ is assumed equal at both baseline and follow-up. n is the sample size at both baseline and follow-up.[22]

The method developed in the previous section can be used again to derive a sample-size formula for indirect measurement via the scorecard:

$$n = \alpha \cdot 2 \cdot \left(\frac{z}{c}\right)^2 \cdot \hat{p} \cdot (1 - \hat{p}). \tag{4}$$

The corresponding formula for the standard error σ of scoring's estimate of change in two independent group's poverty rate is $\sigma = \sqrt{\frac{2 \cdot \alpha \cdot \hat{p} \cdot (1 - \hat{p})}{n}}$.

As before, α is the average across sample sizes ≥ 256 of the ratio between the empirical sample size required by scoring for a given precision and the theoretical sample size required under direct measurement. For Peru's scorecard, α is less than 1.00 in 15 of 16 combinations of survey years and poverty lines (Figure 10), suggesting that the indirect measurement of change with scoring is usually more precise than direct measurement with full-blown expenditure surveys.

[22] This means that 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.

To illustrate the use of (4) to determine sample size for estimating changes in poverty rates across two independent samples, suppose the desired 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 line, baseline is 2007 and follow-up is 2006, $\alpha = 0.75$ (from Figure 10), and $\hat{p} = 0.3425$ (from Figure 2). Then the baseline sample size is $n = 0.75 \cdot 2 \cdot \left(\frac{1.64}{0.02}\right)^2 \cdot 0.3425 \cdot (1 - 0.3425) = 2{,}272$, and the follow-up sample size is also 2,272.

8.4 Accuracy for estimated change for one sample, scored twice

In each year from 2002 and 2006, the ENAHO surveys include 2,800 to 4,700 households that are also interviewed in one or more other ENAHO surveys. These "panel" households are omitted in all analyses in this paper so far.[23] The panel, however, provides a unique opportunity to test how accurately the scorecard can estimate changes in poverty rates when the same households are scored at both baseline and follow-up.

Scoring the same households multiple times is probably the most common scenario in practice. If a pro-poor organization wants to use scoring to measure change, it is usually simpler and less expensive to select a representative sample once and then apply the scorecard each time a household in that sample happens to be visited at

[23] The non-panel part of the ENAHO surveys is by itself nationally representative.

home in the normal course of business. As in the earlier examples of BRAC and ASA in Bangladesh, the scorecard becomes, for some participants and field agents, a part of the existing periodic home visit, reducing organizational complications (not all field agents need to learn to apply the scorecard, and tracking which participants should be scored is simplified) and reducing costs (the largest element of which is the field agent's travel to the participant's home).

For panel households in the 2006 and 2005 ENAHO surveys, the true change in the poverty rate is –3.4 percentage points. The estimated change—based on the 2007 scorecard—is –1.4 percentage points, so the estimate is too low by 2.0 percentage points (Figure 11). On average for 2005–6 across the eight poverty lines, the average true change was –1.6 percentage points, and the average scorecard estimate was too low by 1.2 percentage points.

Thus, the panel estimate of change is biased, and again, the main driver of this bias probably is changes in the relationship between indicators and poverty, with some also due to sampling variation and to changes in poverty lines and/or data collection over time. The 2007 scorecard acts as if all other years are exactly like 2007, and it loses accuracy to the degree that this assumption does not hold.

In terms of precision for panels of $n = 16{,}384$, the 90-percent confidence intervals for the eight poverty lines are always less than ±0.7 percentage points (Figure 11).

For precision in the general case, consider that for a single sample measured twice, the direct-measurement sample-size formula is:[24]

$$n = \left(\frac{z}{c}\right)^2 \cdot \left[\hat{p}_{12} \cdot (1 - \hat{p}_{12}) + \hat{p}_{21} \cdot (1 - \hat{p}_{21}) + 2 \cdot \hat{p}_{12} \cdot \hat{p}_{21}\right], \quad (5)$$

where z and c are defined as in (1), $\hat{p}_{12}$ is the expected (before measurement) share of all sampled cases that move from below the poverty line to above it, and $\hat{p}_{21}$ is the expected share of all sampled cases that move from above the line to below it.

How can a user set $\hat{p}_{12}$ and $\hat{p}_{21}$? Before measurement, a reasonable assumption is that the change in the poverty rate is zero. Then $\hat{p}_{12} = \hat{p}_{21} = \hat{p}_*$ and (5) becomes:

$$n = 2 \cdot \left(\frac{z}{c}\right)^2 \hat{p}_* . \quad (6)$$

The estimate of $\hat{p}_*$ must be based on data available before baseline measurement. About the only information a user is sure to have at that point is the number of years planned between measurements y and the baseline poverty rate $p_{baseline}$. An earlier version of this paper[25] reports that for the 80 data points available for Peru (10 pairs of ENAHO survey years from 2002 to 2006, each with eight poverty lines), there is a simple relationship between the average of observed $\hat{p}_{12}$ and $\hat{p}_{21}$ (which is a

[24] See McNemar (1947) and Johnson (2007). John Pezzullo helped find this formula.
[25] The earlier version had a mistake in the specification of the question on cooking fuel and its responses that has been corrected in the present paper. The correction, however, led to the recognition that the indicator and its responses are collected differently for 2002–4 than for 2005–7, so this paper does not present results for 2002–4. Still, the results in the previous paper are still probably valid, as scorecards are quite robust; correcting the mistake reduced bias and improved precision, but only marginally.

reasonable estimate of $\hat{p}_*$), the number of years between measurements y, and the variance of the baseline poverty rate $p_{baseline} \cdot (1 - p_{baseline})$:

$$\hat{p}_* = -0.02 + 0.016 \cdot y + 0.47 \cdot [p_{baseline} \cdot (1 - p_{baseline})] \quad (7)$$

Of course, $p_{baseline}$ is not known before baseline measurement, but it is reasonable to use as its expected value a previously observed poverty rate. Given this, a poverty line, and the α indirect-scoring adjustment factor, then a sample-size formula for a single sample directly measured twice for Peru (once in 2007 and then again y years later) is:

$$n = \alpha \cdot 2 \cdot \left(\frac{z}{c}\right)^2 \cdot \{-0.02 + 0.016 \cdot y + 0.47 \cdot [p_{baseline} \cdot (1 - p_{baseline})]\}. \quad (8)$$

The standard error of scoring's estimate of change in a panel's poverty rate is then $\sigma = \sqrt{\frac{\alpha \cdot 2 \cdot \{-0.02 + 0.016 \cdot y + 0.47 \cdot [p_{baseline} \cdot (1 - p_{baseline})]\}}{n}}$.

Figure 11 shows that α for the national line and panel households surveyed in 2005 and 2006 is 0.71. In this case, scoring a panel is more precise than direct measurement of a panel. In three of eight cases, however, α exceeds 1.0, so scoring is sometimes less precise.

To illustrate the use of (8), 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 line, and the sample will first be scored in 2009 and then again three years later in 2012. Assuming that the relationship between 2009 and 2012 is the same as that between 2005 and 2006 (an assumption that has no particular support, but that

is probably better than any other), α is 0.71 (Figure 11). The before-baseline poverty rate is taken as 34.0 percent ($p_{2007} = 0.340$, Figure 2). Then the baseline sample size is $n = 0.71 \cdot 2 \cdot \left(\frac{1.64}{0.02}\right)^2 \cdot \{-0.02 + 0.016 \cdot 3 + 0.47 \cdot [0.340 \cdot (1 - 0.340)]\} = 1{,}275$. Of course, the same group of 1,275 households is scored at follow-up as well.

For a given confidence level and confidence interval, sample sizes are generally smaller when one sample is scored twice than when there are two independent samples.

9. 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* (expenditure below a poverty line). Poverty status is a fact that depends on whether expenditure is below a poverty line as directly measured by a 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 12 depicts these four possible targeting outcomes. Targeting accuracy varies by cut-off; a higher cut-off has better inclusion (but greater leakage), while a lower cut-off has better exclusion (but higher undercoverage).

A program 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 13 shows the distribution of households by targeting outcome. For an example cut-off of 30–34 and the 2007 scorecard applied to the 2007 validation sample, outcomes for the national line are:

- Inclusion: 25.2 percent are below the line and correctly targeted
- Undercoverage: 8.2 percent are below the line and mistakenly not targeted
- Leakage: 11.6 percent are above the line and mistakenly targeted
- Exclusion: 55.0 percent are above the line and correctly not targeted

Increasing the cut-off to 35–39 improves inclusion and undercoverage but worsens leakage and exclusion:

- Inclusion: 28.9 percent are below the line and correctly targeted
- Undercoverage: 4.5 percent are below the line and mistakenly not targeted
- Leakage: 16.8 percent are above the line and mistakenly targeted
- Exclusion: 49.8 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 total net benefit for a given cut-off is:

Benefit per household correctly included	x	Households correctly included	–
Cost per household mistakenly not covered	x	Households mistakenly not covered	–
Cost per household mistakenly leaked	x	Households mistakenly leaked	+
Benefit per household correctly excluded	x	Households correctly excluded.	

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 13 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. Any program that uses targeting—with or without scoring—should thoughtfully consider

how it values successful inclusion or 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:

Total Accuracy =	1	x	Households correctly included	–
	0	x	Households mistakenly undercovered	–
	0	x	Households mistakenly leaked	+
	1	x	Households correctly excluded.	

Figure 13 shows "Total Accuracy" for all cut-offs for Peru's scorecard. For the national line in the 2007 validation sample, total net benefit is greatest (80.2) for a cut-off of 30–34, with about four in five Peruvian households 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 valued 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 x Households correctly included) + (1 x Households correctly excluded).

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 achieve a desired poverty rate among targeted households. The third column of Figure 14 ("% targeted who are poor") shows the expected poverty rate among Peruvian households who score at or below a given cut-off. For the example of the national line

and the 2007 validation sample, targeting households who score 30–34 or less would target 36.7 percent of all Peruvian households (second column) and produce a poverty rate among those targeted of 68.5 percent (third column).

Figure 14 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 line and the 2007 validation sample with a cut-off of 30–34, 75.4 percent of all poor households are covered.

The final targeting measure in Figure 14 is the number of successfully targeted poor households for each non-poor household mistakenly targeted (right-most column). For the national line, the 2007 validation sample, and a cut-off of 30–34, covering 2.2 poor households means leaking to 1 non-poor household.

10. Conclusion

This paper presents the scorecard. Pro-poor organizations in Peru can use it 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 monitor and manage their social performance in order to speed up their participants' progress out of poverty.

The scorecard is built with a sub-sample of data from the 2007 ENAHO, tested on a different sub-sample from the 2007 ENAHO and on the ENAHO 2005 and 2006 surveys, and calibrated to eight poverty lines (national, 150% of national, 200% of national, food, USAID "extreme", USD1.25/day 2005 PPP, USD2.50/day 2005 PPP, and USD3.75/day 2005 PPP).

Accuracy is 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 changes in poverty rates are not the same as estimates of program impact. Targeting accuracy and formula for standard errors and sample sizes are also reported.

When the scorecard is applied to the 2007 validation sample with $n = 16{,}384$, the absolute difference between estimates and true poverty rates at a point in time is always less than 2.3 percentage points and averages—across the eight poverty lines—about 0.8 percentage points. With 90-percent confidence, the precision of these differences is ±0.6 percentage points or less. The scorecard is usually more precise than direct measurement.

When used to measure change across independent samples of $n = 16{,}384$ in the 2006 and 2007 ENAHO, the average difference between estimates and true changes is –1.5 percentage points, with a 90-percent confidence interval of ±0.8 percentage points or less. For this case of two independent samples, the scorecard underestimates the true reduction in poverty by about one-half.

When scoring is used to measure change for one sample of $n = 16{,}384$ scored in both the 2005 and 2006 ENAHO, the average absolute difference between estimates and true changes is 1.2 percentage points, with a 90-percent confidence interval of ±0.7 percentage points or less. For this panel case, the scorecard estimate is about two-thirds the true change in ENAHO.

This paper reports some of the first and most complete measures of scorecard accuracy for out-of-sample and out-of-time estimates for changes in poverty rates. The estimated reductions in poverty are too low probably because the relationship between indicators and poverty changes as poverty in Peru falls rapidly. Changes in data definitions and data quality also play some role, as does sampling variation. Do these

results generalize to all scorecards for all countries? Right now, there are only three other papers with comparable accuracy measures (Schreiner, 2009; Schreiner, 2008b; Mathiassen, 2008), so additional research with other countries is perhaps called for in a way that is less perfunctorily rote than typically is the case at this point in a paper.

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 zeros or positive integers, and scores range from 0 (most likely below a poverty line) to 100 (least likely below a poverty line). 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 Peru to monitor poverty rates, track changes in poverty rates over time, and target services. The same approach can be applied to any country with similar data from a national expenditure survey.

References

Adams, N.M.; and D.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.

Caire, Dean. (2004) "Building Credit Scorecards for Small Business Lending in Developing Markets", `microfinance.com/English/Papers/Scoring_SMEs_Hybrid.pdf`, accessed February 13, 2009.

Coady, David; Grosh, Margaret; and John Hoddinott. (2004) *Targeting of Transfers in Developing Countries*, `hdl.handle.net/10986/14902`, retrieved 13 May 2016.

Cochran, William G. (1977) *Sampling Techniques, Third Edition*.

Copestake, James G.; Dawson, Peter.; Fanning, John-Paul; McKay, Andrew; and Katie Wright-Revolledo. (2005) "Monitoring the Diversity of the Poverty Outreach and Impact of Microfinance: A Comparison of Methods Using Data from Peru", *Development Policy Review*, Vol. 23, No. 6, pp. 703–723.

Dawes, Robyn M. (1979) "The Robust Beauty of Improper Linear Models in Decision Making", *American Psychologist*, Vol. 34, No. 7, pp. 571–582.

Dunn, Elizabeth; and J. Gordon Arbuckle, Jr. (2001) "Microcredit and Microenterprise: Impact Evidence from Perú", *Small Enterprise Development*, Vol. 12, No. 4, pp. 22–33

Efron, Bradley; and Robert J. Tibshirani. (1993) *An Introduction to the Bootstrap*.

Fanning, John-Paul. (2004) "Investigation into a Poverty-Correlates Model for PROMUC".

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`, accessed February 13, 2009.

Glewwe, Paul; and Gillette Hall. (1991) "The Social Costs of Avoiding Structural Adjustment: Inequality and Poverty in Lima, Peru, from 1985–1986 to 1990", World Bank LSMS Working Paper No. 86.

Goodman, L.A.; and Kruskal, W.H. (1979) *Measures of Association for Cross Classification*.

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, dx.doi.org/10.1596/1813-9450-1942, retrieved 15 May 2016.

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/W9OWN57PD0, retrieved 13 May 2016.

Hand, David J. (2006) "Classifier Technology and the Illusion of Progress", *Statistical Science*, Vol. 22, No. 1, pp. 1–15.

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.

Instituto Nacional de Estadística e Información (2006) *Condiciones de Vida en el Perú: Evolución 1997–2004*, www.inei.gob.pe/biblioineipub/bancopub/Est/Lib0640/Libro.pdf, accessed February 13, 2009.

IRIS Center. (2007a) "Poverty Assessment Survey: Peru", povertytools.org/USAID_documents/Tools/Current_Tools/USAID_PAT_Peru_7-2007.xls, accessed February 13, 2009.

_____. (2007b) "Manual for the Implementation of USAID Poverty Assessment Tools", povertytools.org/training_documents/Manuals/USAID_PAT_Manual_Eng.pdf, accessed February 13, 2009.

_____. (2007c) "Introduction to Sampling for the Implementation of PATs", povertytools.org/training_documents/Sampling/Introduction_Sampling.ppt, accessed February 13, 2009.

_____. (2005) "Notes on Assessment and Improvement of Tool Accuracy", povertytools.org/other_documents/AssessingImproving_Accuracy.pdf, accessed February 13, 2009.

Johannsen, Julia. (2006) "Operational Poverty Targeting in Peru—Proxy Means Testing with Non-Income Indicators", IPC Working Paper No. 30, undp-povertycentre.org/pub/IPCWorkingPaper30.pdf, accessed February 13, 2009.

Johnson, Glenn. (2007) "Lesson 3: Two-Way Tables—Dependent Samples", www.stat.psu.edu/online/development/stat504/03_2way/53_2way_compare.htm, accessed February 13, 2009.

Kolesar, Peter; and Janet L. Showers. (1985) "A Robust Credit Screening Model Using Categorical Data", *Management Science*, Vol. 31, No. 2, pp. 124–133.

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", ciep.itam.mx/~martinel/lies4.pdf, accessed February 13, 2009.

Mathiassen, Astrid. (2008) "The Predictive Ability of Poverty Models: Empirical Evidence from Uganda", Statistics Norway Discussion Paper No. 560, ssb.no/publikasjoner/DP/pdf/dp560.pdf, accessed February 13, 2009.

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, accessed February 13, 2009.

McNemar, Quinn. (1947) "Note on the Sampling Error of the Difference between Correlated Proportions or Percentages", *Psychometrika*, Vol. 17, pp. 153–157.

Meyer, Richard L.; Nagarajan, Geetha; and Elizabeth Dunn. (2000) "Measuring Depth of Outreach: Tools for Microfinance", *Bangladesh Development Studies*, Vol. 26, No. 2–3, pp. 171–197.

Moffitt, Robert. (1991) "Program Evaluation with Non-experimental Data", *Evaluation Review*, Vol. 15, No. 3, pp. 291–314.

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, retrieved 5 May 2016.

Onwujekwe, Obinna; Hanson, Kara; and Julia Fox-Rushby. (2006) "Some Indicators of Socio-Economic Status May Not Be Reliable and Use of Indices with These Data Could Worsen Equity", *Health Economics*, Vol. 15, pp. 639–644.

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/59654/HTML/default/statug_logistic_sect035.htm, accessed February 13, 2009.

Schreiner, Mark. (2009) "Simple Poverty Scorecard Poverty-Assessment Tool: Philippines", SimplePovertyScorecard.com/PHL_2002_ENG.pdf, accessed February 13, 2009.

_____. (2008a) "Simple Poverty Scorecard Poverty-Assessment Tool: Peru", SimplePovertyScorecard.com/PER_2003_ENG.pdf, accessed February 5, 2009.

_____. (2008b) "Simple Poverty Scorecard Poverty-Assessment Tool: India", SimplePovertyScorecard.com/IND_2005_ENG.pdf, accessed February 5, 2009.

_____. (2006a) "Simple Poverty Scorecard Poverty-Assessment Tool: Bangladesh", SimplePovertyScorecard.com/BGD_2000_ENG.pdf, accessed February 5, 2009.

_____. (2006b) "Is One Simple Poverty Scorecard Poverty-Assessment Tool Enough for India?", microfinance.com/English/Papers/Scoring_Poverty_India_Segments.pdf, accessed February 5, 2009.

_____. (2005a) "La Herramienta del Indice de Calificación de Pobreza™: México", SimplePovertyScorecard.com/MEX_2002_SPA.pdf, accessed February 5, 2009.

_____. (2005b) "IRIS Questions on the Simple Poverty Scorecard Poverty-Assessment Tool", microfinance.com/English/Papers/Scoring_Poverty_Response_to_IRIS.pdf, accessed February 5, 2009.

_____. (2002) *Scoring: The Next Breakthrough in Microfinance?* CGAP Occasional Paper No. 7, 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, accessed February 5, 2009.

Sillers, Don. (2006) "National and International Poverty Lines: An Overview", pdf.usaid.gov/pdf_docs/Pnadh069.pdf, retrieved 13 May 2016.

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. (2007) "Using Census and Survey Data to Estimate Poverty and Inequality for Small Areas", princeton.edu/~deaton/downloads/20080301SmallAreas_FINAL.pdf, accessed February 5, 2009.

Toohig, Jeff. (2007) "PPI Pilot Training Guide", progressoutofpoverty.org/toolkit, accessed February 5, 2009.

United States Congress. (2004) "Microenterprise Results and Accountability Act of 2004 (HR 3818 RDS)", November 20, smith4nj.com/laws/108-484.pdf, retrieved 13 May 2016.

Wainer, Howard. (1976) "Estimating Coefficients in Linear Models: It Don't Make No Nevermind", *Psychological Bulletin*, Vol. 83, pp. 223–227.

Webb, Richard; and Graciela Fernández B. (2003) *Anuario Estadístico—Perú en Números 2003*.

Zeller, Manfred. (2004) "Review of Poverty Assessment Tools", pdf.usaid.gov/pdf_docs/PNADH120.pdf, retrieved 13 May 2016.

_____; Alcaraz V., Gabriela; and Julia Johannsen. (2005) "Developing and Testing Poverty-Assessment Tools: Results from Accuracy Tests in Peru", povertytools.org/documents/Peru%20Accuracy%20Report.pdf.

Figure 2: Sample sizes and household poverty rates by sub-sample and poverty line

			% with expenditure below a poverty line							
				150%	200%	National	USAID	International 2005 PPP		
Sub-sample	**Round**	**Households**	**National**	**National**	**National**	**Food**	**'Extreme'**	**$1.25/day**	**$2.50/day**	**$3.75/day**
All Peru	2007	18,934	34.0	57.8	73.0	11.5	15.9	0.9	10.1	25.5
	2006	12,881	40.2	63.5	77.4	14.9	18.3	1.3	13.1	31.1
	2005	12,711	43.2	66.7	79.8	15.7	19.6	1.5	13.8	33.8
Construction										
Selecting indicators and weights	2007	6,274	34.2	57.2	72.9	11.7	16.3	1.1	10.2	25.8
Calibration										
Associating scores with likelihoods	2007	6,287	34.3	58.3	72.9	11.7	16.2	1.0	10.2	25.8
Validation										
Measuring accuracy	2007	6,373	33.4	58.0	73.3	11.1	15.4	0.7	9.7	24.8
Change in poverty rate (percentage points)										
From 2007 construction/calibration to 2007 validation			+0.9	–0.2	–0.5	+0.6	+0.8	+0.4	+0.5	+1.1
From 2007 validation to 2006 for all Peru			–6.8	–5.5	–4.1	–3.8	–3.0	–0.7	–3.4	–6.4
From 2007 validation to 2005 for all Peru			–9.8	–8.7	–6.5	–4.6	–4.2	–0.8	–4.1	–9.1

Source: ENAHO, 2005 to 2007

Figure 3: Poverty indicators by uncertainty coefficient

Uncertainty coefficient	Indicator (Answers ordered starting with those most strongly indicative of poverty)
1934	What is the main material of the exterior walls? (Adobe, mud, or matting; Wattle and daub, wood, brick or cement blocks, stone blocks with lime or cement, other, or no residence)
1768	What types of telephones does the household have? (None; Only cellular; Only land-line; Both land-line and cellular)
1745	Does the household have a VCR, refrigerator/freezer, land-line telephone, washing machine, microwave, or computer? (No; Yes)
1691	Does the household have an iron? (No; Yes)
1667	What fuel does the household most frequently use for cooking? (Other; Firewood, charcoal, or kerosene; Gas (LPG or natural); Electricity or does not cook)
1653	How many color televisions does the household have? (None; One; Two or more)
1637	Does the household have a VCR, refrigerator/freezer, or land-line telephone? (No; Yes)
1563	What is the highest educational level that the female head/spouse completed? (None, pre-school, or kindergarten; Grade school (incomplete); Grade school (complete); High school (incomplete); High school (complete), non-university superior (incomplete) or no female head; Non-university superior (complete) or higher)
1558	What is the highest educational level completed by someone in the household? (High school incomplete or less; High school complete; Non-university superior (incomplete); Non-university superior (complete); University superior (incomplete); University superior (complete))
1544	What is the occupation of the female head/spouse? (Day laborer in agriculture, non-agriculture, mining, and non-specified occupations; Farmer and skilled farm worker; Worker in mining, wood, chemicals, or leather, food-service worker, shoemaker, tailor, or carpenter, worker and mechanic for metal, electrical equipment, machines, and instruments, construction worker and fabricator of construction materials, paper products, and graphic artists; Conductor of public transport, domestic servants, cleaner, launderer, messenger, delivery worker, mover, garbage collector, and the like, driver of motor vehicles, itinerant vendor, or no data; There is no female head/spouse; Armed forces and police, member of the executive and legislative branches, director and upper manager of businesses and organizations, professional, scientist, professor and teacher, mid-level technician, manager and office worker, and skilled worker in personal services)
1508	What is the main material of the roof? (Straw or palm leaves; Tile; Corrugated iron, fiberglass, or the like, or matting; Wood, cane or matting with mud seal, other, or no residence; Reinforced concrete)

Figure 3 (cont.): Poverty indicators by uncertainty coefficient

Uncertainty coefficient	Indicator (Answers ordered starting with those most strongly indicative of poverty)
1507	Does the household have a refrigerator/freezer? (No; Yes)
1470	Does the household have a gas stove? (No; Yes)
1464	What toilet arrangement does the household have? (No toilet or no residence; Septic tank, pit or latrine, river, ditch, or canal/stream; Public sewer, outside of the residence but inside the building; Public sewer, connected inside the house)
1407	Does the household have a gas or kerosene stove? (No; Yes)
1406	Does the household have a blender? (No; Yes)
1321	How many household members are 16-years-old or younger? (Four or more; Three; Two; One; None)
1321	What is the occupation of the male head/spouse? (Farmers and skilled farm workers; Day laborers in agriculture, non-agriculture, mining, and non-specified occupations; There is no male head/spouse; Workers in mining, wood, chemicals, or leather, food-service workers, shoemakers, tailors, or carpenters, workers and mechanics for metal, electrical equipment, machines, and instruments, construction workers and fabricators of construction materials, paper products, and graphic artists; Drivers of motor vehicles; Itinerant vendors; Conductors of public transport, domestic servants, cleaners, launderers, messengers, delivery workers, movers, garbage collectors, and the like; Retail and wholesale stores and traders or no data; Armed forces and police, members of the executive and legislative branches, directors and upper managers of businesses and organizations, professionals, scientists, professors and teachers, mid-level technicians, managers and office workers, and skilled workers in personal services)
1303	How many household members are 15-years-old or younger? (Four or more; Three; Two; One; None)
1300	How many household members work as day laborers in agriculture, non-agriculture, mining, or non-specified occupations? (Two or more; One; None)
1296	How many household members are 17-years-old or younger? (Four or more; Three; Two; One; None)
1272	How many color or black-and-white televisions does the household have? (None; One; Two or more)
1248	How many household members are 13-years-old or younger? (Three or more; Two; One; None)
1238	How many household members are 18-years-old or younger? (Four or more; Three; Two; One; None)

Figure 3 (cont.): Poverty indicators by uncertainty coefficient

Uncertainty coefficient	Indicator (Answers ordered starting with those most strongly indicative of poverty)
1229	What type of payment does the female head/spouse receive in her main line of work? (Profit from a family farm, in-kind, other, or none; Tips or salary; Contracts; No income or no data; There is no female head/spouse; Commissions, piecework, grant, professional fees, or wages)
1226	How many household members are 14-years-old or younger? (Three or more; Two; One; None)
1224	What does the female head/spouse do in her main line of work? (Unpaid worker in the family business; Laborer; Self-employed; Worker in the home, other, or no data; There is no female head/spouse; Business owner or boss, or employee)
1188	In their main line of work, how many household members earn income as farmers? (One or more; None)
1169	How many household members are 12-years-old or younger? (Three or more; Two; One; None)
1163	How many household members work as farmers or skilled farm workers? (One or more; None)
1155	Does the household have a washing machine, microwave, or computer? (No; Sí)
1108	How many household members are 20-years-old or younger? (Four or more; Three; Two; One; None)
1107	Does the household have a land-line telephone? (No; Yes)
1082	How many household members are 11-years-old or younger? (Three or more; Two; One; None)
1074	What type of payment does the male head/spouse receive in his main line of work? (Profit from family farm, in-kind, other, or none; Salary; There is no male head/spouse; Contract, commission, piecework, grant, professional fees, or tips; Wage, no income, or no data)
1057	Does the household have a cellular telephone? (No; Yes)
1028	How many household members are 25-years-old or younger? (Five or more; Four; Three; Two; One; None)
1022	Does the household have a VCR or DVD? (No; Yes)
1021	What is the highest educational level that the male head/spouse completed? (None, pre-school, kindergarten, grade school (incomplete); Grade school (complete); High school (incomplete); There is no male head/spouse; High school (complete); Superior non-university (complete or incomplete); University superior incomplete or higher)
940	How many household members work as members of the armed forces or police, executive and legislative branches, as directors or upper managers of businesses and organizations, professionals, scientists, professors or teachers, mid-level technicians, managers or office workers, or skilled workers in personal services? (None; One; Two or more)

Figure 3 (cont.): Poverty indicators by uncertainty coefficient

Uncertainty coefficient	Indicator (Answers ordered starting with those most strongly indicative of poverty)
911	Does the household have a stereo system? (No; Yes)
911	What is the main material of the floors? (Earth, wood planks, other, or no residence; Cement; Parquet, polished wood, linoleum, vinyl, tile, or similar)
897	Does the household have a DVD? (No; Yes)
885	What is the source of water? (River, ditch, spring, or the like; Public standpipe, well, other, house of neighbor, or no residence; Public network, outside of the residence but inside the building, or water truck or the like; Public network, inside the residence)
884	How many household members work as conductors in public transport, domestic servants, cleaners, launderers, messengers, delivery workers, movers, garbage collectors, or the like? (None; Two or more; One)
849	What is the main source of energy for lighting? (Gas or kerosene lamp; Candle, other, or no lighting; Electricity or generator)
826	What does the male head/spouse do in his main line of work? (Self-employed; Laborer; There is no male head/spouse; Business owner or boss, unpaid worker in the family business, worker in the home, other, or no data; Employee)
814	How many household members, in their main line of work, are employees? (None; One; Two or more)
778	Does the female head/spouse know how to read and write? (No; Yes; There is no female head/spouse)
710	Does the household have a computer? (No; Yes)
692	What mother tongue did the female head/spouse learn at home as a child? (Quechua, Aymara or other native language; Spanish; There is no female head/spouse, English, Portuguese, or other foreign language)
678	How many household members are there? (Six or more; Five; Four; Three; Two; One)
676	Excluding bathrooms, kitchen, hallways, and garage, how many rooms does the residence have? (One; Two; Three, four, or five; Six or more)
673	Are all household members ages 6 to 13 currently enrolled or going to classes of any kind in school or an educational program? (No; Yes; No members in this age range)
673	Does the household have a washing machine? (No; Yes)
667	Are all household members ages 6 to 12 currently enrolled or going to classes of any kind in school or an educational program? (No; Yes; No members in this age range)

Figure 3 (cont.): Poverty indicators by uncertainty coefficient

Uncertainty coefficient	Indicator (Answers ordered starting with those most strongly indicative of poverty)
639	Are all household members ages 6 to 14 currently enrolled or going to classes of any kind in school or an educational program? (No; Yes; No members in this age range)
630	Are all household members ages 6 to 16 currently enrolled or going to classes of any kind in school or an educational program? (No; Yes; No members in this age range)
625	Are all household members ages 6 to 15 currently enrolled or going to classes of any kind in school or an educational program? (No; Yes; No members in this age range)
622	How many household members are 6-years-old or younger? (Two or more; One; None)
615	Are all household members ages 6 to 11 currently enrolled or going to classes of any kind in school or an educational program? (No; Yes; No members in this age range)
602	Does the household have a microwave? (No; Yes)
595	Are all household members ages 6 to 17 currently enrolled or going to classes of any kind in school or an educational program? (No; Yes; No members in this age range)
572	In their main line of work, how many household members receive a wage? (None; One; Two or more)
516	Are all household members ages 6 to 18 currently enrolled or going to classes of any kind in school or an educational program? (No; Yes; No members in this age range)
497	In their main line of work, how many household members are paid monthly? (None; One; Two or more)
496	Did anyone in the household speak Quechua, Aymara, or another native language as a mother tongue at home as a child? (Yes; No)
493	How many household members, in their main line of work, are self-employed? (One or more; None)
490	Does anyone in the household go to a non-government school? (No; Yes)
480	How often is the female head/spouse paid in her main line of work? (Daily, weekly, is not an employee, or no data; There is no female head/spouse; Twice a month or monthly)
457	Do the household have formal title to its residence? (No; Yes, in process, or the residence is not owner-occupied)
447	How many rooms are used only as bedrooms (One; Two or no data; Three; Four or more)

Figure 3 (cont.): Poverty indicators by uncertainty coefficient

Uncertainty coefficient	Indicator (Answers ordered starting with those most strongly indicative of poverty)
426	What mother tongue did the male head/spouse learn at home as a child? (Quechua, Aymara, or other native language; There is no male head/spouse; Spanish, English, Portuguese, or other foreign language)
406	Are all household members ages 6 to 20 currently enrolled or going to classes of any kind in school or an educational program? (No; Yes; No members in this age range)
379	Are all household members ages 6 to 25 currently enrolled or going to classes of any kind in school or an educational program? (No; Yes; No members in this age range)
352	Does the household have a motorcycle, motorcycle taxi, car, pickup, or truck? (No; Yes)
340	How often is the male head/spouse paid in his main line of work? (Daily, is not an employee, or no data; Weekly; There is no male head/spouse; Twice a month or monthly)
324	Does the household have a car, pickup, or truck? (No; Yes)
311	What is the marital status of the female head/spouse? (Co-habiting; Widowed; Married; Separated; There is no female head/spouse; Divorced or never-married)
287	Does the household have a VCR? (No; Yes)
263	In their main line of work, how many household members receive a wage or salary? (None; One or more)
252	In their main line of work, how many household members are paid by someone else? (None; One or more)
227	What is the structure of household headship? (Both male and female heads/spouses; Female head/spouse only; Male head/spouse only)
214	What is the marital status of the male head/spouse? (Co-habiting; Married; There is no male head/spouse or widowed; Divorced, separated, or never-married)
209	In their main line of work, how many household members receive a wage or salary? (None; One or more)
207	How many bicycles, tricycles, motorcycles, motorcycle taxis, cars, pickups, or trucks does the household have? (None; One; Two; Three or more)
206	Does the male head/spouse know how to read and write? (No; Yes; There is no male head/spouse)
190	Last week, did the female head/spouse do any work (not counting household chores)? (Yes; No; There is no female head/spouse)
169	Does the household have a sewing machine? (No; Yes)
160	In their main line of work, how many household members receive commission, piece rates, grants, professional fees, or contracts? (None; One; Two or more)

Figure 3 (cont.): Poverty indicators by uncertainty coefficient

Uncertainty coefficient	Indicator (Answers ordered starting with those most strongly indicative of poverty)
154	Last week, how many household members did any work (not counting household chores)? (Three or more; Two; One; None)
153	Last week, did the male head/spouse do any work (not counting household chores)? (Yes; There is no male head/spouse; No)
115	What is the tenancy status of the household in the residence? (Owned free-and-clear; Owned, after squatting, or given up by another household or non-employer institution; Rented, owned, with a mortgage outstanding, given by employer, other, or no residence)
109	How many household members, in their main line of work, are business owners or bosses? (None; One or more)
94	How many household members work as retail and wholesale traders or as vendors without a permanent locale? (None; One or more)
86	How many household members work as retail and wholesale traders? (None; One or more)
62	What type of residence is it? (Detached house; Apartment in an apartment building; Apartment as part of a house, hut, shack, or cabin, improvised housing, residence not intended for human habitation, other, or no residence)
58	How old is the male head/spouse? (45 or younger; 63 or older; 46 to 52; No male head/spouse; 53 to 62)
54	Does anyone in the household know how to read and write? (No; Yes)
44	How old is the male head/spouse? (34 to 40; 33 or younger; 59 or older; 40 to 58; No female head/spouse)
42	How many household members work as drivers of motor vehicles? (None; One or more)
24	How many household members work as conductors in public transport, domestic servants, cleaners, launderers, messengers, delivery workers, movers, garbage collectors, or the like? (None; Two or more; One)

Figure 3 (cont.): Poverty indicators by uncertainty coefficient

Uncertainty coefficient	Indicator (Answers ordered starting with those most strongly indicative of poverty)
20	In their main line of work, how many household members receive a wage? (None; One; Two or more)
19	Does the household have a kerosene stove? (No; Yes)
18	How many household members work as vendors without a permanent locale? (None; One or more)
16	In their main line of work, how many household members receive a salary? (One or more; None)
15	Does the household have a radio? (Yes; No)
13	Does the household have a black and white television? (Yes; No)
9	How many household members are wage laborers in mining, wood, chemicals, or leather, food-service workers, shoemakers, tailors, or carpenters, workers and mechanics for metal, electrical equipment, machines, or instruments, construction workers or fabricators of construction materials, paper products, or graphic artists? (Two or more; None; One)

Source: 2007 ENAHO and the national poverty line.

National Poverty Line

2007 Scorecard Applied to the 2007 Validation Sample

(and tables pertaining to all eight poverty lines)

Figure 4 (National poverty 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	96.3
10–14	90.0
15–19	85.9
20–24	76.4
25–29	64.0
30–34	51.1
35–39	37.0
40–44	23.3
45–49	16.6
50–54	7.8
55–59	4.2
60–64	1.4
65–69	0.0
70–74	1.3
75–79	0.0
80–84	0.0
85–89	0.0
90–94	0.0
95–100	0.0

Surveyed cases weighted to represent households in Peru.
Based on the 2007 ENAHO.

Figure 5 (National poverty line): Derivation of estimated poverty likelihoods associated with scores

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0–4	181	÷	181	=	100.0
5–9	1,368	÷	1,420	=	96.3
10–14	3,258	÷	3,622	=	90.0
15–19	5,193	÷	6,046	=	85.9
20–24	5,892	÷	7,710	=	76.4
25–29	5,039	÷	7,879	=	64.0
30–34	5,047	÷	9,882	=	51.1
35–39	3,331	÷	8,999	=	37.0
40–44	2,328	÷	9,982	=	23.3
45–49	1,374	÷	8,265	=	16.6
50–54	641	÷	8,267	=	7.8
55–59	319	÷	7,570	=	4.2
60–64	73	÷	5,362	=	1.4
65–69	0	÷	4,487	=	0.0
70–74	37	÷	2,950	=	1.3
75–79	0	÷	2,751	=	0.0
80–84	0	÷	2,468	=	0.0
85–89	0	÷	1,730	=	0.0
90–94	0	÷	382	=	0.0
95–100	0	÷	47	=	0.0

Surveyed cases weighted to represent households in Peru.
Based on the 2007 ENAHO.
Number of all households normalized to sum to 100,000.

Figure 6 (All poverty lines): Distribution of household poverty likelihoods across ranges demarcated by poverty lines

	Likelihood of having expenditure in range demarcated by poverty lines per day per capita							
	<$1.25/day	=>$1.25/day and <Food	=>Food and <USAID	=>USAID and <$3.75/day	=>$3.75/day and <National	=>National and <150% Natl.	=>150% Natl. and <200% Natl.	=>200% Natl.
Score	<NS2.10	=>NS2.10 and <NS3.96	=>NS3.96 and <NS5.42	=>NS5.42 and <NS6.30	=>NS6.30 and <NS7.40	=>NS7.40 and <NS11.09	=>NS11.09 and <NS14.79	=>NS14.79
0–4	17.0	44.0	12.7	26.3	0.0	0.0	0.0	0.0
5–9	8.0	51.4	3.7	25.9	7.3	3.7	0.0	0.0
10–14	8.5	54.7	1.1	18.7	7.0	8.8	0.7	0.5
15–19	4.6	39.3	6.1	23.1	12.8	11.0	2.5	0.6
20–24	1.4	29.9	4.3	26.1	14.7	20.6	2.8	0.3
25–29	1.5	16.7	9.0	21.6	15.2	27.3	7.2	1.6
30–34	0.3	10.4	8.0	16.7	15.6	35.0	7.9	6.0
35–39	0.0	3.9	11.7	9.0	12.5	41.7	12.6	8.7
40–44	0.1	2.2	5.5	5.2	10.3	42.5	20.5	13.7
45–49	0.0	0.3	3.5	3.9	9.0	38.7	23.3	21.4
50–54	0.0	0.1	1.9	1.5	4.3	22.1	30.9	39.3
55–59	0.0	0.0	1.5	0.9	1.9	20.1	27.7	48.0
60–64	0.0	0.1	0.8	0.0	0.5	13.7	25.5	59.4
65–69	0.0	0.0	0.0	0.0	0.0	9.7	20.3	70.0
70–74	0.0	0.0	0.0	0.0	1.3	2.8	12.9	83.0
75–79	0.0	0.0	0.0	0.0	0.0	2.0	8.9	89.2
80–84	0.0	0.0	0.0	0.0	0.0	3.2	6.1	90.7
85–89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
90–94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
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 USD2.50/day 2005 PPP line is omitted because it is very close to the food line.

Figure 7 (National poverty line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, 2007 scorecard applied to the 2007 validation sample

	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	+0.0	0.0	0.0	0.0
5–9	+0.5	2.2	2.6	3.3
10–14	–5.4	3.4	3.5	3.7
15–19	+6.9	2.5	2.8	3.8
20–24	+7.0	2.3	2.7	3.5
25–29	+5.7	2.7	3.3	4.1
30–34	–2.9	2.7	2.8	3.6
35–39	–8.4	5.3	5.6	6.0
40–44	+0.8	2.0	2.4	3.0
45–49	+1.3	1.8	2.3	2.8
50–54	+3.4	0.9	1.1	1.4
55–59	+0.2	1.0	1.2	1.6
60–64	–1.9	1.5	1.7	2.0
65–69	–2.1	1.5	1.6	1.8
70–74	+1.3	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 8 (All poverty lines): Differences, precision of differences, and sample-size α for bootstrapped estimates of poverty rates for groups of households at a point in time for the 2007 scorecard applied to different validation samples

	Poverty line						
		150%	200%		USAID	International 2005 PPP	
	National	National	National	Food	'Extreme'	$1.25/day	$2.50/day	$3.75/day
Estimate minus true value								
2007 scorecard applied to 2007 validation	+0.3	–1.0	–2.3	+0.6	+0.4	+0.4	+0.2	+0.9
2007 scorecard applied to all 2006	–3.0	–2.7	–2.1	–0.4	–0.2	0.0	–0.9	–2.6
2007 scorecard applied to all 2005	–5.6	–5.4	–5.1	–1.3	–0.9	–0.1	–1.8	–5.2
Precision of difference								
2007 scorecard applied to 2007 validation	0.5	0.6	0.5	0.3	0.4	0.1	0.3	0.4
2007 scorecard applied to all 2006	0.5	0.6	0.5	0.4	0.5	0.1	0.4	0.5
2007 scorecard applied to all 2005	0.6	0.6	0.6	0.4	0.5	0.1	0.4	0.5
α for sample size								
2007 scorecard applied to 2007 validation	0.60	0.79	0.88	0.50	0.63	0.25	0.60	0.55
2007 scorecard applied to all 2006	0.72	0.79	0.75	0.76	0.91	1.00	0.96	0.81
2007 scorecard applied to all 2005	0.76	0.84	1.00	0.83	0.97	0.92	1.03	0.89
Precision is measured as 90-percent confidence intervals in units of +/– percentage points.								
Differences and precision estimated from 500 bootstraps of size n = 16,384.								
α is estimated from 1,000 bootstrap samples of n = 256, 512, 1,024, 2,048, 4,096, 8,192, and 16,384.								

Figure 9 (National poverty line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, 2007 scorecard applied to the 2007 validation sample

Sample Size	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	–0.1	63.5	76.6	91.1
4	+1.3	34.8	40.4	53.9
8	+0.7	22.1	26.4	37.3
16	+0.6	16.1	18.4	26.5
32	+0.9	11.7	13.3	17.2
64	+0.7	7.6	8.8	11.2
128	+0.4	5.3	6.5	8.5
256	+0.4	3.9	4.5	6.4
512	+0.4	2.8	3.5	4.6
1,024	+0.3	2.0	2.5	3.1
2,048	+0.3	1.4	1.6	2.3
4,096	+0.3	0.9	1.2	1.5
8,192	+0.3	0.7	0.8	1.0
16,384	+0.3	0.5	0.5	0.7

Figure 10 (All poverty lines): Differences, precision of differences, and sample-size α for bootstrapped estimates of changes in poverty rates for groups of households between two points in time for the 2007 scorecard applied to two independent validation samples

	Poverty line																	
		150%		200%				USAID		International 2005 PPP								
	National		National		National		Food		'Extreme'		$1.25/day		$2.50/day		$3.75/day			
Estimated change minus true change																		
2007 scorecard applied to 2007 validation and all 2006	–3.3		–1.7		+0.2		–1.1		–0.5		–0.3		–1.2		–3.6			
2007 scorecard applied to 2007 validation and all 2005	–5.9		–4.2		–2.9		–2.0		–1.3		–0.4		–2.1		–6.2			
Precision of estimated change minus true change																		
2007 scorecard applied to 2007 validation and all 2006	0.7		0.8		0.7		0.5		0.6		0.2		0.5		0.7			
2007 scorecard applied to 2007 validation and all 2005	0.7		0.8		0.8		0.5		0.6		0.1		0.5		0.7			
α for sample size																		
2007 scorecard applied to 2007 validation and all 2006	0.75		0.78		0.84		0.72		0.86		1.10		0.84		0.81			
2007 scorecard applied to 2007 validation and all 2005	0.70		0.78		0.89		0.69		0.76		0.94		0.86		0.74			
Precision is measured as 90-percent confidence intervals in units of +/– percentage points.																		
Differences and precision estimated from 500 bootstraps of size n = 16,384.																		
α is estimated from 1,000 bootstrap samples of n = 256, 512, 1,024, 2,048, 4,096, 8,192, and 16,384.																		

Figure 11 (All poverty lines): Differences, precision of differences, and sample-size α for bootstrapped estimates of changes in poverty rates for a group of households between two points in time for the 2007 scorecard applied to the 2007 panel households and those same households in 2006

	Poverty Line							
		150%	200%		USAID	International 2005 PPP		
	National	National	National	Food	'extreme'	$1.25/day	$2.50/day	$3.75/day
Estimated change minus true change								
2006 to 2005	–2.0	–4.6	–1.8	–0.1	+0.2	+0.1	–0.1	–0.3
Precision of estimated change minus true change								
2006 to 2005	0.5	0.7	0.6	0.3	0.4	0.1	0.3	0.5
α for sample size								
2006 to 2005	0.71	1.56	1.68	0.53	0.70	2.34	0.57	0.64

Precision is measured as 90-percent confidence intervals in units of +/– percentage points.

Differences and precision estimated from 500 bootstraps of size n = 16,384.

α is estimated from 500 bootstrap samples of n = 256, 512, 1,024, 2,048, 4,096, 8,192, and 16,384.

Figure 12 (All poverty lines): Possible types of outcomes from targeting by poverty score

True poverty status	Targeting segment: Targeted	Targeting segment: Non-targeted
Below poverty line	**Inclusion** Under poverty line Correctly Targeted	**Undercoverage** Under poverty line Mistakenly Non-targeted
Above poverty line	**Leakage** Above poverty line Mistakenly Targeted	**Exclusion** Above poverty line Correctly Non-targeted

Figure 13 (National poverty line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, 2007 scorecard applied to the 2007 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	0.2	33.2	0.0	66.6	66.8	–98.9
5–9	1.5	31.9	0.1	66.5	68.0	–90.6
10–14	4.9	28.5	0.3	66.3	71.3	–69.6
15–19	9.7	23.6	1.5	65.1	74.8	–37.1
20–24	15.2	18.2	3.8	62.8	78.1	+2.4
25–29	19.9	13.5	7.0	59.6	79.5	+40.0
30–34	25.2	8.2	11.6	55.0	80.2	+65.4
35–39	28.9	4.5	16.8	49.8	78.7	+49.6
40–44	31.2	2.2	24.5	42.1	73.3	+26.7
45–49	32.4	1.0	31.6	35.0	67.4	+5.5
50–54	32.8	0.6	39.4	27.2	60.0	–18.0
55–59	33.2	0.2	46.7	19.9	53.1	–39.7
60–64	33.3	0.1	51.9	14.7	48.0	–55.3
65–69	33.4	0.0	56.3	10.3	43.7	–68.5
70–74	33.4	0.0	59.2	7.4	40.8	–77.3
75–79	33.4	0.0	62.0	4.6	38.0	–85.6
80–84	33.4	0.0	64.4	2.2	35.6	–92.9
85–89	33.4	0.0	66.2	0.4	33.8	–98.1
90–94	33.4	0.0	66.6	0.0	33.4	–99.3
95–100	33.4	0.0	66.6	0.0	33.4	–99.4

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

Figure 14 (National poverty 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the 2007 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	0.2	100.0	0.5	Only poor targeted
5–9	1.6	95.2	4.6	19.9:1
10–14	5.2	94.7	14.8	17.7:1
15–19	11.3	86.5	29.2	6.4:1
20–24	19.0	80.2	45.6	4.0:1
25–29	26.9	74.1	59.6	2.9:1
30–34	36.7	68.5	75.4	2.2:1
35–39	45.7	63.2	86.6	1.7:1
40–44	55.7	56.0	93.5	1.3:1
45–49	64.0	50.7	97.0	1.0:1
50–54	72.3	45.5	98.3	0.8:1
55–59	79.8	41.5	99.3	0.7:1
60–64	85.2	39.1	99.7	0.6:1
65–69	89.7	37.2	100.0	0.6:1
70–74	92.6	36.1	100.0	0.6:1
75–79	95.4	35.0	100.0	0.5:1
80–84	97.8	34.1	100.0	0.5:1
85–89	99.6	33.5	100.0	0.5:1
90–94	100.0	33.4	100.0	0.5:1
95–100	100.0	33.4	100.0	0.5:1

150% of National Poverty Line

2007 Scorecard Applied to the 2007 Validation Sample

Figure 4 (150% of national poverty 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	98.7
15–19	96.9
20–24	97.0
25–29	91.2
30–34	86.1
35–39	78.7
40–44	65.8
45–49	55.3
50–54	29.8
55–59	24.3
60–64	15.1
65–69	9.7
70–74	4.1
75–79	2.0
80–84	3.2
85–89	0.0
90–94	0.0
95–100	0.0

Surveyed cases weighted to represent households in Peru.
Based on the 2007 ENAHO.

Figure 5 (150% of national poverty line): Derivation of estimated poverty likelihoods associated with scores

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0–4	181	÷	181	=	100.0
5–9	1,420	÷	1,420	=	100.0
10–14	3,575	÷	3,622	=	98.7
15–19	5,856	÷	6,046	=	96.9
20–24	7,477	÷	7,710	=	97.0
25–29	7,187	÷	7,879	=	91.2
30–34	8,504	÷	9,882	=	86.1
35–39	7,085	÷	8,999	=	78.7
40–44	6,568	÷	9,982	=	65.8
45–49	4,572	÷	8,265	=	55.3
50–54	2,465	÷	8,267	=	29.8
55–59	1,839	÷	7,570	=	24.3
60–64	809	÷	5,362	=	15.1
65–69	434	÷	4,487	=	9.7
70–74	121	÷	2,950	=	4.1
75–79	54	÷	2,751	=	2.0
80–84	78	÷	2,468	=	3.2
85–89	0	÷	1,730	=	0.0
90–94	0	÷	382	=	0.0
95–100	0	÷	47	=	0.0

Surveyed cases weighted to represent households in Peru.
Based on the 2007 ENAHO.
Number of all households normalized to sum to 100,000.

Figure 7 (150% of national poverty line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the 2007 validation sample

	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	+0.0	0.0	0.0	0.0
5–9	+0.0	0.0	0.0	0.0
10–14	–1.0	0.6	0.6	0.6
15–19	–0.1	1.0	1.2	1.7
20–24	+3.0	1.4	1.6	2.1
25–29	+5.8	2.1	2.3	3.0
30–34	–2.9	2.1	2.3	2.4
35–39	–3.4	2.5	2.6	2.9
40–44	+11.9	2.3	2.7	3.5
45–49	–2.4	2.6	3.1	4.1
50–54	–8.5	5.6	5.7	6.3
55–59	–11.8	7.2	7.4	7.9
60–64	+1.8	2.2	2.6	3.6
65–69	–3.4	2.9	3.2	3.7
70–74	–0.1	1.7	2.1	2.7
75–79	–2.1	1.9	2.1	2.5
80–84	+0.2	1.4	1.6	2.0
85–89	–1.3	1.2	1.4	1.8
90–94	+0.0	0.0	0.0	0.0
95–100	+0.0	0.0	0.0	0.0

Figure 9 (150% of national poverty line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the 2007 validation sample

Sample Size	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	+2.4	61.6	77.2	90.8
4	–0.6	37.6	44.0	60.0
8	–1.0	25.7	30.1	38.6
16	–1.6	19.5	23.1	31.2
32	–1.3	12.6	15.6	21.4
64	–1.0	8.9	10.6	14.0
128	–1.0	6.0	7.8	10.5
256	–0.9	4.6	5.3	7.4
512	–0.9	3.2	3.7	4.5
1,024	–1.0	2.3	2.7	3.7
2,048	–1.0	1.5	1.9	2.4
4,096	–1.0	1.1	1.3	1.7
8,192	–1.0	0.8	0.9	1.2
16,384	–1.0	0.6	0.6	0.9

Figure 13 (150% of national poverty line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the 2007 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	0.2	57.8	0.0	42.0	42.2	–99.4
5–9	1.6	56.4	0.0	42.0	43.6	–94.5
10–14	5.2	52.8	0.0	42.0	47.2	–82.0
15–19	11.1	46.9	0.2	41.8	52.9	–61.5
20–24	18.4	39.6	0.6	41.4	59.8	–35.6
25–29	25.3	32.7	1.6	40.4	65.7	–10.1
30–34	34.0	24.0	2.8	39.2	73.2	+21.9
35–39	41.0	17.0	4.7	37.3	78.3	+49.5
40–44	46.8	11.2	8.9	33.1	79.9	+76.7
45–49	51.1	6.9	12.9	29.1	80.2	+77.8
50–54	54.1	3.9	18.2	23.8	77.9	+68.7
55–59	56.5	1.6	23.4	18.6	75.1	+59.7
60–64	57.2	0.8	28.0	14.0	71.1	+51.7
65–69	57.7	0.3	32.0	10.0	67.7	+44.9
70–74	57.8	0.2	34.8	7.2	65.0	+40.0
75–79	57.9	0.1	37.5	4.5	62.4	+35.4
80–84	58.0	0.0	39.9	2.1	60.1	+31.3
85–89	58.0	0.0	41.6	0.4	58.4	+28.3
90–94	58.0	0.0	41.9	0.0	58.1	+27.7
95–100	58.0	0.0	42.0	0.0	58.0	+27.6

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

Figure 14 (150% of national poverty 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the 2007 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	0.2	100.0	0.3	Only poor targeted
5–9	1.6	100.0	2.8	Only poor targeted
10–14	5.2	99.7	9.0	384.1:1
15–19	11.3	98.3	19.1	57.2:1
20–24	19.0	96.8	31.7	30.6:1
25–29	26.9	94.2	43.6	16.2:1
30–34	36.7	92.4	58.6	12.2:1
35–39	45.7	89.6	70.7	8.7:1
40–44	55.7	84.0	80.7	5.2:1
45–49	64.0	79.9	88.1	4.0:1
50–54	72.3	74.9	93.2	3.0:1
55–59	79.8	70.7	97.3	2.4:1
60–64	85.2	67.1	98.5	2.0:1
65–69	89.7	64.3	99.5	1.8:1
70–74	92.6	62.4	99.6	1.7:1
75–79	95.4	60.7	99.8	1.5:1
80–84	97.8	59.3	99.9	1.5:1
85–89	99.6	58.3	100.0	1.4:1
90–94	100.0	58.0	100.0	1.4:1
95–100	100.0	58.0	100.0	1.4:1

200% of National Poverty Line

2007 Scorecard Applied to the 2007 Validation Sample

Figure 4 (200% of national poverty 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	99.5
15–19	99.4
20–24	99.7
25–29	98.4
30–34	94.0
35–39	91.3
40–44	86.3
45–49	78.6
50–54	60.7
55–59	52.0
60–64	40.6
65–69	30.0
70–74	17.0
75–79	10.8
80–84	9.3
85–89	0.0
90–94	0.0
95–100	0.0

Surveyed cases weighted to represent households in Peru.

Based on the 2007 ENAHO.

Figure 5 (200% of national poverty line): Derivation of estimated poverty likelihoods associated with scores

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0–4	181	÷	181	=	100.0
5–9	1,420	÷	1,420	=	100.0
10–14	3,602	÷	3,622	=	99.5
15–19	6,009	÷	6,046	=	99.4
20–24	7,689	÷	7,710	=	99.7
25–29	7,751	÷	7,879	=	98.4
30–34	9,289	÷	9,882	=	94.0
35–39	8,216	÷	8,999	=	91.3
40–44	8,618	÷	9,982	=	86.3
45–49	6,497	÷	8,265	=	78.6
50–54	5,016	÷	8,267	=	60.7
55–59	3,934	÷	7,570	=	52.0
60–64	2,176	÷	5,362	=	40.6
65–69	1,346	÷	4,487	=	30.0
70–74	500	÷	2,950	=	17.0
75–79	298	÷	2,751	=	10.8
80–84	229	÷	2,468	=	9.3
85–89	0	÷	1,730	=	0.0
90–94	0	÷	382	=	0.0
95–100	0	÷	47	=	0.0

Surveyed cases weighted to represent households in Peru.
Based on the 2007 ENAHO.
Number of all households normalized to sum to 100,000.

Figure 7 (200% of national poverty line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the 2007 validation sample

	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	+0.0	0.0	0.0	0.0
5–9	+0.0	0.0	0.0	0.0
10–14	–0.3	0.3	0.3	0.4
15–19	–0.5	0.3	0.3	0.3
20–24	+1.2	0.6	0.8	1.0
25–29	+1.3	0.8	0.9	1.2
30–34	–1.8	1.3	1.5	1.6
35–39	–3.4	2.2	2.2	2.3
40–44	+6.9	2.2	2.6	3.1
45–49	–4.3	3.0	3.2	3.6
50–54	–10.6	6.5	6.6	7.0
55–59	–7.0	4.7	5.0	5.4
60–64	–6.0	4.6	4.8	5.4
65–69	–6.6	5.0	5.1	5.5
70–74	+1.6	3.0	3.6	4.5
75–79	+0.3	2.3	3.0	4.0
80–84	–1.0	2.6	3.0	3.9
85–89	–1.5	1.4	1.5	1.9
90–94	+0.0	0.0	0.0	0.0
95–100	+0.0	0.0	0.0	0.0

Figure 9 (200% of national poverty line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the 2007 validation sample

Sample Size	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	+0.4	69.0	78.2	87.2
4	–2.0	33.5	41.2	52.5
8	–2.2	24.7	28.7	36.8
16	–2.7	17.0	20.5	28.0
32	–2.7	12.2	15.5	18.9
64	–2.3	8.8	10.4	13.3
128	–2.2	6.2	7.6	9.8
256	–2.2	4.1	5.1	7.3
512	–2.3	2.9	3.5	4.6
1,024	–2.3	2.1	2.6	3.4
2,048	–2.2	1.5	1.7	2.2
4,096	–2.3	1.1	1.3	1.5
8,192	–2.3	0.7	0.8	1.2
16,384	–2.3	0.5	0.6	0.8

Figure 13 (200% of national poverty line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the 2007 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	0.2	73.1	0.0	26.7	26.9	–99.5
5–9	1.6	71.7	0.0	26.7	28.3	–95.6
10–14	5.2	68.1	0.0	26.7	31.9	–85.8
15–19	11.2	62.1	0.0	26.7	37.9	–69.3
20–24	18.9	54.5	0.1	26.6	45.4	–48.4
25–29	26.5	46.8	0.3	26.3	52.9	–27.2
30–34	36.0	37.4	0.8	25.9	61.8	–0.9
35–39	44.3	29.0	1.4	25.2	69.6	+22.8
40–44	52.4	21.0	3.4	23.3	75.7	+47.4
45–49	58.8	14.6	5.2	21.5	80.2	+67.4
50–54	64.2	9.1	8.0	18.6	82.9	+86.1
55–59	68.4	4.9	11.4	15.3	83.7	+84.4
60–64	70.7	2.7	14.5	12.1	82.8	+80.2
65–69	72.3	1.1	17.4	9.3	81.5	+76.2
70–74	72.7	0.6	19.9	6.8	79.5	+72.9
75–79	73.0	0.3	22.3	4.4	77.4	+69.6
80–84	73.3	0.0	24.6	2.1	75.4	+66.5
85–89	73.3	0.0	26.2	0.4	73.8	+64.2
90–94	73.3	0.0	26.6	0.0	73.4	+63.7
95–100	73.3	0.0	26.7	0.0	73.3	+63.6

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

Figure 14 (200% of national poverty 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the 2007 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	0.2	100.0	0.2	Only poor targeted
5–9	1.6	100.0	2.2	Only poor targeted
10–14	5.2	99.7	7.1	384.1:1
15–19	11.3	99.8	15.3	512.7:1
20–24	19.0	99.4	25.7	162.3:1
25–29	26.9	98.7	36.2	78.3:1
30–34	36.7	97.9	49.0	45.9:1
35–39	45.7	96.9	60.4	31.0:1
40–44	55.7	94.0	71.4	15.5:1
45–49	64.0	91.9	80.2	11.3:1
50–54	72.3	88.9	87.6	8.0:1
55–59	79.8	85.7	93.3	6.0:1
60–64	85.2	82.9	96.4	4.9:1
65–69	89.7	80.6	98.5	4.1:1
70–74	92.6	78.5	99.2	3.7:1
75–79	95.4	76.6	99.6	3.3:1
80–84	97.8	74.9	99.9	3.0:1
85–89	99.6	73.6	100.0	2.8:1
90–94	100.0	73.4	100.0	2.8:1
95–100	100.0	73.3	100.0	2.7:1

National Food Poverty Line

2007 Scorecard Applied to the 2007 Validation Sample

Figure 4 (Food poverty 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	61.0
5–9	59.4
10–14	63.2
15–19	43.9
20–24	31.3
25–29	18.3
30–34	10.7
35–39	3.9
40–44	2.2
45–49	0.3
50–54	0.1
55–59	0.0
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

Surveyed cases weighted to represent households in Peru.

Based on the 2007 ENAHO.

Figure 5 (Food poverty line): Derivation of estimated poverty likelihoods associated with scores

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0–4	110	÷	181	=	61.0
5–9	844	÷	1,420	=	59.4
10–14	2,288	÷	3,622	=	63.2
15–19	2,655	÷	6,046	=	43.9
20–24	2,412	÷	7,710	=	31.3
25–29	1,438	÷	7,879	=	18.3
30–34	1,060	÷	9,882	=	10.7
35–39	352	÷	8,999	=	3.9
40–44	224	÷	9,982	=	2.2
45–49	21	÷	8,265	=	0.3
50–54	4	÷	8,267	=	0.1
55–59	0	÷	7,570	=	0.0
60–64	7	÷	5,362	=	0.1
65–69	0	÷	4,487	=	0.0
70–74	0	÷	2,950	=	0.0
75–79	0	÷	2,751	=	0.0
80–84	0	÷	2,468	=	0.0
85–89	0	÷	1,730	=	0.0
90–94	0	÷	382	=	0.0
95–100	0	÷	47	=	0.0

Surveyed cases weighted to represent households in Peru.
Based on the 2007 ENAHO.
Number of all households normalized to sum to 100,000.

Figure 7 (Food poverty line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the 2007 validation sample

	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	–39.0	19.5	19.5	19.5
5–9	–8.6	6.7	7.3	8.7
10–14	+7.6	3.9	4.7	5.7
15–19	+4.3	2.9	3.4	4.3
20–24	+5.3	2.1	2.5	3.2
25–29	–2.0	2.2	2.9	3.4
30–34	–0.3	1.4	1.6	2.1
35–39	+1.3	0.6	0.7	1.1
40–44	+1.1	0.4	0.5	0.6
45–49	+0.2	0.1	0.1	0.1
50–54	–0.1	0.2	0.2	0.3
55–59	+0.0	0.0	0.0	0.0
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	+0.0	0.0	0.0	0.0

Figure 9 (Food poverty line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the 2007 validation sample

Sample Size	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	+1.6	50.0	56.3	79.6
4	+0.6	19.8	27.7	38.7
8	+1.0	12.9	17.7	26.9
16	+0.8	9.3	10.7	15.0
32	+0.8	6.5	7.9	11.7
64	+0.8	4.8	5.6	7.6
128	+0.7	3.1	3.6	5.1
256	+0.7	2.3	2.7	4.1
512	+0.6	1.7	1.9	2.6
1,024	+0.6	1.1	1.4	1.9
2,048	+0.6	0.8	1.0	1.3
4,096	+0.6	0.6	0.7	1.0
8,192	+0.6	0.4	0.5	0.6
16,384	+0.6	0.3	0.4	0.5

Figure 13 (Food poverty line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the 2007 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	0.2	10.9	0.0	88.9	89.1	–96.7
5–9	1.1	9.9	0.5	88.5	89.6	–75.2
10–14	3.2	7.9	2.1	86.9	90.0	–24.4
15–19	5.6	5.5	5.6	83.3	88.9	+49.2
20–24	7.8	3.3	11.2	77.7	85.4	–1.1
25–29	9.2	1.9	17.6	71.3	80.5	–58.9
30–34	10.6	0.5	26.2	62.7	73.3	–136.1
35–39	10.9	0.2	34.9	54.0	64.9	–214.3
40–44	11.0	0.0	44.7	44.2	55.3	–302.7
45–49	11.1	0.0	52.9	36.0	47.1	–377.0
50–54	11.1	0.0	61.2	27.7	38.8	–451.3
55–59	11.1	0.0	68.7	20.2	31.3	–519.5
60–64	11.1	0.0	74.1	14.8	25.9	–567.9
65–69	11.1	0.0	78.6	10.3	21.4	–608.3
70–74	11.1	0.0	81.5	7.4	18.5	–634.9
75–79	11.1	0.0	84.3	4.6	15.7	–659.7
80–84	11.1	0.0	86.7	2.2	13.3	–682.0
85–89	11.1	0.0	88.5	0.4	11.5	–697.6
90–94	11.1	0.0	88.9	0.0	11.1	–701.0
95–100	11.1	0.0	88.9	0.0	11.1	–701.4

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

Figure 14 (Food poverty 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the 2007 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	0.2	100.0	1.6	Only poor targeted
5–9	1.6	71.6	10.3	2.5:1
10–14	5.2	60.7	28.6	1.5:1
15–19	11.3	50.0	50.8	1.0:1
20–24	19.0	40.9	70.0	0.7:1
25–29	26.9	34.4	83.2	0.5:1
30–34	36.7	28.7	95.1	0.4:1
35–39	45.7	23.8	98.0	0.3:1
40–44	55.7	19.8	99.6	0.2:1
45–49	64.0	17.3	99.8	0.2:1
50–54	72.3	15.4	100.0	0.2:1
55–59	79.8	13.9	100.0	0.2:1
60–64	85.2	13.0	100.0	0.1:1
65–69	89.7	12.4	100.0	0.1:1
70–74	92.6	12.0	100.0	0.1:1
75–79	95.4	11.6	100.0	0.1:1
80–84	97.8	11.3	100.0	0.1:1
85–89	99.6	11.1	100.0	0.1:1
90–94	100.0	11.1	100.0	0.1:1
95–100	100.0	11.1	100.0	0.1:1

USAID "Extreme" Poverty Line

2007 Scorecard Applied to the 2007 Validation Sample

Figure 4 (USAID "extreme" poverty 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	63.1
10–14	64.2
15–19	50.0
20–24	35.6
25–29	27.2
30–34	18.8
35–39	15.6
40–44	7.8
45–49	3.7
50–54	2.0
55–59	1.5
60–64	0.9
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

Surveyed cases weighted to represent households in Peru.

Based on the 2007 ENAHO.

Figure 5 (USAID "extreme" poverty line): Derivation of estimated poverty likelihoods associated with scores

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0–4	133	÷	181	=	73.7
5–9	896	÷	1,420	=	63.1
10–14	2,326	÷	3,622	=	64.2
15–19	3,024	÷	6,046	=	50.0
20–24	2,743	÷	7,710	=	35.6
25–29	2,145	÷	7,879	=	27.2
30–34	1,855	÷	9,882	=	18.8
35–39	1,400	÷	8,999	=	15.6
40–44	774	÷	9,982	=	7.8
45–49	307	÷	8,265	=	3.7
50–54	163	÷	8,267	=	2.0
55–59	110	÷	7,570	=	1.5
60–64	47	÷	5,362	=	0.9
65–69	0	÷	4,487	=	0.0
70–74	0	÷	2,950	=	0.0
75–79	0	÷	2,751	=	0.0
80–84	0	÷	2,468	=	0.0
85–89	0	÷	1,730	=	0.0
90–94	0	÷	382	=	0.0
95–100	0	÷	47	=	0.0

Surveyed cases weighted to represent households in Peru.
Based on the 2007 ENAHO.
Number of all households normalized to sum to 100,000.

Figure 7 (USAID "extreme" poverty line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the 2007 validation sample

	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	–24.0	13.1	13.1	13.1
5–9	–9.0	6.9	7.2	8.8
10–14	–1.9	3.8	4.6	5.7
15–19	+4.3	2.9	3.4	4.5
20–24	–0.8	2.5	2.8	3.8
25–29	+1.1	2.4	2.9	3.6
30–34	–0.5	1.8	2.2	2.6
35–39	+1.3	1.8	2.2	3.2
40–44	+1.5	1.1	1.4	1.9
45–49	+1.8	0.6	0.7	0.9
50–54	+0.9	0.4	0.5	0.7
55–59	–0.1	0.7	0.8	1.0
60–64	–0.3	0.8	0.9	1.3
65–69	–1.7	1.3	1.4	1.6
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 9 (USAID "extreme" poverty line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the 2007 validation sample

Sample Size	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	+0.4	61.4	65.6	78.2
4	–0.1	28.2	33.1	40.7
8	+0.5	18.1	20.9	30.4
16	+0.2	12.0	14.6	18.7
32	+0.2	8.5	10.4	16.5
64	+0.3	5.9	7.3	10.5
128	+0.3	4.0	5.0	6.3
256	+0.3	2.9	3.5	5.0
512	+0.3	2.2	2.6	3.2
1,024	+0.3	1.5	1.8	2.3
2,048	+0.3	1.1	1.3	1.7
4,096	+0.3	0.8	0.9	1.2
8,192	+0.3	0.5	0.7	0.9
16,384	+0.4	0.4	0.5	0.6

Figure 13 (USAID "extreme" poverty line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the 2007 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	0.2	15.2	0.0	84.6	84.8	–97.7
5–9	1.2	14.2	0.4	84.2	85.4	–81.9
10–14	3.5	11.9	1.7	82.9	86.4	–43.1
15–19	6.3	9.1	5.0	79.6	85.9	+14.1
20–24	9.1	6.3	9.9	74.8	83.9	+36.0
25–29	11.1	4.3	15.7	68.9	80.0	–2.3
30–34	13.2	2.2	23.6	61.0	74.2	–53.2
35–39	14.3	1.1	31.5	53.1	67.4	–104.6
40–44	14.9	0.5	40.8	43.8	58.7	–165.3
45–49	15.1	0.3	48.9	35.7	50.8	–217.8
50–54	15.2	0.2	57.1	27.5	42.7	–270.7
55–59	15.3	0.1	64.5	20.1	35.4	–319.3
60–64	15.3	0.1	69.9	14.8	30.1	–353.8
65–69	15.4	0.0	74.3	10.3	25.7	–382.6
70–74	15.4	0.0	77.2	7.4	22.8	–401.7
75–79	15.4	0.0	80.0	4.6	20.0	–419.6
80–84	15.4	0.0	82.4	2.2	17.6	–435.6
85–89	15.4	0.0	84.2	0.4	15.8	–446.9
90–94	15.4	0.0	84.6	0.0	15.4	–449.4
95–100	15.4	0.0	84.6	0.0	15.4	–449.7

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

Figure 14 (USAID "extreme" poverty 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the 2007 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	0.2	95.1	1.1	19.2:1
5–9	1.6	74.0	7.7	2.8:1
10–14	5.2	67.6	22.9	2.1:1
15–19	11.3	55.8	40.9	1.3:1
20–24	19.0	48.1	59.3	0.9:1
25–29	26.9	41.4	72.2	0.7:1
30–34	36.7	35.8	85.5	0.6:1
35–39	45.7	31.2	92.6	0.5:1
40–44	55.7	26.7	96.7	0.4:1
45–49	64.0	23.6	97.9	0.3:1
50–54	72.3	21.0	98.7	0.3:1
55–59	79.8	19.2	99.3	0.2:1
60–64	85.2	18.0	99.6	0.2:1
65–69	89.7	17.2	100.0	0.2:1
70–74	92.6	16.6	100.0	0.2:1
75–79	95.4	16.1	100.0	0.2:1
80–84	97.8	15.7	100.0	0.2:1
85–89	99.6	15.5	100.0	0.2:1
90–94	100.0	15.4	100.0	0.2:1
95–100	100.0	15.4	100.0	0.2:1

USD1.25/Day 2005 PPP Poverty Line

2007 Scorecard Applied to the 2007 Validation Sample

Figure 4 (USD1.25/day 2005 PPP 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	17.0
5–9	8.0
10–14	8.5
15–19	4.6
20–24	1.4
25–29	1.5
30–34	0.3
35–39	0.0
40–44	0.1
45–49	0.0
50–54	0.0
55–59	0.0
60–64	0.0
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

Surveyed cases weighted to represent households in Peru.

Based on the 2007 ENAHO.

Figure 5 (USD1.25/day 2005 PPP line): Derivation of estimated poverty likelihoods associated with scores

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0–4	31	÷	181	=	17.0
5–9	114	÷	1,420	=	8.0
10–14	307	÷	3,622	=	8.5
15–19	277	÷	6,046	=	4.6
20–24	110	÷	7,710	=	1.4
25–29	121	÷	7,879	=	1.5
30–34	29	÷	9,882	=	0.3
35–39	0	÷	8,999	=	0.0
40–44	9	÷	9,982	=	0.1
45–49	0	÷	8,265	=	0.0
50–54	0	÷	8,267	=	0.0
55–59	0	÷	7,570	=	0.0
60–64	0	÷	5,362	=	0.0
65–69	0	÷	4,487	=	0.0
70–74	0	÷	2,950	=	0.0
75–79	0	÷	2,751	=	0.0
80–84	0	÷	2,468	=	0.0
85–89	0	÷	1,730	=	0.0
90–94	0	÷	382	=	0.0
95–100	0	÷	47	=	0.0

Surveyed cases weighted to represent households in Peru.
Based on the 2007 ENAHO.
Number of all households normalized to sum to 100,000.

Figure 7 (USD1.25/day 2005 PPP line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the 2007 validation sample

	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	+12.4	5.1	5.9	7.6
5–9	–2.3	3.5	4.0	5.6
10–14	+7.1	0.5	0.6	0.9
15–19	+2.7	0.7	0.8	1.1
20–24	+0.9	0.3	0.3	0.4
25–29	+1.1	0.3	0.4	0.5
30–34	–0.8	0.6	0.7	0.7
35–39	–0.0	0.0	0.0	0.0
40–44	+0.1	0.0	0.0	0.0
45–49	–0.0	0.1	0.1	0.1
50–54	+0.0	0.0	0.0	0.0
55–59	+0.0	0.0	0.0	0.0
60–64	+0.0	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	+0.0	0.0	0.0	0.0

Figure 9 (USD1.25/day 2005 PPP line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the 2007 validation sample

Sample Size	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	+0.8	4.0	4.2	4.2
4	+0.3	1.5	4.8	18.6
8	+0.4	1.0	3.8	8.4
16	+0.5	1.5	2.9	4.6
32	+0.5	1.4	1.8	2.5
64	+0.4	1.0	1.3	1.7
128	+0.4	0.7	0.9	1.4
256	+0.4	0.6	0.7	0.8
512	+0.4	0.4	0.5	0.6
1,024	+0.4	0.3	0.3	0.4
2,048	+0.4	0.2	0.2	0.3
4,096	+0.4	0.1	0.2	0.2
8,192	+0.4	0.1	0.1	0.2
16,384	+0.4	0.1	0.1	0.1

Figure 13 (USD1.25/day 2005 PPP line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the 2007 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	0.0	0.7	0.2	99.2	99.2	–71.1
5–9	0.2	0.5	1.4	97.9	98.1	–112.4
10–14	0.3	0.4	4.9	94.4	94.7	–638.2
15–19	0.4	0.2	10.8	88.5	88.9	–1,517.5
20–24	0.5	0.2	18.5	80.8	81.3	–2,660.0
25–29	0.5	0.1	26.3	73.0	73.5	–3,829.5
30–34	0.7	0.0	36.1	63.2	63.9	–5,284.9
35–39	0.7	0.0	45.1	54.3	54.9	–6,626.8
40–44	0.7	0.0	55.1	44.3	44.9	–8,116.4
45–49	0.7	0.0	63.3	36.0	36.7	–9,348.4
50–54	0.7	0.0	71.6	27.7	28.4	–10,582.1
55–59	0.7	0.0	79.2	20.2	20.8	–11,711.7
60–64	0.7	0.0	84.5	14.8	15.5	–12,512.0
65–69	0.7	0.0	89.0	10.3	11.0	–13,181.6
70–74	0.7	0.0	92.0	7.4	8.0	–13,621.8
75–79	0.7	0.0	94.7	4.6	5.3	–14,032.4
80–84	0.7	0.0	97.2	2.2	2.8	–14,400.6
85–89	0.7	0.0	98.9	0.4	1.1	–14,658.8
90–94	0.7	0.0	99.3	0.0	0.7	–14,715.8
95–100	0.7	0.0	99.3	0.0	0.7	–14,722.8

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

Figure 14 (USD1.25/day 2005 PPP 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the 2007 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	0.2	7.0	1.9	0.1:1
5–9	1.6	11.1	26.5	0.1:1
10–14	5.2	5.3	41.3	0.1:1
15–19	11.3	3.8	64.1	0.0:1
20–24	19.0	2.5	72.2	0.0:1
25–29	26.9	2.0	78.4	0.0:1
30–34	36.7	1.8	97.6	0.0:1
35–39	45.7	1.4	98.6	0.0:1
40–44	55.7	1.2	98.6	0.0:1
45–49	64.0	1.0	100.0	0.0:1
50–54	72.3	0.9	100.0	0.0:1
55–59	79.8	0.8	100.0	0.0:1
60–64	85.2	0.8	100.0	0.0:1
65–69	89.7	0.7	100.0	0.0:1
70–74	92.6	0.7	100.0	0.0:1
75–79	95.4	0.7	100.0	0.0:1
80–84	97.8	0.7	100.0	0.0:1
85–89	99.6	0.7	100.0	0.0:1
90–94	100.0	0.7	100.0	0.0:1
95–100	100.0	0.7	100.0	0.0:1

USD2.50/Day 2005 PPP Poverty Line

2007 Scorecard Applied to the 2007 Validation Sample

Figure 4 (USD2.50/day 2005 PPP 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	61.0
5–9	57.1
10–14	55.0
15–19	37.6
20–24	27.4
25–29	15.5
30–34	8.7
35–39	3.8
40–44	2.5
45–49	0.3
50–54	0.1
55–59	0.0
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

Surveyed cases weighted to represent households in Peru.

Based on the 2007 ENAHO.

Figure 5 (USD2.50/day 2005 PPP line): Derivation of estimated poverty likelihoods associated with scores

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0–4	110	÷	181	=	61.0
5–9	811	÷	1,420	=	57.1
10–14	1,991	÷	3,622	=	55.0
15–19	2,273	÷	6,046	=	37.6
20–24	2,115	÷	7,710	=	27.4
25–29	1,221	÷	7,879	=	15.5
30–34	863	÷	9,882	=	8.7
35–39	339	÷	8,999	=	3.8
40–44	245	÷	9,982	=	2.5
45–49	21	÷	8,265	=	0.3
50–54	4	÷	8,267	=	0.1
55–59	0	÷	7,570	=	0.0
60–64	7	÷	5,362	=	0.1
65–69	0	÷	4,487	=	0.0
70–74	0	÷	2,950	=	0.0
75–79	0	÷	2,751	=	0.0
80–84	0	÷	2,468	=	0.0
85–89	0	÷	1,730	=	0.0
90–94	0	÷	382	=	0.0
95–100	0	÷	47	=	0.0

Surveyed cases weighted to represent households in Peru.
Based on the 2007 ENAHO.
Number of all households normalized to sum to 100,000.

Figure 7 (USD2.50/day 2005 PPP line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the 2007 validation sample

	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	–36.7	19.5	19.5	19.5
5–9	–9.7	7.4	7.8	8.9
10–14	+8.5	3.9	4.6	5.4
15–19	+4.6	2.9	3.3	4.2
20–24	+3.9	2.0	2.4	3.3
25–29	–2.1	2.4	2.8	3.3
30–34	–2.0	1.7	1.8	2.2
35–39	–1.3	1.3	1.5	1.9
40–44	+1.5	0.3	0.4	0.5
45–49	–0.1	0.2	0.3	0.4
50–54	–0.1	0.2	0.2	0.3
55–59	+0.0	0.0	0.0	0.0
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	+0.0	0.0	0.0	0.0

Figure 9 (USD2.50/day 2005 PPP line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the 2007 validation sample

Sample Size	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	+0.2	50.0	61.1	75.6
4	+0.0	20.7	29.5	39.1
8	+0.5	14.9	18.9	25.6
16	+0.3	9.6	12.1	15.0
32	+0.3	6.5	8.2	12.1
64	+0.3	4.7	5.8	7.8
128	+0.2	3.3	3.9	5.7
256	+0.2	2.4	2.8	4.0
512	+0.2	1.6	2.1	2.7
1,024	+0.2	1.2	1.4	1.8
2,048	+0.2	0.9	1.0	1.3
4,096	+0.2	0.6	0.8	0.9
8,192	+0.2	0.4	0.5	0.7
16,384	+0.2	0.3	0.4	0.4

Figure 13 (USD2.50/day 2005 PPP line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the 2007 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	0.2	9.6	0.0	90.3	90.4	–96.4
5–9	1.1	8.6	0.5	89.8	90.9	–72.1
10–14	2.8	6.9	2.4	87.8	90.6	–17.6
15–19	4.8	4.9	6.5	83.8	88.6	+33.4
20–24	6.7	3.1	12.3	77.9	84.6	–26.8
25–29	7.9	1.8	19.0	71.3	79.2	–95.0
30–34	9.1	0.6	27.6	62.6	71.7	–184.2
35–39	9.5	0.2	36.2	54.0	63.5	–272.6
40–44	9.7	0.1	46.1	44.2	53.9	–373.7
45–49	9.7	0.0	54.3	36.0	45.7	–458.2
50–54	9.7	0.0	62.5	27.7	37.5	–543.0
55–59	9.7	0.0	70.1	20.2	29.9	–620.8
60–64	9.7	0.0	75.5	14.8	24.5	–676.0
65–69	9.7	0.0	79.9	10.3	20.1	–722.1
70–74	9.7	0.0	82.9	7.4	17.1	–752.5
75–79	9.7	0.0	85.6	4.6	14.4	–780.7
80–84	9.7	0.0	88.1	2.2	11.9	–806.1
85–89	9.7	0.0	89.8	0.4	10.2	–823.9
90–94	9.7	0.0	90.2	0.0	9.8	–827.8
95–100	9.7	0.0	90.3	0.0	9.7	–828.3

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

Figure 14 (USD2.50/day 2005 PPP 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the 2007 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	0.2	95.1	1.8	19.2:1
5–9	1.6	69.6	11.5	2.3:1
10–14	5.2	53.4	28.7	1.1:1
15–19	11.3	42.5	49.2	0.7:1
20–24	19.0	35.1	68.4	0.5:1
25–29	26.9	29.4	81.2	0.4:1
30–34	36.7	24.8	93.6	0.3:1
35–39	45.7	20.8	97.7	0.3:1
40–44	55.7	17.3	99.3	0.2:1
45–49	64.0	15.2	99.8	0.2:1
50–54	72.3	13.5	100.0	0.2:1
55–59	79.8	12.2	100.0	0.1:1
60–64	85.2	11.4	100.0	0.1:1
65–69	89.7	10.8	100.0	0.1:1
70–74	92.6	10.5	100.0	0.1:1
75–79	95.4	10.2	100.0	0.1:1
80–84	97.8	9.9	100.0	0.1:1
85–89	99.6	9.8	100.0	0.1:1
90–94	100.0	9.7	100.0	0.1:1
95–100	100.0	9.7	100.0	0.1:1

USD3.75/Day 2005 PPP Poverty Line

2007 Scorecard Applied to the 2007 Validation Sample

Figure 4 (USD3.75/day 2005 PPP 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	89.0
10–14	82.9
15–19	73.1
20–24	61.7
25–29	48.8
30–34	35.5
35–39	24.6
40–44	13.0
45–49	7.6
50–54	3.5
55–59	2.4
60–64	0.9
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

Surveyed cases weighted to represent households in Peru.
Based on the 2007 ENAHO.

Figure 5 (USD3.75/day 2005 PPP line): Derivation of estimated poverty likelihoods associated with scores

Score	Households below poverty line		All households at score		Poverty likelihood (estimated, %)
0–4	181	÷	181	=	100.0
5–9	1,265	÷	1,420	=	89.0
10–14	3,003	÷	3,622	=	82.9
15–19	4,419	÷	6,046	=	73.1
20–24	4,759	÷	7,710	=	61.7
25–29	3,844	÷	7,879	=	48.8
30–34	3,505	÷	9,882	=	35.5
35–39	2,210	÷	8,999	=	24.6
40–44	1,297	÷	9,982	=	13.0
45–49	630	÷	8,265	=	7.6
50–54	289	÷	8,267	=	3.5
55–59	179	÷	7,570	=	2.4
60–64	47	÷	5,362	=	0.9
65–69	0	÷	4,487	=	0.0
70–74	0	÷	2,950	=	0.0
75–79	0	÷	2,751	=	0.0
80–84	0	÷	2,468	=	0.0
85–89	0	÷	1,730	=	0.0
90–94	0	÷	382	=	0.0
95–100	0	÷	47	=	0.0

Surveyed cases weighted to represent households in Peru.
Based on the 2007 ENAHO.

Figure 7 (USD3.75/day 2005 PPP line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the 2007 validation sample

	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	+0.0	0.0	0.0	0.0
5–9	–0.2	3.4	4.0	5.0
10–14	–1.8	2.6	3.2	4.2
15–19	+7.5	2.8	3.3	4.1
20–24	+2.9	2.5	2.8	3.8
25–29	+5.6	2.7	3.2	4.1
30–34	+0.5	2.3	2.6	3.4
35–39	–4.3	3.3	3.4	4.0
40–44	+2.4	1.5	1.7	2.1
45–49	+1.4	1.2	1.4	1.8
50–54	+1.4	0.6	0.7	0.9
55–59	+0.7	0.7	0.8	1.1
60–64	–0.4	0.8	0.9	1.3
65–69	–1.7	1.3	1.4	1.6
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 9 (USD3.75/day 2005 PPP line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the 2007 validation sample

Sample Size	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	+1.5	63.1	74.3	87.6
4	+1.4	28.1	35.6	45.9
8	+1.7	19.1	23.5	33.3
16	+1.3	13.7	17.3	23.2
32	+1.2	10.2	13.7	16.8
64	+1.0	6.8	8.3	11.7
128	+0.9	4.5	5.4	7.3
256	+0.9	3.4	3.9	4.7
512	+0.8	2.7	3.0	3.5
1,024	+0.9	1.7	2.1	2.6
2,048	+0.9	1.3	1.5	2.1
4,096	+0.9	0.9	1.1	1.3
8,192	+0.9	0.6	0.8	1.0
16,384	+0.9	0.4	0.5	0.7

Figure 13 (USD3.75/day 2005 PPP line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the 2007 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	0.2	24.6	0.0	75.2	75.4	–98.5
5–9	1.4	23.3	0.2	75.1	76.5	–87.8
10–14	4.5	20.3	0.8	74.5	79.0	–60.8
15–19	8.5	16.2	2.8	72.5	81.0	–20.1
20–24	13.1	11.6	5.9	69.4	82.5	+29.7
25–29	16.6	8.1	10.2	65.0	81.6	+58.6
30–34	20.2	4.5	16.5	58.8	79.0	+33.4
35–39	22.6	2.1	23.1	52.1	74.8	+6.6
40–44	23.8	1.0	31.9	43.3	67.1	–29.0
45–49	24.3	0.5	39.7	35.6	59.8	–60.4
50–54	24.5	0.2	47.7	27.5	52.0	–92.8
55–59	24.6	0.1	55.2	20.1	44.7	–123.0
60–64	24.7	0.1	60.5	14.8	39.4	–144.4
65–69	24.8	0.0	64.9	10.3	35.1	–162.3
70–74	24.8	0.0	67.9	7.4	32.1	–174.2
75–79	24.8	0.0	70.6	4.6	29.4	–185.3
80–84	24.8	0.0	73.1	2.2	26.9	–195.3
85–89	24.8	0.0	74.8	0.4	25.2	–202.3
90–94	24.8	0.0	75.2	0.0	24.8	–203.8
95–100	24.8	0.0	75.2	0.0	24.8	–204.0

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

Figure 14 (USD3.75/day 2005 PPP 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the 2007 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	0.2	100.0	0.7	Only poor targeted
5–9	1.6	89.0	5.8	8.1:1
10–14	5.2	85.6	18.1	5.9:1
15–19	11.3	75.6	34.4	3.1:1
20–24	19.0	69.1	53.0	2.2:1
25–29	26.9	61.9	67.1	1.6:1
30–34	36.7	55.1	81.8	1.2:1
35–39	45.7	49.5	91.4	1.0:1
40–44	55.7	42.7	96.2	0.7:1
45–49	64.0	38.0	98.1	0.6:1
50–54	72.3	33.9	99.1	0.5:1
55–59	79.8	30.9	99.5	0.4:1
60–64	85.2	29.0	99.7	0.4:1
65–69	89.7	27.6	100.0	0.4:1
70–74	92.6	26.7	100.0	0.4:1
75–79	95.4	26.0	100.0	0.4:1
80–84	97.8	25.3	100.0	0.3:1
85–89	99.6	24.9	100.0	0.3:1
90–94	100.0	24.8	100.0	0.3:1
95–100	100.0	24.8	100.0	0.3:1

National Poverty Line

2007 Scorecard Applied to the Entire Non-Panel 2006 ENAHO

Figure 7 (National line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	+5.2	5.6	6.0	7.7
5–9	–0.7	1.4	1.8	2.3
10–14	–0.1	1.8	2.1	3.4
15–19	–3.0	2.4	2.5	2.7
20–24	–3.4	2.7	2.9	3.2
25–29	–5.4	3.8	4.1	4.5
30–34	–6.5	4.5	4.6	5.3
35–39	–4.7	3.6	3.8	4.2
40–44	–10.5	6.7	6.8	7.1
45–49	+3.7	1.8	2.3	3.1
50–54	–1.1	1.6	1.8	2.5
55–59	–3.7	2.9	3.1	3.6
60–64	–2.5	1.9	2.1	2.6
65–69	–1.0	0.9	1.0	1.2
70–74	+1.0	0.3	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	+0.0	0.0	0.0	0.0

Figure 9 (National line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

Sample Size	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	+0.8	63.5	76.6	86.7
4	–2.5	34.7	42.4	56.1
8	–2.0	23.4	29.0	42.3
16	–2.9	16.5	19.8	26.2
32	–2.8	12.7	15.2	18.9
64	–2.8	8.7	11.0	13.7
128	–2.9	6.1	7.6	10.2
256	–2.8	4.4	5.4	7.1
512	–2.9	3.0	3.6	4.6
1,024	–3.0	2.3	2.7	3.4
2,048	–3.0	1.6	1.9	2.7
4,096	–3.0	1.1	1.4	1.9
8,192	–3.0	0.7	0.9	1.2
16,384	–3.0	0.5	0.6	0.9

Figure 13 (National line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

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	0.4	39.8	0.0	59.8	60.2	–98.1
5–9	2.3	37.9	0.1	59.7	62.0	–88.2
10–14	6.7	33.5	0.6	59.2	65.9	–64.9
15–19	13.0	27.1	1.5	58.3	71.4	–31.4
20–24	19.3	20.9	3.2	56.6	75.8	+3.8
25–29	25.7	14.5	6.3	53.5	79.2	+43.6
30–34	31.3	8.9	10.9	48.9	80.3	+73.0
35–39	35.1	5.1	16.6	43.2	78.3	+58.6
40–44	38.0	2.2	23.1	36.7	74.7	+42.6
45–49	39.0	1.2	30.5	29.3	68.3	+24.2
50–54	39.7	0.5	37.9	21.9	61.6	+5.7
55–59	40.0	0.2	43.9	15.9	55.9	–9.2
60–64	40.1	0.0	48.4	11.4	51.5	–20.5
65–69	40.2	0.0	51.6	8.2	48.4	–28.3
70–74	40.2	0.0	54.1	5.7	45.9	–34.6
75–79	40.2	0.0	56.4	3.4	43.6	–40.2
80–84	40.2	0.0	58.3	1.5	41.7	–45.1
85–89	40.2	0.0	59.4	0.4	40.6	–47.9
90–94	40.2	0.0	59.8	0.0	40.2	–48.7
95–100	40.2	0.0	59.8	0.0	40.2	–48.8

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

Figure 14 (National 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

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	0.4	96.3	0.9	26.2:1
5–9	2.4	96.1	5.8	24.3:1
10–14	7.4	91.7	16.8	11.1:1
15–19	14.5	89.9	32.5	8.9:1
20–24	22.5	85.7	47.9	6.0:1
25–29	32.0	80.2	63.9	4.1:1
30–34	42.2	74.2	77.9	2.9:1
35–39	51.7	67.8	87.3	2.1:1
40–44	61.1	62.2	94.4	1.6:1
45–49	69.5	56.1	97.1	1.3:1
50–54	77.6	51.1	98.7	1.0:1
55–59	83.9	47.7	99.5	0.9:1
60–64	88.6	45.3	99.9	0.8:1
65–69	91.8	43.8	100.0	0.8:1
70–74	94.3	42.6	100.0	0.7:1
75–79	96.6	41.6	100.0	0.7:1
80–84	98.5	40.8	100.0	0.7:1
85–89	99.6	40.3	100.0	0.7:1
90–94	100.0	40.2	100.0	0.7:1
95–100	100.0	40.2	100.0	0.7:1

150% of the National Poverty Line

2007 Scorecard Applied to the Entire Non-Panel 2006 ENAHO

Figure 7 (150% of national line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	+0.0	0.0	0.0	0.0
5–9	+0.0	0.0	0.0	0.0
10–14	+0.6	0.8	1.0	1.2
15–19	–1.5	1.1	1.2	1.3
20–24	+0.9	1.0	1.2	1.5
25–29	–2.2	1.6	1.7	1.9
30–34	–2.3	1.9	1.9	2.2
35–39	–0.4	2.0	2.5	3.2
40–44	–4.9	3.7	3.8	4.0
45–49	+0.4	2.6	3.1	3.8
50–54	–9.2	6.0	6.3	6.8
55–59	–8.4	5.5	6.0	6.6
60–64	–8.6	5.8	6.3	6.7
65–69	–4.0	3.8	4.1	5.6
70–74	+0.4	1.6	1.9	2.8
75–79	+1.3	0.4	0.5	0.6
80–84	+2.7	0.4	0.5	0.6
85–89	–0.2	0.3	0.4	0.5
90–94	+0.0	0.0	0.0	0.0
95–100	+0.0	0.0	0.0	0.0

Figure 9 (150% of national line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

Sample Size	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	–0.2	68.0	80.9	90.8
4	–2.7	36.3	44.5	58.1
8	–2.7	24.6	31.0	40.7
16	–2.8	17.9	22.2	27.6
32	–2.5	12.8	14.6	20.8
64	–2.6	8.8	10.1	13.1
128	–2.6	6.4	8.2	9.5
256	–2.5	4.6	5.4	7.0
512	–2.7	3.3	4.1	5.1
1,024	–2.7	2.5	2.9	3.5
2,048	–2.7	1.7	2.0	2.5
4,096	–2.6	1.2	1.4	1.9
8,192	–2.6	0.8	0.9	1.3
16,384	–2.7	0.6	0.7	0.9

Figure 13 (150% of national line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

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	0.4	63.2	0.0	36.5	36.8	–98.8
5–9	2.4	61.1	0.0	36.5	38.9	–92.4
10–14	7.3	56.3	0.1	36.4	43.6	–77.0
15–19	14.3	49.2	0.2	36.2	50.5	–54.7
20–24	21.9	41.6	0.6	35.9	57.8	–30.1
25–29	30.8	32.8	1.3	35.2	65.9	–1.2
30–34	39.5	24.0	2.7	33.8	73.3	+28.6
35–39	46.8	16.7	4.9	31.6	78.3	+55.0
40–44	53.0	10.5	8.0	28.4	81.4	+79.5
45–49	57.3	6.2	12.2	24.3	81.6	+80.8
50–54	60.3	3.3	17.3	19.1	79.4	+72.8
55–59	62.0	1.5	21.9	14.6	76.6	+65.6
60–64	63.0	0.5	25.6	10.9	73.9	+59.7
65–69	63.3	0.2	28.4	8.0	71.4	+55.2
70–74	63.5	0.1	30.8	5.6	69.1	+51.5
75–79	63.5	0.0	33.1	3.4	66.9	+48.0
80–84	63.5	0.0	35.0	1.5	65.0	+44.9
85–89	63.5	0.0	36.1	0.4	63.9	+43.2
90–94	63.5	0.0	36.4	0.0	63.6	+42.7
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 14 (150% of national 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

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	0.4	100.0	0.6	Only poor targeted
5–9	2.4	100.0	3.8	Only poor targeted
10–14	7.4	98.7	11.4	77.6:1
15–19	14.5	98.5	22.5	67.4:1
20–24	22.5	97.5	34.5	39.3:1
25–29	32.0	96.0	48.4	23.9:1
30–34	42.2	93.7	62.2	14.8:1
35–39	51.7	90.5	73.6	9.5:1
40–44	61.1	86.8	83.4	6.6:1
45–49	69.5	82.5	90.2	4.7:1
50–54	77.6	77.7	94.8	3.5:1
55–59	83.9	73.9	97.6	2.8:1
60–64	88.6	71.1	99.1	2.5:1
65–69	91.8	69.0	99.7	2.2:1
70–74	94.3	67.3	99.9	2.1:1
75–79	96.6	65.8	100.0	1.9:1
80–84	98.5	64.5	100.0	1.8:1
85–89	99.6	63.8	100.0	1.8:1
90–94	100.0	63.6	100.0	1.7:1
95–100	100.0	63.5	100.0	1.7:1

200% of the National Poverty Line

2007 Scorecard Applied to the Entire Non-Panel 2006 ENAHO

Figure 7 (200% of national line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	+0.0	0.0	0.0	0.0
5–9	+0.0	0.0	0.0	0.0
10–14	+0.2	0.5	0.6	0.7
15–19	–0.6	0.3	0.3	0.3
20–24	+0.4	0.4	0.4	0.6
25–29	+0.7	0.8	0.9	1.2
30–34	–3.4	2.0	2.1	2.2
35–39	+0.3	1.4	1.6	2.2
40–44	–5.0	3.1	3.2	3.4
45–49	+0.9	2.1	2.5	3.0
50–54	–8.6	5.6	5.8	6.2
55–59	–7.1	5.1	5.4	5.9
60–64	–7.9	5.9	6.3	7.1
65–69	–1.4	4.4	4.9	7.6
70–74	+1.7	3.4	3.9	5.1
75–79	+6.4	1.8	2.2	2.6
80–84	–0.7	3.1	3.7	4.8
85–89	–0.9	0.8	0.9	1.1
90–94	–5.0	4.7	5.6	7.3
95–100	+0.0	0.0	0.0	0.0

Figure 9 (200% of national line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

Sample Size	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	–2.6	55.7	65.3	91.6
4	–2.8	31.0	40.4	57.2
8	–2.6	22.9	27.9	39.0
16	–2.7	15.6	18.8	24.6
32	–2.3	11.2	13.2	16.9
64	–2.1	7.4	9.1	12.3
128	–2.1	5.6	6.8	8.7
256	–2.1	3.9	4.8	6.5
512	–2.1	2.7	3.4	4.5
1,024	–2.1	1.9	2.4	3.2
2,048	–2.1	1.4	1.7	2.3
4,096	–2.1	1.0	1.3	1.6
8,192	–2.1	0.7	0.8	1.1
16,384	–2.1	0.5	0.6	0.7

Figure 13 (200% of national line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

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	0.4	77.0	0.0	22.6	23.0	–99.0
5–9	2.4	75.0	0.0	22.6	25.0	–93.8
10–14	7.3	70.1	0.0	22.5	29.9	–81.1
15–19	14.5	63.0	0.0	22.5	37.0	–62.6
20–24	22.4	55.1	0.1	22.5	44.8	–42.1
25–29	31.7	45.7	0.3	22.3	54.0	–17.7
30–34	41.5	35.9	0.7	21.9	63.5	+8.2
35–39	50.1	27.3	1.6	21.0	71.1	+31.5
40–44	58.3	19.1	2.7	19.8	78.2	+54.2
45–49	64.7	12.7	4.8	17.8	82.6	+73.4
50–54	70.1	7.3	7.4	15.2	85.3	+90.4
55–59	73.5	3.9	10.4	12.2	85.7	+86.6
60–64	75.6	1.8	13.0	9.6	85.3	+83.3
65–69	76.6	0.9	15.2	7.4	83.9	+80.4
70–74	77.0	0.4	17.3	5.3	82.3	+77.7
75–79	77.2	0.2	19.4	3.2	80.4	+75.0
80–84	77.4	0.0	21.1	1.4	78.8	+72.7
85–89	77.4	0.0	22.2	0.3	77.7	+71.3
90–94	77.4	0.0	22.6	0.0	77.4	+70.9
95–100	77.4	0.0	22.6	0.0	77.4	+70.8

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

Figure 14 (200% of national 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

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	0.4	100.0	0.5	Only poor targeted
5–9	2.4	100.0	3.1	Only poor targeted
10–14	7.4	99.5	9.4	189.0:1
15–19	14.5	99.7	18.7	298.1:1
20–24	22.5	99.5	28.9	190.9:1
25–29	32.0	99.0	41.0	99.2:1
30–34	42.2	98.4	53.7	63.5:1
35–39	51.7	97.0	64.8	31.9:1
40–44	61.1	95.5	75.3	21.3:1
45–49	69.5	93.2	83.6	13.6:1
50–54	77.6	90.4	90.6	9.4:1
55–59	83.9	87.6	95.0	7.1:1
60–64	88.6	85.4	97.7	5.8:1
65–69	91.8	83.4	98.9	5.0:1
70–74	94.3	81.7	99.5	4.5:1
75–79	96.6	79.9	99.7	4.0:1
80–84	98.5	78.5	99.9	3.7:1
85–89	99.6	77.7	100.0	3.5:1
90–94	100.0	77.4	100.0	3.4:1
95–100	100.0	77.4	100.0	3.4:1

Food Poverty Line

2007 Scorecard Applied to the Entire Non-Panel 2006 ENAHO

Figure 7 (Food line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	–25.6	16.3	17.1	18.0
5–9	–13.8	9.5	9.8	10.5
10–14	+8.8	3.1	3.8	5.0
15–19	–2.7	2.5	3.1	4.5
20–24	+5.8	2.3	2.7	3.3
25–29	–0.1	1.9	2.2	2.8
30–34	–3.9	2.7	2.9	3.2
35–39	–1.5	1.3	1.4	1.7
40–44	–0.5	0.7	0.8	1.1
45–49	–0.3	0.3	0.4	0.5
50–54	–1.0	0.9	0.9	1.1
55–59	+0.0	0.0	0.0	0.0
60–64	+0.1	0.0	0.0	0.0
65–69	–0.3	0.3	0.4	0.5
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 9 (Food line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

Sample Size	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	+0.0	50.0	62.8	76.2
4	–0.3	25.4	34.6	45.9
8	–0.6	17.8	21.5	27.7
16	–0.8	11.9	14.9	18.3
32	–0.3	8.0	10.1	14.2
64	–0.4	6.0	7.1	8.9
128	–0.4	4.3	5.4	7.2
256	–0.3	3.1	3.7	4.8
512	–0.3	2.2	2.8	3.6
1,024	–0.4	1.6	1.9	2.6
2,048	–0.4	1.1	1.4	1.6
4,096	–0.4	0.7	0.9	1.2
8,192	–0.4	0.5	0.6	0.8
16,384	–0.4	0.4	0.4	0.5

Figure 13 (Food line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

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	0.3	14.6	0.0	85.0	85.4	–95.2
5–9	1.8	13.1	0.6	84.5	86.3	–71.7
10–14	4.6	10.3	2.7	82.3	87.0	–19.8
15–19	8.0	6.9	6.5	78.6	86.6	+50.9
20–24	10.3	4.6	12.1	72.9	83.3	+18.7
25–29	12.3	2.7	19.8	65.3	77.6	–32.4
30–34	13.9	1.1	28.3	56.7	70.6	–89.6
35–39	14.5	0.5	37.2	47.9	62.3	–149.2
40–44	14.8	0.1	46.2	38.8	53.7	–209.5
45–49	14.9	0.1	54.6	30.4	45.3	–265.7
50–54	14.9	0.0	62.6	22.4	37.4	–319.4
55–59	14.9	0.0	69.0	16.1	31.0	–361.8
60–64	14.9	0.0	73.7	11.4	26.3	–393.1
65–69	14.9	0.0	76.8	8.2	23.2	–414.4
70–74	14.9	0.0	79.4	5.7	20.6	–431.3
75–79	14.9	0.0	81.6	3.4	18.4	–446.5
80–84	14.9	0.0	83.6	1.5	16.4	–459.6
85–89	14.9	0.0	84.7	0.4	15.3	–467.1
90–94	14.9	0.0	85.0	0.0	15.0	–469.3
95–100	14.9	0.0	85.1	0.0	14.9	–469.5

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

Figure 14 (Food 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

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	0.4	88.1	2.2	7.4:1
5–9	2.4	75.7	12.2	3.1:1
10–14	7.4	62.9	31.0	1.7:1
15–19	14.5	55.3	53.7	1.2:1
20–24	22.5	46.0	69.2	0.9:1
25–29	32.0	38.3	82.1	0.6:1
30–34	42.2	32.9	92.9	0.5:1
35–39	51.7	28.0	97.0	0.4:1
40–44	61.1	24.3	99.2	0.3:1
45–49	69.5	21.4	99.6	0.3:1
50–54	77.6	19.2	99.9	0.2:1
55–59	83.9	17.8	99.9	0.2:1
60–64	88.6	16.9	99.9	0.2:1
65–69	91.8	16.3	100.0	0.2:1
70–74	94.3	15.8	100.0	0.2:1
75–79	96.6	15.5	100.0	0.2:1
80–84	98.5	15.2	100.0	0.2:1
85–89	99.6	15.0	100.0	0.2:1
90–94	100.0	14.9	100.0	0.2:1
95–100	100.0	14.9	100.0	0.2:1

USAID "Extreme" Poverty Line

2007 Scorecard Applied to the Entire Non-Panel 2006 ENAHO

Figure 7 (USAID "extreme" line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	–8.8	8.1	9.5	11.8
5–9	–10.8	7.8	8.3	8.7
10–14	+6.5	3.3	3.9	5.3
15–19	–1.1	2.8	3.5	4.7
20–24	+1.0	2.7	3.2	4.3
25–29	–0.8	2.3	2.7	3.3
30–34	–4.6	3.3	3.5	4.1
35–39	+4.3	1.6	1.9	2.5
40–44	–1.3	1.4	1.7	2.4
45–49	+0.7	0.8	0.9	1.2
50–54	+0.2	0.6	0.7	0.9
55–59	–1.0	1.5	1.8	2.2
60–64	+0.5	0.3	0.4	0.5
65–69	–0.3	0.3	0.4	0.5
70–74	–0.0	0.1	0.1	0.1
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 9 (USAID "extreme" line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

Sample Size	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	–0.2	61.4	65.6	78.2
4	–0.0	32.5	37.5	47.8
8	–0.1	20.9	24.0	29.4
16	–0.2	14.1	17.2	21.0
32	–0.2	10.7	12.1	15.3
64	+0.1	7.0	8.5	11.6
128	–0.1	5.0	6.2	8.7
256	–0.0	3.6	4.3	5.6
512	–0.1	2.7	3.1	4.0
1,024	–0.2	1.9	2.3	2.9
2,048	–0.1	1.4	1.6	2.0
4,096	–0.1	0.9	1.1	1.4
8,192	–0.2	0.6	0.8	1.1
16,384	–0.2	0.5	0.6	0.8

Figure 13 (USAID "extreme" line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

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	0.3	18.0	0.1	81.6	81.9	–96.2
5–9	1.7	16.6	0.7	81.0	82.7	–77.4
10–14	4.6	13.7	2.7	78.9	83.5	–34.8
15–19	8.4	10.0	6.1	75.5	83.9	+24.7
20–24	11.2	7.2	11.3	70.3	81.5	+38.3
25–29	13.8	4.5	18.2	63.4	77.2	+0.6
30–34	16.0	2.4	26.2	55.4	71.4	–42.8
35–39	17.0	1.3	34.7	47.0	64.0	–89.0
40–44	17.8	0.5	43.2	38.4	56.3	–135.6
45–49	18.1	0.2	51.4	30.3	48.4	–180.1
50–54	18.3	0.1	59.3	22.4	40.6	–223.2
55–59	18.3	0.0	65.6	16.1	34.4	–257.5
60–64	18.3	0.0	70.2	11.4	29.7	–282.8
65–69	18.3	0.0	73.4	8.2	26.6	–300.2
70–74	18.3	0.0	75.9	5.7	24.1	–313.9
75–79	18.3	0.0	78.2	3.4	21.8	–326.3
80–84	18.3	0.0	80.2	1.5	19.8	–336.9
85–89	18.3	0.0	81.3	0.4	18.7	–343.0
90–94	18.3	0.0	81.6	0.0	18.4	–344.9
95–100	18.3	0.0	81.7	0.0	18.3	–345.0

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

Figure 14 (USAID "extreme" 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

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	0.4	82.8	1.7	4.8:1
5–9	2.4	72.0	9.5	2.6:1
10–14	7.4	62.7	25.1	1.7:1
15–19	14.5	57.7	45.6	1.4:1
20–24	22.5	49.7	60.8	1.0:1
25–29	32.0	43.1	75.2	0.8:1
30–34	42.2	37.9	87.1	0.6:1
35–39	51.7	32.9	92.8	0.5:1
40–44	61.1	29.2	97.2	0.4:1
45–49	69.5	26.0	98.7	0.4:1
50–54	77.6	23.5	99.5	0.3:1
55–59	83.9	21.8	99.8	0.3:1
60–64	88.6	20.7	99.9	0.3:1
65–69	91.8	20.0	100.0	0.2:1
70–74	94.3	19.5	100.0	0.2:1
75–79	96.6	19.0	100.0	0.2:1
80–84	98.5	18.6	100.0	0.2:1
85–89	99.6	18.4	100.0	0.2:1
90–94	100.0	18.4	100.0	0.2:1
95–100	100.0	18.3	100.0	0.2:1

USD1.25/Day 2005 PPP Poverty Line

2007 Scorecard Applied to the Entire Non-Panel 2006 ENAHO

Figure 7 (USD1.25/day 2005 PPP line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	–10.4	10.2	11.5	15.4
5–9	–5.9	5.2	5.5	6.1
10–14	+3.6	1.2	1.6	1.9
15–19	–0.7	1.5	1.8	2.4
20–24	+0.5	0.3	0.4	0.4
25–29	+0.8	0.3	0.4	0.5
30–34	–0.0	0.2	0.2	0.3
35–39	–0.1	0.1	0.1	0.1
40–44	–0.2	0.2	0.2	0.3
45–49	+0.0	0.0	0.0	0.0
50–54	+0.0	0.0	0.0	0.0
55–59	+0.0	0.0	0.0	0.0
60–64	+0.0	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	+0.0	0.0	0.0	0.0

Figure 9 (USD1.25/day 2005 PPP line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

Sample Size	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	–0.2	4.0	4.2	50.2
4	+0.2	5.3	10.3	16.9
8	–0.0	4.8	6.8	14.6
16	+0.0	3.3	4.8	9.3
32	–0.1	3.5	4.4	6.2
64	–0.0	2.2	2.6	3.8
128	+0.0	1.5	1.8	2.7
256	–0.0	1.1	1.4	1.9
512	+0.0	0.8	0.9	1.3
1,024	+0.0	0.6	0.6	0.8
2,048	+0.0	0.4	0.4	0.6
4,096	+0.0	0.3	0.3	0.4
8,192	+0.0	0.2	0.2	0.3
16,384	+0.0	0.1	0.2	0.2

Figure 13 (USD1.25/day 2005 PPP line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

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	0.1	1.2	0.3	98.4	98.5	–63.6
5–9	0.4	1.0	2.0	96.6	97.0	–51.8
10–14	0.7	0.7	6.7	92.0	92.6	–400.2
15–19	0.9	0.4	13.6	85.1	86.0	–914.5
20–24	1.1	0.3	21.4	77.3	78.4	–1,498.6
25–29	1.2	0.1	30.8	67.8	69.0	–2,203.7
30–34	1.3	0.1	40.9	57.7	59.0	–2,957.8
35–39	1.3	0.0	50.4	48.3	49.5	–3,666.7
40–44	1.3	0.0	59.7	38.9	40.3	–4,362.1
45–49	1.3	0.0	68.2	30.5	31.8	–4,993.6
50–54	1.3	0.0	76.2	22.4	23.8	–5,595.9
55–59	1.3	0.0	82.6	16.1	17.4	–6,069.2
60–64	1.3	0.0	87.2	11.4	12.8	–6,419.0
65–69	1.3	0.0	90.4	8.2	9.6	–6,657.3
70–74	1.3	0.0	93.0	5.7	7.0	–6,846.1
75–79	1.3	0.0	95.2	3.4	4.8	–7,015.7
80–84	1.3	0.0	97.2	1.5	2.8	–7,161.4
85–89	1.3	0.0	98.3	0.4	1.7	–7,245.4
90–94	1.3	0.0	98.6	0.0	1.4	–7,270.3
95–100	1.3	0.0	98.7	0.0	1.3	–7,272.5

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

Figure 14 (USD1.25/day 2005 PPP 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

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	0.4	28.4	8.1	0.4:1
5–9	2.4	15.7	28.2	0.2:1
10–14	7.4	9.0	49.2	0.1:1
15–19	14.5	6.4	69.7	0.1:1
20–24	22.5	4.8	81.3	0.1:1
25–29	32.0	3.8	90.1	0.0:1
30–34	42.2	3.0	95.0	0.0:1
35–39	51.7	2.5	96.5	0.0:1
40–44	61.1	2.2	100.0	0.0:1
45–49	69.5	1.9	100.0	0.0:1
50–54	77.6	1.7	100.0	0.0:1
55–59	83.9	1.6	100.0	0.0:1
60–64	88.6	1.5	100.0	0.0:1
65–69	91.8	1.5	100.0	0.0:1
70–74	94.3	1.4	100.0	0.0:1
75–79	96.6	1.4	100.0	0.0:1
80–84	98.5	1.4	100.0	0.0:1
85–89	99.6	1.3	100.0	0.0:1
90–94	100.0	1.3	100.0	0.0:1
95–100	100.0	1.3	100.0	0.0:1

USD2.50/Day 2005 PPP Poverty Line

2007 Scorecard Applied to the Entire Non-Panel 2006 ENAHO

Figure 7 (USD2.50/day 2005 PPP line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	–15.8	12.3	13.2	14.1
5–9	–10.1	7.6	8.2	9.1
10–14	+5.3	3.3	4.0	5.2
15–19	–4.8	3.8	4.0	4.6
20–24	+5.4	2.3	2.6	3.3
25–29	–2.7	2.5	2.6	3.0
30–34	–4.4	3.0	3.2	3.6
35–39	–1.9	1.5	1.6	1.9
40–44	–0.7	0.8	0.9	1.3
45–49	–0.4	0.4	0.5	0.6
50–54	–1.1	0.9	1.0	1.2
55–59	+0.0	0.0	0.0	0.0
60–64	+0.1	0.0	0.0	0.0
65–69	–0.3	0.3	0.4	0.5
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 9 (USD2.50/day 2005 PPP line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

Sample Size	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	–0.8	52.5	61.1	76.3
4	–1.3	25.7	32.7	46.4
8	–1.3	18.3	22.3	29.0
16	–1.3	13.2	15.7	21.5
32	–0.8	8.1	10.1	12.7
64	–0.8	5.9	7.0	9.0
128	–0.9	4.1	5.2	6.8
256	–0.9	3.1	3.7	5.1
512	–0.9	2.2	2.6	3.5
1,024	–0.9	1.6	2.0	2.8
2,048	–0.9	1.1	1.3	1.7
4,096	–0.9	0.8	1.0	1.2
8,192	–0.9	0.6	0.7	0.9
16,384	–0.9	0.4	0.5	0.6

Figure 13 (USD2.50/day 2005 PPP line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

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	0.3	12.8	0.1	86.8	87.1	–94.8
5–9	1.6	11.5	0.8	86.1	87.7	–69.2
10–14	4.1	9.0	3.2	83.7	87.8	–12.2
15–19	7.1	6.0	7.4	79.5	86.6	+43.4
20–24	9.0	4.1	13.5	73.5	82.5	–2.9
25–29	10.7	2.4	21.3	65.6	76.3	–63.1
30–34	12.0	1.0	30.2	56.8	68.8	–130.5
35–39	12.6	0.5	39.1	47.8	60.5	–198.8
40–44	13.0	0.1	48.1	38.8	51.8	–267.7
45–49	13.0	0.1	56.5	30.4	43.5	–331.8
50–54	13.1	0.0	64.5	22.4	35.5	–393.1
55–59	13.1	0.0	70.8	16.1	29.2	–441.5
60–64	13.1	0.0	75.5	11.4	24.5	–477.3
65–69	13.1	0.0	78.7	8.2	21.3	–501.6
70–74	13.1	0.0	81.2	5.7	18.8	–520.9
75–79	13.1	0.0	83.5	3.4	16.5	–538.2
80–84	13.1	0.0	85.4	1.5	14.6	–553.1
85–89	13.1	0.0	86.6	0.4	13.4	–561.7
90–94	13.1	0.0	86.9	0.0	13.1	–564.3
95–100	13.1	0.0	86.9	0.0	13.1	–564.5

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

Figure 14 (USD2.50/day 2005 PPP 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

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	0.4	78.5	2.3	3.7:1
5–9	2.4	67.2	12.4	2.1:1
10–14	7.4	56.1	31.5	1.3:1
15–19	14.5	49.0	54.3	1.0:1
20–24	22.5	40.1	68.9	0.7:1
25–29	32.0	33.4	81.9	0.5:1
30–34	42.2	28.5	92.0	0.4:1
35–39	51.7	24.4	96.5	0.3:1
40–44	61.1	21.2	99.0	0.3:1
45–49	69.5	18.7	99.5	0.2:1
50–54	77.6	16.9	99.9	0.2:1
55–59	83.9	15.6	99.9	0.2:1
60–64	88.6	14.8	99.9	0.2:1
65–69	91.8	14.3	100.0	0.2:1
70–74	94.3	13.9	100.0	0.2:1
75–79	96.6	13.5	100.0	0.2:1
80–84	98.5	13.3	100.0	0.2:1
85–89	99.6	13.1	100.0	0.2:1
90–94	100.0	13.1	100.0	0.2:1
95–100	100.0	13.1	100.0	0.2:1

USD3.75/Day 2005 PPP Poverty Line

2007 Scorecard Applied to the Entire Non-Panel 2006 ENAHO

Figure 7 (USD3.75/day 2005 PPP line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	+6.7	5.7	6.3	8.3
5–9	–4.3	3.2	3.4	3.6
10–14	+1.8	2.3	2.8	3.9
15–19	–9.0	5.6	5.7	6.1
20–24	–1.2	2.5	2.9	4.7
25–29	–6.6	4.5	4.8	5.2
30–34	–6.3	4.3	4.5	5.0
35–39	+1.7	2.1	2.4	2.9
40–44	–6.9	4.5	4.7	5.2
45–49	+0.0	1.5	1.8	2.3
50–54	–1.6	1.5	1.6	1.9
55–59	–4.2	3.1	3.3	4.1
60–64	+0.5	0.4	0.4	0.5
65–69	–0.3	0.3	0.4	0.5
70–74	–0.2	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	+0.0	0.0	0.0	0.0

Figure 9 (USD3.75/day 2005 PPP line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

Sample Size	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	–0.7	63.1	74.3	85.0
4	–2.5	33.9	41.1	51.8
8	–2.1	23.6	28.0	39.2
16	–3.0	16.6	19.7	27.0
32	–2.6	11.9	14.0	19.0
64	–2.3	8.3	9.8	12.4
128	–2.4	6.3	7.2	9.2
256	–2.5	4.4	5.1	6.3
512	–2.5	3.1	3.8	5.2
1,024	–2.7	2.3	2.6	3.4
2,048	–2.6	1.5	1.8	2.3
4,096	–2.6	1.0	1.2	1.7
8,192	–2.6	0.7	0.9	1.1
16,384	–2.6	0.5	0.6	0.9

Figure 13 (USD3.75/day 2005 PPP line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

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	0.4	30.7	0.0	68.9	69.2	–97.6
5–9	2.2	28.9	0.2	68.7	70.9	–85.1
10–14	6.2	24.9	1.1	67.8	74.0	–56.4
15–19	11.9	19.2	2.6	66.3	78.2	–15.0
20–24	16.9	14.2	5.6	63.3	80.3	+26.7
25–29	22.0	9.1	10.0	58.9	80.8	+67.7
30–34	26.1	5.1	16.1	52.8	78.8	+48.1
35–39	28.3	2.9	23.4	45.4	73.7	+24.6
40–44	29.9	1.2	31.1	37.8	67.7	–0.1
45–49	30.5	0.6	39.0	29.9	60.4	–25.4
50–54	30.9	0.2	46.7	22.2	53.0	–50.2
55–59	31.1	0.0	52.8	16.1	47.1	–69.9
60–64	31.1	0.0	57.5	11.4	42.5	–84.9
65–69	31.1	0.0	60.7	8.2	39.3	–95.1
70–74	31.1	0.0	63.2	5.7	36.8	–103.2
75–79	31.1	0.0	65.5	3.4	34.5	–110.5
80–84	31.1	0.0	67.4	1.5	32.6	–116.7
85–89	31.1	0.0	68.5	0.4	31.5	–120.3
90–94	31.1	0.0	68.9	0.0	31.1	–121.4
95–100	31.1	0.0	68.9	0.0	31.1	–121.5

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

Figure 14 (USD3.75/day 2005 PPP 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the entire non-panel 2006 ENAHO

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	0.4	94.4	1.2	16.8:1
5–9	2.4	92.0	7.1	11.5:1
10–14	7.4	84.6	20.0	5.5:1
15–19	14.5	82.1	38.3	4.6:1
20–24	22.5	75.3	54.4	3.0:1
25–29	32.0	68.7	70.7	2.2:1
30–34	42.2	61.7	83.8	1.6:1
35–39	51.7	54.6	90.8	1.2:1
40–44	61.1	49.0	96.2	1.0:1
45–49	69.5	43.9	98.1	0.8:1
50–54	77.6	39.8	99.2	0.7:1
55–59	83.9	37.0	99.8	0.6:1
60–64	88.6	35.1	99.9	0.5:1
65–69	91.8	33.9	100.0	0.5:1
70–74	94.3	33.0	100.0	0.5:1
75–79	96.6	32.2	100.0	0.5:1
80–84	98.5	31.6	100.0	0.5:1
85–89	99.6	31.2	100.0	0.5:1
90–94	100.0	31.1	100.0	0.5:1
95–100	100.0	31.1	100.0	0.5:1

National Poverty Line

2007 Scorecard Applied to the Entire Non-Panel 2005 ENAHO

Figure 7 (National line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	+5.2	5.6	6.0	7.7
5–9	–0.7	1.4	1.8	2.3
10–14	–0.1	1.8	2.1	3.4
15–19	–3.0	2.4	2.5	2.7
20–24	–3.4	2.7	2.9	3.2
25–29	–5.4	3.8	4.1	4.5
30–34	–6.5	4.5	4.6	5.3
35–39	–4.7	3.6	3.8	4.2
40–44	–10.5	6.7	6.8	7.1
45–49	+3.7	1.8	2.3	3.1
50–54	–1.1	1.6	1.8	2.5
55–59	–3.7	2.9	3.1	3.6
60–64	–2.5	1.9	2.1	2.6
65–69	–1.0	0.9	1.0	1.2
70–74	+1.0	0.3	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	+0.0	0.0	0.0	0.0

Figure 9 (National line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

Sample Size	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	+0.8	63.5	76.6	86.7
4	–2.5	34.7	42.4	56.1
8	–2.0	23.4	29.0	42.3
16	–2.9	16.5	19.8	26.2
32	–2.8	12.7	15.2	18.9
64	–2.8	8.7	11.0	13.7
128	–2.9	6.1	7.6	10.2
256	–2.8	4.4	5.4	7.1
512	–2.9	3.0	3.6	4.6
1,024	–3.0	2.3	2.7	3.4
2,048	–3.0	1.6	1.9	2.7
4,096	–3.0	1.1	1.4	1.9
8,192	–3.0	0.7	0.9	1.2
16,384	–3.0	0.5	0.6	0.9

Figure 13 (National line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

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	0.4	39.8	0.0	59.8	60.2	–98.1
5–9	2.3	37.9	0.1	59.7	62.0	–88.2
10–14	6.7	33.5	0.6	59.2	65.9	–64.9
15–19	13.0	27.1	1.5	58.3	71.4	–31.4
20–24	19.3	20.9	3.2	56.6	75.8	+3.8
25–29	25.7	14.5	6.3	53.5	79.2	+43.6
30–34	31.3	8.9	10.9	48.9	80.3	+73.0
35–39	35.1	5.1	16.6	43.2	78.3	+58.6
40–44	38.0	2.2	23.1	36.7	74.7	+42.6
45–49	39.0	1.2	30.5	29.3	68.3	+24.2
50–54	39.7	0.5	37.9	21.9	61.6	+5.7
55–59	40.0	0.2	43.9	15.9	55.9	–9.2
60–64	40.1	0.0	48.4	11.4	51.5	–20.5
65–69	40.2	0.0	51.6	8.2	48.4	–28.3
70–74	40.2	0.0	54.1	5.7	45.9	–34.6
75–79	40.2	0.0	56.4	3.4	43.6	–40.2
80–84	40.2	0.0	58.3	1.5	41.7	–45.1
85–89	40.2	0.0	59.4	0.4	40.6	–47.9
90–94	40.2	0.0	59.8	0.0	40.2	–48.7
95–100	40.2	0.0	59.8	0.0	40.2	–48.8

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

Figure 14 (National 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

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	0.4	96.3	0.9	26.2:1
5–9	2.4	96.1	5.8	24.3:1
10–14	7.4	91.7	16.8	11.1:1
15–19	14.5	89.9	32.5	8.9:1
20–24	22.5	85.7	47.9	6.0:1
25–29	32.0	80.2	63.9	4.1:1
30–34	42.2	74.2	77.9	2.9:1
35–39	51.7	67.8	87.3	2.1:1
40–44	61.1	62.2	94.4	1.6:1
45–49	69.5	56.1	97.1	1.3:1
50–54	77.6	51.1	98.7	1.0:1
55–59	83.9	47.7	99.5	0.9:1
60–64	88.6	45.3	99.9	0.8:1
65–69	91.8	43.8	100.0	0.8:1
70–74	94.3	42.6	100.0	0.7:1
75–79	96.6	41.6	100.0	0.7:1
80–84	98.5	40.8	100.0	0.7:1
85–89	99.6	40.3	100.0	0.7:1
90–94	100.0	40.2	100.0	0.7:1
95–100	100.0	40.2	100.0	0.7:1

150% of the National Poverty Line

2007 Scorecard Applied to the Entire Non-Panel 2005 ENAHO

Figure 7 (150% of national line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	+0.0	0.0	0.0	0.0
5–9	+0.0	0.0	0.0	0.0
10–14	+0.6	0.8	1.0	1.2
15–19	–1.5	1.1	1.2	1.3
20–24	+0.9	1.0	1.2	1.5
25–29	–2.2	1.6	1.7	1.9
30–34	–2.3	1.9	1.9	2.2
35–39	–0.4	2.0	2.5	3.2
40–44	–4.9	3.7	3.8	4.0
45–49	+0.4	2.6	3.1	3.8
50–54	–9.2	6.0	6.3	6.8
55–59	–8.4	5.5	6.0	6.6
60–64	–8.6	5.8	6.3	6.7
65–69	–4.0	3.8	4.1	5.6
70–74	+0.4	1.6	1.9	2.8
75–79	+1.3	0.4	0.5	0.6
80–84	+2.7	0.4	0.5	0.6
85–89	–0.2	0.3	0.4	0.5
90–94	+0.0	0.0	0.0	0.0
95–100	+0.0	0.0	0.0	0.0

Figure 9 (150% of national line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

Sample Size	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	–0.2	68.0	80.9	90.8
4	–2.7	36.3	44.5	58.1
8	–2.7	24.6	31.0	40.7
16	–2.8	17.9	22.2	27.6
32	–2.5	12.8	14.6	20.8
64	–2.6	8.8	10.1	13.1
128	–2.6	6.4	8.2	9.5
256	–2.5	4.6	5.4	7.0
512	–2.7	3.3	4.1	5.1
1,024	–2.7	2.5	2.9	3.5
2,048	–2.7	1.7	2.0	2.5
4,096	–2.6	1.2	1.4	1.9
8,192	–2.6	0.8	0.9	1.3
16,384	–2.7	0.6	0.7	0.9

Figure 13 (150% of national line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

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	0.4	63.2	0.0	36.5	36.8	–98.8
5–9	2.4	61.1	0.0	36.5	38.9	–92.4
10–14	7.3	56.3	0.1	36.4	43.6	–77.0
15–19	14.3	49.2	0.2	36.2	50.5	–54.7
20–24	21.9	41.6	0.6	35.9	57.8	–30.1
25–29	30.8	32.8	1.3	35.2	65.9	–1.2
30–34	39.5	24.0	2.7	33.8	73.3	+28.6
35–39	46.8	16.7	4.9	31.6	78.3	+55.0
40–44	53.0	10.5	8.0	28.4	81.4	+79.5
45–49	57.3	6.2	12.2	24.3	81.6	+80.8
50–54	60.3	3.3	17.3	19.1	79.4	+72.8
55–59	62.0	1.5	21.9	14.6	76.6	+65.6
60–64	63.0	0.5	25.6	10.9	73.9	+59.7
65–69	63.3	0.2	28.4	8.0	71.4	+55.2
70–74	63.5	0.1	30.8	5.6	69.1	+51.5
75–79	63.5	0.0	33.1	3.4	66.9	+48.0
80–84	63.5	0.0	35.0	1.5	65.0	+44.9
85–89	63.5	0.0	36.1	0.4	63.9	+43.2
90–94	63.5	0.0	36.4	0.0	63.6	+42.7
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 14 (150% of national 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

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	0.4	100.0	0.6	Only poor targeted
5–9	2.4	100.0	3.8	Only poor targeted
10–14	7.4	98.7	11.4	77.6:1
15–19	14.5	98.5	22.5	67.4:1
20–24	22.5	97.5	34.5	39.3:1
25–29	32.0	96.0	48.4	23.9:1
30–34	42.2	93.7	62.2	14.8:1
35–39	51.7	90.5	73.6	9.5:1
40–44	61.1	86.8	83.4	6.6:1
45–49	69.5	82.5	90.2	4.7:1
50–54	77.6	77.7	94.8	3.5:1
55–59	83.9	73.9	97.6	2.8:1
60–64	88.6	71.1	99.1	2.5:1
65–69	91.8	69.0	99.7	2.2:1
70–74	94.3	67.3	99.9	2.1:1
75–79	96.6	65.8	100.0	1.9:1
80–84	98.5	64.5	100.0	1.8:1
85–89	99.6	63.8	100.0	1.8:1
90–94	100.0	63.6	100.0	1.7:1
95–100	100.0	63.5	100.0	1.7:1

200% of the National Poverty Line

2007 Scorecard Applied to the Entire Non-Panel 2005 ENAHO

Figure 7 (200% of national line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	+0.0	0.0	0.0	0.0
5–9	+0.0	0.0	0.0	0.0
10–14	+0.2	0.5	0.6	0.7
15–19	–0.6	0.3	0.3	0.3
20–24	+0.4	0.4	0.4	0.6
25–29	+0.7	0.8	0.9	1.2
30–34	–3.4	2.0	2.1	2.2
35–39	+0.3	1.4	1.6	2.2
40–44	–5.0	3.1	3.2	3.4
45–49	+0.9	2.1	2.5	3.0
50–54	–8.6	5.6	5.8	6.2
55–59	–7.1	5.1	5.4	5.9
60–64	–7.9	5.9	6.3	7.1
65–69	–1.4	4.4	4.9	7.6
70–74	+1.7	3.4	3.9	5.1
75–79	+6.4	1.8	2.2	2.6
80–84	–0.7	3.1	3.7	4.8
85–89	–0.9	0.8	0.9	1.1
90–94	–5.0	4.7	5.6	7.3
95–100	+0.0	0.0	0.0	0.0

Figure 9 (200% of national line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

Sample Size	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	–2.6	55.7	65.3	91.6
4	–2.8	31.0	40.4	57.2
8	–2.6	22.9	27.9	39.0
16	–2.7	15.6	18.8	24.6
32	–2.3	11.2	13.2	16.9
64	–2.1	7.4	9.1	12.3
128	–2.1	5.6	6.8	8.7
256	–2.1	3.9	4.8	6.5
512	–2.1	2.7	3.4	4.5
1,024	–2.1	1.9	2.4	3.2
2,048	–2.1	1.4	1.7	2.3
4,096	–2.1	1.0	1.3	1.6
8,192	–2.1	0.7	0.8	1.1
16,384	–2.1	0.5	0.6	0.7

Figure 13 (200% of national line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

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	0.4	77.0	0.0	22.6	23.0	–99.0
5–9	2.4	75.0	0.0	22.6	25.0	–93.8
10–14	7.3	70.1	0.0	22.5	29.9	–81.1
15–19	14.5	63.0	0.0	22.5	37.0	–62.6
20–24	22.4	55.1	0.1	22.5	44.8	–42.1
25–29	31.7	45.7	0.3	22.3	54.0	–17.7
30–34	41.5	35.9	0.7	21.9	63.5	+8.2
35–39	50.1	27.3	1.6	21.0	71.1	+31.5
40–44	58.3	19.1	2.7	19.8	78.2	+54.2
45–49	64.7	12.7	4.8	17.8	82.6	+73.4
50–54	70.1	7.3	7.4	15.2	85.3	+90.4
55–59	73.5	3.9	10.4	12.2	85.7	+86.6
60–64	75.6	1.8	13.0	9.6	85.3	+83.3
65–69	76.6	0.9	15.2	7.4	83.9	+80.4
70–74	77.0	0.4	17.3	5.3	82.3	+77.7
75–79	77.2	0.2	19.4	3.2	80.4	+75.0
80–84	77.4	0.0	21.1	1.4	78.8	+72.7
85–89	77.4	0.0	22.2	0.3	77.7	+71.3
90–94	77.4	0.0	22.6	0.0	77.4	+70.9
95–100	77.4	0.0	22.6	0.0	77.4	+70.8

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

Figure 14 (200% of national 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

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	0.4	100.0	0.5	Only poor targeted
5–9	2.4	100.0	3.1	Only poor targeted
10–14	7.4	99.5	9.4	189.0:1
15–19	14.5	99.7	18.7	298.1:1
20–24	22.5	99.5	28.9	190.9:1
25–29	32.0	99.0	41.0	99.2:1
30–34	42.2	98.4	53.7	63.5:1
35–39	51.7	97.0	64.8	31.9:1
40–44	61.1	95.5	75.3	21.3:1
45–49	69.5	93.2	83.6	13.6:1
50–54	77.6	90.4	90.6	9.4:1
55–59	83.9	87.6	95.0	7.1:1
60–64	88.6	85.4	97.7	5.8:1
65–69	91.8	83.4	98.9	5.0:1
70–74	94.3	81.7	99.5	4.5:1
75–79	96.6	79.9	99.7	4.0:1
80–84	98.5	78.5	99.9	3.7:1
85–89	99.6	77.7	100.0	3.5:1
90–94	100.0	77.4	100.0	3.4:1
95–100	100.0	77.4	100.0	3.4:1

Food Poverty Line

2007 Scorecard Applied to the Entire Non-Panel 2005 ENAHO

Figure 7 (Food line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

	Difference between estimate and true value			
		Confidence interval (+/− percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	–25.6	16.3	17.1	18.0
5–9	–13.8	9.5	9.8	10.5
10–14	+8.8	3.1	3.8	5.0
15–19	–2.7	2.5	3.1	4.5
20–24	+5.8	2.3	2.7	3.3
25–29	–0.1	1.9	2.2	2.8
30–34	–3.9	2.7	2.9	3.2
35–39	–1.5	1.3	1.4	1.7
40–44	–0.5	0.7	0.8	1.1
45–49	–0.3	0.3	0.4	0.5
50–54	–1.0	0.9	0.9	1.1
55–59	+0.0	0.0	0.0	0.0
60–64	+0.1	0.0	0.0	0.0
65–69	–0.3	0.3	0.4	0.5
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 9 (Food line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

Sample Size	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	+0.0	50.0	62.8	76.2
4	–0.3	25.4	34.6	45.9
8	–0.6	17.8	21.5	27.7
16	–0.8	11.9	14.9	18.3
32	–0.3	8.0	10.1	14.2
64	–0.4	6.0	7.1	8.9
128	–0.4	4.3	5.4	7.2
256	–0.3	3.1	3.7	4.8
512	–0.3	2.2	2.8	3.6
1,024	–0.4	1.6	1.9	2.6
2,048	–0.4	1.1	1.4	1.6
4,096	–0.4	0.7	0.9	1.2
8,192	–0.4	0.5	0.6	0.8
16,384	–0.4	0.4	0.4	0.5

Figure 13 (Food line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

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	0.3	14.6	0.0	85.0	85.4	–95.2
5–9	1.8	13.1	0.6	84.5	86.3	–71.7
10–14	4.6	10.3	2.7	82.3	87.0	–19.8
15–19	8.0	6.9	6.5	78.6	86.6	+50.9
20–24	10.3	4.6	12.1	72.9	83.3	+18.7
25–29	12.3	2.7	19.8	65.3	77.6	–32.4
30–34	13.9	1.1	28.3	56.7	70.6	–89.6
35–39	14.5	0.5	37.2	47.9	62.3	–149.2
40–44	14.8	0.1	46.2	38.8	53.7	–209.5
45–49	14.9	0.1	54.6	30.4	45.3	–265.7
50–54	14.9	0.0	62.6	22.4	37.4	–319.4
55–59	14.9	0.0	69.0	16.1	31.0	–361.8
60–64	14.9	0.0	73.7	11.4	26.3	–393.1
65–69	14.9	0.0	76.8	8.2	23.2	–414.4
70–74	14.9	0.0	79.4	5.7	20.6	–431.3
75–79	14.9	0.0	81.6	3.4	18.4	–446.5
80–84	14.9	0.0	83.6	1.5	16.4	–459.6
85–89	14.9	0.0	84.7	0.4	15.3	–467.1
90–94	14.9	0.0	85.0	0.0	15.0	–469.3
95–100	14.9	0.0	85.1	0.0	14.9	–469.5

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

Figure 14 (Food 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

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	0.4	88.1	2.2	7.4:1
5–9	2.4	75.7	12.2	3.1:1
10–14	7.4	62.9	31.0	1.7:1
15–19	14.5	55.3	53.7	1.2:1
20–24	22.5	46.0	69.2	0.9:1
25–29	32.0	38.3	82.1	0.6:1
30–34	42.2	32.9	92.9	0.5:1
35–39	51.7	28.0	97.0	0.4:1
40–44	61.1	24.3	99.2	0.3:1
45–49	69.5	21.4	99.6	0.3:1
50–54	77.6	19.2	99.9	0.2:1
55–59	83.9	17.8	99.9	0.2:1
60–64	88.6	16.9	99.9	0.2:1
65–69	91.8	16.3	100.0	0.2:1
70–74	94.3	15.8	100.0	0.2:1
75–79	96.6	15.5	100.0	0.2:1
80–84	98.5	15.2	100.0	0.2:1
85–89	99.6	15.0	100.0	0.2:1
90–94	100.0	14.9	100.0	0.2:1
95–100	100.0	14.9	100.0	0.2:1

USAID "Extreme" Poverty Line

2007 Scorecard Applied to the Entire Non-Panel 2005 ENAHO

Figure 7 (USAID "extreme" line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	–8.8	8.1	9.5	11.8
5–9	–10.8	7.8	8.3	8.7
10–14	+6.5	3.3	3.9	5.3
15–19	–1.1	2.8	3.5	4.7
20–24	+1.0	2.7	3.2	4.3
25–29	–0.8	2.3	2.7	3.3
30–34	–4.6	3.3	3.5	4.1
35–39	+4.3	1.6	1.9	2.5
40–44	–1.3	1.4	1.7	2.4
45–49	+0.7	0.8	0.9	1.2
50–54	+0.2	0.6	0.7	0.9
55–59	–1.0	1.5	1.8	2.2
60–64	+0.5	0.3	0.4	0.5
65–69	–0.3	0.3	0.4	0.5
70–74	–0.0	0.1	0.1	0.1
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 9 (USAID "extreme" line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

Sample Size	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	–0.2	61.4	65.6	78.2
4	–0.0	32.5	37.5	47.8
8	–0.1	20.9	24.0	29.4
16	–0.2	14.1	17.2	21.0
32	–0.2	10.7	12.1	15.3
64	+0.1	7.0	8.5	11.6
128	–0.1	5.0	6.2	8.7
256	–0.0	3.6	4.3	5.6
512	–0.1	2.7	3.1	4.0
1,024	–0.2	1.9	2.3	2.9
2,048	–0.1	1.4	1.6	2.0
4,096	–0.1	0.9	1.1	1.4
8,192	–0.2	0.6	0.8	1.1
16,384	–0.2	0.5	0.6	0.8

Figure 13 (USAID "extreme" line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

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	0.3	18.0	0.1	81.6	81.9	–96.2
5–9	1.7	16.6	0.7	81.0	82.7	–77.4
10–14	4.6	13.7	2.7	78.9	83.5	–34.8
15–19	8.4	10.0	6.1	75.5	83.9	+24.7
20–24	11.2	7.2	11.3	70.3	81.5	+38.3
25–29	13.8	4.5	18.2	63.4	77.2	+0.6
30–34	16.0	2.4	26.2	55.4	71.4	–42.8
35–39	17.0	1.3	34.7	47.0	64.0	–89.0
40–44	17.8	0.5	43.2	38.4	56.3	–135.6
45–49	18.1	0.2	51.4	30.3	48.4	–180.1
50–54	18.3	0.1	59.3	22.4	40.6	–223.2
55–59	18.3	0.0	65.6	16.1	34.4	–257.5
60–64	18.3	0.0	70.2	11.4	29.7	–282.8
65–69	18.3	0.0	73.4	8.2	26.6	–300.2
70–74	18.3	0.0	75.9	5.7	24.1	–313.9
75–79	18.3	0.0	78.2	3.4	21.8	–326.3
80–84	18.3	0.0	80.2	1.5	19.8	–336.9
85–89	18.3	0.0	81.3	0.4	18.7	–343.0
90–94	18.3	0.0	81.6	0.0	18.4	–344.9
95–100	18.3	0.0	81.7	0.0	18.3	–345.0

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

Figure 14 (USAID "extreme" 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

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	0.4	82.8	1.7	4.8:1
5–9	2.4	72.0	9.5	2.6:1
10–14	7.4	62.7	25.1	1.7:1
15–19	14.5	57.7	45.6	1.4:1
20–24	22.5	49.7	60.8	1.0:1
25–29	32.0	43.1	75.2	0.8:1
30–34	42.2	37.9	87.1	0.6:1
35–39	51.7	32.9	92.8	0.5:1
40–44	61.1	29.2	97.2	0.4:1
45–49	69.5	26.0	98.7	0.4:1
50–54	77.6	23.5	99.5	0.3:1
55–59	83.9	21.8	99.8	0.3:1
60–64	88.6	20.7	99.9	0.3:1
65–69	91.8	20.0	100.0	0.2:1
70–74	94.3	19.5	100.0	0.2:1
75–79	96.6	19.0	100.0	0.2:1
80–84	98.5	18.6	100.0	0.2:1
85–89	99.6	18.4	100.0	0.2:1
90–94	100.0	18.4	100.0	0.2:1
95–100	100.0	18.3	100.0	0.2:1

USD1.25/Day 2005 PPP Poverty Line

2007 Scorecard Applied to the Entire Non-Panel 2005 ENAHO

Figure 7 (USD1.25/day 2005 PPP line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	–10.4	10.2	11.5	15.4
5–9	–5.9	5.2	5.5	6.1
10–14	+3.6	1.2	1.6	1.9
15–19	–0.7	1.5	1.8	2.4
20–24	+0.5	0.3	0.4	0.4
25–29	+0.8	0.3	0.4	0.5
30–34	–0.0	0.2	0.2	0.3
35–39	–0.1	0.1	0.1	0.1
40–44	–0.2	0.2	0.2	0.3
45–49	+0.0	0.0	0.0	0.0
50–54	+0.0	0.0	0.0	0.0
55–59	+0.0	0.0	0.0	0.0
60–64	+0.0	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	+0.0	0.0	0.0	0.0

Figure 9 (USD1.25/day 2005 PPP line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

Sample Size	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	–0.2	4.0	4.2	50.2
4	+0.2	5.3	10.3	16.9
8	–0.0	4.8	6.8	14.6
16	+0.0	3.3	4.8	9.3
32	–0.1	3.5	4.4	6.2
64	–0.0	2.2	2.6	3.8
128	+0.0	1.5	1.8	2.7
256	–0.0	1.1	1.4	1.9
512	+0.0	0.8	0.9	1.3
1,024	+0.0	0.6	0.6	0.8
2,048	+0.0	0.4	0.4	0.6
4,096	+0.0	0.3	0.3	0.4
8,192	+0.0	0.2	0.2	0.3
16,384	+0.0	0.1	0.2	0.2

Figure 13 (USD1.25/day 2005 PPP line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

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	0.1	1.2	0.3	98.4	98.5	–63.6
5–9	0.4	1.0	2.0	96.6	97.0	–51.8
10–14	0.7	0.7	6.7	92.0	92.6	–400.2
15–19	0.9	0.4	13.6	85.1	86.0	–914.5
20–24	1.1	0.3	21.4	77.3	78.4	–1,498.6
25–29	1.2	0.1	30.8	67.8	69.0	–2,203.7
30–34	1.3	0.1	40.9	57.7	59.0	–2,957.8
35–39	1.3	0.0	50.4	48.3	49.5	–3,666.7
40–44	1.3	0.0	59.7	38.9	40.3	–4,362.1
45–49	1.3	0.0	68.2	30.5	31.8	–4,993.6
50–54	1.3	0.0	76.2	22.4	23.8	–5,595.9
55–59	1.3	0.0	82.6	16.1	17.4	–6,069.2
60–64	1.3	0.0	87.2	11.4	12.8	–6,419.0
65–69	1.3	0.0	90.4	8.2	9.6	–6,657.3
70–74	1.3	0.0	93.0	5.7	7.0	–6,846.1
75–79	1.3	0.0	95.2	3.4	4.8	–7,015.7
80–84	1.3	0.0	97.2	1.5	2.8	–7,161.4
85–89	1.3	0.0	98.3	0.4	1.7	–7,245.4
90–94	1.3	0.0	98.6	0.0	1.4	–7,270.3
95–100	1.3	0.0	98.7	0.0	1.3	–7,272.5

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

Figure 14 (USD1.25/day 2005 PPP 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

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	0.4	28.4	8.1	0.4:1
5–9	2.4	15.7	28.2	0.2:1
10–14	7.4	9.0	49.2	0.1:1
15–19	14.5	6.4	69.7	0.1:1
20–24	22.5	4.8	81.3	0.1:1
25–29	32.0	3.8	90.1	0.0:1
30–34	42.2	3.0	95.0	0.0:1
35–39	51.7	2.5	96.5	0.0:1
40–44	61.1	2.2	100.0	0.0:1
45–49	69.5	1.9	100.0	0.0:1
50–54	77.6	1.7	100.0	0.0:1
55–59	83.9	1.6	100.0	0.0:1
60–64	88.6	1.5	100.0	0.0:1
65–69	91.8	1.5	100.0	0.0:1
70–74	94.3	1.4	100.0	0.0:1
75–79	96.6	1.4	100.0	0.0:1
80–84	98.5	1.4	100.0	0.0:1
85–89	99.6	1.3	100.0	0.0:1
90–94	100.0	1.3	100.0	0.0:1
95–100	100.0	1.3	100.0	0.0:1

USD2.50/Day 2005 PPP Poverty Line

2007 Scorecard Applied to the Entire Non-Panel 2005 ENAHO

Figure 7 (USD2.50/day 2005 PPP line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	–15.8	12.3	13.2	14.1
5–9	–10.1	7.6	8.2	9.1
10–14	+5.3	3.3	4.0	5.2
15–19	–4.8	3.8	4.0	4.6
20–24	+5.4	2.3	2.6	3.3
25–29	–2.7	2.5	2.6	3.0
30–34	–4.4	3.0	3.2	3.6
35–39	–1.9	1.5	1.6	1.9
40–44	–0.7	0.8	0.9	1.3
45–49	–0.4	0.4	0.5	0.6
50–54	–1.1	0.9	1.0	1.2
55–59	+0.0	0.0	0.0	0.0
60–64	+0.1	0.0	0.0	0.0
65–69	–0.3	0.3	0.4	0.5
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 9 (USD2.50/day 2005 PPP line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

Sample Size	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	–0.8	52.5	61.1	76.3
4	–1.3	25.7	32.7	46.4
8	–1.3	18.3	22.3	29.0
16	–1.3	13.2	15.7	21.5
32	–0.8	8.1	10.1	12.7
64	–0.8	5.9	7.0	9.0
128	–0.9	4.1	5.2	6.8
256	–0.9	3.1	3.7	5.1
512	–0.9	2.2	2.6	3.5
1,024	–0.9	1.6	2.0	2.8
2,048	–0.9	1.1	1.3	1.7
4,096	–0.9	0.8	1.0	1.2
8,192	–0.9	0.6	0.7	0.9
16,384	–0.9	0.4	0.5	0.6

Figure 13 (USD2.50/day 2005 PPP line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

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	0.3	12.8	0.1	86.8	87.1	–94.8
5–9	1.6	11.5	0.8	86.1	87.7	–69.2
10–14	4.1	9.0	3.2	83.7	87.8	–12.2
15–19	7.1	6.0	7.4	79.5	86.6	+43.4
20–24	9.0	4.1	13.5	73.5	82.5	–2.9
25–29	10.7	2.4	21.3	65.6	76.3	–63.1
30–34	12.0	1.0	30.2	56.8	68.8	–130.5
35–39	12.6	0.5	39.1	47.8	60.5	–198.8
40–44	13.0	0.1	48.1	38.8	51.8	–267.7
45–49	13.0	0.1	56.5	30.4	43.5	–331.8
50–54	13.1	0.0	64.5	22.4	35.5	–393.1
55–59	13.1	0.0	70.8	16.1	29.2	–441.5
60–64	13.1	0.0	75.5	11.4	24.5	–477.3
65–69	13.1	0.0	78.7	8.2	21.3	–501.6
70–74	13.1	0.0	81.2	5.7	18.8	–520.9
75–79	13.1	0.0	83.5	3.4	16.5	–538.2
80–84	13.1	0.0	85.4	1.5	14.6	–553.1
85–89	13.1	0.0	86.6	0.4	13.4	–561.7
90–94	13.1	0.0	86.9	0.0	13.1	–564.3
95–100	13.1	0.0	86.9	0.0	13.1	–564.5

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

Figure 14 (USD2.50/day 2005 PPP 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

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	0.4	78.5	2.3	3.7:1
5–9	2.4	67.2	12.4	2.1:1
10–14	7.4	56.1	31.5	1.3:1
15–19	14.5	49.0	54.3	1.0:1
20–24	22.5	40.1	68.9	0.7:1
25–29	32.0	33.4	81.9	0.5:1
30–34	42.2	28.5	92.0	0.4:1
35–39	51.7	24.4	96.5	0.3:1
40–44	61.1	21.2	99.0	0.3:1
45–49	69.5	18.7	99.5	0.2:1
50–54	77.6	16.9	99.9	0.2:1
55–59	83.9	15.6	99.9	0.2:1
60–64	88.6	14.8	99.9	0.2:1
65–69	91.8	14.3	100.0	0.2:1
70–74	94.3	13.9	100.0	0.2:1
75–79	96.6	13.5	100.0	0.2:1
80–84	98.5	13.3	100.0	0.2:1
85–89	99.6	13.1	100.0	0.2:1
90–94	100.0	13.1	100.0	0.2:1
95–100	100.0	13.1	100.0	0.2:1

USD3.75/Day 2005 PPP Poverty Line

2007 Scorecard Applied to the Entire Non-Panel 2005 ENAHO

Figure 7 (USD3.75/day 2005 PPP line): Bootstrapped differences between estimated and true poverty likelihoods for households in a large sample (n = 16,384) from the validation sample, with confidence intervals, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
Score	Diff.	90-percent	95-percent	99-percent
0–4	+6.7	5.7	6.3	8.3
5–9	–4.3	3.2	3.4	3.6
10–14	+1.8	2.3	2.8	3.9
15–19	–9.0	5.6	5.7	6.1
20–24	–1.2	2.5	2.9	4.7
25–29	–6.6	4.5	4.8	5.2
30–34	–6.3	4.3	4.5	5.0
35–39	+1.7	2.1	2.4	2.9
40–44	–6.9	4.5	4.7	5.2
45–49	+0.0	1.5	1.8	2.3
50–54	–1.6	1.5	1.6	1.9
55–59	–4.2	3.1	3.3	4.1
60–64	+0.5	0.4	0.4	0.5
65–69	–0.3	0.3	0.4	0.5
70–74	–0.2	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	+0.0	0.0	0.0	0.0

Figure 9 (USD3.75/day 2005 PPP line): Differences and precision of differences for bootstrapped estimates of poverty rates for groups of households at a point in time, by sample size, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

Sample Size	Difference between estimate and true value			
		Confidence interval (+/– percentage points)		
n	Diff.	90-percent	95-percent	99-percent
1	–0.7	63.1	74.3	85.0
4	–2.5	33.9	41.1	51.8
8	–2.1	23.6	28.0	39.2
16	–3.0	16.6	19.7	27.0
32	–2.6	11.9	14.0	19.0
64	–2.3	8.3	9.8	12.4
128	–2.4	6.3	7.2	9.2
256	–2.5	4.4	5.1	6.3
512	–2.5	3.1	3.8	5.2
1,024	–2.7	2.3	2.6	3.4
2,048	–2.6	1.5	1.8	2.3
4,096	–2.6	1.0	1.2	1.7
8,192	–2.6	0.7	0.9	1.1
16,384	–2.6	0.5	0.6	0.9

Figure 13 (USD3.75/day 2005 PPP line): Households by targeting classification and score, along with "Total Accuracy" and BPAC, for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

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	0.4	30.7	0.0	68.9	69.2	–97.6
5–9	2.2	28.9	0.2	68.7	70.9	–85.1
10–14	6.2	24.9	1.1	67.8	74.0	–56.4
15–19	11.9	19.2	2.6	66.3	78.2	–15.0
20–24	16.9	14.2	5.6	63.3	80.3	+26.7
25–29	22.0	9.1	10.0	58.9	80.8	+67.7
30–34	26.1	5.1	16.1	52.8	78.8	+48.1
35–39	28.3	2.9	23.4	45.4	73.7	+24.6
40–44	29.9	1.2	31.1	37.8	67.7	–0.1
45–49	30.5	0.6	39.0	29.9	60.4	–25.4
50–54	30.9	0.2	46.7	22.2	53.0	–50.2
55–59	31.1	0.0	52.8	16.1	47.1	–69.9
60–64	31.1	0.0	57.5	11.4	42.5	–84.9
65–69	31.1	0.0	60.7	8.2	39.3	–95.1
70–74	31.1	0.0	63.2	5.7	36.8	–103.2
75–79	31.1	0.0	65.5	3.4	34.5	–110.5
80–84	31.1	0.0	67.4	1.5	32.6	–116.7
85–89	31.1	0.0	68.5	0.4	31.5	–120.3
90–94	31.1	0.0	68.9	0.0	31.1	–121.4
95–100	31.1	0.0	68.9	0.0	31.1	–121.5

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

Figure 14 (USD3.75/day 2005 PPP 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 (inclusion) per non-poor household mistakenly targeted (leakage), for the 2007 scorecard applied to the entire non-panel 2005 ENAHO

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	0.4	94.4	1.2	16.8:1
5–9	2.4	92.0	7.1	11.5:1
10–14	7.4	84.6	20.0	5.5:1
15–19	14.5	82.1	38.3	4.6:1
20–24	22.5	75.3	54.4	3.0:1
25–29	32.0	68.7	70.7	2.2:1
30–34	42.2	61.7	83.8	1.6:1
35–39	51.7	54.6	90.8	1.2:1
40–44	61.1	49.0	96.2	1.0:1
45–49	69.5	43.9	98.1	0.8:1
50–54	77.6	39.8	99.2	0.7:1
55–59	83.9	37.0	99.8	0.6:1
60–64	88.6	35.1	99.9	0.5:1
65–69	91.8	33.9	100.0	0.5:1
70–74	94.3	33.0	100.0	0.5:1
75–79	96.6	32.2	100.0	0.5:1
80–84	98.5	31.6	100.0	0.5:1
85–89	99.6	31.2	100.0	0.5:1
90–94	100.0	31.1	100.0	0.5:1
95–100	100.0	31.1	100.0	0.5:1

Poverty Lines and Poverty Rates
by
Region, Year, and Urban/Rural

Figure A1: All Peru, poverty lines and poverty rates, by round

			150%	200%		USAID	International 2005 PPP		
		National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
2002	Line	6.79	10.19	13.59	3.73	4.44	1.87	3.75	5.62
	Rate (households)	48.4	70.0	81.4	21.3	22.5	2.6	18.5	38.5
	Rate (people)	56.4	77.2	86.8	26.3	28.7	3.6	23.7	46.0
2003	Line	6.86	10.29	13.72	3.79	4.65	1.91	3.83	5.74
	Rate (households)	45.7	69.6	81.1	18.7	20.7	2.0	15.6	35.4
	Rate (people)	54.0	76.8	86.6	23.8	26.9	3.0	20.4	43.2
2004	Line	6.83	10.24	13.65	3.74	4.79	1.95	3.91	5.86
	Rate (households)	42.6	67.0	79.8	15.7	20.1	1.4	14.3	33.4
	Rate (people)	50.8	74.8	85.8	20.2	25.9	1.8	18.5	40.9
2005	Line	6.99	10.49	13.98	3.82	4.88	1.97	3.94	5.91
	Rate (households)	43.2	66.7	79.8	15.7	19.6	1.5	13.8	33.8
	Rate (people)	52.0	75.3	86.1	20.2	25.9	2.1	18.1	41.8
2006	Line	7.08	10.62	14.16	3.87	4.99	2.00	4.00	6.01
	Rate (households)	40.2	63.5	77.4	14.9	18.3	1.3	13.1	31.1
	Rate (people)	48.6	72.1	84.4	19.4	24.3	1.9	17.1	38.6
2007	Line	7.40	11.09	14.79	3.96	5.42	2.10	4.20	6.30
	Rate (households)	34.0	57.8	73.0	11.5	15.9	0.9	10.1	25.5
	Rate (people)	41.0	66.0	79.8	14.8	20.6	1.3	13.2	31.3

Figure A2: All-urban Peru and All-rural Peru, poverty lines and poverty rates, by

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	7.78	11.67	15.56	3.90	5.63	2.15	4.29	6.44
		Rate (households)	32.2	57.0	71.9	5.7	15.7	0.4	7.3	22.4
		Rate (people)	40.3	65.7	79.0	8.1	20.8	0.5	10.3	29.1
	2003	Line	7.88	11.81	15.75	3.93	5.82	2.20	4.39	6.59
		Rate (households)	28.2	55.2	70.6	4.1	12.6	0.3	5.3	19.1
		Rate (people)	35.0	63.1	77.7	6.0	17.1	0.5	7.5	24.7
	2004	Line	7.92	11.88	15.84	3.95	6.05	2.27	4.53	6.80
		Rate (households)	26.8	53.1	69.6	3.4	13.1	0.2	5.3	18.4
		Rate (people)	33.6	61.2	77.0	4.8	17.4	0.3	7.3	23.9
	2005	Line	8.06	12.09	16.12	4.01	6.15	2.27	4.55	6.82
		Rate (households)	26.2	52.3	69.7	3.1	12.2	0.1	4.5	18.0
		Rate (people)	33.6	62.0	77.3	4.3	16.5	0.1	6.6	23.6
	2006	Line	8.13	12.20	16.26	4.02	6.33	2.30	4.60	6.90
		Rate (households)	21.1	46.2	63.7	2.1	10.2	0.1	3.5	13.8
		Rate (people)	27.5	55.6	72.4	3.1	14.0	0.1	5.0	18.5
	2007	Line	8.46	12.68	16.91	4.17	6.77	2.40	4.80	7.20
		Rate (households)	18.3	43.1	61.4	1.6	8.9	0.1	2.3	11.4
		Rate (people)	23.3	51.4	69.4	2.3	11.7	0.1	3.2	14.9
Rural	2002	Line	5.66	8.49	11.32	3.52	3.07	1.56	3.12	4.68
		Rate (households)	67.1	85.1	92.5	39.4	30.4	5.1	31.5	57.0
		Rate (people)	75.1	90.4	95.8	47.4	37.8	7.0	39.1	65.4
	2003	Line	5.84	8.76	11.68	3.65	3.48	1.63	3.26	4.88
		Rate (households)	63.5	84.2	91.8	33.5	29.0	3.8	26.1	52.0
		Rate (people)	73.1	90.4	95.5	41.7	36.7	5.4	33.4	61.8
	2004	Line	5.78	8.68	11.57	3.54	3.59	1.66	3.31	4.97
		Rate (households)	57.9	80.6	89.6	27.6	26.8	2.5	23.1	48.0
		Rate (people)	67.1	87.8	94.3	34.8	34.0	3.1	29.2	57.1
	2005	Line	5.96	8.94	11.92	3.63	3.65	1.68	3.36	5.04
		Rate (households)	59.7	80.6	89.7	27.9	26.7	2.9	22.9	49.1
		Rate (people)	69.8	88.2	94.6	35.6	34.9	3.9	29.3	59.4
	2006	Line	6.16	9.23	12.31	3.74	3.82	1.74	3.48	5.22
		Rate (households)	57.9	79.6	90.1	26.9	25.9	2.5	21.9	47.2
		Rate (people)	67.1	86.5	94.9	33.6	33.3	3.4	27.8	56.3
	2007	Line	6.23	9.34	12.45	3.73	3.93	1.77	3.53	5.30
		Rate (households)	51.6	74.4	86.0	22.6	23.8	1.9	18.7	41.3
		Rate (people)	60.4	82.0	91.3	28.7	30.3	2.5	24.1	49.4

Figure A3: Amazonas, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	7.57	11.35	15.14	4.21	4.21	2.09	4.18	6.26
		Rate (households)	69.3	85.8	93.8	28.9	28.9	6.3	28.9	55.3
		Rate (people)	76.5	90.3	95.6	38.1	37.8	9.5	37.8	65.5
	2003	Line	7.79	11.69	15.58	4.40	5.25	2.17	4.35	6.52
		Rate (households)	43.7	64.9	83.6	10.9	14.1	1.1	10.9	32.7
		Rate (people)	53.6	73.6	89.6	15.9	20.5	1.1	15.9	42.1
	2004	Line	7.85	11.77	15.69	4.38	4.97	2.25	4.49	6.74
		Rate (households)	52.1	68.5	85.1	13.2	18.5	0.7	15.1	44.8
		Rate (people)	58.3	73.9	89.2	19.1	25.6	1.6	21.2	52.3
	2005	Line	8.19	12.29	16.39	4.56	5.30	2.31	4.62	6.93
		Rate (households)	56.6	73.3	84.0	10.0	19.0	0.0	10.0	43.4
		Rate (people)	63.7	77.0	86.3	11.8	25.2	0.0	11.8	51.3
	2006	Line	7.91	11.86	15.82	4.22	4.90	2.24	4.47	6.71
		Rate (households)	42.7	62.5	81.1	13.2	18.2	0.0	15.7	33.5
		Rate (people)	57.0	74.2	89.3	20.3	28.1	0.0	23.2	46.0
	2007	Line	8.03	12.05	16.06	4.12	5.57	2.28	4.56	6.84
		Rate (households)	25.3	53.9	67.6	4.9	12.9	0.0	5.2	18.6
		Rate (people)	30.1	61.4	74.0	6.5	15.7	0.0	7.3	22.4
Rural	2002	Line	5.68	8.51	11.35	3.42	2.56	1.57	3.13	4.70
		Rate (households)	77.8	92.0	96.1	47.9	32.2	7.2	44.3	69.1
		Rate (people)	85.5	95.6	97.9	58.8	42.9	10.4	55.5	78.4
	2003	Line	5.63	8.44	11.25	3.48	3.22	1.57	3.14	4.71
		Rate (households)	74.2	87.7	93.6	41.9	37.0	5.9	38.3	62.5
		Rate (people)	83.7	92.6	96.7	49.7	45.1	7.6	46.5	72.4
	2004	Line	5.66	8.50	11.33	3.33	3.56	1.62	3.24	4.86
		Rate (households)	60.1	82.8	90.1	26.4	30.7	2.7	25.2	48.5
		Rate (people)	68.1	89.5	94.2	32.7	36.5	3.8	30.4	55.0
	2005	Line	5.70	8.55	11.40	3.33	3.65	1.61	3.21	4.82
		Rate (households)	60.8	83.2	92.0	20.1	26.4	2.9	18.3	50.6
		Rate (people)	70.2	89.3	96.0	25.1	35.1	2.9	22.3	61.0
	2006	Line	5.75	8.63	11.50	3.35	3.94	1.63	3.25	4.88
		Rate (households)	50.5	75.0	88.6	15.4	23.2	0.1	13.4	36.5
		Rate (people)	61.0	83.0	92.9	18.4	28.8	0.1	16.6	45.0
	2007	Line	5.99	8.99	11.98	3.51	3.91	1.70	3.40	5.10
		Rate (households)	49.7	77.3	89.5	18.0	23.6	1.5	15.8	37.9
		Rate (people)	59.1	83.8	93.6	22.9	30.1	2.3	20.1	46.9

Figure A4: Ancash, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	6.89	10.34	13.78	3.68	5.03	1.90	3.80	5.70
		Rate (households)	30.2	53.1	70.4	5.3	14.2	0.0	6.4	18.6
		Rate (people)	36.9	59.5	74.7	7.1	18.4	0.0	8.4	23.9
	2003	Line	7.02	10.53	14.05	3.73	5.96	1.96	3.92	5.88
		Rate (households)	21.1	48.5	70.7	3.9	12.9	0.0	4.2	13.2
		Rate (people)	25.5	55.4	76.3	4.3	14.6	0.0	4.4	14.9
	2004	Line	7.26	10.88	14.51	3.92	5.66	2.08	4.15	6.23
		Rate (households)	21.0	51.8	72.9	2.2	10.3	0.0	3.3	16.0
		Rate (people)	26.0	60.4	80.4	3.1	13.2	0.0	4.5	19.6
	2005	Line	7.36	11.04	14.72	3.87	6.06	2.08	4.15	6.23
		Rate (households)	19.2	51.4	71.6	1.2	8.9	0.0	2.0	10.6
		Rate (people)	24.3	61.0	79.6	1.4	11.5	0.0	2.3	13.7
	2006	Line	7.52	11.28	15.04	3.93	6.20	2.13	4.25	6.38
		Rate (households)	12.8	36.6	60.3	0.5	5.6	0.3	1.2	6.7
		Rate (people)	17.5	46.6	69.0	0.7	8.7	0.3	1.9	10.4
	2007	Line	7.66	11.49	15.32	3.98	6.13	2.17	4.35	6.52
		Rate (households)	12.6	36.0	57.8	0.9	6.4	0.0	1.4	7.9
		Rate (people)	16.2	41.9	63.4	1.7	8.8	0.0	2.4	10.8
Rural	2002	Line	5.66	8.49	11.31	3.61	3.50	1.56	3.12	4.68
		Rate (households)	60.1	80.7	91.0	29.2	27.6	1.3	20.2	47.8
		Rate (people)	69.7	88.5	95.4	37.6	36.2	1.9	27.2	57.7
	2003	Line	6.10	9.15	12.20	3.96	3.34	1.70	3.40	5.10
		Rate (households)	71.3	86.2	92.4	41.9	32.6	7.6	30.9	60.9
		Rate (people)	77.3	90.7	94.9	48.6	39.4	10.8	37.5	69.9
	2004	Line	5.90	8.85	11.80	3.74	3.60	1.69	3.38	5.07
		Rate (households)	59.4	81.6	88.5	28.7	27.6	0.5	22.9	49.5
		Rate (people)	70.0	89.1	93.9	37.1	35.9	1.0	30.4	60.5
	2005	Line	6.20	9.30	12.40	3.93	3.52	1.75	3.50	5.24
		Rate (households)	59.1	80.7	89.4	32.6	25.4	1.6	24.6	49.9
		Rate (people)	70.6	88.1	93.8	42.8	34.9	3.3	34.0	61.3
	2006	Line	6.28	9.41	12.55	3.96	3.71	1.77	3.55	5.32
		Rate (households)	55.3	81.3	92.6	28.2	24.2	1.2	20.4	45.5
		Rate (people)	61.5	84.9	95.0	34.0	29.8	2.3	26.2	52.0
	2007	Line	6.33	9.49	12.65	3.91	4.15	1.80	3.59	5.39
		Rate (households)	49.0	70.3	84.5	20.6	23.3	0.8	15.1	37.0
		Rate (people)	59.8	80.5	90.3	26.8	29.6	1.4	20.4	44.6

Figure A5: Apurímac, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	7.41	11.11	14.81	3.90	4.25	2.04	4.09	6.13
		Rate (households)	43.5	64.5	76.2	13.1	16.7	0.0	16.7	35.3
		Rate (people)	52.9	71.0	82.2	20.9	25.0	0.0	25.0	44.3
	2003	Line	7.46	11.20	14.93	3.91	4.63	2.08	4.16	6.24
		Rate (households)	39.7	63.4	75.3	9.5	18.3	0.0	12.9	27.1
		Rate (people)	45.4	68.2	82.9	10.0	20.5	0.0	13.6	29.9
	2004	Line	7.55	11.32	15.09	3.95	5.47	2.16	4.32	6.48
		Rate (households)	21.1	49.0	63.2	1.4	10.0	0.0	2.8	17.0
		Rate (people)	23.8	52.7	67.1	2.0	15.1	0.0	3.4	21.8
	2005	Line	7.58	11.37	15.16	3.88	5.05	2.14	4.27	6.41
		Rate (households)	32.8	49.6	69.2	4.9	10.6	0.0	6.2	23.6
		Rate (people)	37.3	51.9	75.7	6.2	12.3	0.0	7.4	28.8
	2006	Line	7.86	11.79	15.72	4.08	5.30	2.22	4.44	6.66
		Rate (households)	27.1	56.6	78.4	3.8	8.4	0.0	3.8	19.2
		Rate (people)	33.2	66.9	83.3	4.9	10.3	0.0	4.9	25.3
	2007	Line	8.02	12.04	16.05	4.20	5.84	2.28	4.55	6.83
		Rate (households)	34.8	65.5	79.1	8.5	18.1	0.0	8.5	27.6
		Rate (people)	39.4	72.0	83.3	7.8	18.9	0.0	7.8	30.6
Rural	2002	Line	5.72	8.58	11.45	3.52	2.85	1.58	3.16	4.74
		Rate (households)	76.8	93.1	96.3	47.7	33.5	3.9	38.5	67.6
		Rate (people)	83.6	95.0	97.5	58.9	43.0	5.9	48.4	75.9
	2003	Line	5.98	8.97	11.96	3.71	3.69	1.67	3.33	5.00
		Rate (households)	60.3	85.1	94.4	27.4	26.0	0.0	19.4	47.5
		Rate (people)	71.3	91.6	96.1	37.4	35.7	0.0	27.3	60.8
	2004	Line	5.78	8.67	11.56	3.51	3.64	1.65	3.31	4.96
		Rate (households)	63.1	86.3	93.9	24.8	27.8	1.2	20.7	51.0
		Rate (people)	71.2	90.2	95.2	31.1	33.8	1.8	26.8	61.3
	2005	Line	5.83	8.74	11.65	3.55	3.61	1.64	3.28	4.93
		Rate (households)	67.4	88.1	94.1	25.7	26.1	1.7	20.2	50.1
		Rate (people)	79.0	92.6	97.3	35.8	36.0	1.8	27.8	63.3
	2006	Line	6.04	9.06	12.07	3.72	3.47	1.71	3.41	5.12
		Rate (households)	75.8	88.7	95.9	42.4	39.3	2.5	34.0	66.3
		Rate (people)	84.0	92.0	97.3	50.5	46.4	2.3	40.7	75.6
	2007	Line	6.10	9.15	12.20	3.73	3.90	1.73	3.46	5.19
		Rate (households)	69.1	89.4	95.9	28.2	32.0	1.9	24.4	57.0
		Rate (people)	78.1	93.7	98.3	35.1	39.7	1.9	31.5	66.3

Figure A6: Arequipa, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	7.00	10.50	14.00	3.86	5.49	1.93	3.86	5.79
		Rate (households)	25.5	52.8	70.1	4.3	13.3	0.2	4.3	16.0
		Rate (people)	31.1	59.3	75.7	5.8	16.7	0.2	5.8	20.4
	2003	Line	7.08	10.62	14.16	3.87	5.10	1.97	3.95	5.92
		Rate (households)	21.9	47.7	64.9	3.4	9.3	0.0	3.4	14.4
		Rate (people)	29.0	57.5	72.7	5.2	12.9	0.0	5.2	20.3
	2004	Line	7.19	10.79	14.39	3.90	5.40	2.06	4.12	6.18
		Rate (households)	21.2	49.7	65.4	3.0	10.4	0.3	3.5	14.9
		Rate (people)	27.9	58.2	73.6	4.3	14.4	0.4	5.2	20.2
	2005	Line	7.24	10.87	14.49	3.84	5.67	2.04	4.08	6.13
		Rate (households)	20.0	43.1	60.7	2.6	10.5	0.4	3.6	13.6
		Rate (people)	24.3	51.1	66.1	2.9	12.3	0.2	4.4	16.2
	2006	Line	7.61	11.41	15.21	4.06	6.37	2.15	4.30	6.45
		Rate (households)	14.8	40.3	62.2	0.6	6.9	0.0	0.6	7.8
		Rate (people)	20.5	47.5	67.0	1.4	10.3	0.0	1.4	11.2
	2007	Line	7.72	11.59	15.45	4.15	6.25	2.19	4.38	6.58
		Rate (households)	15.1	36.3	56.6	1.1	7.6	0.0	1.3	9.2
		Rate (people)	19.2	42.9	63.8	1.9	9.5	0.0	2.3	11.5
Rural	2002	Line	5.70	8.54	11.39	3.47	3.61	1.57	3.14	4.71
		Rate (households)	53.7	73.8	85.4	29.7	30.8	3.3	27.1	43.1
		Rate (people)	58.6	80.3	89.5	31.4	32.0	4.0	28.7	46.7
	2003	Line	6.08	9.11	12.15	3.70	4.58	1.69	3.39	5.08
		Rate (households)	45.0	65.7	78.5	17.3	21.6	1.5	12.7	27.4
		Rate (people)	51.5	71.2	82.2	20.4	24.4	1.8	16.3	33.6
	2004	Line	5.88	8.82	11.75	3.55	4.42	1.68	3.36	5.05
		Rate (households)	35.3	63.8	80.3	11.9	22.4	0.0	10.0	25.9
		Rate (people)	39.9	68.0	86.5	13.7	24.6	0.0	11.5	28.3
	2005	Line	6.06	9.08	12.11	3.64	4.56	1.71	3.41	5.12
		Rate (households)	28.4	50.4	70.0	5.9	15.2	0.7	5.4	17.8
		Rate (people)	35.4	58.7	79.0	7.9	18.6	0.9	8.1	21.5
	2006	Line	6.28	9.42	12.55	3.80	4.52	1.77	3.55	5.32
		Rate (households)	27.4	54.8	76.3	5.8	11.4	0.7	6.5	15.8
		Rate (people)	33.6	63.3	87.8	7.0	13.7	1.2	8.2	19.7
	2007	Line	6.60	9.90	13.20	3.86	4.94	1.87	3.75	5.62
		Rate (households)	26.9	54.9	71.9	5.4	13.8	0.3	4.4	17.8
		Rate (people)	34.2	64.4	79.1	7.1	17.4	0.5	6.3	22.8

Figure A7: Ayacucho, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	7.07	10.61	14.15	3.83	4.32	1.95	3.90	5.85
		Rate (households)	42.8	65.2	77.3	13.3	20.8	1.0	15.8	36.4
		Rate (people)	52.4	75.0	85.1	19.4	28.3	1.1	22.3	46.2
	2003	Line	7.24	10.85	14.47	3.89	5.24	2.02	4.04	6.05
		Rate (households)	39.6	68.2	78.9	5.9	20.3	0.0	7.2	29.2
		Rate (people)	48.5	76.7	86.5	7.7	24.7	0.0	9.9	33.9
	2004	Line	7.49	11.23	14.97	4.07	5.05	2.14	4.29	6.43
		Rate (households)	33.6	56.5	75.7	9.1	14.2	0.5	9.1	25.2
		Rate (people)	44.2	67.2	82.6	12.5	20.1	1.0	12.5	34.7
	2005	Line	7.67	11.51	15.34	4.09	5.49	2.16	4.33	6.49
		Rate (households)	48.7	65.1	74.5	10.9	23.7	0.0	12.0	35.7
		Rate (people)	60.1	76.0	84.5	15.2	31.6	0.0	16.6	45.8
	2006	Line	7.81	11.71	15.62	4.09	5.47	2.21	4.41	6.62
		Rate (households)	44.6	70.3	82.5	11.4	21.6	0.6	12.5	35.6
		Rate (people)	53.5	76.4	86.8	14.7	27.7	0.9	16.1	44.8
	2007	Line	7.87	11.81	15.74	4.08	4.93	2.23	4.47	6.70
		Rate (households)	33.2	61.1	74.5	6.4	12.9	0.8	9.6	24.8
		Rate (people)	42.2	69.3	81.7	9.8	18.4	1.5	14.5	31.9
Rural	2002	Line	5.84	8.76	11.68	3.65	3.20	1.61	3.22	4.83
		Rate (households)	67.5	82.4	90.3	37.1	30.5	4.3	29.3	56.8
		Rate (people)	78.3	89.8	95.0	46.5	39.1	6.6	37.6	68.2
	2003	Line	6.14	9.21	12.28	3.95	3.56	1.71	3.42	5.14
		Rate (households)	63.8	85.1	94.2	34.9	28.5	2.8	25.9	54.5
		Rate (people)	77.1	92.0	96.8	46.7	39.6	5.6	37.0	67.9
	2004	Line	6.04	9.07	12.09	3.73	3.96	1.73	3.46	5.19
		Rate (households)	54.2	80.5	92.2	20.1	23.3	1.2	14.5	41.7
		Rate (people)	69.2	91.4	97.0	29.3	33.1	1.7	22.5	56.0
	2005	Line	6.28	9.43	12.57	3.89	3.73	1.77	3.54	5.32
		Rate (households)	73.5	88.3	94.0	34.3	31.4	1.4	29.5	59.2
		Rate (people)	82.0	93.5	96.5	44.4	41.8	1.5	38.6	69.0
	2006	Line	6.45	9.67	12.90	3.99	3.77	1.82	3.65	5.47
		Rate (households)	73.8	88.9	96.1	37.2	31.9	1.1	28.1	63.2
		Rate (people)	84.5	93.8	97.9	47.0	40.8	1.1	36.3	75.2
	2007	Line	6.34	9.52	12.69	3.91	3.66	1.80	3.60	5.40
		Rate (households)	69.1	87.9	95.4	36.3	30.8	3.4	28.5	57.6
		Rate (people)	76.0	92.0	97.6	44.0	37.8	5.2	35.0	66.3

Figure A8: Cajamarca, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	6.76	10.14	13.53	3.77	4.80	1.87	3.73	5.60
		Rate (households)	26.7	41.9	64.7	7.7	14.3	0.0	6.2	18.2
		Rate (people)	32.5	46.3	70.2	10.0	17.3	0.0	8.5	21.3
	2003	Line	6.89	10.33	13.77	3.81	5.45	1.92	3.84	5.76
		Rate (households)	29.3	52.4	77.6	3.0	13.7	0.0	3.0	16.3
		Rate (people)	39.9	62.9	86.5	3.0	18.2	0.0	3.0	20.6
	2004	Line	7.12	10.67	14.23	3.98	5.43	2.04	4.07	6.11
		Rate (households)	28.6	58.8	79.2	2.5	11.7	0.9	1.9	17.6
		Rate (people)	35.0	65.7	85.3	3.3	15.3	1.4	2.6	23.7
	2005	Line	7.06	10.59	14.12	3.85	5.83	1.99	3.98	5.97
		Rate (households)	26.8	47.0	66.4	3.8	12.6	0.0	4.9	13.7
		Rate (people)	31.0	54.8	72.7	4.9	15.3	0.0	5.7	17.2
	2006	Line	7.40	11.10	14.81	4.07	6.14	2.09	4.19	6.28
		Rate (households)	19.7	51.2	70.7	0.0	7.1	0.0	1.3	9.3
		Rate (people)	24.5	56.4	77.5	0.0	10.3	0.0	2.0	13.7
	2007	Line	7.36	11.05	14.73	4.00	5.29	2.09	4.18	6.27
		Rate (households)	22.1	42.9	56.8	3.0	9.1	0.0	4.4	15.5
		Rate (people)	26.6	49.1	64.3	3.5	13.3	0.0	5.7	20.2
Rural	2002	Line	5.33	8.00	10.67	3.42	2.77	1.47	2.94	4.41
		Rate (households)	72.7	90.0	95.9	48.1	32.9	3.7	35.9	62.8
		Rate (people)	79.0	93.2	97.9	55.4	39.1	5.1	42.7	70.5
	2003	Line	5.29	7.93	10.57	3.32	3.01	1.47	2.95	4.42
		Rate (households)	72.2	88.1	94.7	40.4	34.3	2.6	30.9	63.1
		Rate (people)	79.2	92.1	97.6	48.0	41.3	3.5	37.0	69.8
	2004	Line	5.21	7.82	10.42	3.21	3.31	1.49	2.98	4.48
		Rate (households)	62.1	86.1	94.2	28.0	29.6	0.9	22.8	52.3
		Rate (people)	69.3	90.9	96.8	32.6	34.8	1.4	26.7	59.0
	2005	Line	5.46	8.20	10.93	3.41	3.51	1.54	3.08	4.62
		Rate (households)	61.1	83.8	92.8	25.9	28.1	0.9	17.9	47.4
		Rate (people)	71.8	91.0	96.0	32.7	36.2	1.4	22.8	57.9
	2006	Line	5.69	8.54	11.39	3.58	3.65	1.61	3.22	4.83
		Rate (households)	58.7	82.6	93.0	22.8	25.6	0.9	17.3	47.4
		Rate (people)	67.3	87.8	95.4	28.8	32.6	1.3	22.7	56.6
	2007	Line	5.76	8.65	11.53	3.60	3.60	1.64	3.27	4.91
		Rate (households)	60.8	81.3	89.4	28.2	27.9	1.6	21.4	47.8
		Rate (people)	70.1	88.0	93.5	35.7	35.4	1.8	27.6	57.0

Figure A9: Callao, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	8.79	13.18	17.57	4.08	6.69	2.42	4.85	7.27
		Rate (households)	35.6	58.8	75.0	1.9	17.4	1.2	5.2	22.5
		Rate (people)	41.0	66.2	81.7	2.7	21.4	1.8	7.8	28.3
	2003	Line	8.89	13.34	17.78	4.11	6.53	2.48	4.96	7.44
		Rate (households)	36.2	70.3	80.2	3.5	13.8	0.0	5.0	23.8
		Rate (people)	46.7	76.3	86.6	5.7	20.6	0.0	8.2	32.7
	2004	Line	8.96	13.44	17.92	4.08	6.86	2.56	5.13	7.69
		Rate (households)	27.2	51.6	72.9	1.4	16.1	0.9	4.8	19.5
		Rate (people)	36.9	61.5	82.2	0.9	21.8	0.4	6.6	26.9
	2005	Line	9.28	13.92	18.56	4.24	6.58	2.62	5.23	7.85
		Rate (households)	26.6	58.1	77.1	4.1	12.3	0.0	9.2	21.0
		Rate (people)	37.2	68.2	85.2	7.3	19.0	0.0	16.6	30.0
	2006	Line	9.24	13.86	18.48	4.15	7.00	2.61	5.22	7.84
		Rate (households)	26.6	49.5	67.5	1.5	14.2	0.0	6.0	17.7
		Rate (people)	35.0	60.3	76.0	2.0	20.2	0.0	7.5	24.6
	2007	Line	9.43	14.14	18.86	4.27	7.68	2.68	5.35	8.03
		Rate (households)	16.5	45.5	65.4	0.8	8.6	0.0	1.8	9.2
		Rate (people)	21.2	53.0	72.9	1.2	11.0	0.0	2.8	12.1
Rural	2002	Line	7.44	11.15	14.87	4.23	5.33	2.05	4.10	6.15
		Rate (households)	28.1	48.6	67.4	4.1	12.4	0.4	3.7	20.1
		Rate (people)	35.5	59.0	76.0	5.1	16.2	0.7	4.6	25.8
	2003	Line	7.26	10.88	14.51	3.97	6.06	2.02	4.05	6.07
		Rate (households)	19.7	44.6	66.3	1.8	8.2	0.0	1.8	9.4
		Rate (people)	26.4	55.5	74.2	2.8	11.8	0.0	2.8	14.3
	2004	Line	7.36	11.05	14.73	3.98	5.51	2.11	4.22	6.32
		Rate (households)	24.1	52.4	67.6	5.6	11.0	0.0	5.6	17.5
		Rate (people)	30.0	59.3	73.3	7.3	13.7	0.0	7.3	22.9
	2005	Line	7.45	11.18	14.90	3.88	5.39	2.10	4.20	6.30
		Rate (households)	26.8	49.9	65.0	1.8	12.8	0.5	4.2	20.7
		Rate (people)	34.6	60.6	74.5	2.4	17.6	0.6	6.8	27.1
	2006	Line	7.89	11.84	15.78	4.17	5.56	2.23	4.46	6.69
		Rate (households)	19.9	42.8	58.5	2.4	9.7	0.4	5.4	15.0
		Rate (people)	26.5	52.2	66.5	4.7	13.8	0.6	9.6	19.9
	2007	Line	7.98	11.97	15.96	4.21	5.81	2.26	4.53	6.79
		Rate (households)	27.4	50.2	65.4	5.1	13.6	1.1	5.7	19.4
		Rate (people)	32.7	57.3	70.9	5.4	15.9	1.3	6.3	23.0

Figure A10: Cusco, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	7.44	11.15	14.87	4.23	5.33	2.05	4.10	6.15
		Rate (households)	28.1	48.6	67.4	4.1	12.4	0.4	3.7	20.1
		Rate (people)	35.5	59.0	76.0	5.1	16.2	0.7	4.6	25.8
	2003	Line	7.26	10.88	14.51	3.97	6.06	2.02	4.05	6.07
		Rate (households)	19.7	44.6	66.3	1.8	8.2	0.0	1.8	9.4
		Rate (people)	26.4	55.5	74.2	2.8	11.8	0.0	2.8	14.3
	2004	Line	7.36	11.05	14.73	3.98	5.51	2.11	4.22	6.32
		Rate (households)	24.1	52.4	67.6	5.6	11.0	0.0	5.6	17.5
		Rate (people)	30.0	59.3	73.3	7.3	13.7	0.0	7.3	22.9
	2005	Line	7.45	11.18	14.90	3.88	5.39	2.10	4.20	6.30
		Rate (households)	26.8	49.9	65.0	1.8	12.8	0.5	4.2	20.7
		Rate (people)	34.6	60.6	74.5	2.4	17.6	0.6	6.8	27.1
	2006	Line	7.89	11.84	15.78	4.17	5.56	2.23	4.46	6.69
		Rate (households)	19.9	42.8	58.5	2.4	9.7	0.4	5.4	15.0
		Rate (people)	26.5	52.2	66.5	4.7	13.8	0.6	9.6	19.9
	2007	Line	7.98	11.97	15.96	4.21	5.81	2.26	4.53	6.79
		Rate (households)	27.4	50.2	65.4	5.1	13.6	1.1	5.7	19.4
		Rate (people)	32.7	57.3	70.9	5.4	15.9	1.3	6.3	23.0
Rural	2002	Line	5.30	7.94	10.59	3.37	2.92	1.46	2.92	4.38
		Rate (households)	67.2	83.2	92.2	39.8	29.0	3.3	28.7	58.4
		Rate (people)	74.9	88.3	95.8	48.7	37.2	5.1	36.9	66.2
	2003	Line	5.68	8.52	11.36	3.67	3.91	1.58	3.17	4.75
		Rate (households)	57.5	82.5	93.9	26.2	29.1	2.3	18.8	40.7
		Rate (people)	66.3	88.8	96.5	31.1	34.3	3.1	24.0	47.7
	2004	Line	5.47	8.20	10.94	3.44	3.56	1.57	3.13	4.70
		Rate (households)	52.9	82.5	92.5	24.6	26.2	2.5	19.9	42.4
		Rate (people)	61.4	88.3	95.7	30.8	33.1	3.4	25.4	50.2
	2005	Line	5.66	8.50	11.33	3.53	3.72	1.60	3.19	4.79
		Rate (households)	55.7	81.0	92.6	24.5	27.0	3.9	19.9	42.2
		Rate (people)	63.4	87.2	95.4	32.4	34.8	4.1	26.0	51.4
	2006	Line	5.98	8.97	11.95	3.72	3.73	1.69	3.38	5.07
		Rate (households)	50.9	78.5	91.6	23.6	22.2	2.1	17.9	40.4
		Rate (people)	58.9	85.3	95.5	29.5	28.9	3.2	23.8	47.9
	2007	Line	6.10	9.16	12.21	3.72	3.60	1.73	3.46	5.20
		Rate (households)	59.9	82.6	91.6	31.4	28.0	3.0	26.4	48.7
		Rate (people)	68.5	87.0	94.5	38.0	34.6	4.6	33.6	56.7

Figure A11: Huancavelica, poverty lines and poverty rates, by round and by

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	7.10	10.65	14.20	3.79	4.42	1.96	3.92	5.88
		Rate (households)	45.2	63.0	72.6	13.7	16.4	1.4	15.1	31.5
		Rate (people)	55.9	74.3	81.4	22.9	26.3	2.5	25.4	42.1
	2003	Line	7.33	10.99	14.65	3.96	3.81	2.04	4.09	6.13
		Rate (households)	49.9	66.7	78.9	31.9	27.3	6.8	31.9	48.2
		Rate (people)	60.2	74.3	84.8	35.2	30.7	8.3	35.2	58.1
	2004	Line	7.46	11.18	14.91	4.04	4.34	2.13	4.27	6.40
		Rate (households)	59.6	68.9	85.4	27.4	31.9	0.0	27.4	53.8
		Rate (people)	71.2	80.3	92.3	34.2	40.4	0.0	34.2	64.6
	2005	Line	7.61	11.41	15.22	4.04	4.31	2.15	4.29	6.44
		Rate (households)	52.1	73.7	87.3	12.4	17.6	3.3	17.6	42.3
		Rate (people)	65.8	86.2	94.3	16.0	26.9	4.1	26.9	54.9
	2006	Line	7.75	11.62	15.49	4.07	5.23	2.19	4.38	6.57
		Rate (households)	47.3	72.7	87.9	16.3	24.0	4.4	19.9	37.7
		Rate (people)	55.0	79.8	93.5	22.1	28.4	7.3	26.2	46.1
	2007	Line	7.74	11.61	15.49	4.00	4.85	2.20	4.39	6.59
		Rate (households)	41.2	65.3	74.5	9.0	15.7	1.1	13.4	33.3
		Rate (people)	54.7	76.0	80.2	14.2	24.4	2.6	22.4	46.1
Rural	2002	Line	5.64	8.46	11.28	3.57	2.61	1.56	3.11	4.67
		Rate (households)	79.3	92.3	95.9	53.1	34.1	11.2	45.0	69.1
		Rate (people)	86.3	95.8	98.0	63.7	42.4	15.3	54.3	77.6
	2003	Line	6.07	9.11	12.14	3.94	2.33	1.69	3.39	5.08
		Rate (households)	81.2	89.4	96.3	62.1	33.1	11.9	52.7	73.7
		Rate (people)	88.7	94.6	98.3	73.1	43.5	15.6	64.5	82.3
	2004	Line	5.79	8.68	11.58	3.67	2.72	1.66	3.31	4.97
		Rate (households)	80.5	92.1	96.0	60.8	39.0	12.8	52.8	75.7
		Rate (people)	87.0	96.6	98.8	68.9	45.0	15.0	59.8	82.5
	2005	Line	6.19	9.29	12.39	3.97	2.21	1.75	3.49	5.24
		Rate (households)	84.0	92.5	96.4	68.2	37.4	22.0	63.2	79.0
		Rate (people)	91.8	96.8	98.6	80.2	50.0	29.9	76.4	88.9
	2006	Line	6.31	9.46	12.62	4.02	2.41	1.78	3.57	5.35
		Rate (households)	83.4	92.4	95.4	67.5	38.0	21.9	61.3	78.3
		Rate (people)	90.9	96.5	98.2	77.8	47.9	29.3	72.2	87.0
	2007	Line	6.12	9.19	12.25	3.83	2.39	1.74	3.48	5.21
		Rate (households)	78.8	90.9	95.2	61.3	34.7	15.9	57.4	73.6
		Rate (people)	87.4	96.1	98.2	74.1	44.5	22.1	70.1	83.8

Figure A12: Huánuco, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	7.05	10.58	14.10	3.89	4.57	1.94	3.89	5.83
		Rate (households)	49.0	65.2	83.6	15.9	22.3	0.0	10.9	35.5
		Rate (people)	59.6	77.5	91.4	19.7	28.1	0.0	13.1	45.1
	2003	Line	7.17	10.75	14.33	3.97	4.27	2.00	4.00	6.00
		Rate (households)	33.2	58.8	77.5	10.7	13.6	0.0	6.0	25.7
		Rate (people)	43.3	68.0	85.4	14.9	19.1	0.0	7.6	35.1
	2004	Line	7.38	11.06	14.75	4.04	5.15	2.11	4.22	6.33
		Rate (households)	29.2	53.5	71.1	7.7	13.2	0.5	8.2	23.2
		Rate (people)	39.1	62.2	78.8	10.6	19.4	0.7	11.5	33.2
	2005	Line	7.54	11.31	15.08	4.00	5.10	2.13	4.25	6.38
		Rate (households)	30.2	52.2	67.4	2.2	10.3	0.0	3.9	18.1
		Rate (people)	38.3	63.4	77.1	3.8	16.3	0.0	6.5	22.7
	2006	Line	7.82	11.73	15.64	4.10	5.19	2.21	4.42	6.63
		Rate (households)	23.3	47.2	67.4	3.0	9.0	0.0	3.6	17.1
		Rate (people)	28.8	57.1	75.8	4.7	12.2	0.0	5.6	22.7
	2007	Line	7.88	11.82	15.76	4.04	5.28	2.24	4.47	6.71
		Rate (households)	28.3	47.9	65.0	5.5	13.5	0.5	7.1	21.7
		Rate (people)	34.1	54.2	70.7	6.6	16.8	0.4	8.8	26.1
Rural	2002	Line	5.68	8.52	11.36	3.54	2.29	1.57	3.13	4.70
		Rate (households)	87.0	94.8	97.9	66.7	39.3	16.4	58.2	80.4
		Rate (people)	91.6	97.1	98.9	74.0	49.3	23.7	66.3	86.7
	2003	Line	5.98	8.98	11.97	3.86	2.76	1.67	3.34	5.01
		Rate (households)	82.0	92.9	96.6	55.3	36.0	12.2	46.4	74.2
		Rate (people)	90.8	96.3	98.6	69.3	48.2	18.2	59.5	84.4
	2004	Line	6.01	9.02	12.03	3.67	3.14	1.72	3.44	5.16
		Rate (households)	78.4	90.9	95.2	48.7	37.6	6.8	43.5	71.4
		Rate (people)	85.1	95.2	97.8	56.0	44.3	8.1	50.8	78.9
	2005	Line	6.22	9.33	12.43	3.81	3.42	1.75	3.51	5.26
		Rate (households)	77.6	89.6	94.9	45.5	35.5	3.1	38.0	67.8
		Rate (people)	84.1	94.2	98.0	52.7	41.5	3.2	44.6	75.8
	2006	Line	6.51	9.77	13.02	3.94	3.25	1.84	3.68	5.52
		Rate (households)	77.6	89.9	95.7	50.5	37.5	6.1	46.3	71.8
		Rate (people)	85.0	94.7	97.8	58.9	43.6	7.5	53.0	80.4
	2007	Line	6.31	9.47	12.63	3.84	3.85	1.79	3.58	5.38
		Rate (households)	67.1	88.4	95.1	32.4	31.0	2.4	26.7	55.0
		Rate (people)	73.9	91.6	97.5	38.9	37.4	2.6	32.2	61.6

Figure A13: Ica, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	6.81	10.22	13.63	3.59	4.84	1.88	3.76	5.64
		Rate (households)	30.0	56.5	72.0	2.3	12.5	0.0	4.2	20.4
		Rate (people)	39.3	67.3	81.0	4.1	18.0	0.0	6.6	27.9
	2003	Line	6.78	10.17	13.56	3.48	5.35	1.89	3.78	5.67
		Rate (households)	20.7	46.6	61.7	1.1	8.8	0.0	2.4	12.2
		Rate (people)	25.0	55.2	70.3	1.4	10.5	0.0	3.5	14.5
	2004	Line	7.02	10.53	14.04	3.65	5.56	2.01	4.02	6.03
		Rate (households)	16.6	45.2	66.1	1.2	7.4	0.0	1.6	9.9
		Rate (people)	22.8	55.2	74.9	1.6	10.4	0.0	2.1	13.8
	2005	Line	7.18	10.77	14.35	3.72	5.92	2.02	4.05	6.07
		Rate (households)	17.3	44.1	64.2	1.3	7.7	0.0	1.5	9.3
		Rate (people)	23.7	55.1	73.5	1.4	10.6	0.0	2.0	13.2
	2006	Line	7.34	11.01	14.68	3.77	6.09	2.07	4.15	6.22
		Rate (households)	13.5	39.7	57.6	0.2	6.5	0.0	0.2	7.3
		Rate (people)	19.8	49.2	67.1	0.1	10.3	0.0	0.1	11.5
	2007	Line	7.58	11.37	15.15	3.96	6.66	2.15	4.30	6.45
		Rate (households)	12.8	45.9	67.0	0.2	6.3	0.0	0.2	5.2
		Rate (people)	15.2	54.4	75.0	0.2	7.1	0.0	0.2	6.0
Rural	2002	Line	5.92	8.88	11.84	3.38	4.29	1.63	3.27	4.90
		Rate (households)	29.4	61.5	72.6	5.5	18.4	0.0	5.3	20.6
		Rate (people)	44.8	78.0	85.7	10.4	27.8	0.0	10.1	30.8
	2003	Line	5.75	8.63	11.51	3.23	4.92	1.60	3.21	4.81
		Rate (households)	23.8	67.8	82.5	2.0	12.7	0.0	1.0	12.1
		Rate (people)	32.8	76.8	91.7	3.4	16.1	0.0	1.6	19.3
	2004	Line	6.09	9.13	12.17	3.37	4.88	1.74	3.48	5.23
		Rate (households)	17.8	46.6	70.3	1.0	6.6	0.0	1.0	9.3
		Rate (people)	21.4	59.1	83.9	1.4	8.0	0.0	1.4	13.1
	2005	Line	6.17	9.25	12.34	3.45	5.64	1.74	3.48	5.22
		Rate (households)	15.5	47.2	78.5	0.5	7.6	0.0	0.5	3.1
		Rate (people)	20.8	62.0	90.4	0.8	10.4	0.0	0.8	5.3
	2006	Line	6.47	9.70	12.93	3.62	5.46	1.83	3.66	5.48
		Rate (households)	26.1	58.5	82.1	2.9	14.0	0.0	2.7	11.7
		Rate (people)	33.5	67.1	91.0	4.4	18.8	0.0	4.1	15.8
	2007	Line	6.81	10.22	13.63	3.77	5.31	1.93	3.87	5.80
		Rate (households)	11.6	48.1	74.5	0.3	4.2	0.0	0.3	6.5
		Rate (people)	14.3	54.4	83.7	0.5	6.5	0.0	0.5	9.5

Figure A14: Junín, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	6.92	10.39	13.85	3.84	4.44	1.91	3.82	5.73
		Rate (households)	37.0	60.0	74.6	12.1	19.1	0.6	12.1	28.5
		Rate (people)	43.3	66.3	79.6	16.0	22.8	0.8	16.0	34.4
	2003	Line	7.06	10.59	14.12	3.86	5.05	1.97	3.94	5.91
		Rate (households)	27.5	58.5	75.7	6.3	11.6	0.0	6.9	19.6
		Rate (people)	36.1	69.2	83.7	8.7	16.5	0.0	9.3	26.5
	2004	Line	7.31	10.97	14.63	4.02	5.55	2.09	4.19	6.28
		Rate (households)	27.5	53.3	71.3	5.9	13.6	0.0	7.2	20.2
		Rate (people)	34.5	61.1	78.9	7.6	17.5	0.0	9.2	24.4
	2005	Line	7.50	11.25	15.01	4.04	5.73	2.12	4.23	6.35
		Rate (households)	26.4	52.4	67.7	4.8	14.2	0.0	5.3	19.6
		Rate (people)	35.4	63.8	75.8	7.0	20.6	0.0	7.6	26.6
	2006	Line	7.64	11.46	15.27	4.05	5.50	2.16	4.32	6.48
		Rate (households)	22.8	47.8	66.5	2.7	10.4	0.0	4.2	15.0
		Rate (people)	31.2	57.2	77.2	4.0	14.7	0.0	6.3	21.5
	2007	Line	7.76	11.63	15.51	4.15	6.22	2.20	4.40	6.60
		Rate (households)	24.4	48.1	66.1	2.0	11.8	0.0	2.0	16.2
		Rate (people)	30.2	56.5	74.9	3.2	14.5	0.0	3.2	19.4
Rural	2002	Line	5.84	8.76	11.68	3.60	3.54	1.61	3.22	4.83
		Rate (households)	59.0	81.4	91.9	27.8	27.5	1.6	21.5	45.6
		Rate (people)	69.7	88.0	94.9	35.0	34.3	2.1	28.6	55.6
	2003	Line	6.13	9.20	12.26	3.79	4.08	1.71	3.42	5.13
		Rate (households)	53.4	78.6	84.9	20.6	25.2	2.1	14.7	38.0
		Rate (people)	67.0	88.5	91.9	28.3	32.6	2.9	20.8	46.9
	2004	Line	6.12	9.17	12.23	3.73	4.17	1.75	3.50	5.25
		Rate (households)	44.2	76.0	86.4	13.6	19.3	0.0	9.3	32.1
		Rate (people)	54.4	84.4	92.1	19.9	26.5	0.0	13.7	41.2
	2005	Line	6.29	9.44	12.58	3.81	4.03	1.77	3.55	5.32
		Rate (households)	54.0	78.1	87.2	19.1	24.9	0.6	13.6	41.7
		Rate (people)	65.8	87.6	93.6	27.0	34.4	1.3	20.8	52.0
	2006	Line	6.51	9.76	13.02	3.88	4.40	1.84	3.68	5.52
		Rate (households)	43.0	68.0	80.1	13.9	19.5	0.0	9.1	31.1
		Rate (people)	53.9	80.4	90.4	19.6	26.5	0.0	12.8	40.1
	2007	Line	6.50	9.76	13.01	3.86	4.48	1.85	3.69	5.54
		Rate (households)	40.0	67.0	80.8	12.0	18.4	0.5	9.8	31.3
		Rate (people)	49.7	76.6	87.7	17.2	24.5	0.4	14.6	40.5

Figure A15: La Libertad, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	6.75	10.13	13.51	3.32	5.26	1.86	3.73	5.59
		Rate (households)	25.7	48.7	65.4	3.8	12.3	0.0	5.5	15.2
		Rate (people)	31.6	57.6	73.5	4.6	15.5	0.0	7.0	19.5
	2003	Line	6.78	10.18	13.57	3.28	4.75	1.89	3.78	5.68
		Rate (households)	19.1	43.6	61.7	2.4	6.8	0.0	3.6	10.7
		Rate (people)	25.6	53.7	71.0	3.1	9.2	0.0	5.8	14.6
	2004	Line	7.09	10.63	14.17	3.50	5.70	2.03	4.06	6.08
		Rate (households)	22.7	47.3	64.3	2.3	10.9	0.3	3.8	14.6
		Rate (people)	27.5	56.4	71.2	2.9	13.3	0.5	5.2	17.9
	2005	Line	7.26	10.89	14.52	3.59	5.73	2.05	4.09	6.14
		Rate (households)	16.3	43.5	59.6	0.3	6.9	0.0	1.1	9.7
		Rate (people)	18.9	49.5	66.8	0.3	8.1	0.0	1.7	11.3
	2006	Line	7.44	11.15	14.87	3.71	5.53	2.10	4.20	6.31
		Rate (households)	16.7	40.2	55.2	1.8	8.5	0.0	4.2	12.3
		Rate (people)	22.6	49.9	65.4	2.5	11.9	0.0	5.8	17.2
	2007	Line	7.61	11.41	15.22	3.84	6.12	2.16	4.32	6.48
		Rate (households)	18.5	39.8	55.5	1.2	9.1	0.0	2.7	11.0
		Rate (people)	23.1	47.2	62.1	1.6	11.9	0.0	3.7	14.3
Rural	2002	Line	6.01	9.01	12.01	3.67	2.94	1.66	3.31	4.97
		Rate (households)	65.5	85.7	92.3	38.9	28.2	7.8	33.4	57.0
		Rate (people)	71.0	89.8	95.3	45.2	35.7	10.3	40.0	61.9
	2003	Line	5.68	8.52	11.36	3.31	3.29	1.58	3.17	4.75
		Rate (households)	68.3	90.9	94.5	32.9	30.7	3.7	25.9	58.7
		Rate (people)	75.0	93.9	95.2	39.8	36.7	4.7	30.9	66.7
	2004	Line	5.78	8.67	11.56	3.31	3.22	1.65	3.31	4.96
		Rate (households)	63.4	79.5	87.1	30.6	28.7	3.0	26.9	56.9
		Rate (people)	74.2	88.9	92.9	40.9	38.3	4.3	35.4	66.9
	2005	Line	5.85	8.78	11.71	3.35	3.38	1.65	3.30	4.95
		Rate (households)	59.5	76.1	87.6	26.3	28.3	2.8	25.5	53.8
		Rate (people)	72.8	87.4	95.1	34.7	36.8	4.4	33.8	66.5
	2006	Line	6.15	9.23	12.31	3.61	3.56	1.74	3.48	5.22
		Rate (households)	62.4	80.8	89.1	27.2	25.9	1.4	20.7	51.9
		Rate (people)	70.9	88.2	95.0	35.2	34.2	1.8	28.5	61.2
	2007	Line	6.24	9.37	12.49	3.57	3.56	1.77	3.54	5.32
		Rate (households)	40.6	61.3	77.9	16.1	17.3	1.0	13.0	31.5
		Rate (people)	51.1	72.7	87.2	23.8	25.1	1.4	19.3	41.5

Figure A16: Lambayeque, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	6.32	9.48	12.64	3.27	4.43	1.74	3.49	5.23
		Rate (households)	45.9	69.0	84.3	9.4	23.1	0.9	12.6	32.7
		Rate (people)	52.2	76.6	88.5	12.2	27.2	1.4	15.7	38.3
	2003	Line	6.44	9.66	12.89	3.34	5.19	1.80	3.59	5.39
		Rate (households)	28.4	60.1	78.7	1.8	15.7	0.0	3.4	17.2
		Rate (people)	34.5	65.8	82.8	3.0	19.4	0.0	5.0	20.5
	2004	Line	6.70	10.04	13.39	3.53	5.39	1.92	3.83	5.75
		Rate (households)	28.7	53.1	70.7	3.8	13.4	0.0	5.0	15.4
		Rate (people)	35.8	60.8	77.9	5.4	18.0	0.0	6.9	20.1
	2005	Line	6.86	10.28	13.71	3.59	5.42	1.93	3.87	5.80
		Rate (households)	21.1	49.4	64.9	2.3	11.5	0.0	2.6	14.6
		Rate (people)	27.7	59.1	73.5	4.1	15.2	0.0	4.9	19.5
	2006	Line	7.01	10.52	14.02	3.66	5.68	1.98	3.96	5.95
		Rate (households)	18.5	42.1	60.9	1.6	8.1	0.0	1.9	10.2
		Rate (people)	23.8	50.8	68.0	2.2	12.0	0.0	2.9	14.0
	2007	Line	7.24	10.85	14.47	3.82	5.96	2.05	4.11	6.16
		Rate (households)	24.0	46.1	64.2	2.1	11.2	0.0	2.9	13.0
		Rate (people)	30.0	53.3	70.8	3.0	14.8	0.0	4.0	17.1
Rural	2002	Line	5.75	8.62	11.50	3.25	3.17	1.59	3.17	4.76
		Rate (households)	55.8	87.5	98.9	26.8	26.1	4.0	22.0	51.7
		Rate (people)	64.4	91.9	99.1	33.3	33.7	5.0	27.6	60.2
	2003	Line	5.69	8.54	11.39	3.18	3.83	1.59	3.18	4.76
		Rate (households)	45.7	75.8	93.1	4.5	14.6	0.0	4.5	27.0
		Rate (people)	59.8	85.9	96.1	5.5	22.1	0.0	5.5	38.4
	2004	Line	6.03	9.04	12.06	3.37	3.86	1.73	3.45	5.18
		Rate (households)	35.7	62.8	80.2	8.9	18.4	0.0	8.1	26.8
		Rate (people)	48.0	72.8	87.0	11.6	22.9	0.0	9.9	34.7
	2005	Line	6.23	9.34	12.46	3.47	4.32	1.76	3.51	5.27
		Rate (households)	49.8	79.2	87.2	7.9	19.9	0.0	5.3	38.8
		Rate (people)	61.4	89.0	93.4	10.4	23.9	0.0	6.7	50.4
	2006	Line	6.45	9.68	12.90	3.59	4.19	1.82	3.65	5.47
		Rate (households)	46.0	74.8	92.3	11.2	20.7	1.7	10.8	38.3
		Rate (people)	62.2	85.1	95.7	19.8	32.6	2.0	19.0	54.3
	2007	Line	6.43	9.64	12.86	3.61	4.61	1.82	3.65	5.47
		Rate (households)	45.5	73.2	83.6	10.1	23.3	0.0	9.7	32.7
		Rate (people)	53.1	81.6	89.4	12.0	27.5	0.0	11.3	37.3

Figure A17: Lima, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	8.70	13.05	17.40	4.08	6.47	2.40	4.80	7.20
		Rate (households)	28.0	54.5	68.3	2.6	14.1	0.1	4.9	19.2
		Rate (people)	36.4	63.6	76.0	3.9	19.2	0.3	7.4	26.1
	2003	Line	8.77	13.15	17.54	4.10	6.64	2.44	4.89	7.33
		Rate (households)	26.1	53.2	67.2	1.9	12.2	0.1	4.0	17.6
		Rate (people)	31.8	60.1	74.2	2.7	16.7	0.1	5.2	22.7
	2004	Line	8.85	13.27	17.69	4.09	6.91	2.53	5.06	7.60
		Rate (households)	24.0	50.4	66.3	1.4	12.4	0.1	3.9	15.9
		Rate (people)	30.0	57.6	73.8	2.1	16.3	0.1	5.3	20.5
	2005	Line	9.16	13.74	18.32	4.24	7.08	2.58	5.17	7.75
		Rate (households)	24.5	50.7	69.3	1.4	11.4	0.0	3.1	16.2
		Rate (people)	32.4	61.5	77.3	1.5	16.3	0.0	4.6	21.9
	2006	Line	9.12	13.67	18.23	4.16	7.31	2.58	5.15	7.73
		Rate (households)	19.2	42.9	60.4	0.7	9.9	0.0	2.4	12.3
		Rate (people)	25.1	53.0	70.3	1.2	13.0	0.0	3.2	16.2
	2007	Line	9.35	14.02	18.70	4.28	7.67	2.65	5.31	7.96
		Rate (households)	14.3	39.3	57.9	0.4	7.1	0.1	1.1	8.5
		Rate (people)	18.8	47.9	66.7	0.6	9.7	0.1	1.6	11.6
Rural	2002	Line	6.09	9.13	12.17	3.96	4.28	1.68	3.36	5.04
		Rate (households)	48.4	79.0	88.5	20.3	26.1	3.7	11.1	38.5
		Rate (people)	49.1	84.7	93.6	18.6	26.9	2.3	9.3	39.6
	2003	Line	5.36	8.03	10.71	3.30	4.28	1.49	2.99	4.48
		Rate (households)	24.6	59.9	77.9	6.3	12.3	1.3	3.5	15.5
		Rate (people)	34.2	72.3	88.6	11.1	20.5	2.3	4.9	25.6
	2004	Line	5.45	8.18	10.91	3.29	3.76	1.56	3.12	4.68
		Rate (households)	36.3	65.4	80.0	14.4	17.8	0.0	9.4	29.3
		Rate (people)	53.6	79.1	89.6	25.8	30.7	0.0	19.8	46.7
	2005	Line	5.68	8.53	11.37	3.44	4.37	1.60	3.21	4.81
		Rate (households)	27.6	65.2	75.7	6.7	15.7	1.2	6.5	21.2
		Rate (people)	36.3	78.9	88.0	8.6	20.0	2.6	8.4	28.2
	2006	Line	5.93	8.90	11.87	3.68	4.62	1.68	3.35	5.03
		Rate (households)	32.9	60.0	81.5	11.1	14.7	0.0	9.7	18.8
		Rate (people)	45.4	67.3	90.1	17.0	21.4	0.0	14.6	28.0
	2007	Line	6.31	9.47	12.62	3.76	4.44	1.79	3.58	5.37
		Rate (households)	24.7	52.5	73.9	6.4	11.5	0.0	6.2	18.1
		Rate (people)	33.7	63.0	82.7	9.9	17.0	0.0	9.2	26.0

Figure A18: Loreto, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	7.69	11.54	15.39	5.03	5.06	2.12	4.24	6.37
		Rate (households)	39.5	60.1	73.3	16.3	16.3	1.1	11.1	25.0
		Rate (people)	48.9	70.8	82.0	23.0	23.0	1.7	16.6	32.1
	2003	Line	7.85	11.77	15.70	5.19	5.12	2.19	4.38	6.57
		Rate (households)	37.8	64.9	78.8	17.0	14.8	0.0	6.8	28.1
		Rate (people)	49.8	74.7	85.0	23.8	21.7	0.0	11.2	36.5
	2004	Line	7.27	10.91	14.54	4.54	5.12	2.08	4.16	6.24
		Rate (households)	38.1	57.5	74.2	12.3	18.6	0.0	6.9	27.0
		Rate (people)	46.1	67.0	81.7	16.5	23.4	0.0	9.6	34.0
	2005	Line	7.52	11.27	15.03	4.65	4.81	2.12	4.24	6.36
		Rate (households)	44.4	66.1	82.5	18.7	19.8	0.8	14.9	36.5
		Rate (people)	56.3	77.4	90.3	23.3	25.1	1.1	18.3	46.4
	2006	Line	7.58	11.38	15.17	4.61	5.52	2.14	4.29	6.43
		Rate (households)	26.4	51.8	69.1	6.0	10.5	0.6	5.6	16.4
		Rate (people)	34.9	61.6	78.9	9.3	15.4	0.8	8.7	22.4
	2007	Line	7.67	11.50	15.34	4.69	5.57	2.18	4.35	6.53
		Rate (households)	29.3	53.4	67.5	8.2	13.7	0.2	7.1	18.1
		Rate (people)	38.1	64.3	77.4	10.8	18.2	0.3	8.9	24.0
Rural	2002	Line	5.94	8.92	11.89	3.94	3.19	1.64	3.28	4.92
		Rate (households)	64.8	80.0	84.4	39.7	28.1	1.5	28.1	55.2
		Rate (people)	76.5	87.0	90.6	52.2	37.7	2.4	37.2	67.9
	2003	Line	6.49	9.73	12.98	4.44	3.82	1.81	3.62	5.43
		Rate (households)	67.0	89.1	94.4	42.5	29.7	2.7	29.6	55.8
		Rate (people)	75.9	94.7	98.5	53.5	38.4	3.2	39.1	66.7
	2004	Line	6.27	9.40	12.54	4.24	3.71	1.79	3.59	5.38
		Rate (households)	73.4	92.4	97.0	43.3	33.7	0.8	31.9	63.8
		Rate (people)	79.7	96.8	99.0	53.4	42.6	1.0	40.8	72.3
	2005	Line	6.25	9.37	12.49	4.09	3.77	1.76	3.52	5.28
		Rate (households)	73.8	88.8	97.2	40.5	33.3	4.4	25.4	65.0
		Rate (people)	84.4	94.1	98.8	49.8	39.8	6.7	31.5	77.6
	2006	Line	6.32	9.48	12.64	4.10	3.92	1.79	3.57	5.36
		Rate (households)	69.5	89.2	94.7	34.5	32.0	3.4	21.7	54.3
		Rate (people)	78.6	95.1	98.1	41.7	37.0	4.2	26.0	63.3
	2007	Line	6.13	9.19	12.25	4.01	4.06	1.74	3.48	5.22
		Rate (households)	59.1	81.9	89.8	27.4	28.0	1.2	16.1	47.1
		Rate (people)	67.2	90.1	95.8	33.3	33.2	1.8	20.3	54.6

Figure A19: Madre de Díos, poverty lines and poverty rates, by round and by

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	8.46	12.69	16.92	5.72	6.40	2.33	4.67	7.00
		Rate (households)	39.5	64.9	79.7	12.7	20.2	0.5	9.1	24.7
		Rate (people)	51.4	75.8	88.0	17.4	28.2	1.1	13.6	33.7
	2003	Line	8.12	12.19	16.25	5.31	6.66	2.27	4.53	6.80
		Rate (households)	18.3	41.0	57.3	2.6	6.0	0.0	0.9	7.7
		Rate (people)	25.1	53.9	71.2	4.4	8.6	0.0	1.1	10.4
	2004	Line	7.43	11.15	14.87	4.56	6.06	2.13	4.26	6.38
		Rate (households)	12.6	45.4	68.6	0.6	5.8	0.0	0.6	6.4
		Rate (people)	17.3	56.1	78.2	0.9	7.6	0.0	0.9	8.3
	2005	Line	7.69	11.53	15.37	4.70	6.34	2.17	4.33	6.50
		Rate (households)	17.5	37.5	59.5	2.9	6.9	0.0	1.0	10.7
		Rate (people)	24.2	49.9	72.8	3.1	9.5	0.0	1.3	14.3
	2006	Line	7.81	11.71	15.61	4.76	6.06	2.21	4.41	6.62
		Rate (households)	7.7	37.6	52.9	0.6	2.1	0.0	0.6	7.0
		Rate (people)	11.2	50.3	66.8	0.6	2.8	0.0	0.6	10.1
	2007	Line	7.90	11.85	15.80	4.87	7.19	2.24	4.48	6.72
		Rate (households)	8.2	25.4	46.2	0.7	3.7	0.0	0.4	2.6
		Rate (people)	11.1	30.8	53.0	1.6	5.2	0.0	1.1	4.1
Rural	2002	Line	5.79	8.68	11.58	3.88	4.18	1.60	3.19	4.79
		Rate (households)	34.8	61.8	76.0	10.5	14.9	0.0	3.6	23.0
		Rate (people)	48.8	75.8	88.0	15.6	23.7	0.0	5.2	33.7
	2003	Line	6.34	9.51	12.68	4.39	5.28	1.77	3.53	5.30
		Rate (households)	25.6	59.7	71.6	5.7	12.9	0.0	2.1	13.0
		Rate (people)	34.0	70.7	83.0	7.2	18.5	0.0	2.2	18.6
	2004	Line	6.12	9.18	12.24	4.14	4.86	1.75	3.50	5.26
		Rate (households)	23.0	48.0	73.1	7.6	11.3	0.2	4.7	15.1
		Rate (people)	33.8	64.0	86.0	10.5	15.5	0.3	6.7	22.0
	2005	Line	6.05	9.08	12.10	3.99	4.43	1.71	3.41	5.12
		Rate (households)	28.5	54.7	69.7	9.2	13.6	0.3	6.4	21.0
		Rate (people)	43.4	72.2	85.1	15.4	22.7	0.4	10.6	33.6
	2006	Line	6.17	9.25	12.34	4.07	5.12	1.74	3.49	5.23
		Rate (households)	15.9	43.1	62.8	2.9	7.0	0.0	1.2	7.4
		Rate (people)	25.3	54.2	74.9	5.4	12.1	0.0	2.1	12.2
	2007	Line	6.03	9.05	12.06	3.96	5.22	1.71	3.42	5.13
		Rate (households)	12.6	36.8	58.4	1.4	6.5	0.0	1.1	6.4
		Rate (people)	19.5	48.3	71.5	2.2	9.3	0.0	1.8	9.3

Figure A20: Moquegua, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	6.67	10.00	13.34	3.34	5.02	1.84	3.68	5.52
		Rate (households)	20.8	47.1	65.8	1.5	9.1	0.0	3.5	12.0
		Rate (people)	27.8	54.8	72.8	2.1	14.1	0.0	4.8	18.1
	2003	Line	6.85	10.27	13.70	3.42	5.33	1.91	3.82	5.73
		Rate (households)	17.5	47.9	66.6	2.1	9.7	0.4	3.0	12.8
		Rate (people)	20.5	54.5	72.0	2.1	10.4	0.2	2.9	15.2
	2004	Line	7.15	10.72	14.30	3.60	5.23	2.05	4.09	6.14
		Rate (households)	25.2	49.6	72.2	2.3	10.4	0.0	5.3	17.0
		Rate (people)	31.6	58.0	77.8	2.6	14.4	0.0	7.1	22.7
	2005	Line	7.37	11.05	14.74	3.66	6.01	2.08	4.16	6.23
		Rate (households)	19.5	44.5	62.7	1.0	9.8	0.0	1.7	11.0
		Rate (people)	24.0	50.4	70.3	1.2	11.4	0.0	2.4	12.9
	2006	Line	7.42	11.13	14.84	3.59	6.01	2.10	4.20	6.29
		Rate (households)	14.7	40.5	59.6	0.3	5.6	0.0	1.4	7.3
		Rate (people)	20.0	48.7	67.4	0.7	8.1	0.0	2.2	10.5
	2007	Line	7.82	11.72	15.63	3.93	6.11	2.22	4.44	6.65
		Rate (households)	16.2	41.5	59.5	1.7	7.6	0.0	3.1	10.9
		Rate (people)	21.9	51.2	69.5	2.5	10.8	0.0	4.7	15.3
Rural	2002	Line	5.55	8.32	11.09	3.50	3.24	1.53	3.06	4.59
		Rate (households)	54.3	80.3	91.1	29.9	27.3	3.7	25.2	45.5
		Rate (people)	60.1	86.5	94.1	34.1	31.6	4.0	29.1	50.1
	2003	Line	5.40	8.10	10.80	3.35	3.98	1.51	3.01	4.52
		Rate (households)	31.1	64.8	79.7	10.4	15.1	0.0	7.9	23.0
		Rate (people)	37.4	74.0	86.9	14.9	20.3	0.0	11.6	28.4
	2004	Line	5.55	8.32	11.10	3.36	3.35	1.59	3.18	4.76
		Rate (households)	45.3	68.6	87.7	23.8	23.8	1.9	21.7	35.3
		Rate (people)	54.0	77.7	93.3	27.9	27.9	2.1	26.3	43.9
	2005	Line	5.77	8.66	11.55	3.43	3.96	1.63	3.26	4.88
		Rate (households)	38.5	65.1	80.9	13.0	18.5	0.0	13.0	28.0
		Rate (people)	49.4	75.5	87.5	17.4	24.8	0.0	18.0	37.3
	2006	Line	5.97	8.96	11.95	3.58	4.80	1.69	3.38	5.07
		Rate (households)	33.1	69.0	85.5	8.5	19.1	0.3	7.6	23.2
		Rate (people)	43.1	80.1	92.9	10.9	24.4	0.7	10.5	31.0
	2007	Line	5.99	8.99	11.99	3.52	4.38	1.70	3.40	5.10
		Rate (households)	36.9	54.3	69.9	8.9	17.5	0.5	9.6	30.4
		Rate (people)	40.2	60.7	78.0	10.0	20.1	0.7	10.0	30.9

Figure A21: Pasco, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	7.21	10.82	14.42	3.85	4.48	1.99	3.98	5.97
		Rate (households)	37.5	60.5	71.9	12.1	18.1	1.8	13.3	30.8
		Rate (people)	48.4	68.5	79.8	17.3	24.3	2.6	18.5	40.2
	2003	Line	7.32	10.98	14.64	3.82	5.42	2.04	4.08	6.12
		Rate (households)	31.1	56.6	75.0	1.8	15.5	0.0	3.9	18.4
		Rate (people)	39.9	68.4	87.1	2.7	21.4	0.0	4.8	24.8
	2004	Line	7.62	11.44	15.25	4.00	5.17	2.18	4.36	6.55
		Rate (households)	34.2	61.9	78.1	10.1	17.3	0.0	13.9	26.4
		Rate (people)	43.3	69.3	84.6	15.7	23.6	0.0	20.7	33.7
	2005	Line	7.85	11.78	15.71	3.99	5.20	2.21	4.43	6.64
		Rate (households)	47.8	77.2	88.8	9.6	23.0	0.8	13.0	36.7
		Rate (people)	54.8	85.3	95.1	12.0	29.9	1.1	16.6	45.0
	2006	Line	8.14	12.20	16.27	4.07	5.49	2.30	4.60	6.90
		Rate (households)	44.9	69.9	83.4	4.5	18.8	0.0	9.2	35.6
		Rate (people)	54.0	76.6	89.4	6.9	24.9	0.0	13.6	44.2
	2007	Line	8.24	12.36	16.47	4.09	6.53	2.34	4.68	7.01
		Rate (households)	36.8	64.7	80.8	2.6	16.5	0.0	4.8	23.6
		Rate (people)	44.5	73.1	89.2	4.6	22.0	0.0	7.9	30.5
Rural	2002	Line	5.96	8.95	11.93	3.60	3.52	1.65	3.29	4.94
		Rate (households)	58.0	74.9	83.2	26.8	26.2	4.1	23.3	46.8
		Rate (people)	71.5	85.7	92.2	36.9	36.2	7.1	33.6	60.2
	2003	Line	6.23	9.35	12.46	3.80	3.71	1.74	3.48	5.21
		Rate (households)	50.3	77.3	86.6	22.9	22.0	0.7	18.8	37.9
		Rate (people)	59.0	85.3	92.2	31.0	29.1	1.6	26.4	46.6
	2004	Line	6.14	9.21	12.28	3.67	3.86	1.76	3.51	5.27
		Rate (households)	66.9	83.4	91.3	29.5	31.9	1.9	27.6	52.5
		Rate (people)	73.9	89.6	94.6	36.8	39.6	3.7	33.3	61.3
	2005	Line	6.42	9.62	12.83	3.79	3.75	1.81	3.62	5.43
		Rate (households)	69.4	86.7	93.2	31.5	31.9	5.0	30.1	58.5
		Rate (people)	79.8	93.4	96.6	43.4	44.3	7.2	41.7	71.1
	2006	Line	6.73	10.10	13.47	3.93	3.94	1.90	3.81	5.71
		Rate (households)	67.3	86.0	92.0	30.5	31.0	3.3	26.3	55.9
		Rate (people)	77.6	92.6	96.0	38.1	39.4	3.8	33.4	66.8
	2007	Line	6.77	10.15	13.53	3.88	3.60	1.92	3.84	5.76
		Rate (households)	57.7	76.2	88.1	28.7	24.6	2.3	26.4	48.9
		Rate (people)	68.9	85.2	93.5	38.1	33.3	4.2	35.6	60.9

Figure A22: Piura, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	6.71	10.07	13.43	3.45	4.17	1.85	3.70	5.56
		Rate (households)	47.6	71.2	84.9	13.9	24.5	0.2	18.5	37.4
		Rate (people)	56.6	78.7	89.9	19.7	31.8	0.3	24.5	45.8
	2003	Line	6.85	10.27	13.70	3.41	4.25	1.91	3.82	5.73
		Rate (households)	48.1	70.5	85.3	13.1	21.4	2.8	16.8	36.9
		Rate (people)	55.7	78.6	89.9	19.6	28.3	5.8	24.1	45.2
	2004	Line	7.10	10.65	14.20	3.61	4.97	2.03	4.06	6.10
		Rate (households)	48.0	76.6	85.1	6.4	21.2	0.6	12.7	34.5
		Rate (people)	56.2	84.1	90.8	10.3	28.9	1.1	18.2	43.9
	2005	Line	7.19	10.79	14.38	3.64	5.21	2.03	4.05	6.08
		Rate (households)	46.3	72.2	86.1	6.9	21.6	0.0	10.0	34.7
		Rate (people)	54.1	80.1	91.9	10.6	27.1	0.0	14.1	41.6
	2006	Line	7.41	11.11	14.82	3.78	5.44	2.09	4.19	6.28
		Rate (households)	33.4	66.1	79.5	3.0	14.8	0.0	5.6	21.4
		Rate (people)	41.2	74.0	86.0	4.9	20.4	0.0	8.6	28.4
	2007	Line	7.53	11.30	15.07	3.88	5.84	2.14	4.28	6.41
		Rate (households)	25.9	53.7	69.9	1.8	12.6	0.2	2.8	16.6
		Rate (people)	32.3	64.4	79.0	2.1	16.0	0.3	3.3	21.3
Rural	2002	Line	5.68	8.52	11.36	3.40	3.11	1.57	3.13	4.70
		Rate (households)	64.5	86.1	94.9	30.9	25.0	2.7	24.4	53.6
		Rate (people)	71.6	89.9	97.8	38.5	32.8	3.6	32.0	60.1
	2003	Line	5.41	8.12	10.82	3.15	3.41	1.51	3.02	4.53
		Rate (households)	78.1	93.4	95.3	34.0	38.8	1.5	29.1	67.0
		Rate (people)	84.7	97.1	98.4	39.8	45.0	2.8	34.0	72.7
	2004	Line	5.64	8.46	11.27	3.25	3.61	1.61	3.23	4.84
		Rate (households)	53.1	75.9	87.4	17.2	21.8	0.0	15.2	39.5
		Rate (people)	61.9	84.9	92.5	21.9	28.7	0.0	19.5	46.3
	2005	Line	5.75	8.63	11.51	3.36	3.45	1.62	3.24	4.87
		Rate (households)	58.8	85.4	92.4	26.0	28.4	0.7	22.5	51.7
		Rate (people)	70.1	90.3	95.9	33.3	36.1	0.9	28.6	62.8
	2006	Line	6.04	9.06	12.08	3.49	4.24	1.71	3.42	5.12
		Rate (households)	54.8	82.5	92.2	19.3	26.0	0.6	16.6	42.9
		Rate (people)	61.1	88.0	95.2	22.5	31.7	0.6	19.0	48.2
	2007	Line	6.23	9.34	12.46	3.54	3.72	1.77	3.53	5.30
		Rate (households)	52.0	75.0	86.9	20.7	24.4	0.9	18.2	40.2
		Rate (people)	60.9	83.6	91.2	25.9	30.2	0.9	23.1	48.7

Figure A23: Puno, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$3.75/day	$5.00/day	$4.32/day
Urban	2002	Line	7.16	10.75	14.33	3.77	4.40	1.98	3.95	5.93
		Rate (households)	54.0	73.7	83.6	18.7	25.4	2.8	20.2	42.3
		Rate (people)	61.2	79.5	87.8	23.1	31.4	2.6	25.2	50.3
	2003	Line	7.35	11.03	14.71	3.81	4.23	2.05	4.10	6.15
		Rate (households)	42.5	69.0	84.2	11.2	15.7	1.5	15.0	36.7
		Rate (people)	46.9	74.3	87.6	14.8	20.9	2.0	19.2	41.9
	2004	Line	7.46	11.18	14.91	3.84	4.95	2.13	4.27	6.40
		Rate (households)	49.2	72.1	83.5	11.3	22.9	1.7	15.4	40.7
		Rate (people)	60.1	81.1	90.1	15.5	32.0	3.4	21.9	52.4
	2005	Line	7.55	11.33	15.10	3.74	5.01	2.13	4.26	6.39
		Rate (households)	41.4	63.4	80.5	7.6	18.3	0.0	11.2	34.2
		Rate (people)	47.7	69.7	82.0	8.6	21.3	0.0	13.1	40.7
	2006	Line	7.99	11.99	15.98	4.02	5.71	2.26	4.52	6.78
		Rate (households)	40.3	70.3	85.5	8.8	20.8	0.6	10.7	30.6
		Rate (people)	46.1	75.7	89.7	10.6	25.9	1.0	13.2	35.5
	2007	Line	8.32	12.48	16.64	4.30	5.51	2.36	4.72	7.08
		Rate (households)	26.8	59.0	77.2	4.6	11.8	0.0	6.0	20.8
		Rate (people)	33.4	64.9	81.8	6.0	16.4	0.0	8.2	27.5
Rural	2002	Line	5.38	8.08	10.77	3.30	2.62	1.49	2.97	4.46
		Rate (households)	83.2	95.1	97.3	52.7	38.0	9.3	45.0	72.5
		Rate (people)	88.0	97.8	98.7	58.6	43.0	11.5	51.7	78.6
	2003	Line	5.87	8.80	11.73	3.64	2.89	1.64	3.27	4.91
		Rate (households)	78.6	95.7	99.3	47.8	33.7	5.9	39.8	66.4
		Rate (people)	84.5	97.1	99.8	54.6	39.1	7.8	47.8	73.9
	2004	Line	5.65	8.47	11.29	3.43	2.93	1.62	3.23	4.85
		Rate (households)	77.8	92.7	97.0	41.9	31.5	5.6	37.5	65.9
		Rate (people)	84.6	95.8	98.2	50.0	38.3	7.0	45.4	74.4
	2005	Line	5.84	8.77	11.69	3.48	2.93	1.65	3.30	4.94
		Rate (households)	76.6	92.5	95.8	44.0	31.5	4.6	38.7	68.9
		Rate (people)	83.5	96.5	97.7	52.2	39.2	6.8	47.2	76.4
	2006	Line	6.02	9.04	12.05	3.62	3.15	1.70	3.41	5.11
		Rate (households)	79.3	92.3	96.3	40.9	31.8	3.9	37.0	69.2
		Rate (people)	86.1	95.8	98.5	51.6	42.7	6.3	47.3	78.3
	2007	Line	6.28	9.42	12.56	3.71	3.75	1.78	3.56	5.35
		Rate (households)	70.9	89.0	95.8	32.2	33.5	2.4	29.5	60.5
		Rate (people)	75.7	91.2	97.3	37.4	38.8	3.5	35.4	65.7

Figure A24: San Martín, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	6.96	10.45	13.93	4.09	4.94	1.92	3.84	5.76
		Rate (households)	33.7	55.6	75.0	10.0	18.2	0.0	8.4	26.3
		Rate (people)	41.2	64.4	81.0	13.3	23.4	0.0	11.4	32.4
	2003	Line	7.40	11.10	14.80	4.50	5.22	2.06	4.13	6.19
		Rate (households)	38.9	60.2	75.6	14.9	19.2	0.8	11.9	26.3
		Rate (people)	45.5	65.7	80.3	19.0	23.1	1.5	14.7	33.1
	2004	Line	7.52	11.28	15.04	4.56	4.69	2.15	4.30	6.46
		Rate (households)	34.7	59.9	77.3	15.6	16.4	0.0	12.7	25.8
		Rate (people)	41.8	66.2	80.1	19.7	20.7	0.0	16.1	31.6
	2005	Line	7.56	11.35	15.13	4.57	5.57	2.13	4.27	6.40
		Rate (households)	34.5	61.5	76.7	12.0	15.8	0.0	9.5	23.1
		Rate (people)	41.3	69.5	81.1	15.3	20.5	0.0	12.5	29.2
	2006	Line	7.27	10.90	14.53	4.22	4.72	2.05	4.11	6.16
		Rate (households)	33.1	58.1	69.5	13.0	15.1	0.5	13.0	25.9
		Rate (people)	41.3	68.3	78.0	19.1	21.5	0.7	19.1	32.8
	2007	Line	7.28	10.92	14.55	4.20	5.19	2.07	4.13	6.20
		Rate (households)	31.7	53.0	69.0	8.7	16.7	0.0	8.4	24.0
		Rate (people)	39.2	61.1	75.7	12.0	20.4	0.0	11.5	29.6
Rural	2002	Line	5.74	8.60	11.47	3.53	3.52	1.58	3.16	4.75
		Rate (households)	56.1	78.7	91.7	28.7	26.7	2.1	23.2	45.0
		Rate (people)	63.8	84.7	94.6	35.4	32.0	2.4	29.4	53.1
	2003	Line	5.95	8.92	11.89	3.69	4.10	1.66	3.32	4.97
		Rate (households)	54.5	80.6	87.1	22.1	26.5	0.0	13.7	45.8
		Rate (people)	66.9	89.2	93.8	26.4	32.3	0.0	17.7	56.4
	2004	Line	5.78	8.67	11.56	3.56	4.01	1.65	3.31	4.96
		Rate (households)	45.8	74.3	84.9	19.3	24.6	1.9	15.2	39.1
		Rate (people)	54.6	83.5	91.5	22.2	30.2	2.0	17.5	46.7
	2005	Line	5.82	8.73	11.64	3.58	3.82	1.64	3.28	4.92
		Rate (households)	47.5	75.7	88.8	14.0	20.3	0.4	10.0	34.5
		Rate (people)	55.9	83.4	92.4	19.9	27.9	0.3	13.9	42.0
	2006	Line	5.82	8.73	11.63	3.54	4.07	1.64	3.29	4.93
		Rate (households)	53.0	81.2	91.4	13.6	25.1	0.2	12.5	39.0
		Rate (people)	60.3	87.7	94.5	16.4	30.7	0.2	14.8	45.1
	2007	Line	5.94	8.91	11.88	3.63	3.83	1.69	3.37	5.06
		Rate (households)	38.2	65.9	80.6	13.5	16.4	0.2	9.4	28.9
		Rate (people)	46.8	75.6	85.7	19.1	23.3	0.5	14.1	37.3

Figure A25: Tacna, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	6.33	9.49	12.65	3.20	5.01	1.74	3.49	5.23
		Rate (households)	22.2	49.3	68.9	0.5	8.6	0.0	0.8	9.9
		Rate (people)	28.8	58.7	77.2	0.9	12.1	0.0	1.4	13.9
	2003	Line	6.49	9.73	12.97	3.29	4.74	1.81	3.62	5.43
		Rate (households)	19.6	51.2	71.1	2.2	7.5	0.0	3.5	12.4
		Rate (people)	25.2	59.6	77.7	3.3	11.5	0.0	5.2	16.3
	2004	Line	6.77	10.15	13.53	3.48	5.47	1.94	3.87	5.81
		Rate (households)	16.7	47.1	66.1	1.1	8.0	0.0	1.7	10.3
		Rate (people)	20.1	52.9	70.9	1.7	9.8	0.0	2.1	12.6
	2005	Line	6.95	10.42	13.90	3.55	5.78	1.96	3.92	5.88
		Rate (households)	22.1	54.1	72.1	1.2	10.2	0.0	2.8	11.2
		Rate (people)	28.8	60.4	77.3	1.7	13.8	0.0	3.8	14.8
	2006	Line	6.97	10.46	13.94	3.44	5.90	1.97	3.94	5.91
		Rate (households)	11.8	41.1	63.4	0.9	6.7	0.0	0.9	6.7
		Rate (people)	14.4	48.5	71.3	1.5	8.5	0.0	1.5	8.5
	2007	Line	7.44	11.15	14.87	3.85	5.99	2.11	4.22	6.33
		Rate (households)	11.9	39.5	63.8	1.0	5.8	0.0	1.0	7.1
		Rate (people)	15.1	45.4	70.2	0.7	7.4	0.0	0.7	9.3
Rural	2002	Line	5.65	8.47	11.30	3.41	3.30	1.56	3.12	4.67
		Rate (households)	30.1	45.9	59.0	17.5	14.9	1.0	10.6	24.9
		Rate (people)	45.4	60.5	71.3	24.5	23.7	1.7	17.4	36.9
	2003	Line	5.57	8.36	11.14	3.33	3.16	1.55	3.11	4.66
		Rate (households)	30.5	52.9	61.9	14.6	13.0	4.2	9.1	25.2
		Rate (people)	42.0	65.9	70.4	21.5	19.2	3.7	10.9	36.7
	2004	Line	5.66	8.49	11.32	3.32	3.89	1.62	3.24	4.86
		Rate (households)	24.4	44.8	54.0	7.4	10.1	0.0	5.9	15.2
		Rate (people)	30.7	54.3	63.8	11.1	14.5	0.0	8.1	21.7
	2005	Line	5.67	8.51	11.35	3.28	3.87	1.60	3.20	4.80
		Rate (households)	24.2	39.9	46.5	5.2	9.9	0.5	4.4	16.0
		Rate (people)	36.8	56.5	64.1	10.2	16.0	0.9	8.3	25.1
	2006	Line	5.78	8.67	11.56	3.41	3.79	1.63	3.27	4.90
		Rate (households)	21.8	47.1	56.6	7.4	10.6	0.2	6.9	14.6
		Rate (people)	33.5	62.0	73.5	11.7	17.2	0.4	10.9	23.5
	2007	Line	6.16	9.24	12.32	3.59	3.83	1.75	3.50	5.24
		Rate (households)	30.5	51.4	64.3	12.7	13.6	1.6	11.2	25.5
		Rate (people)	37.4	60.5	73.9	17.0	18.1	2.5	16.7	32.9

Figure A26: Tumbes, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	6.91	10.37	13.83	3.60	4.67	1.91	3.81	5.72
		Rate (households)	24.9	48.9	68.9	4.0	10.1	0.0	7.0	15.0
		Rate (people)	32.6	56.0	74.6	6.8	15.5	0.0	11.6	20.7
	2003	Line	6.79	10.19	13.58	3.41	5.57	1.89	3.79	5.68
		Rate (households)	22.9	51.6	64.6	0.6	11.8	0.0	2.5	13.0
		Rate (people)	30.1	62.9	75.7	1.1	15.6	0.0	3.6	16.9
	2004	Line	7.21	10.82	14.42	3.70	5.99	2.06	4.13	6.19
		Rate (households)	19.5	45.5	60.6	0.4	7.7	0.0	1.3	9.3
		Rate (people)	23.8	55.1	68.9	0.5	10.4	0.0	1.6	12.2
	2005	Line	7.34	11.00	14.67	3.70	5.85	2.07	4.14	6.20
		Rate (households)	14.3	32.6	51.4	0.9	6.8	0.0	1.3	8.5
		Rate (people)	19.9	41.0	62.0	2.2	10.1	0.0	2.9	12.5
	2006	Line	7.47	11.20	14.93	3.81	6.36	2.11	4.22	6.33
		Rate (households)	8.7	32.8	53.5	0.4	3.9	0.0	0.9	3.9
		Rate (people)	11.7	40.7	61.5	0.3	5.1	0.0	1.3	5.1
	2007	Line	7.64	11.47	15.29	3.93	6.49	2.17	4.34	6.51
		Rate (households)	10.3	31.9	56.3	0.3	4.6	0.0	0.9	5.0
		Rate (people)	13.4	39.9	64.6	0.5	6.2	0.0	1.6	7.0
Rural	2002	Line	6.56	9.83	13.11	3.51	4.69	1.81	3.62	5.43
		Rate (households)	41.1	68.2	89.1	5.8	21.0	0.8	9.3	25.1
		Rate (people)	46.8	75.1	91.3	7.9	25.0	1.4	12.2	29.0
	2003	Line	6.34	9.52	12.69	3.30	5.14	1.77	3.54	5.31
		Rate (households)	19.5	52.4	74.1	5.4	9.3	0.0	5.1	14.0
		Rate (people)	26.9	65.2	82.3	6.1	12.1	0.0	5.8	20.7
	2004	Line	6.74	10.11	13.47	3.55	5.95	1.93	3.86	5.78
		Rate (households)	19.7	47.2	64.7	0.5	9.5	0.0	0.5	13.9
		Rate (people)	28.1	62.0	78.6	0.6	11.4	0.0	0.6	19.5
	2005	Line	6.81	10.21	13.62	3.61	5.15	1.92	3.84	5.76
		Rate (households)	12.0	29.1	58.4	1.2	3.3	0.0	1.0	7.5
		Rate (people)	16.9	38.4	67.8	1.6	5.3	0.0	1.2	11.0
	2006	Line	7.04	10.56	14.07	3.71	5.69	1.99	3.98	5.97
		Rate (households)	14.3	41.2	77.1	0.2	5.8	0.0	0.2	7.7
		Rate (people)	19.7	49.0	87.4	0.3	10.5	0.0	0.3	12.6
	2007	Line	7.13	10.69	14.25	3.78	5.32	2.02	4.05	6.07
		Rate (households)	15.3	42.5	64.5	0.3	6.4	0.0	1.6	9.3
		Rate (people)	20.6	52.5	73.5	0.6	10.1	0.0	2.3	13.4

Figure A27: Ucayali, poverty lines and poverty rates, by round and by urban/rural

				150%	200%		USAID	International 2005 PPP		
			National	National	National	Food	"extreme"	$1.25/day	$2.50/day	$3.75/day
Urban	2002	Line	7.54	11.31	15.08	4.95	4.55	2.08	4.16	6.24
		Rate (households)	47.7	73.7	83.3	25.2	21.0	0.9	15.8	37.4
		Rate (people)	55.7	80.6	88.8	30.8	27.1	0.8	21.3	44.4
	2003	Line	7.71	11.56	15.42	5.10	5.22	2.15	4.30	6.45
		Rate (households)	44.6	68.1	80.1	16.3	17.8	0.6	9.1	33.1
		Rate (people)	53.3	77.1	86.7	21.4	23.0	0.5	13.0	42.1
	2004	Line	7.16	10.74	14.32	4.48	5.06	2.05	4.10	6.15
		Rate (households)	30.8	53.8	71.2	7.9	13.5	0.4	7.3	22.1
		Rate (people)	38.2	61.2	78.5	10.4	17.1	0.3	8.9	28.0
	2005	Line	7.39	11.09	14.78	4.61	5.46	2.08	4.17	6.25
		Rate (households)	31.7	59.1	72.6	9.3	14.1	0.7	6.8	24.0
		Rate (people)	38.5	65.3	78.1	11.9	17.4	0.9	8.3	30.1
	2006	Line	7.43	11.15	14.87	4.59	5.45	2.10	4.20	6.30
		Rate (households)	35.0	60.3	73.7	10.7	15.1	0.0	7.1	22.1
		Rate (people)	41.8	67.2	79.8	13.3	18.6	0.0	8.1	27.2
	2007	Line	7.51	11.27	15.03	4.63	5.84	2.13	4.26	6.40
		Rate (households)	25.5	49.1	69.5	4.3	13.0	0.0	3.7	16.7
		Rate (people)	31.0	57.3	75.8	5.0	15.1	0.0	4.4	20.8
Rural	2002	Line	5.52	8.29	11.05	3.71	2.75	1.52	3.05	4.57
		Rate (households)	74.0	87.5	93.6	46.6	34.0	9.0	37.8	61.6
		Rate (people)	83.0	93.0	97.0	56.9	42.0	12.1	47.5	73.0
	2003	Line	5.81	8.72	11.63	4.07	2.88	1.62	3.24	4.86
		Rate (households)	73.3	89.9	93.4	55.8	31.9	7.4	43.3	65.9
		Rate (people)	81.0	91.6	96.5	64.2	40.6	7.9	51.4	73.2
	2004	Line	5.88	8.83	11.77	4.04	3.27	1.68	3.37	5.05
		Rate (households)	63.4	87.6	92.8	43.2	30.9	7.8	31.2	53.3
		Rate (people)	72.7	93.1	96.5	52.5	37.5	8.3	37.7	61.6
	2005	Line	5.78	8.67	11.56	3.88	3.68	1.63	3.26	4.89
		Rate (households)	62.0	85.2	94.2	32.5	27.8	4.3	21.6	49.6
		Rate (people)	70.1	91.1	97.0	38.6	33.9	6.1	26.5	57.2
	2006	Line	5.71	8.56	11.41	3.76	3.70	1.61	3.23	4.84
		Rate (households)	62.5	83.5	89.5	29.7	27.6	2.1	18.8	47.8
		Rate (people)	75.3	91.0	95.3	37.7	35.0	2.5	24.5	60.5
	2007	Line	5.88	8.81	11.75	3.85	3.94	1.67	3.33	5.00
		Rate (households)	47.7	69.9	80.5	22.8	23.8	2.1	13.8	39.1
		Rate (people)	59.0	79.0	86.9	29.1	30.2	2.7	17.6	49.6