

Is Life Getting Better?

A beginners guide on measuring the
progress of societies:

Economic indicators
Poverty

Produced by

The Global Social Change Research Project
<http://gsociology.icaap.org/>

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This is the sixth in a set of pamphlets about measuring well-being and progress of societies.

In this pamphlet, we briefly discuss another economic indicator of progress (or lack of progress): poverty.

What is poverty?

Typically, poverty is defined as the ability to meet basic needs, generally starting with enough food for adequate nutrition, and then adding in clothing and shelter.

Source: Introduction to Poverty Analysis
International Bank for Reconstruction and Development, The World Bank,
August 2005. <http://go.worldbank.org/N93EKH6UP0>

However, aside from the general idea above, there are challenges about how exactly to measure poverty.

In this pamphlet, we will briefly describe three methods of measuring poverty, and some of the issues involved.

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One measure of poverty is the Millennium Development Goals Indicator:

Proportion of population below \$1 (PPP) per day

<http://mdgs.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm>

Basically, this takes incomes or consumption data from national household surveys. Then the survey results for each country are compared to an international 'standard', for example, \$1 a day.

This is the measure used by the Millennium Development Goals (MDG), from the UN and a variety of international partners, including the World Bank, WHO, IMF, and others.

Source: Millennium Development Goals <http://www.un.org/millenniumgoals/>

The main purpose of such a measure is that it can be used for international comparisons, and to estimate regional poverty levels, for groups of countries.

Source: Indicators for Monitoring the Millennium Development Goals-- Definitions, Rationale, Concepts and Sources
<http://mdgs.un.org/unsd/mdg/Host.aspx?Content=Indicators/Handbook.htm>

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Another measure uses each country's national estimates of percent of people falling below the poverty line. Each country sets its own poverty line.

Source: World Factbook. Field listing: population below the poverty line
<https://www.cia.gov/library/publications/the-world-factbook/fields/2046.html>

Are Estimates of Poverty in Latin America Reliable? Share of the Population in Latin America in Extreme and Overall Poverty. by Sanjay Reddy. International Policy Centre for Inclusive Growth One Pager, #52. May 2008.
<http://www.ipc-undp.org/>

Nationally defined poverty lines reflect what each country considers to be poor, and are useful for monitoring poverty trends at the national level.

Source: Indicators for Monitoring the Millennium Development Goals-- Definitions, Rationale, Concepts and Sources
<http://mdgs.un.org/unsd/mdg/Host.aspx?Content=Indicators/Handbook.htm>

These two measures correlate 0.72, among developing countries for which the Millennium Development Goals poverty data are available. That is, in general, the two measures place countries in a fairly similar order, when ordering the countries from highest to lowest percent in poverty. So the countries that are high in poverty using one measure are mostly the same countries high in poverty using the other measure.

Source: Current world data, Gene Shackman, The Global Social Change Research Project <http://gsociology.icaap.org/dataupload.html>

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Another approach is to use a deprivation index, measuring access to a set of basic needs. For example, one way to measure poverty is to say that households or individuals who are deprived of two or more of seven basic needs (food, clean water, health, sanitation, shelter, education, information) are defined as being in 'absolute poverty':.

Source: Townsend Centre for International Poverty Research, University of Bristol. http://www.bris.ac.uk/poverty/11_DefiningAndMeasuringPoverty.htm

Challenges in measuring poverty

The measure used by most major organizations in devising an international poverty line is to use a set of the poorest countries, convert their poverty lines to international dollars and then take the average of their poverty lines. This poverty line, the average of the poorest countries, should be a good estimate of 'absolute poverty'.

One problem, though, is if the group of poorest countries changes over time, for example one of the countries increases their average income, then the international poverty line changes too, and the number of people “in poverty” changes, not because the number of people with very low income really changed, but because the poverty line definition changed, moving up or down.

Source: A. Deaton. Price indexes, inequality, and the measurement of world poverty. Presidential Address, American Economic Association, Atlanta, January 2010. <http://www.princeton.edu/~deaton/papers.html>
forthcoming, American Economic Review, March 2010

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Another issue is that when comparing income from national surveys to an international poverty line, the international poverty line has to be adjusted to match the local currency. There are several different ways to make the adjustment. Using different methods results in different estimates of the number of poor.

Source: Measuring Global Poverty: Why PPP Methods Matter. Robert Ackland, Steve Dowricky and Benoit Freyensch. School of Economics and Research School of Social Sciences, The Australian National University, 2008 research seminar. <http://www.econ.mq.edu.au/research>

One issue specific to the use of nationally defined poverty lines is that different countries use different “lines”, so there isn't any poverty line that everyone agrees to, and so the use of nationally defined poverty lines does not allow for international comparisons.

Source: Indicators for Monitoring the Millennium Development Goals-- Definitions, Rationale, Concepts and Sources
<http://mdgs.un.org/unsd/mdg/Host.aspx?Content=Indicators/Handbook.htm>

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Other concerns relate to the source of the data. For example, national household surveys are a main source for poverty data.

Source: Household Surveys and Measurement of Living Standards. International Bank for Reconstruction and Development, The World Bank. <http://go.worldbank.org/SRHJY7EWR0>

However, not all countries have poverty data. For example, the UN Millennium Development Goals do not have poverty data for OECD countries. Thus, the fairly high correlation between the two indicators of poverty, seen in the table on the next page, only applies to lower income countries.

Source: Current world data, Gene Shackman, The Global Social Change Research Project <http://gsociology.icaap.org/dataupload.html>

Second, the surveys themselves often differ in the questions used, definitions of income, whether the surveys use income or consumption to measure poverty, and other features, often making comparisons between countries very difficult.

Source: Meta data for Goal 1. Eradicate extreme poverty and hunger
Target: Target 1.A: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day
<http://mdgs.un.org/unsd/mdg/Metadata.aspx?IndicatorId=0&SeriesId=585>

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How does poverty relate to other indicators of progress?

Correlations of poverty		
	World Factbook	UN
Poverty (UN)	0.72	
Poverty (World Factbook)		0.72
Human Rights	-0.21	-0.18
Infant Mortality Rate	0.66	0.78
Expected years of school	-0.6	-0.62
GDP per capita	-0.48	-0.6

Poverty has a moderate relationship with three indicators, but little relationship with human rights. So, in general, countries with higher poverty are more likely to have higher infant mortality rate, lower GDP per capita and fewer highly educated people. However, knowing the poverty rate doesn't tell us much about human rights.

Also, the moderate relationship between the two poverty measures and between poverty and other indicators means that the relationships are not necessarily true for all countries. Some countries may have high poverty and lower infant mortality rate or more education.

Data, definitions and sources for table:
<http://gsociology.icaap.org/dataupload.html>

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Conclusion:

Poverty is a useful indicator of economic progress of societies, along with GDP per capita. However, a complete picture of progress needs a set of indicators, including economic indicators, and indicators in other domains.

Additional Resources:

Measuring Poverty. Angus Deaton - July 2004.
“A generally accessible non-technical account of how poverty is measured”
<http://www.princeton.edu/~deaton/poverty.html>

Making the Case for Measuring Child Poverty. Alberto Minujin. Social and Economic Policy, UNICEF Policy and Practice. Child Poverty Insights.
http://www.unicef.org/socialpolicy/index_52299.html

Brief review of world economic trends
The Global Social Change Research Project
<http://gsociology.icaap.org/report/econ/econsum.html>
includes a section on measuring poverty.

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Angus Deaton reviewed an earlier version of this pamphlet, and gave very helpful comments. We revised the pamphlet to follow his suggestions. However, any errors that remain are still our responsibility.

The most recent version of this pamphlet is available at
<http://gsociology.icaap.org/progress.html>
and is also available at:
http://www.wikiprogress.org/index.php/Global_Social_Change_Research_Project
The pamphlets will also be placed on the appropriate Wikiprogress pages.