

Understanding Poverty Measures and the Call To Update Them

By Natalia Kolesnikova and Yang Liu



Poverty means different things in different regions. The World Bank often defines living on less than \$2 per day per person as the main poverty indicator in developing countries.¹ The European Union considers 60 percent of the national median disposable income after social transfers as the threshold of being at risk for poverty.²

In the United States, individuals whose family income is less than the official poverty threshold are in poverty. The threshold itself depends on the size of the family, as well as the number of those in the family who are under 18 or are at least 65. For example, in 2010 a family of two adults with two children under 18 was living in poverty if its annual income was below \$22,113; a family of four adults was living in poverty if its annual income was below \$22,491.

As the table shows, the poverty rate in the United States rose to 15.3 percent in 2010, up 4 percentage points from a decade earlier.³ In the Eighth Federal Reserve District, which is served by the Federal Reserve Bank of St. Louis, all seven states and major metropolitan areas saw a similar trend—the poverty rate rose between 3.6 percentage points and 6.5 percentage points from 2000 to 2010. The increase was even bigger for the population under 18 years old.

Does the increase in the poverty rate mean more Americans fall short of a desired standard of living? Or does the increase mean more people lack the resources necessary for basic needs? To be able to answer these questions, we need a better understanding of poverty threshold.

History of U.S. Poverty Gauges

The official U.S. poverty measures are based on studies conducted by Social Security

Administration economist Mollie Orshansky. In the 1960s, Orshansky created a poverty threshold using the cost of the Department of Agriculture's economical food plan. Orshansky assumed that U.S. families spent a third of their income on food and, thus, she used three as the multiplier to obtain the poverty threshold. It indicates the minimal monetary income required to pay for basic needs. If a family's total pretax monetary income is below the poverty threshold, then the family has inadequate resources for day-to-day necessities; every member in the family is considered in poverty.

In 1969, the U.S. government adopted this poverty threshold as the official statistical definition of poverty. The poverty threshold is used, for example, to estimate the number of Americans living in poverty. The U.S. Department of Health and Human Services uses a somewhat simplified version of Orshansky's poverty threshold as the official poverty guidelines.⁴ The poverty guidelines are commonly used for government administrative purposes, such as determining the eligibility for public assistance programs.

Limits of the Official Measures

For decades, the poverty measures have been criticized for their limitations. Complaints include that these measures are outdated, provide incomplete information and are not location-specific.

In addition, the U.S. economy has changed significantly since the 1960s, and the standard of living has been substantially improved. Yet the methodology behind the poverty threshold has remained unchanged. The 1960s economical food plan was "designed for temporary and emergency use when funds are low."⁵ The nutrition offered by this plan no longer reflects

what is considered to be adequate nutrition for Americans in the 2010s. As American families spend a much smaller portion (about one-eighth) of their income on food than they did 45 years ago, Orshansky's assumption and multiplier of three used for calculating the poverty threshold also have become outdated.⁶

The fact that the poverty threshold does not take into account other living costs and social benefits also raises some concerns. Poor families spend a substantial portion of income on clothing, shelter, utilities and out-of-pocket medical expenses. The official poverty measures are likely underestimating the true poverty level because they do not reflect such costs. Consequently, many public assistance

Poverty Rates

	Poverty Percent All Ages		Poverty Percent Under Age 18	
	2010 level	2000-2010 change (in percentage points)	2010 level	2000-2010 change (in percentage points)
United States	15.3	4.0	21.6	5.4
Arkansas	18.7	3.7	27.3	5.5
Illinois	13.8	3.8	19.4	4.8
Indiana	15.3	6.5	21.6	9.5
Kentucky	18.9	5.0	26.1	6.8
Mississippi	22.4	4.8	32.4	7.5
Missouri	15.3	4.7	21.0	6.2
Tennessee	17.8	5.2	25.9	8.1
Little Rock	15.0	3.6	21.4	4.7
Louisville	15.1	5.5	21.4	7.3
Memphis	19.2	5.2	27.6	7.7
St. Louis	13.2	3.7	18.0	4.7

SOURCE: U.S. Census Bureau, Small Area Income and Poverty Estimates program.

NOTE: The estimates are based on the official U.S. poverty thresholds for 2000 and 2010.

programs use 125 percent, 150 percent or even 200 percent of a poverty guideline as an eligibility benchmark.

The poverty level of families with children is further underestimated. One study found that American families with two young children need an income that is 150 percent to 350 percent of the official poverty level, depending on location, to cover their basic needs.⁷

On the other hand, the government's tax programs and other noncash benefits increase families' disposable income; poverty measures should be adjusted to reflect the actual resources that families have for basic needs.⁸

Finally, the official poverty threshold is the same for the entire contiguous United States. Thus, New York City has the same poverty threshold as St. Louis, despite the cost of living being much higher in New York City than in St. Louis. This unified poverty measure without geographic adjustment may present a distorted picture of local poverty levels.⁹ Additionally, some argue that other aspects, such as access to education and level of health care, might need to be considered to define poverty beyond income.¹⁰

Attempts To Improve Poverty Measures

U.S. policymakers have long been aware of these criticisms. Even though the current official U.S. poverty threshold and poverty guidelines are still based on 1960s' construction, numerous attempts have been made to come up with a better measure.¹¹ In 1968, the Poverty Level Review Committee decided to adjust the poverty level by cost of living (using the Consumer Price Index) but not by standard of living. In 1973, the Subcommittee on Updating the Poverty Threshold recommended decennial revisions of food plans and multipliers, as well as of the definition of income used for calculating the poverty threshold. Yet, no changes in the poverty definition were made in response to these recommendations.

In the 1980s, there was extensive debate over whether to count government noncash benefits, such as food stamps, as income. Once again, no changes in the definition of poverty were made. In the 1990s, Congress commissioned the National Academy of Sciences (NAS) to research possible revisions to the poverty measurement. A final report, "A New Approach To Developing Poverty Measurement," was published in 1995.¹²

This report conducted a thorough analysis

of a new methodology to construct a poverty threshold and to measure family resources. The report recommended taking noncash income, tax programs, housing status, work-related expenses and out-of-pocket medical expenses into account, but the report did not propose any specific numbers for new poverty guidelines or poverty thresholds.

Although the 1995 NAS report did not result in immediate changes in the official measures, it did become the foundation for creating several alternative poverty measures in the following decade. Beginning in the late 1990s, the Census Bureau conducted a series of studies based on recommendations of the 1995 NAS report. As a result, NAS-based annual poverty estimates have been published by the Census Bureau since 1999. In 2008, the New York City government officially adopted a new poverty measure based on the 1995 NAS report to "devise effective strategies for tackling poverty."¹³

Moreover, in 2011, the Census Bureau began to publish the Supplemental Poverty Measure (SPM).¹⁴ The SPM further improves the concept of the poverty threshold and the definition of family resources. The SPM threshold is based on the out-of-pocket spending on food, clothing, shelter and utilities (FCSU). The SPM uses the 33rd percentile of FCSU expenditure distribution of families with two children to reflect a typical American family's basic needs. The SPM threshold is then calculated by adding another 20 percent to this number to account for additional basic needs; it is also adjusted for geographic differences, family size and family composition. SPM redefines family resources as all cash income, plus in-kind benefits that families can use to meet their FCSU needs, minus net tax payments, work-related expenses and out-of-pocket medical expenses.

As an ongoing research project, the SPM will continue to be updated and improved. It will probably not be used as an official poverty measure or for program eligibility in the near future. However, the SPM solves several limitations in the official poverty measures. It is a big step forward to better understanding and accurately measuring poverty. 

Natalia Kolesnikova is an economist and Yang Liu is a senior research associate, both at the Federal Reserve Bank of St. Louis. See <http://research.stlouisfed.org/econ/kolesnikova/> for more on Kolesnikova's work.

ENDNOTES

- 1 See Chen and Ravallion.
- 2 For more details, see http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Glossary:At-risk-of-poverty_rate
- 3 These estimates are provided by the Small Area Income and Poverty Estimates (SAIPE) program of the U.S. Census Bureau. The program was created to provide estimates for school districts, counties and states. For more information, see www.census.gov/did/www/saipe/
- 4 See U.S. Department of Health and Human Services.
- 5 See Cofer, Grossman and Clark.
- 6 See O'Brien and Pedulla.
- 7 See Dinan.
- 8 See Cauthen and Fass.
- 9 See Levitan et al.
- 10 See Alkire and Foster.
- 11 See Fisher.
- 12 See Citro and Michael.
- 13 See New York City.
- 14 See Short.

REFERENCES

- Alkire, S.; and Foster, J. "Counting and Multidimensional Poverty Measurement." OPHI Working Paper Series No. 7, 2007.
- Cauthen, Nancy; and Fass, Sarah. "Measuring Poverty in the United States." National Center for Children in Poverty, June 2008.
- Chen, Shaohua; and Ravallion, Martin. "The Developing World Is Poorer than We Thought, But No Less Successful in the Fight against Poverty." World Bank Policy Research Working Paper No. 4703, August 2008.
- Citro, Constance; and Michael, Robert. *Measuring Poverty: A New Approach*. National Academy Press, Washington, D.C., 1995.
- Cofer, E.; Grossman, E.; and Clark, F. "Family Food Plans and Food Costs." U.S. Department of Agriculture, Agricultural Research Service, Consumer and Food Economics Research Division, Home Economics Research Report No. 20, 1962.
- Dinan, Kinsey. "Budgeting for Basic Needs—A Struggle for Working Families." National Center for Children in Poverty, March 2009.
- Fisher, Gordon. "The Development and History of the U.S. Poverty Thresholds—A Brief Overview." *Social Security Bulletin*, 1992, Vol. 55, No. 4.
- Levitan, Mark; D'Onofrio, Christine; Krampner, John; Scheer, Daniel; and Seidel, Todd. "Understanding Local Poverty—Lessons from New York City's Center for Economic Opportunity." *Pathways*, Fall 2011.
- New York City. "New York City Mayor Bloomberg Announces New Alternative to Federal Poverty Measure." July 13, 2008. See www.nyc.gov/portal/site/nycgov/menuitem.b270a4a1d51bb3017bce0ed101c789a0/index.jsp?doc_name=/html/om/html/recent_events.html
- O'Brien, Rourke; and Pedulla, David. "Beyond the Poverty Line." *Stanford Innovation Review*, Fall 2010.
- Orshansky, Mollie. "Counting the Poor: Another Look at the Poverty Profile." *Social Security Bulletin*, 1965, Vol. 28, No. 1, pp. 3-29.
- Short, Kathleen. "The Research Supplemental Poverty Measure: 2010." *Current Populations Reports*, November 2011.
- U.S. Department of Health and Human Services. See <http://aspe.hhs.gov/poverty/faq.shtml#differences>