Professional Practice

Kenneth Couch, Guest Editor

This is an unusual *Professional Practice* in a couple of respects. For example, this *Professional Practice* has a guest editor, Kenneth Couch, from the University of Connecticut. Ken and I, plus all of the authors in this section were participants in a conference on measuring poverty, social exclusion, and well-being that was held at the Organization for Economic Cooperation and Development, held in Paris, in March 2009. Also, unlike most *Professional Practice* publications, this one focuses on measurement of a key construct for policy analysts, public managers, and policy makers—poverty. So essential is this construct that I felt it was important to relay the European experiences and thinking on these issues and its relevance for the current poverty measurement in the US. I hope you enjoy this section as much as I did.

Maureen A. Pirog,
Editor-in-Chief, *JPAM*

European Measures of Income, Poverty, and Social Exclusion: Recent Developments and Lessons for U.S. Poverty Measurement

Douglas J. Besharov and Kenneth Couch

As this volume is going to press, the U.S. government seems poised to make the first major changes in the official poverty measure in more than 40 years.[1] The official measure was initially formulated in 1963 by Mollie Orshansky of the Social Security Administration, who had been asked to develop a gauge of economic need that could provide data useful to the War on Poverty. Orshansky created the poverty measure by multiplying the USDA's Economy Food Plan for a family of four by three (as the 1955 Household Food Consumption Survey showed that food made up one-third of the after-tax spending of a family of three or more). The Bureau of the Budget adopted this threshold as the official measure of poverty in the United States in 1969.

[1] Besides adjustments for inflation, the last changes to the poverty measure were in 1981, when the "farm" poverty threshold was eliminated and the largest family size category was increased from "seven persons or more" to "nine persons or more."

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Many observers believe that the official poverty measure should be updated. First, the threshold was originally a reflection of the place of food in a family's budget. Since the creation of the poverty measure, food as a percent of a family's budget has declined from one-third to one-eighth, thus leading critics to charge that the measure does not reflect additional expenses in a family's budget that did not exist in 1963. (Of course, the cost of food has also declined.) In any event, the income thresholds do not adequately account for inflation, geographic differences in the cost of living, nor the number of adults and children in a family.

Second, the current measure does not accurately count all the financial resources available to families. The current measure does not count government tax credits (such as the Earned Income Tax Credit), nor in-kind near-cash government transfers (such as food stamps, WIC, housing subsidies, and subsidized school meals). Despite the rapid growth in means-tested public spending, "our poverty statistics failed us," Blank laments, "and made it easy to claim that public spending on the poor had little effect" (Blank, 2008, p. 239). Moreover, the current measure does not subtract state and local taxes, or additional expenses (such as work expenses, including transportation and child care, and out-of-pocket medical care).

Although the official measure's weaknesses have been well-known for many years, reform has not been possible because changes in the reported number of people in poverty would be controversial, and, perhaps more important, many federal grant programs use poverty rates to allocate funding to states and localities, and many state and local programs use some multiple of the poverty thresholds to determine program eligibility.[2]

These political obstacles are well known. Less well known are the conceptual and technical challenges that are intertwined with the political issues posed by any new poverty measure: The data for implementing many of the proposed changes are often incomplete, and the required estimation techniques are tentative and controversial. For example, should the definition of family be modified to reflect new household arrangements, such as widespread nonmarital cohabitation, and should there be different assumptions about income sharing? Should equivalence scales be adjusted, and how? Should the value of non-cash benefits such as Medicare and Medicaid be counted and, if so, how should they be estimated? How about housing benefits? Should the threshold be raised to reflect higher levels of middle-class consumption and, if so, by how much? Should poverty thresholds be adjusted for geographical differences in the cost of living and, if so, how? Should the value of assets, particularly home ownership, be considered a source of imputed income and, if so, how should it be estimated? What role, if any, should there be for measures of consumption and well-being?

European researchers and governments face similar issues as they seek to improve their measurement of income, poverty, and well-being. To learn more about their efforts, in March 2009, the University of Maryland School of Public Policy and the Organisation for Economic Co-operation and Development convened more than 100 scholars and government officials from about 24 countries in Paris, France. At the conference, 18 papers were presented in five broad topic areas: monetary measures of poverty and inequality; broadened measures of income (or resources); income levels for social assistance; and measures of consumption, assets, wealth, well-being, and social exclusion.[3]

We hope that the papers from this international conference help spark a cross-Atlantic dialogue about how best to measure income, poverty, and well-being. Just

[2] Technically, means-tested program eligibility would be based on the poverty guidelines. For an explanation of the differences between the official poverty measure and the poverty guidelines, see U.S. Department of Health and Human Services (2009).

[3] Most of the papers will be published by the Oxford University Press in a volume with a similar title, and some will also be published in the *Journal of Policy Analysis and Management* and other journals.

as important, we hope that this process will serve as a model for cross-national exchanges in other areas of social welfare policy.

This special section provides a summary of the key points made in the conference papers. The papers are intended to give a wider audience the benefit of an American perspective concerning the lessons to be drawn from the papers for reforming U.S. poverty and income measurement.[4]

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Deconstructing European Poverty Measures: What Relative and Absolute Scales Measure

Richard V. Burkhauser

The movement toward evidence-based policymaking in the United States owes much to politicians and scholars like Daniel Patrick Moynihan, who once said: "In policy debates everyone is entitled to his own opinion but not his own facts." But facts do not droppeth as the gentle rain from heaven, but rather are the difficult-to-obtain first step in the empirical process that allows policymakers to establish social success indicators for their policies, understand the causal relationships between those policies and social outcomes, and thus more effectively carry out policies that best achieve future social successes.

The United States and the European Union share the common goal of the alleviation of poverty for all their citizens. The papers presented at the Joint Organization for Economic Co-operation and Development (OECD)/University of Maryland International Conference on Measuring Poverty, Income Inequality, and Social Exclusion: Lessons from Europe, demonstrate that European scholars whose business it is to establish the necessary facts to measure poverty, how it changes over time, and what policies best reduce it, share a great deal in common with their American colleagues. This is most especially the case with respect to the decisions they face in their conceptualization of poverty and in how they choose to operationalize these concepts in collecting the data necessary to measure it.

The primary funder—and with rare exceptions the primary institution charged with collecting data on economic well-being for a given country—is that country's central statistical agency. Within the European Union (EU), each state's statistical

[4] With one exception, the authors were formal discussants at the Paris meeting.

agency has been increasingly asked to coordinate its micro-data gatherings along EU guidelines. The first major success of this effort is the EU-SILC (European Union—Survey of Income and Living Conditions). It offers the only current *ex ante* equivalent data on economic well-being in each of the 27 EU member states.

In doing so, the EU-SILC provides an alternative to the Luxembourg Income Study (LIS), which was previously the main source of micro data on EU countries available to the international network of scholars doing poverty research. LIS was and will continue to be valuable for capturing longer-term trends in economic well-being both because it provides at least limited access to difficult to obtain cross-sectional country data for prior years, and because *ex post*, it standardizes that data for cross-country comparative purposes. However, the EU-SILC is likely to be increasingly used both by the EU and the OECD as the source for their official measures of current poverty and by the international research community. (See Burkhauser & Lillard, 2005, for a fuller discussion of data developments in Europe.)[5]

Hence, it is useful to understand the concepts of poverty that these European-based data sets were intended to capture. Förster and d'Ercole (2009) provide exactly the kind of information necessary to do so. They outline the dominant method of conceptualization and operationalization of European poverty measures that informed the EU in its development of the questionnaire for the EU-SILC. They do so in the context of their explanation of how the OECD tracks its individual member country poverty rates and trends, including those in the United States, in its latest cross-national comparative study of poverty, *Growing Unequal? Income Distribution and Poverty in OECD Countries* (OECD, 2008). Maquet and Stanton (2009), in their discussion of official EU member state poverty rates using EU-SILC, show that the measurement concepts outlined by Förster and d'Ercole (2009) are, with minor differences, the same as the ones used by the EU in their official poverty statistics.

What is surprising is that, for the most part, the U.S. Census Bureau uses similar data and methods to measure U.S. poverty rates, but with a fundamental difference that has important implications for those interested in cross-national comparisons of poverty and the methods used to alleviate it in the U.S. and the EU. That difference is not the one most commonly associated with European and U.S. poverty line measurement issues—that one is an absolute measure and the other relative. It is more fundamental. The U.S. is 200 years ahead of the EU in recognizing that member states that agree to share a common economic market in which capital and labor are free to move from one state to another will inevitably share a common set of values and social policies.

Chief among these is that solidarity does not end at a state's border. It is telling that neither Förster and d'Ercole (2009) nor Maquet and Stanton (2009) provide any poverty measure in which relative poverty is based on the economic well-being of the average EU citizen. Instead, all official EU poverty statistics, as well as OECD official measures of poverty within the EU, including those provided in *Growing Unequal?* (OECD, 2008), are provided as if each state was a completely separate social entity. Hence, the economic well-being of an EU citizen in a given state depends on his or her income relative only to those EU citizens who happen to live in that member state.

[5] In addition to the problems discussed in Burkhauser and Lillard (2005), cross-national comparisons of national data are also affected by changes in the underlying country data used for such comparisons. Burkhauser and Larrimore (2009) summarize a set of recent papers demonstrating the problem of using uncorrected data from the U.S. Current Population Survey (CPS), the data set used for the U.S. by LIS and the OECD in their cross-national comparisons of income distribution and poverty. For instance, because LIS does not correct for topcoding in the public use CPS, their official Gini income inequality values have a significant jump in the years after 1994 that is in large part due to an increase in topcoding limits and the introduction of cell means in 1995 rather than any real change in the underlying data. Official OECD measures of income inequality are based on the internal CPS data, so topcoding is less of a problem. Nonetheless, because they do not correct for this smaller problem in the internal CPS data, part of the rise in inequality they report in the years after 1992 is caused by changes in topcoding and other changes in data collection methods in 1993.

While such a relative concept makes sense for government entities based on blood or tribal relationships, it is far less appropriate when these government entities have embraced the free movement of capital and labor across their borders and the free market mechanisms that will make such archaic relationships increasingly less important in the day-to-day market activities of their citizens. In contrast, in the United States of America, while we certainly provide official (Census Bureau) information on poverty rates at the state level, it is always in the context of a single poverty concept directly linking the well-being of a given citizen with all other U.S. citizens rather than only to members of their same blood, tribe, or state of residence.

Below I use the expositional model of Förster and d'Ercole (2009) to more systematically compare and contrast EU and U.S. poverty measurement methods and the implications they have for understanding the fundamental differences between us.

THE NUTS AND BOLTS OF POVERTY MEASUREMENT

Income Rather Than Consumption

Although economics-based conceptualizations of individual economic well-being focus on those things that individuals consume—goods, services, and leisure—data collection issues have forced European and American researchers to focus instead on income. Income consists of both private and government transfer cash income—that is, on the ability of individuals to purchase goods and services. Income includes wages and salaries, self-employment income, property income (such as interest, dividends, and net rental income), and government cash transfers. It excludes capital gains, imputed rent, and in-kind government (foods stamps, Medicare, Medicaid, etc.) or private benefits (employer health insurance, etc.). And it takes no account of the time and energy—work or reduction in leisure—required to earn it.

The limits of such measures are well understood in the literature. While alternative overall consumption measures have been proposed as well as measures of material deprivation or social exclusion, all official OECD, EU, and U.S. poverty measures now are cash income-based. The major difference between European and U.S. income measures is that the Europeans explicitly remove income tax and social security contributions from gross cash income and make all comparisons within and across states using the resultant disposable cash income measure. Disposable income is clearly a more accurate measure of one's ability to purchase goods and services in the market and is superior to the gross cash income measure currently used in official U.S. poverty measures.

Counting People Rather Than Households

The EU-SILC, like other European and American data sets, collects information on the income of all household members. Households can contain families (those related by blood or marriage) and those families contain individuals. European poverty measures assume all household income is shared equally among its members and that there are some economies of scale in its use, so that they can focus on poverty at the individual level. Official U.S. poverty statistics make the same assumptions, but at the family level, and their economies of scale assumptions are somewhat different.

While the choices of sharing unit and scale economies can have substantial impacts on the characteristics of those who are found to be in poverty—for example, the greater the economies of scale, the more likely that those in smaller households (widows, older persons) will be counted as poor)—these choices do not appear to seriously impact trends in poverty within or across countries. (See Burkhauser, Smeeding, & Merz, 1996, for a discussion of the sensitivity of cross-national poverty comparisons to choice of equivalence scale.)

Static versus Dynamic

The EU-SILC, like the U.S. Survey of Income and Program Participation, is a short panel design that allows for some more dynamic analysis of poverty movements. For some OECD countries, much longer panels are available. These panels are vital for understanding persistent poverty and its causes. But until recently, only a few OECD countries (for example, the U.S., Canada, Germany, and Great Britain) had either a short- or a long-term panel. Hence, official poverty statistics in both Europe and the U.S. are based on cross-sectional data. So there is not much difference here. (See Burkhauser, 2001, for a discussion of the value added of panel data for policymakers.)

Relative versus Absolute

The single most discussed difference between European and American poverty measures is that Europeans use a relative poverty scale and the U.S. uses an absolute scale. What becomes clearer once these two scales are more carefully considered is that they both address two fundamental issues with respect to poverty measurement: (1) What is the initial level of poverty that best represents the social minimum level of access to resources for a given society? (2) How should this social minimum level change over time? It is in how our two poverty scales relate to these two fundamental issues that our differences are best seen.

Europeans have historically shown a great deal more interest in the reduction of overall income inequality as one of their major social success goals. Hence, it is not surprising that the intellectual underpinnings of their concept of poverty rests entirely on income distribution grounds—poverty is defined as having income below some percentage of median income. (The OECD uses a 50 percent cutoff point, while the EU uses a 60 percent cutoff point.) Furthermore, this is made explicit in some European-style models of economic well-being, in which a person's individual well-being is considered not only a positive function of his or her own consumption, but is also positively associated with his or her place in the distribution—see Ravallion and Chen (2009) in this volume for an example of such modeling.

Such a concept of poverty resolves not only the first fundamental issue but also the second, since as median income rises over time (both because of increases in inflation and because of real productivity gains) so will the poverty line. Doing so in principle commits governments that use this type of relative poverty line as their poverty goal to guarantee sufficient additional revenue to lower income groups each year not only to keep them above a constant real social minimum level of economic well-being over time but to increase that minimum level with economic growth so that they do not fall behind the rest of the population in their purchasing power. Under such scoring rules, all persons in the population could improve their economic well-being but poverty rates could still rise—income distribution goals could trump improvement in personal consumption goals. Such social success scales do not recognize success in reducing poverty unless economic growth increases poor people's income faster than that of the median person's income.

Historically, the United States has not focused as much official attention on overall income inequality issues, but rather has concentrated on providing some minimum level of income for the lower end of the income distribution. Hence, it is no accident that the intellectual underpinning of our concept of poverty does not rest explicitly on income distribution grounds but rather on the amount of income necessary to purchase some social minimum basket of goods and services. Unlike some percent of the median, it is much more difficult to determine what should be included in that basket of goods and its cost. Originally the U.S. social minimum was based solely on the cost of a healthy diet for a family of three. Later, economies of scale values were introduced again based on food consumption.

That takes care of the first fundamental question; but not the second. In fact, our poverty line is increased each year by the inflation rate alone. Governments, like the U.S., that use the guarantee of income necessary to purchase a fixed basket of goods and services as their poverty alleviation goal will only have to transfer sufficient revenues to lower income groups each year to maintain their original level of consumption. Under such scoring rules, poverty rates could fall to zero with no change or possibly even an increase in income inequality. That is, economic growth would reduce poverty as long as poor people received at least some share of that growth.

In reality, the initial official poverty line set by European or American policymakers was more a political than a scientific one, as is the degree that the poverty thresholds should be sensitive to average real growth. It would have been possible, for instance, for Europeans to have chosen a social minimum based on a basket of goods that ended up equaling 50 or 60 percent of the income of the median person and then argued that this basket should grow with real median income, and the result would have been the same.

And it is likely that when President Lyndon Johnson accepted our initial social minimum based on food consumption, he was more interested in the percentage of poor Americans such an initial standard captured—not so few as to suggest that poverty was not a serious problem in the U.S., but not so many as to make doing anything about it too daunting—than in the scientific justification for such a standard.

The limitations of using data on a healthy diet as a measure of the social minimum basket of goods and services and of holding that level constant in real terms for very long time periods have been discussed in detail in Citro and Michael (1995), as have many other problems with the current U.S. poverty scale—for example, using disposable income, using a household rather than a family as the sharing unit, and more consistent scale economies—that would make it closer in design to European-style measures. But as Lerman (2009) points out, the unwillingness of U.S. government officials to make any of these changes in the official poverty scales over the last decade and a half since the Citro and Michael (1995) report may have more to do with the fact that many federal programs use the official state poverty rate to allocate funds to that state rather than because of their ignorance of the scientific arguments for doing so. Hence, any reforms in our flawed poverty measure will have immediate implications for the size and distribution of those federal funds to the states.

Furthermore, the initial unwillingness of President Johnson to commit the U.S. to a poverty scale that automatically increases with economic growth may also have been based on the pragmatic argument that future federal government officials might not want to automatically ensure that such funds be committed to low-income transfers but rather that it be left to future generations of citizens to explicitly decide how to distribute the fruit of additional growth, and hence to explicitly decide when the real social minimum level should be raised.

In contrast with the very close relationship between changes in our official poverty rate and in the level and distribution of federal expenditures to the states, there appears to be no direct relationship between the relative poverty line detailed by Förster and d'Ercole (2009) and Maquet and Stanton (2009) and actual EU social policies or the policies of its member states. So, while the European measure of the social minimum rises with real growth in each state, there is no requirement that funds from those states or the EU be allocated based on this increase. Hence, the real stakes of such a poverty scale are somewhat lower in terms of its social commitment than would be the case in the U.S.

Förster and d'Ercole (2009) mention current issues in poverty measurement that are also of interest in the United States, most especially the importance of taking into consideration non-cash transfers from government and non-cash benefits from employers as additional sources of income. (See Sutherland, 2009, and Frick & Grabka, 2009, for examples of the value of including non-cash government transfers, and Gilbert, 2009, for an example of the value of including private non-wage

compensation, in measures of income.) In the United States, the failure to take into account the value of in-kind government transfers that are primarily targeted to low-income people in our official poverty calculations understates the resources available to them. But it also understates the degree that, for instance, the $35 billion in government expenditures spent on an in-kind transfer program like food stamps or the $116 billion spent on Medicaid improved the economic well-being of low-income people. (Figures are for 2008 for food stamps and 2006 for Medicaid. See Burkhauser & Daly, 2009.)

WHAT CAN WE LEARN FROM THE EUROPEAN APPROACH TO POVERTY MEASUREMENT?

Certain aspects of the European style of poverty measurement should be seriously considered as we think about reforms in our official poverty measures. Several are non-controversial. Disposable income is a better measure of purchasing power and is more consistent with the income-based measure of poverty we both use. Including the effect of government tax policies will account for the degree that taxes reduce personal consumption and, in the United States, would also take account of the degree that tax credits like the federal Earned Income Tax Credit and the state tax credit programs that supplement it, increase the effective wages and disposable income of workers in low income households.[6] Counting families without considering the number of people within them, which is still done in some Census Bureau official statistics, fails to take into account the number of mouths that a given family's income must support and should also be more uniformly done here. And we should look to Europe for a more sensible way of controlling for economies of scale.

More controversially, using a household rather than a family sharing unit may make sense given the number of non-married, non-blood relatives that are now sharing resources but who under current rules are counted as not doing so. Even more controversially, it may be time to reevaluate the appropriateness of the current implicit goal embedded in our poverty line measures. Because we have only adjusted our poverty line for inflation over the nearly half century since President Johnson first established our social minimum level, it is still set at the same real 1960s War on Poverty income level. Given the considerable economic growth we have experience as a country since then, it now may be time to explicitly raise our social minimum. But in doing so, it is far less clear that we should use a European-style approach.

There are some aspects of current European-style poverty lines that make much less sense for the United States and, I would argue, even for the European Union itself. Chief among them is the official OECD and EU choice of solidarity reference group in measuring member state poverty. Table 1 is cobbled together by me based on Figures 3 and 8 from Tóth and Medgyesi (2009). Apparently, this European team of researchers did not get the memo that one should never provide alternative measures of relative poverty for EU countries in the same paper, even if you never connect the dots. By doing so, these figures provide a nice example of the dramatic difference in member state–measured poverty rates made by one's choice of solidarity reference group, and more broadly, why it is important to make explicit the social goal toward which the success indicator is being used to measure progress.

In their figures, Tóth and Medgyesi (2009) first use the EU's standard of 60 percent of that state's household size–adjusted median income as their poverty line to calculate the percentage of persons in that state who are poor. They do so based on data from the first (income year 2005) wave of EU-SILC data. Column 1 reports the poverty rates of each EU member state using the OECD2 equivalent income scale to account for differences in household size. These resulting state poverty rates are very close to those reported by Maquet and Stanton (2009) based on official EU measures for income year 2006 in their Table 2 (not shown here).

[6] More controversial but of value in capturing the resources available to households would be including in-kind government transfers and the non-wage compensation paid to workers by firms.

Table 1. European poverty rates by member state using alternative solidarity group medians.

	Alternative Solidarity Group Poverty Rates	
Member State	0.6 of Median Income of Member State[a]	0.5 of Median Income of EU Population[b]
Lithuania	20	68
Latvia	23	63
Poland	18	58
Estonia	18	52
Slovakia	12	50
Hungary	16	50
Portugal	18	28
Czech Republic	10	22
Greece	20	25
Spain	20	12
Italy	19	7
Slovenia	12	5
United Kingdom	19	4
Germany	12	3
Sweden	12	3
France	13	3
Ireland	18	3
Cypress	16	3
Belgium	15	2
Denmark	11	2
Austria	13	2
Netherlands	9	2
Finland	12	2
Luxembourg	13	1
EU Average	16	20

Source: Adapted from Tóth and Medgyesi (2009) Figures 3 and 8.

[a] 0.6 of the household size adjusted income of the median person in that state using the OECD2 equivalence scale.
[b] 0.5 of the household size-adjusted income of the median person in the EU using a per capita equivalence scale.

What is the message from using this social success indicator for EU member states? Poverty remains a significant problem in all EU member states, with a group bunched at the extreme low end (around 10 to 13 percent) (the Netherlands, Czech Republic, Denmark, Germany, Slovenia, Spain, Finland, Luxembourg, and Austria), several more in the middle, and another set of member states bunched around the extreme high of around 20 percent (the United Kingdom, Italy, Greece, Spain, Lithuania, and Latvia). But somewhat surprisingly, column 1 suggests that there is not all that much difference in the risk of poverty across EU member states including comparisons of old and new member states.

But the numbers are quite different when we change the social success indicator by extending the solidarity reference group from the median person in the state to the median person in the EU. In Table 1, EU member states are arrayed in descending order of their poverty rates using an EU-wide solidarity group measure.

As discussed above, in column 1 the cluster of states with the highest poverty rates had about twice the poverty rates of the states with the lowest poverty rates. As can be seen in column 2, when we now use the whole of the EU as our solidarity group reference and hence use 0.5 of the median income EU person to set an EU-wide social minimum, in 6 member states—Lithuania, Latvia, Poland, Estonia,

Table 2. State child poverty rates in the United States using alternative solidarity group medians.

State	Standard U.S. Method[a]	0.5 Median Income of State[b]
District of Columbia	33	18.8
Mississippi	31	18.9
Louisiana	24	22.8
Texas	23	20.7
Alabama	22	20.3
Kentucky	22	20.5
New Mexico	22	21.6
West Virginia	22	18.5
Arkansas	21	14.1
Georgia	21	18.8
Arizona	20	23.6
New York	20	26.3
North Carolina	20	17.2
Oklahoma	20	17.6
Tennessee	20	18.2
Missouri	19	13.8
South Carolina	19	18.0
California	18	25.7
Kansas	18	13.0
Ohio	18	18.6
Indiana	17	13.8
Michigan	17	19.5
Montana	17	13.9
Florida	16	21.2
Oregon	16	16.2
Pennsylvania	16	18.4
Rhode Island	16	22.7
Illinois	15	21.7
South Dakota	15	12.3
Wisconsin	15	15.1
Colorado	14	13.1
Iowa	14	13.0
Maine	14	13.7
Massachusetts	14	24.2
North Dakota	14	12.3
Delaware	13	18.8
Idaho	13	13.9
Nebraska	13	13.0
Nevada	13	13.1
Virginia	13	18.8
Wyoming	13	13.9
Connecticut	12	22.7
Maryland	12	18.8
Minnesota	12	15.8
Utah	12	13.1
Washington	12	19.0
Alaska	11	16.1
Hawaii	11	16.1
New Jersey	11	21.8
Vermont	9	13.7
New Hampshire	6	13.7

Sources: Column 1 based on National Center for Children in Poverty (2009), using CPS survey years 2006–2008. Column 2 based on Rainwater, Smeeding, and Coder (2001, Table 2.4, p. 61), using CPS survey years 1995–1997.

[a] Official U.S poverty measure.
[b] Poverty measure based on OECD guidelines with state as solidarity reference group.

Slovakia, and Hungary—the majority of their populations are found to be below the poverty line, while 12 member states have poverty rates below 5 percent. That is, poverty rates in the high-poverty states are now shown to be 10 times those in the low-poverty states. Hence, the take-away message of column 2 is quite different from that of column 1. That message is: There is an enormous difference between the extremely high poverty rates in the mostly new states of the EU and the extremely low poverty rates in most of the original EU member states.[7]

What is driving this dramatic difference in messages? Fundamentally, by focusing solely on a state median, the first measure completely ignores cross-state differences in income levels. Hence, approximately 20 percent of the citizens of Lithuania, Greece, and the United Kingdom are considered to live in poverty even though there are substantial differences in average income in these states and hence in access to the goods and services available to those with only 0.6 of that income across those states. When solidarity is extended across state borders by using a single EU-wide social minimum, this disparity becomes much clearer as these states' poverty rates change to 68, 25, and 4 percent, respectively.

Following on our Table 1 comparisons, Table 2 shows the differences in state poverty rates in the United States as normally estimated and those same states if we adopted the EU's solidarity reference group approach. States are arrayed from highest to lowest based on their child poverty rate using Current Population Survey data from 2006 to 2008, as reported on the National Center for Children in Poverty Web site using the standard American social minimum approach. The results in column 1 are unsurprising. Official child poverty is most severe in less wealthy states—the top 10 poverty states include 8 from the South as well as the District of Columbia and New Mexico.

While studies using the European approach to estimate poverty on a state basis are rare in the United States, column 2 of Table 2 provides one such estimate (Rainwater, Smeeding, & Coder, 2001) using the OECD/EU approach—0.5 of the household size-adjusted income of the median income person in the state. The results substantially change the states with the greatest poverty problem. Of the top 10 poverty states under our official measure of poverty, only New Mexico and Louisiana remain. The three states whose children are most likely to be in poverty are New York, California, and Massachusetts.

Because federal dollar allocations to the states are directly tied to our official state poverty rates, such a change would have profound effects on this allocation. It is hard to imagine the coalition of American child welfare experts who would argue for a change that would shift federal dollars from the poor children of Alabama, Mississippi, and Kentucky to their higher-income counterparts in New York, California, and Massachusetts because they were relatively more deprived.

But why is this so in America and not in the EU? In my view, in 1789 when our 13 states formally agreed on the rules under which they would become the United States of America, there were profound differences among those states, including laws governing slavery that took a civil war to resolve. But over time, an increasing share of Americans began to think of themselves as Americans first and citizens of a state second. Nonetheless, even 200 years later there are significant state and regional, as well as racial and ethnic, differences that come into play in the allocation of federal and state resources, and it is still difficult to convince citizens of wealthier states to subsidize their poorer state cousins. Hence, we still tolerate some degree of difference in poverty rates across states, as column 1 of Table 2 demonstrates using our standard poverty measures.

Because of our heterogeneity of interests, Americans may be less willing to share individual resources and to provide a higher social minimum for all Americans than

[7] Beblo and Knaus (2001) were the first to conceptualize the EU as a single entity and empirically show when doing so that residents of Italy, Spain, and Portugal made up a disproportionate share of the bottom decile of the overall EU population in 1995.

is the case for some of the individual states of the EU that are more homogeneous by blood or tribal bonds. Nonetheless, it would be laughable to propose that federal government poverty reduction policy in the United States be based on a state solidarity group measure like that currently used in the OECD or EU to capture poverty across its EU member states. And as a comparison of column 2 of Table 1 and column 1 of Table 2 shows, our cross-state differences in poverty using an America-wide solidarity group poverty measure are much smaller than those in the EU using an EU-wide solidarity group measure.[8]

My guess is that it will become increasingly difficult for the EU to maintain its goal of a fully integrated EU market economy of the type that we have enjoyed in the United States since our inception, while continuing to measure the risk of poverty of fellow EU citizens based solely on poverty scales that implicitly argue that solidarity stops at state borders. That is, how much longer will the dramatic difference in state poverty rates found in column 2 of Table 1 be tolerated before reducing these differences becomes a social goal toward which this type of success indicator measures progress?[9]

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[8] In a similar vein, Burkhauser and Couch (forthcoming) review the income distribution literature comparing the United States and EU countries and make the point that while income inequality in the United States is greater than income inequality for most of the EU countries individually, when income inequality is measured across all EU citizens, overall income inequality in the EU is much closer to that found in the U.S., as first shown by Brandolini (2007).

[9] A careful reading of Nolan (2009) offers a hint that the problems associated with using a single relative poverty scale, set at state borders, to capture both within-state income inequality and the enormous differences in access to consumption across EU state borders, are becoming clearer to European style poverty experts. Nolan (2009) provides the intellectual justification for a "material deprivation" measure of poverty that is entirely separate from standard income distribution-based European poverty scales. Instead, the intellectual origin of material deprivation poverty scales, at least as formulated from the 17 items taken from questions on the EU-SILC, appear to be coming from the American minimum basket of goods and services tradition of poverty measurement, in which the items in the basket do not vary relative to the average income of the state in which the questions are asked. More generally, this suggests that when a society has more than one social success goal with respect to its lower income populations, it may be necessary to have more than one measure of social program success.

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Impressionistic Realism: The Europeans Focus the U.S. on Measurement

David S. Johnson[10]

In the art of communicating impressions lies the power of generalizing without losing that logical connection of parts to the whole which satisfies the mind.

—Camille Pissaro

Viewed from afar, the picture is clear. As one examines more closely, the details are blurred. Inequality and poverty measurement require focusing on the details—the "logical connection of parts"—while examining the overall picture. It is this attention to measurement that the U.S. can learn from the European research and experience.

[10] The views expressed in this article, including those related to statistical, methodological, technical, or operational issues, are solely those of the author and do not necessarily reflect the official positions or policies of the Census Bureau or the views of other staff members. This paper is released to inform interested parties of ongoing research and to encourage discussion of work in progress.

At the Joint OECD/University of Maryland Conference held in Paris on "Measuring Poverty, Income Inequality, and Social Exclusion: Lessons from Europe," many of the conference papers focused on alternative measures of income, evaluating their impacts on inequality and poverty. The conference papers highlight the impact of making detailed changes that affect measurement. These details, in turn, provide insight for the larger context of determining the "best" resource measure to use for poverty and inequality measurement. In many cases, the details do not change our picture of the trend in poverty, or even the comparisons across countries (see OECD, 2008), but they often change the composition of the poor. Examining the details helps to logically connect the parts to form a satisfactory whole or picture. As it is often difficult to clarify all of the details and obtain the "best" measure, the main focus should be on obtaining a sufficient statistic that reflects a country's poverty or inequality and that can be compared over time and across countries.

To evaluate how the logical connection of parts affect the overall picture of poverty, one must answer the *Who*, *What*, *Where*, *When*, *Why*, and *How* of poverty measurement: Who is the unit of analysis (and the choice of equivalence scale); What resource measure will be used; Where is poverty measured (and does it differ by geographic location); When is poverty measured (and does it change over time); Why is poverty measured and what is the purpose; How is the poverty threshold constructed and used?

THE U.S. EXPERIENCE

As in Europe, the U.S. continues to evaluate alternative income measures and thresholds in determining a head-count poverty measure. Thirty-one years ago in the U.S., the Office of Management and Budget issued Statistical Directive 14, prescribing the method for estimating official poverty statistics.[11] Since then there have been a number of evaluations of the poverty measure, including suggestions for changes and improvements. In 1995, the National Academy of Sciences (NAS) issued a report, "Measuring Poverty: A New Approach" (Citro & Michael, 1995) that recommended making significant changes to the methods used to measure poverty in the U.S. Over the past decade, the Census Bureau, other federal agencies, and the poverty research community have examined virtually every aspect of the NAS recommendations and in many cases have updated them. Recently, there has been renewed interest in the poverty measure recommended by the NAS report (see Blank, 2008; Blank & Greenberg, 2008; CEO, 2008).

The Census Bureau has been producing NAS-type measures for a number of years.[12] For these measures, the poverty thresholds are constructed using the expenditures on a basic bundle of food, clothing, shelter, utilities, and a "little more" (the *How*). These thresholds are based on families and are modified for various family types using a three-parameter equivalence scale (the *Who*), adjusted for differences in the cost-of-living across states using a geographic adjustment (the *Where*) that depends on the cost of housing, and updated over time using the change in median expenditures on the basic bundle (the *When*).

The calculation of resources (the *What*) for this measure starts with current money income, which is used to calculate official poverty statistics. This includes cash income received on a regular basis, such as income from earnings, any cash transfers, and property income.[13] Federal and state income taxes (along with social

[11] This directive stated that the basis of these measures is ". . . the classification of income data collected by the Bureau of the Census in accordance with a definition of poverty developed by the Social Security Administration and revised by a Federal Interagency Committee in 1969."

[12] See Table 1 for MSI-GA-CE; for details see Short (2001) and Garner and Short (2008). More tables can be found at http://www.census.gov/hhes/www/povmeas/tables.html.

[13] Before-tax income, regularly received, does not include net realized capital gains, gifts, lump sum inheritances, or insurance payments.

Table 1. Official and NAS-type poverty rates: 1999 to 2007.

Poverty Measure (percent)	1999	2000	2001	2002*	2003*	2004*	2005*	2006	2007
Official measure	11.9	11.3	11.7	12.1	12.5	12.8	12.6	12.3	12.5
MSI-GA-CE**	12.1	12.3	12.9	13.2	13.4	13.4	13.3	13.6	15.3***
MSI-GA-CPI**	12.1	12.0	12.2	12.1	12.3	12.5	12.5	12.2	12.6

Source: U.S. Census Bureau, Current Population Survey, 2000 to 2008, Annual Social and Economic Supplements.

* The Census Bureau changed the way it modeled taxes and other items, which affects annual comparisons. For further information see http://www.census.gov/hhes/www/povmeas/altmeas07/nas_measures_historical.xls.
** MSI-GA-CE means medical out-of-pocket expenses (MOOP) subtracted from income; geographic adjustment (of poverty thresholds); thresholds were recomputed since 1999 using data from the Consumer Expenditure Survey. MSI-GA-CPI means medical out-of-pocket expenses (MOOP) subtracted from income; geographic adjustment (of poverty thresholds); thresholds were adjusted since 1999 using the CPI-U.
*** See footnote 14.

security taxes) are subtracted to obtain after-tax income. Taxes are estimated using a tax calculator, and to improve the estimate of taxes, net realized capital gains are simulated and added to income. Added to after-tax income are the near-cash benefits that are available to meet spending needs defined in the thresholds (such as food stamps and housing subsidies), and necessary expenses, such as work-related expenses (including child care), are subtracted. Finally, to account for differences in healthcare needs, medical out-of-pocket (MOOP) expenses are subtracted to obtain the final resource measure used in determining the NAS-type poverty measure. By constructing both sides of the NAS-type poverty measure together, we ensure that the thresholds and resources are consistent and logically connect the parts to the whole.

Table 1 shows the overall poverty rates using the NAS-type measure of MSI-GA-CE as compared to the official poverty measure. In 2007, this measure is much higher than the official measure (15.3 percent, compared to 12.5 percent).[14] This table also demonstrates the importance of the updating method (the *When*) and the impact of using a quasi-relative updating method. Using the CPI to update the thresholds, the MSI-GA-CPI measure is 12.6 percent in 2007, compared to the official measure of 12.5 percent. Results also suggest that while the geographic adjustments affect the relationship of state poverty rates, the other adjustments (the *What*, *Who*, and *How*) taken separately do not substantially change the comparison between state poverty rates. The most dramatic effects occur in the changes in the composition of the poor (see Short, 2001; Blank & Greenberg, 2008; CEO, 2008).

ALTERNATIVE MEASURES OF INCOME (THE *WHAT*)

Many of the income definitions presented in the conference use components of income recommended by the Canberra Group (an international group of household income experts convened under the auspices of the United Nations Statistics Division). The Canberra Group's definition of adjusted disposable income includes the

[14] The Bureau of Labor Statistics implemented questionnaire improvements about expenditures on food away from home and type of mortgage in the Consumer Expenditure Interview Survey (CE) beginning in the second quarter of 2007, which substantially increased the 2007 threshold. Consequently, comparisons with earlier years for the MSI-GA-CE measure may be affected.

standard cash money income components, in-kind government transfers, cash value of fringe benefits, imputed rent, value of home production, and excludes taxes paid (see Table 2.1 in Canberra, 2001). However, none of the papers follow a strict implementation of this income definition.

Most papers begin with a measure of after-tax cash income, and include some in-kind transfers. The main issues for the NAS poverty measure are the measurement of health-care expenditures and benefits and the imputed services from homeownership. Other issues include the methodology for calculating taxes and imputing in-kind benefits, the inclusion of employer-provided noncash benefits, and the inclusion of realized capital gains. As shown at this conference, most studies do not include all employer-provided benefits (see Gilbert, 2009), many do not include imputed rent, and none include the value of home production.

Using an after-tax income measure, the OECD report, *Growing Unequal?* (OECD, 2008; Förster & D'Ercole, 2009), examines the impact of including various alternative income sources (e.g., in-kind transfers, imputed rent). This report, together with conference papers, demonstrates that most additions to income (such as education, housing, health benefits, and imputed rent) decrease inequality and poverty, whereas sales taxes and capital income increase inequality. However, many of the impacts discussed are similar over time and across countries. In examining the U.S. income distribution, many of the income components change inequality and poverty in ways similar to that shown in the OECD report. In addition, the changes do not affect the trends over time.[15] With similar effects, one wonders whether all of these components need to be taken into account, especially since many are difficult to measure and are not available in all countries.[16]

Sutherland and Tsakloglou (2009) specifically evaluate the effects of the in-kind social benefits of housing, education, and health care. Each of these components is added to after-tax income, and their results confirm those from the OECD report that public benefits are equalizing (and poverty reducing). These benefits, however, do not change the ranking across countries. The authors suggest that the different benefit structures across countries needs to be considered when comparing poverty and inequality across countries. If health-care services are provided in one country but privately paid for in another, this could affect the cross-country comparisons of poverty. In addition, the composition of the poor can be impacted by different benefits, such as education for children versus health care for the elderly.

The in-kind benefits examined in Sutherland and Tsakloglou (2009) (and included in the Canberra report and the NAS poverty measure) must be imputed using additional information (and data). These imputations can impact not only the level of poverty, but also the composition of the poor, depending on which demographic variables are included in the imputation. Similar to Sutherland and Tsakloglou (2009), the NAS income measure includes housing subsidies (as they are directed specifically to households); however, it does not include the social benefits of education and health care (and the Canberra report suggests including all social benefits in kind). As discussed above, the NAS poverty measure actually subtracts MOOP from the resources, and does not include the social benefit as imputed in Sutherland and Tsakloglou (2009). The different treatment of MOOP and health care benefits can have a substantial impact on the level and composition of poverty.

With regard to housing, the NAS poverty measure does not include imputed rent. However, there have been discussions about how to handle homeownership in a poverty measure (see Citro & Michael, 1995; Blank & Greenberg, 2008). The Census Bureau does produce an "imputed rent" calculation using the net return on home

[15] See tables at http://www.census.gov/macro/032008/rdcall/1_001.htm.
[16] See Table 2 in Smeeding and Weinberg (2001) for an inventory of income components for various countries.

equity. Using this measure decreases poverty, especially elderly poverty. Garner and Short (2001) further describe the alternative effects of measures of imputed rent.

Frick and Grabka (2009) further examine capital income and housing, showing that imputed rent is equalizing and poverty reducing, while capital income increases inequality. They highlight one of the problems with using relative poverty in comparing various income definitions: The inclusion of capital income actually increases poverty in some years. This is mainly due to the capital income for the elderly, suggesting that the key issue is the composition of the poor. While Frick and Grabka (2009) focus on capital income, they do not discuss the inclusion of realized capital gains.

Finally, Decoster et al. (2009) evaluate the distribution of indirect (or sales) taxes. The Canberra Group, however, does not include these taxes in their subtractions from income. Taxes on particular commodities can be viewed as an increase in price, which obviously affects welfare (through an income and substitution effect). For U.S. poverty measurement, it would seem that these sales taxes would be included in the threshold cost of goods and would not need to be subtracted from income. However, if a country moved from a complete income to a complete consumption tax, it would be clear that the income distributional analysis would include a measure of disposable income that excluded taxes paid.

Similar to the OECD report, Decoster et al. (2009) find that sales taxes increase inequality. Their analysis, however, raises a key measurement question about the *What*. They find that sales taxes are progressive when using consumption and regressive when using income, implying that different measures of resources yield different conclusions. In addition, they suggest that different taxes on different types of goods imply that sales taxes have different effects for different demographic groups, which could affect the composition of the poor.

As the conference papers demonstrate, changes in measurement affect various demographic groups (e.g., children and elderly) in different ways. Since the main impacts are on the composition of the poor, this should be the focus of the evaluation of alternative income measures. In order to more fully examine these effects, the Census Bureau has released a Web-based table creator so that users can create their own poverty measures. This table creator can assist in evaluating each component of income or it can show the changes in composition between the official U.S. poverty measure and alternatives. Most important, it can provide the impact on the composition of the poor by the inclusion of various income components.[17] Sutherland and Tsakloglou (2009) use a more sophisticated modeling program to evaluate their impacts—EUROMOD.[18] A program like this would be useful for the U.S. and would allow more detailed examinations of the impact of changes on the composition of the poor.

VARIATIONS ON EQUIVALENCE SCALES (THE *WHO*)

Sutherland and Tsakloglou (2009) also raise important measurement issues regarding the *Who*—do we need different equivalence scales for medical care and education, which are important for U.S. poverty measurement? They construct an alternative scale for health care, and they evaluate allowing educational benefits to vary for different households. Since most of the in-kind benefits are imputed to households, and these imputations vary by household composition, this creates an interaction between the income component and the equivalence scales—the *What* and the *Who*. The NAS measure uses an imputation for MOOP that depends on family types and sizes.

[17] See Johnson et al. (2008) for a description. The table creator can be accessed at http://www.census.gov/hhes/www/cpstc/apm/cpstc_altpov.html.
[18] For information of EUROMOD, see http://www.iser.essex.ac.uk/research/euromod.

This causes an interaction between the imputation and the equivalence scale. An alternative method presented in Short (2001) modifies the threshold and creates an additional equivalence scale adjustment for health-care needs, similar to the method discussed in Sutherland and Tsakloglou (2009).

Most studies use common arbitrary scales (like the square root of household size), and fix them to be the same for all analyses—whether it be the choice of income, choice of country or time period (that is, use the same *Who* for the *What*, *Where*, and *When*). As with changes in the components of income, the main impact of using various equivalence scales is on the composition of the poor, and not the overall level and trend in poverty (see Short et al., 1999). As suggested above, however, there can be interactions between the *Who* and the *What*, and this could extend to interactions with the *Where* and *When*.

Given the difference in "conditions" across countries, a "conditional" equivalence scale may need to be different for different countries.[19] Just as there may be reasons to alter the scale for health care, it may be useful to alter the scale over time. As the OECD report shows, the falling of average household size is one of the main drivers of changes in inequality. It could be that the "true scale" actually changes over time to reflect these choices, which could change our picture of the trend in inequality (or poverty).

The framework discussed in Sutherland and Tsakloglou (2009) can be applied to almost any in-kind benefit program. They suggest that including many of these benefits in an augmented income distribution means that they are like private commodities that households need, and hence, equivalence scales should be modified accordingly.

Gilbert (2009) also raises some interesting measurement issues regarding the interaction of the *What* and the *Who* in his examination of employer benefits, and accounting for the noncash employer benefits, such as paid vacations, sick days, and telework. Many of these benefits could affect different family types in different ways, again demonstrating the interaction between the *What* and the *Who* and suggesting alternative equivalence scales for these types of benefits.

CONNECTING THE LOGICAL PARTS

While examining the alternative components of an income measure is important, the main focus should be on obtaining a sufficient measure that reflects a country's poverty and can be compared over time and across countries. One issue is whether after-tax cash income tracks change and differences across states or countries similar to the other measures presented in the conference papers. Another issue is whether there should be multiple measures for multiple purposes. While the Canberra Group recommends one measure for income distribution, it could be that there is also an income measure for poverty (as in the NAS measure) and another income measure for program evaluation.

The impressionistic picture of poverty measurement may look complete from a distance, but as one examines the details, many measurement issues remain. In particular, we need to examine the impact that changes in the income measure have on poverty rates of various demographic groups. We need to evaluate the "logical connection of the parts to the whole" to ensure that the composition of the picture "satisfies the mind." While there may not be sufficient information to make all of the details clear, research in the U.S. and Europe must examine these details to understand if and how they change the picture of poverty. We must work together to maintain the big picture of comparability and determine a sufficient measure that

[19] For example, using a constant elasticity equivalence scale (e.g., square root of household size), one could choose the scale elasticity that minimizes inequality within a country and then make inter-country comparisons.

provides enough information to measure poverty consistently over time, across countries (and states), and between demographic groups.

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Europe's Other Poverty Measures: Absolute Thresholds Underlying Social Assistance

Richard Bavier

The first thing many of us learn about international poverty measurement is that European nations apply a "relative" poverty threshold, typically 50 (OECD) or 60 (EU "at risk" measure) percent of median income, that is higher than ours, and that they also do a better job of reducing poverty. Unlike the European model, the "absolute" U.S. poverty threshold does not increase in real value when the nation's standard of living rises, even though it is obvious that what we think of as living in poverty today, such as having no electricity or indoor plumbing, would not have been a sign of poverty a century ago. A 1995 National Research Council panel report advised the U.S. to emulate Europe and adopt a relative, or at least a "quasi-relative," threshold, indexed each year by changes in spending on food, clothing, and shelter between the 30th and 35th percentiles of couples with two children (Citro & Michael, 1995). Couples in this range have incomes above $50,000 and most own their own homes. So indexing a poverty threshold to their spending on basics would tend to reflect economic gains among families who are well above what most people regard as poverty.

Is this the lesson about poverty measurement that the U.S. should learn from Europe?

STANDARD BUDGETS IN SUPPORT OF EUROPEAN SOCIAL ASSISTANCE

Another lesson, not typically featured at conferences on international poverty measurement, is that "absolute" measures of need frequently underlie the social assistance schemes that help Western European nations measure up well against "relative" poverty thresholds.[20] At the Joint OECD/University of Maryland International Conference on Measuring Poverty, Income Inequality, and Social Exclusion: Lessons from Europe, Tesliuc, del Ninno, and Grosh (2009) summarized material from their comprehensive World Bank handbook of social assistance program design (Grosh et al., 2008). While the paper thoroughly schematized and illustrated the design of transfer and tax policies from both developed and developing nations by delivery mode (cash and noncash transfers, tax expenditures, services), targeting methods, behavioral requirements, and adjustments for budget constraints, there is little attention, in that paper or in other conference papers, devoted to the needs standards underlying the social assistance programs or how they relate conceptually to the measure of poverty.

In fact, in some nations, maximum social assistance levels may be simply a product of political expediency. However, with many OECD members, benefits reflect the influence of standard budgets, defined by Gordon Fisher as ". . . a list of goods and services that a family of a specified size and composition would need to live at a designated level of well-being, together with the costs of those goods and services" (Fisher, 2007). Standard budgets have been classified as *descriptive*, based on infor-

[20] When comparing nations with very large differences in median incomes, relative thresholds set at 50 or 60 percent of median income can produce nonsensical results. This is one of the reasons that the United Nations supports "absolute" poverty thresholds for statistical purposes, although comparing its daily $1.25 per person threshold to the official U.S. "absolute" threshold reinforces the view that poverty is, in some fundamental sense, relative (Commission on Sustainable Development, 2001).

mation about actual spending of a typical family of a specific type, or *prescriptive*, a normative budget based on expert opinion about the cost of a nutritionally adequate diet, housing of appropriate size and quality, clothing allowance, and so on (Johnson, Rogers, & Tan, 2001). A recent variation in the U.K. and Ireland has supplemented expert judgment with experiential and evaluative advice by ordinary citizens about what constitutes normal consumption (Bradshaw et al., 2008; Vincentian Partnership, 2006).

While the methods and purposes of standard budgets have varied widely, they often have been employed to support improvements in wages and government assistance levels by application of empirical evidence and independent professional judgment. This progressive thread is rarely visible in characterizations of standard budgets as "arbitrary" (Citro & Michael, 1995; Förster, 1994; Förster & d'Ercole, 2009; citations in Fisher, 2007) and even "paternalistic" (Citro & Michael, 1995).

Sweden's National Board of Consumer Affairs maintains a budget representing a "reasonable" standard of living, reflecting "neither minimal nor superfluous consumption," that is used by the National Board of Health and Welfare to advise local authorities on setting social assistance (*Socialbidrag*) levels (Eardly et al., 1996; Fisher, 2007; Salonen, 2002; Veit-Wilson, 1998). Eardly et al. explain, "The standard rate is meant to cover the cost of food, clothing and shoes, sport and leisure, consumable goods, furniture, household utensils, newspapers, telephone rental and television license fees, household electricity and home insurance costs, along with smaller medical treatments and dental care" (1996, p. 358). The central German government provides the federated Länder with boundaries for social assistance benefit levels (*Sozialhilfe*) that conform to "human dignity" and were based initially on a budget of basic goods (Eardly et al., 1996; Fisher, 2007; Förster, 1994; Nelson, 2004). In the Netherlands, social assistance benefits are keyed to statutory minimum wages that are themselves grounded historically in standard budgets (Eardly et al., 1996; Fisher, 2007; Veit-Wilson, 1998). The Swiss Conference of Public Assistance Institutions (CSIAP) establishes budgets used by cantons in setting social assistance levels. Eardly et al. (1996, p. 374) note that amounts are included for "maintenance, 'free share' (*Sakgeld* or pocket money), rent, clothes, electricity, radio, television and telephone fees, and transport." Provinces in Canada establish their own social assistance rates under the Canada Social Transfer program. Typically, assistance reflects either a "pre-added budget" amount for all non-shelter needs supplemented by a separate shelter component, or an itemized budget amount for specific needs categories, or a flat amount varied by household structure (Eardly et al., 1996; FPT Directors, 2006).

In other OECD nations, standard budgets are not used to set assistance levels directly, but rather to influence wage setting or the planning of social assistance spending. The Family Budget Unit, an educational charity in the U.K., produces two budget levels, a "Low Cost but Acceptable" budget it characterizes as a poverty line, and a "Modest but Adequate" level. Budgets specific to geographic area and demographic group have been used in wage negotiations and by the U.K.'s poverty advocacy groups to assess the adequacy of social assistance benefits. Recently, the Joseph Rowntree Foundation combined the approaches of expert standard budgets with input from ordinary citizens to produce a new minimum income standard it commends for the same sort of uses (Bradshaw et al., 2008). In Ireland, a nongovernmental agency, Combat Poverty, received a statutory charge to advise government on all aspects of public policy pertaining to poverty (Combat Poverty Agency, 2008). Its annual budget advice to the government uses Minimum Essential Budgets developed by the Vincentian Partnership for Justice (2006), employing a combination of expert judgment and the advice of focus groups of ordinary citizens. Minimum Essential Budgets include amounts for food, clothing, personal care, household goods, household services, social inclusion and participation, educational costs, household fuel, and savings and contingency costs.

Standard budgets were employed in Australia early in the twentieth century in a landmark wage judgment (Saunders, 1998). The Social Policy Research Center has taken the lead in developing contemporary indicative budget standards for a range of Australian household types. The standards are intended to inform debate about adequate income levels, and have been instrumental in a recent round of minimum wage decisions (Saunders, 2004).

At the request of federal and territorial officials, Statistics Canada has produced a Market Basket Measure to be used in assessing social assistance adequacy (Hatfield, 2002).

France's guaranteed minimum wage (*Salaire Minimum Interprofessionnel de Croissance*) was based on a compromise among subsistence budgets and, over the years, has been updated by a variety of price and wage changes. It is a benchmark in debates over social assistance levels (Veit-Wilson, 1998).

In short, while international comparisons featured at the OECD/UM conference employ relative poverty thresholds, expressed as a point on the income distribution (Förster & d'Ercole, 2009; Immervoll & Förster, 2009; Maquet & Stanton, 2009; Tesliuc, del Ninno, & Grosh, 2009), individual member nations often use standard budgets to support wage and social assistance levels.

U.S. STANDARDS OF NEED

Standard budgets have a long history in the U.S. for similar reasons (Fisher, 2007; Johnson, Rogers, & Tan, 2001). During the Progressive Era, standard budgets were often used in advocating for improvements in the living conditions of industrial workers and their families. The U.S. Bureau of Labor Statistics (BLS) began its involvement with standard budgets during World War I in support of wage determinations for the flood of new government workers into the District of Columbia. Subsequent BLS budgets have had both statistical and administrative uses, including the current Lower Living Standard Income Level.

Currently, the U.S. functional equivalent of European standard budgets used in setting social assistance levels are standards of need for specific budget categories, such as food or housing, underlying federal means-tested noncash assistance programs. The most familiar is the Thrifty Food Plan (TFP), maintained by the Department of Agriculture and the descendant of the economy and low-cost food plans employed by Mollie Orshansky in developing the threshold adopted as the official U.S. measure of poverty in 1969. The TFP is said to represent "the cost of a nutritionally adequate diet," reflecting "up-to-date dietary recommendations, food composition data, food habits, and food price information" (Carlson et al., 2007).

Program-based needs standards underlying U.S. noncash assistance are not as "absolute" as the official poverty threshold is said to be. Section 8 rental assistance prescribes that families need a dwelling that meets a range of quality and safety standards and has the appropriate number of bedrooms. The program subsidizes units that meet this standard generally up to the 40th percentile of such rents, termed Fair Market Rent (FMR). As rents increase with the average size and quality of the rental stock, this ceiling on rental subsidies increases in real dollars as well.

Medicaid reimburses states for a share of expenditures in behalf of eligible persons for inpatient hospital services, laboratory and X-ray services, and physician services, among other items. As the professional standard of medically necessary care expands, so does the scope of reimbursable services.

The largest federal child care assistance program, the Child Care and Development Fund, requires states to perform market rate surveys at least every two years and document that their maximum benefits are reasonably sufficient (National Child Care Information Center, 2006). Real increases in the quality of available child-care services tend to be captured in maximum benefit levels that the Department of

Health and Human Services suggests states may set at the 75th percentile of surveyed providers.

In theory, even the value of the Thrifty Food Plan would increase in real terms if one of the occasional studies by the Center for Nutrition Policy and Promotion showed that the current TFP amount would no longer purchase a nutritionally adequate diet based on current nutrition standards, food consumption patterns, and prices (Carlson, Lino, & Fungwe, 2007).

LESSONS FOR POLICY

One factor explaining the prevalence of empirically arguable needs standards supporting social assistance is the audience, not a conference of poverty experts but representatives of elected governments and, ultimately, their electorates. These needs standards operate in the context of public choice about social assistance spending. They are successful to the extent that they gain and maintain the consent of the governed and their representatives. By comparison, relative thresholds, such as 50 or 60 percent of median income, are useful for international comparisons precisely *because* they do not reflect what each separate nation's public and government understand as the level of basic needs (Förster & d'Ercole, 2009; Förster, 1994). For the purposes of researchers, a strong empirical defense of the poverty line is unnecessary. Any marker of economic status, even one that is arbitrary in the sense that it has no convincing intrinsic justification, can serve the purposes of economists well as long as it performs its function of measuring variation accurately near the bottom of the distribution.

The prevalence of concrete needs standards in governmental proceedings and of relative thresholds at conferences devoted to international statistics no doubt is due partly to the relative comfort levels of legislators and voters, on the one hand, and poverty experts, on the other, when it comes to abstract thinking. However, it is also true that the poverty literature's dismissal of standard budgets as "subjective" and "arbitrary" is loose and unhelpful usage (Citro & Michael, 1995; Förster, 1994; Ruggles, 1990). Drawing the poverty line is not self-referential. It is subjective neither in the sense of a private experience, like pain, nor like a taste for spinach. Psychologically, we may each have a different tolerance for observing deprivation before we are discomforted, but when someone argues that the poverty line is too high or too low he does not support his opinion by referring to his own internal states. Neither is the poverty line arbitrary, if by that we mean that generally accepted standards of reason and evidence are irrelevant. If that's the way the threshold were understood, we would not find experts offering objective evidence and argument that their threshold proposals are reasonable but the current threshold is not.

Poverty thresholds may be arbitrary within the narrow concept of rationality found in neoclassical economic theory, where reasoning is strictly instrumental and evaluations, such as about what people *need*, reflect tastes or preferences that are arbitrary in the sense that we do not reason or argue about them—*de gustibus non est disputandum*. But the question of what people need *est disputandum* when we develop and modify assistance programs. In these contexts, valuations are not just the givens that tell instrumental reason what to maximize, but rather are what reasoning and persuasion are intended to inform and influence.

We reason about the adequacy of the Thrifty Food Plan by comparing it to prices and, every decade or so, to nutrition standards and food consumption patterns. We reason about the Fair Market Rent ceilings by testing the "success rates" of voucher holders—the rate at which they can actually find standard quality units available under the FMR. We reason about whether a couple with a teenaged son and a teenaged daughter need an apartment with two bedrooms or three. We argue about whether state Medicaid programs must cover Viagra for its medically accepted indications. Evidence and argument are presented, and minds can change. Intellectual

assent can be earned. Still, it is true that the outcome of this reasoning and argument cannot compel assent in the manner of a scientific experiment or a mathematical deduction. However, to the extent that the process is characterized by openness and transparency, participatory rather than strategic communication, appropriate opportunities for informed participation by all affected parties or their representatives, and reviewable in the electoral process, the outcomes represent how a democracy rationally aggregates and resolves issues about inherently evaluative matters. The outcomes are due consent, at least until the next election.

The poverty literature warns that government's determination of how much people need may be dominated by a desire not to pay very much—not that official needs standards are arbitrary but that they are determined by unspoken and invalid criteria (Fisher, 2007; Veit-Wilson, 1998; Citro & Michael, 1995; Ruggles, 1990). In other words, government is apt to confuse two distinct kinds of questions about social assistance: (1) What do we as a nation regard as the minimum that it is indecent for people to be without? (Or, more progressively, what do we as a nation regard as necessary for full participation in society?) (2) How much will we pay? Standard budgets bring empirical evidence and independent expert judgment to bear on the first question, which can help insulate it from preferences about the second. Nutritional science and price surveys, for example, cannot draw a food poverty line, but they can make one more rational by reducing the risk that invalid assumptions will go unexamined and invalid criteria unchallenged.

Someone willing to grant the point that empirically argued standards of need may be more suited than a random point on the income distribution for convincing voters and their representatives to spend tax revenues may yet remain skeptical about the effectiveness of these needs standards. Although we have seen that European social assistance levels often are grounded in standard budgets, international comparisons of government efforts to reduce relative poverty typically rate the U.S. towards the bottom (Förster & d'Ercole, 2009; OECD, 2008). However, to infer from benefit levels that needs standards are inadequate is to confuse government's answer to the first kind of question with its answer to the second kind. When researchers develop alternate U.S. poverty thresholds starting with standards of need underlying federal noncash assistance programs, they consistently come out well above the current official poverty threshold (Bavier, 2009; Bernstein, Brocht, & Spade-Aguilar, 2000; Renwick & Bergmann, 1993; Ruggles, 1990; Schwarz & Volgy, 1992; Weinberg & Lamas, 1993). The federal government's *programmatic* standards for food, shelter, health care, and other basic needs imply a higher poverty threshold than the federal government's current *statistical* measure of what people need. As we think about adopting a "quasi-relative" poverty threshold, we should bear in mind these lessons from Europe and the U.S. suggesting that an empirically arguable threshold would be more useful in the context of public choice about assistance spending.

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European Measures of Poverty and "Social Exclusion": Material Deprivation, Consumption, and Life Satisfaction

Neil Gilbert

The conventional view of poverty in the European Union countries is based on a relative measure, which defines all those with incomes below 60 percent of the median as poor. In the U.S., poverty is defined according to an absolute measure—the federal poverty line computed by the Census Bureau—which was $21,200 for a family of four in 2008 (somewhat higher in Alaska and Hawaii). In tallying up national rates of poverty, both the absolute and relative measures are adjusted for family size.

Although these income-based measures generate social indicators that are concrete, plausible, and convenient to use, they fail to convey the experiential quality of poverty as a condition of life—living hungry, cold, unable to meet normal social expectations, and in dread of what the future holds. They also overlook the possession of other resources and sources of support that can alleviate the conditions of poverty. Several of the papers presented at the Joint OECD/University of Maryland International Conference on Measuring Poverty, Income Inequality, and Social Exclusion: Lessons from Europe aim to overcome these omissions by assessing levels of material deprivation and including measures of consumption and wealth in addition to income.

MATERIAL DEPRIVATION AND INCOME-BASED POVERTY

Expressing the Europeans' concerns about the inadequacies of the conventional approach to estimating poverty, Marlier et al. (2009) explore the multidimensional nature of poverty by casting it within the framework of a broader concept of social

inclusion. The authors review and analyze what is identified as a "commonly agreed upon portfolio" of indicators of social inclusion, which contends with some of the limitations of a narrower income-based measure of poverty.[21] The portfolio consists of a number of primary and secondary indicators, including the conventional European measure of 60 percent of median income along with several other measures involving unemployment, employment gap of immigrants, education, health care, and material deprivation.

The strength of these indicators is that they indeed convey a broader, more detailed account of the experiential circumstances associated with poverty—unemployment, lack of education, unmet medical needs, deficient shelter, and material deprivation, along with relatively low income. According to the authors, one of the main objectives of the indicators is to "facilitate comparison of actual performance achieved by EU countries" through their social policies. My assessment of these indicators is framed by four questions:

1. How much does the index of material deprivation add to our understanding of poverty beyond the knowledge gained from an income-based measure?
2. How reliable is the material deprivation index as a comparative measure of poverty/exclusion?
3. How applicable are multidimensional measures of poverty for comparative analysis and policy decision making?
4. To what extent do the alternative nonmonetary measures facilitate comparisons of performance that produce greater transparency than an income-based poverty measure?

Let me start with the issue of the knowledge added by the material deprivation index. This indicator examines nine aspects of material living conditions by asking respondents whether they can afford the following: (1) a washing machine; (2) a personal car; (3) a color TV; (4) a telephone; (5) a one week annual holiday away from home; (6) to face unexpected expenses; (7) to pay for arrears (rent, utilities, etc.); (8) a meal with meat, chicken, or fish every second day; and (9) to keep a home adequately warm. Because the items in this index begin with the question "can you afford?" they must have a cash value in the respondents' minds. To what extent does the material deprivation index provide a deeper understanding of poverty than that gleaned from a standard monetary indicator?

The paper reports a weak positive correlation ($r = 0.30$) between the risks of poverty (defined as the percent of people living below 60 percent of the national equivalized median income) and levels of material deprivation (defined as the percent of people deprived of at least 3 items) in the EU countries. This indicates that although the relationship is in the expected positive direction, the monetary indicator of the risk of poverty or relatively low-income explains only 9 percent of the variance in material deprivation. Without looking too closely, one conclusion that might be drawn from this finding is that the nonmonetary indicator of deprivation captures a significant, perhaps alternative, dimension of poverty/exclusion beyond that represented by a monetary indicator.

However, a very different conclusion emerges when one examines the relationship between material deprivation (defined as above) and the income thresholds used to define poverty in the EU countries. The results here show a strong negative relationship of $r = -0.831$ ($p < 0.001$). The poverty thresholds explain about 70 percent of the variance in the levels of material deprivation among countries. Simply put, the lower a country's median income, the higher the percent of people living there that are materially deprived. This is hardly surprising. These findings highlight an essen-

[21] These indicators were developed and agreed upon by the EU Social Protection Committee Indicators Sub-Group.

tial problem in using the relative definition of poverty in comparative analysis—it fails to deliver an accurate representation of the differences in the material well-being of citizens in countries with a wide range of median incomes.

A question still remains as to what extent the 30 percent of variance in levels of material deprivation among the EU countries that is not explained by the different poverty thresholds represents a meaningful nonmonetary dimension of poverty/exclusion, which is captured by the index, and how much is due just to measurement error in response to the index. This brings us to the second issue concerning the reliability of the deprivation index. Because the potential costs of most of the items in this index vary dramatically, it is difficult to interpret exactly what individual responses mean. For example, the question whether one can "afford an unexpected expense" might include everything from the cost of replacing a broken window pane to a new roof. (The answer might reflect the respondents' optimism contemplating costs of the unexpected more than anything else.) One week's annual holiday away from home can involve everything from camping in the forest to a luxury cruise in the Mediterranean. A color TV can range in price from less than $100 to more than $5,000. There are no stable values associated with each item and, although a car tends to be more expensive than a telephone, there is no ordinal ranking of affordability among all of the items. The open-endedness of the definitions of these items raises questions about the face validity and reliability of this composite indicator. When two respondents can imagine that the same question means different things, what exactly does the index measure? If the questions were posed as, for example, "Can you afford a TV that costs $100," how much might the 30 percent of unexplained variance decline?

The questionable reliability of these items for use in cross-sectional analysis is compounded by the fact the material deprivation index does not lend itself well to longitudinal analysis. Over time the costs of items will vary. Several of the items in this index are likely to become more affordable as costs are driven down by innovations and new methods of production—which changes the meaning of lack of affordability. In 1971, for example, only 43 percent of all households in the U.S. had color televisions, whereas 30 years later over 97 percent of *poor* household owned color televisions (Cox & Alm, 1995). Research indicates that over time many products shift in the public's perception from luxuries to necessities (Pew Research Center, 2006).

The third issue concerns how multidimensional measures inform comparative analysis and policymaking, particularly when discrepancies arise between the commonly agreed upon indicators, such as risk of poverty and deprivation. For example, the risk of poverty in Hungary, Slovakia, the Czech Republic, and Slovenia is lower than in most other EU countries that have much higher median incomes (such as Finland, France, Germany, Ireland, Luxembourg, and the U.K.). While having lower risks of poverty than many of the Western European countries, however, these four Eastern European countries have higher levels of material deprivation, measured as the percentage of the population that could not afford at least three of the nine items in the material deprivation index. Findings showing that a fair proportion of the EU countries have lower levels (or risks) of poverty, yet higher levels of material deprivation than many other countries, present policymakers with a confusing discourse on the relation between poverty and material deprivation—as these terms are commonly understood.

The implications for policymaking remain puzzling, despite efforts to elaborate and refine the material deprivation index. Drawing on the EU Statistics on Income and Living Conditions data, for example, Nolan and Whelan (2009) analyze an expanded version of the nine-item index discussed above, which includes a selection of 17 items of material deprivation, as shown in Table 1. These items are incorporated into two composite measures for each country: a mean household deprivation index score and a measure of the percentage of three-item deprivation among those below 60 percent of the median income.

Table 1. Selection of items included in EU-SILC used as indicators of material deprivation.

Afford to pay unexpected required expenses*
Week's holiday away from home* ++
Meals with meat, chicken, fish (or vegetarian)* ++
Can afford a PC++
Arrears relating to mortgage payments, rent, utility bills, hire purchase* ++
Inability to keep home adequately warm* ++
Household can afford to have a car* ++
Bath or shower in dwelling
Indoor toilet
Can afford a telephone*
Can afford a color TV*
Can afford a washing machine*
Pollution, grime, or other environmental problems in the area
Noise from neighbors or noise from the street
Crime, violence or vandalism in the area
Rooms too dark, light problems
Leaking roof, damp walls/ceilings/floors/foundations, rot in doors, window frames

Source: Nolan and Whelan (2009).

* Items in the Marlier et al. (2009) nine-item deprivation index.
++ Items in the "consumption deprivation" index.

The mean household deprivation score is developed by assigning each item the value of 1, adding the number of items identified by each household, and calculating the mean. Composite scores of this sort, of course, always involve value judgments. Giving each item an equal weight is not so much an expression of neutrality as a judgment of value, which implies that the inability to afford a PC is an equivalent degree of deprivation to the lack of an indoor toilet, and each of these is equivalent to having noisy neighbors (which is unlikely to occur in Geneva, where there is an ordinance against making excessive noise, particularly between 21:00 and 7:00).

The second composite scores show the percentage of households that have both incomes below 60 percent of the median and are deprived for at least three of the six consumption deprivation items (see Table 1). Here again there arises an apparent discrepancy between where different countries rank on this indicator and the customary understanding of the association between low-income and deprivation. Slovakia, Slovenia, and the Czech Republic, for example, have a lower percentage of households that both are below 60 percent of their median incomes and are deprived for at least three of the six items in the consumption deprivation index than Luxembourg, Finland, and Belgium. At almost 37,000 Purchasing Power Standard (PPS) units, the poverty threshold in Luxembourg represents a level of income three to four times higher than in the Eastern European countries.[22] According to this finding, a higher percentage of households with incomes up to 37,000 PPS in one country experience three or more consumption deprivations (such as inability to afford food, heat, and a holiday) than households with incomes up to 8,400 PPS in another country. From a policy perspective, if a financial transfer is to be made to reduce poverty/social exclusion, should it go to Luxembourg before Slovakia?

But really, how can it be that those below 60 percent of Luxembourg's median income have a higher percent of material deprivation than the poor in Slovakia? The authors offer several possible explanations, which essentially boil down to measurement error in both income and deprivation.

[22] PPS units are euros adjusted for Purchasing Power Parity.

Beyond problems of measurement and interpretation, the non–income-based multidimensional indicators of poverty/exclusion suffer from a lack of transparency. The issue here is not so much that the different measures yield different, sometime curious, results, but who decides which items are commonly agreed upon and on what basis? In operationalizing indicators of social exclusion, are there systematic criteria that might help policymakers and the public understand why certain indicators are included and others excluded? For example, the broad portfolio of commonly agreed upon indicators includes a measure of the employment gap of immigrants but excludes a gender employment gap or a sexual orientation employment gap. The portfolio includes a measure of unemployment, but not one of employment security or security about one's life situation in retirement. Measures of access to health care do not address the issue of quality of care. One could easily imagine adding a considerable number of items to the 17-item material deprivation index, including ability to afford microwaves, CD players, and children's access to a garden, outdoor playing fields, and public transportation. At the same time one might ask how material deprivation of respondents in Scandinavian and Mediterranean countries can be compared by the question about their ability to afford "keeping a home adequately warm."

To the extent that multidimensional measures convey a detailed account of different experiential circumstances associated with poverty, they are useful in helping to expand the purview of social research and to highlight areas of social life that may be suitable for improvement. Efforts to formulate these measures stimulate thinking about the phenomena of poverty and social exclusion, generating new insights and different ways of counting social needs—helping to build new knowledge about different aspects of poverty. Indeed, this approach is a valuable academic/intellectual pursuit in seeking to enumerate the empirical essence of social inclusion or even the good life.

However, I have serious questions about the extent to which they provide guidance to inform social policy by offering a more valid, reliable, and transparent depiction of poverty than a direct measure of income. Most citizens and policymakers can envision what it means when they hear a statement to the effect that 20 percent of households are poor or excluded from participation in normal social life because they have only X dollars to live on after taxes. Although they may agree or disagree as to whether X dollars is the right amount, it is more difficult to formulate any judgment on a statement to the effect that 20 percent of households are socially excluded because they have an average deprivation score of 3 or more on 17 items ranging from being able to afford a phone to living in a noisy environment.

CONSUMPTION, WEALTH, AND LIFE SATISFACTION

Nonmonetary indicators seek to address the inadequacies of conventional income-based measures by defining poverty as a multidimensional problem. This approach enlarges the analytic frame on poverty and social exclusion beyond low income to encompass material deprivation, lack of education, unemployment, and other problems, which transmits an expansive progressive agenda for social policy. In contrast, an alternative line of analysis confronts the limits of monetary measures by expanding the financial account to include more than income and then examining nonmonetary considerations in terms of the psychological consequences of poverty under the broader financial definition. Concentrating on this financial approach, Heady, Krause, and Wagner (2009) measure poverty in Australia and Germany according to household income, wealth, and consumption (including imputed rent calculated at 4 percent of the estimated market value of the house). The rates of financial poverty are estimated for three groups: those who are poor in terms of income (having income below 50 percent of the national equivalized median); in terms of consumption (below 50 percent of the median equivalized consumption);

and the "asset poor" (lacking wealth to survive for three months in an emergency with an income above 50 percent of the national median). In light of these measures, the analysis illustrates the extent to which the rates of financial poverty decline when the definition shifts from only those who are income-poor to those who remain poor after taking into account income, consumption, and assets. The authors then examine the psychological consequences of being poor according to this definition.

The findings reveal that when consumption and wealth measures are included, the level of financial poverty sharply declines. In Australia, where the poverty line is usually set at 50 percent of the median income, the poverty rate in 2007 decreased from 13.7 percent to 2.5 percent (at 60 percent of median income the rate decreases from 19.9 percent to 4.9 percent) under the expanded financial definition. The rate of persistent poverty, defined as those under 60 percent of the median income for three years, declines from 10.6 percent using the conventional measure of income to 2.2 percent when consumption and wealth are included. The data show a similar decline in Germany (from 17.2 percent to 7.9 percent in 2005), though the 60 percent of median income poverty rate does not fall as low as in Australia, in part because the German measures included income and wealth, but not consumption.

Based on these findings, Heady, Krause, and Wagner (2009) argue that the existing income-based measures are seriously in error, yielding poverty results that are much too high. If the definition of poverty as being simultaneously income poor, consumption poor, and asset poor were commonly accepted, it would surely have profound implications, at least in Australia; with only 2.5 percent of the population falling beneath the established poverty line, the problem is virtually solved.

In an effort to probe the experiential quality of poverty, the psychological consequences of being poor according to the broad financial definition are analyzed, using self-assessed ratings of satisfaction with one's life, financial situation, relationship with a partner, general health, and mental health. The most striking finding here is that the impact of poverty on life satisfaction, while statistically significant, is substantively inconsequential. The difference in life satisfaction between the people in the middle income category and the poor is 4 points on a scale of 0–100. When other factors that might impact life satisfaction, such as being partnered, number of children, unemployment, disability, neuroticism, and age, are controlled for, the impact of poverty is only a 2-point difference on the 0–100 point scale of life satisfaction. The entire model including money, health, family, youth, work, and mental health accounted for only 11.7 percent of the variance in life satisfaction. In Germany, the data showed that after controlling for a wide range of demographic, health, personality, and interpersonal characteristics, being poor increased the proportion of explained variance in life satisfaction by only 1.2 percent.

Other findings revealed that being poor had a strong association with several specific measures of well-being, such as living without a partner, health, mental health, and financial satisfaction. It is well known, however, that correlation is not the same as causality. Where poverty and the indicators of well-being are concerned, cause and effect are difficult to untangle, except for the finding that poor people are 11.6 percent less satisfied with their financial situation than the non-poor, which does not generate a great deal of insight. Regarding the other measures of well-being, having a low income may affect one's chances of finding a partner, particularly if the reason for being poor is related to factors such as mental illness and disability; although being poor may lead to the deterioration of one's health and mental health, it is equally the case that being physically disabled or mentally ill may have a strong influence on becoming poor.

One might read the main results of this study and their implications as somewhat different from those of studies based on multidimensional non-income measures of poverty. That is, the data here show that the rates of income-related poverty as defined by many public agencies fall to very low levels when measured by empirical

indicators of financial resources that are more comprehensive than the conventional measure of income. Among the relatively low percentage of households that are poor by this measure, an even lower percentage stay that way for three years. And although, as might be expected, people who are financially poor are less satisfied with their financial situation than the non-poor, there is almost no substantive difference between the poor and non-poor regarding their general satisfaction with life.

If one agrees with this interpretation, then in the cases studied empirically there is not a great deal of traction to advance poverty as a pressing social issue on the public agenda. Those seeking to advance progressive policies designed to improve social life need to reframe the issue, which perhaps lends strategic justification to the lack of transparency associated with the multidimensional non-income measures of poverty and social inclusion.

LESSONS FOR THE U.S.

If poverty research is to focus on developing multidimensional measures such as material deprivation indices that go beyond monetary calculations, there are tradeoffs worth considering. The multidimensional approach offers the benefit of greater detail about a range of poverty-related problems, along with a wider frame of investigation that might generate new insights and lend impetus to a progressive policy agenda. These benefits must be weighed against the issues raised concerning reliability, face validity, and transparency for building knowledge and policymaking. In the current stage of development, multidimensional measures of poverty face serious analytical challenges, which cast doubt on their utility as rigorous scientific indicators for comparative analysis.

When standard income-based calculations of poverty are refined to include consumption and assets, the rates of poverty are much lower than those reported in the official measures. Analyses of consumption and assets are fertile areas for research that can sharpen the focus of monetary-based measures, which are easily grasped by policymakers and the public. If consumption and assets are included among financial resources in official calculations of poverty, however, one would anticipate an outpouring of recommendations to recalibrate official poverty lines in Europe and the U.S. according to the total package of household financial resources.

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New Comparative Measures of Income, Material Deprivation, and Well-Being

Timothy M. Smeeding

Most societies, rich and poor, seek to measure progress in reducing poverty and need, as indicated by material deprivation or social exclusion. The yardsticks used to assess progress and policy impact mainly include income-based poverty, but broader measures of poverty based on consumption, wealth, and material deprivation are also now coming into use. Both Europeans and Americans also have a strong interest in reducing income inequality: It is reported as a "serious problem" by two-thirds of survey respondents in the U.S. and over 90 percent of respondents in Europe (Förster & D'Ercole, 2009). However, although both agree that income inequality is a social ill, there is far less consensus on how to attack the problem.

Income inequality rose in most rich nations in the Organisation for Economic Co-operation and Development (OECD) over the 1990–2005 period, but by considering both tails of the income distribution, we see that most of the rise in inequality was generated by increases at the top of the distribution or by the ratio of the 90th percentile income to the median income, and not by changes at the bottom or by the ratio of the 10th percentile to the median (Förster & D'Ercole, 2009; Salverda, Nolan, & Smeeding, 2009). Many analysts look at the Gini coefficient and see rising inequality if the Gini increases.[23] They are, of course, technically correct. But a change in a single-parameter coefficient like the Gini does not show which part of the distribution changed, and different changes have different policy implications. If the rich pull away from the middle class, the policy implications are likely to be very different than if the poor fall farther behind the middle class.

ABSOLUTE VERSUS RELATIVE MEASURES

At the Joint OECD/University of Maryland Conference on Measuring Poverty, Income Inequality, and Social Exclusion: Lessons from Europe, the major debate, as expected, was about poverty measurement in absolute (fixed line with respect to income changes) versus relative (fully changing with income) terms. While this topic has been debated before (for example, Notten & Neubourg, 2007; Smeeding, 2006), it was especially prominent at this meeting. The absolute-poverty-line backers argued that there should be a widely agreed upon poverty market basket that is held constant, except for consumer price index changes, and therefore is fixed in real terms. In economic terms, the absolute poverty line has an income elasticity of zero. The relative-poverty cadre argued that poverty lines ought to rise (or fall) fully with the middle household income, and therefore the relative line has an income elasticity of 1. Of course, the choice of the measure depends on one's philosophy of poverty measurement. There is also a middle ground whereby one could "anchor" the relative poverty line in a given year and measure progress in reducing absolute poverty since that time by comparing contemporary income to price changes in that older median line, as well as measuring fully relative poverty as defined above. The United Kingdom now follows such an approach (U.K. Department of Work and Pensions, 2008). Using such an anchored measure, almost all rich nations made

[23] The Gini coefficient is the most popular single-parameter measure of the inequality in a country's income distribution.

progress against poverty between 1990 and 2000, though that progress has been halted or reversed since 2002 (Smeeding, 2006).

Many American academics favor the absolute approach on which the official U.S. statistics are measured, while most Europeans believe in a fully relative approach, with the European Union (EU) formally agreeing in the mid-1990s to measure poverty and social exclusion by incomes less than 60 percent of the annual median income. Progress against poverty by such an exacting and high relative standard has been slow in Europe and elsewhere. It is interesting that, in the new world of global economic recession, we might actually find that relative poverty decreases (depending on how the median household fares), while absolute poverty increases in 2008 and 2009 (due to falling real incomes across the entire distribution).

UPDATING THE U.S. POVERTY MEASURE

Efforts to revise the U.S. absolute poverty measure require resolving many thorny issues, as seen in Johnson (2009). In employing different measures of poverty, European and developing nations have addressed many of the same issues, and their experience can enrich our own thinking. In Europe as well as the developing world, the income elasticity of the poverty line, while not 1, is clearly not zero either. Indeed, a paper by Ravallion and Chen (2009) compares the "official" national poverty lines in 116 countries (700 observations) with real incomes over the period from 1981 to 2006. They find that their data are consistent with an income elasticity of the poverty line of about 0.65, not far from the classic U.S. estimate of 0.75 (Fisher, 1996; Kilpatrick, 1973). The U.S. poverty line was fully half of median income in 1963, but had fallen to 27 percent of the median by 2006 (Blank, 2008; Smeeding, 2006). An acceptable middle ground outcome for the United States, and possibly for Europe as well, might be to have a poverty line that is higher than the current absolute poverty line developed in the 1960s and which also rises in real terms over time in response to increases in the general standard of living and the rising cost of a basket of goods and services—as recommended by the report of the National Academy of Sciences (Citro & Michael, 1995). While the poverty line would increase from the current line, the change would not be directly tied to income changes, but rather to a basket of goods and services deemed necessary for a minimally adequate living standard. In any case, the poverty standard would rise with real incomes (Johnson, 2009). How great the resulting elasticity might be is hotly debated in American policy circles. But it is clear that the elasticity is indeed above zero. Not only should the poverty measure rise with national income, but also the new market basket ought to reflect the costs of going to work and other necessities, as proposed by both the National Academy of Sciences (NAS) (Citro & Michael, 1995) and Blank and Greenberg (2008).

Of course, poverty measures require two components: a measure of economic need, as discussed above, and a comparable measure of resources (like income) to meet those needs. The resource measure also was the subject of much comment at the conference. The resource measure employed by the rest of the rich world is annual disposable household income, which subtracts direct taxes and adds in the cash value of refundable tax credits (like the Earned Income Tax Credit, EITC), near-cash benefits like Supplementary Nutritional Assistance Program (SNAP, historically known as the Food Stamp Program), and housing allowances. These are the income definition guidelines for inequality and poverty measurement set by almost all major statistical offices in the Canberra Group report (2001) and now used by the OECD and by the European Union (EU). Additional comment on this revised poverty measure can be found in Johnson (2009), but a change in the U.S. income or resource definition to something like this definition is also clearly called for.

If we are to chart progress against fighting poverty, including the effects of recent changes in the safety net, the poverty line measure and the income measure used to

evaluate antipoverty effects need to be changed. Indeed, the recent U.S. federal stimulus package that was enacted as part of the American Recovery and Reinvestment Act (ARRA) contains about $175 billion in direct aid to individuals, including $20 billion in additional SNAP funding, $40 billion for expanded unemployment insurance benefits, and $70 billion in refundable tax credits, including the EITC. Only the expanded unemployment benefits would be counted as fighting poverty by the official U.S. statistics. The rest are outside the bounds of the current poverty measure. In my own state of Wisconsin, the combined effects of the new EITC, the state EITC, and the refundable tax credits now exceed $8,000 at the maximum for a family with two children and earnings of $15,000 (Reimer, 2009). This represents a very large impact for a policy explicitly designed and targeted to enhance incomes and remove families with children from poverty, and yet we do not count it using the current poverty measure.

MEASUREMENT AND CONCEPTUAL ISSUES

Förster & D'Ercole (2009), Tóth and Medgyesi (2009), Maquet and Stanton (2009), and Ravallion and Chen (2009) presented papers in the first session which covered the span of nations from the rich OECD to the entire EU 27 to 119 less rich countries. As far as I know, such a common discussion based on various sets of harmonized data could not be done and was not done before this historic session. Thirty years ago, the evidence base for cross-national analyses of poverty and inequality was empty. In the mid-1980s, the Luxembourg Income Study (LIS) became available and now offers over 30 nations' cross-sectional income and asset data in rich countries, as well as Latin America. These efforts were closely followed by the creation of comparative Cross-National "Equivalent" panel income data Files (CNEF) for up to five countries in the early 1990s, followed in 1994 by the EU's first cross-national coordinated panel income survey, the European Community Household Panel (ECHP), for 12 nations. The ECHP was superseded more recently by the 2005 EU Statistics on Income and Living Conditions (SILC) for 27 EU nations plus a few additional neighboring countries. The EU-SILC has become the EU reference source for income, poverty, and social exclusion, though it is unavailable for direct analysis by non–EU-sponsored researchers at this time. The main contribution of the EU-SILC was to provide data on the 12 newest EU member states (as well as the older 15) in comparable terms. Further transparency in its measures (sampling, response rates, imputation procedures) and its open use by those outside the EU would further add to the growing armada of income and well-being data available to researchers worldwide. At the heart of a large part of the monetary comparisons of well-being is the development of more complete and accurate indices for Purchasing Power Parity (PPP) that can be used to measure "real incomes" across increasingly diverse nations. For more on the perils of using PPPs with microdata, see Bradbury and Jäntti (2001).

In the mid-1990s, OECD began work on secondary analyses of national data sets using the 2001 Canberra report as a guide. This work culminated in the 2008 report *Growing Unequal?*, which is already in its third printing. At the same time that the OECD and LIS were proceeding, the World Bank was compiling secondary datasets on inequality for a large range of nations, though not without some critique (Atkinson & Brandolini, 2001). This work and related efforts at the World Bank produced the "POVCALC" meso-data set, which has been widely used by the bank for analyses of poverty in the developing world. Soon the new Luxembourg Middle-Income Countries (LMICS) project will fill in and add context by uniting the richest 30-plus nations already in LIS with the next 20 to 25 richest "middle-income" countries, including Brazil, China, India, many "Asian tiger" countries, and South Africa.

The four papers mentioned above all argue for the importance of developing indicators that are responsive to policy changes. It is clear that in societies with as wide

a disparity in real income measures as the new European Union—with the median in the richest countries six times that of the poorest, according to Tóth and Medgyesi (2009)—measures in addition to income alone are needed to chart progress against poverty and deprivation. Indeed, Maquet and Stanton (2009) show a completely inverse relationship between relative poverty (60 percent of median income in each nation) and material deprivation as measured by the EU index. Hence, rich countries with greater inequality and larger spreads between the median and the 60 percent poverty line were high poverty but low material deprivation nations; and the poorer countries had in general more compressed distributions and therefore lower relative poverty, but higher material deprivation.

The notion of what constitutes material deprivation or social exclusion is also debated (see also Gilbert, 2009). Issues related to need versus choice are at the heart of the debate. While everyone agrees that not having enough money to pay the mortgage or rent, buy food, or pay for heating are good measures of deprivation, some other measures are more open to debate. The *Breadline Britain* survey and report (Gordon & Pantazis, 1997) makes a very nice distinction between those who "don't want" something and those who "can't afford" it, versus those that just "don't have" it. The "can't afford" notion is clearly preferable for deprivation measurement and for social exclusion.

However, choice will always remain at the heart of the differences. For example, Americans work more hours per year than workers in any rich country, with the major difference being weeks worked per year (Alesina, Glaser, & Sacerdote, 2005). Most Europeans enjoy a minimum of four weeks a year in paid vacation, and count anyone without a minimum amount of paid vacation as socially excluded. It is doubtful that an American measure of exclusion would include such an element. Similarly, before the current housing slump, Americans were spending an increasingly larger fraction of their incomes on housing than they had in past decades. To some, this is a matter of need. Indeed, the British tradition until recently was to measure poverty "after housing costs." From this perspective, there is a limit on how much one can spend on housing, and therefore those above the limit are somehow materially deprived. But as Blank (2004) argues, most Americans are now living in larger and better quality houses with more features than ever before. In the American case, high housing outlays are, for the most part, a choice (though not always a good one, as we have recently seen), not a sign of deprivation. In the end, I would agree with Brian Nolan and Chris Whelan (2009) that both income poverty *and* material deprivation provide useful insights on the human condition. But I would also take care about how we measure deprivation.

NEW MEASURES OF WELL-BEING

In rich nations, poverty is not measured by consumption for several reasons. First and foremost is the difficulty in measuring consumption over an appropriate period. Second, most consumption data is collected for the purpose of providing weights for measuring the consumer price index, not for measuring consumption *per se*. Moreover, consumption or expenditure surveys have small samples—7,000 in the U.S. Consumer Expenditure Survey (CEX) in recent years—and many nations only do them periodically, such as every five years. Finally, while income data is also secondarily (and for the most part poorly) collected along with consumption data in most nations' CEX files, there has been little or no attempt to make a household balance sheet with allocations of income to consumption or changes in debts or assets. In the United States, the last CEX to do so was conducted in 1960 to 1961.

In the European Community, consumption was briefly considered for poverty measurement (Hagenaars, De Vos, & Zaidi, 1994), but then quickly abandoned due to survey size, periodicity, and difficulty of harmonization across the EU 12 at that time. Instead, the EU began the ECHP and used income from that survey for their

first official low income or poverty measures, now followed by the SILC, as mentioned above. The United Kingdom's *Family Expenditure Survey* was used to measure income poverty and expenditures, but not expenditure poverty, for several decades. It was replaced in the 1990s by the *New Income Survey* in order to improve income measurement. This survey is the basis for the official U.K. poverty estimates. Consumption-based poverty measurement is not widely practiced in any rich nation. However, in the poorest nations most analysts prefer to measure consumption instead of income.

In middle- and low-income countries, the case is therefore very different, yet still problematic. Peter Lanjouw (2009) argues that in a developing or middle-income country like Brazil, consumption is a better measure of well-being than income, though he admits that consumption is difficult to measure. Most middle- and lower-income countries collect both consumption (and expenditure) data and income data, along with remittances (private transfers) and public direct taxes and transfers. These countries also collect a great deal of information about production for own consumption or barter, especially in rural areas.

If we stick to the Haig-Simons income definition [consumption plus (or minus) change in net worth equals income], then capacity to consume and consumption are likely not that different when it comes to measurement practice. The new Luxembourg Middle-Income Country Study (LMICS) is facing the trade-offs between income and consumption measures head on. Income is preferred in cities and places where wages and salaries are most prevalent and where cash and near-cash social insurance benefits and income transfers are beginning to be provided. But in rural areas, where "self-employment" (production for own consumption) is the largest source of income, consumption may be a preferable measure of well-being.

The spread between income and consumption in rural versus urban areas is very high in nations like Brazil, China, and India. Therefore, measuring poverty by comparing consumption or income with one "national" poverty line may produce very disparate results, mainly reflecting the wide differences in living standards in rural versus urban places. In such situations, one might also use regional or local area poverty lines and incomes to more accurately measure poverty and deprivation (see Gao et al., 2008).

Assets, debts, financial stress, imputed rent (IR) on owner-occupied homes, and imputed capital income (CI) are much more likely to become a part of rich nations' measures of well-being and poverty than are comparable consumption data. Indeed, the Canberra report (2001, pp. 62–69) template, which currently guides income distribution statistics in many nations, has called for the addition of imputed rent and capital income, including capital gains or losses, as well as better income measures for middle-income countries and inclusion of in-kind income. The Canberra report focused mainly on income measurement and did not cover the use of wealth or asset data separately from the flows that come from these stocks. In the future, we ought to consider such approaches.

Using German data, Frick and Grabka's conference paper (2009) finds that capital income (CI) and imputed rent (IR) have become increasingly important sources of economic inequality over the last two decades. Net IR (including adjustments for the cost of owning) tends to exert a dampening effect on inequality and relative poverty, very much driven by the increasing share of outright ownership among the middle class and especially among the elderly. In Germany they find a much stronger role of imputed CI in increasing overall inequality as capital income flows occur mainly to the income rich, especially among the non-elderly. The items in their measure of CI are limited, and the imputation procedure is less well developed than is the IR estimate. In fact, due to a recent project at the EU, in which conference authors were participants, we have good and comparable measures of IR for at least five major OECD nations (Frick & Grabka, 2003), and we also have less-well-developed measures for additional OECD nations (Marin & Zaidi, 2007). But until additional

measures of CI flows are available for a number of countries, one must think hard about how to include a better measure of capital income in our poverty and income distribution data.

Brandolini, Magri, and Smeeding (2009) take a different tack; instead of only turning wealth stocks into CI flows, they consider the role of stocks of wealth alone. They compute measures of income net worth (by which wealth stocks are turned into flows for a number of countries), but they also introduce a relatively new concept of wealth poverty. They also tell us how assets and debts might improve or complement income-based measures of disadvantage. Poverty is generally defined as income (or sometimes expenditure) insufficiency, but the economic condition of a household also depends on its real and financial asset holdings as well as on the possibility of accessing the credit market and forestalling unexpected debts they might face. Using various indicators of household net worth, they explore asset poverty and compare its intersection with income poverty. They develop new measures of financial stress and vulnerability (inability to pay rent, loans, credit card debts, mortgages), which complement the material deprivation measures presented by others. These measures are based on the new 10-nation cross-national asset data from the Luxembourg Wealth Study (LWS) and on the SILC. In the end, Brandolini, Magri, and Smeeding present a convincing case on how access to credit, debt, and net worth might complement existing measures of income poverty, especially among the elderly, homeowners, and debtors. The United States ought to make better use of such data in its deprivation and well-being measures.

In 2001, the Canberra report set the stage for greater comparability among income distribution and poverty statistics for rich nations. As Förster and D'Ercole (2009) attest, almost all OECD nations use the definition of disposable income after taxes and benefits (including near-cash transfers). More controversial are attempts to measure well-being using health and education subsidies as income measures (Garfinkel, Rainwater, & Smeeding, 2006). Now, eight years later, we are moving beyond this definition, into the areas where the Canberra report mentions future development, while also utilizing new data on asset position and financial stress. These are great beginnings, and while all need additional study and estimation, the field of economic and social well-being measurement is moving forward at a rapid clip.

CROSS-NATIONAL LEARNING IN POLICY AS WELL AS MEASUREMENT

One of the great advantages of cross-national analyses of social policy, such as those underway with APPAM and coordinated by Doug Besharov, is the fact that many major social policy, redistribution, and poverty issues are almost universal. Many papers at the conference discussed the antipoverty effectiveness of policy, but few connected the dots across the nations. Income support in old age, avoiding child poverty, the tax transfer treatment of lone parents, subsidizing education, and the employability of young males and older manual workers with poor job skills are important policy issues in all rich nations. Indeed, different countries' approaches to these problems offer natural experiments in which one can compare the effectiveness, costs, and equity of different policy responses. But one also finds that there are no "magic bullets" that solve any one of these problems to everyone's satisfaction. Every country needs to find its own set of programs and policies that fit its institutions, history, culture, and values.

However, many solutions appeal to a broad range of nations, and the potential for cross-national learning about effective antipoverty programs is vast—and the learning goes both ways. For example, an American contribution is the EITC, a program that encourages market work and makes work pay more than the prevailing wage for low earners. Various versions of the EITC are copied in many rich nations at present. Child allowances and refundable tax credits are now being adopted more

readily by Americans, while they have been part and parcel of rich OECD nations' income packages for decades. And various experiments with need-based aid to mostly lone parents, using carrots—like the EITC and child care subsidies—and sticks—like work requirements in TANF—are now a large part of the comparative landscape. Americans in turn are learning from the developing world about Conditional Cash Transfers (CCT) like *Opportunades* in Mexico and *Bolsa Familia* in Brazil, whereby support is given in return for behaviors related to work effort and parenting (maintaining child health and keeping children in school). The programs clearly reduce poverty, and also increase access to health care and education. Indeed, the mayor of New York City has embarked upon just such a policy experiment, which is now being evaluated by MDRC. Support in old age via a minimum social retirement benefit and the use of "active labor market policies" for re-skilling the structurally unemployed are also being compared across nations. It appears that both the measurement of and solutions to the poverty problem are progressing in large part as a result of cross-national policy exchanges as well as by developing comparable cross-national measures of well-being.

CONCLUSION

More than most, I have been part of these issues since we began the Luxembourg Income Study (LIS) in 1983. The LIS represents a major step forward in the cross-national dialogue about measuring income, poverty, and well-being—a dialogue that was not even a glimmer in my eye 26 years ago. As the Joint OECD/University of Maryland conference demonstrated, there is now a strong groundwork for cross-national comparisons, including learning about measuring well-being and its distribution, about comparable poverty measurement, about poverty outcomes, and about the effectiveness of efforts designed to reduce poverty. This is a solid achievement and a credit to APPAM's leadership in comparative cross-national social policy research.

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