

DEFINING AND MEASURING POVERTY IN IRELAND: A TECHNICAL NOTE

**Edward J. O'Boyle, PhD
Department of Economics
National University of Ireland, Galway¹
November 6, 1997**

Poverty in Ireland was defined and measured utilizing information obtained from household survey interviews for the first time in 1989. (Cf. Callan and Nolan 1989, pp. 309-328). This landmark publication produced poverty estimates for persons and households based on data collected in 1987, and supplied additional information on poverty for 1980. In it, Callan and Nolan defined poverty in terms of a relative income standard, and measured it along three-dimensions. In brief, a household is classified as poor if its income is: (1) 40 percent below the actual average income for all Irish households; (2) 50 percent below average household income; (3) 60 percent below the average. These three relative income standards or lines were adjusted for differences in the size and composition of the household. Thus, smaller households were classified as poor based on an income line lower than the one applied to larger households.

Based on the 50-percent income line Callan and Nolan estimated that in Ireland in 1987 approximately 17-19 percent of all households and 20-23 percent of all persons were poor. Comparable figures for the Irish poverty population in 1980 were 17 percent of all households and 16-19 percent of all persons.

In a more recent publication, Callan and Nolan along with others re-affirmed the relative income standard for defining and measuring poverty. (Cf. Callan and others 1996, 149pp.).² In their monograph, and employing the same basic methodology as in their earlier publication, the authors estimated that at the 50-percent income line 17-20 percent of all households in 1994 and 21-23 percent of all persons were poor. They included in this publication revisions to the 1987 poverty estimates, to the 1980 estimates, and to 1973 estimates previously published.

Importantly, in this monograph, Callan acknowledged the different definitions and measurements of poverty used in the United Kingdom, the United States, and the

¹ On sabbatical leave.

² Hereafter this monograph is cited by page number only when it is quoted from directly, and to simplify the authors are referred to as "Callan."

European Union. Most fundamentally, the difference lies in whether poverty is to be conceptualized in relative terms or absolute terms. An absolute standard is based on the goods and services required to meet human physical need at some minimal or subsistence level. In contrast, a relative standard is based on the economic resources a person or household has in relation to the resources of others. Among those countries, only the United States uses the absolute poverty standard today, having embraced that conceptualization from the very beginning of published U.S. government studies of poverty in the mid-1960s.

Properly so, Callan in the 1996 monograph points out that absolute standard is not authentically absolute.

... standards presented as aiming to measure “absolute” poverty in developed countries do not apply a timeless, fixed poverty line based on an unchanging set of minimum needs. In fact, they are heavily influenced by prevailing conditions and expenditure patterns. Their true distinguishing feature is the way the poverty standard is adjusted over time, being uprated simply in line with prices and taking no account of changes in average income or expenditure patterns. (Callan and others 1996, p. 6).

In an effort to avoid the confusion which follows from this ambiguity, we have suggested elsewhere that such a standard be referred to instead as a minimal-living standard. (Cf. O’Boyle 1994, p. 60).

In addition, and properly so, Callan acknowledges the shortcomings of measuring poverty in terms of a given poverty line, calling it the “depth of income poverty” problem.

... a transfer to someone just below the poverty line, bringing them just above the line, would reduce the head-count measure whereas the same transfer to a much needier person well below the line would have no impact...[similarly] a transfer from someone just below the line to someone much worse off well below the line will have no impact on the head-count. (Callan and others 1996, p. 28).

This criticism plainly applies as well to the absolute standard. Advocates of this standard in the United States attempt to deal with the criticism by publishing three different thresholds: 100-percent of poverty, 125-percent of poverty, and 150-percent of poverty. Supporters of the relative standard employ the same technique to deal with this problem: 40 percent below the average income line, 50 percent below average income and 60 percent below that line. Thus, a purely relative standard is like an absolute standard in that there is no difference in principle between the income line of the relative standard

and the threshold of the absolute standard, *once a given line or threshold is applied to the income data.*³

With both standards, a very small difference in income may be sufficient to include or exclude a person/household from the poverty head-count. To avoid the confusion which follows from this ambiguity, we have suggested elsewhere that a relative standard be called instead an income-distribution standard. (Cf. O'Boyle 1994, p. 60).⁴ Even so, Callan is adamantly opposed to the absolute standard.

...the search for an "absolute" poverty line which would have relevance in a developed country such as Ireland is a fruitless one. In monitoring changes over a period such as 1987-94, the most satisfactory procedure to deriving income lines held constant in real terms appears to be to take relative income lines for the base year and simply index these to prices over time. In that way, the comparison between 1987 and 1994 using relative income lines for each year can be complemented by a comparison using a range of lines which represent the same purchasing power in each year. (Callan and others 1996, p. 67).

Further evidence of the similarity between the poverty thresholds of the absolute standard and the poverty lines of the relative standard *after the lines have been selected but before they have been applied to the relevant income data* is that the very same price-indexing is done to the poverty thresholds of the absolute standard used in the United States for the very same reason -- to facilitate year-to-year comparisons in real-income terms.

To address the "depth of income poverty" problem, Callan appropriately generates estimates of the income shortfall of the poor -- the gap between the relative poverty line and the average income of everyone classified as poor. Their estimates in this regard indicate that the gap has narrowed between 1987 and 1994. Additionally, they adjust these estimates to give greater weight to those poor for whom the income gap is greater.

³ In the United States the thresholds are expressed in terms of annual income, and are applied to annual income data (from the March Current Population Survey). In Ireland, the poverty lines are expressed in weekly income, and are applied to weekly income data (from the 1994 Living in Ireland Survey).

⁴ Additional confusion may arise because at the same time the relative standard defines unmet human physical need relative to the economic resources that people have at their disposal compared to what others have the absolute standard defines unmet physical need relative to the costs of the goods and services required to maintain some minimal-living standard. (O'Boyle 1994, p. 60).

Citing the growing support for conceptualizing poverty in terms of deprivation, Callan proceeds to identify nineteen “necessities,” such as having a telephone, a refrigerator, indoor toilet, which he refers to as deprivation indicators. Then, selecting a set of eight basic indicators which relate to debt, food, and clothing, he provides new estimates of poverty based on *two* central criteria *which must be met simultaneously*: (1) below the relative income line and (2) lacking one or two of those basic necessities. Household poverty in 1994, for instance, is 9 percent when at least one of the basic necessities is missing, and 6 percent when two or more of the basic necessities are missing.

Without taking into account the second criteria built on deprivation, and applying only the 50-percent poverty line to household income data, the poverty rate was estimated at 17-20 percent. Leaving out the poverty income line entirely, and applying only the eight basic items such that a household is classified as poor if any one of the eight items is missing, result in a household poverty rate of 25 percent in 1994 and 33 percent in 1987. Clearly, defining and measuring poverty taking into account specific necessities has a powerful impact on poverty estimates whether the specified necessities are applied *apart from* the relative income line or *in combination with* that line.

As we have mentioned already, Callan explicitly rejects the absolute income standard as inappropriate for Ireland. Thus, he constructs the second criteria in “non-monetary” (Callan and others 1996, p. 100) terms -- whether the item is present or missing in the household -- and not on the income required to purchase the specified “necessities.”

... respondents were asked which items they believed were “necessities -- that is things which every household (or person) should be able to have and that nobody should have to do without”, which items they did not themselves have/avail of, and which they would like to have but had to do without *because of lack of money*. (Callan and others 1996, p. 100; emphasis added).

Conceptually, however, there is *no real difference* between defining and measuring in terms of deprivation and the poverty threshold of the absolute standard any more than there is a difference between income in cash and an equivalent income in kind. It follows that Callan in fact is advocating a definition of poverty which incorporates into the original relative standard the absolute standard or what we prefer to call the minimal-living standard. To use our terms fully in this matter, Callan is actually employing a combined minimal-living standard and an income-distribution standard.

Callan in the 1996 monograph justifies adding deprivation indicators to the relative poverty or income-distribution standard first on the basis of Townsend’s research for Britain. (Cf. Townsend 1979). Callan also cites other work on non-monetary deprivation

indicators by several other researchers. (Cf. Mack and Lansley 1985, Townsend and Gordon 1989, Mayer and Jencks 1988, and Muffels and Vrien 1993). In essence, their justification is support from other published studies of poverty to the effect that it simply makes good sense to include such indicators in how poverty is defined and measured.

Callan is leading poverty research in the right direction by combining what we prefer to call the income-distribution standard and the minimal-living standard, but there is a much better justification for this development than the one he offers. In brief, humans by nature are at once individual beings and social beings. Human individuality, for example, is reflected in the uniqueness of human fingerprints and the need for opportunities to apply one's individual gifts and talents. The faculty of speech and the need to belong, among other human characteristics, are evidence of human sociality. It follows that human physical need or more properly unmet human physical need, which is the central to any definition of poverty, is two-dimensional in nature.

... the individual dimension of human nature means that specific goods and services are selected by individual consumers acting autonomously and looking inward at times to determine and serve their own self-interest... [T]he social dimension of human nature means that specific goods and services are chosen by individual consumers who are constrained more or less by the social environment, looking outward at times to determine and serve their own self-interest and at other times to determine and meet the needs and satisfy the wants of others, especially family members, neighbors, and peers. (O'Boyle 1994, p. 51).

Human individuality is incorporated in a single definition of poverty by means of deprivation indicators or a minimal-living standard at the same time human sociality is included by means of a relative poverty or income-distribution standard.

In this regard, we are reminded of the way in which Marshall settled the controversy as to whether it is supply alone or demand alone that determines price. Properly understood poverty is *both* a relative income or income-distribution concept *and* a minimal-living or deprivation concept.

The controversy between advocates of the relative standard and proponents of the absolute standard has persisted for more than 30 years because of a mutual failure to recognize the manner in which certain premises have shaped and formed the ways in which they have conceptualized poverty. Students of poverty simply do not begin their work with an explicit recognition of the premises which they hold regarding human

nature, and which determine the way in which they define and measure poverty. The proponents of the absolute standard do not understand that they begin with the premise that humans are individual beings by nature, and that holding that premise leads them instinctively to embrace that standard and reject the relative standard. Similarly, the advocates of the relative standard do not recognize that their work is based on the premise that humans are social beings by nature, and that embracing that premise leads inherently to accepting the relative standard and rejecting the absolute standard. And not having recognized the role of their own premises in guiding their work, both parties are even less likely to see the premises of the other party which takes their work in another direction.

As John Henry Newman stated years ago:

... how little syllogisms have to do with the formation of opinion; how little depends upon the inferential proofs; and how much upon those pre-existing beliefs and views, in which men either already agree with each other or hopelessly differ, before they begin to dispute, and which are hidden deep in our nature. (Newman 1947, p. 210).

Four final comments remain. First, in combining income-distribution and minimal living into a single standard, a decision has to be made as to precisely how they are to be combined and applied to the data. Elsewhere we have advocated a three-part classification scheme: the poor, the marginally poor, and the non-poor. The poor are defined as those who qualify under both the income-distribution standard and the minimal-living standard. The marginally poor are those who qualify under one standard but not the other. The non-poor are those who do not qualify under either standard. (Cf. O’Boyle 1994, pp. 61-66). By dividing the poor into two groups reflecting unmet need which is more or less severe, this type of classification scheme helps address the “depth of income poverty” problem.

Second, having examining carefully the various definitions of poverty available and having seen how each one functions when it has been applied to the data, one can begin to identify the definition which works best by examining each one in terms of five characteristics. A proper definition should be direct, comprehensive, consistent, convenient, and accepted.

Direct means that unmet physical need is measured directly rather than estimated indirectly. Comprehensive means that all aspects of unmet physical need are included in the definition. By consistent we mean that everyone with the same unmet physical need is

assigned to the same poverty classification. Convenient signifies that the definition is simple to apply to the relevant data and to generate estimates of poverty.

Third, by incorporating deprivation in a poverty standard which already includes relative income, Callan has substantially improved the way in which poverty is defined and measured, especially as regard to comprehensiveness. He and his associates can best help bring about wider acceptance by bringing these matters to the attention of the public through continuing research, publications, meetings with their professional peers, press releases, and formal and informal contacts with public officials. Wider public acceptance is much more likely when students of poverty are agreed that it should be defined and measured in both relative and absolute terms, and are able to articulate why a dual standard is necessary.

Last, and most important of all, acceptance indicates that the definition has been widely accepted by the public because it conforms to their own values regarding the nature of poverty. This is so because most fundamentally poverty or unmet physical need is a normative concept -- a concept which by definition reflects the values of the persons who use it. In this regard, defining poverty is like issuing currency. What matters most in both instances is public acceptance because without that acceptance the currency simply does not circulate. The public will not take to heart a policy based on a conceptualization of poverty which does not square with their own values. (Cf. O'Boyle 1994, pp. 73-76).



REFERENCES

Callan, Tim and Brian Nolan (1989). "Measuring Trends In Poverty Over Time: Some Robust Results for Ireland 1980-87," *The Economic and Social Review*, July.

Callan, Tim, Brian Nolan, Brendan J. Whelan, Christopher T. Whelan, and James Williams (1996). *Poverty in 1990s: Evidence From The 1994 Living In Ireland Survey*, Dublin, Oak Tree Press.

Mack, Joanna and Stewart Lansley (1985). *Poor Britain*, London: George Allen and Unwin.

Mayer, Susan and Christopher Jencks (1988). "Poverty and the Distribution of Material Hardship," *Journal of Human Resources*, Volume 24, Number 1.

Muffels, R. and M. Vrien (1993). "The Comparison of Definitions of Consumption Deprivation and Income Deprivation," mimeographed paper, Tilberg: Tilberg University.

Newman, John Henry (1947). *An Essay in Aid of a Grammar of Assent*, New York: Longmans, Green.

O'Boyle, Edward J. (1994). "Human Physical Need: A Concept That Is Both Absolute and Relative," in *Social Economics of Human Material Need*, John B. Davis and Edward J. O'Boyle (editors), Carbondale (Illinois): Southern Illinois University.

Townsend, Peter (1979). *Poverty in the United Kingdom*, Harmondsworth: Penguin, (also published in 1979 by the University of California Press in Berkeley).

Townsend, Peter and D. Gordon (1989). Memorandum submitted to the Social Services Committee of the House of Commons, in *Minimum, Income: Memoranda Laid before the Committee*, Session 1988-89, HMSO.