

# Getting by: The Wisconsin Basic Needs Study

What is poverty? It is often defined as an affliction of those whose incomes are below the poverty line (discussed below). But does this mean that a person with an income one dollar over the poverty line is not poor? Any line is arbitrary: poverty is a matter of degree and need.

Another way to define poverty is the condition of having insufficient income to provide one's basic needs. But this begs the question. What are basic needs? Clearly in the United States they are not the same as basic needs in much of the Third World, say, where by adequate food one means sufficient nourishment to prevent starvation, and adequate shelter is any protection from the cold. In the United States the answer is much more complicated. Food, yes, shelter and clothing, yes, but how much and of what sort? What about a car? Kidney dialysis? And are basic needs the same all across the country? Does it cost as much to make ends meet in a small town as it does in a large metropolis?

The questions are not merely academic. Eligibility for many government programs and the size of the benefits depend on definitions of poverty and estimates of basic needs. Every state is required by law to determine standards of need on which to base their payments to recipients of Aid to Families with Dependent Children (AFDC).

States go about determining the standard of need in a number of ways, though "fiscal ability to a large extent influences state determination of need."<sup>1</sup> Some states, including Wisconsin, have both a standard of need and a payment standard, to make it clear that what they can afford to pay is not necessarily what they deem adequate provision. Most states establish a needs standard by using a market-basket approach, in which a bundle of commodities selected by the welfare department or the legislature or some other groups as sufficient to cover basic needs is priced out and updated according to some national index, or according to changes in the costs of the individual items in the budget. Many states have in the past made use of the Bureau of Labor Statistics Lower Level Budget (discussed below) in making their market-basket selections. Some states conduct surveys of the costs of those items that are thought to differ most geographically, such as energy. Some states use surveys conducted by other states.

Needs standards vary greatly, from a low in 1984 for a four-person family of \$217 in Tennessee to a high of \$911 in Vermont.<sup>2</sup> They do not result in generous AFDC payments. In all states but two, the maximum monthly AFDC and food stamp benefits for a one-parent family of three persons in January 1984 provided an income well below the poverty threshold of \$661 a month. In those two states (Alaska and New York) the cost of living was extremely high and therefore payment above the poverty line did not signify bounti-

fulness as much as the high price of necessities. In Wisconsin the standard of need is at present equal to 85 percent of the poverty line, and combined food stamps and AFDC benefits bring a three-person family's income up to 94 percent of the poverty line.<sup>3</sup>

Wisconsin has in the past based its needs standard to some extent on national data and surveys, though the ultimate determination is in the hands of the legislature. Questions about the appropriateness of national measures prompted the state's Department of Health and Social Services (DHSS) to authorize a study to investigate what the basic needs of households in Wisconsin are, and to what extent national statistics can be used to measure them. The study was undertaken by the Institute for Research on Poverty under a sub-contract from DHSS. Major funding for the project came from DHSS and the U.S. Social Security Administration, with additional funds from the University of Wisconsin Graduate School and the College of Letters and Science.

The study was carried out under the direction of Diane Colasanto and Maurice MacDonald (see box, p. 15). Its purpose was not only to define and provide accurate measurements of basic needs in Wisconsin for use by the state legislature, but to evaluate various alternative measures now in use and consider new means whereby individual states can evaluate the condition and needs of those who suffer hardship. Results of the study were compared with the national measures.

## The poverty line measure

The official statistical measure of poverty was first devised by Mollie Orshansky in 1964 and adopted in 1969 by the Office of Management and Budget.<sup>4</sup> This measure was based on the judgment of experts and a survey of consumer behavior. The experts were nutritionists in the Department of Agriculture who drew up an Economy Food Plan in 1961—market baskets of food adequate to provide minimally sufficient nutrition for various-sized households. The costs of these baskets were multiplied by three, because a 1955 Household Food Consumption Survey showed that the average ratio of food expenditures to income was 1 to 3. On the basis of this information, 124 separate poverty lines were established, differentiating families by size, sex and age of head, farm or nonfarm residence. A household in which money income, as measured by the Census Bureau, was below the relevant cutoff was defined as poor. The cutoffs were originally updated each year on the basis of changes in the prices of the food in the baskets. Thus the poverty line rose with inflation. In 1968 the poverty line for a family of four headed by a man and not living on a farm was \$3555. In 1982 the poverty line for a four-person household was \$9862, and in 1983, \$10,178.<sup>5</sup>

The poverty lines have been adjusted in a number of ways over the years. The Consumer Price Index was substituted as the inflation adjuster; the distinctions between farm and nonfarm families and between male and female household heads were eliminated. The Economy Food Plan was replaced by the Thrifty Budget Plan.

Many have criticized the poverty line. Recent surveys have found, for example, that lower-income families now spend less than one-third of their income on food. Expert opinion about what constitutes a nutritionally adequate diet has changed. And Census money income does not take into account in-kind income. When the poverty line was constructed, in-kind income was inconsequential: in 1967, 80 percent of federal outlays benefiting persons below the poverty line were in the form of cash payments. Ten years later cash payments accounted for only 44 percent of outlays.<sup>6</sup> The poverty line also fails to take taxes paid into account, and it makes no geographical distinctions. Therefore, though the line is of inestimable value as a continuing indicator of changes in economic hardship, it is far less satisfactory as a measure of basic needs, especially for setting welfare payment amounts.

### Standard family budgets of the BLS

Until recently many states determined basic needs by using budgets of the Bureau of Labor Statistics. The BLS produced family budgets between 1907 and 1982. They provided annual estimates of the cost of purchasing a number of goods (i.e., a market basket) that was supposed to represent various standards of living: lower, intermediate, and higher. Separate baskets were designed for a four-person family and for a retired couple. Experts determined family needs on the basis of the BLS Consumer Expenditure Survey. Although these budgets of the BLS, by making geographic distinctions, were of more help to states in determining basic needs than was the poverty line, they were far from satisfactory. In fact in 1978 the BLS requested the Institute for Research on Poverty to analyze the budget-making procedure and recommend revisions. An Expert Committee, which included Poverty Institute former directors Eugene Smolensky and Harold Watts, prepared a report suggesting wide-ranging changes in the method by which the budgets are determined and in particular recommended moving away from specific items (the market-basket approach) to an income level, determined not by experts but based on a norm found by means of surveys of actual expenditures.<sup>7</sup> The committee members felt that basic needs should reflect an individual household's taste and judgment. In response, in part, to the committee's criticisms, the BLS discontinued its budget-making process altogether. In its last budget report the BLS

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Maurice MacDonald, "Evaluating Alternative Approaches to Measuring Basic Needs." Wisconsin Basic Needs Study, Final Report to the Social Security Administration. Madison, Wis., September 1984, mimeo.

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stated: "Continuation of the programs would have required revision of concepts and expenditure data and extensive price collections, for which funding was not available."<sup>8</sup>

### The Wisconsin Basic Needs Study

The designers of the Wisconsin study eschewed the market-basket approach on the basis of the criticisms leveled at it by the Expert Committee. Rather than collect data on specific quantities of specified goods consumed by respondents in a survey, the BNS used an expenditure analysis approach.

It has long been known that food expenditures as a percentage of income decline at some point, after increasing until that point. Empirical studies have shown that the percentage of income devoted to other necessities also declines once a particular level is reached. This income level, if it could be determined, would be considered as the one at which basic needs were met.<sup>9</sup> Such a determination would require detailed information on the demographic composition, financial situation, and complete expenditures of a representative sample of Wisconsin households.

To accomplish this purpose, longitudinal data were collected from 1817 households during the period March 1981 to June 1982. The sample was selected to represent a cross section of the state's population as well as several populations of particular policy interest—households in which the head was 65 years old or older; AFDC participants; households containing children but no male adult (i.e., those demographically eligible for AFDC); and the needy (those whose incomes were below 144 percent of the food stamp eligibility level).<sup>10</sup>

Respondents were interviewed five times, once in person and four times by phone. They also kept diaries in which they recorded their day-to-day expenditures on frequently recurring items for several months.

Food, shelter, and clothing were designated as necessities. Transportation was not, since many of these expenditures, recorded in the diaries, were not for essential travel. Medical expenses were not included because many of the households (those receiving Medicaid or Medicare, or employer-provided health insurance) pay little or nothing at all for health care.

The results of the expenditure analysis can be seen in Figure 1. The figure shows that in Wisconsin the percentage of income spent on food, shelter, and clothing declines rapidly in income categories above 125 percent of the national poverty line. Until that point, 55 percent or more of income is spent on necessities. Indeed, when transportation is included, necessities absorb more than 70 percent of income. The author suggests that the Wisconsin AFDC standard of need should be raised from the current 85 percent of the poverty line to approximately 100 percent. So the national poverty line, despite its drawbacks, does appear to provide a useful standard for defining basic needs in Wisconsin.

### Wisconsin equivalence scales

The next question was the best way to determine equivalence scales; that is, to determine how basic needs vary across households with different characteristics. The specific characteristics that the Wisconsin DHSS wished to examine were household size, urban vs. rural residence, the presence of a teenager, and the presence of two adults (as opposed to one) in a household.

The researchers used regression analysis to separate out how expenditures varied with the characteristics being studied. The resulting equivalence scales were then compared to national equivalence scales, derived by different techniques, and to current scales in use in Wisconsin.

Not surprisingly it was found that, other things being equal, increases in family size, location in an urban area, the presence of a teenager, and two adults in the household all raised the expenditures of a household. The equivalence scales for household size were found to closely resemble those used in the past, which were based on the BLS equivalence scales (families of different sizes were considered to be equivalent to the reference family at the point at which they were spending the same proportion of total income on food). These scales differed from the equivalence scales of the poverty line, which are multiples of the cost of food for each size family, because there are greater economies of scale for nonfood necessities. Location (whether urban or rural) was found to have a large effect on the cost of getting by. The regressions showed that urban living costs 18 percent more than living in rural communities. An 8 percent differential was found for families with a teenager, and two-parent households were estimated to have expenditures 18 percent greater than single-adult households of the same size.

### Subjective assessments of need

In addition to collecting objective data on income and expenses of various households over time, the BNS tested a new subjective approach to basic needs that has been in use for some time in Europe.<sup>11</sup> Respondents are asked what is called a Minimum Income Question: "Living where you do now and meeting the expenses you consider necessary, what would be the very smallest amount of income per month—after taxes—your household would need to make ends meet?" The answer to this question has been found to vary with the household's current income. Those at the lower end of the income scale say they require more than their current income to get by, while high-income respondents recognize that they can get by on less. A point exists, therefore, at which respondents feel they are just getting by, and this can be defined as the level at which basic needs are met.

The advantage to such an approach is its simplicity. It is much less expensive to ask two questions than to obtain detailed data on all income and expenditures.

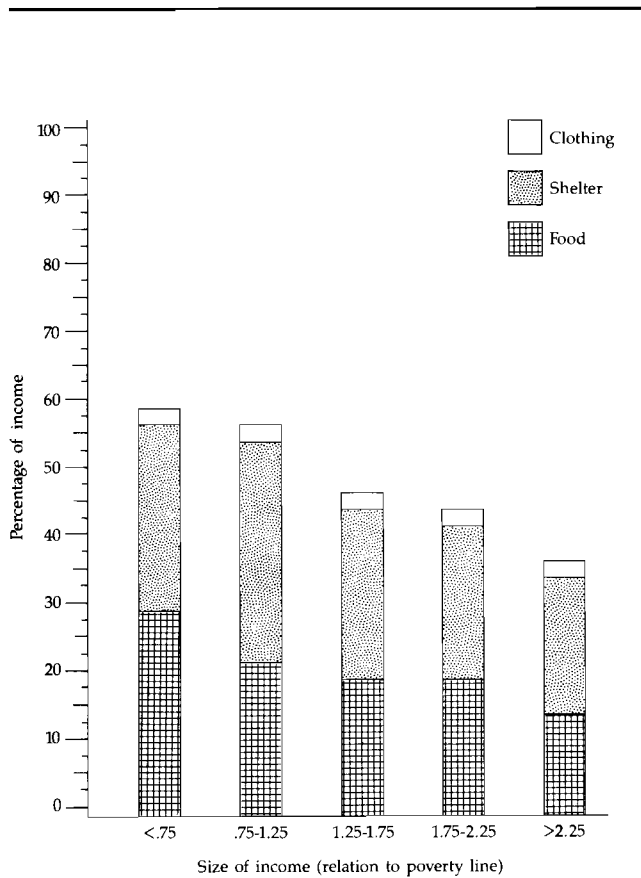


Figure 1. Percentage of Total Expenditures in Basic Consumption Categories

Source: MacDonald, "Evaluating Alternative Approaches to Measuring Basic Needs," Madison, Wis., September 1984, p. 29.

Although the DHSS did not adopt the use of subjective questions as a procedure for determining the standard for a reference family, it did consider equivalence scales based on responses to the Minimum Income Question. Table 1 shows that with respect to family size, the results of the subjective analysis were remarkably similar to the objective results. On this basis alone, one could argue that the subjective approach is a promising option for updating equivalence scales.

Table 1

Comparing Family Equivalence Scales from Regressions on Total Expenditures and Responses to Question on Minimum Income (cost for reference family = 100)

	Model 2 <sup>a</sup>		Model 4 <sup>b</sup>	
	Total Expenditure Analysis	Minimum Income Question	Total Expenditure Analysis	Minimum Income Question
<i>Family Size</i>				
2	81	85	84	86
3	94	93	95	94
4	100	100	100	100
5	106	110	106	110

Source: MacDonald, "Evaluating Alternative Approaches to Measuring Basic Needs," Madison, Wis., September 1984, p. 40.

<sup>a</sup>Includes variables for family size, 1980 annual income, and a sample selection term.

<sup>b</sup>Includes variables listed in a, plus presence of teenager and an indicator for two-parent families.

The subjective results of the BNS were corroborated in a study carried out by Sheldon Danziger, Jacques van der Gaag, Michael K. Taussig, and Eugene Smolensky.<sup>12</sup> These researchers used the Minimum Income Question asked in the sixth wave of the Income Survey Development Program, a national survey carried out by the Social Security Administration. In comparing equivalence scales they obtained with those based on the poverty line, they found smaller differences in needs as families grow in size and for those with an aged as opposed to a nonaged head, and larger differences between households headed by men and those headed by women.

## Summarizing the results of the BNS

The Basic Needs Study, making use of both expenditure analysis and subjective questions on well-being, provided empirical justification for using the national poverty line as an approximate measure of a needs standard for a family of four in Wisconsin. The BNS further validated the equivalence scales that had been used for the BLS family budgets (as opposed to those used with the poverty line) and pointed to some special circumstances that increase household need: urban residence, teenagers in the household, and two adults rather than one. And it suggested that subjective techniques may provide inexpensive alternatives to the laborious process of expenditure analysis. □

<sup>1</sup>U.S. Department of Health, Education, and Welfare. *The Measure of Poverty*, Technical Paper III, "A Review of the Definition and Measurement of Poverty" (Washington, D.C.: GPO, 1976), p. 109.

<sup>2</sup>Committee on Ways and Means, U.S. House of Representatives, *Background Material and Data on Programs within the Jurisdiction of the Committee on Ways and Means* (Washington, D.C.: GPO, 1984), pp. 304-305.

<sup>3</sup>*Ibid.*, p. 300.

<sup>4</sup>See William C. Birdsall, "The Value of the Official Poverty Statistics," paper presented at the 6th Annual Research Conference of the Association for Public Policy and Management, New Orleans, October 1984, for a discussion of the meaning and appropriate uses of this measure.

<sup>5</sup>Committee on Ways and Means, p. 480; U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 145, *Money Income and Poverty Status of Families and Persons in the United States: 1983* (Washington, D.C.: GPO, 1984), p. 31.

<sup>6</sup>Carol Fendler and Mollie Orshansky, "Improving the Poverty Definition," in *Statistical Uses of Administrative Records with Emphasis on Mortality and Disability Research* (Washington, D.C.: Social Security Administration, 1979), p. 161; "Valuing In-Kind Transfers," *Focus* 6:1, p. 13.

<sup>7</sup>See Harold W. Watts, "Special Panel Suggests Changes in BLS Family Budget Programs," *Monthly Labor Review*, December 1980, pp. 3-10.

<sup>8</sup>"Family Budgets," *Monthly Labor Review*, November 1982, p. 37.

<sup>9</sup>MacDonald (see box), p. 9.

<sup>10</sup>The survey proved valuable in a number of other studies. The entire sample was used to evaluate the impacts of changes in food stamp regulations that were incorporated in the Omnibus Budget Reconciliation Act of 1981 (OBRA)—see Maurice MacDonald, "Evaluation of Impacts of the Omnibus Reconciliation Act of 1981 on Wisconsin's Food Stamp Costs and Caseload," Final Report to the Food and Nutrition Service, Office of Analysis and Evaluation, 3101 Park Center Drive, Alexandria, Va., 22302, October 1984. The population of AFDC recipients was used to study the OBRA changes in the AFDC program—see "Measuring the Effects of the Reagan Welfare Changes," in this issue.

<sup>11</sup>See D. Colasanto, A. Kapteyn, and J. van der Gaag, "Two Subjective Definitions of Poverty: Results from the Basic Needs Study," *Journal of Human Resources*, 19 (Spring 1984), pp. 127-138.

<sup>12</sup>"The Direct Measurement of Welfare Levels: How Much Does It Take to Make Ends Meet?" *Review of Economics and Statistics*, 66 (August 1984), 500-505 (IRP Reprint no. 503).