

Alternatives to the Official Poverty Measure: Perspectives and Assessment

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I. INTRODUCTION

In the discussion of the measurement of poverty in the United States, the conceptual basis of the official poverty measure has not been seriously questioned. Instead, extensive efforts have been devoted to refining the measurement of this indicator. The goal has been to improve our understanding of the level and the trend in the particular absolute, money-income–based concept of poverty that underlies the official measure.

The purpose of this paper is to broaden the discussion of poverty and poverty measurement by introducing a few other concepts of poverty, describing their conceptual basis, and assessing the pros and cons of each. We first discuss the broad question of “what is poverty?” and describe how various poverty concepts relate to the fundamental issues at stake. We then summarize the official U.S. poverty measure, highlight its main characteristics, and note some of the criticisms that have been directed toward it. We compare this official measure to measures that rely on the level of family consumption, family potential income (or earnings capacity), and the family’s own assessment of well-being, as well as a relative poverty measure based on a money-income concept. In the process, we provide information about what has been found regarding the level and trend of poverty revealed by these alternative indicators.

II. THE CONCEPT OF POVERTY

Although reducing poverty is a nearly universal goal among both nations and scholars, there is no commonly accepted way of identifying who is poor. Some argue for a multidimensional poverty concept that reflects the many aspects of well-being. In this context, people deprived of social contacts (with friends and families) are described as being socially isolated, and hence poor in this dimension.

Similarly, people living in squalid housing are viewed as “housing poor,” and people with health deficits as “health poor.”

Economists tend to prefer a concept of hardship that reflects “economic position” or “economic well-being,” somehow measured. This economic concept underlies the official U.S. poverty measure and the proposed revision of the measure based on the report of the National Research Council’s (NRC) Panel on Poverty and Family Assistance (Citro and Michael, 1995).¹ This concept also underlies several alternative measures.

The measurement of economic poverty seeks to identify those families whose economic position (or economic well-being), defined in terms of command over resources, falls below some minimally acceptable level. In addition to requiring a precise definition of economic position or well-being, the measure must specify a minimum level of well-being (or “needs”) in terms commensurate with “resources.”² Such a measure does not impose any norm on people’s preferences among goods or services (e.g., necessities versus luxuries) or between work and leisure. Moreover, it allows for differentiation according to household size and composition, and it enables intertemporal variability in access to these resources and (in principle, at least) one’s ability to “enjoy” the fruits of the resources (e.g., one’s health status). It does, however, link “access to resources” to “economic position” or “well-being,” hence excluding many factors that may affect “utility” but not captured by “command over resources.”

¹The official U.S. definition of poverty has played a very special role in the development of social policy in this country. A case can be—indeed, has been—made that the most important contribution of the War on Poverty era was the establishment of an official, national poverty line. Indeed, because of the official adoption of this measure, the nation made a commitment to annually chart the nation’s progress toward poverty reduction by publishing and publicizing a statistical poverty index. As Tobin (1970) put it, because of this official measure “no politician will be able to . . . ignore the repeated solemn acknowledgments of society’s obligation to its poorer members” (p. 83).

²Sen (1983) considered the needs standard (or poverty line) to have “some absolute justification of its own,” it being a level below which “one cannot participate adequately in communal activities, or be free of public shame from failure to satisfy conventions” (p. 167).

Within this economic perspective, there are substantial differences regarding the specific economic indicators of well-being believed to best identify those whose economic position lies below some minimally acceptable level. For example, the official U.S. poverty measure relies on the *annual cash income* of a family, and compares this to some minimum income standard or “poverty line.” An alternative—and equally legitimate—position is that the level of *annual consumption* better reflects a family’s level of living, or that some measure of a family’s *capability to be self-reliant* identifies a nation’s truly needy population. Indeed, one economic perspective relies on families’ *own assessment of economic well-being* in measuring the level and composition of poverty. Although the poverty measures derived from each of these concepts identify the least well-off—the most “hardshipped”—groups in society, acceptance of any one of them implies both a different target poverty population and a different set of antipoverty policies.³

Clearly, many choices are required in establishing a poverty indicator even within this narrow, “resources relative to needs” framework. However, assuming that all of these choices have been made, such poverty measures can be either *absolute* or *relative*. The indicator is absolute if the definition of “needs” is fixed, so that the poverty threshold does not change with the standard of living of the society. A relative, income-based poverty measure uses a poverty line that is related in some way to the general standard of living of the society.⁴

³Within each of these perspectives, there is a wide range of definitions and concepts. For example, if income is taken to be the best indicator of economic status, is annual, multiyear, or lifetime income the appropriate measure? Should we examine pretax, pretransfer income or income after accounting for taxes and/or transfers? Should in-kind income be counted or not?

⁴See Kilpatrick (1973), who defines a completely relative poverty measure as having a poverty threshold that has an elasticity of 1 with respect to the general standard of living, while an absolute poverty line employs a threshold that has an elasticity of 0.

III. THE OFFICIAL U.S. POVERTY MEASURE

The official U.S. poverty measure (including the recently proposed revisions) has several distinct characteristics. First, it is a measure of income poverty; the purpose is to identify those families that do not have sufficient annual cash income to meet what is judged to be their annual needs. As such, it compares two numbers for each living unit—the level of a unit’s annual cash income and the level of income that a unit of its size and composition requires to secure a minimum level of consumption. By relying solely on annual cash income as the indicator of resources, this measure ignores many potential sources of utility or welfare (e.g., social inclusion, or “security”) that may be weakly tied to cash income. Second, it is an absolute measure of poverty. Cash income is compared to income requirements, and that is it. As a result, even if the income of every nonpoor individual in the society should increase, the prevalence of poverty in the society would not be affected.

This measure has a very particular philosophical basis. The standard here is whether a household, in fact, has sufficient income from either government support or its own efforts to boost itself above some minimum threshold. The implied social objective is that, together, the community’s efforts and those of the individual should insure that some minimal level of living is attained. Although people may experience hardship in many dimensions—education, housing, food, social contacts, security, environmental amenities—or appear to others to be destitute in these dimensions, only a sufficiently low level of money income matters in determining who is poor. The implicit presumptions are that

- money can buy those things whose absence makes people feel destitute,
- money income is a good proxy for welfare (or utility), and
- a particular year’s income is an acceptable indicator of longer-run income.⁵

⁵This presumption is viewed by many as overly narrow. Some prefer a sociological perspective and suggest a multidimensional poverty concept that reflects the many aspects of well-being. The goal would be to appropriately weight these many dimensions in order to secure an index of the size of the poor population.

The most fundamental criticisms of the official poverty measure focus on this basic social objective on which it rests. Perhaps actual cash income is not the most salient indicator of well-being or position. Similarly, in assessing poverty trends over time, perhaps the general trend in the overall level of living should be taken into account. Other proposed poverty indicators reflect these alternative judgments.

Aside from taking exception to the social objective that underlies the official measure, most other criticisms of it focus on the adequacy of the annual cash income measure of “command over resources.” Though the current cash income numerator of the poverty ratio may reflect the extent to which a family has cash income available to meet its immediate needs (and hence be desirable for determining eligibility for program benefits or financial assistance), it indicates little about the level of consumption spending potentially available to the family. For many families, annual income fluctuates substantially over time. Unemployment, layoffs, the decision to undertake midcareer training or to change jobs, health considerations, and especially income flows from farming and self-employment may all cause the money income of a household to change substantially from one year to the next. As a result the consumption spending of a family in any given year may differ substantially from the family’s reported income in that year (see Mayer and Jencks, 1992; Slesnick, 1993).⁶ Even as an indicator of a family’s ability to meet its immediate needs, the current income measure is flawed—it reflects neither the recipient value of in-kind transfers (e.g., Food Stamps, Medicaid) nor the taxes for which the family is liable. Similarly, whereas current cash income—and hence the official poverty measure—reflects financial flows in the form of interest and dividends from the assets held by individuals, the assets themselves are not counted, nor is the value of leisure (or voluntary nonwork) time reflected in the measure.⁷

⁶This pattern is especially true for those households in the tails of the distribution of annual income in a particular year. For example, in 1994, consumer units in the Labor Department’s annual Consumer Expenditure Survey reported average pretax income of about \$6,800, but average consumption expenditures of about \$14,000.

⁷This is less the case for the NRC-proposed revision of the official poverty measure, as it attempts to account for some in-kind benefits in assessing the relationship of resources to needs.

The official poverty measure is also silent on the differences in the implicit value that families place on income from various sources. Income from public transfers, market work, and returns on financial assets are treated as being equivalent in contributing to a family's well-being. The measure also implicitly assumes that it is the circumstances of those at the bottom of the distribution that matters, and not income inequality per se. A growing gap between those with the least money income and the rest of society need not affect the official poverty rate.

Similarly, the arbitrary nature of the denominator of the poverty ratio—the minimum income needs indicator—has also been criticized (see Ruggles, 1990). Given its conceptual basis and the crude empirical evidence on which the dollar cutoffs rest, the official poverty lines are essentially arbitrary constructs. Adjustments in the poverty line to account for different family sizes and structures also rest on weak conceptual and empirical foundations.

Finally, the database on which the official poverty measure rests, the annual March Current Population Survey undertaken by the U.S. Bureau of the Census, has been faulted for failing to accurately capture true cash income, especially those components deriving from public transfers, income from assets, and illegal activities (see Rector, O'Beirne, and McLaughlin, 1990).⁸

IV. RELATIVE INCOME POVERTY MEASURES

One-Half of Median Income

The choice of a relative standard is based generally on a belief that poverty is not absolute; rather poverty is largely a matter of *economic and social distance*. A relative poverty measure stresses the importance of how the resources of an individual can allow her/him to function relative to the rest of

⁸Moreover, annual cash income may be rather ill-reported to the survey interviewer. The respondent—an adult in the family, and often a nonworking adult—may not know the true income of family members, such as adult children living at home, or may not wish to reveal to the interviewer income that derives from questionable sources.

society. The use of a relative measure, it is argued, allows us to take into consideration changes in the overall economy (in terms of wages and prices) and changes in standard of living expectations (in terms of consumption, for example). As Fuchs (1967) observed, “Today’s comfort or convenience is yesterday’s luxury and tomorrow’s necessity. In a dynamic society it could hardly be otherwise.”

One prominent relative poverty definition considers those with incomes less than one-half of median income to be in poverty, hence reflecting the view that poverty is only meaningful when compared to overall income or spending levels.⁹

The choice of a standard equal to one-half of median income is admittedly arbitrary. When first offered in the 1960s, this measure approximated the level of the Orshansky measure for a family of four (Ruggles, 1990, p. 19). However, today the official income needs standard stands at about one-third of median income (Ruggles, 1990).

This measure, of course, has other weaknesses. Critics of a relative measure point out its weakness in assessing the efficacy of antipoverty efforts. The nature of the measure ensures that the poverty threshold will rise most rapidly in periods of economic growth, during which time those at the bottom of the distribution also experience real growth in both earnings and consumption. Hence, even though poor families may perceive themselves as better off during a prosperous period, the poverty rate may not fall, thus overstating the poverty problem. As Ruggles (1990, p. 19) has stated, “[P]overty cannot decline under a relative poverty measure without some change in the shape of the income distribution as a whole.”¹⁰

⁹Because the official measure is adjusted only for price-level changes over time, it will decline in relation to a relative measure if there is real growth in family income.

¹⁰Lampman (1972) has emphasized this weakness of the relative standard as an indicator of the nation’s progress in reducing poverty: “While income poverty is a relative matter, I do not think we should engage in frequent changes of the poverty lines, other than to adjust for price change. As I see it, the elimination of income poverty is usefully thought of as a one-time operation in pursuit of a goal unique to this generation.”

V. CONSUMPTION-BASED POVERTY MEASURES

A primary criticism of income poverty measures is that the annual cash income concept on which they rest is a poor indicator of the permanent income (or lifetime resources) of the family unit. Using such a measure, a wealthy family with a well-educated head and substantial assets, but a year of low income, would be classified as “poor.”

One proposal designed to avoid this problem involves use of measured family consumption to determine poverty status (Slesnick, 1993), based on the argument that family consumption is a superior proxy for the family’s permanent income, or family command over resources. Slesnick argues that poverty measures relying on annual money income are “severely biased indicators of the level of poverty in the postwar United States” (Slesnick, 1993, p. 2). “Households in the lower tail of the income distribution are disproportionately represented by those with temporary reductions in income, and typically exhibit high ratios of consumption to income in an effort to maintain their standard of living” (p. 2). It is this classification of *temporarily* low income families as *permanently* needy that Slesnick believes artificially drives up the poverty rate.

The consumption-based poverty indicator proposed by Slesnick uses household real consumption expenditure per equivalent adult (taken to be the quotient of real household consumption and a household-specific cost of living index and an equivalence scale) as the indicator of resources. The equivalence scales used by Slesnick are designed to reflect total household budget needs, rather than just food needs. The consumption measure is combined with a poverty threshold designed to be “conceptually consistent” with the official poverty standard.¹¹

¹¹The poverty threshold is simply the total expenditure required by the reference household to purchase the Economy Food Plan divided by the appropriate cost of living index and equivalence scale. In other words, those who consume above the level required to purchase the Economy Food Plan are classified as nonpoor while those who consume less are considered poor.

The resulting consumption poverty measure suggests a much lower poverty rate than the official definition (see below). Slesnick attributes this result to the overrepresentation of families experiencing a transitory income reduction among any year's income-poor population. Because consumption decisions are based on permanent income (and are uncorrelated with transitory income), these temporarily income-poor households will have high ratios of consumption to income, and hence are not classified as poor in a consumption-based measure.¹²

Slesnick's consumption poverty measure has been criticized on several grounds. One particularly salient criticism concerns the nature of the equivalence scales that Slesnick employs. Whereas other poverty indicators, including other consumption-based indicators (see Cutler and Katz, 1991), have shown a growing poverty rate over the last two decades, the Slesnick measure suggests that poverty in the U.S. has been secularly decreasing over that period. Triest (1998) attributes this result to the equivalence scales that Slesnick employs, equivalence scales which he says "take on values outside the range which many observers would consider reasonable."¹³

In addition to these criticisms specific to the Slesnick consumption poverty measure, there are other concerns associated with using a consumption-based measure. In general, the greatest impediment

¹²Slesnick refers to this as "the consumption-smoothing hypothesis." Slesnick supports this hypothesis by comparing the traits and characteristics of the "income poor" and the "consumption poor." The consumption poor (or, "permanent income poor") have substantially lower rates of home ownership, fewer physical assets in the form of consumer durables, higher food and necessities budget shares, and less dissaving (indicating less access to credit) than do the income poor.

¹³The equivalence scales used by Slesnick are adapted from those developed by Jorgenson and Slesnick (1987). They adjust for family size by using the age of the household head as a proxy for family size, assuming that more older children and adults would be present in households with older heads; the actual number of children in the household is not considered. While this may be a good proxy in some instances, it contains substantial measurement error, and is likely to be especially inaccurate in tracking poverty trends over time due to intertemporal changes in the age of the household head, family size, and number of children present (Triest, 1998). Triest also finds the adjustment for gender of household head to be "very crude": a female-headed household is estimated to need only 62 percent of what an identically situated male-headed household would need. Even though it is likely that this adjustment is meant to account for the presumption that more children are present in female-headed households, Triest finds the adjustment "excessively large." Triest also notes that the adjustments made for regional differences are of "counterintuitive magnitudes." For example, the measures indicate that southern households require more than 1.5 times the expenditure needed by a similarly situated household in the western part of the United States to attain equivalent well-being.

to adopting a consumption-based index is the difficulty of obtaining complete and accurate family expenditure data. Although difficult in its own right, measuring a family's income is far easier than accurately calculating the amount a household spends in a year. Furthermore, consumption may not fully reflect a family's true well-being; it is possible that simple frugality may be mistaken for poverty.

VI. SELF-RELIANCE AS A POVERTY MEASURE

The income or consumption poverty indicators we have discussed reflect a particular social objective—that all households should have sufficient income (or consumption) from either public support or their own efforts to enable them to attain a minimally acceptable level of living.

From a quite different social objective, one could argue that those people in society who are truly poor—who have the lowest economic position or well-being—are those who do not have the capability to make it “on their own,” to be self-reliant. Two reasons—one conceptual and the other practical—support the need for a poverty indicator that incorporates this consideration.

The *conceptual reason* is the more basic. A self-reliant measure of poverty focuses attention on the long-term status of people, their “permanent” capabilities. As the case for a consumption-based poverty measure emphasizes, not having enough income this year to cover basic needs is a matter worthy of public concern and action, but being income poor is often transitory. Identifying those people who are incapable of generating sufficient income to meet basic needs may provide a more meaningful measure of long-term economic poverty.

This position has its foundations in the writings of Amartya Sen, among others. Sen (1992) has argued that “the basic failure that poverty implies is one of having minimally adequate capabilities” (p. 111) and, hence, that “poverty is better seen in terms of capability failure than in terms of the failure to

meet the ‘basic needs’ of specified commodities” (p. 109).¹⁴ He calls for “reorienting poverty analysis from *low incomes* to *insufficient basic capabilities*,” arguing that “the reorientation from an income-centered to a capability-centered view gives us a better understanding of what is involved in the challenge of poverty” (p. 151).

There is also a *policy-related reason* for developing a “capability to be self-reliant” measure of poverty. In recent years, there has been renewed civic debate regarding appropriate norms and standards for individual responsibility and behavior, and hence the appropriate role of the state. A prominent viewpoint in this debate has emphasized the merits of individual independence (relative to reliance on government programs), the negative effects of government programs on individual behavior, and the desirability of a smaller economic and social policy role for government.¹⁵ Through its emphasis on individual responsibility, this point of view implicitly rejects the basic income concept on which the official poverty measure rests. Advocates of this viewpoint argue that the real problem is that the nation has substituted welfare and other public transfer income for income generated by people’s own efforts, hence inducing inefficient behaviors, generating more long-term poverty as recipients come to depend on government support, and fostering the creation of a dysfunctional social class that is at the core of many

¹⁴Sen’s position is most clearly articulated in his 1992 book, *Inequality Reexamined*. Development of the philosophical and value basis for this viewpoint can be found throughout his many writings on inequality and poverty, especially his 1979 Tanner Lecture (Sen, 1980), his 1982 Geary Lecture (Sen, 1983), and Sen (1997).

¹⁵Evidence that being “self-reliant” or “economically independent” has taken on increased weight in U.S. social policy is the provision in the 1996 federal welfare reform legislation, titled Temporary Assistance for Needy Families (TANF), which eliminated the receipt of public transfer benefits by single-parent households as an entitlement and imposed limits on the period that eligible families could receive support. The message to single parents, regardless of their skills, training or home demands, was that they had to learn to “get by on their own.” Similarly, advocates of the privatization of the Social Security retirement program, medical savings accounts as a replacement for Medicare benefits, tighter eligibility criteria for disabled children’s receipt of Supplemental Security Income benefits, elimination of most legal immigrants from eligibility for public income support, the shift from defined benefit to defined contribution pension plans, and the substitution of loans for grants to cover the rising costs of higher education emphasize the objective of individual self-reliance.

of the nation's problems.¹⁶ To those who emphasize self-reliance, reducing official poverty has little relevance.

It is in this context, then, that a self-reliance poverty concept and measure become relevant. If a nation is to base policy on the central social goal of "economic independence," it would seem important to identify the size, composition, and growth of the population of citizens who do not have the capability to be independent in a market economy.¹⁷ Such a concept also abstracts from taste-related choices regarding working (versus leisure) and consuming (versus saving), and is therefore a more accurate indicator of nontransitory family characteristics.

One capability-based poverty measure—the "self-reliant poverty" measure—is based on the concept of a family's net earnings capacity (NEC), which reflects a family's ability to achieve economic independence (i.e., to attain a minimum level of living) through the use of its own capabilities.¹⁸

A family's NEC¹⁹ is obtained by first estimating what all adults in the family, given their capabilities and characteristics, would be able to earn in the labor market if they were to work to capacity

¹⁶One of the earliest of proponents of this view was Charles Murray. His influential book, *Losing Ground* (1984), was the first in a stream of writings, speeches, and political candidacies in which he argued that government policy—especially welfare and other income support measures—was causal to the problem of income poverty, and hence the nation should stop assisting the destitute and start emphasizing individual self-reliance.

¹⁷Indeed, having a self-reliance poverty measure forces the question of collective responsibility toward those incapable of being economically independent. At one extreme, one could take the position that the public sector's only responsibility is to make clear that self-reliance *is* the norm. In this world, voluntary private charity may or may not provide for families that are unable to be self-reliant, and the problem of poverty would vanish as a public issue. An alternative position would be to consider how best to increase the ability of people who are not now economically independent to become self-reliant. Here, the issue of poverty becomes recast; it does not vanish. The question now becomes, How can public policy efficiently reduce the population unable to be self-reliant; what instruments are available, and which are the most cost-effective?

¹⁸A related measure of family capability is Becker's (1965) concept of "full income," which includes both income realized through market work and the value of leisure time. Adjusting this measure to reflect differences in the size and composition of the consumption unit yields full income (or potential real consumption) per equivalent consumer unit. Such a comprehensive concept of economic position reflects the level of consumption a family could attain from the full use of its resources. A poverty measure that rests on the full income concept would indicate whether or not a family had the capability to support a level of real consumption in excess of needs, that is to be self-reliant.

¹⁹Since the emphasis is on self-reliance, the measure applies only to those families headed by an individual aged 18 to 65, that is, those individuals expected to be independent. See Haveman and Bershadker (1998, 1999).

(taken to be full-time, full-year market employment), and then summing these estimates. This value is called the family's gross earnings capacity (GEC). Then, adjustments are made to GEC for both the constraints on working at capacity (due to health, disability, and long-run unemployability) and the expenses (mainly, child care costs) that would be required if all of a family's working-age adults did work at capacity to yield NEC. Finally, the family's NEC is compared to the official poverty line for the family. If the NEC is above the official poverty line, the family's ability to earn exceeds a necessary minimum level of consumption, and the family is considered "able to be self-reliant." Families whose NEC level falls below the official poverty line are considered "unable to be self-reliant" and are classified as being in self-reliant poverty.

Measuring "self-reliant poverty" requires several implicit conventions, norms, and assumptions, and the poverty indicator based on this concept has merit only insofar as they are accepted as appropriate. (A more complete description of the estimation procedure is presented in the Appendix.) Important conventions, norms, and assumptions include:

- The NEC concept is an appropriate indicator of the capability of a family to generate an income stream that could be used for meeting needs.
- The norm of full-time, full-year work is an accepted socially determined norm representing the full use of human capital.
- The adjustments made to GEC for health, disability, and long-run unemployability accurately measure the effect of the factors that keep individuals from fully using their earnings capacity.²⁰
- The adjustment made to GEC reflecting the required costs of making full use of human capital (primarily, child care costs) accurately accounts for these unavoidable work-related costs.

While the capability basis of this self-reliance poverty indicator has important and attractive features, the measure itself has drawbacks, including the following:

²⁰This abstracts from short-run constraints placed on a person's earnings capacity by the demand side of the labor market. In particular, one could argue that earnings capacities *fall* during recessions.

- The estimate of NEC reflects the application of one set of complex statistical techniques to survey data, and equally defensible procedures might lead to somewhat different results.
- Attribution of poverty status to any particular family requires prediction from statistical estimates rather than values measured in survey data (such as income), and hence is inappropriate for the purpose of, say, public benefit determination.
- Only those capabilities that are reflected in market wages are captured in the measure; the potential services of other valuable, though nonmarketed, capabilities are neglected. And, any shortcomings of labor market wages in reflecting the social value of marketed services are captured in the NEC measure.

VII. SUBJECTIVE MEASURES OF POVERTY

Poverty can also be measured by the subjective responses of individuals to questions inquiring into their perception of their economic position or well-being, relative to some norm.²¹ Like the official U.S. measure, subjective poverty measures are based on an “access to resources” concept. However, because the subjective thresholds applied by people are likely to change over time as the incomes of the respondents change, such measures tend to be relative, rather than absolute, poverty indicators.²²

Typically, subjective poverty measures are based on surveys of households in which household heads are asked to stipulate the minimum level of income or consumption they consider to be “just sufficient” to allow them to live a minimally adequate lifestyle. For example, in one approach, if people have in mind some level of living that they consider “minimally adequate” (the minimum income necessary to “get along”), and if they respond that their own level of living exceeds that minimum, one

²¹This general approach to poverty measurement has been called the “Leyden School” approach. Bernard van Praag is the central figure in this area; see Hagenaars (1986) and van Praag, Hagenaars, and van Weeren (1982). See also Ruggles (1990), p. 21.

²²While this approach has been widely discussed, estimates of the level and trend of U.S. poverty based on it are not available.

could, by observing their actual income, obtain both a monetary poverty line (by inference) and a poverty rate.²³

Ruggles (1990) has pointed out the appeal of subjective measures: “After all, ‘poverty’ is a socially determined state, and in the end official thresholds come down to what some collection of politicians and program administrators consider an adequate level of resources to support a life in a particular community. It seems in many ways more appropriate to ask the members of that community directly what they consider a minimally adequate income level” (pp. 21–22).

Of course, these measures are not without their drawbacks. Implicitly, subjective measures are based on individual opinions of what constitutes “minimally adequate” or “enough to get by.” As such, a subjective poverty measure requires us to assume that individual perceptions of these notions reflect the same level of real welfare for all respondents. As Hagenaaars (1986) indicated, this approach has merit only if “people associate a certain common, interpersonally comparable feeling of welfare with a certain verbal description.” Clearly, those accustomed to having a car, a diet high in meats, and owning their own washer and dryer are more likely to consider those items “necessary” relative to those with alternative tastes or customs.

The more formal variant of this subjective approach—that relying on the normed “welfare function of income” (see note 23)—is also highly dependent on the specific functional form and parameters that are used, and on the variables (e.g., family size, education, one versus two earner families, social reference group) assumed to be determinants of the level of the function. There is no firm basis for these choices, which implies an unattractive arbitrariness to the measure. Moreover, the choices

²³This “minimum income” question approach to poverty measurement is employed in Goedhart et al. (1977). An alternative approach involves constructing an indicator of well-being that is comparable across people (based on income levels that individuals subjectively state to be “excellent,” “good,” etc.) and then identifying as “poor” those individuals whose indicator of well-being is less than a particular level (say, “sufficient”). This indicator of well-being has been conceptualized in a “welfare function of income,” which is hypothesized to be described as a lognormal distribution function. This original concept was developed in van Praag (1968) and was used by Hagenaaars (1986) to derive a poverty measure.

that are made are embedded deep in a computational algorithm, making the dependence of the poverty measure on these choices opaque.

A number of subjective measures have been developed and tested, mainly in Europe. Despite rather minor differences in terminology and phrasing of questions among these measures, they have yielded highly diverse results. Three different methods found three different poverty thresholds, ranging from 85 percent to 229 percent of the official 1992 threshold. This wide variation with only small changes in question wording is likely attributable to differences in how respondents interpret the questions.

The effectiveness of subjective measures is also limited by the nature of the data collection method. Most estimates are based on small sample sizes, yielding large standard errors. Although standard errors are reduced with increasing sample size, most estimates show wide variation around the mean (Citro and Michael, 1995, p. 135), impeding the setting of a reliable and generally accepted poverty threshold.

VIII. THE LEVEL AND TREND OF THE POVERTY RATE, BY VARIOUS MEASURES

Each of these alternative poverty measures reflects a somewhat different social norm or objective, and each encounters thorny problems of definition and, especially, empirical measurement. However, empirical estimates of poverty levels and trends are available for four of the five measures that we have discussed, and we present these in Table 1.

Table 1 provides some summary information on poverty levels and trends for the four indicators (and variants of them) on which intertemporal estimates are available. For all the indicators except the self-reliant poverty measure, the estimates are for the entire population; the estimates for the self-reliant measure are for the population living in families headed by a working-age person.

TABLE 1
Poverty Rate and Change Using Various Measurement Techniques

	1991 Head Count Rate (%)	Latest Available Rate		Time Trend—1974 to Latest Available Rate		Time Trend—Last Five Years		Time Trend— 1975 to 1989
		Rate	Year	Trend	Years	Trend	Years	
Official poverty								
Base	14.2	13.3	1997	0.104	1974–1997	-0.440	1993–1997	0.141
Working-age headed	13.3	12.9	1995	0.178	1975–1995	-0.064	1991–1995	0.220
Modified by price index and demographic groups	14.2	13.9	1995	0.074	1974–1995	-0.050	1991–1995	0.050
Modified by NRC equivalence scales	14.2	13.7	1995	0.070	1974–1995	-0.100	1991–1995	0.058
Consumption-based poverty								
Base	8.9*	—	—	-0.006	1974–1989	-0.130	1985–1989	0.001
Modified by Census equivalence scales	7.1*	—	—	0.244	1974–1989	-0.050	1985–1989	0.245
Self-reliant poverty (working-age headed)	9.5	10.6	1995	0.260	1975–1995	0.304	1991–1995	0.182
Relative income poverty								
Base	17.7	—	—	0.118	1974–1991	-0.007	1986–1991	0.149**

*This is the 1989 rate, the latest rate available.

**Time trend 1974 to 1986.

Column 1 shows 1991 poverty rate estimates for the measures. The estimates vary widely, with the highest rate being more than twice the lowest. The official rate was 14.2 percent for the entire population. The highest rate is the relative poverty rate (based on a norm of one-half of median income) estimate of 17.7 percent. Given that the poverty thresholds implicit in this measure are higher than those in the official poverty indicator, this is not surprising. The consumption poverty measure was the lowest at 8.9 percent, though it would have been 7.1 percent if the official Census Bureau equivalence scales were employed. The self-reliant poverty rate was 9.5 percent.

Column 2 presents the most recent poverty rate available for the two measures for which a post-1991 estimate exists, and it indicates convergence in the two rates by the mid-1990s. While the official poverty rate decreased from 1991 to 1995, the self-reliant rate increased by more than one percentage point over this period.

Columns 3, 4, and 5 present a summary of the time trend patterns for the four measures in the post-1974 period.²⁴ The trends in column 5 are for the same years—1975 to 1989—during this period. While the consumption measure indicates either a slight downward trend—or no trend at all—over the post-1974 period, all of the other measures indicate an upward trend in U.S. poverty after 1974.²⁵ Relying on the 1975–1989 estimates, the official measure has increased by about 0.14 of a percentage point per year over this period,²⁶ the relative measure by about 0.15 of a point, and the self-reliant measure by about 0.18 of a point. This pattern is not surprising. Whereas the official measure is an absolute poverty

²⁴The time trend is from a regression of the poverty rate on time, and is the coefficient on the time variable. Annual estimates are used for the official, self-reliant, and relative poverty measures; estimates approximated from published time series charts were used for the consumption measure. The self-reliant poverty rates are estimates available in Haveman and Bershadker (1998, 1999); the relative estimates are from Jantti and Danziger (1999).

²⁵The Slesnick measure, in particular the downward trend that it exhibits, has been the subject of substantial controversy. The primary critiques suggest that the erosion of poverty indicated by this measure is an artifact of the questionable equivalence scales employed by Slesnick. See discussion above.

²⁶However, note that when the official measure is modified so as to maintain the original demographic group-specific poverty thresholds and price index or by substituting the NRC equivalence scales for the official equivalence scales, the rate of poverty growth is substantially smaller.

indicator, the relative measure depends on growth in incomes at the median relative to growth in the lowest incomes. Over this period of increasing inequality, growth in incomes at the bottom has lagged behind income growth in the middle of the distribution.

The difference in trends between the official and the self-reliant poverty measures also is expected. The growth in the inequality of wage rates (on which the self-reliant measure depends) has exceeded the growth in the inequality of family income (reflecting changes in wage rates and work hours) over this period. While wage rates for the least-skilled male workers deteriorated over the post-1974 period, incomes were sustained through increases in annual work hours for families (primarily for spouses), in part in response to relative (and absolute) decreases in male wages and earnings.²⁷

The finding of a decreasing consumption poverty trend on the equivalence scales used is also shown in column 5. When the official Census equivalence scales are used instead of the idiosyncratic scales developed by Slesnick, the consumption poverty rate also shows a very substantial increasing trend of .24 percentage points per year in the post-1974 period—greater than that of any of the other measures.

Column 4 presents time trend estimates for the most recent 5-year period for which estimates are available for each of the measures. Since 1993, the official poverty measure has decreased by an average

²⁷There are several ways in which the self-reliance poverty measure is likely to provide information on the level and trend of poverty and, especially, its composition that are different from that provided by income or consumption poverty measures. Factors that would account for such divergence include (1) differences among otherwise identical families in **tastes** for income and work, (2) differences in the **disincentives** to work faced by otherwise identical families, and (3) differences in the role played by **public cash benefits**. In each case, these differences may affect differences among families in income (or consumption) but not in NEC.

First consider the heavy dependence of income measures on tastes, in particular, the tastes of the members of the family unit for income versus leisure. Holding all other considerations constant, a household with strong preferences for leisure (relative to income) is more likely to be counted as officially poor than is a family with weaker tastes for leisure. Differences in labor supply and earnings caused by divergent incentives to work—such as those implicit in the nation’s tax and transfer systems—also affect family income. Because of labor supply responses to program incentives, the nation’s official poverty count (and the age-education-race composition of the poor) will reflect both the varying structure of incentives and differential responses to them. Finally, the official poverty definition also counts public welfare and other transfer benefits in family income. Hence, a family in a low-benefit state with positive but low earnings may be counted as income poor when a family with identical characteristics and capabilities in a high-benefit state may be classified as nonpoor.

of 0.4 of a percentage point per year. By comparison, the self-reliant poverty rate *increased* by about 0.3 of a point per year (from 1991 to 1995), again reflecting the continued increase in earnings inequality over this period.

Table 2 presents supplementary findings on rates and trends for subgroups of the population. All the measures indicate that the poverty rates for children and for female-headed families with children greatly exceed those of the overall population, while the poverty rates for the elderly are below the overall rates. Similarly, the post-1974 growth of children's and mother-only family poverty far exceeds that of the remainder of the population for all the measures.

In sum, the official and relative income poverty rates tend to be higher than either consumption or self-reliant poverty measures. While the three income/earnings-capacity measures suggest an upward trend in the poverty rate over the entire post-1974 period (especially for children and mother-only families), the Slesnick measure indicates a slight secular decline. The substantial upward trend in poverty indicated by the self-reliant measure persists during the last 5-year period for which estimates are available, whereas the other measures indicate some erosion in the poverty rate over this period.

IX. WHO IS POOR: ALTERNATIVE MEASURES AND THE COMPOSITION OF POVERTY

In addition to different poverty levels and time trends, the alternative measures indicate different compositions of the poor population. Because social policy choices may depend on perceptions of which groups constitute the poor population, these differences in composition are important.

Table 3 shows the composition of the self-reliant poor population averaged over the 1993–1995 period. It also indicates the proportion of each group in self-reliant poverty relative to the proportion in official poverty.

Consider first the racial composition of poverty. In the mid-1990s, individuals living in minority-headed families accounted for more than 56 percent of the self-reliant poor. The official poor population

TABLE 2
Poverty Rate and Change Using Various Measurement Techniques

	1991 Head Count Rate (%)	Latest Available Rate		Time Trend—1974 to Latest Available Rate		Time Trend—Last Five Years		Time Trend— 1975 to 1989
		Rate	Year	Trend	Years	Trend	Years	
Official poverty								
Base	14.2	13.3	1997	0.104	1974–1997	-0.44	1993–1997	0.141
Working-age headed	13.3	12.9	1995	0.178	1975–1995	-0.06	1991–1995	0.220
Children	21.8	19.9	1997	0.239	1974–1997	-0.69	1993–1997	0.354
Elderly	12.4	10.5	1997	-0.203	1974–1997	-0.43	1993–1997	-0.270
Female-headed (with children)	39.7	35.1	1997	0.013	1974–1997	-1.00	1993–1997	0.077
Self-reliant poverty								
Working-age headed	19.5	10.6	1995	0.260	1975–1995	0.30	1991–1995	0.182
Female-headed (no children)	9.8	11.9	1995	0.099	1975–1995	0.54	1991–1995	-0.036
Female-headed (with children)	35.0	37.9	1995	0.512	1975–1995	0.89	1991–1995	0.292
Relative income poverty								
Base	17.7	—	—	0.118	1974–1991	-0.01	1986–1991	0.149*
Children	24.1	—	—	0.322	1974–1991	-0.09	1986–1991	0.443*
Elderly	8.4	—	—	-0.033	1974–1991	0.25	1986–1991	-0.081*
Female-headed	42.8	—	—	-0.025	1974–1991	-0.13	1986–1991	-0.091*

*Time trend 1974 to 1986.

TABLE 3
Composition of Population in Self-Reliant Poverty Relative to Official Poverty,
by Characteristic of Family Head, 1993–1995

Poverty	Shares	Ratio of Self-Reliant
Share	(Percent)	Share to Official Poverty
Race of head		
White	43.70	1.02
Black	30.40	1.08
Hispanic	22.06	0.92
Other	3.84	0.75
Sex of head		
Male	37.07	0.95
Female	62.93	1.03
Education of head		
Less than high school	41.85	1.03
High school graduate	37.32	1.04
Some college	17.95	0.99
College graduate	2.87	0.51
Families with no children	24.70	1.00
<i>Percentage composed of:</i>		
Couples	27.47	1.48
Single men	35.50	0.93
Single women	37.03	0.85
Families with children	75.30	0.99
<i>Percentage composed of:</i>		
Couples	30.90	0.79
Single fathers	6.39	1.50
Single mothers	62.71	1.10
<i>Status of single mother</i>		
On welfare	56.45	0.90
Not on welfare	43.55	1.17

has a somewhat different racial structure, as shown by the ratios in column 2. In the mid-1990s, the share of the self-reliant poor population living in a family headed by a black was nearly 110 percent of that in the official poverty population. Conversely, the self-reliant poor population had a smaller Hispanic proportion than did the official poor.

In the mid-1990s, the self-reliant poor population was slightly more heavily “female headed” than was the official poor population. About 63 percent of those with the lowest earnings capacity relative to needs lived in female-headed families, which was 103 percent of the share of such families in official poverty.

In the mid-1990s, almost 21 percent of the self-reliant poor population lived in families headed by individuals with at least some college education. The share of self-reliant poor individuals living in families headed by a person with at least some college was substantially less than this group’s share of the official poor population. Conversely, the self-reliant poor population is more heavily composed of individuals with very low levels of schooling than is the official poor population.

Though couples without children are substantially more highly represented in the self-reliant poverty population than in the official poor population, the opposite is true for couples with children. Among families with children, single-parent families are far more heavily concentrated in the self-reliant poor population than in the official poor population.

Among self-reliant poor families with children, those living in a family headed by a single mother account for about 63 percent of the population. The share of self-reliant single mothers in the poverty population was 10 percent higher than the corresponding share of the official poor population in the mid-1990s. Similarly, among single mothers there is a far higher concentration of those not on welfare included in self-reliant poverty than in official poverty.

In sum, the share of the self-reliant poor population composed of individuals living in families headed by the most economically vulnerable individuals—high school dropouts, minorities, and single

mothers (especially those not on welfare)—substantially exceeds their share in the official poor population.²⁸

X. CONCLUSION

Our purpose in this paper is to extend the discussion of poverty concepts and measures beyond the confines of the absolute income position, which has come to dominate the U.S. discussion. We have attempted to describe a wider set of poverty concepts than have been reflected in empirical poverty indicators, and to indicate the conceptual basis on which they rest. We have also catalogued the primary concerns—both conceptual and measurement—that have been levied against all the poverty measures.

Substantial differences in both the level and trend of poverty exist among the several measures. The composition of the poor population also varies according to the concept and measure of poverty that is adopted. These differences suggest no single poverty measure has a monopoly in identifying the number of people in a nation who are destitute, and the growth and composition of the poor. Each measure contributes to our understanding of the nature of poverty, and hence of the consequences and costs of poverty; they are complements, not substitutes.

²⁸As a result of the divergences between family income and permanent economic capabilities, other differences are also reflected in the two measures. For example, an independent youth who chooses to remain in school may be counted as income poor, even though she has very high long-term earnings potential. As a result, the reported age distribution of the poor is younger, and more educated, than it would otherwise be. Similarly, the annual net income reported by families headed by farm owners or those relying on gains from financial or real assets is notoriously unreliable, and probably lower than it is in fact; such families also tend to be overrepresented in income poverty measures. Again, the poor population would seem more highly educated than it really is because of the inclusion of these people. As a result, income-based poverty statistics may be providing us with a picture of a population that in many ways fails to conform with what many people consider to be poor.

Appendix

The Estimation of Earnings Capacity: Data and Empirical Procedures

As indicated in the text, predicted values of the earnings of each working-age adult were he or she to work full-time, full-year (FTFY) are estimated using selectivity-adjusted earnings equations fit over FTFY workers. These values for earnings capacity are then adjusted for health, disability, and other constraints on employability and shocked to reflect the effect of unmeasured variables. The details of this procedure are summarized below.

The first step is to predict the earnings capacity for each prime-aged individual in our sample. The data used in this analysis are drawn from the repeated cross sections of the U.S. population contained in the March Current Population Surveys (CPS) for 1976 to 1996.²⁹ From these surveys, we select a sample of 18–64-year-old, noninstitutionalized, nonstudent, non-self-employed civilians on which to estimate the model.³⁰ The model we estimate is a two-equation model of FTFY labor force participation and earnings, drawing on Heckman (1979). Such a specification is appropriate, since individuals can select into the FTFY labor force.

The first stage is a probit regression of FTFY labor force participation on the vector of explanatory variables assumed to influence such participation.³¹ We fit four such probits for each year, one for each race/gender group (white/nonwhite, male/female). The model is identified via exclusion restrictions, including nonlabor income, participation in a health-related income support program, the

²⁹The March CPS is an annual survey of over 60,000 American families, containing detailed information on the income and labor market activities and outcomes of the adults in the family. Interviewers also obtain information on the size and composition of the family. It is a stratified random sample, so that using the appropriate weighting factors (provided by the U.S. Bureau of the Census) yields a picture of the economic status and labor market activities of the entire American population.

³⁰We exclude the self-employed, since their earnings represent a return to both human and physical capital which cannot be disentangled using CPS data.

³¹We define FTFY labor force participation as 2,000 or more hours of work in a year.

state unemployment rate, veteran status (for men), and the maximum AFDC benefit for a family of four (for women), which are assumed to affect the labor force participation decision but, conditional on FTFY work, do not affect earnings.

The second stage is a set of selectivity-corrected ordinary least squares regressions of the log of earnings on variables presumed to influence earnings. The independent variables in this equation are chosen using the human capital model as a guide and include education, age, region of the country, rural-suburban-urban location, marital status, and number of children. To correct for self-selection into the FTFY labor force, we append the inverse of the Mills ratio term, derived from the coefficients in the first stage estimation, to the set of regressors.

Using the coefficient estimates and each individual's characteristics, we obtain an unconditional prediction of FTFY log earnings for each prime-aged adult in our sample.³² Hence, we assign the same earnings capacity value to individuals with identical characteristics, regardless of their selection into or out of the FTFY labor force.

To account for unobserved human capital and labor demand characteristics and "luck" in the earnings determination process, we apply a random shock to each individual's earnings capacity prediction. Specifically, we add to each FTFY log earnings prediction the standard error from the individual's race/gender earnings equation times a normal (0, 1) random variable. In making this adjustment, we assume that the distribution of FTFY earnings within a race/gender cell is normal with a standard deviation equal to the standard error of the race/gender earnings regression.

The final adjustment to the individual earnings capacity prediction is one for constraints on work due to illness, disability, and other attributes suggesting inability to find employment. We calculate an

³²We predict FTFY earnings for students and the self-employed, even though these individuals were excluded from the estimation.

adjustment factor, Γ , equal to $(50 - WC)/50$, where WC is the number of weeks the individual does not work attributed to these reasons.

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