The Jerome Levy Economics Institute of Bard College

LEVY INSTITUTE

Self-reliance and Poverty

Net Earnings Capacity versus Income for Measuring Poverty

Robert Haveman and Andrew Bershadker

No. 46, 1998

The Jerome Levy Economics Institute of Bard College, founded in 1986, is an autonomous, independently endowed research organization. It is nonpartisan, open to the examination of diverse points of view, and dedicated to public service.

The Jerome Levy Economics Institute is publishing this proposal with the conviction that it represents a constructive and positive contribution to the discussions and debates on the relevant policy issues. Neither the Institute's Board of Governors nor its Advisory Board necessarily endorses the proposal in this issue.

The Levy Institute believes in the potential for the study of economics to improve the human condition. Through scholarship and economic forecasting it generates viable, effective public policy responses to important economic problems that profoundly affect the quality of life in the United States and abroad.

The present research agenda includes such issues as financial instability, poverty, employment, problems associated with the distribution of income and wealth, and international trade and competitiveness. In all its endeavors, the Levy Institute places heavy emphasis on the values of personal freedom and justice.

Editor: Karl Widerquist

The Public Policy Brief Series is a publication of The Jerome Levy Economics Institute of Bard College, Blithewood, Annandale-on-Hudson, NY 12504-5000. For information about the Levy Institute and to order Public Policy Briefs, call 914-758-7700 or 202-887-8464 (in Washington, D.C.), e-mail info@levy.org, or visit the Levy Institute web site at http://www.levy.org.

The Public Policy Brief Series is produced by the Bard Publications Office.

ISSN 1063-5297
ISBN 0-941276-57-0

Contents

Preface

"Self-reliance" has become a concept central to U.S. domestic policy in recent years. It is widely believed that past government policies have made the poor dependent on government assistance and the solution is to move people into paid labor. The bipartisan support for the welfare reform legislation of 1996 is evidence that both parties are committed to the goal of self-reliance. But will welfare reform achieve this goal? It is easy to remove people from the welfare rolls, but it may be difficult for former beneficiaries to obtain employment and more difficult still for them to find jobs that pay enough to lift their families out of poverty.

The United States now has a policy that attempts to make people more self-reliant, but it does not measure their ability to achieve self-reliance. The official poverty measure counts the number of people with an income below a stated poverty line, but makes no attempt to measure their ability to escape poverty through their own efforts. Research Associate Robert Haveman and Andrew Bershadker, both of the University of Wisconsin-Madison, propose such a measure. They define "net earnings capacity (NEC)" as the income a family would earn if all adults in that family worked full-time, full-year. To arrive at an NEC, they estimate what each individual in the family could earn by comparing him or her to an individual with similar human capital who works full-time, full-year; they total the individuals' potential earnings; and then they subtract the cost of child care. They compare the net earnings capacity to the poverty line to obtain an estimate of the number of people who are incapable of raising themselves out of poverty on their own.

Haveman and Bershadker's findings are distressing to anyone who believes work alone can cure poverty. Between 1993 and 1995 the

annual average official poverty rate was 13.72 percent and the NEC poverty rate was 10.54 percent. Subtracting the NEC rate from the official rate yields a difference of 3.18 percentage points, or 23 percent, which can be interpreted as meaning that the poverty rate would decline only 23 percent if every adult in every family currently in poverty found a job and worked at full capacity.

Stated another way, three-fourths of those living in poverty today would not succeed in pulling themselves out of poverty even if they obtained full-time employment. One reason for this is that many of the poor can obtain only jobs with such low wages that even if they work at their full capacity, their income will remain below the poverty line. Another reason is that many of the poor are single parents and necessary child care expenses reduce their net income below the poverty line. Moreover, if every adult who currently is voluntarily out of the labor force were to enter the labor market in an attempt to reach his or her earnings capacity, the economy might not be able to absorb all of these workers. Many might not be able to find work and those who did might bid down wages of those who were already employed at or near the poverty level.

Haveman and Bershadker's findings that NEC poverty has risen significantly since the mid 1970s (a period during which the official poverty rate rose only slightly) raise difficult questions for public policy. If a goal of government policy is self-reliance, should that policy ensure that all individuals are able to achieve self-reliance? This could be accomplished by raising the skills of workers and increasing the returns to work. Policy options thus become improving the quality of education for those at the bottom of the income scale, increasing the minimum wage, expanding the earned income tax credit, introducing a negative income tax, paying child care expenses, expanding government employment programs, or some combination of these.

How we define poverty will necessarily determine what we believe we should do to ameliorate it. Haveman and Bershadker's alternative concept of poverty gives us a new perspective for evaluating policy approaches. I welcome your comments on their work.

Dimitri B. Papadimitriou, *Executive Director*
November 1998

Self-reliance and Poverty

In the current political and social climate, with its call for self-reliance as the means by which families and individuals should support themselves, the official U.S. poverty indicator may be measuring the size of a population that is of less interest to policymakers than in past years. We present here an alternative measure of poverty for the United States population that is based on a family's *capacity for generating income* rather than its *actual money income*. This measure, called net earnings capacity (NEC), rests on a concept of self-reliance and is used to determine the size of the population that is *unable to be self-reliant*.

In this brief, we discuss different concepts of "poverty" and the current official poverty measure. We describe the conceptual basis for NEC poverty with an overview of the mechanics of calculating the measure and compare trends in NEC poverty to trends in the official poverty measure. We then ask what underlying factors in the U.S. economy could account for the observed trends in NEC poverty and their difference from trends in official poverty. Finally, we offer some policy implications.

The Concept of Poverty and How We Measure it

Nearly all developed countries accept the social goal of reducing or eliminating "poverty" among their citizens. However, there is no commonly accepted measure of poverty among poverty analysts, researchers, and policymakers from nation to nation or even within any one country, so there is no easy way to determine which countries have more or less poverty or who should be counted among the poor.

Researchers with a sociological perspective often advocate a multi-dimensional concept of poverty, one that reflects many aspects of everyday life. For example, they look at people who are deprived of social contacts with friends and families and refer to a degree of "social isolation poverty" relative to some norm of contact. People living in squalid housing are viewed as "housing poor" and people with health deficits as "health poor."

Economists, of course, tend to prefer a measure that somehow reflects economic well-being. However, even among economists, there is disagreement about how best to measure such well-being. Some compare the income of a family to some minimum standard of income, which they label the poverty line. Others look to consumption as an indicator of economic well-being. Still others rely on families' own assessment of their economic well-being to make a judgment regarding who is poor.[1]

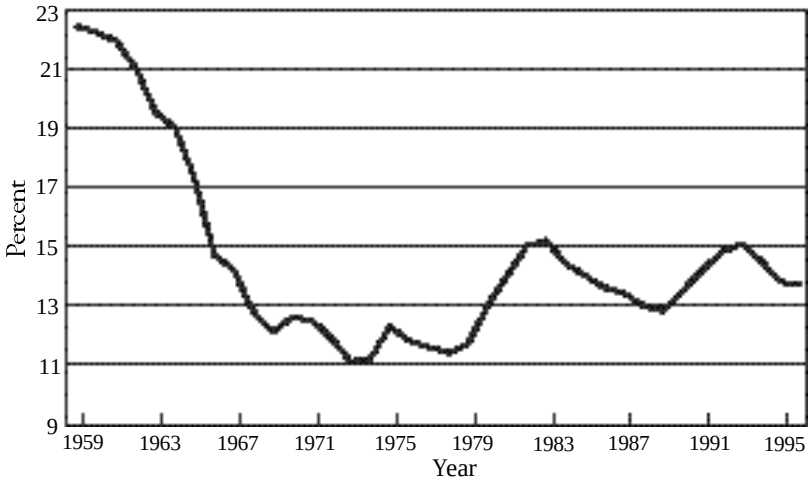
The United States was one of the first countries to establish an official definition of poverty, and the definition, developed over 30 years ago, has remained largely unchanged. Based on an economist's concept of "income poverty," comparing cash income to an assessment of income needs, it has been used to track the nation's poverty rate and the characteristics of people identified as poor over time (see Fisher 1992).

The official measure identifies poor families and the individuals living in them by comparing two numbers: the *current annual cash income* of the family unit and an estimate of the *income necessary for a family of a particular size and composition to meet a minimum level of consumption*. This second number is the family's "poverty threshold" or "poverty line." If the income of the family does not exceed its poverty line, the family is defined as "poor." The nation's "poverty rate" is the percentage of its population who live in poor families, so defined.[2]

Figure 1 shows the official poverty rate for the United States from 1959 to 1996. From 1959 to 1969 the rate dropped sharply. After a slight rise in the late 1960s, it reached its all-time low in 1973, when it stood at 11.1 percent. At that time roughly 23 million people were poor, 42 percent less than in 1959. The rate oscillated between 11 and 12 percent from 1973 to 1979 and then increased steadily until it reached 15.2 percent in 1983. Over the next 10 years the rate first fell and then climbed to close to the 1983 level. In the period of job growth from 1993 to

1996, the proportion and number of the poor have declined, from a high of 15.1 percent (39.3 million persons)in 1993 to about 13.7 percent (36.5 million person) in 1996.

Figure 1 Official Poverty Rate, All Individuals, 1959 to 1996



Source: U.S. Bureau of the Census, *March Current Population Survey* (Washington, D.C.: Government Printing Office, 1975–1996).

The Relevance of the Official Poverty Measure to Policy Today

Although the official measure of poverty is open to many criticisms, both conceptual and practical, it is widely used as an indicator of how the nation is doing in combating poverty. Because most of the measurement problems are relatively constant over time, analysts and policymakers feel confident in using the official measure to assess changes in the level of poverty in the country and the country's success in assuring a minimum level of living for its citizens. Efforts are being made to correct some of its most important problems.[3]

However, one important reason to be dissatisfied with the official measure is that it does not measure permanent characteristics of a family; it relies on a single year of cash income of a family, while for many families annual income fluctuates. Unemployment, layoffs, the decision to undertake mid-career training or to change jobs, health considerations, and

especially income flows from self-employment may all cause the money income of a household to change substantially from one year to the next.

In recent years some policymakers, reflecting the changing sentiments of many citizens, have called into question the basic concept on which the official measure rests and the policy approaches that follow from it. What the rate measures, so the discussion goes, is how short of income families are (in any given year) and the policy that follows from that measure is to supplement income through welfare and other transfers. However, it is argued, government income support has created a dysfunctional social class that generates more poverty because people become dependent on that support. In this view, having some people with low cash income is not the fundamental problem; rather the problem is having a number of people who are not self-reliant.[4] This view is consistent with the trend in political rhetoric calling for a smaller economic and social policy role for government.

A growing emphasis and insistence on "self-reliance" and "economic independence" in social policy can be seen in the 1996 welfare reform legislation. The provision setting up block grants to the states, titled Temporary Assistance for Needy Families (TANF), eliminates the entitlement status of the receipt of public transfer benefits by single-parent households and imposes firm limits on the period for which eligible families can receive support. The message to single parents, irrespective of their skills, training, or home demands, is that they have to "get by on their own."

The emphasis on self-reliance can also be seen in proposals for the privatization of Social Security. Plans involve assigning some portion of the contributions made on behalf of working-age individuals directly to them, with the requirement that they manage these financial resources themselves (with some constraints) and then make do in their retirement years with the assets they accumulate in these private accounts. How they get by in their older years would reflect the choices and savings efforts they made during their working years. Other manifestations of this emphasis on supplanting public support with self-reliance are proposals for medical savings accounts as a replacement for Medicare benefits, tighter eligibility criteria for disabled children's receipt of Supplemental Security Income benefits, the elimination of most legal

immigrants from eligibility for public income support, the shift from defined benefit to defined contribution pension plans, and the shift from grants to loans to cover the rising costs of higher education.

In part because of the stridency of this movement, the official measure of poverty appears to have become less relevant in policy discussions in recent years and less attended to by policymakers. Indeed, to advocates of policy proposals emphasizing self-reliance, the official measure is but an indicator of failed social policy based on communitarian objectives. According to this view, basing policy on a poverty measure that rests on income realizations can only mean that public support must always increase in order to compensate for the decrease in individual effort it creates.

An Alternative Poverty Concept and Measure: Net Earnings Capacity Poverty

Given the judgment that people need to rely on their own energies and resources, it is interesting to ask the following reality-check questions: What if there are people who do not have the capability to make it on their own in our market society? What collective responsibility does the nation have to them? At one extreme, some argue (as Charles Murray has) that the nation should simply get the self-reliance message out and let private charities provide whatever they wish to those families that are unable to be self-reliant. Government should get out of the business of trying to help the least able families and presume that people will somehow make it on their own. This position is a harsh one, and perhaps more harsh than some advocates of the self-reliance position might be comfortable with.

Another option for advocates of self-reliance is to consider what can be done to increase the ability of people who are now unable to be economically self-reliant to become so. This option involves recasting the issue of poverty, not making it vanish. The issue becomes how can public policy cope with a population unable to be self-reliant, what instruments are available, and which are the most cost-effective.

What sort of poverty measure might be relevant to those who place primary emphasis on self-reliance as a social objective? In this policy brief,

we put forth one answer to this question and draw out its policy implications. No measure consistent with this concern now exists. If one were to design such a poverty measure, the objective would be to identify the size and composition of the population who cannot be self-reliant and the patterns of change in the size and composition of this population. We propose a measure of self-reliance that reflects a family's ability to achieve economic independence on its own, that is, to attain a minimum level of living through the use of its own capabilities.

In order to develop such a measure we need to establish certain conventions, norms, and assumptions because there are no purely objective criteria by which self-reliance or even capabilities can be defined. First, we limit the applicability of the measure to people who live in families that are headed by a working-age person (age 18 to 65). This makes sense as the call for self-reliance is directed to people who should, through their own work and efforts, be independent; few people today would want to apply this standard to the elderly.

Second, we need to find a way to identify the "capabilities" of people in such families, as any determination of the ability to be self-reliant requires some assessment of the resources that people can use to "make it on their own." We do this by calculating "earnings capacity"—essentially, how much adults, given their capabilities and characteristics, would be able to earn in the labor market if they were to work full-time, full-year. We adopted this norm of work time for the purpose of this study because it is generally accepted as the standard for being "fully employed." We emphasize that this measure of earnings capacity is an indicator of capabilities or potential and carries no suggestion that everyone age 18 to 65 *should* work full-time, full-year or that anyone who does not work that much is somehow a "slacker."[5]

Multivariate statistical techniques enable us to predict what each working-age adult in a representative sample of the population would be able to earn if he or she worked full-time, full-year.[6] This imputation is based on observations of the actual earnings of full-time, full-year workers with various characteristics of education, age, race, and so on. In effect, the exercise here is to match each working adult who is not fully employed with a close-to-identical person who is. The earnings of the

full-time, full-year worker serve as the basis for predicting how much the matching adult could earn if he or she were working at full capacity.[7]

In making this prediction for each working-age adult, we implicitly adopt another assumption, namely, that people who do not work full-time, full-year are doing so voluntarily, that is, they are not forced or constrained to not work at full capacity. Such constraints certainly do exist. Certain characteristics (for example, having a disability or lacking an education) may hinder individuals' job-finding or job-holding ability, thus preventing them from working at the full-time, full-year norm. Although it is not possible to reflect these constraints with total accuracy, we developed a statistical adjustment procedure that utilizes information in our database to make an estimate of the extent to which these constraints, in a steady-state world, tend to draw down earnings capacity.[8]

Having estimated the adjusted earnings capacity for each working-age adult, we add the earnings capacities of all of the adults in a family unit and then add to this subtotal the income the family receives from real property (for example, rent, interest, dividends) to obtain the earnings capacity for the family.[9] We call this gross earnings capacity (GEC).

The GEC is an estimate of the capability of the family to generate earnings if all its working-age members work at full capacity. However, it is a defective estimate of the family's ability to be self-reliant because it does not take into account necessary work-related expenses. Adults incur costs (which may be substantial) related to realizing their full earnings capacity. The most important of these for families with children are those necessary to provide adequate care for their children.[10] To reflect those costs, we subtract from the family's GEC the amount required to purchase acceptable child care.[11] This gives us the family's net earnings capacity (NEC), the value of the stream of services that could be yielded by the family's human capital.

In a final step, we compare the family's NEC to the official (family-size specific) poverty line for the family. This line, you will recall, is interpreted as the amount of income that would enable a family of a specific size and composition to meet a minimum level of consumption. If the NEC for a family is above this line, we classify the family as "able to be

self-reliant," or nonpoor in NEC terms. Families who do not have the capacity to generate a net income stream in excess of their poverty line are classified as "unable to be self-reliant" or NEC poor.

As we emphasized above, many conventions, norms, and assumptions have gone into this NEC poverty measure. To review the main ones:

- Net earnings capacity is an indicator of the capability of a family to generate an income stream that could be used for meeting needs. It reflects the full-capacity (full-time, full-year) earnings capability of a family and hence is a good index of the family's ability to generate income.
- Full-time, full-year work is assumed to be the working time of people who are fully using their human capital. Values greater or less than this amount could be used, but we accept this as a socially determined norm of full employment.
- Adjustments are made for illness, disability, and other characteristics related to long-run unemployability and reduced earnings capacity in order to obtain a more realistic estimate of the potential value of an individual's human capital.[12]
- Child care costs associated with full-capacity work are subtracted from the gross earnings capacity (GEC) to arrive at an estimate of a family's net earnings capacity (NEC).
- A family with an NEC below the official poverty line is defined as living in NEC poverty. A family with an NEC above the poverty line is considered to be capable of being self-reliant.

NEC Poverty and Official Poverty for U.S. Population

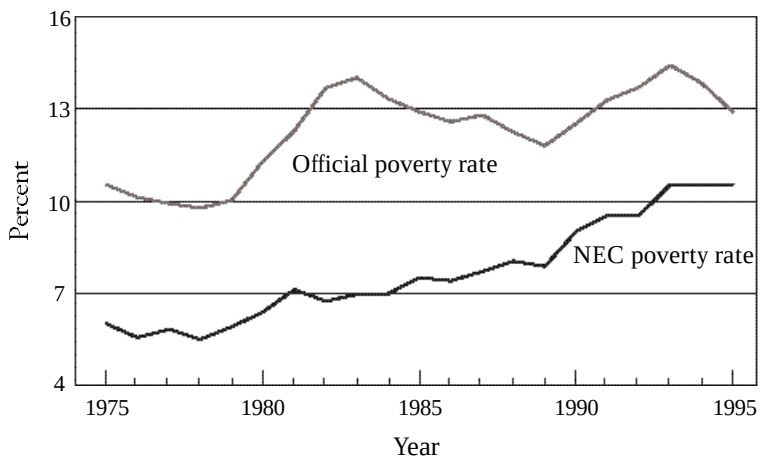
We use annual data from the March Current Population Survey to estimate the rate of NEC poverty for families headed by a working-age person in the United States from 1975 to 1995. The March Current Population Survey is an annual survey of over 50,000 American families, obtaining detailed information on family structure and the income, labor market activities, and labor market outcomes of the adults in 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. We also calculate poverty in the United States using the official definition and concepts of the U.S. Bureau of the Census. Our estimates of the overall prevalence of both NEC poverty and official poverty for 1975 to 1995 are shown in Tables 1 and 2 and Figure 2.[13]

While the official poverty rate over the period ranged from about 10 to 14 percent, the NEC poverty rate ranged from about 6 to 11 percent. The primary factors that account for this difference are (1) the counting of transfer income (done in the official measure but not in the NEC measure), (2) the less than full-time, full-year work of many working-age adults (which affects the official poverty measure), and (3) the adjustment for child care costs (which affects NEC poverty but not official poverty).

Figure 2 also shows the greater cyclical sensitivity of the official poverty rate than the NEC poverty rate. While the official poverty rate rose nearly 40 percent during the recession of the early 1980s, the NEC poverty rate rose less than half of this amount. Given that the NEC measure reflects longer-term (or permanent) earnings potential as opposed to the shorter-term actual income amount reflected in the official measure, the closer tie between current labor market conditions and the official poverty rate is expected.

Figure 2 NEC and Official Poverty Rates, Individuals in Households Headed by Working-Age Person, 1975 to 1995



Source: U.S. Bureau of the Census, March Current Population Survey data files.

Table 1 Percent of Individuals in NEC Poverty, 1975 to 1995

	1975–1977	1993–1995	Average Annual Growth (Percent)
All	5.79	10.54	3.38
Race of head			
White	3.55	6.50	3.41
Black	17.72	24.34	1.78
Hispanic	12.67	19.66	2.47
Other	4.52	9.57	4.26
Sex of head			
Male	2.84	5.77	4.02
Female	22.14	20.55	–0.41
Education of head			
Less than high school graduate	12.58	28.22	4.59
High school graduate	4.20	11.87	5.94
Some college	2.23	7.16	6.68
College graduate	0.47	1.22	5.46
Families with no children			
All	4.43	7.18	2.71
Married couples	1.93	3.62	3.55
Single men	8.76	11.08	1.31
Single women	9.56	11.81	1.18
Families with children			
All	6.37	12.44	3.79
Married couples	2.53	5.06	3.93
Single fathers	10.97	22.39	4.04
Single mothers	29.34	38.08	1.46
White	20.23	27.23	1.67
Black	39.08	46.72	1.00
Hispanic	40.86	48.10	0.91
Other	32.63	36.26	0.59
Single mothers on welfare	44.98	58.73	1.49
Single mothers not on welfare	17.72	26.16	2.19

Note: The growth rate is calculated using the average 1975–1977 and 1993–1995 poverty rates and assuming 18 years of growth.

Source: U.S. Bureau of the Census, March Current Population survey data files.

Table 2 Percent of Individuals in Official Poverty, 1975 to 1995

	1975–1977	1993–1995	Average Annual Growth (Percent)
All	10.19	13.72	1.67
Race of head			
White	6.67	8.28	1.21
Black	27.94	29.45	0.29
Hispanic	21.88	27.74	1.33
Other	13.64	16.66	1.12
Sex of head			
Male	5.94	7.89	1.59
Female	33.74	26.05	–1.43
Education of head			
Less than high school graduate	20.13	35.61	3.22
High school graduate	7.66	14.82	3.73
Some college	5.63	9.39	2.88
College graduate	2.29	3.09	1.67
Families with no children			
All	7.05	9.17	1.47
Married couples	2.70	3.12	0.80
Single men	12.94	15.17	0.89
Single women	17.32	17.66	0.11
Families with children			
All	11.55	16.31	1.94
Married couples	6.37	8.38	1.54
Single fathers	11.00	19.42	3.21
Single mothers	43.15	45.16	0.25
White	31.35	32.58	0.21
Black	56.71	55.22	–0.15
Hispanic	55.03	57.37	0.23
Other	40.89	40.03	–0.12
Single mothers on welfare	68.88	77.19	0.63
Single mothers not on welfare	24.05	26.59	0.56

Note: The growth rate is calculated using the average 1975–1977 and 1993–1995 poverty rates and assuming 18 years of growth.

Source: U.S. Bureau of the Census, March Current Population survey data files.

As Tables 1 and 2 indicate, NEC poverty has grown at a substantially faster rate than has official poverty. Over the 1975 to 1995 period the prevalence of official poverty grew by about one-third, with an average annual growth rate of 1.7 percent. In contrast, the NEC poverty rate at the end of the period is nearly 185 percent of its initial level, with an annual growth rate of 3.4 percent, or twice the growth rate of the official poverty.

In our calculations, then, both the official poverty rate and the NEC poverty rate rose between 1975 and 1995. This growth in economic inadequacy in terms of both current income and earnings potential is troubling when one considers the growth in affluence in the United States; inflation-adjusted disposable income per capita has increased from $13,400 to $18,900 (1992 dollars) over the 1975 to 1995 period, an increase of over 40 percent.

Our findings of growth in the poverty rate, it should be noted, run counter to those of some other studies, in which the trend in aggregate poverty is negative. Perhaps the most prominent of these is Slesnick (1993), who bases his poverty measure on consumption expenditures as an indicator of well-being. As we do, Slesnick compares his measure of economic position to a set of poverty thresholds. However, while we have accepted the official family-size-specific poverty thresholds, Slesnick computes an alternative set, and his thresholds have been strongly criticized.[14]

A second study that finds a downward trend in the poverty rate is that by Jencks and Mayer (1996), who calculate a poverty rate for children using a price index reflecting smaller price level increases than the official index and a definition of family income that includes the income of nonrelatives in the living unit and the value of public in-kind benefits.[15]

The rapid increase in the NEC poverty rate over the 1975 to 1995 period and the slower increase in the official poverty rate contrast starkly with the decreases in the rate in the Slesnick and Jencks and Mayer studies. The primary reason for these different patterns is clear. While the NEC measure reflects the *potential* of a family to generate income, the other indicators seek to reveal income or consumption *realizations*. The rise in the NEC poverty rate indicates a decline in the potential of families to generate income. The rise in the official poverty rate indicates a fall in realized income. The decline in the Slesnick and

Jencks and Mayer poverty rates indicates a rise in consumption. Taken together, these rates suggest that the earning *potential* of some families is declining at the same time the *realization* of that declining potential is rising. The fall or slower rise in realized income or consumption poverty rates relative to the more rapid increase in the self-reliance poverty rate suggests an upward trend in the extent to which families with the lowest productive capabilities are in fact using these capabilities.

NEC and Official Poverty for Specific Subgroups of U.S. Population

The overall poverty trends that are described in Figure 2 hide a variety of patterns of poverty growth among subgroups of the U.S. population. For example, the growth in NEC poverty among the population subgroups shown in Table 1 ranges from –0.4 percent per year (for individuals living in families headed by a female) to over 6.6 percent per year (for individuals living in families headed by a person with some college education). The family types with the highest rates of growth of poverty have experienced the largest losses in the capacity to escape poverty through their own work and earnings over the past two decades. The subgroups in Table 1 with NEC poverty growth rates in excess of the national average (3.4 percent per year) are:[16]

Head of Household	Average Annual Growth in NEC Poverty (percent)	NEC Poverty Rate in 1995 (percent)
White	+3.41	6.50
Male	+4.02	5.77
Less than high school graduate	+4.59	28.22
High school graduate	+5.94	11.87
Married couple with no children	+3.55	3.62
Married couple with children	+3.93	5.06

From this list it is clear that the population subgroups experiencing the most rapid growth in NEC poverty include families headed by whites, males, and couples. Such families are not generally thought of as being

among the nation's economically vulnerable citizens. Nevertheless, even though families headed by whites, males, and couples had large relative increases in NEC poverty, in 1995 the poverty rates for most of these groups were still low relative to the overall 10.5 percent national rate.[17]

The most surprising story in Table 1 concerns the groups that have experienced the lowest growth in NEC poverty over the period. The trends for these groups are well below the overall 3.4 percent growth rate in NEC poverty or are negative. These low-growth groups tend to be those with the highest overall levels of both NEC and official poverty. The subgroups with the lowest trends in the NEC poverty index from 1975 to 1995 are:

Head of Household	Average Annual Growth in NEC Poverty (percent)	NEC Poverty Rate in1995 (percent)
Black	+1.78	24.34
Hispanic	+2.47	19.66
Female	– 0.41	20.55
Black single mother	+1.00	46.72
Hispanic single mother	+0.91	48.10

The rates show that a large percentage of individuals in black, Hispanic, and mother-only families are unable to be self-reliant. Among these groups, the NEC poverty rate in 1995 ranged from 19.7 percent to over 48 percent, compared to an overall NEC poverty rate of 10.5 percent.[18] However, these same least well-off and most vulnerable groups experienced either decreases or below average growth in NEC poverty. Among these groups, the annual growth ranged from –0.41 percent to 2.47 percent, compared to the overall NEC annual growth rate of 3.4 percent.

Factors Underlying Trends in NEC and Official Poverty Rates

We have encountered several trends in NEC poverty and official poverty measures with interesting implications. The economic, demographic, and cultural factors that underlie these patterns are numerous and interact in complex, sometimes puzzling ways. For example, in spite of the rapid growth of NEC poverty overall, groups commonly thought of as

being most vulnerable—minorities, female-headed families, and families headed by a person with a low level of schooling—recorded below-average increases in NEC (and to some extent, official) poverty, and increases that are less than the increases recorded for less vulnerable groups—whites, couples, and families headed by a person with a relatively high level of schooling.

What factors could have contributed to some of these patterns? The catalogue of possibilities is large. Indeed, any change that affects the structure of work opportunities available in the economy (the demand side of the labor market), people's choices in response to these opportunities (the supply side of the labor market), or the demographic structure of the population will likely have different effects on the prevalence and trend of official poverty and poverty defined as the inability to be self-reliant. Although it is impossible to assign responsibility for the observed changes in either of these poverty measures to individual factors, it is possible to identify the most important of the underlying changes and to indicate their likely effects on these patterns. In the following paragraphs, we summarize some of these factors.[19]

Decreasing Female Poverty, Increasing Male Poverty

As we have seen, although both the official and NEC poverty rates for members of female-headed families exceed those for members of male-headed families, the male poverty rate has risen while the female poverty rate has fallen.[20] The primary factors that are likely to account for these trends include: (1) decline in the real value of income transfers (tends to increase relative female official poverty, but has no effect on NEC poverty); (2) increase in the labor force participation of women (tends to decrease relative female official poverty, but has no effect on NEC poverty); (3) increase in female wage rates and decrease in male wage rates (decreases female poverty and increases male poverty under both official and NEC definitions); and (4) increase in male joblessness (increases male official poverty rates, but has no effect on NEC poverty) (see Juhn 1992).

We would speculate that the "gender twist" in both poverty rates, but especially in NEC poverty, is primarily the result of erosion in the quantity of labor supplied by low-skilled males relative to females and the absolute decrease in low-skilled male wage rates over this period.

Rising White Relative to Black and Hispanic Poverty

The low relative growth in the official and NEC poverty rates among blacks and Hispanics appears to be primarily attributable to the rather steady increase in absolute wage rates of minority workers and their relative wage rates (compared to white workers). Joblessness among low-skilled workers has also increased somewhat more for whites than minority groups, and this, too, has contributed to the "racial twist" in poverty trends.

Rapid Increases in Poverty in Families Headed by a Low-Education Worker

For both poverty measures, but especially the NEC measure, large absolute increases in poverty rates are recorded for families headed by high school dropouts and high school graduates. The absolute fall in wage rates earned by those with little education and few skills appears to account for these increases. Because a falling low-skill wage rate decreases actual earnings less than it decreases earnings capacity,[21] the negative impact of this erosion will be larger for the NEC poverty rate for those with low education than for the official poverty rate.[22]

Increasing Overall Poverty Rates, Especially NEC Poverty

The main story that this analysis has revealed is the large increase in poverty defined as the inability to be self-reliant relative to official income poverty, which itself has tended to rise over time. Although several of the factors that we have already mentioned contribute to this disparate growth pattern, we speculate that the substantial increase in wage inequality "within" age-race-schooling groups over the period is primarily responsible for this development. This rise in wage inequality serves to increase both the official and the NEC poverty rates, as it pulls those at the bottom of the wage distribution further away from the constant (in real terms) poverty line. Because the relative deterioration of wages at the bottom of the distribution weights all of the potential work hours of the low-wage population in the estimation of NEC poverty, but only the hours actually worked in the estimation of official poverty, the impact of this growth in wage inequality will be greater for NEC than official poverty. We attribute the large absolute and relative increase in the overall NEC poverty rate to this factor, together with the absolute decreases in wage rates of males and less-educated workers.

Policy Implications

To summarize, a new way to measure the population of the poor in the United States might be to look at which families lack the capabilities necessary to earn, through their own efforts, an income sufficient to have an accepted, minimum living standard. Such a measure may be of more interest to policymakers who emphasize self-reliance (and by extension, a smaller role for government) in society than is the current measure. We have shown that the level of poverty in the United States, as measured by this alternative indicator, has increased substantially over the past two decades. There is a growing population of Americans who would remain below official poverty thresholds, even if they were to use their full capabilities.

We must stress that this measure is not intended as a replacement for the current official measure of poverty, but as a supplement to it. Certainly, the official measure identifies an important segment of the population, namely, families that lack sufficient money income to meet a minimum living standard. As such, it is well-suited to identifying families in need of short-term monetary assistance. Our measure is better suited to identifying families in need of longer-term skill-enhancing assistance. Like a measure of "health poverty," which would identify individuals with the worst health, or a measure of "housing poverty," which would identify individuals with insufficient housing, our earnings capacity measure identifies those individuals with insufficient skills and abilities to generate minimally acceptable earnings levels.

The rapid growth in this type of poverty is discouraging for a society that prides itself on being one in which individuals are able to prosper and thrive by working hard and playing by the rules. The message that workers and their families must rely on their own resources appears to have come at a time when changes in basic demographic and economic trends have made it more difficult for those with few skills and little human capital to make it on their own. In particular, we noted the substantial increase in NEC poverty among our least-educated individuals and speculated that the decline in wage rates for this group was primarily responsible. Explanations for the decline in wages include changes in technology, which increased the demand for highly skilled and educated

workers, and the decline in the influence of unions, whose members tend to be lower-skilled workers.[23]

This decline in earnings capacity highlights the dilemma faced by self-reliance advocates. If income support measures are ruled out as eroding work effort, encouraging dependence, and fostering the growth of income poverty, what policy measures are available to reduce the prevalence of those who are unable to be self-reliant? Essentially, there are only two general policy strategies available: (1) increase the level of education, training, skills, and other income-generating characteristics of those at the bottom of the human capital distribution and (2) increase the "return" that individuals with low earnings capacity receive on the use of their human capital.

The first approach suggests designing and increasing resources devoted to programs to improve schools and to provide training services for those with few skills and little human capital. Programs similar to Head Start could increase the value of early education. Direct financial aid for post-secondary school could stimulate later human capital investments. Teaching the skills needed in the "high technology" economy could develop human capital further. An evaluation of these and other programs is beyond the scope of this brief, but these are the types of programs that will be needed if self-reliance is the nation's policy goal. How best to design and implement such programs and to ensure that they are cost-effective becomes a question of major importance.

The second approach is the more controversial, as it directly calls into question the productivity returns reflected in market-determined wages. Policy measures capable of reducing NEC poverty through increasing the returns to market work of those with little human capital often carry with them their own distortions and inefficiencies. Such measures include raising the national minimum wage, subsidizing wages for those at the bottom of the wage distribution, and subsidizing the earnings of those whose work is insufficient to move their families above the poverty line (such as through the earned income tax credit).[24] The question again is how to create effective and cost-effective measures.

Some may argue that we have examined the trends in earnings capacity, but have ignored aspects of human capital accumulation and family

formation involving choice. For example, should an individual whose education ended with high school graduation be considered "human capital poor" when he or she could have obtained a postsecondary degree? We would argue that while there are elements of choice in postsecondary enrollment, those choices may be made with imperfect information or under liquidity constraints. The individual considering attending college in 1979 was making his or her decision at a time of declining "college earnings premiums" and may have believed that a college education was simply not worth the investment. Should that individual be held responsible for subsequent changes in labor market conditions? Do individuals who cannot afford postsecondary school or do not possess the ability to pursue a postsecondary education "decide" not to attend or are they constrained from augmenting their human capital stock? Similarly, some may argue that NEC poverty among single mothers arises from decisions they make about family formation and fertility. We would respond that, at some level, some kind of choice may be involved, but quite often single motherhood arises from abandonment, divorce, and decisions made by fathers. Should these single-mother families not be considered NEC poor because their expectations of family formation proved incorrect?

Regardless of whether human capital accumulation, family formation, and similar characteristics depend on choices or not, the fact remains that certain families and individuals lack the ability to be self-reliant, lack the ability to earn their way to minimum income thresholds. If self-reliance and economic independence are to be the standards by which we gauge our success as a nation, and if income maintenance is not a feasible policy instrument, we cannot avoid the question of how to provide those now not able to be self-reliant with the skills, capabilities, and returns on their efforts they need. In the face of demographic and economic trends that appear to be generating increases in the prevalence of poverty as measured by net earnings capacity, finding an answer to this question assumes greater urgency.

Notes

1. This approach to poverty measurement has been called the Leiden approach, as most of the researchers who have pursued it have spent some time at Leiden University in the Netherlands. Bernard van Praag is the central figure in this approach; the important papers are Hagenaars (1986) and Hagenaars, van Praag, and van Weeren (1982). The Leiden approach involves construction of an indicator of well-being based on income levels that individuals subjectively rate as "excellent," "good," etc.
2. An excellent study of the origins of the official poverty measure and of the analytical and empirical bases for it is Ruggles (1990).
3. Citro and Michael (1995) discuss a revision proposed by a National Academy of Science panel. This revision is designed to reflect the consumption "means" of a family relative to its needs better than the current measure does.
4. One of the earliest proponents of this view was Charles Murray (1984). His influential book *Losing Ground* started a stream of writings, speeches, and political candidacies asserting that government policy—especially welfare and other income-support measures—was the real problem, not having a population of cash-short people.
5. To emphasize that we are only interested in an indicator of an individual's capabilities, we could have called this measure "labor market potential" or "earnings potential." The indicator is not substantively different from measuring the health status of an individual and then comparing it to some defined minimum standard of health in order to identify the "health poor."
6. This discussion is based on a more technical paper that describes in detail the procedures we use to estimate this "self-reliance" poverty measure and the norms on which it is based. See Haveman and Bershadker (1998).
7. In this procedure each individual with the same set of characteristics is assigned the same earnings capacity, neglecting the role of unobserved human capital, labor demand characteristics, and "luck" in the process by which earnings are determined. As a result, the distribution of earnings capacities that we would obtain would be artificially compressed. To adjust for this, we adopt a procedure that restores the effect of these unobserved factors. Technically, we apply a random shock reflecting the unexplained variation in the regressions to the estimated value for each observation. Even though this procedure requires a number of assumptions regarding the distribution of the unobserved factors, it is a reasonable way to secure a distribution of earnings capacities that avoids artificial compression. See Haveman and Bershadker (1998) for a more complete discussion of this procedure.
8. This adjustment procedure relies on what people state when answering questions about why they are not working full-time, full-year. The adjustments are rough, but they do capture the effects of most characteristics of health and employability that should be taken into account. Most likely, the procedure results in an understatement of NEC poverty. For example, it probably captures the reduced earnings only of the most seriously

disabled, not of those disabled who work but at reduced productivity. It does not take into account the effects of having a disabled child or of being an alcoholic (when that condition is not reported as a disability). Because the procedure does not make a sufficient adjustment for people with such characteristics, too high an earnings capacity may be attributed to them. Again, see Haveman and Bershadker (1998). We make the unemployability adjustment for all individuals who report not working full-time, full-year, but do not make it for individuals who are never in the labor force. Applying this adjustment to these individuals is impossible in that they do not report the reasons why they are totally out of the labor force. Some would argue that we should make a similar adjustment for the "discouraged worker." Because of the difficulty of identifying discouraged workers, we have not made such an adjustment. To this extent, our estimate of earnings capacity is biased upward to some small degree.

9. We neglect the nonwage compensation that is paid to some workers, such as health insurance and pension contributions.

10. There are clearly costs other than child care associated with full-capacity work. These include transportation costs to and from work, work-related clothing purchases, and food purchased away from home. We neglect these required costs and take our estimates of the costs of adequate market provided child care to be a reasonable estimate of unavoidable work-related costs. We make the adjustment for child care because many people are uncomfortable with the idea that being out of the labor force is voluntary in the case of parents with preschool or school-age children.

11. We begin with estimates of the weekly cost of child care for children age 0 to 5 ($90 per week in 1996) and 6 to 11 ($50 per week in 1996) (see U.S. General Accounting Office 1997). We adjust these estimates for region of the country, standard metropolitan statistical area status, and year (see Casper 1995). We multiply the adjusted cost estimate by the number of children in the family age 0 to 5 or 6 to 11 as appropriate and convert to nominal dollars. For further details on this procedure, see Haveman and Bershadker (1998). As an alternative to this procedure, we could attribute an earnings capacity of zero to one parent or to *the* parent (in the case of single parents) in families with young children and ignore required child care costs. Quantitatively, this would make a difference in our calculations only to the extent that the *difference* between the estimated earnings capacity for the parent and the child care expense is large enough to move the family from a position below its poverty line to one above it. Furthermore, to the extent that the percentage of families so affected is constant over time, such an adjustment would affect only the level and not the trend in NEC poverty. Finally, note that we have built in a single adjustment for child care, when in fact child care expenses are highly variable. It would be possible to obtain information on this variance and then make assignments as seem appropriate, but such a procedure would have little effect on our overall estimate of the level or trend of NEC poverty.

12. In calculating the NEC we ignore short-run constraints placed on a person's earnings capacity by the demand-side of the labor market. Our individual earnings capacities simply estimate what the individual *could* earn

in the economy if he or she held a job paying a wage commensurate with his or her observed human capital characteristics.

13. Note that the official series in Figure 2 differs slightly from Figure 1 because the population in Figure 2 is restricted to individuals in households headed by a working-age person.
14. See Johnson (1996) and U.S. General Accounting Office (1996) for a discussion of Slesnick's poverty threshold calculations.
15. Jencks and Mayer also report a separate calculation using consumption expenditures rather than income and substituting for the official poverty lines alternative measures (with alternative inflation adjustments) that they judge to be more appropriate. While the official children's poverty rate increases by 3.9 percentage points (from 14.3 percent to 18.2 percent) from 1972–1973 to 1988–1990, their consumption-based children's poverty rate falls by 0.9 percentage points. They find this pattern to be consistent with that for their revised income poverty figures.
16. The two highest education groups were excluded from this listing even though their percentage rates of growth were above average. It is difficult to interpret the percentage increase calculation, given that the base level is a very low number.
17. Because the absolute size of these relatively mainstream groups is large relative to the population, the 82 percent increase in the overall NEC poverty rate (from 5.79 to 10.54) over the period is largely attributable to the deterioration in their relative earnings capabilities.
18. The official poverty rates of these groups at the end of the period ranged from 26.05 percent to 57.37 percent, compared to the overall official poverty rate of 13.72 percent.
19. The economic and demographic changes discussed have been documented in numerous research articles and are commonly described in news stories.
20. "Male poverty" here refers to families headed by single men, with and without children, and married couples, with and without children; "female poverty" here refers to families headed by single women, with and without children.
21. In the first case, the wage rate is multiplied by actual hours worked, which is often rather low for low-skilled workers; in the second case, the wage rate is multiplied by full-time, full-year work.
22. The relative increase in wage rates for minorities, which also tend to have relatively low levels of schooling, works to offset the effect of falling relative low-skill, low-education wages.
23. The decline in wage rates has been heavily researched in recent years. See Levy and Murnane (1992), Bound and Johnson (1992), Katz and Murphy (1992), and Juhn, Murphy, and Pierce (1993) for analyses of the changing structure of wage rates over the 1970s and 1980s.
24. For a discussion of such wage and employment subsidies as an antipoverty strategy, see Haveman (1988).

References

Bound, John, and George Johnson. 1992. "Changes in the Structure of Wages in the 1980s: An Evaluation of Alternative Explanations." *American Economic Review* 82, no. 3: 371–392.

Casper, Lynne. 1995. "What Does It Cost to Mind Our Preschoolers?" *Current Population Reports* P70-52. Washington D.C.: U.S. Bureau of the Census.

Citro, Constance F., and Robert T. Michael, eds. 1995. *Measuring Poverty: A New Approach*. Washington, D.C.: National Academy Press.

Fisher, Gordon M. 1992. "The Development and History of the Poverty Thresholds." *Social Security Bulletin* 55, no. 4 (Winter): 3–14.

Gottschalk, Peter, and Timothy Smeeding. 1997. "Cross-National Comparisons of Earnings and Income Inequality." *Journal of Economic Literature* 35, no. 2: 633–687.

Hagenaars, Aldi. 1986. *The Perception of Poverty*. Amsterdam: North-Holland.

Hagenaars, Aldi, B. M. S. van Praag, and J. van Weeren. 1982. "Poverty in Europe." *Review of Income and Wealth* 28: 345–359.

Haveman, Robert. 1988. *Starting Even: An Equal Opportunity Program to Combat the Nation's New Poverty*. New York: Simon and Schuster.

Haveman, Robert, and Andrew Bershadker. 1998. "Poverty as 'Inability to Be Self-reliant': Trends in Earnings Capacity and Official Poverty, 1975 to 1995." Discussion Paper, Institute for Research on Poverty, University of Wisconsin-Madison.

Jencks, Christopher, and Susan E. Mayer. 1996. "Do Official Poverty Rates Provide Useful Information about Trends in Children's Economic Welfare?" Harris Graduate School of Public Policy, University of Chicago.

Johnson, David. 1996. "The Two-Parameter Equivalence Scale and Inequality between and within Households." Paper prepared for meeting of the International Association for Research in Income and Wealth.

Juhn, Chinhui. 1992. "Decline of Male Labor Market Participation: The Role of Declining Labor Market Opportunities." *Quarterly Journal of Economics* 57, no 1: 79–122.

Juhn, Chinhui, Kevin Murphy, and Brooks Pierce. 1993. "Wage Inequality and the Rise in Returns to Skill." *Journal of Political Economy* 101, no. 3: 410–442.

Katz, Lawrence, and Kevin Murphy. 1992. "Changes in Relative Wages, 1963–1987: Supply and Demand Factors." *Quarterly Journal of Economics* 107, no. 1: 35–78.

Levy, Frank, and Richard Murnane. 1992. "U.S. Earnings Levels and Earnings Inequality: A Review of Recent Trends and Proposed Explanations." *Journal of Economic Literature* 30, no. 3: 1333–1381.

Murray, Charles. 1984. *Losing Ground: American Social Policy, 1950–1980*. New York: Basic Books.

Ruggles, Patricia. 1990. *Drawing the Line: Alternative Poverty Measures and Their Implications for Public Policy*. Washington, D.C.: Urban Institute Press.

Slesnick, Daniel T. 1993. "Gaining Ground: Poverty in the Postwar United States." *Journal of Political Economy* 101, no. 1: 1–38.

U.S. Bureau of the Census. 1975–1996. March Current Population Survey data files.

U.S. General Accounting Office. 1996. *Alternative Poverty Measures*. GAO/GGD-96-183R. Washington D.C.: Government Printing Office.

———. 1997. *Implications of Increased Work Participation for Child Care*. GAO/HEHS-97–75. Washington, D.C.: Government Printing Office.

About the Authors

Robert Haveman is the John Bascom Professor of Economics and Public Policy, Department of Economics and Robert M. La Follette Institute of Public Affairs, University of Wisconsin-Madison. He is also a research affiliate at the university's Institute for Research on Poverty and a research associate at the Levy Institute. He has been a senior economist at the Joint Economic Committee, a research professor at the Brookings Institution, and co-editor of the *American Economic Review*. Haveman's primary fields of interest are public finance, the economics of poverty, and social policy. He has published widely in academic journals; among his books are *Earnings Capacity, Poverty, and Inequality* (Academic Press, 1978), *Public Policy Toward Disabled Workers* (Cornell University Press, 1985), and *Succeeding Generations: On the Effects of Investments in Children* (Russell Sage Foundation, 1994). Haveman received a B.A. from Calvin College and a Ph.D. from Vanderbilt University.

Andrew Bershadker is a staff economist at the Department of the Treasury's Office of Tax Analysis. Previously, he was a research associate at National Economic Research Associates. His research interests include public finance, the economics of education, and the economics of poverty. Bershadker received a B.A. from the University of Virginia and a Ph. D. from the University of Wisconsin-Madison.