

Alternative Concepts for the Measurement of Children's Poverty: Review, Assessment, and a New Approach

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Abstract

In this paper, we review a number of alternative concepts of poverty that are commonly used for assessing the extent to which citizens of a nation—or subgroups of citizens, such as children—fail to attain minimum acceptable levels of economic well-being. We emphasize the economist's concept of 'available resources' as the basis for appraising the economic well-being of families (or living units).

While this general concept is capable of revealing the number and characteristics of individuals living in poor families, each specific definition of 'available resources' includes some concept of resources, and their source and forms, and excludes others. Implicitly, what is (and is not) counted as a family's resource carries some judgment regarding the source (or cause) of its situation. For example, if 'available resources' include only annual family earnings from labor market work, then those who are 'earnings poor' are in that state because of some combination of: 1) their decision regarding how much to work or earn, 2) the level of human capital (or earnings capacity) which they possess (which may or may not be a result of their own choices), 3) the structure of the labor market which rewards the efforts of some workers more than others, and 4) the state of the economy which may or may not provide opportunities for work. If public transfer income is added to labor market earnings in defining 'available resources,' then the public sector—through the generosity or restrictiveness of its transfer programs—also is responsible for the level and composition of poverty.

Each of the alternative concepts of available resources that we review has advantages and disadvantages, and we describe these. Following this discussion, we present a new concept of poverty, "Self-Reliant poverty", which is based on the ability of a family, using its own resources, to support a level of consumption in excess of its needs. This concept parallels the "capability poverty" measure that has been proposed by Amartya Sen, and embodies a different view of the causes of poverty than measures that rely on own earned income, or total cash income. In particular, the Self-Reliant poverty measure presumes that, at a point in time, individuals and families possess capabilities that determine their economic position, and bases an assessment of poverty on these capabilities.

We use this measure to examine the trend and composition of the population of children who live in families that are in Self-Reliant poverty from 1975 to 1997. We find that Self-Reliant children's poverty has increased more rapidly over this period than has poverty based on the concept of annual total cash income, which is the basis of the official U.S. poverty measure. Children living in families considered to be the most vulnerable—those headed by minorities, single women with children, and individuals with low levels of education—have the highest levels of Self-Reliant poverty. However, these groups have also experienced the smallest increases in poverty over the past two decades. Conversely, children in families largely thought to be economically secure—those headed by whites, married men with children, and highly educated individuals—have the lowest levels of Self-Reliant poverty, but have experienced the largest increases

in poverty. We also find that the composition of Self-Reliant poor families is increasingly made up of vulnerable groups, relative to the composition of the official (or income) poor. The labor market, demographic, and policy sources of the divergent trends in Self-Reliant and official poverty, and of the gender, race and family structure changes in poverty rates are explored. Finally, we tie our measure to the concept of “Social Exclusion,” and explore whether it is a superior indicator of this concept than is the official poverty measure.

I. Introduction

Although nearly all societies strive to reduce poverty, no standard measure of poverty exists among the researchers, scholars and policy makers that study and fight this social ill. Some social scientists and policy makers stress sociological aspects of well-being. Individuals living in squalid housing are deemed “housing poor.” People with health deficits are “health poor.” Individuals deprived of social contacts are described as being socially isolated, and hence poor in this dimension. Some advocate combining these and other measures into a multidimensional poverty concept. The goal would be to weight and aggregate these measures, obtaining an “index of poverty.” In this context, individuals who fail “to reach ‘minimally acceptable’ levels of different monetary and nonmonetary attributes necessary for a subsistence standard of living” are defined as being poor.¹ Such an aggregation can greatly complicate policy design and discussion. Indeed, each dimension implies both a distinct target population and a distinct set of anti-poverty policies.

Moreover, to be useful, each separate component requires broad acceptance of numerous definitions and standards. What aspects of economic well-being are to be measured? Is there a cut-off level of well-being separates the poor from the non-poor? Should we, or even can we, differentiate between exogenous constraints that force an individual below some level, and endogenous choices that individual has made to put him or herself below that level.

These questions are particularly challenging when the relevant concept is “social poverty” or “social exclusion.” Even defining such a concept is difficult. The European Union has stated²:

“The concept of social exclusion is understood as a multidimensional phenomenon, where exclusion conceptually is characterized as the process which prevents people from a full participation in the society, i.e., from being socially integrated. Social exclusion is also considered as a relative phenomenon, meaning that the low income population of a given country and its characteristics are always compared to the characteristics of the rest of the population of that country.”

But such a statement begs a number of questions. We must define what “society” is. Is it the individual’s immediate community, some larger circle of contacts, some form of the “majority,” or something else entirely? We must define what “exclusion” is. If a person has many professional contacts, but lacks personal ones, is that person “socially excluded?” Is the relevant measure the quantity of contact, quality of contact, or some combination? How do we measure the quality of a social contact?

If the definitions of “society” and “exclusion” are resolved, then what aspects of inclusion are to be taken as relevant in determining whether a member of society is insufficiently included? For example, is a person who receives community support (welfare) to be thought of as included, or as excluded? Perhaps the answer to this question will depend on certain attributes of the person, such as being disabled, or a substance abuser, or retarded; if so, which conditions are relevant? And, further, once this has been resolved, what measure of a particular dimension of societal involvement is to be used as the norm to which individuals are compared? Is it the mean level of a particular indicator of social involvement, or the median, or some proportion of these overall measures? Is an individual who has chosen to limit his or her social contacts better (or worse) off than one whom, despite his or her efforts, remains socially isolated? Finally, how do we account, or do we even try to account, for the subjective aspects of social exclusion? Two individuals, identical in every observable way, may feel quite differently about their social situations.

In this paper, we approach the question of social exclusion, and in particular, children’s social exclusion, from a somewhat different direction. We ask what fraction of the population of children live in families lacking the ability to connect with society in a specific, perhaps controversial dimension. In recent years, the “message” sent to citizens generally, and especially the economically and socially disadvantaged, is that of self-reliance and economic independence (see discussion in Section III, below). In particular, people have been urged to rely more on their own efforts and less on assistance from the public sector. The implicit corollary to this message is that those who are self-reliant will be welcomed as full, equal members of society.

This message has a substantive basis. Clearly, individuals who have the capability to work and to contribute as functioning members of society—to be self-reliant—are more connected to that society, and certainly feel more connected. Given the currently dominant social message of self-reliance, we attempt to identify those families—and more specifically, the children in those families—which do not possess the skills and abilities to comply. We suggest that these non-self-reliant families and children are the truly destitute; that they experience a greater degree of social exclusion than the population of current income poor.

Our paper proceeds as follows. In Section II, we review a number of resources-based concepts of poverty, highlighting the philosophical underpinnings of each. We next present a concept of poverty that rests on an assessment of the individual capabilities of, or the human capital possessed by, the adults in a family. In Section IV, we formalize

this concept and highlight some of the assumptions necessary to apply the concept to the measurement of poverty and children's poverty. Our measure identifies those families lacking the ability to generate a minimum needs level of income from their own efforts, and labels individuals and children living in such families as **Self-Reliant poor**. In Section V we apply our measure to the population of children under six years of age. We examine the trend in Self-Reliant poverty for those children and for demographic subgroups for 1975 to 1997. In Section VI, we examine the composition of this young Self-Reliant poor population and compare it to the population of children who are officially poor. Our results indicate that the prevalence of Self-Reliant poverty in the U.S. has grown more rapidly than official poverty, and that the intertemporal patterns of Self-Reliant poverty for various groups in the population are somewhat surprising. In Section VII, some speculations regarding the reasons for these "twists" are offered. Section VIII compares the relative abilities of the Self-Reliant and official poverty indicators in measuring Social Exclusion. Section IX concludes.

II. Alternative Concepts of "Resources Poverty"

Economists tend to prefer a concept of hardship that reflects "economic position," or economic resources. However, economists hold widely varying perspectives on how available economic resources should be defined in order to identify those people whose economic position lies below some minimally acceptable level. Some rely on the cash income of a family, and compare this value to a minimum-income standard taken to represent "needs" (also known as a poverty line). This economic concept underlies the official United States poverty measure (referred to below as "official poverty"), and the proposed revision of it based on the National Research Council (NRC) Panel Report (1995).³

However, even accepting income as the base concept leaves a number of important questions unanswered. For example, if income is taken to be the best indicator of economic status, is the appropriate measure annual income, an average of several year's income, or lifetime income? Should we examine pre-tax, pre-transfer income (or labor market earnings) or income after accounting for taxes and/or transfers? Should in-kind transfers be counted or excluded? Others adopting an economic concept of poverty look to the level of consumption as an indicator of the level of living.⁴ Still others rely on families' own assessment of their economic well-being, and move from this assessment to a judgment regarding who is poor and how many of them there are.

In addition to requiring a precise definition of economic position or well-being, a poverty measure must specify a minimum level of well-being (or 'needs') in terms that are commensurate with definition of 'resources.'⁵ Ideally, such a needs measure would impose no social norm or judgment on people's preferences among goods or services (e.g., necessities vs. luxuries), or between work and leisure. Moreover, it would allow for differentiation according to household size and composition, and it would enable 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).

Each definition of 'resources' embodies a judgment regarding why some families have a low economic position, while others do not. Statistical indicators of poverty derived from all of these resources concepts (and definitions of need) identify aspects of "hardship" that reflect a particular social objective. Use of them as a test of policy, therefore, requires the general acceptance of this objective. The many concepts of economic resources that can serve as the basis for poverty measures complicate policy design, as each concept implies both a different target poverty population and a different set of policies.

In the following discussion, we attempt to reflect the judgments underlying the alternative definitions. When these poverty measures are used to indicate the prevalence and composition of children's poverty, the status of the family in which children live is attributed to the children themselves. Hence, a poor child is one that lives in a family whose resources (somehow defined) lie below its needs.

It should be noted that a judgment regarding whether the poverty concept is *absolute* or *relative* underlies all these poverty measures. 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 in some way related to the general standard of living of the society.⁶

A. The Official U.S. Measure of Poverty

The official United States poverty measure (including the recently proposed revisions of it) is used to track the level and composition of poverty in the U.S., and serves as the basis for measuring poverty for subgroups of the population, including children and the elderly. This measure 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 their annual cash income and the level of income that a unit of its size and composition requires in order 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 family well-being (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.

The official U.S. poverty measure—whether or not a household has sufficient income from either government support or their own efforts to boost them above some minimum income threshold—has a very particular philosophical basis. The implied social objective is that, together, the community's efforts and those of the individual should insure that some minimal level of cash income is attained. Hence, responsibility for the poverty status of individual families (and, hence, for the prevalence of poverty in

the nation) lies with both individual and social choices, together with the structure of markets and political arrangements.

Implicit in this definition of poverty, then, is the presumption that, although people may experience hardship in many dimensions (e.g., 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. This position rests on the following assumptions:

- 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.⁷

The most fundamental criticisms of the official 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—perhaps public in-kind assistance should also be included, or public cash transfers should be excluded; perhaps some aspect of social functioning or noneconomic living arrangements should be incorporated in the measure. Similarly, in assessing poverty trends over time, perhaps the general trend in the overall level of living should be taken into account. Other poverty indicators may reflect these alternative judgments.

Aside from taking exception to the social objective that underlies this measure, most criticisms of it focus on the adequacy of the annual cash income measure of “command over resources.” While the current cash income numerator of the poverty ratio may reflect the extent to which the family has cash income available to meet its immediate needs, 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 mid-career 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 the family in any given year may differ substantially from the family's reported income in that year (see Mayer and Jencks, 1992; Slesnick, 1993).⁸

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 and Medicaid, both of which are major programs in the United States) nor the taxes for which the family is liable.⁹ 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.¹⁰

The U.S. 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 the family's well-being. As an absolute measure of poverty, the United States official 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.¹¹

Similarly, the arbitrary nature of the denominator of the poverty ratio—the minimum income needs indicator—has also been criticized.¹² Given its conceptual basis and the crude empirical evidence on which the dollar cutoffs rest, the United States 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 data base on which the official United States poverty measure rests, the annual March Current Population Survey undertaken by the United States Bureau of the Census, has been faulted for failing accurately to capture true cash income. In particular, they survey may suffer from serious underreporting of those income components deriving from public transfers, assets, and illegal activities (see Rector, O'Beirne, and McLaughlin, 1990).¹³

B. Relative Income Poverty Measures

Use of a relative standard for measuring resource poverty rests on the belief that poverty is not absolute, but rather is “largely a matter of *economic and social distance*.” A relative poverty measure stresses the importance of how the resources of a family (relative to its needs) can allow it to function relative to the rest of 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 states: “Today's comfort or convenience is yesterday's luxury and tomorrow's necessity. In a dynamic society it could hardly be otherwise.”¹⁴

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.¹⁵ 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 poverty line measure for a family of four.¹⁶ However, today the United States official needs standard stands at about one-third of median income (Burtless and Smeeding, forthcoming).¹⁷

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) has stated: “poverty cannot decline under a relative poverty measure without some change in the shape of the income distribution as a whole.”¹⁸

C. 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 based on the argument that family consumption is a superior proxy for the family’s permanent income, or family command over resources. Slesnick (1993) argues that poverty measures that rely on annual money income are “severely biased indicators of the level of poverty in the postwar United States. . . . 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.”¹⁹ It is this classification of *temporarily* low-income families as *permanently* needy that Slesnick believes artificially drives up the poverty rate. Slesnick’s consumption-based poverty indicator uses household real consumption expenditure per equivalent adult (taken to be the quotient of real household consumption, a household-specific cost of living index, and an equivalence scale) as the indicator of resources. Slesnick’s equivalence scales 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.²⁰

The resulting consumption poverty measure suggests a much lower poverty rate than the official definition. Slesnick attributes this result to the over-representation 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.²¹

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. While 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 United States has been secularly decreasing over that period. Triest (1998) attributes this result to the equivalence scales which Slesnick employs, equivalence scales which he says “take on values outside the range which many observers would consider reasonable.”²²

In addition to these criticisms specific to the Slesnick consumption poverty measure, there are other concerns associated with the use of a consumption-based measure. A large impediment to utilizing a consumption-based poverty measure 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.

Finally, like measures of income poverty, consumption-based poverty measures may not adequately reflect one’s real position in society. Like income poverty measures, this position assumes that consumption is a good proxy for individual well-being, and superior in this dimension to current income.

D. Subjective Measures of Poverty

One additional poverty indicator should be mentioned—poverty measured by the subjective responses of individuals to questions inquiring into their perception of their economic position or well-being, relative to some norm.²³ Like the official U.S. measure, these subjective 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, this measure tends to be a relative, rather than an absolute poverty indicator.

Typically, subjective poverty measures are based on surveys of households which ask the respondent to stipulate the minimum level of income or consumption they consider to be “just sufficient” to allow them to achieve a minimally adequate lifestyle. One approach assumes that people have in mind some level of living that they consider ‘minimally adequate’ (the minimum income necessary to ‘get along’). If they respond that their own level of living exceeds that minimum, one could by observing their actual income obtain both a monetary poverty line (by inference), and a poverty rate.²⁴

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). This characteristic suggests that, at least in this ‘threshold setting’ dimension, subjective poverty measures may be more accurate indicators of the extent of social exclusion in a society.

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 Hagenars (1985) 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 relies on the normed ‘welfare function of income (see note 24). It, too, depends greatly on the specific functional form and parameters that are used, and on the variables (e.g., family size, education, one vs. 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 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 question phrasing 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 question.

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. While standard errors are reduced with increasing sample size, most estimates show wide variation around the mean, impeding the setting of a reliable and generally accepted poverty threshold (National Research Council, p. 135).

III. Why Another Concept of ‘Resources Poverty’?

Each of the several resources-based poverty indicators we have discussed reflects a particular social objective—that all households should have sufficient resources to enable them to attain a minimum acceptable level of living. A quite different social objective would argue that those people in society who have the lowest economic position or well-being (or, possibly, the most socially excluded) 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—suggest that a poverty indicator that incorporates this capability consideration may better capture “social exclusion” than do resources-based measures.

The *conceptual reason* is the more basic. A measure of poverty that reflects peoples’ “permanent capabilities” reduces the emphasis on individual decisions that they make (in particular, the decision to work and earn). Moreover, while having insufficient resources (income or consumption) to cover basic needs is a matter worthy of public concern and action, being resource poor is often transitory. Identifying those people who are incapable of generating sufficient resources to meet their basic needs may provide a more meaningful measure of long-term poverty, and social exclusion.

This capability-based, self-reliant position has its foundations in the writings of Amartya Sen, among others.²⁵ In his words, “[T]he 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) 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) In essence, being incapable of independently securing sufficient income to meet basic needs may reflect a more debilitating and vulnerable situation—and a situation reflecting more social exclusion—than being short of cash income in a particular year, living currently in substandard housing, or living temporarily at a consumption level below a minimum acceptable standard.

There is also a *policy-related reason* for developing a measure of poverty that focuses on the inability of an individual or family to be self-reliant. In recent years, there has been renewed civic discussion and 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 emphasizes the merits of individual independence (relative to reliance on government programs), the possible negative effects of government programs on individual behavior, and the desirability of a smaller economic and social policy role for government.²⁶ Through its emphasis on individual self-reliance, this point of view implicitly rejects the proposition that cash income or measured consumption should be sufficient to cover basic needs.

Advocates of a “self-reliance” viewpoint argue that the substitution of welfare and other public transfers for income generated by people’s own efforts is a cause of the nation’s resource (or income) poverty problem. Public transfers are viewed as inducing inefficient behaviors, generating dependence on public support, and fostering the creation of a dysfunctional social class that is at the core of many of the nation’s problems.²⁷ To those that emphasize self-reliance, then, income-based measures have little relevance as indicators of the nation’s poverty problem.

It is in this context, then, that a poverty concept based on the inability to be self-reliant becomes relevant. If policy is to reflect the view that people must employ their own capabilities to secure economic independence, it becomes important to identify the size and composition of the group of citizens who do not possess the required skills and resources. Given such a social goal, a Self-Reliant poverty measure could enable the nation to gauge its progress in attaining this objective.

Indeed, having a Self-Reliant 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, public concern with poverty becomes recast: How can public policy efficiently reduce the population unable to be self-reliant; what instruments are available, and which are the most cost-effective?

When such a measure is applied to the question of children's poverty, the presumption is clear: Children are poor if they are being raised in a family which lacks the capability to generate sufficient income through its own efforts to meet the family's basic needs.

IV. A Measure of Self-Reliant Poverty²⁸

One capability-based poverty measure—a 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.²⁹

The NEC of a family³⁰ is obtained by first estimating what each adult in the family, given their capabilities and characteristics, would be able to earn in the labor market if they were to work to capacity (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 constraints on working at capacity due to health problems or disability 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 a 'minimum living conditions needs standard' (the official poverty line for the family). If the NEC is above the 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 they are accepted as appropriate. (A more complete description of the estimation procedure is presented in the Appendix.) To summarize the main ones:

- 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 problems and disability accurately measure the effect of the factors that keep individuals from fully using their earnings capacity.

- The adjustment made to GEC reflecting the required costs of making full use of human capital (primarily, child care costs) accurately reflect these unavoidable work-related costs.³¹

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

- 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 not captured in the NEC measure.³²

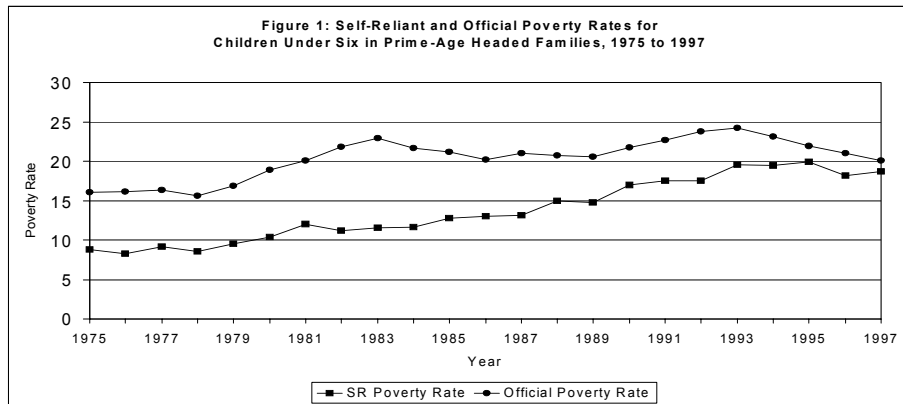
Moreover, as a measure of social exclusion, the self-reliance poverty indicator focuses on the ability of a person or family to connect to the labor market, neglecting those many other ties that people may have to their community, their neighbors, or to the larger society.

By focusing on the measurement of poverty, we accept the economic status of a family as the appropriate unit of observation. This convention implicitly assumes that family structure is exogenous to the level of available economic resources, and underlies all efforts to track the level of poverty in a society over time. In this paper, we attribute the economic status of a family to each child in that family.³³

V. The Prevalence of Self-Reliant Children's Poverty from 1975 to 1997

In this section, we present estimates of the trend in Self-Reliant poverty of children in the U.S. over the past two and one-half decades as an illustration of the norms and procedures outlined above and in the Appendix. A comparison of the trend in children's Self-Reliant poverty with the official children's poverty trend provides evidence of the nation's progress in reducing "capability poverty," relative to income poverty.

Figure 1.
Self-Reliant and Official Poverty Rates for Children Under Six in Prime-Age Headed Families, 1975 to 1997



A. The Overall Trends in Self-Reliant and Official Poverty

Figure 1 presents the trends in the prevalence of Self-Reliant and official children’s poverty from 1975 to 1997, for the population of children less than six years of age.³⁴ The figure shows that both measures of children’s poverty have trended upward over the period, but Self-Reliant poverty has done so in a much more monotonic fashion. The Self-Reliant measure exhibits much less cyclicalities than the official measure, and the absolute and percentage increases in the Self-Reliant measure are greater than those for the official measure.³⁵ In fact, Table 1 shows that the prevalence of children’s Self-Reliant poverty more than doubled from 8.7 percent to 18.9 percent (or almost +4 percent annually), while official poverty rose from 16.2 percent to 21.0 percent (only +1.3 percent annually).³⁶ Another way of stating the increase in Self-Reliant poverty is to note that over 2.8 million more American children lived in families that were incapable of generating sufficient income to meet the socially-accepted minimum level of living in the mid-1990s than in the mid-1970s.³⁷

The primary reason for these different patterns is clear. While the Self-Reliant poverty rate reflects the potential of a child’s family to generate income, the official poverty rate reveals income realizations. The rapid increase in the Self-Reliant poverty rate indicates a decline in the potential of families with the least human capital to generate income. The much slower upward drift of the official poverty rate indicates a less rapid decline in family-realized income among those at the bottom of the income distribution.

Table 1.
Percent of Children Under Six in Self-Reliant Poverty by Characteristic of Household Head

	Average Poverty Rate		Growth Rate
	1975 to 1977	1995 to 1997	
All	8.74%	18.93%	3.94%
Race of Head			
Whites	4.24	10.45	4.62
Blacks	26.05	40.71	2.26
Hispanics	19.31	32.10	2.57
Other	5.64	15.66	5.23
Sex of Head			
Males	3.23	9.28	5.41
Females	39.86	34.00	-0.79
Education of Head			
Less than High School	21.55	44.75	3.72
High School Graduate	6.50	21.86	6.26
Some College	2.55	14.20	8.96
College Graduate	0.17	0.91	8.80
Families with Children			
All	8.74	18.93	3.94
Couples	3.09	7.03	4.19
Single Fathers	15.95	37.53	4.37
Single Mothers	39.86	54.30	1.56
White	28.75	43.51	2.09
Black	46.85	60.33	1.27
Hispanic	54.96	64.64	0.82
Other	38.99	52.41	1.49
Single Mothers on Welfare	48.26	68.35	1.76
Single Mothers not on Welfare	27.49	44.22	2.41

Note: Growth rates are calculated using the average poverty rates shown and assume 20 years of growth.

B. Trends in Self-Reliant Poverty Rates among Groups

The overall trends in children’s poverty described in Figure 1 hide a variety of changes in the prevalence of children living in Self-Reliant poor families within subgroups of the U.S. population. These patterns are indicated in Table 1 for groups distinguished by various characteristics of the head of the family, including race, gender, education, and family structure. Across the groups indicated in the table, the annual growth in the

rate of children’s Self-Reliant poverty ranged from -0.8 percent per year (for those living in families headed by a female) to +9.0 percent per year (for those with some college).

While the rate of Self-Reliant children’s poverty grew by +4.6 percent annually over the 1975–97 period for whites, annual growth was much lower for Blacks (+2.3 percent per year) and Hispanics (+2.6 percent per year). Similarly, while the growth of Self-Reliant children’s poverty was +5.4 percent per year for families headed by males, the Self-Reliant children’s poverty rate for families headed by women actually fell by nearly one percent per year.³⁸ The growth in Self-Reliant children’s poverty was also faster for families headed by more educated people, than for those with little schooling.

The following tabulation lists the primary subgroups in Table 1 with the highest Self-Reliant children’s poverty growth rates over the 1975–97 period:³⁹

Characteristic of Family Head	Average Annual Growth	Self-Reliant Children’s Poverty Rate in 1995–97
Male headed Families	+5.4 percent	9.2 percent
Married Couples With Children	+4.2 percent	7.0 percent
Single Fathers	+4.4 percent	37.5 percent
White	+4.6 percent	10.5 percent
College Graduates	+8.8 percent	0.9 percent
Some College	+9.0 percent	14.2 percent
High School Graduates	+6.3 percent	21.9 percent

From these comparisons, it is clear that many of the population subgroups experiencing the most rapid growth in Self-Reliant children’s poverty since 1975 are groups generally viewed as possessing substantial human capital, and hence economically secure—families headed by men, whites, individuals with schooling beyond high school, and married couple families. Indeed, all of the groups with high rates of growth of children’s poverty (except high school graduates and single fathers) have Self-Reliant poverty rates below the 1995–97 national average of 18.9 percent.⁴⁰

A more surprising pattern concerns the groups that have experienced the lowest growth in Self-Reliant children’s poverty over the period. The growth rates for these groups (shown in the tabulation below) ranged from -0.8 percent per year to +2.6 percent per year—well below the overall rate of +3.9 percent per year.

Characteristic of Family Head	Average Annual Growth	Self-Reliant Children’s Poverty Rate in 1995–97
Female family head	-0.8 percent	34.0 percent
Hispanic single mother	+0.8 percent	64.6 percent
Black single mother	+1.3 percent	60.3 percent
White single mother	+2.1 percent	43.5 percent
Black	+2.3 percent	40.7 percent
Hispanic	+2.6 percent	32.1 percent

Although nearly all of these groups have relatively little human capital and the highest poverty rates,⁴¹ they have recorded the lowest annual percentage increases in Self-Reliant children’s poverty over the past 25 years.

In sum, children living in families with the greatest human capital (lowest levels of Self-Reliant poverty) have experienced the largest relative increases in Self-Reliant poverty over the past two and one-half decades. Children living in families with less human capital and earnings capacity have experienced relatively low rates growth of Self-Reliant poverty.⁴²

VI. The Composition of Children Living in Self-Reliant Poor Families

This evidence on levels and trends in aggregate rates of children’s poverty has implications for the characteristics of those children who live in families that are poor by the Self-Reliant poverty definition. In this section, we briefly describe the characteristics of these Self-Reliant poor children, and the changes in these characteristics over time. We compare these patterns with those of children living in families that are poor by the official definition.

Table 2 shows the composition of children aged less than six who live in Self-Reliant poor families, and changes in this composition over the 23-year period. That is, it shows the share of children in Self-Reliant poor families that have a particular demographic characteristic. It also indicates the proportion of each group in Self-Reliant poverty relative to that group’s proportion in official poverty.⁴³

Table 2.
Composition of Children Under Six in Self-Reliant Poverty,
by Characteristic of Household Head

	Composition of Self-Reliant Poor Population				
	1975 to 1977		1995 to 1997		Growth Rate of Share
	Share of Population	Relative to Official Share	Share of Population	Relative to Official Share	
Race of Head					
Whites	36.23%	0.79	34.88%	0.97	-0.19%
Blacks	43.90	1.21	31.97	1.11	-1.57
Hispanics	18.52	1.20	29.17	0.97	2.30
Other	1.36	0.57	3.98	0.76	5.53
Sex of Head					
Males	31.34	0.71	29.86	0.99	-0.24
Females	68.66	1.23	70.14	1.00	0.11
Education of Head					
Less than High School	66.83	1.13	41.16	0.95	-2.39
High School Graduate	28.06	0.91	37.69	1.05	1.49
Some College	4.74	0.64	20.02	1.15	7.47
College Graduate	0.37	0.14	1.13	0.32	5.74
Families with Children					
100.00	1.00	100.00	1.00	0.00	
Percent Comprised by:					
Couples	29.67	0.69	27.21	0.81	-0.43
Single Fathers	1.67	1.86	9.33	1.62	8.99
Single Mothers	68.66	1.23	63.46	1.05	-0.39
Characteristic of					
Single Mother					
White	31.04	0.85	31.58	0.96	0.08
Black	52.62	1.05	42.18	1.03	-1.10
Hispanic	15.10	1.21	23.07	1.01	2.14
Other	1.23	1.08	3.17	0.92	4.84
Single Mothers on Welfare	72.14	0.97	52.18	0.89	-1.61
Single Mothers not on Welfare	27.86	1.10	47.82	1.17	2.74

Notes: “Share of Population” indicates the percent of the Self-Reliant poor children in a family whose head has the given characteristic. Conditional shares are given for subcategories thus children of “White Single Mothers” comprise 31 percent of the 69 percent of Self-Reliant poor children in Single Mother families. “Relative to Official Share” is the ratio of the group’s Self-Reliant share to its official share. Growth rates are calculated using the average poverty rates shown and assume 20 years of growth.

A. Family Racial Composition of Self-Reliant Poor Children

Consider first the racial composition of the children who live in Self-Reliant poor families. In the mid-1970s, children living in minority headed families comprised about 64 percent of Self-Reliant poor children, and their share of the Self-Reliant poor population grew over time; by the end of the period, minorities accounted for more than 65 percent of Self-Reliant poor children. Among the minority groups, the share attributed to Blacks fell from 44 to 32 percent—an annual rate of change of nearly -1.6 percent. The share of Hispanics among the Self-Reliant poor children grew by +2.3 percent per year over the period, increasing from 19 to 29 percent from 1975–77 to 1995–97.

The ratios of the Self-Reliant children’s poverty rates to the official rates indicate that the shares of Self-Reliant poverty comprised by the children in the various racial groups have converged with their respective shares of the official poor population. At the beginning of the period, the share of the Self-Reliant children’s poor population comprised by whites stood at 79 percent of their share of the official poor population. Similarly, Blacks’ share stood at 121 percent. By the end of the period, the comparative share for whites was nearly 100 percent (indicating equal percentages of the two populations), while the ratio of Blacks’ Self-Reliant share to official share had fallen to 111 percent. Most interesting is the change in the ratio for Hispanics, which fell from 1.20 (indicating a 20 percent larger share of the Self-Reliant poor than the official poor population) to 0.97 (indicating a 3 percent smaller share).

B. Family Gender Composition of Self-Reliant Poor Children

Throughout the period, Self-Reliant poor young children were far more heavily concentrated in female-headed families than was the population of official poor children. About 69 percent of the Self-Reliant poor lived in female-headed families at the beginning of the period, about 23 percent more than the percentage of official poor families (about 56 percent). By the end of the period, over 70 percent of Self-Reliant poor children lived in female-headed families. From the beginning to the end of the period, the share of young children living in female-headed families in the two poverty indicators converged, and by 1995–97, the share of children living in female-headed families was equal for the two measures.⁴⁴

C. Family Educational Composition of Self-Reliant Poor Children

The share of children in the Self-Reliant poor population living in a family headed by someone with less than a high school degree was very high at the beginning of the period, nearly 70 percent. However, as the number of working-age family heads without a high school degree decreased over time, the share of children in Self-Reliant poverty living in such families fell to about 41 percent. Conversely, as the average level of education in the U.S. rose, the composition of Self-Reliant poor children living in families headed by a person with higher levels of schooling rose. By the end of the period, about 21 percent of Self-Reliant poor children lived in families headed by

individuals with more than a high school degree, up from about 5 percent in 1975–77. The growth rates of the Self-Reliant poverty population shares for the two highest schooling groups were +7.5 and +5.7 percent, while those for the two lowest schooling groups were -2.4 and +1.5 percent.

D. Family Structure Composition of Self-Reliant Poor Children

Among children living in families headed by a Self-Reliant poor single mother, the composition of the population shifted from families headed by white or Black single mothers to families headed by Hispanic or Other single mothers. At the beginning of the period, children living in Self-Reliant poor families headed by a Black single mother comprised 53 percent of children living with poor single mothers. Over time, this percentage decreased to about 42 percent. Correspondingly, the share of children in Hispanic-headed Self-Reliant poor single mother families rose from 15 percent to 23 percent.⁴⁵

In sum, at the beginning of the period, children living in Self-Reliant poor families were concentrated in those family types that are the most economically vulnerable (e.g., families headed by blacks and by single mothers). However, over time this concentration eroded. For example, the shares of the Self-Reliant poor children living in Black families decreased from 44 to 32 percent, and in single mother families from 69 to 63 percent.⁴⁶ Despite these declines, the share of the population of children living in Self-Reliant poor families is more heavily concentrated in these groups than is the share of children who are in the official poor population—the ratios of Self-Reliant to official poverty shares for these groups are 1.11 and 1.05, respectively.

VII. What Has Accounted For These Patterns?

Interesting questions center on the economic, demographic, and cultural factors that have accounted for these Self-Reliant poverty prevalence and composition trends. For example, what might account for the more rapid growth of Self-Reliant children's poverty than official children's poverty over this period? How can we explain the slow growth (or decrease) in the Self-Reliant poverty rate for children living in family types commonly thought of as being the most vulnerable—racial minorities, female-headed families (both those with children and single females), or families headed by a person with low schooling—relative to the high growth rates recorded for less vulnerable groups—whites, married-couples with children, and those with relatively high levels of schooling?

Clearly, the underlying determinants of these patterns are numerous, and interact in complex and difficult-to-understand ways. Indeed, any change that affects: a) the structure of work opportunities available in the economy (the demand side of the labor market), b) people's choices in response to these opportunities (the supply side of the labor market), c) the demographic structure of the population, or d) public

policy measures is likely to have a differential effect on trends in the prevalence of children living in Self-Reliant and official poverty.

In the following paragraphs, we indicate the likely effects of some of the more prominent economic and demographic changes that have occurred over the 1975 to 1997 period on the patterns of Self-Reliant and official poverty that we have presented.⁴⁷ These changes include:

- decline in the real value of public cash income transfers
- increase in labor force participation of women
- increase in male joblessness⁴⁸
- increase in female wage rates
- decrease in male wage rates
- decrease in racial wage disparities
- increase in wage inequality within age-race-schooling groups
- increases in the Black and Hispanic population shares (relative to whites)
- increase in prevalence of divorce and out-of-wedlock childbearing, and the “atomization” of the family unit⁴⁹

We examine the trends in overall children's Self-Reliant and official poverty, the relative trends in child poverty between male- and female-headed families, and the relative trends in child poverty between white- and Black/Hispanic-headed families.

A. Increasing Overall Children's Poverty Rates, Especially Self-Reliant Children's Poverty

Turning first to the overall patterns of growth over time for the Self-Reliant and official children's poverty measures, we examine which of the above economic and demographic trends might have contributed to the large increase in Self-Reliant poverty (+3.9 percent per year) relative to official poverty (+1.3 percent per year).

Consider first the decline in public transfer income. Such income is included in the concept of economic resources used to define official poverty, but not Self-Reliant poverty. Hence, the decreasing value of cash transfers (primarily, welfare benefits) has directly contributed to the increase in the official poverty rate, while having no effect on the prevalence of Self-Reliant poverty. Because the latter poverty rate has risen more rapidly than the former, other factors must have been sufficient to override this effect.

Second, we note the trends in labor force participation and employment, particularly among women. The large rise in female employment over the past quarter century has contributed to sustaining the incomes of families containing women, hence constraining the growth of official poverty. In contrast, employment rates do not affect Earnings Capacity since EC depends on the level of human capital, not its utilization. Hence, growing female employment has contributed to the relatively slower growth of official poverty, relative to that of Self-Reliant poverty. In contrast, male employment rates have been declining. This trend tends to raise official poverty, but have no effect on Self-Reliant poverty.

Third, while real female wage rates have tended to increase over time, male wage rates have eroded. Wage rates, as opposed to the utilization of capacity, affect both Self-Reliant and official poverty; hence, changes in wage rates (either male or female) tend to have the same directional effect on poverty, irrespective of measure. The net effect of this relative wage rate change on the differential trends in the growth of poverty is, therefore, unclear.⁵⁰

Fourth, the substantial increase in “within-group” wage inequality over the period has pulled those at the bottom of the subgroup wage distribution further from their respective group-mean wage. Because wage rates are reflected in the definition of economic resources for both poverty definitions, this development has served to increase both the official and the Self-Reliant poverty rates. However, the Self-Reliant measure “weights” all of the potential work hours of the adults in a family, while the official measure reflects the wage rate paid only for actual hours worked. Hence, this factor has contributed to a more rapid rise in the rate of Self-Reliant poverty relative to official poverty, accounting for some of the divergency in trends between the two measures.

Finally, irrespective of whether economic position is measured by income or the capability to earn income, families headed by racial minorities or single mothers are concentrated at the bottom of the distribution. Since the mid-1970s, the prevalence of families with both characteristics have increased substantially. Although demographic changes have contributed to the growth in both Self-Reliant and official poverty measures over this period, the differential effect of these changes on the two poverty rates is unclear.

B. Decreasing Female-Headed Children’s Poverty, Increasing Male-Headed Children’s Poverty

Although both Self-Reliant and official poverty rates for children living in female-headed families exceed those for children living in families headed by a male, the poverty rates of children in male-headed families have risen while those of children in female-headed families have decreased. What could have caused these relative movements in poverty rates?

Clearly, the decline in the real value of income transfers has increased the poverty rates of children in families headed by women to a much greater extent than those of children in male-headed families. As a result, this factor cannot explain the relative growth in poverty for children in male-headed families observed over this period.

Other factors have worked to explain the disparate growth patterns in poverty rates between male-headed and female-headed families, however. These include the rapid increase in the *labor force participation and employment rate of women* (which has lowered the official poverty rate for those living in female-headed families, but has had no effect on the rate of Self-Reliant poverty for such families), the *increase in female wage rates and the decrease in male wage rates* (resulting in a decrease in both Self-Reliant and official female-headed poverty rates, and an increase in male-headed poverty rates), and the *increase in male joblessness* (increasing official poverty for those living in male-headed families, but having no effect on the rate of Self-Reliant poverty for these families. It seems likely that the relative (and absolute) declines in both male wage rates and male labor supply have accounted for this “gender twist” in poverty rates, irrespective of the poverty measure used.

C. Rising White, Relative to Black and Hispanic, Children’s Poverty

The steady reduction in racial wage and earnings gaps has been a persistent trend in the U.S. economy since the mid-1970s. This pattern accounts for the low relative growth in poverty rates among Blacks and Hispanics relative to whites, irrespective of the definition of poverty used. Joblessness among low-skilled workers has also increased somewhat more for whites than minority groups. This has contributed to the relative movements in official poverty trends for these groups.

VIII. Self-Reliant and Income Poverty: Which Better Reflects “Social Exclusion”?

In Sections V and VI, we presented and compared measures of U.S. children’s poverty using both the Self-Reliant and official indicators of poverty. Both of these poverty indicators may be considered proxies for measures of the extent to which children live in families which are excluded from their societies. Indeed, each of these indicators presumes that the children identified as poor have a number attributes that imply that they are ‘distant’ from the norm of the population in a variety of important dimensions, and hence experience social exclusion.⁵¹

An interesting exercise might be to follow the lead of the European Union (EU), and inquire into the linkage of the poverty situation of people to indicators of their “social exclusion.”⁵² In its analysis, the EU links the income poverty status of families to indicators of “social exclusion,” including “their socio-demographic characteristics, their activity status and a number of variables reflecting their means, perceptions and satisfaction with respect to their standard of living and quality of life.” These ‘social exclusion’ indicators include such things as:

- Poor labor market performance (e.g., nonemployment, nonparticipation, low occupation) of parents,
- Dysfunctional family structure (e.g., single parent, many children, disabled siblings),
- Non-standard family size (e.g., very large family),
- Low education of parents,
- Non-majority race or ethnic group,
- Involvement with community or public programs,
- Poor health of parents.

In its analysis, the EU calculates an indicator reflecting the concentration of families in the low-income group with various characteristics thought to be related to “social exclusion,” relative to the concentration of families in the entire population with these characteristics. For example, if 60 percent of low-income families had a head that is not employed, while 20 percent of all families in the society have a head who is not employed, this indicator of the “social exclusion” of the low-income group would be 3.0. This ratio, together with others, is taken to form a picture of the social exclusion of the poor.

In the context of the present study, it is possible to adapt this procedure so as to compare the extent to which the Self-Reliant and official poverty measures are linked to various dimensions of “social exclusion.” For example, if 50 percent of children in Self-Reliant poor families have a particular “social-exclusion-related” characteristic, while only 40 percent of children living in official poor families have this characteristic, one could make the case that, at least in this dimension, Self-Reliant poverty is a superior indicator of “social exclusion.”

Table 3 presents this calculation for a few ‘social exclusion’ dimensions, comparing Self-Reliant poverty with official poverty. In particular, we assume that living in a single father or single mother family, being a racial minority and living in a single mother family, being a racial minority, and being a single mother not participating in the social welfare system⁵³ imply more social exclusion. This calculation suggests that for family structure, race, and connection to public support system dimensions, the Self-Reliant measure is a superior indicator of “social exclusion” relative to the official (income) poverty measure. However, for the education dimension, the two poverty measures are similar indicators of “social exclusion.” In at least in these family structure, race, and connection to public support system dimensions, then, children living in Self-Reliant poor families are likely to feel more distant from social norms, more out of the ‘mainstream,’ and more likely to feel stigmatized. They would know

that even if their families played by the rules (e.g., worked at their full capacity), they would be viewed by others as not making it, and in that sense be (or feel) socially excluded.

Table 3.
Self-Reliant and Official Children’s Poverty Linkage to Indicators of Social Exclusion, 1995–1997
(percent of children aged less than 6 years and less than 18 years living in poor families)

	Children Less than Six			Children Less than Eighteen		
	Share in	Self-Reliant	Ratio of	Share in	Self-Reliant	Ratio of
	Official	Poverty	Self-Reliant	Official	Poverty	Self-Reliant
	Poverty		to Official	Poverty	Poverty	to Official
Mother-only Family	60.5%	63.5%	1.05	61.3%	66.0%	1.08%
Black/Hispanic	63.8	65.3	1.02	63.6	63.0	.99
single mother						
Single mother, not socially assisted	41.4	47.8	1.15	45.0	51.5	1.14
Father-only Family	5.8	9.3	1.64	4.6	7.7	1.67
Black	28.8	32.0	1.11	29.9	32.9	1.10
Hispanic	30.0	29.2	.97	28.3	27.2	.96
Head with high school degree or less	79.1	78.8	1.00	78.4	78.2	1.00

IX. Conclusion

We have reviewed the concept and measurement of children’s poverty, described and assessed a number of approaches to measuring children’s poverty, and suggested a capability-based concept and measure of this social indicator. We then applied this Self-Reliant poverty measure to the children living in U.S. families headed by a working-age person over the 1975–97 period. We also compared trends in children’s poverty prevalence and composition to the official measure of poverty. How many American children live in families that are unable to earn enough to escape poverty? Has the prevalence of such Self-Reliant poverty changed over time? What are the characteristics of the children living in such low-capability families? How do these patterns for Self-Reliant poor children compare with those for official poor children? Are the characteristics of the families of children in Self-Reliant poverty more closely linked to indicators of social exclusion than are the characteristics of children in official (income) poverty?

Several conclusions stand out. First, while both the official and Self-Reliant children’s poverty rates have increased over the period from 1975 to 1997, Self-Reliant children’s

poverty has grown more rapidly, and more steadily. While the official poverty rate grew by +1.3 percent per year over this period, the Self-Reliant poverty rate rose by nearly +4 percent per year.

Second, the highest Self-Reliant children's poverty rates are concentrated among the population groups that are generally recognized as among the nation's most vulnerable: Blacks, Hispanics, single parent families with children, and those with low levels of schooling. Over most of the period since the mid-1970s, the concentration of children in these groups who are poor by the Self-Reliant criterion exceeds their concentration in official poverty. To the extent that these characteristics are also measures of "social exclusion," the population of children in Self-Reliant poverty would seem to be more outside the social mainstream than is the population of children in official poverty.

Third, in spite of the rapid growth of Self-Reliant poverty, groups commonly thought of as being the most vulnerable—families headed by a racial minority, a female, or a person with low education—have recorded decreases or relatively low increases in poverty relative to those recorded for less vulnerable groups. The converse of this pattern is also true: Since the mid-1970s, groups that are generally viewed as relatively secure economically—families headed by whites and those with relatively high levels of schooling, and married-couple families with children—experienced above-average growth in Self-Reliant poverty rates, and growth rates substantially greater than those for groups with low earnings capacity.

The large and rapidly growing number of children living in families who are unable to be self-reliant is discouraging for a society that prides itself on providing the opportunity for individuals to prosper and thrive by working hard, and playing by the rules. A growing population of American children would remain below the minimum-acceptable level of living defined by the nation's official poverty line, even if their families were to fully use their capabilities, their human capital. The message advocated by some that it is necessary for workers and families to rely on their own resources seems to have come at the same time that increases in wage and earnings inequalities have made this goal less attainable for those with few skills and little human capital.

Appendix

The Estimation of Self-Reliant Poverty: Data and Empirical Procedures

To estimate Self-Reliant poverty, we rely on a multistep estimation procedure. We first obtain predicted values of the earnings of each working-age adult were he or she to work full-time, full-year and call these values individual Earnings Capacity. We then adjust these values for health and disability constraints on employability and randomly shock them to simulate the effect of unmeasured variables. These values are aggregated into own-family units; this aggregate family earnings value plus property income yields each family's gross earnings capacity (GEC). GEC is then adjusted for required child care costs to obtain the net earnings capacity (NEC) of the family. Children in families with NEC below the relevant official poverty line are identified as being in Self-Reliant poverty. This Appendix describes this procedure in more detail.

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 1998⁵⁴. From these surveys, we select a sample of 18–64 year old, noninstitutionalized, non-student, non-self-employed civilians on which to estimate the model.⁵⁵ We estimate a two-equation model of full-time, full-year labor force participation and earnings, drawing on Heckman (1979). Such a specification is appropriate, since individuals can select into the full-time, full-year labor force.

Appendix Table 1 lists the variables used in the model, gives a description of each, and indicates (*) which variables form exclusion restrictions. Such variables are assumed to affect the FTFY labor force participation decision, but not the earnings of the individual. We assume that nonlabor income, participation in a health-related income support program, the state unemployment rate, veteran status (for men) and the maximum AFDC benefit for a family of four (for women) affect the labor force participation decision, but conditional on FTFY work, do not affect earnings.

The first stage is a probit regression of FTFY labor force participation on the vector of explanatory variables assumed to influence such participation.⁵⁶ We fit four such probits for each year, one for each race/gender group (whites/non-whites, males/females). The coefficient estimates, standard errors, sample sizes and log-likelihoods for each probit are available from the authors upon request.

The second stage is a set of selectivity corrected OLS regressions of the log of earnings on those variables in Appendix Table 1 assumed to influence earnings. To correct for self-selection into the FTFY labor force, we append the inverse Mills ratio, derived from the coefficients in the first stage estimation, to the set of regressors. The regression results, with corrected standard errors, for the four race/gender groups in the 28 years of our study, along with sample sizes, R-squared statistics and the corrected standard error of the regression, are available from the authors upon request.

Using the coefficient estimates and each individual's characteristics, we predict FTFY log earnings for each prime-aged adult in our sample.⁵⁷ Note that since we desire estimates of earnings capacity for each individual, unconditional on self-selecting into the FTFY labor force, we make unconditional predictions of earnings capacity. That is, in making our predictions, we set each individual's inverse Mills's ratio equal to the mean inverse Mill's ratio for workers. This ensures that the mean of the predicted log earnings distribution (among FTFY workers) equals the mean of the actual log earnings distribution (among FTFY workers), while assigning 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 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 EC prediction is one for constraints on work due to illness and disability. We calculate an adjustment factor, δ , equal to $(50-WC)/50$, where WC is the number of weeks the individual does not work attributed to these reasons. If, in addition, the individual reports receiving income from a health-related income support program⁵⁸ or working part-time because of illness, disability or unemployment reasons, we multiply WC by 0.5, implying that these exogenous factors constrained capacity work to 20 hours per week. This individual, case-by-case adjustment is made for each year. Hence, for any given year, aggregate earnings capacity for the entire working-age population will reflect the overall magnitude of these year-specific constraints. If the incidence of these constraints is constant over time, the intertemporal pattern of aggregate modified earnings capacity will parallel that of the unmodified aggregate, but be a smaller value. If the incidence of these constraints across population groups is constant over time, our modified value enables reliable comparisons of trends in earnings capacities among population groups.

To summarize, the predicted value of an individual's earnings capacity is described by the following equation:

$$EC_i^* = \exp(X_i \Xi + \theta * m_i) * e_i,$$

where X_i are the explanatory variables from the second-stage estimation, Ξ is the vector of estimated coefficients, θ is the standard error of the regression corresponding to the individual's race/gender group, m_i is a randomly distributed $N(0,1)$ variable and δ is the adjustment factor noted above.

To obtain the GEC of a family, we sum the EC_i^* 's for the prime-aged adults in a family, and add property income (interest, dividends, rental income, alimony and child support). To obtain NEC, we adjust for those unavoidable costs incurred in moving to FTFY work. We focus on child care expenses as the most prominent component of these costs.

We draw upon documents from the U.S. Census Bureau and the U.S. General Accounting Office (GAO)⁵⁹ as the basis for our child care estimates. The GAO surveyed child care providers in four sites across the U.S. (two urban and two rural) in 1996. The study presents a range of weekly child care costs of \$79 to \$154 for children aged 0 to 5, and \$32 to \$81 for children aged 6 to 11. We use estimates from the middle of the GAO's range: \$90 per child per week for children aged 0 to 5 and \$50 per child per week for children aged 6 to 11.

Using information on regional and SMSA status differences in child care costs obtained from the Census Bureau’s Current Population Report, we created the following matrix of adjustment factors to apply to the GAO estimates:

	Northeast	Midwest	South	West
City	1.124	1.033	1.017	1.086
Suburb	1.104	1.013	0.997	1.066
Rural	0.944	0.852	0.836	0.905

We multiply the GAO child care estimates by the appropriate adjustment factor, according to each family’s region and SMSA status.

We also use information contained in the Current Population Report to adjust the child care cost estimates over time. Data on average child care costs from 1986 to 1993 reveals an average annual growth rate in child care costs of approximately 3.1 percent. We use that growth rate to project our child care cost backward from 1996 through 1975, obtaining weekly per child child care costs, by region and SMSA status, for children 0 to 5 and 6 to 11. We assume that child care costs are incurred 50 weeks per year. These per child per year costs are multiplied the number of children in the family aged 0 to 5 and 6 to 11 as appropriate and subtracted from the family GEC to obtain family NEC.

To obtain the Self-Reliance poverty population, we calculated the ratio of each family’s NEC to the relevant official, family-size specific poverty line;⁶⁰ those families with a ratio less than unity are identified as Self-Reliant poor.

Note that the adjustments for health, disability, unemployment and child care differ from the preliminary estimates in Haveman and Bershadker (1998). In that study, the health, disability and unemployment adjustment did not take into account participation in a health-related income support program. Additionally, child care costs were set at \$1,546 per child per year for children aged 6 to 11, and \$3,865 per child per year for children aged 0 to 5 (in 1995 dollars). Adjustments were made only for inflation and not for regional variation, SMSA status, or real growth over time.

Annual estimates of the prevalence of Self-Reliance and Official poverty for various population subgroups by characteristic of the head of the family, as well as the composition of the two poverty populations, again by characteristic of the household head, are available from the authors.

Appendix

Table 1.
Variable Definitions

Variable	Description
Age	Age of the individual.
Age Squared	Age of the individual, squared.
Education	Years of schooling completed by the individual.
Education Squared	Years of schooling completed by the individual, squared.
Age * Education	Age of the individual times years of schooling.
Northeast, South, West	Region specific dummy variables. North Central is omitted.
City, Suburb	SMSA Status dummies. Rural is omitted.
Married, Spouse Present1	Dummy variable indicating the presence of a legal spouse in the household.
Have Children Under 181	Dummy variable indicating the presence of unmarried children under the age of 18 in the family.
Number of Children Under 18	Number of unmarried children under the age of 18 in the family.
Have Children Under 6	Dummy variable indicating the presence of children under the age of 6 in the family.
Number of Children Under 6	Number of unmarried children under the age of 6 in the family.
Non-Labor Income (000s)*	Total family income from sources exogenous to the labor market decisions of the individual (in thousands of dollars).
Health Program*	Dummy variable indicating the individual’s participation in a health-related income support program.
Unemployment Rate*	Unemployment rate in the individual’s state of residence.
Veteran*	Dummy variable indicating veteran status (men only).
Maximum Welfare Benefit*	Maximum welfare benefit for a family of four in the individual’s state of residence (women only).
Hispanic	Dummy variable indicating Hispanic ethnicity (non-whites only).

Notes: Starred variables indicate exclusion restrictions. These variables are included only in the first stage FTFY labor force participation equation. All other variables are included in both stages. For women, Have Children under 18 and Married, Spouse Present are interacted, obtaining an expanded set of dummy variables: Single, No Children; Single, With Children; Married, No Children; and Married, With Children. Non-labor income is the family’s non-wage income, less total family social security, supplemental security, public assistance, alimony and child support, less individual unemployment compensation, worker’s compensation, veteran’s payments and retirement income.

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Endnotes

1. See Bourguignon and Chakravarty (1998). Others who have advocated such a multidimensional view of poverty include Kolm (1977), Atkinson and Bourguignon (1982), and Tsui (1995). Federman et al. (1996) empirically explore a variety of dimensions of hardship for those in the U.S. who are income poor.
2. This quotation is from the Eurostat news release describing the contents and findings of Eurostat (2000).
3. The official definition of poverty has played a very special role in the development of United States social policy. Tobin (1970) has argued that one of the most important contributions 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. Because of this measure, Tobin argued that "no politician will be able to ...ignore the repeated solemn acknowledgments of society's obligation to its poorer members." This measure has been the official U.S. poverty standard since the early-1960s (see Fisher, 1992), and poverty rates are published annually in U.S. Bureau of the Census, *Poverty in the United States*, Series P60.
4. See Mayer and Jencks (1992, 1995), Slesnick (1993), and Cutler and Katz (1991).
5. Sen (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).
6. See 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.
7. This presumption is viewed by many as overly narrow. Clearly the sociological perspectives discussed in the introduction take a broader approach.
8. This 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.
9. The failure to reflect the effect of taxes is particularly troublesome in the United States context. The Earned Income Tax Credit (EITC) has expanded into a major form of income support for the low income working population. Total national 'expenditures' on the credit exceed \$30 billion, and low-income families (of three persons) can receive up to \$3800 per year in an EITC refund. However, because the refundable payments are viewed as negative taxes, they are not reflected in the definition of income used in the official poverty measure.
10. This is less the case for the NRC-proposed revision to the official poverty measure, as it attempts to account for some in-kind benefits in assessing the relationship of resources to needs.
11. Relative poverty measures have become the accepted measure of poverty in Europe, especially in the European Community. However, in recent years increased interest in the development of an absolute poverty measure for EC members has increased, and currently efforts are underway to develop such a measure. See Bradshaw (2001).
12. See Ruggles (1990).
13. Moreover, 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.
14. Ruggles (1990), p. 94.
15. Because 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.
16. Ruggles (1990), p. 19.
17. Eurostat, the statistical agency for the European Community, uses a one-half of median income standard in its first analysis of poverty in the community; more recently, Eurostat has moved toward adoption of 60 percent of the median as the threshold. See Bradshaw (2001).
18. Ruggles (1990), p. 19. Lampman (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."
19. Slesnick, 1993, p. 2.
20. The 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 non-poor while those who consume less are considered poor.
21. Slesnick 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.

22. The 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 the 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 household, 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 U.S. to attain equivalent well-being.
23. This general approach to poverty measurement has been called the “Leyden School” approach. Bernard van Praag is the central figure in this area; see Hagenaaars (1986), and van Praag, Hagenaaars, and van Weeren (1982). See also Ruggles, p. 21. Comparison of subjective poverty prevalence and composition between the U.S. and the Netherlands is found in de Vos and Garner (1991).
24. This ‘minimum income’ question approach to poverty measurement is employed in Goedhart et al. (1977). An alternative approach involves construction of 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’ 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 is developed in van Praag (1968) and was used to derive a poverty measure in Hagenaaars (1985).
25. Sen’s position is most clearly articulated in his 1995 book, *Inequality Reexamined* (page references in text are to this volume). Development of the philosophical and value basis for this viewpoint is found throughout his many writings on inequality and poverty, especially his 1979 Tanner Lecture at Stanford University (Sen, 1980), his Hennipman Lectures at the University of Amsterdam in 1982, and Sen (1997).
26. Evidence that being “self-reliant” or “economically independent” has taken on increased weight in U.S. social policy is the Temporary Assistance for Needy Families (TANF) provision in the 1996 welfare reform legislation, that eliminated entitlement to public transfer benefits by single-parent households, and imposed firm limits on the period that eligible families could receive support. The message to single parents, irrespective 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 envision that some portion of the contributions made on behalf of working-age individuals will be assigned directly to them, with the requirement that they manage these financial resources themselves (with constraints), and then rely on the accumulated assets in these private accounts in their retirement years. 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 shift from defined benefit to defined contribution pension plans, and the emphasis on loans rather than grants to cover the rising costs of higher education are other manifestations of this emphasis on “self-reliance” as a substitute for public support.
27. One of the earliest of the proponents of this view was Charles Murray. His influential book, *Losing Ground* (1984) was the first in a large stream of writings, speeches and political candidacies that argued that government policy—especially welfare and other income support measures—was causal to the problem of income poverty. A corollary is that government should require self-reliance, rather than providing assistance to the poor.
28. This definition and measure of poverty is discussed in more detail in Haveman and Bershadker (2001). The following discussion draws from that study.
29. A 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 their 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.
30. Since 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.
31. We made an effort to adjust for the unavoidable costs associated with the full utilization of family capabilities in the labor market, concentrating on required child care costs. Some may argue that at least one parent in families with young children (or the only parent in the case of single parents) should remain out of the labor force to care for these young children. Under this norm, the EC of such

parents would be set at zero. While this alternative norm would undoubtedly change the NEC of families with children, the family's Self-Reliant poverty status would be affected only to the extent that the *difference* between the estimated EC for the stay-at-home parent and the estimated child care expense is large enough to move the family from a position above its poverty line to one below it. To the extent that the percentage of families so affected is constant over time, such an alternative would affect only the level and not the trend Self-Reliant poverty. Furthermore, note that our method of child care accounting in no way presumes that parents with young children *should* work; it only predicts a NEC value for that family *if* they work full-time, full-year. Our adjustments for child care costs fail to account for within-region variations in quality-constant expenses, and the ability of some families to engage relatives in child care at costs below our estimates. Moreover, we have ignored a variety of other required expenses such as transportation and clothing costs associated with full-capacity work. We believe that our methods reasonably capture the bulk of expenses incurred should all adults in a family engage in full-time, full-year work.

32. We have abstracted from labor demand constraints on market earnings in two ways. First, we ignore general equilibrium considerations. We make no adjustments for changes in the structure of wages if all prime-aged adults were to work full-time, full-year. We simply ask, given the *observed* structure of full-time, full-year earnings, how much would each individual expect to earn if he or she independently moved to full-time, full-year work. As such, EC is a statistical indicator reflecting this value. Notice, however, that our measure does account for changes in the structure of full-time, full-year earnings arising from recessions and expansions. Our EC indicator measures the annual rental value of an individual's human capital, as reflected in the individual-specific regressors in the annual earnings equations. If, for a given set of regressors, full-time, full-year earnings, and hence Earnings Capacities, are depressed in a recession (inflated in an expansion), our Self-Reliant Poverty measure will register an increase (decrease) in that dimension of poverty. Second, our measure abstracts from the effects of cyclical labor demand conditions on the *ability to find* employment. Again, we measure each individual's full-time, full-year earnings, assuming each individual finds that full-time, full-year job. As such, adjusting for changes in the distribution of wages, but not for changes in relative employment, is appropriate. To the extent possible, we account for long-term exogenous constraints on earnings potential imposed by health and disability problems by taking individuals' statements that annual hours not working because of these conditions accurately reflect the impact of these constraints. We acknowledge that these adjustments are imperfect proxies of the true values of the health/disability effects on the annual rental value of individual human capital stocks. Results published in Haveman and Bershader (1998) adjust EC for the ability to find a job by incorporating each individual's report of hours unemployed into the health and disability adjustment factor. Comments on similar work suggested further accounting for unemployment by imputing an estimate of hours unemployed to individuals not in the labor force. Such an estimate would be

relatively higher during recessions and lower during expansions. We believe such an adjustment would move our measure further from a true measure of Earnings Capacity based on intrinsic individual characteristics. The point is to "tag" each adult with an Earnings Capacity value equal to what that individual would earn if he or she did, in fact, find a full-time, full-year job.

33. This approach, using actual income as the indicator of economic resources rather than individual EC, is adopted in Duncan, Boisjoly and Smeeding (1996) and Haveman and Knight (2000). In this approach, family structure can be treated as endogenous to the level of economic resources or capabilities.
34. We define "prevalence" as the percentage of children who live in families that are designated as poor. As such, it is also known as the "head-count" poverty measure. See Sen (1992) for a discussion of this and other poverty indicators. Note that the official children's poverty rates apply only to children from families headed by prime-aged adults, and hence differ from official U.S. Census publications which include head count poverty rates for all families. Similar estimates for children aged less than 18 years are available from the authors, upon request.
35. Given that the official poverty rate rests on the flow of cyclically sensitive actual current income, this greater cyclicity is not surprising. The primary factors that account for the difference in levels between the Non-Self-Reliant and official poverty measures are: 1) the counting of transfer income in the official measure but not in the Non-Self-Reliant measure, 2) the prevalence of less than full-time, full-year work among families, which is reflected in the official measure, and 3) the adjustment for child care costs in the Non-Self-Reliant poverty measure, but not the official poverty measure.
36. Jencks and Mayer (1996) calculate a children's poverty rate that rests on an alternative implicit equivalence scale, a family income measure that includes both the income of nonrelatives in the living unit and the value of public in-kind benefits, and an alternative price index. While the official children's poverty rate rose from by about 4 percentage points from 1969 to 1989, their recalculated children's poverty rate fell by 1.3 percentage points.
37. Detailed estimates on which this and subsequent tables are based are available from the authors upon request. The Self-Reliant poverty rates and growth patterns shown here adopt a somewhat different set of assumptions than preliminary estimates of overall poverty in Haveman and Bershader (1998), due to revisions in the health/disability and child care adjustments, and elimination of the unemployment adjustment that was included in those estimates. See also notes 29 and 30.
38. Female-headed families include families headed by a single mother and couples with children "headed" by a female as indicated in our survey data. Similarly, male-headed families include single men with children and couples with children "headed" by a male, as indicated in our data.

39. Those categories with annual Self-Reliant children's poverty growth rates in excess of the overall national growth rate (3.9 percent per year) are shown. The 'Other' racial group has been omitted due to small sample size. We note that the tabulations shown present growth rate comparisons, rather than changes in the number of individuals in poverty. A low annual growth rate for a large group or a group with a high poverty rate (e.g., single mothers) may represent a larger increase in the number of poor individuals than a larger annual growth rate for a small group or a group with a low poverty rate.
40. Notice that Self-Reliant poverty has increased within each education group. We believe this is due to changing demographics and increased within-group wage inequality. In particular, if education is correlated with EC, then as the size of the population of individuals with higher levels of education rises, the percent of individuals with a given education level below a particular EC threshold will also rise.
41. Indeed, children living in Hispanic and Black single mother families have Self-Reliant (and official) poverty rates that are about triple the national average.
42. A similar, though less pronounced inverse relationship between the growth rate and the level of poverty is also found for the official poverty measure.
43. For example, in 1975–77, the share of children living in black Self-Reliant poor families was 111 percent of that group's share of official poverty. A ratio of 1.00 would indicate a particular group's share of Self-Reliant poverty equaled its share of official poverty.
44. Cash welfare income is included in the resource measure used in the official poverty measure, while only earnings potential is included in the Self-Reliant measure. The decline in welfare benefit generosity over the period probably accounts for the relative increase in the share of children in female-headed families in official poverty, leading to convergence in this aspect of the composition of children's poverty.
45. Among children living with Self-Reliant poor single mothers, 72 percent were receiving welfare payments in 1975–77; by 1995–97 this percentage fell to 52 percent of this group. This is largely due to changes in welfare law over the period.
46. Those living in families headed by an Hispanic person are an exception to this pattern. Consistent with the rapid growth in the population of this racial group since the mid-1970s, the share of the Self-Reliant poor population comprised of persons living in such families increased by nearly 3 percent per year.
47. See Haveman (2000) for a discussion of several of these trends, and references to studies that have documented them.
48. See Juhn (1992).
49. Over the 1975–97 period, average family size has decreased substantially as families have had fewer children and as family members who lived with others in prior years have established their own living units.
50. Because average male work hours exceed average female work hours, the decrease in male wages is likely to have increased official poverty over the period by more than the increase in female wages has reduced it. Other factors must have been sufficient to override this effect in explaining the more rapid growth in Self-Reliant poverty.
51. While we have used indicators of the extent of social exclusion of the families in which children live, we recognize that children themselves may be socially excluded apart from the status of their families. This distinction is emphasized in Phipps and Curtis (2001).
52. See Eurostat (2000).
53. The ambiguity of the direction of the relationship of this indicator to "social exclusion" should be noted. Phipps and Curtis (2001), for example, classify dependence of social assistance as a dimension of social exclusion. Our procedure reflects a judgment that recipients of income support benefits are 'connected' to public programs and the provision of the services that they offer.
54. The March Current Population Survey 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.
55. We exclude the self-employed, since their earnings represent a return to both human and physical capital which cannot be disentangled using CPS data.
56. We define FTFY labor force participation as 2000 or more hours of work in a year.
57. We predict FTFY earnings for students and the self-employed, even though these individuals were excluded from the estimation.
58. An individual is considered to be in a health-related income support program if he or she 1) receives Social Security income, is between 19 and 22, is not a single parent and is not a student, or 2) receives Social Security income, is between 23 and 59, and is not a single parent, or 3) receives Supplemental Security income, or 4) receives workers compensation.
59. U.S. Bureau of the Census (1995), and U.S. General Accounting Office (1997).
60. The poverty thresholds were constructed by (1) deflating the year-specific versions of the poverty thresholds to 1967 using the CPI-U (which is the inflation index the Census Bureau has used to inflate the poverty line) and (2) reinflating the deflated version to the appropriate year using the CPI-U-X1. The first year available for the CPI-U-X1 index is 1967. We started with the current version of the poverty thresholds because in 1981 the Census Bureau stopped the differential

treatment of female-headed households and farm residences and extended the poverty matrix to families of nine or more persons. CPI-U-X1 was used because CPI-U exaggerates the true rise in living costs in the 1970s due to the inordinate weight given to the cost of newly purchased homes (U.S. Congressional Budget Office, 1988, pp. 6–9).