Review of Income and Wealth
Series 39, Number 2, June 1993

ESCAPING POVERTY THROUGH WORK: THE PROBLEM OF LOW EARNINGS CAPACITY IN THE UNITED STATES, 1973-88

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This paper documents the changes in earnings capacity poverty that occurred between 1973 and 1988. Families are "Earnings Capacity Poor" if they are unable to generate enough income to lift them out of poverty, even if all working-age adults in the family work full-time, year-round. Data from the March 1974 and March 1989 Current Population Surveys indicate that earnings capacity poverty increased more rapidly than official poverty. Much of this increase can be attributed to the rise in earnings capacity poverty among whites, intact families, and family heads with more than a high school diploma. Most alarming, the percentage of children in earnings capacity poor families is considerably higher than it is among persons over eighteen; in 1988, nearly 15 percent of children under six lived in families that could not have escaped poverty even if the adults in their family were working and earning at their full capacity levels.

I. INTRODUCTION: "EARNINGS CAPACITY" AS A MEASURE OF POTENTIAL REAL CONSUMPTION

The poor population in the United States is identified by comparing two numbers: the level of current, annual cash income of the family unit in which people live and a figure that indicates the income necessary for a family of that size and composition to meet a minimum level of consumption. If the income number, which is obtained by surveying family units, fails to exceed the minimum income cutoff (known as the family's poverty line), the family is defined as "poor." The nation's poverty rate is the percentage of its citizens who live in poor families.

This official U.S. definition of poverty has been widely criticized on a number of bases, only a few of which will be mentioned here.[1] While the current cash income numerator of the poverty ratio may reflect immediate needs, and hence be desirable for determining eligibility for program benefits or financial assistance, it indicates little about the consumption level that is potentially available to the family. Even as an indicator of immediate needs, the current income measure is flawed—it reflects neither the recipient value of in-kind transfers (e.g. food stamps and Medicaid) nor the taxes for which the family is liable. Similarly, while current cash income—and hence the official poverty measure—reflects cash flows in the

Note: This research was supported by a grant to the Institute for Research on Poverty from the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. The authors thank Luise Cunliffe and John Flesher for computer programming and Alan Blinder, Sheldon Danziger, Daniel Hamermesh, Steven Hill, Christopher Jencks, and Barbara Wolfe for helpful comments.

[1]An excellent study of the origins of the official poverty measure and of the analytical and empirical bases for it is Ruggles (1990). This volume also explores a variety of alternative concepts for the measurement of poverty, and their strengths and weaknesses.

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 non-work) time reflected in the measure.

The denominator of the poverty ratio—the minimum consumption needs indicator—has also been criticized. Given its conceptual basis and the crude empirical evidence on which the dollar cut-offs rest, the official poverty lines are essentially arbitrary constructs. Adjustments in the poverty line to account for different family sizes and structures also rest on weak conceptual and empirical foundations, and have also been seriously criticized. Finally, the data base on which the official poverty measure rests—the annual March Current Population Survey undertaken by the U.S. Bureau of the Census—has been faulted for failing to accurately capture true cash income, especially those components deriving from public transfers, income from assets, and illegal activities (see Rector, O'Beirne, and McLaughlin, 1990).

One of the most persistent and fundamental criticisms of the official definition is that it relies on a single year of cash income of a family. For many families, annual income fluctuates. Unemployment, lay-offs, the decision to undertake mid-career training or to change jobs, health considerations, and especially income flows from self-employment may all cause the money income of a household to change substantially from one year to the next. Moreover, annual cash income may be rather ill-reported to the survey interviewer. The respondent—an adult in the family, and often a non-working 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. As a result, the consumption spending of the family may lie well above the family's reported income (see Mayer and Jencks, 1992).

A second fundamental problem with the income measure used in the official definition is its unreliability as an accurate measure of the long-term or "permanent" economic status of the family. This problem appears in several guises, but three sources of the divergence between annual income and permanent capabilities are crucial: differences among otherwise identical families in *tastes* for income and work; differences in the *disincentives* to work faced by otherwise identical families; and differences in the *cash benefits* such families actually receive.

Consider, for example, the heavy dependence of the current income measure on tastes, in particular, the tastes of the members of the family unit for income versus leisure. Holding all other considerations constant, a household with strong preferences for leisure (relative to income) is more likely to be counted as officially poor than is a family with weaker tastes for leisure. For example, a two-parent family choosing to keep a parent at home will have a higher chance of being counted as poor than a similar family in which both husband and wife choose to work.

Differences in labor supply and earnings caused by divergent incentives to work—such as those implicit in the nation's tax and transfer systems—also affect family current cash income. Due to labor supply responses to program incentives, the nation's official poverty count (and the age-education-race composition of the poor) will reflect both the varying structure of incentives and differential

responses to them. For example, the spouse of a family head may choose to work more hours in a state with no state income tax than he or she would in a state with high income taxes.

Finally, the official poverty definition also reflects the direct effects of welfare benefits on family income. For example, a family in a low-benefit state with positive but low earnings may be counted as poor when an identical family in a high-benefit state may receive enough benefits to be classified as non-poor.

As a result of these divergences between a family's measured cash income and its permanent economic capabilities, numerous anomalies are reflected in the official poverty measure. For example, an independent youth who chooses to remain in school may be counted as poor, even though she has very high long-term earnings potential. As a result, the reported age distribution of the poor is younger than it would otherwise be, and more educated. Similarly, the annual net income reported by families headed by farm owners or real estate speculators is notoriously unreliable, and probably lower than it is in fact; such families also tend to be overrepresented in the official poverty count. Again, the poor population would seem more highly educated than it really is because of the inclusion of these people. Finally, some people with high motivation and drive, but with few skills, talents, and earnings capabilities tend to be underrepresented in the official poverty measure. As a result, the nation's poverty statistics may be providing us with a picture of a population that in many ways fails to conform with accepted notions of what it means to be poor.

Both theoretical and empirical work in economics has recognized these limitations of cash income as a measure of economic well-being. Studies have relied on the average of a number of years of a household's income—income purged of its transitory elements—or annual consumption expenditures as superior indicators of real economic well-being (Duncan *et al.*, 1984; Mayer and Jencks, 1992).

Consistent with such a longer-term perspective is the life-cycle framework emphasized by Ando and Modigliani (1963). They argued for a measure based on a household's optimal level of real consumption in a period, given the presence of the unit's total resources over its remaining lifetime. Becker's (1965) concept of "full income" extends this concept still further, and includes the time available to the household to be allocated to either work or leisure. A further refinement of this full-income measure would adjust for differences in the size and composition of the consumption unit, arriving at a concept of *potential real consumption per equivalent consumer unit.* Such a concept forms a definition of economic welfare or economic position which rests on economic theory and reflects a more comprehensive set of considerations than one year of cash income (Moon and Smolensky, 1977).

In this paper, we set forth an empirically tractable measure of economic position which seeks to reflect such potential real consumption. We call this measure *Net Earnings Capacity* (NEC). Unlike current cash income, this measure abstracts from transitory events and phenomena and from individual tastes for income relative to leisure. As such, it reflects the potential of the consumer unit to generate real consumption. It also adjusts for the size and composition of the family unit. Net Earnings Capacity is designed to measure the potential of a

family to generate an income stream were the family to use its human and physical capital to capacity.

Using this concept, we establish a new definition of poverty, which we call *Earnings Capacity Poverty.*[2] A family is poor according to this definition if full (or capacity) use of its earnings capabilities would fail to generate enough income to lift the family out of poverty.[3] Families in Earnings Capacity Poverty, then, cannot escape poverty without the support of other citizens or the state. In this sense, they are the nation's truly dependent population.[4]

The concept of Earnings Capacity Poverty addresses but one of the important issues involved in identifying the nation's poor population, that of the measure of the long-run economic status of families. While having merits as a social indicator not possessed by the annual cash income measure, Earnings Capacity Poverty may neither accurately reflect the current level of unmet needs which families face nor address several of the other concerns that have been raised with the official poverty measure—the treatment of assets, access to unreported income, the definition of minimum consumption requirements, and the appropriate scale for establishing level of living equivalence among family units of various sizes and composition.

II. Measuring Earnings Capacity Poverty

We define the concept of family "earnings capacity" to be the level of annual income that a family could generate were the head, spouse (if present), and all other prime-aged adults (aged 18–64) to fully use their human and physical capital at capacity levels.[5] In particular, we define family *Gross Earnings Capacity* (GEC) as the earnings capacity of the head (EC_H) plus the earnings capacity of the spouse (EC_S) plus the sum of the earnings capacities of all other adult family members (EC_A) plus property income (μ). That is,

$$GEC = EC_H + EC_S + EC_A + \mu. \tag{1}$$

To estimate the earnings capacity of working-age adults, we fit an identical two-equation model for four race-gender (white/non-white; male/female) categories in both 1973 and 1988. We rely on the microdata from the March 1974 (for income year 1973) and March 1989 (for income year 1988) Current Population Surveys (CPS). Recall that the data from these surveys serve as the basis for the official U.S. measure of poverty.

In the first equation, the correlates of the full-time, year-round (FTYR) labor force participation of adults of each race-gender category are estimated for 1973

[2]The concept of earnings capacity was first defined and used in analyzing poverty and inequality in Garfinkel and Haveman (1977).

[3]For the purpose of this analysis, we accept the official poverty lines as appropriate indicators of income levels required to attain minimum levels of consumption.

[4]The poverty definition based on the earnings capacity indicator of family economic well-being is different than that employed in Haveman and Buron (1992). In that study, we ranked all living units by the ratio of NEC to the poverty line, and designated as Earnings Capacity Poor the population of individuals with the lowest ratios equal in number to the officially poor population.

[5]Our operational definition of "family" includes "families" or "unrelated individuals." Also, we treat related sub-families as part of the primary family while unrelated families are treated as independent family units. Families are included in our sample if the head of the family or head of a sub-family is between age 18 and 64.

and 1988 using a reduced-form probit specification. The independent variables include variables that affect the expected market wage (e.g. health status, education and age entered nonlinearly and interacted, veteran status), the incentive to work (e.g. non-labor income, marital status, number of children, in school, and AFDC benefits), and labor market conditions (e.g. the state unemployment rate, region of the country, rural-suburban-urban location). Estimates from the first-stage probit equations are used to construct the Heckman selectivity correction term (λ) for each individual; these terms are used in a second-state earnings equation to correct for the bias in estimating an earnings equation using data only on individuals who have selected into the FTYR work force.

The second-stage earnings equation is fit over those individuals with positive earnings. The earnings equation is of the form

$$\text{LOGEARN} = X\beta + c\lambda + \varepsilon \tag{2}$$

where LOGEARN is defined as the logarithm of observed earnings, X is composed of the independent variables that affect earnings, λ is the selectivity correction term, and ε is a randomly distributed residual term distributed $N(0, \sigma^2)$. The independent variables in this equation were chosen using the human capital model as a guide, and include education, age, region of the country, rural-suburban-urban location, marital status, number of children and their ages, and health status indicators.[6]

To obtain an estimate of earnings capacity for a person (EC)—the expected earnings of the person were he/she to work full-time, year-round—we employ coefficients from the appropriate LOGEARN equation and the person's family and individual characteristics. By adopting this procedure, each individual with the same set of characteristics is assigned the same earnings capacity.

Such an assignment procedure, however, neglects the role of unobserved human capital and labor demand characteristics and "luck" in the earnings determination process, and hence leads to an artificially compressed distribution of predicted EC for each race-gender group and for the entire population. To avoid this, we account for unexplained earnings variation within each race-gender group by randomly shocking the estimated value for each individual observation within a cell. We assume that the distribution within a cell is normal, with a standard deviation equal to the standard error of the estimated race-gender earnings equation fit over only FTYR workers.[7] We use the standard error (σ)

[6]The coefficient estimates and the variable descriptions from the eight race-gender equations for each year are available from the authors, upon request. The estimates conform to the expectations of the human capital model. Changes in the estimated coefficients over the years reflect changes over time in labor supply, labor demand, and the structure of the labor market.

[7]The earnings residual (ε) contains both earnings due to unmeasured individual-specific human capital (δ) and random fluctuations in earnings (ν). That is:

$$\varepsilon_{i,t} = \delta_i + \nu_{i,t}$$

where i is a subscript for the individual and t is a time subscript. Both δ and ν are assumed to be independently and normally distributed with a zero expected value and constant variance; they are also assumed to be independent of each other. With cross-sectional data, it is not possible to distinguish between δ_i and $\nu_{i,t}$. If we do not make an adjustment to add back variance, we are implicitly assuming that the entire residual is made up of transitory shocks to earnings (i.e. $\varepsilon_{i,t} = \nu_{i,t}$). The method we adopt is to assume the entire residual represents permanent differences in individual-specific human capital stock (i.e. $\varepsilon_{i,t} = \delta_i$). See Lillard and Willis (1978) for discussion of the error component structure and some empirical estimates of the transitory and permanent components of the residual term.

from the estimated FTYR equations assuming that, even if everyone worked to capacity, the variance of wages would be the same as the estimated variance of wages among FTYR workers.

The concept of earnings capacity presumes that individuals are fully utilizing their ability to earn income at capacity, i.e. that they are FTYR workers.[8] However, some individuals are constrained from working full-time, year-round, due to health limitations, disabling conditions, or involuntary unemployment due to insufficient aggregate demand. To take into account such exogenous limitations on the utilization of capacity, we adjust the estimated EC values by a factor which reflects the time that each individual loses in a year because of these constraints. This factor is defined as

$$\Gamma = (50 - WC)/50 \tag{3}$$

where WC is reported weeks constrained from working because of sickness, disability, or unemployment.

In addition, if a person reported working part-time becuse of these constraints, their estimated EC is multiplied by 0.5, implying that these exogenous factors constrain capacity work to 20 hours per week. These adjustments, it should be noted, implicitly assume that the constraints are "permanent" characteristics of the individual. To the extent that the circumstance is transitory, our procedure may bias the *EC* estimate for any particular individual; however, if these constraints are transitory and their incidence among the population is roughly constant over time within broad population groups, our adjustment yields reliable group estimates of earnings capacity.

In summary, for each individual,

$$\widehat{EC} = \exp(X\beta + \sigma^* rn)^* \Gamma \tag{4}$$

where *rn* is a randomly generated variable distributed $N(0, 1)$. To obtain family gross earnings capacity (GEC), the predicted and adjusted EC_H, EC_S, and EC_A are summed, and observed property income (μ) is added to the sum.[9] That is,

$$GEC_F = EC_H + EC_S + EC_A + \mu. \tag{5}$$

Our GEC estimate neglects the costs required of a family to attain GEC. Some of these costs may be specific to particular jobs, and therefore reflected in the market wage rate. Others, however, result from the obstacles to FTYR work for both the head and spouse which are inherent in the structure or location of

[8]The "capacity wage rate" implied in our estimate of individual EC is the average wage rate of persons with the same set of characteristics included in our earnings functions. Hence, the law school graduate who chooses to work for a public interest firm at a very low salary will reduce our estimate of the "capacity wage rate" for highly educated workers. An alternative definition of earnings capacity could adjust for individuals who are voluntarily working for wages lower than is available to them. In practice, however, the separation of voluntary choices from the effects of unobserved, non-taste factors seems impractical. Hence, our measure of the "capacity wage rate" incorporates the average short-fall from the maximum, or frontier, wage rate for persons with a specific constellation of characteristics.

[9]Property income includes net interest, dividends, rent, alimony, and child support income. Observed property income is used because we assume that people are using their physical capital to full capacity. To the extent that these flows are underreported in the data, our estimates of GEC will be biased downward.

families, in combination with socially established standards for overcoming these obstacles. The most prominent of these obstacles is the child care requirements associated with the presence of young children. Families working at full capacity can overcome this obstacle only by arranging—and paying—for socially acceptable child care for young children.

To reflect the costs of this child-related obstacle in attaining GEC, we subtract from each family's GEC estimate the amount required to purchase acceptable child care.[10] We assume that the cost of child care was $1.50 per hour in 1988, that each child younger than six years of age requires 2,000 hours of child care per year, and that each child aged 6–11 requires 800 hours of after-school and summer care.[11] Hence,

$$\text{NEC} = \text{GEC} - (\$3{,}000 \times \text{number of children younger than six plus } \$1{,}200 \times \text{number of children aged 6–11}). \tag{6}$$

The level of NEC for each family is then compared to the official U.S. poverty line for that family, a line that reflects the size and composition of the family.[12] Families for which NEC is greater than the poverty line are able to earn sufficient income to escape poverty; the remaining families—those for which NEC is less than the poverty line—are defined as "Earnings Capacity Poor."

III. Poverty in the United States, 1973–88: Earnings Capacity Poverty and Official Poverty Compared

Table 1 presents estimates of the prevalence of Earnings Capacity (EC) Poverty for families, individuals, and children in the United States in 1973 and 1988 (columns 1–2). It compares these with similar estimates of official poverty

[10]The contribution of children to family well-being is a controversial issue. If the presence of a child conveys utility to the other members of the family unit, this contribution to well-being should be reflected in an ideal indicator of family economic position. Although our GEC measure does not include this child-based source of well-being, we nevertheless subtract the cost of child care necessary to enable the full use of family GEC. We justify the implicit neglect of children's contribution to family well-being on the grounds that (1) not all children are "desired" (especially at the low end of the earnings capacity distribution); (2) if children's well-being is included in the family utility function, the simulated returns from parental use of earnings capacity entails a loss of parental care time, which is not taken into account; and (3) reliable estimates of a money measure of the gain in family utility from children are non-existent.

[11]Child care cost estimates are from Sandra Hofferth's measure of mean hourly expenditures on day-care center care as reported in the Institute of American Values' policy brief (1989). We chose the average cost of out-of-home care because we believe it best represents the true cost of child care. The lower monetary cost of care by relatives may not reflect the entire cost to parents. As Waite, Leibowitz, and Witsberger (1991) observe, "[R]elatives may exact psychic costs—for example giving unsolicited advice or making emotional demands—in the process of providing child care" (p. 43).

[12]The poverty thresholds were contructed by (1) deflating the current version of the poverty thresholds to 1967 using CPI-U (which is the inflation index the Census has used to inflate the poverty line) and (2) inflating the current version of the 1967 poverty thresholds to 1973 and 1988 using 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 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 in 1981. 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 (1988 CBO study, pp. 6–9).

TABLE 1

AGGREGATE NUMBER OF FAMILIES, INDIVIDUALS AND CHILDREN WHO ARE EARNINGS CAPACITY AND OFFICIALLY POOR IN THE UNITED STATES 1973 AND 1988, AND INCIDENCE RATES

	Net Earnings Capacity Poverty			Official Poverty		
	1973	1988	% Increase 1973-88	1973	1988	% Increase 1973-88
No. in Millions						
Total families[a]	2.3	3.6	57	4.0	6.0	50
Total individuals	10.5	14.5	38	18.5	25.0	35
Total children <18	6.3	7.3	16	9.2	11.2	22
Total children <6	2.2	3.2	45	3.0	4.6	53
Incidence rates						
Families[a]	4.9%	6.4%	31	8.4%	10.7%	27
Individuals	5.8%	6.9%	20	10.2%	11.9%	17
Children <18	9.5%	11.6%	22	13.9%	17.8%	28
Children <6	11.3%	14.5%	29	15.4%	20.8%	35

Source: Calculations by authors based on March 1974 and March 1989 Current Population Survey data.

Note: Only "family units" with family heads aged 18-64 are included.

[a]In this table, families refers to families with 2 or more persons.

(columns 4-5). Table 1 also shows the percentage growth in these totals and rates over the 1973-88 period (columns 3 and 6).

In 1973, 2.3 million families (of two or more persons) with a non-aged head had Net Earnings Capacity below the poverty line; this comprised about 4.9 percent of all families in the United States. Ten and a half million people lived in these EC-poor families or were EC-poor individuals—about 5.8 percent of the nation's population of 182.4 million in that year.

By 1988, the number of families and individuals in EC Poverty had increased substantially—by 57 and 38 percent, respectively. Since the nation's population living in a family headed by a non-aged person increased by only about 15 percent over this period, the incidence of EC Poverty also rose. Incidence rates for families and individuals were more than 20 percent higher in 1988 than they were in 1973. By 1988, nearly 7 percent of the nation's population lived in families with a non-aged head who lacked the capability to earn sufficient income to escape poverty.[13]

The absolute level of official poverty (columns 4-5) is about 170 percent of that of EC Poverty. Prevalence rates as close as they are is surprising, since in addition to family earnings, the current cash income numerator of the official poverty measure includes all receipts from public and private income transfers. This difference in EC and official poverty prevalance rates is noteworthy, and reflects the low levels of work of those at the bottom of the human capital

[13]The incidence of EC Poverty from a procedure in which the constrained variance is not returned exhibits a similar pattern over time and between groups as the variance-added-back results we report. However, the levels of EC Poverty are somewhat smaller. For example, the overall EC Poverty incidence rate was 4.6 percent in 1973 and 5.1 percent in 1988.

distribution. The causes of this weak labor force attachment include poor job opportunities for those with few skills, responses to the work disincentives associated with available income trasfers, and perhaps relatively strong tastes for leisure relative to income. We do not attempt to allocate this gap to its potential causes.

From 1973 to 1988, official poverty incidence of individuals rose from 10.2 percent to 11.9 percent, an increase of 17 percent. Table 1 indicates that the 1973-88 increase in the incidence of EC Poverty (20 percent) among individuals was about one-fifth greater than the increase in the rate of official poverty. As high and rapidly growing as the EC Poverty incidence rates for individuals are, they camouflage a more serious problem for children. In 1973, 9.5 percent of all children under 18 (and 11.3 percent of children under age 6) lived in families that were unable to earn sufficient income to escape poverty; these rates were about *double* those for individuals and families. However, even these high rates pale compared to their levels some 15 years later. In 1988, nearly 12 percent of all children, and nearly 15 percent of all young children, lived in families that were incapable of working themselves out of poverty. By 1988, EC Poverty incidence rates for young children were nearly 30 percent greater than in 1973.

Somewhat unexpectedly, although overall EC Poverty rates grew more rapidly than the rate of official poverty over the 1973-88 period, official poverty incidence rose more rapidly for children than EC Poverty incidence. For example, while EC Poverty incidence for young children rose by 29 percent (from 11.3 percent to 14.5 percent), the official rate rose by 35 percent, to nearly 21 percent. This pattern suggests a more rapid concentration of young children in families with low current income than in families with low earnings capacity, and reflects the substantial reduction in real benefit levels in important family-based income transfer programs over this period.

Understanding the causes for these divergent patterns among the two poverty measures requires a detailed look at changes in incidence among more detailed population groups.

IV. Patterns of Earnings Capacity Poverty in The United States: 1973-88

Table 2 breaks down the levels and trends in EC Poverty incidence rates from 1973 to 1988 by detailed demographic groups.[14] The top row of the table replicates the EC Poverty incidence rates found in Table 1; subsequent rows present rates for population subgroups.

The Incidence of Earnings Capacity Poverty among Sub-groups: 1973-88

The individuals with the lowest rates of EC Poverty are those living in white families, in male-headed (primarily intact) families, and in families whose head has at least some post-secondary schooling. Irrespective of year, the rate of EC Poverty among such families was 4.4 percent or less.

[14]Our analysis holds family composition fixed, even though full utilization of earnings capacity might result in some adjustment of living arrangements.

TABLE 2

EARNINGS CAPACITY POVERTY INCIDENCE RATES FOR INDIVIDUALS AND CHILDREN BY CHARACTERISTICS OF FAMILY HEAD AND FAMILY TYPE

	Individuals							
			% Change	Official Poverty % Change	Children <18		Children <6	
	1973	1988	1973–88	1973–88	1973	1988	1973	1988
All	5.8%	6.9%	20	17	9.5%	11.6%	11.3%	14.5%
Race of head								
White	3.0	4.4	47	12	4.7	7.1	5.5	9.1
Black	20.9	18.5	−13	−5	30.7	23.3	34.2	34.7
Hispanic	15.1	11.9	−27	13	22.1	18.7	25.9	21.6
Other	5.4	5.9	9	38	8.7	9.3	3.4	12.7
Sex of head								
Male	2.3	3.2	39	12	3.2	4.3	4.0	5.4
Female	27.9	22.2	−26	−9	45.4	38.3	58.7	51.1
Education of head								
0–11	12.2	17.1	40	53	19.7	27.0	24.9	32.9
12	3.8	7.3	92	60	6.3	12.4	8.1	16.9
13–15	1.6	3.6	125	20	2.5	5.9	3.2	6.4
16+	0.4	0.6	50	9	0.5	0.7	0.8	10.7
Family type								
Intact[a]	2.1	2.5	20	6	3.1	3.8	3.8	4.8
Female head[b]								
with children	38.8	32.7	−19	0	45.4	38.5	58.7	51.1
White	28.0	28.9	3	6	33.0	33.6	49.5	50.9
Black	50.5	36.4	−39	−9	57.8	43.0	65.8	51.8
Hispanic	53.0	38.0	−39	2	59.9	45.2	71.3	52.8
Other	32.0	24.5	−31	1	38.8	27.4	13.2	37.6
Male head[b]								
with children	10.2	13.6	33	49	12.0	16.6	15.7	26.0
Single female[c]	10.2	9.7	−5	−25	NA	NA	NA	NA
Single male[c]	6.2	7.8	26	−6	NA	NA	NA	NA
Female head with children and on welfare	60.2	56.3	−7	18	64.6	60.2	72.6	66.6
Female head with children and not on welfare	23.2	21.4	−8	1	28.4	25.9	40.4	37.8

Source: Calculations by authors based on data from March 1974 and March 1989 Current Population Survey.

Note: Only "family units" with family heads age 18–64 are included.

[a]Male is referred to as head in intact families.

[b]Heads are single parents.

[c]Single persons with no dependents other than themselves.

Conversely, individuals in families that are unable to work themselves out of poverty are concentrated in black and Hispanic families, in female-headed families with children, and in families headed by a person with less than a high school education. Among these three groups, the EC Poverty incidence rate in 1973 ranged from 12.2 percent to 38.8 percent; by 1988, the rates ranged from 11.9 percent to 32.7 percent.

Further break-downs within these high-destitution-rate groups reveal even more severe economic status problems. Over 50 percent of individuals living in families with children that are headed by a black or Hispanic woman were EC-Poor in 1973. By 1988, this rate had fallen to around 37 percent—an improvement, but still very high. For individuals in such minority and single-parent families, EC Poverty rates for children lie well above those for all individuals, especially those for children younger than six years old. The following indicates the probability that *young* children living in families with such characteristics lived in an EC-Poverty family in 1988:

Black families	34.7
Hispanic families	21.6
Female-headed families	51.1
Black female-headed families	51.8
Hispanic female-headed families	52.8
Single mother on welfare families	66.6

The EC Poverty rates for all young children in female-headed black or Hispanic families exceeded 50 percent. The highest rate shown is for children living in a mother-only family who receives welfare; only one-third of the children in such families are *not* EC-Poor.

Changes in the Incidence of Earnings Capacity and Official Poverty among Sub-groups: 1973–88

Table 1 reveals an increase in the incidence of U.S. EC Poverty for families and individuals from 1973 to 1988 that outstrips the growth in official poverty. This overall growth, however, disguises many of the more interesting patterns of change among sub-groups of the population over this period. Column 3 of Table 2 presents the percentage change from 1973 to 1988 in EC Poverty rates among the detailed population groups. While the EC Poverty rate for the entire U.S. population grew by 20 percent, the growth in EC Poverty among the population sub-groups ranged from a 40 percent *decrease* in incidence to a two-and-one-half-fold *increase.*

The family types with the highest percentage increases in column 3 are those which have experienced the largest *relative* losses in the capacity to escape poverty through work and earnings over the past two decades. The following lists the primary sub-groups in the table with *growth* in EC Poverty in excess of 20 percent:

Whites	+47 percent
Male heads	+39 percent
Education 12	+92 percent
Education 13–15	+125 percent
Education 16+	+50 percent
Intact family	+20 percent

Interestingly, these population sub-groups are predominantly white, intact, and of relatively high education levels; they are not generally thought of as economically vulnerable family types. Indeed, even though these groups had large relative increases in EC Poverty, by 1988 the incidence rates for these groups were still low, ranging from .6 percent to 7.3 percent.

In part, this pattern of relative intertemporal changes is due to the low initial (1973) incidence rates of some of the groups. However, because the absolute size of these mainstream groups is large relative to the population, the 20 percent increase in the aggregate EC Poverty rate over the period is largely attributable to the deterioration in their relative earnings capabilities.[15]

The most surprising story in Table 2 concerns the groups that have experienced *reductions* in EC Poverty incidence rates. These reductions are often large, and the groups that have experienced them tend to be those with the highest overall levels of both EC and official poverty. The following lists the primary subgroups in the table with the largest *reductions* in EC Poverty from 1973 to 1988:

Blacks	−13 percent
Hispanics	−27 percent
Female heads	−26 percent
Black female heads with children	−39 percent
Hispanic female heads with children	−39 percent

These population groups are among the least well off and most vulnerable groups in the nation, and have among the highest rates of either EC or current income (official) poverty. For example, while the overall EC Poverty incidence rate was 6.9 percent in 1988, EC Poverty for these groups ranged from 11.9 percent to 38 percent. Similarly, their official poverty rates in 1988 ranged from 24.5 percent to 60.3 percent (not shown in table).

While most of these groups also experienced some decline in official poverty over this period, the reduction in EC Poverty rates are far in excess of the official poverty reductions. While the decreases in EC Poverty rates for these groups ranged from 13 to 39 percent, the changes in official poverty rates ranged from −9 percent to +13 percent.

What accounts for this differential pattern of poverty incidence trends between the *EC* and official definitions of poverty? An important clue resides in the interaction between family structure (in particular, intact vs. female-headed families) and trends over time in those factors that differentially affect current income—and hence official poverty—and earnings capacity, namely transfer income and changed labor supply. The following shows that for intact and other male-headed families, the percentage increase in *EC* poverty exceeded that of official poverty; conversely EC poverty fell more than official poverty for female-headed families.

	Percent Change	
	EC Poverty	Official Poverty
Male head	+39	+12
Intact families	+20	+6
Single male	+26	−6
Female head	−26	−9
Female head with children	−19	0
Female head with children and on welfare	−7	+18

[15]An alternative to the percentage growth figure is the *absolute* percentage point change in the EC Poverty rate. Using this measure, families headed by individuals not generally thought of as

While changes in real wages affect both definitions of poverty in much the same way, changes in income transfer generosity do not. A reduction in the real value of cash transfers to single mothers tends to increase official poverty relative to EC poverty, and this reduction tends to offset the increase in the real wages of women over this period. The interaction of these trends is consistent with the pattern of changes shown above.

Conversely, intact families were adversely affected by the declining value of real wages of males over this period, especially at the bottom of the income distribution (Juhn, 1992); this erosion has tended to increase EC and official poverty. However, for intact families this increase has been offset by the growth in the number of working wives over this period. As a result, the large increase in EC Poverty recorded for intact families would tend to exceed that for official poverty, and again this pattern is seen in the numbers. It should be noted that, in spite of these trends, female-headed families had much higher levels of both EC and income poverty in 1988 than did male-headed families.

Changes in the Composition of Earnings Capacity and Official Poverty among Sub-groups: 1973-88

Relying on the EC measure of economic status as the basis for poverty measurement, then, implies substantial changes in the composition of poverty over the 1973-88 period. Since groups commonly thought of as having a low probability of being poor—intact families, white families, families whose head has a high school education or more—experienced substantial increases in EC Poverty incidence rates, their share of the EC Poverty population is expected to have increased. At the same time, groups commonly thought of as among the nation's poorest and most vulnerable—minorities, females, and single mothers—experienced large relative increases in the capacity to earn, and hence reductions in EC Poverty incidence rates. Their share of the EC Poverty population is expected to have decreased.

These expected compositional patterns over the 1973-88 period are shown in Table 3. For the EC Poverty measure, the composition of the poor population has shifted from groups commonly thought to be among the nation's most vulnerable toward groups that have been viewed as largely immune from poverty. The opposite compositional shifts are shown using the official poverty measure. A comparison of the percentage change in the share of individuals in both EC

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vulnerable to destitution also experienced rapid growth. As can be determined from the table, the primary sub-groups with absolute increases in the incidence rate in excess of that in the aggregate national rate (1.1 percentage points) are

Whites	+1.4 percentage points
Education 0-11	+4.9 percentage points
Education 12	+3.5 percentage points
Education 13-15	+2.0 percentage points
Male heads with children	+3.4 percentage points

The 1988 EC Poverty incidence rates for these groups ranged from 3.6 percent to 17.1 percent.

and official poverty of "less vulnerable" and "more vulnerable" groups illustrates this differential pattern.

	Percentage Change	
	EC Poverty	Official Poverty
Less Vulnerable		
White family heads	+12.6%	−11.3%
Male-headed families	+7.5%	−11.2%
Intact families	−11.3%	−22.9%
Head 16+ years of education	+90.9%	+40.0%
More Vulnerable		
Black family heads	−19.0%	−11.8%
Female-headed families	−4.0%	+11.6%
Head <12 years of ed	−31.5%	−23.4%
Female heads with children	−8.6%	+10.2%
Black female heads with children	−23.3%	−1.4%

The share of the EC poverty population accounted for by the less-vulnerable groups has tended to increase, while their share of official poverty has tended to fall. On the other hand, the more vulnerable groups' share of EC poverty has decreased while their share of official poverty has increased (or their EC poverty share has decreased by more than their official poverty share).

V. Conclusion

We have focused on a series of important questions with policy relevance. How many Americans are unable to earn enough to escape poverty? Has the number of such Earnings Capacity Poor changed over time? Who are these people living in such low-capability families?

Several conclusions stand out. First, the rate of EC Poverty in the United States has grown more rapidly than has the current income poverty rate. While the official poverty rate for families rose from 8.4 to 10.7 percent (a 27 percent increase) from 1973 to 1988, the corresponding rate of Earnings Capacity Poverty rose from 4.9 to 6.4 percent (a 31 percent increase).

Second, while the growth of overall EC Poverty for families exceeded the growth of official family poverty, the growth patterns for children were quite different. For both children younger than 6 and children younger than 18, official poverty rates grew by 35 percent and 28 percent, while EC Poverty rates grew by 29 and 22 percent.

Third, the percentage of children living in families that cannot earn sufficient income to escape poverty—especially the percentage of children younger than six—is far higher than it is for all individuals and families. Living units with high ratios of children to adults are heavily concentrated at the very bottom of the nation's economic pecking order. It is indeed shocking that *over one-seventh—15 percent—of America's young children live in families which do not have the capability to escape poverty by working and earning.*

Fourth, the highest EC Poverty rates are, as expected, concentrated among the population groups that are generally recognized as among the nation's most vulnerable: blacks (with an EC Poverty rate of 18.5 in 1988), Hispanics (11.9),

TABLE 3

EARNINGS CAPACITY AND OFFICIAL POVERTY COMPOSITION SHARES FOR INDIVIDUALS BY CHARACTERISTICS OF FAMILY HEAD AND FAMILY TYPE

	EC Poverty			Official Poverty		
	1973	1988	% Change 1973–1988	1973	1988	% Change 1973–1988
Race of head						
White	42.7%	48.1%	+12.6	52.0%	46.1%	−11.3
Black	41.5	33.6	−19.0	34.6	30.5	−11.8
Hispanic	14.5	15.5	+6.8	11.7	18.4	+57.3
Other	1.3	2.9	+123.1	1.7	5.0	+194.1
Sex of head						
Male	34.5	37.1	+7.5	51.0	45.3	−11.2
Female	65.5	62.9	−4.0	49.0	54.7	+11.6
Education of head						
0–11	70.8	48.5	−31.5	63.3	48.5	−23.4
12	24.2	39.6	+63.6	25.3	35.3	+39.5
13–15	3.8	9.8	+157.8	8.0	11.3	+41.3
16+	1.1	2.1	+90.9	3.5	4.9	+40.0
Family type						
Intact[a]	29.1	25.8	−11.3	44.5	34.3	−22.9
Female head[b] with children	59.2	54.1	−8.6	40.3	44.4	+10.2
White	22.2	22.5	+1.3	14.7	15.5	+5.4
Black	28.8	22.1	−23.3	20.3	20.0	−1.4
Hispanic	7.5	8.2	+9.3	4.7	7.5	+59.6
Other	0.7	1.3	+85.7	0.6	1.4	+133.3
Male head[b] with children	1.6	3.6	+125.0	1.0	2.6	+160.0
Single female[c]	5.4	7.3	+35.2	7.5	8.1	+8.0
Single male[c]	3.4	7.3	+114.7	4.9	8.1	+65.3
Female head with children and on welfare	38.7	30.1	−22.2	26.7	26.8	+0.3
Female head with children and not on welfare	20.5	23.9	+16.6	27.2	17.7	−34.9

Source: Calculations by authors based on data from March 1974 and March 1989 Current Population Survey.

Note: Only "family units" with family heads age 18–64 are included.

[a]Male is referred to as head in intact families.

[b]Heads are single parents.

[c]Single persons with no dependents other than themselves.

female family heads (32.7), and mothers on welfare (56.3). For some of these groups, the rate of EC Poverty is nearly as high as the official poverty rate, even though the aggregate EC Poverty rate lies well below the official rate.

Fifth, since the early 1970s the *increase* in the incidence of EC poverty has come largely from groups that are generally viewed as relatively secure economically: whites, intact families, and those with relatively high educations. Discouragingly, even individuals in families with both parents present and those who have post-secondary schooling increasingly find themselves unable to escape poverty through their own efforts. Conversely, more economically vulnerable groups—minorities, mother-only families, those with low educations—had smaller increases in EC Poverty than official poverty or had larger reductions in EC Poverty than official poverty.

The different patterns of change in EC and official poverty rates between the more vulnerable and less vulnerable groups is consistent with evidence on changes over time in (1) male and female wage rates, (2) cash transfer benefits targeted at female-headed families, and (3) the work effort of spouses. While the latter two changes affect the incidence and composition of official poverty, they do not influence EC Poverty incidence and composition. These differential patterns of change are also consistent with the large relative increase in joblessness and underemployment documented for less-educated younger and older workers (see Blank, 1990; Juhn, Murphy, and Topel, 1991) and with the increases in work time and employment rates recorded for those living in intact families, whites, and those with relatively high levels of education (see Coleman and Pencavel, 1992).

Those with skills, education, and living in two-adult families were apparently able to escape the effects of wage stagnation over the 1973–88 period by joining the labor force and increasing their work hours—factors that are reflected in the smaller relative increases in official, than in EC, poverty rates. Conversely, the relative decline in EC Poverty rates for low education, minority, and single-parent families (either smaller increases than official poverty or larger reductions than official poverty) suggests that these vulnerable groups *could have* experienced substantial improvements in income if *either* there had been a more rapid increase in job opportunities for them *or* if they had chosen to utilize their increased earnings capacities at higher rates than they in fact did. Presuming that the lack of job opportunities dominates the choice of work effort suggests that economic growth—especially economic growth *not* driven by a demand primarily for high-skilled labor—could yield substantial improvements in the economic position of these groups. While the capability of vulnerable groups to earn their way out of poverty has increased markedly, the nation has not been able to realize this improvement.

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