

The dynamics of poverty

by Elizabeth Evanson

For those who experience it, is poverty a lasting or a temporary condition? What types of individuals and households are more likely to endure either "permanent" or "transitory" poverty, and what programs are more likely to be effective in reducing the two types of need? The answers to these questions have important bearing on the direction of government policy: short-term measures such as income transfers are adequate to relieve temporary distress; long-term measures including structural changes in the labor market as well as investment in education, training, and special services are needed to address persistent poverty.

Efforts to classify poverty as persistent or transitory, and to identify the demographic groups susceptible to either variety, have been clouded by the use of different data sources and varying definitions of *poverty*, *persistent*, and *transitory* (see Table 1). As will be seen below, changing emphases in research (and policy) over the last twenty years have sometimes affected the conclusions that are drawn about the phenomenon of poverty. Recently, two Institute-affiliated researchers working independently of each other have suggested that poverty is more persistent than research of the last decade has implied.

Peter Gottschalk, economist at Bowdoin College and a researcher associated with the Institute, examines earnings mobility among married couples. He focuses particularly on the amount of mobility that is due to random fluctuations in earnings and not steady movement up or down earnings ladders. A surprisingly large share, up to two-thirds, of alterations in earnings appears to represent transitory variations; but when those variations are eliminated, the proportion of permanently low earners among the poor is still larger than previously perceived. Lee Rainwater, sociologist at Harvard and member of the Institute's National Advisory Committee, examines labor earnings plus cash transfers and other income. Counting the poor together with the "near poor"—those somewhat above the poverty line—he finds persistent poverty of considerable magnitude, estimated to be as much as 16 percent of all preretirement families.

These two scholars employ distinct definitions and separate data bases in their analyses, yet their conclusions share common features. This commonality is the more striking in view of the increasing salience, over the 1970s, of the view that poverty in the United States was, in large part, a transitory phenomenon. But that view itself re-

Table 1
Definitions and Findings in Studies of Poverty Dynamics

Author	Poverty Line	Persistently Poor	Transitorily Poor
Morgan (1974)	Relative (income-to-needs ratio; lowest fifth of population)	Income poor all 5 years: 9% of families	Income poor at least 1 of 5 years: 35% of families
Levy (1977)	Absolute (official definition)	Income poor at least 5 of 7 years: 43% of 1967 poverty population (5% of all individuals)	Income poor 2 of 7 years: 30% of 1967 poverty population (11% of all individuals)
Coe (1978)	Absolute (official definition)	Income poor all 9 years: 1% of all individuals	Income poor at least 1 of 9 years: 25% of all individuals
Gottschalk (1980)	Absolute (nontransitory earnings less than 125% min. wage for full-time work)	Earnings poor all 6 survey years: 40% of middle-aged couples who were poor in any 1 year	Earnings poor at least 1 of 6 survey years: 12% of middle-aged couples
Rainwater (1980)	Relative (income-to-needs ratio; poor = 50% of median, near poor = 50-70%)	Income poor all 10 years: 5% of all individuals (poor or near poor, 11.6%); poor on average all 10 years, 9.4% (poor or near poor on average, 16.5%)	Income poor or near poor 1-6 out of 10 years: 19% of all individuals
Hill (1981)	Absolute (official definition)	Income poor all 10 years: .7% of all individuals	Income poor at least 1 of 10 years: 24% of all individuals

Source: Data source is the Panel Study of Income Dynamics for all authors except Gottschalk, who used the National Longitudinal Surveys of Labor Force Participation.

flects a rejection of a still earlier concept. The importance of Gottschalk's and Rainwater's findings emerges clearly when set against earlier conceptions of the dynamics of poverty.

Contrasting viewpoints: two decades

Henry Aaron and Frank Levy have eloquently described one attitude toward the poor that shaped government policy in the mid-1960s, when efforts to combat poverty and—first things first—to *define* and *measure* it were launched.¹ The main feature of that attitude was that poverty was a fixed condition; the operative phrase, borrowed from anthropology and applied with something less than rigor, was “culture of poverty.” Whatever its conceptual drawbacks, the intent of the term was to convey the idea that the poor were trapped in a condition of economic immobility, most of them destined to remain poor from year to year, or even, without the intervention of outside forces such as the government, from generation to generation.

During this period the Social Security Administration developed its measure of poverty, the threshold still officially used. This was the estimated minimum income (cash income including government cash transfers) that would permit families, whatever their size and structure, to purchase the Economy Food Plan of the U.S. Department of Agriculture. This measure merged with the concept of an immobile portion of the population with results described by Levy as a kind of “queue” theory:

The poverty population was thought of as forming a long queue in which the length of the line might change but people always kept their places. Thus, under suitable economic conditions, some individuals could be removed from poverty and the poverty population would be reduced accordingly. But if the number of poor people remained constant, the same individuals would remain in poverty (p. 6).

These early efforts to comprehend the nature of poverty lacked the time-series sources that now exist. Only with the development of such longitudinal data sets as the University of Michigan’s Panel Study of Income Dynamics (PSID) did it become possible to gauge turnover in the poverty population with any degree of accuracy. The replacement of cross-sectional studies with longitudinal analysis permitted examination of more than just turnover: it allowed researchers to look for segments within the poverty population that were more likely to remain poor than others. Then policy could, in theory at least, be aimed at particular groups with particular problems.

In 1974, James Morgan was the first to make use of the PSID for this purpose.² He analyzed the initial five years (1967-1972) in terms of income poverty, which he defined, like the official measure, by cash income and transfers as related to a family’s needs. Unlike the official fixed line, however, Morgan’s threshold was a relative one: the poor were those who in any particular year were in the lowest fifth of the population as judged by the income/needs standard. Morgan and his colleagues found that 35

percent of the families in their representative national sample were poor in at least one of the five years. Morgan next asked “Who climbs out?”—who crosses the line that divides poor from nonpoor? His answer was that 11 percent of those who started below the line (set at twice the needs standard) in 1967 had moved above it by 1972, while 9 percent who started above the line dropped below it. In other words, the total percentage of poor changed somewhat, but different individuals made up the new percentage.

When Morgan looked for the particular characteristics of those who succeeded in climbing out, he found that in families with the same head over those years, education and ability were the primary sources of escape from poverty; being younger also helped. Getting married was a way out of poverty, and getting divorced was a way into it. Blacks incurred greater risk of being persistently poor than did whites, and needed more years of schooling than whites to avoid poverty.

In 1977 Levy analyzed seven years of data from the Panel Study sample to determine what had happened to those Americans who in the starting year, 1967, were deemed poor by the official standard. Of those 22.3 million people,³ 30 percent were only temporarily poor—or as he put it, “poor by mistake”—that year, because they were poor in only one other year through 1973. But 43 percent of those poor in 1967 were “permanently” poor, meaning poor in at least five years out of the seven (note that his measure is not poor *every* year). The remaining 27 percent “cycled in and out,” spending about equal amounts of time under and over the threshold (p. 13).

Levy wanted to test the hypothesis that poverty status was passed on from one generation to the next, so he compared the 1973 status of young people who in 1967 (then aged 16 to 25) were poor and who subsequently left their families and formed their own households. About 90 percent of the new white households, and 80 percent of the nonwhite ones, had moved above the poverty line in 1973; some were considerably above. Levy concluded that those figures “suggest strongly that poverty status is not something passed mechanically from one generation to the next” (p. 30). He also examined the characteristics of the “permanently” poor and found that if he sorted out poor people by the characteristics of the household head in 1967, a little more than one-third were in households headed by an aged or disabled person and about the same proportion were in households headed by men (nonaged and nondisabled); over one-quarter were in households headed by women.

Levy stressed that the proportion that remained poor was substantial, but by the late 1970s it was the transience rather than the persistence that had caught the interest of researchers and policymakers alike, and which ultimately came to dominate the picture. This view was reinforced

by Richard Coe's 1978 study of the same data source, which found that poverty was less *persistent* (the "persistently poor" being the 1 percent who were poor every one of the nine years examined) but more *pervasive* (one-quarter of the nation was poor at least one of the nine years) than annual figures alone would indicate.⁴

Another study from the 1970s that showed mobility rather than stability was conducted by Bradley Schiller.⁵ His, like Gottschalk's, was a study of labor market earnings, and he noted a considerable degree of movement by individuals. His focus was not on the poor alone but on almost all groups. Using the Longitudinal Employer Employee Data (LEED) file of the Social Security Administration, Schiller wanted to learn how much movement there was by prime-aged male workers from one segment of the earnings distribution to another over the period 1957-1971. His data excluded those who earned very little or no income (the bottom 10 percent) and were therefore not covered by social security; also excluded by definition were workers in the public sector outside the social security system. Within those limits, he found a great deal of mobility: 70 percent changed segments; the average move spanned one-fifth of the total distance from top to bottom of the distribution. Movement was greater in the middle portions of the distribution, least at the extremes. At the lower end, one-third of the workers remained immobile, indicating that many of the poor stayed poor. Schiller compared black with white earnings mobility and pointed out that the poorer blacks experienced less mobility, but blacks at the upper levels experienced more: "What this means is that black workers have an easier time staying at the bottom of the distribution, but a difficult time precariously clinging to the higher earnings positions" (p. 935).

Views from the 1980s

Gottschalk's subject, like Schiller's, is earnings mobility, but he asks a different question about different people in a different time: If we look at low earners in the years 1966 to 1975 (which included a recession), to what extent can we determine that yearly changes in their earnings represent random fluctuations rather than steady movement up or down earnings scales? Or, as he puts it, "Are people with low earnings in one year experiencing a transitory drop in earnings, or do they have permanently low earnings?" A particularly important aspect of his research deals with a specific segment of the population—the working poor. For if employed people cannot earn their way out of poverty, labor market strategies to improve earnings capacity may be called for.

The population whose earnings Gottschalk analyzes consists of a sample of nearly 1500 middle-aged couples, 30 to 44 years old in 1966, who are in one of the National Longitudinal Surveys of Labor Force Participation

(NLS), directed by Herbert S. Parnes. These couples represent workers during their years of highest earnings. Gottschalk focuses on earnings both of the husband and of the couple, the latter included to capture joint household decisions about allocation of time to market work. In contrast with Schiller, he is interested in mobility among those in the lower part of the earnings distribution—whose incomes fall at or below a threshold equivalent to 125 percent of the 1975 minimum wage for full-time work. (He also did some calculations using the official poverty line.)

To separate permanent from transitory changes in earnings, he fitted a time trend to each person's earnings history. The changes in earnings over the six observation periods in the eleven-year span were then separated into transitory changes, meaning movement around the trend, and nontransitory changes, or movement along the trend. The results, Gottschalk believes, suggest that about two-thirds of the mobility among not only low earners but all across the earnings distribution is due to random fluctuation.

Eliminating those fluctuations, he found that the proportion of permanently low earners was high. Among those couples with low earnings in any one year, 40 percent had low earnings in all six survey years, and 67 percent of those with one low-earnings year were also below the threshold in more than half the years. Actual earnings, which included random variation, showed much less persistence: By that measure only 14 percent of low-earning couples in any one year were under the threshold all six years.

Who are those most likely to be among the permanently low earners? In Gottschalk's sample, nonwhites, the elderly, and residents of rural areas had a significantly higher than average probability of having persistently low nontransitory earnings. His findings document a situation concisely expressed several years earlier by Henry Aaron:

Random events—the business cycle, plant closings, family problems, and, one suspects, interpersonal difficulties on the job—play an important role in the dynamics by which families sink into poverty or rise from it. The problem of poverty is in fact a continuum of problems, ranging from those of households who cannot ever earn as much as the officially designated thresholds, through other families who sometimes earn more but never much more than official thresholds, to a fraction that experiences poverty for a relatively brief time and then emerges from it (pp. 36-37).

The labor market circumstances for many of the poor are clearly adverse, and policy considerations might well profitably address the economic structures that constrain low earners.

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ground, found a modest effect of curriculum placement on eleventh grade achievement (Sequential Tests of Educational Progress) and on twelfth grade Math Preliminary Scholastic Aptitude Tests. They found no significant effect on the Verbal PSAT scores. Alexander et al. do not analyze data available from 19 other schools because of the absence of information on race. They nowhere establish that the data they do utilize is representative, so skepticism of their results is warranted.

⁴See B. S. Barnow, G. G. Cain, and A. S. Goldberger, "Issues in the Analysis of Selectivity Bias," Institute for Research on Poverty Discussion Paper no. 600-80.

⁵The use of summer learning as a control for student differences is a relatively recent innovation in research on school effects. See especially Barbara Heyns, *Summer Learning and the Effects of Schooling* (New York: Academic Press, 1978).

⁶See Barbara Heyns, "Models and Measurement for the Study of Cognitive Growth," pp. 13-52, in *The Analysis of Educational Productivity, Volume I: Issues in Microanalysis*, ed. Robert Dreeben and J. A. Thomas (Cambridge, Mass.: Ballinger Press, 1980).

⁷Calculated on the basis of Table 6.2.5 in the report, assuming 90 percent of all students are in public schools, 6.7 percent in Catholic schools, and 3.3 percent in other private schools.

⁸Table 6.2.5 shows that, adopting Coleman's corrections for missing dropouts, Catholic school seniors get 2 more items correct than public school seniors. I adjusted this for background differences between Catholic school and public school seniors, basing my adjustment on Coleman's reported results of biases due to background calculated without corrections for dropping out.

⁹The authors do not report standard deviations for the subtests which they analyzed. They report them only for the full tests. To approximate standard deviations for the subtests, I assumed the coefficient of variation (i.e., the ratio of the mean to the standard deviation) was the same for each subtest as it was for the corresponding full test.

¹⁰See, for example, Jencks and Brown.

¹¹J. S. Coleman, S. D. Kelly, and J. H. Moore (*Trends in School Segregation, 1968-1973* [Washington, D.C.: Urban Institute, 1975]) report an average within-district segregation index for public secondary schools of 0.27. This compares with 0.49 reported in "Public and Private Schools" for the United States as a whole. Robert L. Crain of the Rand Corporation cites evidence of segregation in big city parochial schools in his unpublished April 1981 review of "Public and Private Schools."

¹²See Coleman, Kelly, and Moore, and B. S. Zoloth, "Alternative Measures of School Segregation," *Land Economics*, 52 (1976), 278-298, for a discussion of Coleman's segregation index.

¹³David James, "Measures of Segregation," unpublished paper, Center for Demography and Ecology, University of Wisconsin, Madison, July 1981.

¹⁴David James, unpublished reanalyses of the High School and Beyond data. James calculated a segregation index of 0.498 for public schools and 0.285 for private schools. But when he assumed the private schools had the same proportion of black students as the public schools did, the segregation index for private schools rose to 0.391 even though the calculation assumed no change in how students were distributed to schools according to race. In contrast to the large differences between the Coleman segregation indices for private and public schools, James found the Gini index (*G*) and the index of dissimilarity (*D*) to be more comparable: *G* for the public schools was 0.703 compared with 0.627 for the private schools, and *D* was 0.871 for public schools and 0.812 for private schools. See Zoloth for descriptions of these measures.

¹⁵Glen Cain suggests this possibility in an unpublished memorandum to Arthur Goldberger, Madison, Wisconsin, July 1981.

¹⁶See Coleman, Kelly, and Moore for evidence of "white flight."

¹⁷See Goldberger.

¹⁸Hispanics might realize a proportionate benefit because their enrollment in nonpublic schools is close to their percentage among all high school students, and Coleman's results predict a higher responsiveness among Hispanics to income increases than among white Anglos. The higher dropout rate among Hispanics would reduce the benefit families actually received.

¹⁹See J. Q. Wilson, "Policy Intellectuals and Public Policy," *The Public Interest*, 64 (1981), 31-46.

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Lee Rainwater, who employs a relative definition of those who are income poor rather than earnings poor, also emphasizes more persistence of poverty. His data source is the Michigan Panel Study. Over the ten years that he analyzes, real per capita income rose and yet the poverty threshold was increased only for price changes, so that it remained fixed in real terms. He therefore sets a relative poverty line at one-half the median "well-being ratio" (the ratio of family income to needs). He classifies as "near poor" those with 51 to 70 percent of the median, and for purposes of analysis he puts both groups together as "of low income." Rainwater finds that over the ten years 1967-1976, 40.6 percent of the population was "ever poor." This category he breaks down as follows: poor all ten years, 5.2 percent; near poor when not poor, 6.4 percent; spent at least seven years below the low-income level, 10 percent; one to six years below low income, 19 percent. When Rainwater averaged incomes over three periods within the decade in order to even out year-to-year fluctuations, he found that in the entire sample, 9.4 percent were always poor and 7.1 percent were near poor when not poor.

Having found a large number of persistently poor people in the sample, Rainwater next posed the basic question, "Who is poor?"—what groups have a higher probability of lower well-being. "Minorities" (blacks and Hispanics) were much more likely to be low-income over the years: among those 18 to 24 years old, the likelihood of being poor or near poor was eight times greater for minority than for majority youth, and between the ages of 25 to 54, the odds were seven times greater for minority people. Marital status again played a large role: Those not married for all ten years of the study made up more than half of the persistently poor, whereas those married to the same spouse all ten years made up less than a tenth. Among women heading their own households, 43 percent were in the persistently poor group. So also were 34 percent of the men who were single heads of households all ten years. Among men who were sometimes married and sometimes not, 10 percent were persistently poor; the comparable figure for women was 15 percent.

"Income packaging" is another concept that Rainwater explores. Total household income may be drawn from a variety of sources—Rainwater used four categories: head's earnings plus asset income; wife's earned income; husband's and wife's other income (referring primarily to transfers and pensions); and income of other family members. Which source is most effective in removing people of preretirement age from poverty or near poverty? Averaging over three periods for household members aged 18 to 54 in 1968, Rainwater concludes that the traditional source of income, head's earnings and assets, kept about two-thirds of the families above the poverty line in all three periods. Wife's income kept another 8 percent of

families from poverty; the couple's other income kept another 20 percent above the line; contributions by others in the household moved a small proportion, 3.5 percent, across the threshold. The comparable figures for sources moving families above near poverty are 43 percent, 12 percent, 27 percent, and 4 percent. These figures, minus income from assets and transfers, are those that Gottschalk examined; they underscore again the need for anti-poverty strategies directed at earnings. The considerable role for "other income" illustrates both the effectiveness of and the dependence upon government transfers.

In the preretirement group—also Gottschalk's population of interest—Rainwater finds that 11 percent of the total population never rose above the near-poverty level in ten years, and if temporary additions to family income from children or others are disallowed, "it would not be at all unreasonable to expect a persistently poor group of preretirement families on the order of 16 percent." Anti-poverty policy in the United States has not focused upon persistent poverty, Rainwater points out. In Britain and Sweden, by contrast, general employment and wage solidarity policies have been joined to the social insurance programs that are directed toward alleviating temporary poverty.

Another recent analysis of Panel Study data, by Martha Hill, economist at the University of Michigan, reasserts the significance of transient income poverty over the decade 1969-1978.⁶ In any single year, about 8 percent of the individuals were poor by the official definition; over the ten years, 0.7 percent were poor every year and 24 percent were poor in at least one year. But 40 percent of those poor at any time during the decade were poor only one year, in comparison to the 3 percent of the ever poor who were in poverty all years; the remaining 57 percent fell between the two extremes. Yet Hill too finds that persistent poverty afflicted a substantial number. Over each of two five-year periods (used for analysis to detect structural differences in the decade), 11 to 12 percent who were poor in any one year were poor all five years.

Selected papers

Peter Gottschalk, "Earnings Mobility: Permanent Change or Transitory Fluctuations?" Institute for Research on Poverty Discussion Paper no. 604-80.

Lee Rainwater, "Persistent and Transitory Poverty: A New Look." Draft. Working Paper, Joint Center for Urban Studies of MIT and Harvard University. October 1980.

The characteristics that Hill finds strongly associated with permanent poverty include less than full-time employment: 75 percent of the persistently poor had household heads working less than 500 hours per year, yet 63 percent of the temporarily poor (poor one or two years out of ten) were in full-time worker households. (Both sets of figures reinforce Gottschalk's conclusion concerning the inability of many workers to earn their way out of poverty.) Blacks and female-headed households formed much larger percentages, 60 percent in each case, of the persistently poor than of the temporarily poor. Furthermore, "as poverty became more persistent, there were also substantial shifts toward larger proportions with disabled heads, female heads 65 or older, and unmarried female heads with children" (p. 111). Hill therefore suggests that programs to reduce persistent poverty should be directed toward households headed by blacks, women, and those working less than full time, whereas programs to relieve temporary poverty should be aimed more toward full-time workers.

Longitudinal studies have thus opened new possibilities for understanding the nature of temporary and enduring poverty and for determining which demographic groups are at greater risk of one or the other. That understanding can give a more effective direction to policies and programs intended to alleviate distress and make unproductive members of society more productive. All of the researchers cited above stress that their efforts are only first steps toward such understanding. More studies tracking the experience of households and individuals over time are needed to enlarge our comprehension of the complex forces that direct groups into conditions of short-run or long-run hardship. ■

¹Henry Aaron, *Politics and the Professors: The Great Society in Perspective* (Washington, D.C.: Brookings Institution, 1978); Frank Levy, "How Big Is the American Underclass?," Working Paper 0090-1, The Urban Institute, Washington, D.C., Sept. 1977.

²James N. Morgan, "Change in Global Measures," in *Five Thousand American Families—Patterns of Economic Progress*, Vol. 1, ed. Morgan et al. (Ann Arbor: Institute for Social Research, University of Michigan, 1974).

³Levy used a scale factor, applied to the panel's annual sampling weights, to obtain aggregates corresponding to the national population. ⁴Richard Coe, "Dependency and Poverty in the Short and Long Run," in *Five Thousand American Families—Patterns of Economic Progress*, Vol. 6, ed. G. J. Duncan and J. N. Morgan (Ann Arbor: Institute for Social Research, University of Michigan, 1978).

⁵Bradley R. Schiller, "Relative Earnings Mobility in the United States," *American Economic Review*, 67 (1977), 926-941.

⁶Martha Hill, "Some Dynamic Aspects of Poverty," in *Five Thousand American Families—Patterns of Economic Progress*, Vol. 9, ed. M. Hill, D. Hill, and J. N. Morgan (Ann Arbor: Institute for Social Research, University of Michigan, 1981).