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# Poverty Among Rural Workers

*One out of 10 rural families headed by a person with a job had income below the poverty level in 1987. While these family heads on average worked fewer weeks per year than those who were not poor, about a third worked full-time, year-round. Part-time and short-term employment and work-limiting family structure were major contributors to their below-poverty-level family income.*

Antipoverty strategies have for years stressed employment as the primary route out of poverty. But for many of the poor, that strategy has not been successful. This is especially true in nonmetro areas, which contained about 33 percent of poor families with employed heads of families in 1987, but only 24 percent of all families. Looked at from a different perspective, worker poverty rates were higher in nonmetro than in metro areas. About 10 percent of nonmetro families in which the family head was employed had family income below the poverty level in 1987 versus about 6 percent in metro areas. Over half of nonmetro poor families in 1987 were headed by someone who worked at some time during the year. For about one in five poor nonmetro families, the head of the family was employed throughout the year, yet the family was still unable to avoid poverty.

Some studies suggest that problems within a society's economic and social structure can create conditions that hinder employment opportunities and indirectly encourage poverty. From this perspective, the working poor are poor because they lack access to quality education or jobs due to conditions in the economy or workplace. Furthermore, specific groups, such as minorities and women, may experience discrimination in the quality and amount of education they receive, or the ease with which they can find

jobs that pay better than poverty-level wages.

Other studies have found that the individual characteristics of the working poor limit their potential for escaping poverty through employment. When one has little education or work-related experience, or one lives in a family whose structure limits one's job opportunities, one's chances of being in poverty are greatly increased. According to this perspective, "who you are" explains your poverty status. This perspective provides the framework for my analysis.

Understanding the characteristics of poor workers and the extent to which they are associated with worker poverty is useful in considering policies to alleviate worker poverty. I focus here on the role of individual characteristics in determining poverty among nonmetro workers. I compare the income, family, individual, and employment characteristics of nonmetro working heads of poor families with working heads of nonpoor families and use multivariate analysis to examine how well the individual worker characteristics predict worker poverty status.

Child care is crucial for many families to escape poverty. The presence of children in a family limits the availability of both parents for work. If the children are being cared for by one parent alone, the need for child care is even greater.

Overall, I found that working less than half the year and having both young and school-age children played the most important roles in increasing the likelihood that a rural family would be poor even if the head of the family was employed. Because of the interplay of the various personal, family, and employment characteristics, the importance of the different variables changed somewhat depending on what other characteristics were accounted for.

## Family Income Underscores Problem

Family income levels indicate the depth of poverty among the rural working poor. The survey data showed that their median family income was \$6,282 in 1987, \$1,115 less than poverty level income for a two-person family. About 34 percent of poor workers had family income so low that their family income would have to more than double for them to escape poverty.

To what extent do rural families with a working head rely on the earnings of the head for income? Working heads of poor families were four times more likely than nonpoor family heads to be the sole source of family income (22 versus 5 percent) and twice as likely to provide less than 25 percent of family income through working (19 percent of poor workers versus 9 percent of nonpoor workers). Many of

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**Table 1—Rural working poor tend to have larger families and younger children than the nonpoor**

Family structure	Poor	Nonpoor
<i>Percent of families</i>		
<b>Family type</b>		
Married couple	60.6	88.4
Female headed	34.8	8.5
Male headed	4.6	3.1
<b>Children</b>		
No children	20.4	44.2
Under 6 years	23.5	12.5
Under 6 and 6-17 years <sup>1</sup>	20.5	10.8
6-17 years	35.5	32.6
<b>Family size</b>		
Fewer than 5	72.3	85.7
5 or more	27.7	14.3
<i>Ratio</i>		
Dependency ratio <sup>2</sup>	1.82	.86

Sample size: Nonmetro total = 11,488,000; Poor = 1,145,000; Nonpoor = 10,343,000.

<sup>1</sup>Families in this category often have several children. I therefore used this category in the analysis as a proxy for large families.

<sup>2</sup>Mean ratio of nonearners to earners, computed as: [(family size minus number of earners in family) divided by number of earners in family].

Source: Current Population Survey, 1988.

these families probably relied heavily on public assistance, Social Security, and Supplemental Security Income.

### Family Structure Contributes to Working Poverty...

Families headed by single women are more prone to working poverty than other families. This is attributable, in part, to child care responsibilities and the limited number of other family members who are potential wage earners. Furthermore, a disproportionate share of women family heads are minorities and this, in combination with their being female, puts them at risk of experiencing discrimination in getting jobs. The data underscore their disadvantaged position. While single women who were heads of families constituted only about 9 percent of nonpoor working heads of families, they represented about 35 percent of the rural working poor (table 1).

Poor workers in nonmetro areas also had a disproportionate share of larger families. While median family size was

only slightly larger among poor than nonpoor workers (4 people versus 3.6), over 27 percent of poor workers lived in families with five or more people compared with only about 14 percent of nonpoor workers. However, even if these large working-poor families had been smaller, their income levels were so low that many would still be poor.

Large families can potentially increase family income if several people in the family are able to work. However, while their families tended to be large, poor workers, on average, lived in families with more dependents, children 16 and under and adults 65 and over, than potential earners, people of working age (1.8 dependents per worker for poor families versus 0.9 for nonpoor families). The larger family size, then, did not confer the advantage of more wage earners.

Regardless of family type, the presence of children obviously increases a family's need for income and at the same time creates child care responsibilities that place constraints on family members' availability for work. Nonmetro poor workers are more likely than nonpoor workers to have children, and their children are likely to be younger than those of nonpoor workers. About 80 percent of poor workers had children, compared with 56 percent of nonpoor workers. Poor workers were about twice as likely as nonpoor workers to have children under 6 years old, or both under 6 and 6-17 years old, a category often used as a proxy for families with a large number of children.

### ...As Does Lack of Skills

Having good skills is obviously one important avenue for getting a good-paying job. As expected, poor workers are disadvantaged in terms of their skill levels. Workers' skills are usually measured by years of work experience and education. Age is often used as a proxy for work experience and seniority, with earnings expected to increase with the length of time a person has been in the labor force. Poor workers were generally younger than nonpoor workers (fig. 1). The median age of poor workers, 37.2 years, was

more than 6 years younger than the median age of nonpoor workers (43.3 years). While the share of prime-age workers (25-45 years old) was about the same for both groups of workers, poor workers were less likely to be 46 years old or older and much more likely to be young (under 25) than nonpoor workers.

Nonmetro poor workers over 25 years old also had less education than nonpoor workers. They had completed, on average, over a year less schooling than the nonpoor. Further, a disproportionate share of poor workers (39 versus 21 percent for nonpoor) lacked even a high school education, and a much smaller share of poor workers (14 versus 34 percent) had any education beyond high school.

**Table 2—Biggest problem for rural working poor: too little work**

Item	Poor	Nonpoor
<i>Percent</i>		
<b>Weeks worked</b>		
Full time <sup>1</sup> —	70.3	91.7
50-52 weeks	34.3	77.4
1-49 weeks	36.0	14.3
Part time—	29.7	8.3
50-52 weeks	8.2	4.2
1-49 weeks	21.5	4.1
<i>Weeks</i>		
Weeks worked (mean)	35.9	48.1
<i>Percent</i>		
<b>Number of earners per family<sup>2</sup></b>		
1 earner	60.6	26.1
2+ earners	39.4	73.9
<b>Occupation</b>		
Management, professional specialties	6.8	20.8
Technical sales and administrative support	13.3	17.6
Service	24.7	7.6
Farming, forestry, fisheries	18.5	8.8
Skilled crafts	14.9	21.8
Operatives, fabricators, and laborers	21.8	23.4

Sample size: Nonmetro total = 11,488,00; Poor = 1,145,000; Nonpoor = 10,343,000.

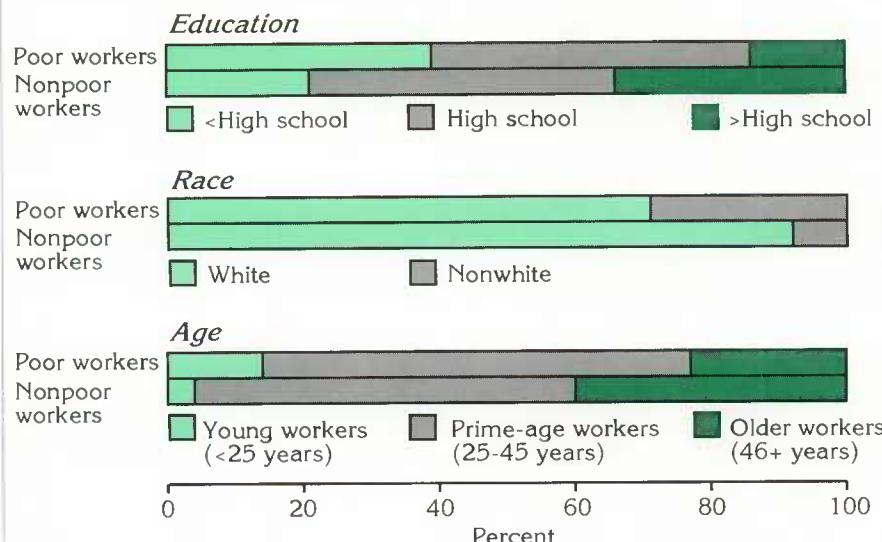
<sup>1</sup>Includes working family heads who worked 35 or more hours per week in 1987.

<sup>2</sup>Includes persons 15 years and older with \$1 or more of wages and salaries or \$1 or more of loss in net income during 1987.

Source: Current Population Survey, 1988.

Figure 1

## Rural working poor have less education than nonpoor.



## Rural Minorities More Likely to Be Poor

While most of the working poor were white, nonwhites made up a disproportionate share. Nonwhites were only 8 percent of nonpoor workers but 29 percent of poor workers (fig. 1). The overrepresentation of blacks among the working poor is probably due to several factors: they are more likely to face the labor market with multiple disadvantages, they often have less education, and they are more likely than whites to live in families with an employment-limiting structure, such as living in a family headed by a woman. Beyond these personal characteristics, blacks are also more likely to encounter employment discrimination.

## Limited Working Time Also Holds Earnings Down

Labor market participation is one of the most important correlates of earnings and poverty status. The survey data showed striking differences between poor and nonpoor workers (table 2). Poor workers worked considerably less than nonpoor workers in terms of the number of weeks worked and full-time versus part-time work. They averaged about 12 fewer weeks of employment in 1987 than nonpoor workers. Nonetheless, 34 percent of rural poor workers worked full-time, full-year in 1987. Thus, even full-time, year-round work did not always provide income above the poverty level.

Some poor workers who worked only part-time might have escaped poverty if they had been employed full-time. Almost 30 percent of poor workers but only 8 percent of nonpoor workers worked only part-time in 1987. Furthermore, as already noted, the families of poor workers contained far fewer workers than those of nonpoor workers. In an era when an increasing number of families depend on two wage earners, this is a serious liability. Over 60 percent of poor workers lived in one-earner families versus only 26 percent of nonpoor workers, reflecting, in part, the large share of single women who head families among the working poor.

Over two-thirds of the poor workers were concentrated in three low-wage occupations. About 25 percent were employed in service jobs, another 22 percent were operatives, fabricators, and laborers, and 19 percent were in the farming, forestry, and fisheries occupations. Unlike nonpoor workers, few poor workers were in white-collar occupations (management and technical occupations) and the higher wage, skilled crafts occupations.

## Which Personal or Employment Characteristics Contribute Most to the Risk of Poverty?

Beyond understanding that the rural working poor who are heads of families have different human capital, racial, family, and employment characteristics than nonpoor workers, it is

useful to know the relative importance of each characteristic to a worker's poverty status. One way to do this is to examine the increased or decreased chances of poverty associated with each characteristic, compared with a reference group after differences between the two groups in all the other characteristics are accounted for (held constant). Using age as an example (and after taking into account differences between young and prime-age workers in education, race, family structure, and employment characteristics), the critical questions are, does being a young worker significantly increase the chances of poverty over those of a prime-age worker, and if so, by how much? Does the extent of the difference in poverty chances between the two groups of workers narrow or widen as the various characteristics are held constant? Table 3 gives some answers. It shows that being a young worker increases one's chances of poverty 18 percentage points above those of prime-age workers. Accounting for differences between young and prime-age workers in other personal and employment characteristics narrows the size of the gap in poverty chances somewhat, but age remains an important factor.

After holding everything else constant, the characteristics with the largest difference from the reference group are the most important predictors of poverty. Closer examination of the model results in table 3 shows that all but one of the characteristics were significant predictors of poverty. Of these, working less than 26 weeks per year and having both younger and school-age children stand out as being most important. After holding the other characteristics constant, the size of the differences in poverty chances for several of the characteristics changes. For example, the difference in poverty chances associated with being a high school dropout, compared with having some education beyond high school, widens when differences between the two groups in age, race, and family structure are accounted for and narrows when differences in employment characteristics are accounted for. That finding confirms one's expectations that lack of education reduces one's chances of finding full-time, full-year work or employment in a well-paying occupation.

## How To Read The Table

The table shows how workers' chances of poverty are affected by their individual and employment characteristics compared with a reference group (shown in bold italics). The numbers show how much the chances of poverty for a group differs from those of the reference group. Example (first category, first column): young workers (under 25 years old) have poverty chances that are 18 percentage points higher than the chances of poverty for prime-age workers (25-45 years old).

Table 3—Changes in likelihoods of nonmetro worker poverty for individual, family, and employment characteristics

Characteristics	Difference in likelihood	After controlling for individual and family characteristics	After controlling for individual, family, and employment characteristics
<i>Percentage points</i>			
<b>Individual</b>			
Age—			
<25 years	18	13	10
<b>25-45 years</b>	—	—	—
46+ years	-5	2	4
Education—			
< High school	13	25	16
High school	6	10	8
<b>&gt;High school</b>	—	—	—
Race—			
<b>White</b> <sup>1</sup>	—	—	—
Black	18	9	12
Hispanic	17	10	8
<b>Family</b>			
Family type—			
Single, female heads	23	25	11
<b>Other heads</b>	—	—	—
Age and presence of children—			
<b>No children</b>	—	—	—
Children under 6 years	12	18	18
Children under 6 and 6-17 years	13	26	28
Children 6-17 years	6	10	15
<b>Employment</b>			
Earners per family—			
<b>&lt;2 earners</b>	—	—	—
2+ earners	-15	—	-6
Weeks worked—			
<26 weeks	31	—	32
26-49 weeks	13	—	15
<b>50-52 weeks</b>	—	—	—
Employment—			
Full-time	-20	—	-6
<b>Part-time</b>	—	—	—
Occupation—			
Farming, forestry, and fisheries	12	—	22
Service	18	—	9
<b>Other</b>	—	—	—
Combined effect	—	16	30

— = Not applicable.

<sup>1</sup>Includes other race category.

<sup>2</sup>Not significant at 0.05 level.

A large drop in the difference in poverty chances between single women who head families and other heads occurs when employment characteristics are held constant. One of the ways in which this characteristic contributes to higher poverty for these workers is by reducing the likelihood that they will work full-year.

Poverty chances increase greatly for workers with children in this age category relative to those for workers with no children, when individual and family characteristics are accounted for. Children increase a family's need for income and limit the availability of both parents for work.

Much higher chances of poverty (32 percentage points) here compared with those with full-year work. Regardless of individual, family, and other employment characteristics, most people need to work year-round to stay out of poverty.

The effects of race are a bit different. Controlling for differences between blacks and whites in other personal characteristics narrows the gap in poverty chances, while controlling for work effort and occupation changes the chances of poverty very little. This suggests that levels of human capital or family structure play a more important role in minorities' higher poverty chances than either how much they work or what occupation they work in.

It is not surprising that being single, female, and head of a family carries a much higher risk of poverty compared with other heads of families, and controlling for differences in age, education, and family structure did not change the magnitude of the difference in poverty chances. But, when one accounts for differences between single women and other heads in how much they work and their occupations, the disparity in poverty chances narrows considerably. Thus, one of the important impediments of single mothers to escape poverty is their reduced opportunity to work full-time, year-round.

A worker who has children, compared with a childless worker, has a much greater likelihood of poverty. This is particularly true when the children are both under 6 years old and 6-17 years old. The difference in poverty chances between a worker with children in this age group and a worker with no children was the second largest of all the characteristics. Accounting for differences in personal characteristics between childless family heads and family heads with children in this category doubles the size of the gap in poverty chances, while accounting for employment differences makes very little difference. Thus families with several children, some of whom are young, are particularly susceptible to poverty.

Working a limited number of weeks (less than 26 weeks) is the strongest predictor of working poverty. The difference in poverty chances between working less than 26 weeks and working full-year (50-52 weeks) was the largest of all the characteristics. That disparity held steady even when the model accounted for differences in personal and employment characteristics between the two groups.

## Glossary

**Family:** A group of two or more persons related by blood or adoption and who live together.

**Income:** Dollar amount reported by persons 15 years old and older of money income received in the preceding year from earnings, property, Social Security, retirement, public assistance, Supplemental Security Income (SSI), child support and alimony, and other regular sources.

**Part-time employment:** Work that totals fewer than 35 hours per week in most of the weeks the person worked.

**Metro areas:** As defined by the Office of Management and Budget of the U.S. Government, areas that (1) include a city of at least 50,000 population or (2) include a Census Bureau-defined urbanized area of at least 50,000 with a total metropolitan population of at least 100,000 (75,000 in New England). In addition to the county containing the main city or urbanized area, an MSA (metropolitan statistical area) may include other counties having strong commuting ties to the central county. If specified conditions are not met, certain large MSA's are designated as consolidated MSA's (CMSA's) and divided into component primary MSA's (PMSA's).

**Nonmetro areas:** All areas not defined as metro areas.

**Poverty:** A level of family income below the level designated by the Bureau of Census based on family size, number of children, and age of family head. These levels are updated each year to reflect changes in the Consumer Price Index. The poverty threshold for a family of four was \$11,611 in 1987.

Being in certain occupations also influences poverty chances for non-metro workers. For example, workers in service jobs or farming, forestry, and fisheries occupations had much higher chances of poverty than workers in other occupations. Accounting for differences in personal and other employment characteristics almost doubled the size of the difference in poverty chances between being in a farming occupation and being in other occupations, while the effect of working in a service occupation, compared with working in other occupations, was reduced by half. There obviously is something inherent in the farming, forestry, and fisheries occupations that makes a strong, positive contribution to poverty chances. For service workers, factors associated with their occupation, such as the part-time nature of service jobs, are contributing to their greater chances of poverty.

While both full-time employment (compared with part-time employment) and living in multiple-earner families (versus one-earner families) reduce workers' chances of poverty, the extent of the differences in their chances of poverty is greatly diminished when individual, family, and

employment characteristics are controlled.

In addition to the separate effects of the individual characteristics, my analysis indicates how much the combined effect of all the characteristics explains differences in the chances of poverty. The human capital, race, and family structure characteristics explained about 16 percent of the overall differences in poverty chances. When the effects of the employment characteristics were included, the combined effect, at 30 percent, was almost doubled. But, the fact that 70 percent of the overall difference in nonmetro workers' poverty chances remains unexplained suggests that factors other than individual characteristics, such as the quantity and quality of jobs in non-metro areas, make important contributions to poverty chances too.

## Implications

Acting in different ways for different groups of workers, most of the individual, family, and employment characteristics I examined appear to contribute to the employment problems and accompanying poverty status of nonmetro working heads of families. The complex manner in

## Data and Methodology

The unit of analysis for the study was a head of a nonmetro family who worked 1 week or more in 1987. This definition excludes other workers in the family and primary workers in families where the head is not employed. For ease of discussion, working family heads whose family income was below the poverty level in 1987 are referred to as the working poor or poor workers, while working family heads with family income above the poverty level are referred to as nonpoor workers.

The analysis uses the March Supplement of the 1988 Current Population Survey (CPS). CPS is a prime source of employment statistics, containing basic demographic, income, migration, and labor force data for both metro and nonmetro workers. Family heads whose metro-nonmetro residence was unidentified for confidentiality reasons were included in the nonmetro population because it has been estimated that most of them live in nonmetro areas. Employment and income data are for 1987, while demographic data are for 1988. The descriptive data were weighted by the "March Supplemental Weight" provided by CPS to provide estimates that reflect the characteristics of the national population.

To examine the factors contributing to nonmetro working poverty, I conducted two kinds of analysis. First, I used bivariate statistics—percentages and measures of central tendency—to compare poor and nonpoor workers. Next, I carried out multivariate logit regression analysis using two models to determine the ability of the family, individual, and employment characteristics, both separately and in combination, to predict poverty among nonmetro workers. Logit analysis examines the relationship between a dependent and a set of independent variables by analyzing the chances of the occurrence of the dependent variable as a function of the independent variables. In this analysis, poverty status is the dependent variable and is predicted by nine independent variables representing workers' individual, family, and employment characteristics. The effect of each characteristic on the likelihood of poverty is indicated by the increase or decrease in the probability of poverty associated with that characteristic compared with a related reference group.

The first model predicts worker poverty associated with age, education, race, and family characteristics, while the second model adds employment characteristics such as the number of earners per family, number of weeks worked, whether the worker was employed full-time or part-time, and the worker's occupation. The employment characteristics are added separately to determine their influence on (1) the effect of the individual and family variables, (2) workers' chances of poverty, and (3) the ability of all the variables to explain collectively differences in poverty chances, (the combined effect). The results of the logit analysis in table 3 indicate the likelihood of poverty associated with each characteristic, both before and after the effects of the other characteristics are considered. The combined effect value represents the degree to which the set of variables in combination explains differences in poverty chances.

which these characteristics interrelate suggests a number of approaches to combat poverty among the working poor might be worth exploring. Just as the factors contributing to a family's being in poverty vary significantly, as demonstrated by the results of this analysis, so will the potential of any given approach to alleviating it.

One set of policies might be designed to reduce barriers to employment associated with individual and family characteristics. For example, additional education and job-related training might lead to better employment opportunities for poor workers with few skills. Affordable child care might make it possible for working mothers to work more hours.

Employment services might help other poor workers escape poverty by helping them find full-time, year-round work or better paying jobs. These services could be targeted to local, regional, or national labor needs. Relocation assistance might be effective for some poor workers living in areas where local employment opportunities are limited.

In some cases, strategies to improve wages might be appropriate. For the poor who are already working full-time and full-year, employment in low-wage jobs is the cause of their poverty. Strategies to encourage economic growth at the national level or economic development at the local level might help many of these workers escape poverty by creating new jobs, reducing involuntary part-time or less than year-round work, and increasing wages.

RDP

## For Additional Reading...

Sar A. Levitan and Isaac Shapiro, *Working But Poor, America's Contradiction*, The Johns Hopkins Press, Baltimore, MD, 1987.

Daniel T. Lichten, "Race and Underemployment: Black Employment Hardship in the Rural South," *The Rural South in Crisis: Challenges for the Future*, Ed. Lionel Beaulieu, Westview Press, Boulder, CO, 1988.

Bradley R. Schiller, *The Economics of Poverty and Discrimination*, Prentice Hall, Inc., Englewood Cliffs, NJ, 1984.