POVERTY AND WORK: UTILIZATION OF LABOR RESOURCES AMONG THE RURAL POOR

FINAL REPORT
TO THE
FORD FOUNDATION'S RURAL POVERTY PROGRAM
AND THE
RURAL ECONOMIC POLICY PROGRAM
OF THE ASPEN INSTITUTE
GRANT #890-0620

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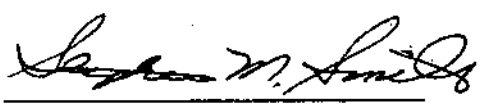

Stephen M. Smith

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SECTION I

Introduction

Poverty remains a persistent problem in the U.S. (Sawhill 1988), and affects significant numbers of individuals in both rural and urban areas. At any time, a significant proportion of the population is unable to adequately provide for basic needs -- shelter, food, clothing, even minimal health care. The society can provide for short-term aid, to help individuals temporarily poor due to job loss or temporary lay-off or to changes in the composition of families that sometimes place individuals in positions of short-term economic hardship.[1] Although solutions to short-term poverty are of policy concern (Hoppe 1989), the more serious problem is the significant number of individuals that experience an extended spell of poverty or multiple spells of poverty over time. Some individuals are *chronically* or *persistently poor*, spending significant numbers of years in poverty (Adams and Duncan 1992). Others move into and out of poverty on a frequent basis; many individuals including many children are among the *frequently poor* (Duncan and Rodgers 1988; Duncan et al. 1984). Even when not poor, they have a high likelihood of becoming poor -- soon.

This study examines the extent to which individuals associated with nonmetropolitan economies in the U.S. experience *temporary poverty* versus the long-term problems associated with being either *chronically* or *frequently poor*.[2] The frequency and duration of poverty spells are examined using the Panel Study of Income Dynamics (PSID) conducted by the University of Michigan Social Science Research Center. Initially in 1968, the PSID sample of U.S. households included two components: (1) the "SRC subsample," a subsample of 2930 households selected (with equal selection probabilities) from the sampling frame developed for the SRC portion of the PSID, and (2) the "SEO subsample" that included 1872 low income non-elderly households from the 1966-67 Survey of Economic Opportunity conducted by the Census Bureau (1984 PSID Documentation Volume). Households in the 1968 sample have been resurveyed each year since 1968 in subsequent interview waves, with additional individuals added to the sample over time through birth, marriage and other changes in family

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[1]The following terms will be used interchangeably here: "family" and "household"; "rural" and "nonmetro"; and "urban" and "metro." The analyses are (strictly defined) for metro and nonmetro households.

[2]In this study, an individual is classified as poor if the individual lived in a family unit with an income to needs ratio less than one-half of the median income to needs ratio for the given year.

composition. In total, 7448 individuals that had resided in a nonmetropolitan area were poor at least one year of the twenty years of the PSID survey. The 7448 individuals provide a significantly large sample to examine poverty and work among the rural poor.

In this study, the income, work, and family circumstances of individuals that have experienced poverty are examined using the PSID. Of particular interest are the extent to which poor individuals or individuals "at risk" of poverty participate in market work. It has been argued that the "working poor" are more prevalent in rural economies (Lichter, Beaulieu, Findeis and Teixeira 1992; Morrissey 1991). An understanding of the characteristics of work in rural areas and the influence of these characteristics on poverty status is important for developing programs that alleviate poverty through work. Further, it is important to determine those changes in work that lead individuals out of poverty.

One focus of this research is on the changes in work characteristics associated with movements out of poverty. The research examines strategies poor households use to escape poverty, either permanently or, in many cases, temporarily. For example, is migration a principal strategy that poor nonmetro households use to escape poverty? Or are individuals more likely to pursue multiple job-holding, to work overtime, to find higher wage employment, or to use other work-related strategies to increase household earnings to a sufficient level to move the household out of poverty? Clearly, some strategies have a high probability of success while others do not. In this study, event history analysis will be used to identify work-related strategies that contribute to transitions out of poverty for individuals in different types of households. The specific strategies examined here relate to (1) characteristics of the work of the household head and (2) the extent to which other potential earners in the household participate in market work.

A second focus of this research is on the industries providing employment, and the implications of the trend toward an increasing reliance on service industry employment to provide "new jobs." Do the poor rely more or less on service sector jobs than the nonpoor? Has this changed over time? Are the patterns different for men and women? Are the earnings of poor households where labor resources were previously unemployed being increased by service industry jobs? And to what extent can employment by one or more household members in the service industries lead a family out of poverty?

The issues discussed here will be pursued in detail in this report. Section II includes a comparison of selected characteristics among metro and nonmetro households in 1986, by poverty status. Comparisons are made between demographic characteristics and family structures, as well as between average participation rates in work and average earnings. Section III then describes the longitudinal sample derived from the PSID used to examine (1) the frequency and duration of poverty spells, (2) factors affecting movements out of poverty, and (3) the effects of service industry employment. Section III also provides an assessment of the characteristics of the chronically, frequently, and temporarily poor. This is followed by the results of analyses to identify factors affecting movements out of poverty (Section IV) and the implications of service industry employment in rural areas (Section V). The final section of this report (Section VI) examines the policy implications of the study results.

This study should provide a better understanding of the ways in which market work *does or does not* help rural families move out of poverty. In an era when policies to deal with poverty are more dependent on the concept of increasing "participation in market work," an understanding of the work-poverty linkage is important. This study will argue that for rural areas in particular, an understanding of this linkage is not only important but critical.

Section II

The Character of Rural Poverty

Lichter et al. (1992) argue that rural poverty is a significant social problem that tends to be hidden and often forgotten, and "'out of sight, out of mind' from a policy perspective" (Lichter et al. 1992). The public often perceives that poverty is more prevalent in urban than rural areas; that poverty is principally a problem of nonwhite, often female-headed, households; and that poor households that depend on income from work are the exception, not the rule. In many respects, rural poverty differs from these perceptions. In nonmetro areas, a greater proportion of all households are in poverty (16.3% in nonmetro compared to 12.7% in metro in 1990; U.S. Bureau of the Census, 1991). In addition, a greater proportion of households are white and significantly fewer are female-headed, and a large proportion of the poverty population is comprised of individuals that work but are nonetheless poor (Lichter et al. 1992; Fuguitt, Brown, and Beale 1989) . The characteristics of rural households in poverty are similar in many respects to rural households that are not poor. But in other important respects poor and nonpoor households differ.

A comparison of the family structures of poor and not poor households in metro and nonmetro areas shows that households in poverty are more likely to have more children present, regardless of rural or urban location (Table 1). Lichter and Eggebeen (1992) report that one-in-four rural children now lives in poverty, a rate higher than in urban areas. Further, rural poor households with children present are significantly more likely to have both parents present in the household (53.6%) than is observed for urban households (only 34.9%). Female-headed households have a high likelihood of being in poverty, comprising 43.4% of poor nonmetro households with children and 60.7% of poor metro households with children present in the household. However, relative to two-parent households, female-headed households represent a smaller proportion of the rural poor population with children. This does not imply that female-headed households are less important for a study of poverty in rural areas, but does mean that in terms of families with children, policies will need to address both the needs of households with one parent as well as two parents present.

Over half of the poor households with no children in the household are headed by single females, in both rural and urban locations. Comparing the poverty status of metro and nonmetro households without

Table 1. Family Structures and Distribution of Individuals in U.S. Nonmetro and Metro Households, by Poverty Status, 1987 Interview Year.[a]

	In Poverty		Not in Poverty	
	Nonmetro	Metro	Nonmetro	Metro
Family Structure	n=517	n=1264	n=848	n=2422
With Children:	42.2 of total (%)	39.0 of total (%)	41.3 of total (%)	35.0 of total (%)
One-parent families				
Male-headed	3.0	4.4	4.0	3.5
Female-headed	43.4	60.7	11.7	17.0
Two-parent families	53.6	34.9	84.3	79.5
Total:	100.0	100.0	100.0	100.0
Without Children:	57.8 of total (%)	61.0 of total (%)	58.7 of total (%)	65.0 of total (%)
Married (male/female present)	21.6	12.8	54.5	20.7
Single male	25.9	29.9	20.5	32.0
Single female	52.5	57.3	25.0	47.3
Total:	100.0	100.0	100.0	100.0
Distribution of Individuals[b]	n=1430 (%)	n=3270 (%)	n=2622 (%)	n=8434 (%)
Adult males	22.1	22.7	33.3	33.1
Adult females	28.1	31.8	32.0	35.1
Elderly	18.8	14.4	10.4	9.3
Children	30.9	31.1	24.3	22.5
Total:	100.0	100.0	100.0	100.0

[a]Comparisons based on weighted data from the Panel Study of Income Dynamics (PSID), with unweighted n (excluding observations with zero weights) given.

[b]Adult males and adult females include individuals 18 through 65 years of age. The elderly are defined as persons over 65 years of age, and children are those 17 years of age or younger.

children shows that couples are less likely to be in poverty than single person households but that the proportion of households in poverty that are couple households is greater in rural (21.6%) than urban areas (12.8%). Again, in rural areas, poor households include relatively more households with two adults present than is the case in urban economies.

in both rural and urban locations, female-headed households are often likely to be poor -- both when children are present and when they are not. Further, two-parent families and married or co-habiting couples (without children) are found to comprise greater proportions of the poor than in urban areas. In rural areas "the poor" includes not only female-headed households and the elderly, as is often anticipated, but includes large numbers of "traditional" two-parent and married couple households as well. The problem of poverty in rural areas of the U.S. cuts across all types of families, and is not confined to populations traditionally targeted for aid.

Families With Children

Tables 2 and 3 provide comparisons of selected characteristics of female-headed households and two-parent households, both with children present.[3] Not surprisingly, female heads of households in poverty are less likely to have completed high school than the heads of nonpoor households, are more likely to be of a race other than white, have more children at home on average, are more likely to be disabled, and in rural areas are more likely to be elderly. In rural areas, female household heads in poverty are more likely to have completed high school (54.2%) compared to their urban counterparts (46.5%), but urban female heads with children are much more likely to be nonwhite (59.5% compared to 31.5%).

Interestingly, female household heads with children present in the household are more likely to work in rural than in urban areas. Of the rural female heads *not in poverty*, 86.7% had jobs in 1986, with 86.0% at work when the survey was conducted. This compares to 48.7% of female heads among the rural poor that had employment, with 48.0% at work. In metro areas, 42.1% of poor female heads with children had employment,

[3]The PSID sample includes only a small number of male-headed, single-parent households, resulting in sample sizes too small for reliable analysis. Appendix A includes a table (Table A.1) for male-headed, single-parent households comparable to Tables 2 and 3, but the statistics are based on very limited sample sizes.

Table 2. Characteristics of Female-headed Households With Children Present in Nonmetro and Metro U.S., by Poverty Status, 1987 Interview Year.[a]

Characteristics	In Poverty		Not in Poverty	
	Nonmetro	Metro	Nonmetro	Metro
Characteristics of Female Household Head	n=113	n=433	n=61	n=253
Average age (year)	36.8	32.9	34.8	36.5
Percent of household heads:	(%)	(%)	(%)	(%)
Completed high school	54.2	46.5	79.1	87.8
Not white	41.6	60.5	19.7	27.0
Elderly	6.2	0.9	0.2	1.2
Disabled	20.7	18.7	13.0	15.9
Income and Work Characteristics				
Percent of household heads:	(%)	(%)	(%)	(%)
At work in 1986	48.0	38.4	86.0	80.3
With employment in 1986	48.7	42.1	86.7	82.2
In labor force in 1986[b]	54.9	65.1	96.2	85.8
Retired	4.1	0.5	0.0	1.6
Average total 1986 income (1986$)[c]	$6,596	$7,397	$24,848	$25,783
Average 1986 income from work (1986$)[d]	$4,901	$5,154	$15,136	$16,803
Family Characteristics				
Average family size (persons)	3.2	3.0	2.9	2.8

[a]Comparisons based on weighted PSID data, with unweighted n (excluding observations with zero weights) given.
[b]Includes employed and unemployed persons.
[c]Values for this variable are positive (see PSID Documentation).
[d]Only includes persons that work.

Table 3. Characteristics of Two-parent Households With Children Present in Nonmetro and Metro U.S., by Poverty Status, 1987 Interview Year.[a]

Characteristics	In Poverty		Not in Poverty	
	Nonmetro	Metro	Nonmetro	Metro
Characteristics of Male Parent	n=114	n=156	n=284	n=782
Average age (years)	35.2	34.7	36.0	38.2
Percent of male parents:	(%)	(%)	(%)	(%)
Completed high school	48.6	49.0	81.7	90.0
Not white	17.2	19.2	6.3	8.1
Elderly	2.7	0.7	0.1	0.7
Disabled	28.8	26.4	9.4	9.7
At work in 1986	70.7	76.9	95.2	92.7
With employment in 1986	74.2	78.7	96.9	94.2
In labor force in 1986	82.0	87.6	98.9	96.8
Retired	4.3	43.6	0.2	1.0
Characteristics of Female Parent				
Average age (years)	33.8	34.2	35.2	35.4
Percent of female parents:	(%)	(%)	(%)	(%)
Completed high school	52.9	54.2	80.8	89.8
Not white[b]	--	--	--	--
Elderly	2.7	0.1	0.0	0.2
Disabled	23.5	15.7	10.1	8.8
At work in 1986	34.7	40.3	72.1	64.4
With employment in 1986	34.7	42.6	72.7	65.7
In labor force in 1986	38.5	43.1	73.4	66.4
Retired	1.8	0.2	0.0	0.2
Household Characteristics				
Average family size (persons)	4.3	4.6	4.0	4.1
Average number of children (persons)	2.1	2.3	1.8	1.8
Household Income[c]				
Average total 1986 income (1986$)	$11,711	$11,866	$36,020	$51,116
Head's average 1986 income from work (1986$)	$8,977	$8,582	$23,816	$34,858
Wife's/"wife's" average 1986 income from work (1986$)	$3,577	$4,267	$11,443	$12,917

[a]The footnotes in Table 2 also apply here.
[b]The PSID does not include the race of the wife/"wife," only the race of the male head in two-parent households.
[c]Family weights were used to determine the average total 1986 income, whereas individual head and wife/"wife" weights were used to determine the head's and wife's/"wife's" income from work. The weights vary depending on whether the head and wife/"wife" were in the original sample or if a nonsample head or wife/"wife" has joined the family unit.

with only 38.4% at work. However, it should be noted that poor female heads in metro areas reported a *higher* labor force participation rate (65.1%) than rural women (54.9%), implying high rates of unemployment and unsuccessful efforts to search for work among poor urban female heads.

Urban female heads of households, both poor and not poor, have higher incomes (from all sources), than rural female heads. On average, rural female heads earned only $6,596 annually, with employed women earning an average $4,901. Transfer income (from all sources) for rural female heads averaged less than for urban poor heads. Female heads that were not poor earned on average $15,136 in nonmetro areas and $16,803 in metro areas (see Table 2).

Among poor households with two parents present, only about half of the parents, male and female alike, had completed high school (Table 3). Rural and urban areas showed similar high school completion rates among poor households, regardless of gender. Poor households with both parents present are also more likely to have a nonwhite household head (17.2% in nonmetro areas and 19.2% in metro), and to be headed by a person with disabilities. Generally, less than ten percent of parents (male or female) have a disability, but among poor households disabilities are much more prevalent among *both* male and female parents (e.g., over 25% of poor male heads).

Three out of four *poor* male parents are employed (nonmetro and metro), with female parents less likely to be with employment (34.7% in nonmetro areas, 42.6% in metro). For poor parents with children there do not appear to be significant differences in rates of employment and labor force participation between metro and nonmetro areas with the exception that rural women in two-parent households appear less likely to work. However, nonmetro parents with children that are not poor appear more likely to work than metro parents. Among nonpoor male parents with children present in the household, 95.2% of the nonmetro households reported that the male parent was at work, with 96.9% employed. This compares to 92.7% of nonpoor male parents at work in metro areas, with 94.2% employed. And among female parents these differences are even more apparent -- the PSID data indicate that 72.1% of female parents in rural areas are at work, more than expected. In urban areas, female parents in households not in poverty were less likely to be employed than their rural counterparts -- 64.4% were at work and 66.4% reported being in the labor force. Almost three out of four

rural nonpoor women with children reported being in the labor force. This rate is significantly higher than for poor rural women in two-parent households. Only 34.7% of these women were employed, a striking difference.

Urban households have higher incomes, and higher earnings from work, in general. The only exception was among poor male parents -- poor urban males earned less income from work than poor rural males ($8,582 compared to $8,977). But poor rural female parents that worked earned less than their urban counterparts ($3,577 compared to $4,267). And urban parents that were not poor received more income in total, more in the form of head's earnings, and more earnings derived from the employment of a female spouse.

Families With No Children at Home

In both rural and urban areas there are significant numbers of single adults who are poor. Compared to the nonpoor, single males in poverty are less likely to have completed high school (although more likely to be high school graduates than male parents in poverty), are less likely to be white, and are more likely to be elderly or disabled (Table 4). Among rural poor single males, 29.7% were retired and 48.5% were employed in 1986. Rural single males in poverty earned an average $5,330. In comparison, 19.1% of urban single males classified as poor were retired and 50.2% (slightly more than in rural areas) were employed. Employed urban males in poverty earned an average $4,826.

Poverty among single females tends to be concentrated among the elderly and disabled. Single females in poverty are often elderly (65.2% in rural areas, 54.1% in urban), disabled (57.4% in rural, 52.6% in urban), and/or retired (31.8% in rural, 32.2% in urban). Single females that are poor have significantly lower high school completion rates (an age-related effect) than single women that are not poor. In rural areas 54.4% of single females not in poverty were employed, compared to only 15.3% of those women in poverty. And rural women in poverty earned only $3,454 annually, when they were employed.

Poor couples with no children present in the household are also very often elderly, disabled, or retired (Table 5). Of rural poor males that were married or co-habiting but without children present, 53.1% were elderly, 45.8% were disabled, and 55.9% reported being retired. Of the rural female spouses in poverty 23.4% were both employed and at work. Compared to urban males in similar households, rural males were somewhat more likely to be employed even though greater proportions of rural men were elderly and/or disabled. Among

Table 4. Characteristics of Single Adult Males and Females in Nonmetro and Metro U.S., by Poverty Status, 1987 Interview Year.[a]

	In Poverty		Not in Poverty	
Characteristics	Nonmetro	Metro	Nonmetro	Metro
Single Adult Males	n=86	n=220	n=109	n=438
Average age (years)	45.9	39.7	39.5	38.2
Percent of single males:	(%)	(%)	(%)	(%)
Completed high school	49.0	63.7	76.7	88.3
Not white	20.3	24.1	12.3	13.3
Elderly	25.9	17.9	7.5	9.5
Disabled	28.4	37.1	10.4	15.1
At work in 1986	48.4	48.2	78.9	82.8
With employment in 1986	48.5	50.2	86.8	84.4
In labor force in 1986	60.3	61.0	88.7	85.5
Retired	29.7	19.1	9.9	12.0
Average total 1986 income (1986$)	$5,951	$5,585	$23,340	$32,118
Average 1986 income from work (1986$)	$5,330	$4,826	$18,275	$26,941
Single Adult Females	n=132	n=357	n=128	n=606
Average age (years)	68.1	61.1	57.2	51.6
Percent of single females:	(%)	(%)	(%)	(%)
Completed high school	32.3	45.1	72.9	79.0
Not white	18.1	21.7	11.7	10.7
Elderly	65.2	54.1	41.1	29.7
Disabled	57.4	52.6	27.5	26.7
At work in 1986	15.0	24.6	54.2	62.3
With employment in 1986	15.3	24.9	54.4	62.9
In labor force in 1986	16.3	27.7	56.5	64.8
Retired	31.8	32.2	29.1	22.3
Average total 1986 income (1986$)	$5,095	$5,494	$17,974	$23,741
Average 1986 income from work (1986$)	$3,454	$3,894	$15,031	$18,722

[a]See footnotes at bottom of Table 2.

Table 5. Characteristics of Couples With No Children Present in Nonmetro and Metro U.S., by Poverty Status, 1987 Interview Year.[a]

Characteristics	In Poverty		Not in Poverty	
	Nonmetro	Metro	Nonmetro	Metro
Adult Males - No Children	n=69	n=75	n=250	n=775
Average age (years)	59.5	61.6	55.9	54.7
Percent of married males:	(%)	(%)	(%)	(%)
Completed high school	35.9	40.3	64.1	75.7
Not white	14.4	23.9	4.6	6.1
Elderly	53.1	43.7	30.7	24.2
Disabled	45.8	39.4	28.4	26.0
At work in 1986	32.6	28.6	56.4	62.2
With employment in 1986	35.9	32.2	56.5	62.6
In labor force in 1986	39.0	39.8	58.7	63.5
Retired	55.9	54.1	39.2	34.3
Adult Females - No Children				
Average age (years)	56.4	54.6	52.8	52.0
Percent of married females:	(%)	(%)	(%)	(%)
Completed high school	40.3	42.0	73.2	81.8
Not white[b]	--	--	--	--
Elderly	38.5	39.4	23.4	17.8
Disabled	53.0	44.2	21.2	20.2
At work in 1986	23.4	26.3	51.7	53.5
With employment in 1986	23.4	29.8	52.3	54.2
In labor force in 1986	27.2	31.3	53.8	55.5
Retired	19.0	26.5	17.1	12.5
Household Income[c]				
Average total 1986 income (1986$)	$8,376	$8,267	$32,900	$50,518
Head's average 1986 income from work (1986$)	$5,057	$4,708	$20,238	$32,877
Wife's/"Wife's" average 1986 income from work (1986$)	$5,077	$3,089	$9,995	$16,267

[a]The footnotes in Table 2 also apply here.
[b]The PSID does not include the race of the wife/"wife," only the race of the male head in couple households.
[c]Family weights were used to determine the average total 1986 income, whereas individual head and wife/"wife" weights were used to determine the head's and wife's/"wife's" income from work. The weights vary depending on whether the head and wife/"wife" were in the original sample or if a nonsample head or wife/"wife" has joined the family unit.

females, the opposite was true -- married females in households without children were somewhat less likely to be employed than urban females. This is in direct contrast to rural women with children; in two-parent households with children that were not poor, the female parent was *more likely* to work.

Finally, poor couples without children typically have incomes lower than two-parent families with children present but higher than female-headed households. Couples without children (on average) receive higher transfer incomes, principally because they are generally older and receive Social Security income.

Summary

Overall, the extent to which adults are engaged in market work depends on their family structure, and on socio-economic and demographic characteristics that limit either their ability to work or their productivity at work, or both. Many poor households are comprised of wage earners (or potential earners) that lack sufficient education -- they are in positions at the bottom of the job queue and at the bottom of the earnings distribution. Others are elderly persons on limited incomes, incomes that often reflect weak work histories and poor jobs. In addition, race plays a key role in limiting access to work.

The *general* effects of age, education, and race are likely quite similar in rural and urban locations. What is different are the greater proportions of poor families that are two-parent families or couples without children in rural areas. Among two-parent families with children, a high proportion of the male household heads are employed and at work. What differentiates these families from families with children not in poverty is that (a) the head's earnings in nonpoor households are considerably higher, and (b) in three out of four nonpoor families, the female spouse is employed and at work. For example, only 34.7% of the poor female spouses with children are at work compared to 72.1% of nonpoor spouses.

What is also different between rural and urban areas is the larger proportion of female heads of households in rural economies that are poor and yet work (48.0% compared to 38.4%). In rural areas, poor female household heads have higher high school completion rates than urban heads, but earn somewhat less on average in rural labor markets when they are able to work. Roughly half of the rural female heads of households with children and half of the rural single males in poverty were found to be working, and yet were still poor. For both rural men and women, and especially for rural women, the problem of weak rural employment

opportunities is a severe constraint leading to low wages and limited opportunities for upward mobility (McLaughlin and Perman 1991; Bloomquist 1990; Bokemeier and Tickamyer 1985, Gorham 1992).

The relationships between poverty and work are critical, and are different between rural and urban economies. The remainder of this report examines this relationship both for individuals that have short experiences of poverty and those experiencing long-term poverty -- in one, long spell or in repeated spells of being poor. The sections of this report that follow move beyond the static, one-year view of poverty discussed in Section II by utilizing longitudinal data from the PSID (1968-87 interview years) for individuals in households that move into and perhaps out of poverty. Section III describes the sample used for the analyses of transitions from poverty in Section IV. Section III also examines differences between households that are chronically, frequently, or temporarily poor.

SECTION III

Description of the Longitudinal Poverty Sample

Alternative strategies exist that may help families move out of poverty. Potential wage earners may become employed, families with a single wage earner may become dual earner families as additional wage earners find employment, or adults may be added to the family unit (e.g., through marriage or co-habitation) to increase the number of potential earners. Other options for increasing earnings include migrating to better job opportunities; working multiple jobs; working overtime; changing employers, industry of employment, or occupation; or pursuing additional schooling to qualify for better jobs. The options available to move out of poverty can be roughly classified into the following:

(1) Strategies that increase the time allocated to work, by one or more family members, *given no change in family structure*,

(2) Strategies that increase the time allocated to work, by one or more family members, *that result from a change in family structure*, and

(3) Strategies that increase the (financial) returns to a unit of work time.

Strategies that increase the time that family members work for income, given no changes in family structure, include multiple job-holding by an individual, working overtime, or the employment of more family members. Multiple job-holding may mean either piecing together multiple part-time (or part-year) jobs or working full-time at one job with supplementary income being earned through employment in a part-time job or through self-employment, including both formal and informal types of economic activity. The employment of a second (or third or more) wage earner within the family also increases the time the family jointly allocates to work.

Similarly, families can increase the family's aggregate work time by adding wage earners to the family unit. Single heads of household may marry or choose to co-habit, the latter a strategy often observed among poor rural households (Fitchen 1991). Examples of co-habitation include the more typical male/female households as well as the case observed in Pennsylvania of three elderly sisters living together to take advantage of their joint resources.

Finally, families in poverty can attempt to improve the monetary returns to work by migrating to a better job, changing jobs (employer, industry or occupation) in the same community, or pursuing education to increase earnings. These strategies may result in higher wages or higher nonpecuniary benefits, but not in more work hours, necessarily.

The strategies outlined above represent options, that may or may not "work" to pull families out of poverty. For example, individuals may migrate to what they perceive as better job opportunities elsewhere but may not be able to secure a better job or even a job at all. Or an individual may pursue education, but not receive higher wages or a better job as a result. Additional human capital may in fact be underemployed in rural areas (Beaulieu and Mulkey 1992, Findeis 1992). Rural workers may be rewarded less for their human capital as compared to urban workers with comparable levels of education (McGranahan and Ghelfi 1991).

A household's ability to use these alternative strategies and the extent to which these strategies "work" in rural economies will be reflected in the duration of poverty and the extent to which families experience repeat spells of poverty. It will be important both to differentiate between strategies that "work" and those that do not, and to define those strategies that are used by households that move out of poverty *permanently* versus strategies that allow some households to escape poverty *but only temporarily*.

Analytical Framework

The analysis of strategies used by poor rural households to move out of poverty will require two steps. First, individuals and households in poverty will be differentiated on the basis of the frequency and duration of their poverty. Differences in the characteristics of chronically, frequently, or temporarily poor individuals will be examined using longitudinal data for a sample from the PSID. The sample used for analysis includes individuals in families that have been poor at least one year over the 1968-87 period and have ever lived in a nonmetropolitan area over the same time period. The "ever-nonmetro ever-poor" (ENEP) sample includes a total of 7448 individuals, a sample of sufficient size to examine useful strategies for different types of families.

The ENEP sample is also large enough to differentiate between those that are chronically, frequently or temporarily poor.[4]

Second, the ENEP sample will be used to identify those factors or "strategies" most likely to result in transitions out of poverty. Specifically, event history analysis will be used to associate potential strategies with the probability that an individual moves out of poverty, over time. The "event" is defined as an exit from poverty. The "risk set," the set of individuals at risk of an occurrence of this event (Allison 1984), will include individuals who are poor during a specified time period.

Discrete-time event history models will be developed for different types of households, with household type defined for the initial time period. Due to the annual nature of the PSID data, discrete-time event history models are more appropriate for this analysis than continuous-time models (e.g., accelerated failure time models and proportional hazards models). Further, the longitudinal data file used to differentiate individuals into poverty frequency/duration categories is reconfigured for the event history models into a person-year file to facilitate estimation. Each observation in the person-year file includes information on the duration and frequency of the individual's poverty experiences, as well as demographic characteristics of the household and selected work-related characteristics of the household head and wife/"wife" (if applicable).[5] The ENEP sample used for this analysis is described below.

ENEP Sample Description

The unweighted distributions of the 7448 individuals in the PSID that have experienced poverty (or have a poverty history) and have resided in a nonmetro area are shown in Table 6, by number of years in poverty and number of poverty spells experienced over the 1968-87 period. The distributions are graphically represented in Figures 1 and 2 for the number of years in poverty and the number of poverty spells, respectively. It is important

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[4]It would have been preferable to include in the analysis individuals that were poor but that had *always* resided in the nonmetro U.S. However, this sample would be biased due to exclusion of the frequency and duration of poverty among individuals that are more transient, and have moved into and out of a nonmetro area over this time period. This sample is also considerably smaller than an ever-nonmetro ever-poor sample (due to migration and reclassification of some nonmetro counties into metro), and would have limited the analysis.

[5]The designation "wife" is used in the PSID to connote a female cohabitors. In the PSID the male spouse is defined as the household head and the female spouse is the wife.

Table 6. Distribution of Number of Poverty Spells by Number of Years Poor for ENEP Sample, PSID, 1968-87.[a]

Years in Poverty	Number of Poverty Spells Over 20 Year Period							Percent by Years
n = 7448	1	2	3	4	5	6	7	(Unweighted)
1	1069							14.35
2	296	338						8.51
3	198	265	90					7.42
4	128	201	120	46				6.65
5	62	156	119	54	6			5.33
6	98	128	84	55	16			5.12
7	71	84	112	69	12	2		4.70
8	39	76	97	100	18	11		4.58
9	40	52	138	52	21	14	3	4.30
10	50	50	94	61	19	8	0	3.79
11	54	62	53	60	29	10	8	3.71
12	41	26	63	59	35	5	1	3.09
13	20	60	77	41	18	6	1	2.99
14	30	93	39	98	17	3		3.76
15	20	60	87	45	12			3.01
16	19	42	85	46	4			2.63
17	44	71	95	20				3.09
18	27	106	96					3.07
19	73	195						3.60
20	470							6.31
Percent by Spells (Unweighted)	38.25	27.73	19.45	10.82	2.78	0.79	0.17	

[a]Includes spells that began prior to 1968 but ended in 1968 or thereafter, and spells that had not ended by 1987. Data are unweighted.

Figure 1. Number of Years Poor for Unweighted ENEP Sample, PSID, 1968-87.

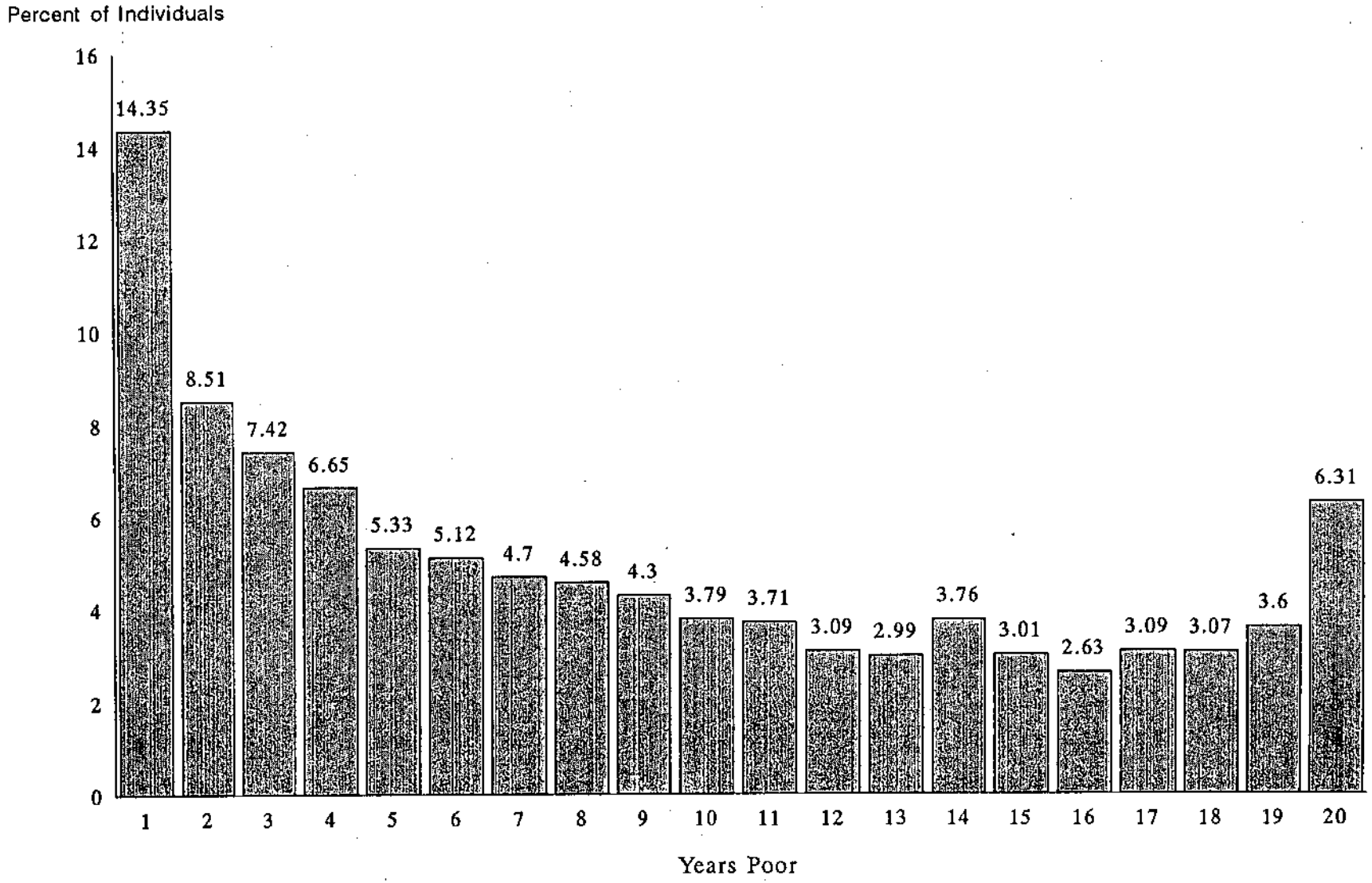
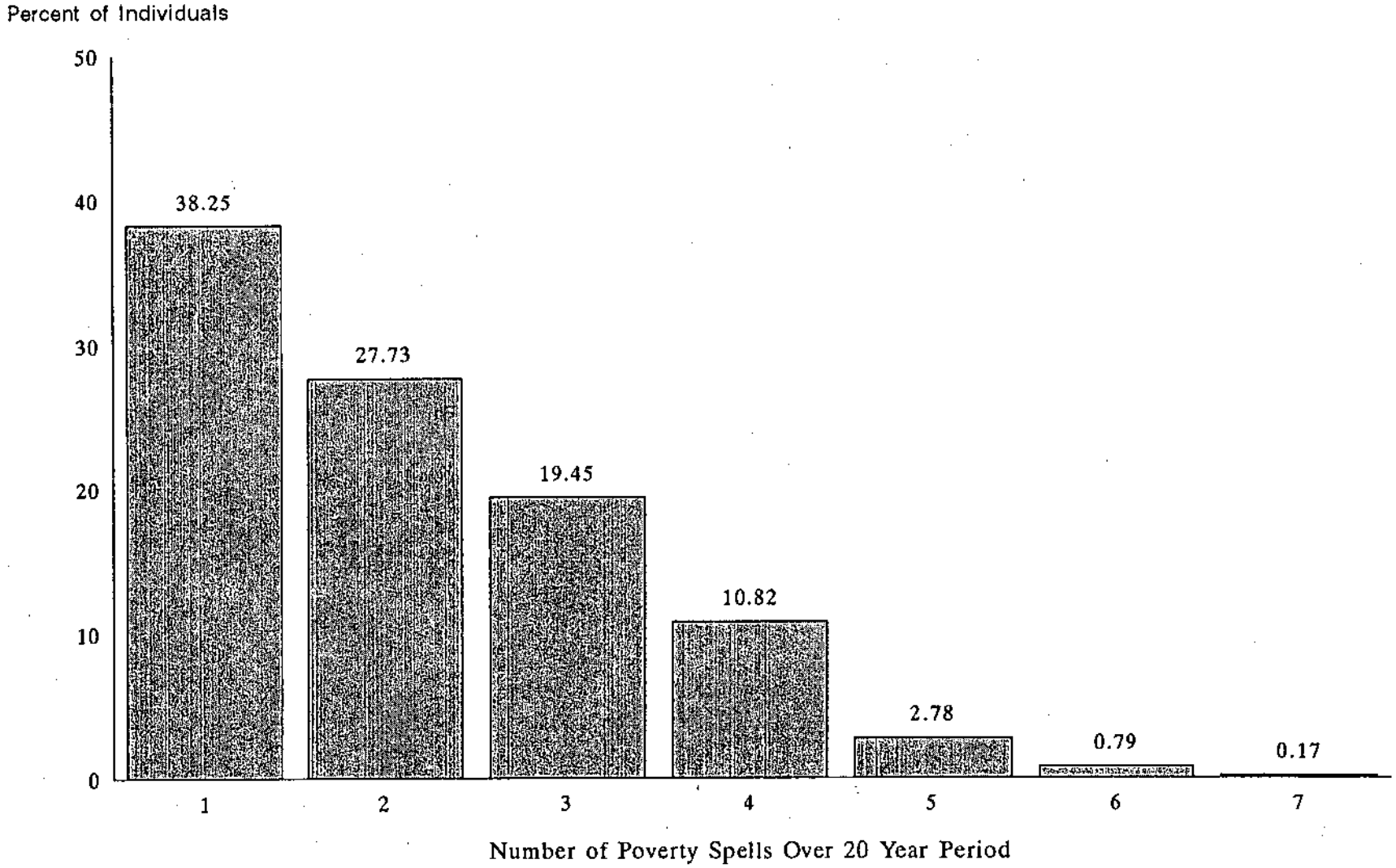


Figure 2. Number of Poverty Spells for Unweighted ENEP Sample, PSID, 1968-87.



to recognize that the distributions in Table 6 and Figures 1 and 2 include significant numbers of observations that are censored, either right-censored, left-censored, or both.[6] This has implications for the true nature of the unweighted distributions. For example, Figure 1 indicates that of the total sample, 6.31% were poor for 20 years. The correct interpretation of this statistic is that 6.31% of the ENEP sample were poor a total of 20 years *over the 20-year 1968-87 period*. Because a significant number of poverty spells are censored, it is likely that a greater proportion of the sample has in fact experienced a 20-year poverty spell, but a spell that began prior to 1968 or continued beyond 1987.

Given this interpretation, Table 6 and Figures 1 and 2 show that over the 1968-87 period, 14.35% of the ENEP poverty sample were temporarily poor -- once and for only one year (and even that estimate is biased upward due to censoring). The majority of the sample (at least 86%), had been poor for either an extended period of time (two years or more) or had experienced poverty more than once. In total, 28 percent were poor 2-5 years, 36 percent were poor 6-14 years, and 22 percent were poor basically throughout the period (15-20 years). One in five individuals in the ENEP sample had been chronically or persistently poor over the 1968-87 period. In addition, more than half of the sample had experienced "repeat poverty"; 62 percent had experienced two or more spells of poverty (Figure 2) and many of these individuals experiencing "repeat poverty" were poor many years.

It should be noted that Table 6 and Figures 1 and 2 provide descriptions of the *unweighted* distributions of years in poverty and numbers of poverty spells for the ENEP sample. Weighting the sample further describes the nature of poverty among the population of households that have experienced poverty and have lived in nonmetro areas of the U.S. (see Figures 3 and 4). As shown in Figure 4, the population of ever-nonmetro, ever-poor individuals includes significant numbers of individuals that experience repeat or multiple spells of poverty; almost three out of five individuals were poor more than once over the 20-year period. For many households, poverty is neither a short-term state or a long-term, chronic situation. Many households move into and out of

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[6]Appendix B includes distributions of years in poverty and poverty spells excluding censored first spells for individuals poor in 1968. When observations with left-censored spells are dropped from the analysis, 4163 observations of the 7448 observations in the total ENEP sample are discarded. Distributions biased toward fewer (and shorter) spells result. Further, this does not even consider the effects of right-censored observations.

Figure 3. Number of Years Poor for Weighted ENEP Sample, PSID, 1968-87.

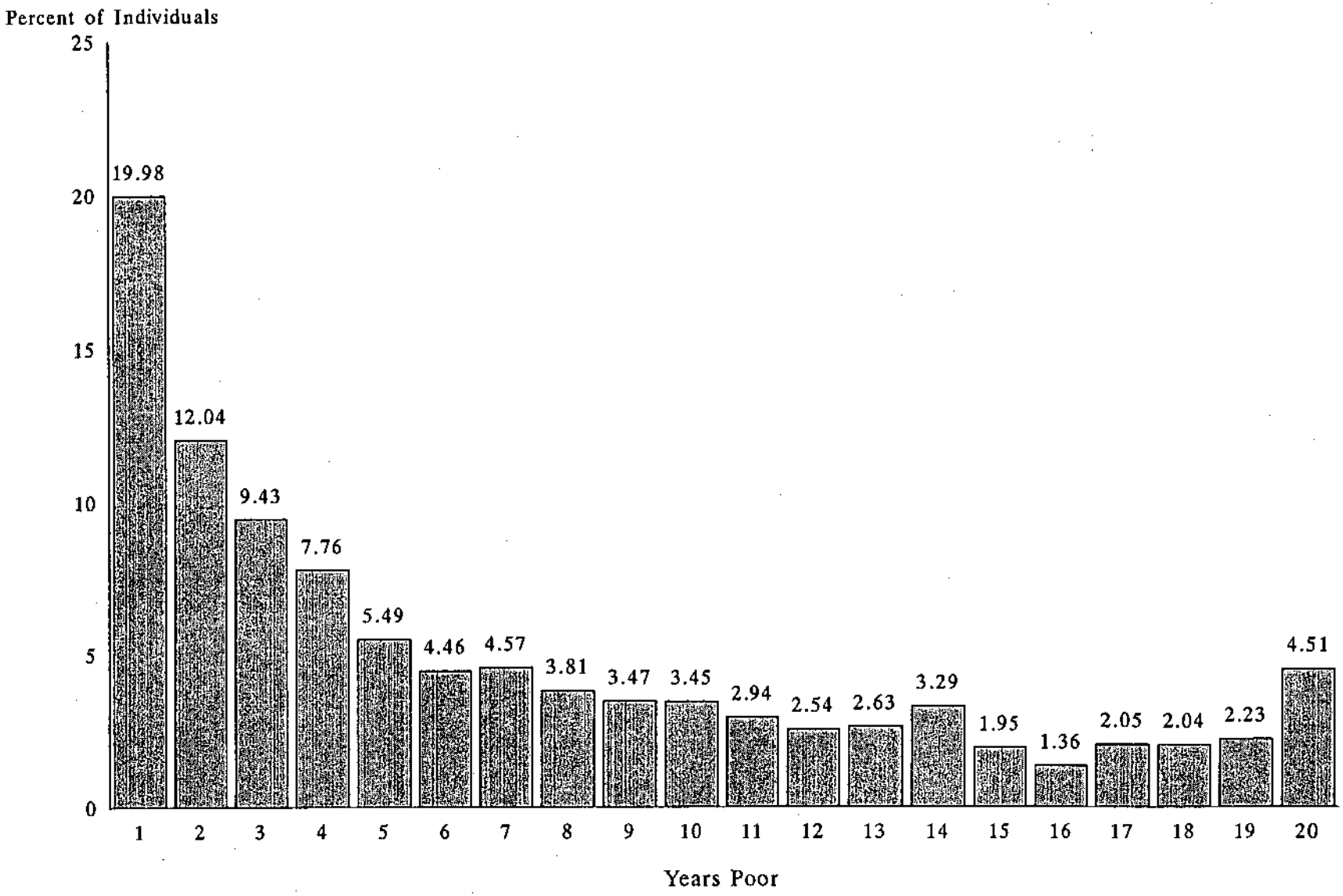
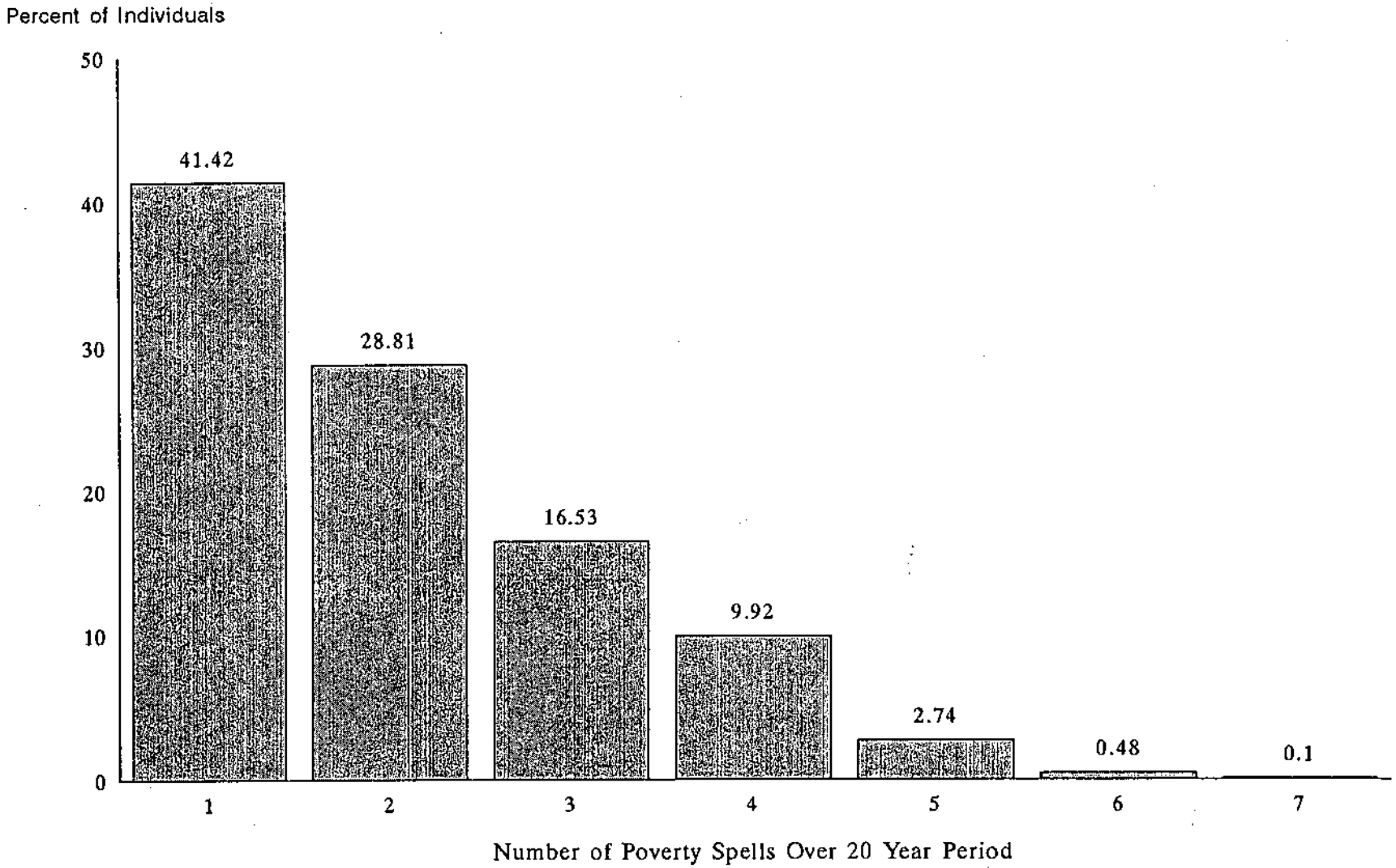


Figure 4. Number of Poverty Spells for Weighted ENEP Sample, PSID, 1968-87.



poverty, but their exits from poverty are very often not permanent (Duncan et al. 1984). That is, many households move out of poverty only to become poor again.

Differences in the Frequency and Duration of Poverty

To describe and better understand differences between the chronically poor, frequently poor, and temporarily poor, six poverty categories are differentiated in this study, based on number of poverty spells and the total number of years in poverty. The six categories were developed to differentiate among (1) those individuals with a history of being in families who are almost always in poverty (if not *always* in poverty); (2) those individuals that experience only a single, short (1 year) poverty spell; and (3) those people who fall somewhere in between these two extremes. The latter group are then further disaggregated to differentiate between (1) individuals in families that experience repeat spells of poverty versus those that experience only one spell; (2) those that are poor for a significant time period (2-5 years); and (3) individuals in families that are poor for many, many years (6-14 years). The following categories are differentiated to better describe the sample:

(1) *Chronically or persistently poor, i.e., individuals in families poor 15 or more years of the 20-year period;*

(2) *Multiple spell poor, with at most 5 of 20 years in poverty;*

(3) *Multiple spell poor, with 6-14 of 20 years in poverty;*

(4) *One-year single spell poor, i.e., individuals in families poor only once and for only one year;*

(5) *Single spell poor with 2-5 years in poverty; and*

(6) *Single spell poor with 6-14 years in poverty.*

Clearly, differences in the frequency and duration of poverty will be reflected in differences in incomes, net transfer payments. Figures 5 and 6 indicate the real average annual incomes of households in each poverty category over the time period 1970-86, and deviations from the average. Figure 5 shows that households experiencing multiple spells of poverty earned lower than average incomes in the mid-1970s and from approximately 1980 on; the chronically or persistently poor had lower real average incomes from 1980 on. The single spell poor were relatively worse off in the mid-1970s and in the early 1980s (see Figure 6).[7]

[7]Appendix C includes the unweighted ENEP sample income trends.

Figure 5. Deviations from Real Average Incomes (Net Transfer Payments) for Multiple Spell and Chronically Poor Households, Weighted ENEP Sample, 1970-86.

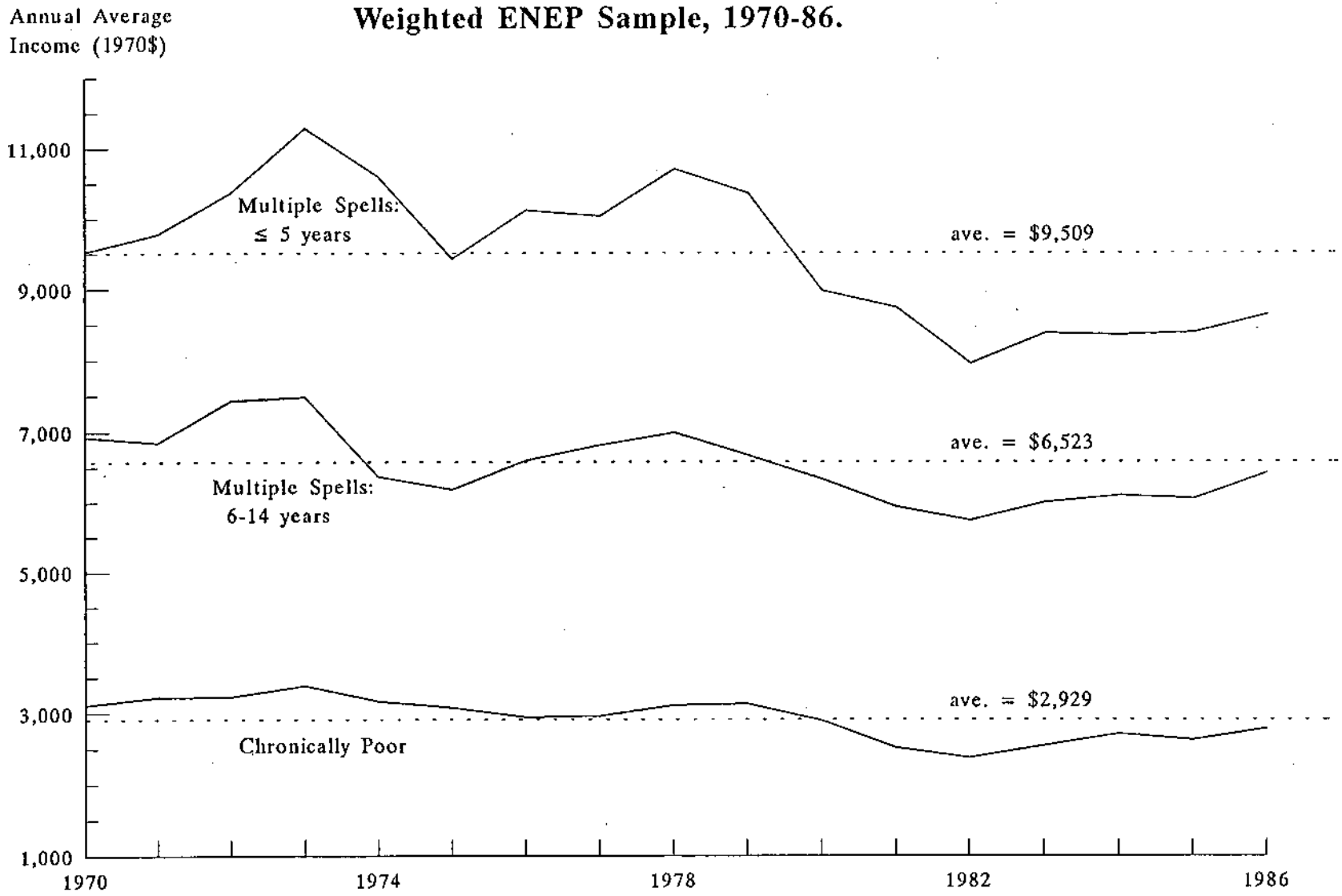
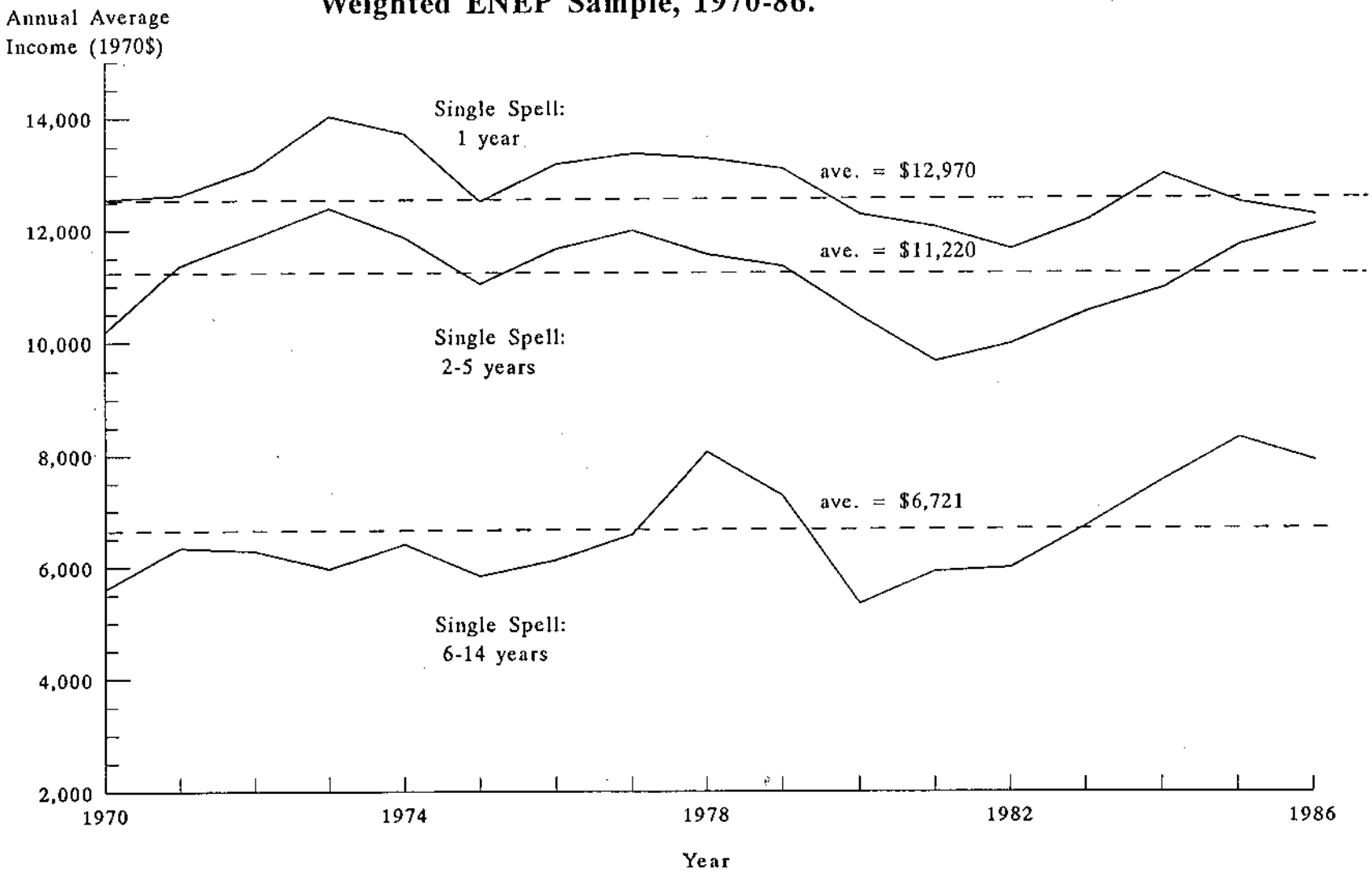


Figure 6. Deviations from Real Average Incomes (Net Transfer Payments) for Single Spell Poor Households, Weighted ENEP Sample, 1970-86.



Considered over an extended period of time, the chronically poor are at a considerable income disadvantage. Figures 7 and 8 show the cumulative real average incomes of households in each poverty category for the period 1970-86, progressively by year and in total by 1986, respectively. As shown in Figure 8, households that had experienced single or multiple spells of poverty for 6-14 years received incomes (net transfer payments) roughly twice the cumulative average income received by the chronically poor. The one-year single spell poor earned over four times more in cumulative average (net) income over the 1970-86 period than the chronically poor.

Further, little difference was observed in the cumulative average incomes of households poor 6-14 years, regardless of whether the poverty was experienced in a single spell or in multiple spells. However, households in the sample that were poor 2-5 years in a single spell were observed to have higher cumulative average incomes than those experiencing multiple spells, probably reflecting fewer average years in poverty among the 2-5 year single spell poor in this sample. For example, as shown in Table 6, approximately 43 percent of the 2-5 year single spell poor are poor only two years, as compared to 24 percent of the multiple spell (2-5 year) poor. These differences will be reflected in differences in cumulative incomes.

Poverty and Household Structure

The chronically poor are often in female-headed households, either with or without children present in the household (Table 7). Over half (54.1%) of the chronically poor families with children are headed by women, and an even greater percentage (57.6%) of the households without children are comprised of single women in poverty (Figure 9). And of all the individuals who have family histories of chronic poverty, 30.5 percent are children -- children that are poor today and are in families that have been poor for over two decades.

Children are also well represented in families that have experienced multiple spells of poverty. These families have histories of moving into and out of poverty, and in many cases of spending significant numbers of years as poor households. However, these families are less likely to be female-headed family units and are more likely to be two-parent households. As shown in Figure 9, the majority of female-headed households are either chronically or frequently poor.[8] Figure 9 further demonstrates that individuals in two-parent households are

[8]A description of male-headed households by poverty category is included in Appendix A, Table A.2.

Figure 7. Cumulative Real Average Incomes (Net Transfer Payments) for Weighted ENEP Sample, PSID, 1970-86.

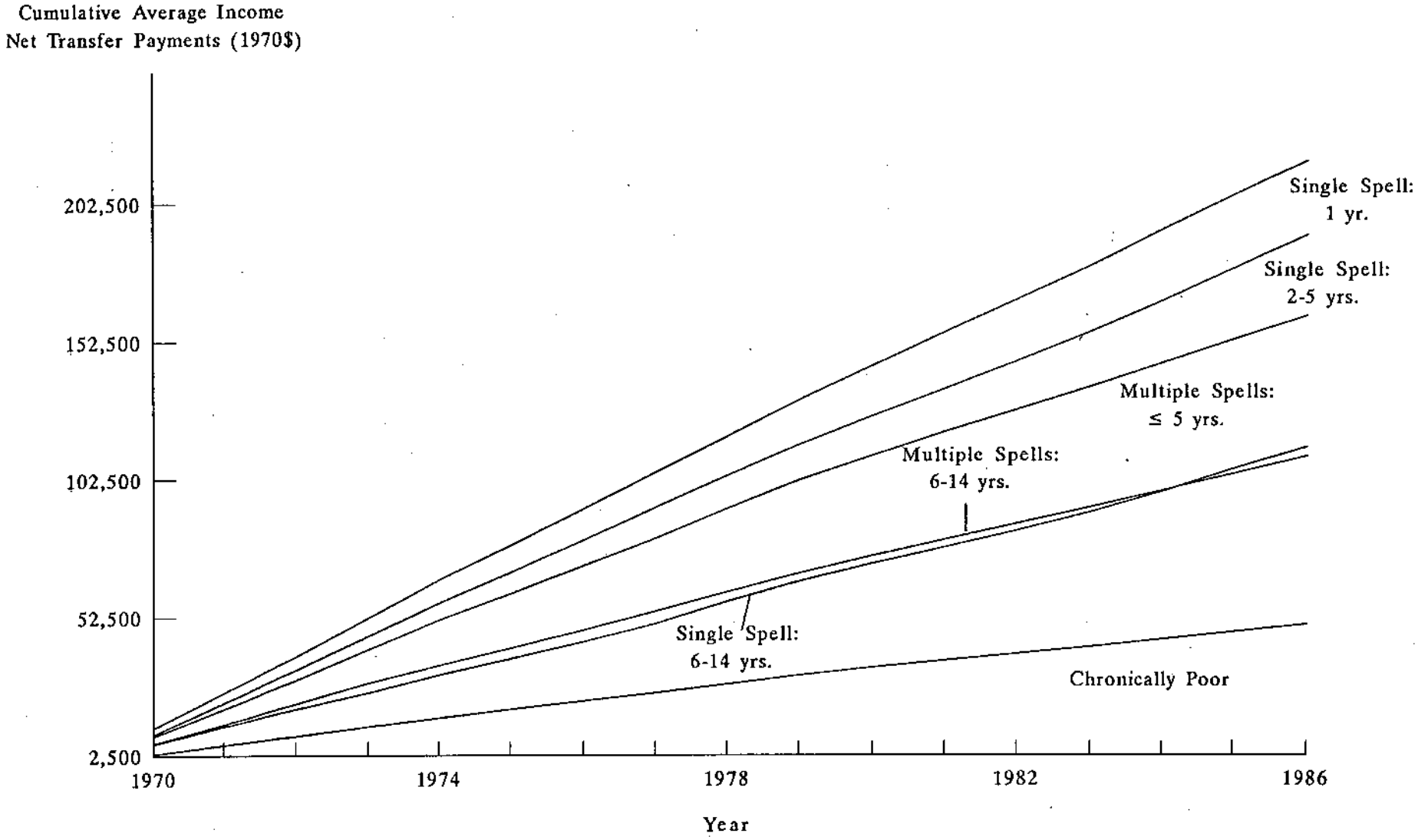


Figure 8. Comparison of Total Cumulative Real Average Incomes (Net Transfer Payments) for Weighted ENEP Sample, PSID, 1970-86.

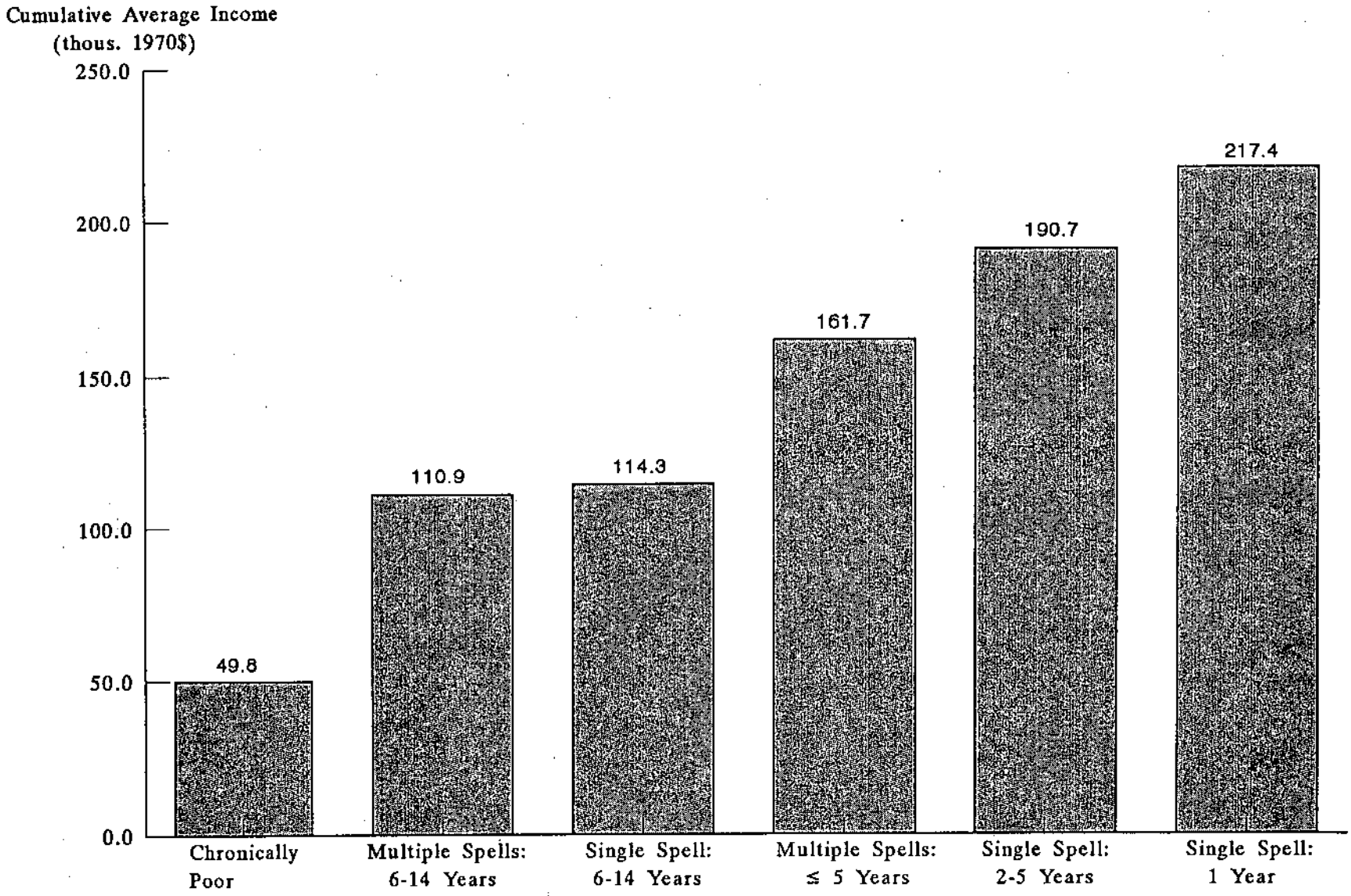
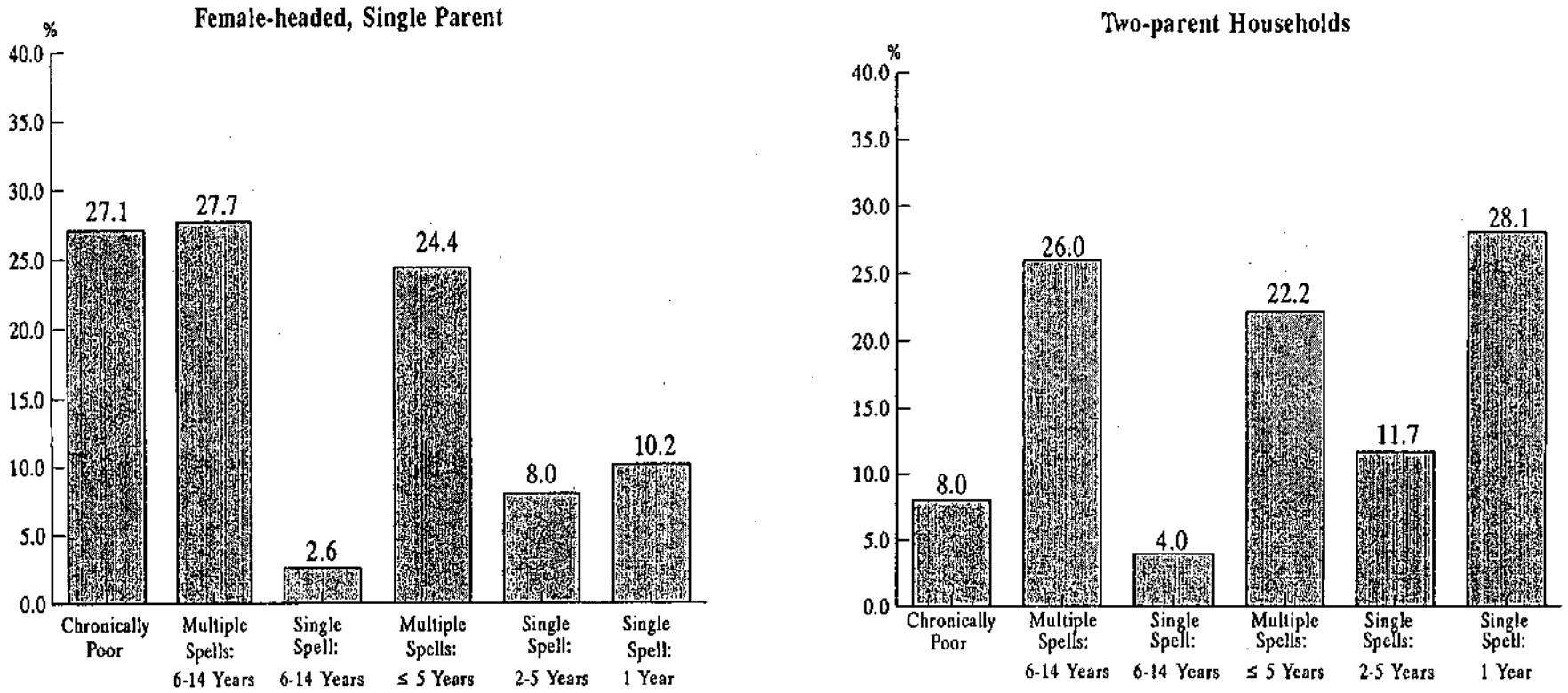


Table 7. Representation of Family Structures for ENEP Sample, 1987 Interview Year[a].

Family Structure	Chronic 15-20 yrs.	Multiple Spell: ≤ 5 yrs.	Multiple Spell: 6-14 yrs.	Single Spell: 1 yr.	Single Spell: 2-5 yrs.	Single Spell: 6-14 yrs.	Entire Sample
With Children Present:	n=203 41.0% of total	n=157 45.6% of total	n=271 48.9% of total	n=127 49.0% of total	n=65 48.2% of total	n=39 38.0% of total	n=862 46.4% of total
One-parent families:	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Male-headed	5.9	3.2	5.4	2.7	3.7	6.4	4.2
Female-headed	54.1	29.7	28.4	12.4	20.8	19.3	27.4
Two-parent families	40.0	67.1	66.2	85.0	75.5	74.3	68.3
Total with children	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No Children Present:	n=250 59.0% of total	n=175 54.4% of total	n=262 51.1% of total	n=140 51.0% of total	n=80 51.8% of total	n=63 62.0% of total	n=970 53.6 total
	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Couples (male/female present)	12.9	40.9	27.6	37.1	29.6	35.2	28.5
Single male	29.6	25.0	32.9	25.0	38.8	29.8	31.8
Single female	57.6	34.1	39.5	37.9	31.6	35.0	39.7
Total without children	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Distribution of Individuals:	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Adult males	28.9	28.1	29.0	33.2	28.7	30.8	28.9
Adult females	31.8	33.0	31.2	30.6	28.7	30.3	31.8
Elderly	8.8	7.5	8.2	7.7	9.7	11.6	8.8
Children	30.5	31.4	31.5	28.5	32.9	27.3	30.5

[a]Statistics based on weighted sample, with unweighted n given.

Figure 9. Distribution of Households With Children Across Poverty Categories, Weighted ENEP Sample, 1987 PSID Interview Year. [a]



[a]For sample sizes, refer to Appendix D.

less likely to have a history of chronic poverty but are often among the frequently poor. Two-parent households are also those most likely to have experienced a single spell of poverty on a short term basis.

Clearly, family structures have important implications for the numbers of potential wage earners in the household, and thus affect both the frequency and duration of poverty. At the same time, differences in the socio-economic and demographic characteristics of households within a particular type of family structure have strong effects on time in poverty, and perhaps on frequency.[9] Education and race have critical roles (see Figures 10 and 11). Regardless of family structure, chronically poor household heads, and, if applicable, wives/"wives" often have not completed high school. For example, of chronically poor female-headed households, only 40.2% of heads had completed high school. Among chronically poor two-parent families with children, similar results were found: only 36.6% of male parents and 29.4% of female parents had completed a high school education.

In contrast, over 90% of both heads and wives/"wives" in households experiencing only a single spell of poverty of one year duration had completed high school; 90.1% of female heads, 90.2% of male heads, and 94.1% of wives/"wives" among the one-year single spell poor had attained a high school education. Shorter durations of poverty are associated with higher levels of education. At the same time, it is important to note that a high school education does not offer immunity to poverty -- many of the household heads and wives/"wives" that later found themselves in poverty had completed high school. This may even be true for potential wage earners that have pursued education beyond high school. Underemployment in rural economies declines with education, but remains a problem in rural labor markets even among the better educated (Findeis 1990).

Race is also key. Among chronically poor female-headed households, 66.9% of the female heads are of a race other than white (Figure 11). The longer the length of time in poverty, the greater the likelihood that the female head is nonwhite. Further, single longer spells of poverty are relatively more prevalent than repeat poverty spells (of an equal duration) among nonwhite female-headed households. It appears to be more difficult

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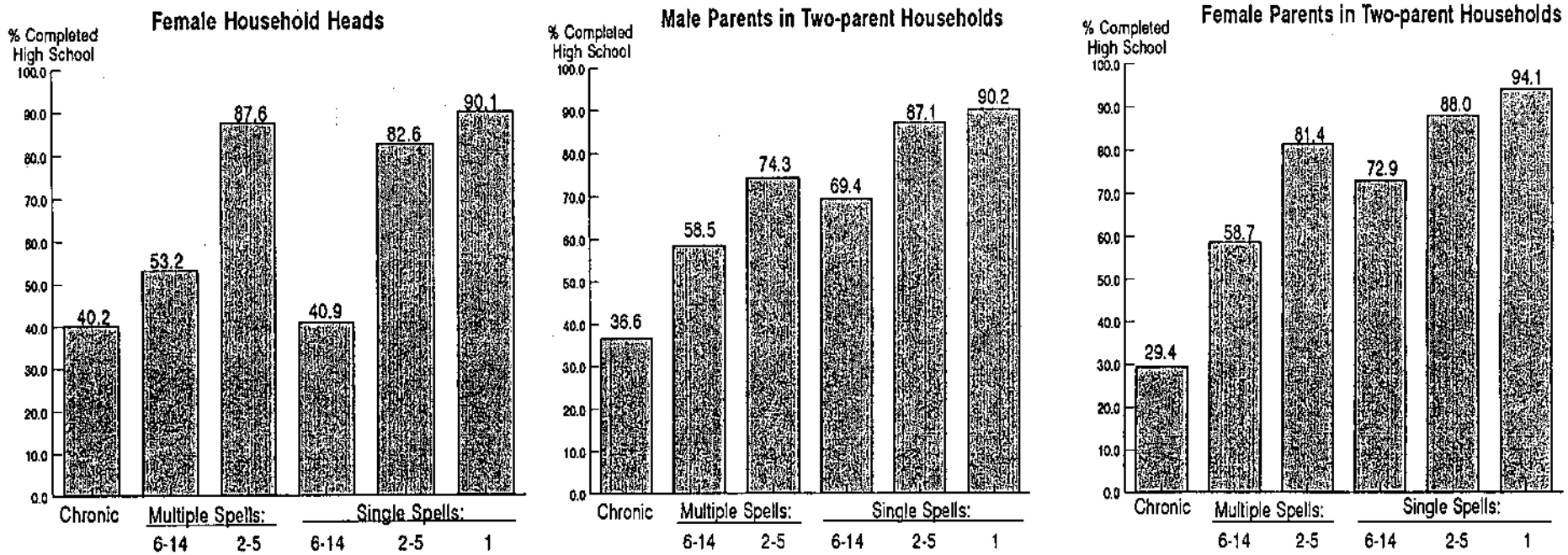
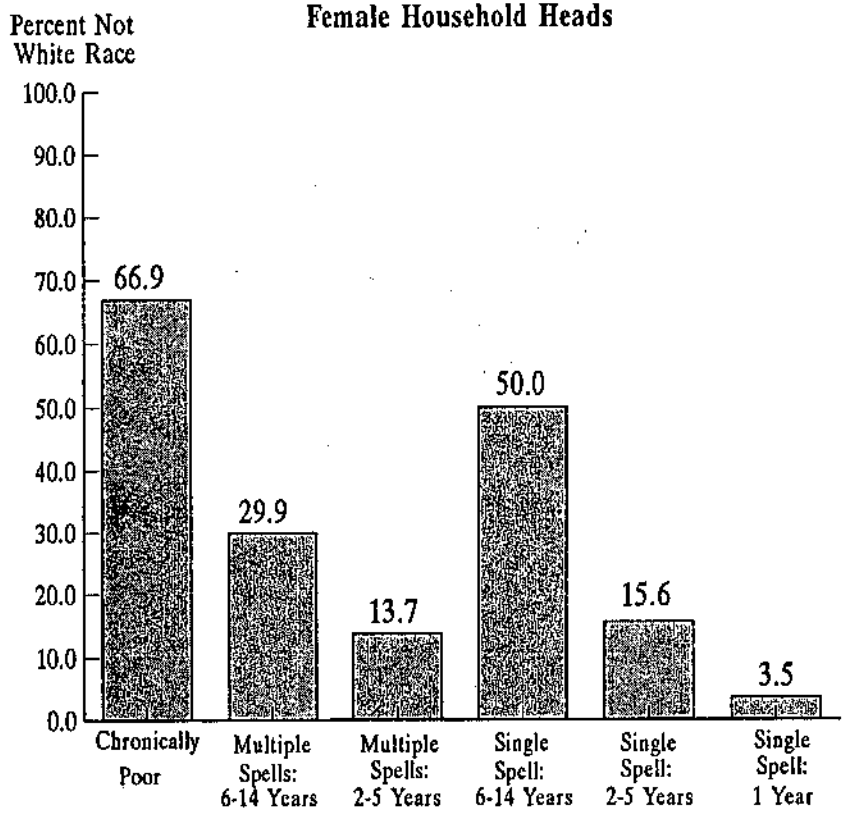
[9]Appendix D includes a set of tables (Tables D.1 through D.4) describing the weighted ENEP sample by poverty category, based on 1987 interview year data.

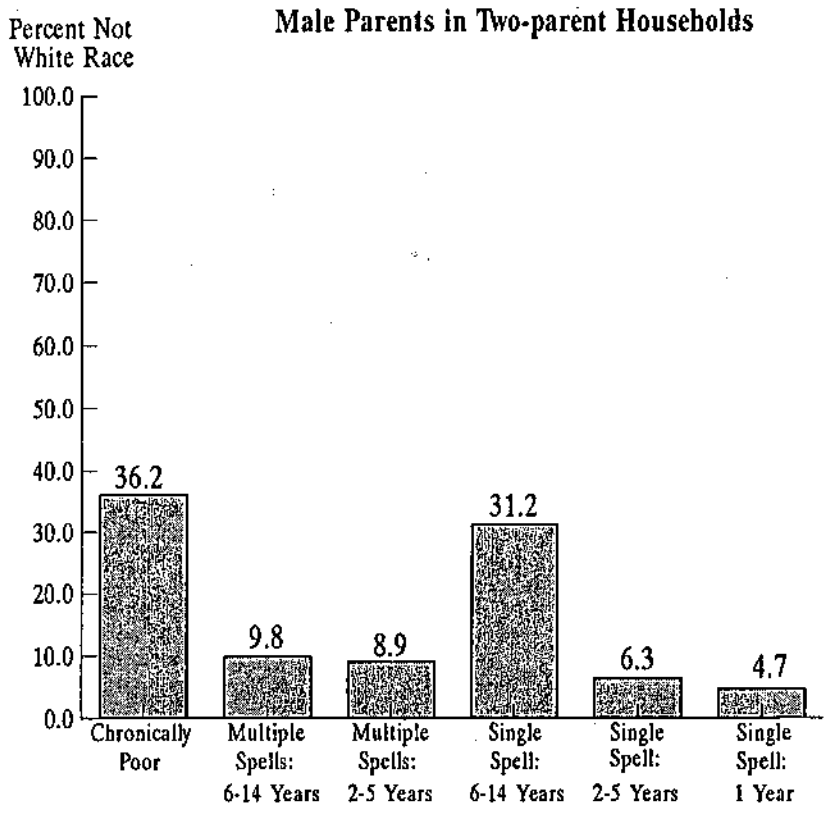
Figure 10. Completion of a High School Education Among Households With Children Present in Weighted ENEP Sample by Poverty Category, 1987 PSID Interview Year. [a]



[a] For sample sizes, refer to Appendix D.

Figure 11. Race of Household Heads With Children in Weighted ENEP Sample, 1987 PSID Interview Year.[a]





[a]For sample sizes, refer to Appendix D.

for nonwhite female household heads to move out of poverty, if only temporarily, when compared to white female heads. This is consistent with Allen and Thompson (1990) who found that even when education levels are comparable, poverty rates for minorities are higher in rural areas.

Among two-parent households, similar effects of race are observed, although significantly fewer two-parent families are nonwhite. Larger proportions of nonwhite heads are observed among the chronically poor (36.2%) and among those two-parent households in poverty for 6-14 years in a single spell -- a spell that may or may not have ended by 1987. Similar relationships between poverty and both education and race are observed for households without children -- for married couples (Appendix Table D.3) and for single males and females (Appendix Table D.4).

Participation in Market Work

The composition of families affects the number of potential earners in the household. Further, the presence of children in the household can constrain market work participation, if child care is not available (Findeis et al. 1991). At the same time, the socio-economic and demographic characteristics of potential earners - and particularly race, gender, and education - can affect both participation in market work and the returns to work.[10]

An examination of the market work participation of potential earners in different types of families shows that, in rural areas, a significant proportion of the potential earners in nonpoor families *at risk of poverty* do, in fact, work.[11] As expected, the proportions of both male and female household heads that are working varies depending on whether the household is presently poor (see Table 8). For example, among male-headed (often two-parent) households with children present, 91.7% of the nonpoor heads at risk of poverty were at work in the 1987 PSID wave. Another 5.8% of these heads were either temporarily laid off, on leave, or unemployed; a total of 97.5% of nonpoor but "at risk" male heads with children were in the labor force. This compares to 78.9% of male heads that were currently at work and currently poor. Of poor male heads, 90.2% were in the

[10]The terms "work" and "market work" are used interchangeably here, although housework, child care, and informal economic activities certainly are viewed as work.

[11]In this study, individuals "at risk of poverty" or "at risk" are defined as individuals in the ENEP sample.

Table 8. Participation of Household Heads and Spouses in Market Work in Weighted ENEP Sample, 1987 Interview Year.[a]

Employment Status	Male Head With Children[b]		Female Head With Children		Wife/"Wife" With Children	
	Poor	Not Poor	Poor	Not Poor	Poor	Not Poor
At work	78.9%	91.7%	51.1%	87.1%	33.3%	71.2%
Temporarily laid off or on leave	2.9	2.5	1.7	0.3	2.0	1.3
Looking for work, unemployed	8.4	3.3	12.6	5.8	2.8	3.7
Retired	1.4	0.1	0.2	1.4	0.2	0.0
Disabled	7.0	1.0	3.7	0.2	0.3	0.5
Keeping house	0.0	1.1	26.7	5.2	58.5	22.9
Student	1.3	0.3	4.0	0.0	2.9	0.4
Other; "workfare"; in jail	0.0004	0.0	0.0	0.0	0.0	0.0
	Male Head Without Children		Female Head Without Children		Wife/"Wife" Without Children	
Employment Status	Poor	Not Poor	Poor	Not Poor	Poor	Not Poor
At work	54.8%	86.9%	40.5%	87.6%	38.2%	64.0%
Temporarily laid off or on leave	3.3	1.9	1.7	0.0	4.5	1.0
Looking for work, unemployed	14.0	1.6	5.1	2.3	4.1	4.8
Retired	7.9	7.3	13.2	4.9	3.2	5.3
Disabled	13.3	0.6	15.2	0.5	3.7	1.1
Keeping house	2.0	0.2	19.3	3.5	46.3	22.8
Student	4.0	1.5	4.9	1.1	0.0	0.0
Other; "workfare"; in jail	0.7	0.1	0.0	0.1	0.0	1.0

[a]Weighted using appropriate weights.
[b]Includes a very small number of "single" male household heads. Most male heads with children are married or co-habiting.

labor force, with 8.4% unemployed. In addition, 7.0% were disabled. Among male heads without children, participation in market work was lower, both in currently poor and nonpoor households.

At-risk female heads of households are most often poor, but those not poor have relatively high rates of employment (87.1%) and labor force participation (93.2%). Female heads of households in poverty were about as likely to be engaged in market work (51.5%) as not currently working outside the home (48.9%). In total, 12.6% of poor female heads were unemployed, and 1.7% were on leave or temporarily laid off. Four percent of poor female household heads reported being in school. Given low levels of education, the unfortunate constraint often imposed by race, and the constraint of children, it is not surprising that almost half of poor female household heads do not engage in market work. At the same time, it is equally important to note that many female heads do work outside the home and some have even escaped poverty -- at least temporarily. The important question to be addressed in Section IV is what strategies have facilitated the exits of rural poor women from poverty.

Another important question to be assessed in Section IV is whether work by the female spouse is an important determinant of whether an "at risk" household is poor or not. As shown in Table 8, this effect is evident among two-parent households with children; only 33.3% of spouses in poor households are currently at work compared to 71.2% of women in "at risk" households not in poverty. In households without children, similar large differences exist in the rates of participation in market work by women in poor households versus households not in poverty. These results suggest that the participation of the female spouse in market work may be an important determinant of transitions out of poverty -- both when children are present in the family unit and when they are not.

Section III has suggested ways in which families may move out of poverty -- Section IV explores alternative strategies that "work." Further, Section IV examines differences in alternative strategies by household structure. It is likely that some strategies will be useful across all household structures, but there may well be particular strategies more useful for improving the income status of targeted populations -- for example, children.

SECTION IV

Strategies Affecting Transitions From Poverty

Families in poverty rely upon different strategies that may (or may not) increase the likelihood that the family is able to move out of poverty. Section IV focuses on strategies, and in particular on work-related strategies, that help families move out of poverty, permanently in some cases and at least temporarily in others.

To identify strategies that help to facilitate transitions from poverty, the ENEP (ever nonmetro, ever poor) sample discussed in Section III was used to estimate event history models of transitions from poverty for different types of households: female-headed households with children present, male-headed households with children at home, female-headed households with no children, and male-headed household with no children present in the household. Separate models were estimated for different household structures to control for the presence of children in the household as well as for the number of potential earners (and potential caregivers) in the household. In each case, changes in family composition could occur (for example, through addition of a new household head), with the influence of this change on poverty status being measured by the models.

Initially, models were estimated for individuals in each type of household with no distinction made between the temporarily, frequently, and chronically poor -- i.e., no distinction was made on the basis of the duration or frequency of poverty spells. However, these models were then supplemented with separate models estimated for those individuals that move out of poverty but then move back in (i.e., the frequently poor). The latter models serve to indicate the strategies that families find successful for at least short periods of time, but that can fail to serve them consistently in the long run. Changes in economic conditions, in family composition, or in the characteristics of jobs themselves can "sabotage" efforts that might otherwise lead to success.

Potential Strategies and Constraints

The ability of individuals and ultimately households to move out of poverty depends in part on the time the household can allocate to work and the returns to a unit of work time. The time allocated to work by the household and the returns to work time then depend on the structure of the family (which determines both the number of potential earners and the need for caregivers for children and elderly household members) and the characteristics (including human capital) of potential earners. At the same time, local labor market conditions

and local economic structure affect (1) the extent to which potential earners can enter the labor market and become employed, (2) the ability of workers to increase their work time, and (3) the returns to work.

The exogenous variables incorporated in the models estimated here therefore include variables reflecting (1) the demographic characteristics of the household (including the head's human capital);[12] (2) work-related strategies used by the head and wife/"wife", if applicable; and (3) location-related characteristics. Family structure is controlled by estimating separate models for different (initial) family structures. Time is also incorporated in the models to determine if the hazard function associated with transitions from poverty declines over time. And finally, a variable reflecting left-censored observations is included to account for individuals that are poor in t=0 but were also poor *prior* to t=0; the inclusion of a censoring variable serves to reflect differences in the hazard rate characterizing the population of survey respondents with left-censored observations. Inclusion of this variable is important since significant numbers of individuals have left-censored observations because of the SEO subsample in the PSID (see Section I). Figure 12 summarizes the exogenous variables incorporated in the analyses. As shown in Figure 12, the exogenous variables include characteristics of the household, and particularly of the household head; work-related characteristics of potential earners; time-related variables; and variables that reflect location and local economic conditions.

The logical endogenous variable for the analyses would be P(t), where P(t) represents the probability that an individual experiences an event in time t, specifically an exit from poverty in t. However, the values of P(t) must be limited to the range from 0 to 1 inclusive. Thus, the endogenous variable is the logit (or log-odds) of P(t), or log (P(t)/1-P(t)). Maximum likelihood is used to estimate the models, bearing in mind that the estimated coefficients, the $ß_i$, indicate the change in the log-odds for a one unit change in the associated exogenous variable (Allison 1984).

Factors Affecting Transitions Out of Poverty

Tables 9 through 12 provide estimates of models of transitions out of poverty for female-headed households with children (Table 9), male-headed households with children (Table 10), female-headed households

[12]In the early waves of the PSID, information on the human capital of the wife/"wife" was not collected, thus limiting the use of these variables for event history analyses, except when limited to the later years of the PSID.

Figure 12. Variables Incorporated in Event History Models for Transitions from Poverty for ENEP Sample, PSID.

Characteristics of Household	Time-related Variables
Number of children present in household (number) Age, Age^2 of household head (years; years^2) Education of household head: Completed high school (0,1) Some college or technical school (0,1) Race of household head (0,1) Head disabled (0,1) New household head in event year (0,1)	t=1 (0,1; relative to t=5) t=2 (0,1; relative to t=5) t=3 (0,1; relative to t=5) t=4 (0,1; relative to t=5) Left-censored observation (0,1)
Work-related Characteristics of Potential Earners	**Location-related Characteristics**
Number of weeks head worked in event year (weeks) Number of weeks wife/"wife" worked in event year (weeks) Number of hours head worked per week (hours) Number of hours wife/"wife" worked per week (hours) Number of hours others in household worked in event year (hours) Head is self-employed (0,1) Head is working at more than one job (0,1) Head's overtime earnings in event year Farm income of head increased in event year (0,1) Household received one-time exogenous income (0,1)	Unemployment rate in county of residence (%) Residence in Northeast region (0,1; relative to South) Residence in Northcentral region (0,1; relative to South) Residence in West region (0,1; relative to South) Migration to another county (0,1)

Table 9. Factors Affecting Transitions Out of Poverty for Female-headed Households With Children Present.

Variable	Female-headed Households With Children		
Transition ratio = 142/1530	Coefficient[a]	Standard Error	R[b]
Intercept	-0.8236	1.0958	--
Number of children	-0.6336*	0.0949	-0.212
Age of head	-0.0216	0.0545	0.000
(Age of head)^2	-0.00004	0.0007	0.000
Education of head:			
High school grad (1=yes)	-0.1259	0.3126	0.000
Some technical/college (1=yes)	1.1746*	0.3335	0.105
Race of head (1=not white)	-0.6543**	0.2798	-0.061
Head disabled (1=yes)	-0.6200***	0.3335	-0.039
Head weeks worked/year	0.0106	0.0088	0.000
Head hours worked/week	0.0299*	0.0090	0.098
Head self-employed (1=yes)	1.0344	0.6615	0.022
Head works multiple jobs (1=yes)	1.5998*	0.4018	0.121
Head overtime work	0.0009	0.0005	0.027
New head (1=yes)	0.0948	0.3449	0.000
Hours worked by others	0.0010*	0.0001	0.309
Farm income increase (1=yes)[c]	--	--	--
Receipt of one-time income (1=yes)	3.0005*	0.5330	0.177
County unemployment rate	-0.0736	0.0591	0.000
Migration (1=yes)	0.2262	0.4600	0.000
Northeast region (1=yes)	-0.1705	0.6511	0.000
Northcentral region (1=yes)	1.8919*	0.3349	0.178
West region (1=yes)	0.3267	0.4201	0.000
Left-censored observation	-0.8648*	0.2730	-0.092
t=1	0.2578	0.4468	0.000
t=2	0.3583	0.4330	0.000
t=3	0.2637	0.4331	0.000
t=4	-0.2984	0.4482	0.000

[a]*P < .01; ** P < .05; *** P < .10.
[b]R is standardized.
[c]No female-headed households with children in the ENEP sample received an increase in farm labor-related income.

Table 10. Factors Affecting Transitions Out of Poverty for Male-headed Households With Children Present.

Variable	Male-headed Households With Children[a]		
Transition ratio = 1056/4535	Coefficient[b]	Standard Error	R[c]
Intercept	1.1051**	0.5934	--
Number of children	-0.2768*	0.0271	-0.144
Age of head	-0.1430*	0.0272	-0.072
(Age of head)^2	0.0013*	0.0003	0.053
Education of head:			
High school grad (1=yes)	0.1461	0.1325	0.000
Some technical/college (1=yes)	0.8051*	0.1437	0.077
Race of head (1=not white)	-0.3826*	0.1151	-0.043
Head disabled (1=yes)	-0.6135*	0.1562	-0.052
Head weeks worked/year	0.0445*	0.0054	0.116
Head hours worked/week	0.0121*	0.0044	0.034
Head self-employed (1=yes)	-0.0354	0.1409	0.000
Head works multiple jobs (1=yes)	0.2341*	0.1188	0.020
Head overtime work	0.0003	0.0003	0.000
New head (1=yes)	0.9700*	0.1656	0.081
Wife weeks worked/year	0.0462*	0.0034	0.191
Wife hours worked/week	-0.0149*	0.0033	-0.062
Hours worked by others	0.0004*	0.00003	0.151
Farm income increase (1=yes)	0.9588*	0.2223	0.058
Receipt of one-time income (1=yes)	0.3036	0.2579	0.000
County unemployment rate	-0.0584*	0.0233	-0.030
Migration (1=yes)	0.0878	0.1833	0.000
Northeast region (1=yes)	1.4843*	0.1920	0.108
Northcentral region (1=yes)	0.1522	0.1431	0.000
West region (1=yes)	2.2515*	0.1983	0.161
Left-censored observation	-1.3351*	0.0980	-0.193
t=1	-0.3325**	0.1599	-0.022
t=2	-0.3341	0.160	-0.022
t=3	-0.7048***	0.1686	-0.056
t=4	-0.2774	0.1652	-0.013

[a]Includes principally two-parent families, with only a small number of male-headed families represented in the PSID.
[b]* P < .01; ** P < .05; *** P < .10.
[c]R is standardized.

Table 11. Factors Affecting Transitions Out of Poverty for Female-headed Households Without Children Present.

Variable	Female-headed Households - No Children		
Transition ratio = 94/359	Coefficient[a]	Standard Error	R[b]
Intercept	-0.2721***	1.2307	--
Age of head	-0.0128	0.0467	0.000
(Age of head)^2	0.0003	0.0005	0.000
Education of head:			
High school grad (1=yes)	0.7349	0.5141	0.010
Some technical/college (1=yes)	0.1728**	0.5138	0.088
Race of head (1=not white)	-0.2238	0.4465	0.000
Head disabled	-0.6753	0.4221	-0.037
Head weeks worked/year	0.0228**	0.0108	0.077
Head hours worked/week	0.0080	0.0106	0.000
Head self-employed (1=yes)	-0.1658	1.0369	0.000
Head works multiple jobs (1=yes)	0.5527	0.6590	0.000
Head overtime work	0.0003	0.0007	0.000
New head (1=yes)	-0.7484	0.6066	0.000
Hours worked by others	0.0013*	0.0002	0.246
Farm income increase (1=yes)	--	--	--
Receipt of one-time income (1=yes)	0.8510	0.6610	0.000
County unemployment rate	-0.0588	0.0789	0.000
Migration (1=yes)	-0.5647	0.5178	0.000
Northeast region (1=yes)	0.9559	0.5973	0.037
Northcentral region (1=yes)	0.3547	0.4781	0.000
West region (1=yes)	0.2991	0.5030	0.000
Left-censored observation	-1.0887*	0.3772	-0.124
t=1	1.0462***	0.5999	0.050
t=2	0.9991***	0.5609	0.053
t=3	0.2929	0.5627	0.000
t=4	0.7751	0.5471	0.004

[a]* P < .10; ** P < .05; *** P < .10.
[b]R is standardized.

Table 12. Factors Affecting Transitions Out of Poverty for Male-headed Households Without Children Present.

Variable	Male-headed Households - No Children		
Transition ratio = 242/634	Coefficient[a]	Standard Error	R[b]
Intercept	-1.7958***	0.9974	--
Age of head	-0.0274	0.0432	0.000
(Age of head)^2	0.0001	0.0005	0.000
Education of head:			
High school grad (1=yes)	1.0006*	0.3282	0.093
Some technical/college (1=yes)	0.3864	0.3248	0.000
Race of head (1=not white)	-0.6636**	0.2829	-0.064
Head disabled (1=yes)	-0.0394	0.3120	0.000
Head weeks worked/year	0.0461*	0.0090	0.170
Head hours worked/week	-0.0189***	0.0097	-0.046
Head self-employed (1=yes)	0.5033	0.3684	0.000
Head works multiple jobs (1=yes)	0.5839***	0.3383	0.034
Head overtime work	-0.0022***	0.0013	0.031
New head (1=yes)	0.2278	0.3444	0.000
Wife weeks worked/year	0.0097	-0.0078	0.000
Wife hours worked/week	0.0283*	0.0091	0.096
Hours worked by others	0.0010*	0.0002	0.155
Farm income increase (1=yes)	2.0989***	1.2013	0.035
Receipt of one-time income (1=yes)	-0.5095	0.6814	0.000
County unemployment rate	0.0396	0.0545	0.000
Migration (1=yes)	-0.4250	0.3017	0.000
Northeast region (1=yes)	1.9554*	0.5037	0.125
Northcentral region (1=yes)	-0.1817	0.3298	0.000
West region (1=yes)	0.9510**	0.3881	0.069
Left-censored observation	-0.6920*	0.2677	-0.075
t=1	0.7958**	0.3846	0.052
t=2	0.4583	0.3768	0.000
t=3	0.2214	0.3559	0.000
t=4	-0.0792	0.3640	0.000

[a]*P < .01; **P < .05; ***P < .10.
[b]R is standardized.

with no children present in the household (Table 11), and male-headed households with no children present (Table 12). Some commonalities are observed across all types of poor families. First, certain constraints to movement out of poverty are shown to exist. For example, individuals in families where the head is of a race other than white (principally black or Hispanic) are more likely to remain poor, an anticipated result. Further, if the household head is disabled or if the observation is left-censored, the individual is more likely to remain poor.

What is also clear is that the more children in the household, the more likely that household members will remain poor. The effects of an additional child on the likelihood of remaining poor are statistically significant and large in relative magnitude (see Tables 9 and 10). The effect of children on poverty status may also be reflected in the age and age-squared coefficients for the male household head in two-parent households with children present. As shown in Table 10, increases in the age of the male head are associated with lower rates of transition from poverty, with this effect being moderated by a positive age-squared coefficient. Thus, households in which the male head is middle-aged are more likely to remain poor, relative to other male-headed two-parent households. Given empirical studies showing higher labor productivity and greater incomes in the middle years, it is likely that these families remain poor because of higher "needs" not lower income *per se*.

A striking observation from the analysis was the low rate of transition from poverty of female-headed households with children. In fact, event history models were more difficult to estimate for these households because only a small proportion of female-headed households with children moved out of poverty -- the large majority remained poor in any particular year. Transitions out of poverty among female-headed households with children were more likely if the female head had training beyond high school (either technical school or college-level training), worked more hours per week or held multiple jobs. Since the coefficient for the "head weeks worked/year" variable is not statistically significant, it is likely that what differentiates poor from not poor female-headed households is not a year-round job but the ability to work more hours in a work week. Due to the low wages paid in the jobs held by rural women (Findeis 1992), what differentiates poor from nonpoor female-headed households with children is not "a job" but the ability to work more and likely many hours. For some this will reflect differences between part-time and full-time work, the latter often associated with higher per hour wages

and greater nonpecuniary benefits. However, others appear to piece together jobs to make ends meet. In both cases, the ability of female heads to utilize these strategies will depend on the prevalence of full-time jobs in an economy, the prevalence and costs of child care, and the availability of part-time jobs with hours that match both child care options and other available part-time jobs. In economies where affordable child care is not available during "odd hours," poor mothers that attempt to move out of poverty through market work may find this an impossible task.

Further, for female-headed households, the presence of other earners in the household is an important predictor of a move out of poverty, a result consistent with observations made by Duncan and Rodgers (1988) more generally for households with children. Other earners may be boyfriends, older children, or other family members in the household; these earners help to approximate the multiple adult families that are less likely to be poor. It is also apparent is that neither self-employment by the female head nor wages earned from overtime work help female-headed families move out of poverty. On the one hand, few female heads reported little additional income from working overtime or engaging in self-employment. But even those that did were not more likely to move out of poverty. For poor women, self-employment may not produce much income perhaps due to the type of work -- babysitting children, or raising food for sale, as examples. And overtime work may mean few hours, with low pay.

Finally, receipt of one-time income from inheritance, sale of property, or other source can have a statistically significant and positive impact on the poverty status of individuals in female-headed households with children. Residence in the Northcentral region also appears to benefit rural female-headed households -- women in this region were more likely to head households that moved out of poverty relative to the comparison group (residents of the South). However, neither variation in the local unemployment rate nor intercounty migration appear to affect poverty status. And for female-headed households with children, time in poverty was not a relevant predictor of a transition from poverty.

In male-headed households with children, the work of the male head clearly has important implications for poverty status. Individuals in households in which the male head works more weeks per year, more (regular) hours per week, works multiple jobs, or has training beyond high school are more likely to move out of poverty.

Because poverty is due in some cases to job loss or lay-off of the male head, the head working more weeks per year often reflects a new job or recovery from temporary lay-off. Improvement in the general economy may lead to more and perhaps better work -- lower county unemployment rates were positively associated with transitions out of poverty for these households.

At the same time, the time that the wife/"wife" or other individuals in the family allocate to work have important effects. Increases in the numbers of weeks per year that the wife/"wife" works has a significant positive impact on the transition rate from poverty; increases in the hours worked by others in the household similarly has a large positive impact. However, it is important to note that households in which the wife/"wife" works more hours per week (controlling for weeks per year) were more likely to *remain* poor, a counter-intuitive result -- more hours allocated to work should help families move out of poverty. But, in fact, an examination of the data show that wives/"wives" working many hours per week often did so because the male head had fewer and often no hours of work. The household became poor when the male head was unable to work but efforts by the female spouse to work more hours in a week to move the family out of poverty apparently was not a successful strategy. This strategy was particularly prevalent during the early years of the PSID when wives/"wives" did not typically work full-time unless they had to.

Finally, Table 10 shows that male-headed households with children in the Northeast and West had higher poverty transition rates than similar families in the South. Increases in farm income helped families move out of poverty (see Table 10), and may have led to the insignificant coefficient for the Northcentral region which is highly farm dependent. And again, intercounty migration of households was not associated with changes in poverty status. However, it is important to recognize that changes in the work characteristics of the head, wife/"wife", or others may have, in fact, resulted from a move.

Households With No Children Present

Tables 11 and 12 include models estimated for households without children. Similar to female-headed households with children, female-headed households with no children at home are less likely to be poor when others in the household engage in market work. The influence of others in the household that work is *very significant*. For female-headed households without children present, the number of weeks the female head works

is also important. However, numbers of hours per week at work was not shown to be related to the transition rate. These results are found to be quite different than the results for female heads *with children* which depended more on increasing work hours per week, or in working multiple jobs.

The differences described above likely reflect the different strategies that female heads use if they have children at home or if they do not. The inability to find child care or the need to supervise children at home may result in female heads of households with children being able to work throughout the year but only part-time. Thus, female heads of households that move out of poverty are those that expand the number of hours they can work per week. These may be female heads that now have older children who no longer require child care or who can babysit younger children while "Mom" is at work. These heads may have also found child care for more hours per day, or may be women who showed promise in their part-time jobs and were offered more hours or a better job with more hours.

When children aren't present, female heads can work more hours in a week, and their hours are not dependent on their children's characteristics (particularly their ages and distribution across age groups). Instead, female heads without children have difficulty when they cannot work year-round, but improve their poverty status when year-round employment is possible. Working fewer weeks per year may be due to job loss or due to part-year jobs. Unfortunately, many of the poor female heads of households without children are older women, many without much market work experience. These women may be concentrated in part-year jobs, or no jobs at all. The positive and statistically significant coefficient on the "head weeks worked/year" likely reflects differences between female heads that work no hours and those working some hours. It is likely that the relevant consideration is not part-time versus full-time work, but work versus no work at all.

Finally, male-headed households without children present in the household are found to be similar in many respects to male-headed households with children. For example, the likelihood of individuals in male-headed households moving out of poverty increases when the head works more weeks per year, when the head has multiple jobs, as hours worked by others increase, when farm income increases, and when living in the Northeast and West regions (relative to the South).

At the same time, some important differences do exist. For example, when children are present, an increase in the wife's/"wife's" hours worked per week is associated with a greater likelihood of remaining poor. When children aren't present, an increase in the hours worked per week by the wife/"wife" increases not decreases the transition rate from poverty. In addition, male-headed households with no children are more likely to move out of poverty if the head is a high school graduate -- different from the training beyond high school that appears to help the heads of other family types. In part, this difference reflects the fact that male heads of households with no children present in the household tend to be older, on average -- their children have grown. It is likely that these male heads are employed in occupations less reliant on formal technical training and more dependent on relevant work experience. Further, the more hours that male heads of households without children are at work per week, the less likely they are to move out of poverty. While this effect may initially seem counter-intuitive for male heads, in fact this effect may be due to the differences in earnings for salaried workers reporting a 40 hour work week and workers earning hourly wages. In the latter case, male heads may put in many hours per week (e.g., on a road crew) but in fact be less likely to exit poverty than heads working a standard 40 hour per week job.

Clearly, there are some important consistencies in the constraints all types of households face as they try to "escape" poverty (e.g., race, more children, and disability). In addition, there are certain strategies that "work"; in some cases these strategies generally work for all types of households while in other cases, certain strategies are more helpful for certain types of families. And some strategies may be more helpful for permanently ending a poverty spell versus providing a temporary solution -- i.e., for facilitating a move out of poverty that is only temporary.

Temporary Transitions From Poverty

Tables 13 through 16 show the factors that affect transitions from poverty for households that experience repeated spells of poverty, i.e., they are frequently poor. For female-headed households with children, there are some important differences in the strategies used by the subset of households that experience repeat spells. For example, race and disability of the head are not shown to be important constraints to moving out of poverty among the frequently poor, principally because many female heads that are nonwhite or disabled have been

Table 13. Factors Affecting Transitions Out of Poverty for Female-headed Households With Children - Multiple Spells.

Variable	Multiple Spells of Poverty		
Transition ratio = 136/873	Coefficient[a]	Standard Error	R[b]
Intercept	-1.6712	1.1478	--
Number of children	-0.5912*	0.1003	-0.208
Age of head	-0.0102	0.0545	0.000
(Age of head)^2	-0.0001	0.0007	0.000
Education of head:			
High school grad (1=yes)	0.0973	0.3570	0.000
Some college (1=yes)	1.3597*	0.3587	0.128
Race of head (1=not white)	0.2207	0.3005	0.000
Disabled head	-0.4648	0.3573	0.000
Head weeks worked/year	0.0001	0.0095	0.000
Head hours worked/week	0.0368*	0.0108	0.112
Head self-employed (1=yes)	0.3362	0.5038	0.000
Head works multiple jobs (1=yes)	2.1655*	0.4644	0.162
Head overtime work	0.0010***	0.0006	0.042
New head (1=yes)	-0.1689	0.3607	0.000
Hours worked by others	0.0010*	0.0001	0.312
Farm income increase (1=yes)	--	--	--
Receipt of one-time income (1=yes)	3.4142*	0.6035	0.199
County unemployment rate	-0.0676	0.0603	0.000
Migration (1=yes)	0.2060	0.4672	0.000
Northeast region (1=yes)	-0.2823	0.6659	0.000
Northcentral region (1=yes)	1.7294*	0.3613	0.166
West region (1=yes)	0.1967	0.4526	0.000
Left-censored observation	-0.3658	0.2940	0.000
t=1	0.2149	0.4974	0.000
t=2	0.4469	0.4681	0.000
t=3	0.6580	0.4698	0.000
t=4	-0.1940	0.4759	0.000

[a] *P < .01; **P < .05; ***P < .10.
[b] R is standardized.

Table 14. Factors Affecting Transitions Out of Poverty Among Two-parent Households With Children Experiencing Multiple Spells of Poverty 1968-87.

Variable	Multiple Spells of Poverty		
Transition ratio = 942/3424	Coefficient[a]	Standard Error	R[b]
Intercept	1.0611	0.6487	--
Number of children	-0.2446*	0.0285	-0.133
Age of head	-0.1404*	0.0293	-0.072
(Age of head)^2	0.0014*	0.0004	0.054
Education of head:			
High school grad (1=yes)	0.1257	0.1419	0.000
Some college (1=yes)	0.3442**	0.1551	0.027
Race of head (1=not white)	-0.3649*	0.1239	-0.041
Head disabled	-0.7475*	0.1632	-0.069
Head weeks worked/year	0.0471*	0.0059	0.125
Head hours worked/week	0.0153*	0.0047	0.046
Head self-employed (1=yes)	-0.1588	0.1480	0.000
Head works multiple jobs (1=yes)	0.2022	0.1263	0.012
Head overtime work	0.0004	0.0003	0.009
New head (1=yes)	0.9327*	0.1802	0.078
Wife weeks worked/year	0.0414*	0.0036	0.178
Wife hours worked/week	-0.0135*	0.0035	0.057
Hours worked by others	0.0004*	0.00004	0.157
Farm income increase (1=yes)	0.8562*	0.2260	0.055
Receipt of one-time income (1=yes)	0.3615	0.2681	0.000
County unemployment rate	-0.0740*	0.0247	-0.042
Migration (1=yes)	-0.1870	0.1987	0.000
Northeast region (1=yes)	1.4908*	0.2004	0.115
Northcentral region (1=yes)	0.1611	0.1536	0.000
West region (1=yes)	2.1665*	0.2087	0.162
Left-censored observation	-1.1301*	0.1029	-0.172
t=1	-0.5223*	0.1718	-0.042
t=2	-0.5850*	0.1746	0-0.048
t=3	-0.9043*	0.1809	-0.076
t=4	-0.4586*	0.1742	-0.035

[a]* P < .01; ** P < .05; *** P < .10.
[b]R is standardized.

Table 15. Factors Affecting Transitions Out of Poverty for Female-headed Households With No Children - Multiple Spells.

Variable	Multiple Spells of Poverty		
Transition ratio = 74/232	Coefficient[a]	Standard Error	R[b]
Intercept	-2.2810***	1.3658	--
Age of head	-0.0159	0.0506	0.000
(Age of head)^2	0.0004	0.0006	0.000
Education of head:			
High school grad (1=yes)	0.6097	0.5559	0.000
Some college (1=yes)	0.9014	0.5930	0.033
Race of head (1=not white)	-0.7026	0.4742	-0.126
Disabled head (1=yes)	-0.2495	0.4693	0.000
Head weeks worked/year	0.0203	0.0127	0.045
Head hours worked/week	-0.0013	0.0116	0.000
Head self-employed (1=yes)	0.2386	1.0766	0.000
Head works multiple jobs (1=yes)	0.0293	0.7743	0.000
Head overtime work	0.0008	0.0010	0.000
New head (1=yes)	-0.9531	0.6568	-0.019
Hours worked by others	0.0009*	0.0002	0.207
Farm income increase (1=yes)	--	--	--
Receipt of one-time income (1=yes)	0.8080	0.7335	0.000
County unemployment rate	0.0156	0.0964	0.000
Migration (1=yes)	-0.2871	0.5570	0.000
Northeast region (1=yes)	0.7582	0.7737	0.000
Northcentral region (1=yes)	0.0590	0.4987	0.000
West region (1=yes)	-0.3357	0.5483	0.000
Left-censored observation	-0.5478	0.4306	0.000
t=1	1.1521	0.7378	0.039
t=2	1.4513**	0.6732	0.095
t=3	0.5881	0.6699	0.000
t=4	1.2443**	0.6248	0.082

[a]*P < .01; **P < .05; *** P < .10.
[b]R is standardized.

Table 16. Factors Affecting Transitions Out of Poverty Among Male-headed Households with No Children - Multiple Spells.

Variable	Multiple Spells of Poverty		
Transition ratio = 175/429	Coefficient[a]	Standard Error	R[b]
Intercept	-1.3604	1.0973	--
Age of head	0.0095	0.0501	0.000
(Age of head)^2	-0.0004	0.0006	0.000
Education of head:			
High school grad (1=yes)	0.4915	0.3770	0.000
Some college (1=yes)	0.1764	0.3778	0.000
Race of head (1=not white)	-0.6691**	0.3279	-0.061
Disabled head (1=yes)	0.0545	0.3548	0.000
Head weeks worked/year	0.0397*	0.0102	0.150
Head hours worked/week	-0.0257**	0.0110	-0.077
Head self-employed (1=yes)	0.4359	0.4331	0.000
Head works multiple jobs (1=yes)	0.6673***	0.4110	0.033
Head overtime work	0.0023	0.0014	0.037
New head (1=yes)	-0.1026	0.4015	0.000
Wife weeks worked/year	0.0124	0.0092	0.000
Wife hours worked/week	0.0217	0.0109	0.058
Hours worked by others	0.0005**	0.0002	0.065
Farm income increase (1=yes)	--	--	--
Receipt of one-time income (1=yes)	-1.1657	0.8831	0.000
County unemployment rate	0.0349	0.0616	0.000
Migration (1=yes)	-0.4786	0.3568	0.000
Northeast region (1=yes)	2.0085*	0.6168	0.122
Northcentral region (1=yes)	-0.1295	0.4032	0.000
West region (1=yes)	0.6156	0.4394	0.000
Left-censored observation	-0.7260**	0.3120	-0.077
t=1	0.8246***	0.4544	0.047
t=2	0.0070	0.4521	0.000
t=3	0.5731	0.4212	0.000
t=4	0.0796	0.3961	0.000

[a] *P < .01; **P < .05; ***P < .10.
[b] R is standardized.

excluded from this population and are among the chronically poor. But among those heads in the frequently poor population, those that are nonwhite or disabled, appear no more or less likely to move out of poverty. Other differences are the reliance of frequently poor female heads on overtime work (a positive contributor to movements out of poverty for the frequently poor), and the greater positive influences of multiple job-holding and the number of hours the head works per week on transitions among the frequently poor.

The picture that begins to emerge among female-headed households that experience multiple spells of poverty is that female heads are heavily dependent on variations in their hours of work to move out of (and back into) poverty. Women heading households that move out of poverty temporarily do so as they allocate more time to market work, but these women also appear unable to maintain these hours -- falling back into poverty. This fall may be due to a weak economy or due to the loss of a second or third job. Or the inability to work as many hours may be due to problems in maintaining reliable child care -- sitters quit, older children move out of the household leaving a child care void for younger children, or a co-habitor leaves. An examination of the poverty histories of single mothers indicates that a few "escape" poverty through marriage, a significant number are caught in single spells of long duration, and those that "escape" poverty through work do so only temporarily and have difficulties maintaining sufficient numbers of work hours. The result that the working of multiple jobs is so important implies that female heads face real challenges in matching child care, transportation, and the timing of multiple jobs. It is unlikely that the "traditional workplace" and rural services are adequately able to accommodate multiple job-holding behavior -- e.g., child care for the working of odd hours.

A comparison of Table 10 to 14 shows that frequently poor two-parent households are quite representative of all poor two-parent households (that have resided in nonmetro areas). The strategies that work in general also appear useful to those households that experience repeat spells. But two-parent households experiencing repeat or multiple spells of poverty appear to be more sensitive to fluctuations in economic conditions that are reflected by variations in local unemployment rates. These households are less likely to move out of poverty when unemployment rates are high and are probably more likely to become poor under these conditions as well. In these households it is likely that the male head does not have a job that provides stable employment -- there are temporary as well as permanent lay-offs, or perhaps cutbacks in hours in their

employment. The heads of frequently poor households that have received training beyond high school find that training helps them *less* if they become poor relative to all male-headed households with children. However, even in frequently poor households training does appear to help -- these families are still more likely to make the transition out of poverty than families where the household head has not received additional education beyond high school.

Among households with no children present, the results in Tables 15 and 16 show that fewer strategies "work" for those that are frequently poor. Specifically, although differences in education attainment levels appear generally to be related to the rate of transition from poverty, these effects are not witnessed among the frequently poor with no children in the household. This may reflect the smaller sample sizes of the frequently poor, but may alternatively mean that education is not a key variable in transitions out of poverty for these types of households. Key variables for the frequently poor without children appear to be the hours worked by others (particularly for female-headed households) and variations in the amount of time the household head allocates to work in male-headed households. Interestingly, among frequently poor male-headed households with no children present, variations in the amount of time the wife/"wife" allocates to work has no relation to movements out of poverty but among all households of this composition, this variable is shown to have a statistically significant positive effect. This implies that households experiencing only single spells of poverty are able to move out of poverty as the wife/"wife" works more hours but that this strategy does not help frequently poor households. Further, among frequently poor households, fewer wives/"wives" engage in market work and those that do appear to work fewer hours than the general "at risk" population. In frequently poor households, the wife/"wife" does not appear to influence movements out of poverty and therefore may not influence the family's ability to stay out of poverty. Changes in the work of the wife/"wife" appear to be more important when the transition from poverty is not transitory.

Observations

One important observation is that the stability of jobs that employ male household heads is key; variations in the head's weeks of work and local unemployment rates influenced poverty transitions for male-headed households. Conversely, for female heads, changes in the number of work hours are perhaps more

important; households in which the female head worked more hours per week were more likely to move out of poverty. And among female spouses with children (but not without children present), working more weeks per year meant a higher probability that their household would not be poor. In such households, the work of the spouse was clearly important for making ends meet and "escaping" poverty.

Other important strategies that "work" include working multiple jobs, others in the household (beyond a head or spouse) engaging in market work, increases in farm income (for male-headed but not female-headed households) and receipt of one-time income (for female heads with children). Interestingly, strategies that did not generally appear to make a difference were the household head working overtime or being self-employed, and intercounty migration.

Being of a race other than white, disability of the head, and a greater number of children are associated with remaining poor. But the household head having training beyond high school generally improved the chances that the household would not remain poor. At the same time, the head being a high school graduate was not shown to facilitate transitions from poverty. This was observed for all types of households except male households with no children at home, i.e. where male heads are older and qualify for jobs that likely rely more on relevant job experience than on training received beyond high school.

For all types of households, the jobs that exist in rural areas clearly influence the strategies that households can use. Section V of this report will assess the industries that employ household heads and spouses "at risk" of poverty. And specifically, the influence of service sector employment growth will be assessed, for both poor and nonpoor households.

SECTION V

Impacts of Economic Restructuring on Rural Poverty

The changing industrial structure is increasingly being examined for its relationship to the economic well-being of rural residents. The main characteristic of this change in rural ares is the shift from a reliance on traditional extractive (agriculture, forestry, mining) and manufacturing jobs to a dominance of service sector employment.

The growth of the service sector has raised the issue of how "good" service sector jobs are compared to the lost manufacturing or extractive jobs; or what influence service jobs have on income and poverty levels in rural areas. For example, both Menchik (1981) and Stanback et al. (1981) focus on the dichotomy between "good jobs and bad jobs" in the service sector. The most frequent concern in this context is wages. Many of the jobs lost in rural manufacturing, mining and forestry industries were unionized and relatively high paid. While offering many high-wage jobs, services are characterized as having more dead-end jobs at the low end of the pay scale. Such jobs often are in the retail, personal service, restaurant and hotel sectors. Many of these jobs may also be seasonal, poorly sheltered (less job security and lower fringe benefits), part time, and offer fewer advancement opportunities. These jobs are also more likely to be held by women, young people, or members of minority groups than are the better paid jobs.

Thus, does more service sector employment mean a greater likelihood of low income and poverty than would be the case in non-service industries? It is important to keep in mind that much rural manufacturing is low-wage assembly, and not necessarily better paid nor more secure. Much forestry, farm and agricultural processing employment also is seasonal. Furthermore, is service sector employment more (or less) stable over the business cycle than manufacturing or the resource-based sectors?

Interindustry Differences in Wages

The common perception is that wages in service industries are much lower than in manufacturing. For example, an Oregon study compared jobs in forestry, wood products, and construction in the early 1980s, to the growth industries of retailing and other services (Oregon Joint Legislative Committee on Trade and Economic Development 1984). Wages in the former averaged $22,000 per year, while the latter averaged $9,700 and

$13,000, respectively. Using a "family wage" of $20,000 as a basis, the study concluded that there was and will continue to be a declining number of "family wage" jobs, and that it would take almost two jobs in the service sector industries to equal the family wage from the lost forest-based and construction jobs.

While some research indicates support for this view, other studies show that this conclusion cannot be applied generally. Results from several studies show that there has been a long-term increase in the proportion of low earnings jobs, along with a decrease in higher earnings jobs (Loveman and Tilly 1988). This is usually attributed to the growth of service jobs and decline in manufacturing jobs. Data from the 1960s and 1970s show distributions and changes in distributions of service employment toward larger shares in higher and lower wage categories, and smaller shares in the middle. However, changes in manufacturing employment also were away from the middle and toward the high wage (Stanback et al. 1981). From the late 1970s to the mid-1980s, U.S. data show that 50% of new employment was low wage, compared with less than 20% during the preceding period. At the same time, growth in the middle and upper income classes was smaller. Data from both earlier and later periods, however, does not support this, showing that changes were similar across wage groups (Grubel and Walker 1989). Quinn (1988) reports studies that support the latter evidence -- overall employment increased in the middle to upper third of the wage distribution while declining in the lower third. This occurred during a period of continued service sector growth and manufacturing decline. Other research from the 1980s indicates that the actual structural shifts in employment in the United States were a decrease in low-wage manufacturing jobs and an increase in middle- to high-wage service occupations (Riddle 1985).

While it is true that the service workforce is lower paid on average and more distributed toward the lower end of the pay scale, the service sector is not homogeneous. Service sector industries contain both the highest and lowest wage occupations. Services have more low-wage workers and more very high-wage workers than manufacturing, with fewer in the middle (Browne 1986). There are also higher percentages of white collar employment in the service sector than in the goods-producing industries (63 percent versus 35 percent), although this varies greatly by industry (Stanback et al. 1981).

Disaggregation of the service sector provides a clearer assessment of the wage and income effects. For example, in their study of nonmanufacturing industries (which excluded the generally lower wage retail, personal

service, hotels, and eating and drinking jobs, but included construction) Smith and Pulver (1981) reported that the average annual wage in Wisconsin in 1974 was $10,160 for nonmanufacturing, and $10,503 for manufacturing. Quinn (1988) shows similar data for the 1980s. Manufacturing wages averaged about $1 per hour higher than service sector wages, with the gap narrowing from 88% of manufacturing in the early 1980s to 90% in the late 1980s. This gap varied widely within services, with transportation/communications/utilities well above the manufacturing average, and wholesale about the same. Browne (1986) shows similar results for particular services industries with 1984 data. Service sector wages were 97% of all nonfarm wages, but the range was from 60% for personal services to 105% for professional services.

For 1987, the last year of this study, County Business Patterns data show average wages across all service sector industries to be about 15% less than manufacturing. Certain service sectors have average wages equal to the highest manufacturing wages. Others, such as retail and personal services, are less than half the average manufacturing wage.

Porterfield (1990) examined the shift toward service industries and its effects on wages in rural areas. Except for the Midwest, rural areas lost a larger share of high-paying jobs than did urban areas, and the increase in low-paying and part-time jobs was greater in rural areas. If the shift in industrial structure had not occurred, *average* annual wages would have been higher. Nevertheless, despite the overall increases in lower wage jobs due to changes in industrial structure, the distribution of employment in high-, middle-, and low-paying jobs in the rural United States changed very little in the 1980s. An explanation for this is the diversity of service industries. While most of the absolute employment increases were in lower-paying jobs, the annual wages of several service industries with the highest growth rates were relatively high. In addition, this may imply that the manufacturing job losses in rural areas were, in fact, in the low-wage jobs, and were replaced by service jobs that pay similar wages.

Basic work characteristics help to explain lower wages. Much growth in the economy is in small businesses and retail and consumer services. Small businesses cannot typically afford higher wages and benefits, the jobs in retail and consumer services are usually entry-level, and these and other services will always need the large cadre of service and support personnel for the technical, professional and management occupations. Also,

workers in these types of service jobs perform tasks that are qualitatively not much different from the work in low paid goods-producing industries; tasks reflecting division of labor, close supervision, and requiring few skills. This is related to standardization of production and labor efficiency, as was achieved with manufacturing (Singelmann 1978). Advances in communication and information processing technology will increase this. This is no different, however, than what occurred with the manufacturing and extractive industries that previously dominated rural areas.

There is evidence that low-wage services tend to narrow the income gap between rural and urban communities, or at least keep the gap from widening. Kassab (1990) examined the effects of increased service sector employment on community income levels for 642 communities in the Mid-Atlantic region of the United States for 1970-1980. She found that as remoteness from more centrally located communities increased, employment growth in both low-wage and high-wage services had an increasingly positive impact on aggregate income. In more centrally located rural communities, low-wage services are, however, associated with declines in community income levels.

Further research by Kassab and Smith (1992) also indicates that service jobs tend to contribute positively to rural family well-being. They compared rural families with wage earners in the generally low-paid consumer service sector with families relying on jobs in other industries. Overall, the income and health insurance coverage of families with the husband employed in high-wage manufacturing, mining, transportation or public utilities services tended to be greater than for other families. Results also indicated, however, that families with workers in consumer services did not fare significantly worse than families with wage earners in low-wage manufacturing, agriculture, construction, and other traditional rural industries. The study concluded that consumer services did not offer employment significantly worse than many other rural industries, except mining or high-wage manufacturing. Furthermore, jobs in this sector allowed rural families to supplement potentially low earnings from other industries, such as agriculture, construction or low-wage manufacturing.

Another wage-related issue is that some of the difference between wages in services and manufacturing is gender-related. Service industries employ more women than men, and women are paid less than men. For men, the ratios of service sector to manufacturing wages are uniformly much higher than for women.

(Interestingly, men's average wages in service industries as a whole are higher than for manufacturing as a whole.) On the other hand, women fare no worse, in terms of wages, in services than in manufacturing. Among women workers, the average pay for services is virtually the same as for manufacturing, with several service industries paying higher wages (e.g., business and repair, entertainment and recreation, and professional), although personal services pay wages much lower than manufacturing for women (Browne 1986). Kassab's (1990) results show that the percentage of women in the labor force was negatively associated with gains in aggregate income from service employment growth. These figures reflect the tendency for women to occupy lower-paying positions regardless of the industry, and not simply that one industry is lower paid than another.

The relatively low pay of service industries is a general characteristic that must be examined carefully. The range of wages covers many highly paid jobs, and the averages are not that much different than manufacturing. Those at the bottom of the income distribution often are not there because of low wage rates, but because of part-time employment. While the prevalence of part-time work in services is a concern, manufacturing also seems to be tending more in that direction (Riddle 1985). Given the relative size of the manufacturing and service sectors, there are at least as many service sector workers who make as much as the average manufacturing position pays as there are workers in the entire manufacturing sector (Riddle 1985). Further, wages in new service jobs may be no worse than the wages that employees in distressed manufacturing industries may have to accept to keep their companies competitive and avoid going overseas or out of business.

Stability of Employment

Employment stability is another issue of particular concern in rural areas. Any given area is usually dependent on only one type of industry, and the traditional rural industries of construction, mining, forestry and much of manufacturing are quite unstable over business cycles. Employment stability has long been seen as a factor in favor of service industries. Early research by Fuchs (1968) showed that over the several economic cycles in the first two decades after World War II, service industries increased employment faster during upswings and maintained overall employment increases during downswings, compared to manufacturing. More recently, Eckstein and Heien (1985) concluded that the service sector, broadly defined, is nearly immune to business cycle fluctuations. Quinn's (1988) research over a longer period supports this conclusion, as does other research he

cites for the United States and Canada. Miller and Bluestone (1988) showed a similar pattern for the nonmetropolitan United States for 1969 to 1984.

While this stability may be true for the service sector as a whole, other research has found that certain individual service industries do respond to business cycles. Kirk (1987) examined business services and found that stability varied by type of business service. For nonmetropolitan areas, Smith and Gibson (1988) and Brown and Pheasant (1987) found that tourism and recreation-related services (i.e. eating and drinking, hotels and lodging, amusement and recreation) could contribute to instability. Part of this instability is likely due to seasonality. However, the availability of seasonal jobs may be an advantage to many people in rural areas, such as farm families and the increasing retired population.

Two other stability-related characteristics of service industries have been noted by Quinn (1988) and Grudel (1989). First, in addition to reducing the depth of recessions, services may also help to shorten the length of the recessionary period. This is because service industries are also large purchasers of capital goods, and when service production continues, the demand for goods from these industries also continues (Quinn 1988). Second, the stability of the service sector is important because of its size relative to goods-producing industries. When services create fewer jobs, this means that significant numbers of people do not have job opportunities (Grubel 1989).

After examining several studies on the impacts of increased service sector employment, Loveman and Tilly (1988) concluded that several generalizations can be drawn. Among these are that the growth in real average hourly earnings has slowed markedly; the share of jobs with low annual earnings has increased among full-time, year-round workers; and the inequality of earnings has increased. While the shift in industrial structure toward more service industry jobs has contributed to these changes, the evidence regarding the extent of this contribution is mixed. The context is broader than simply increased service sector employment.

How have these shifts in industrial structure affected the rural poor? The concern, or hypothesis, is that the decline in traditional rural employment sources, particularly manufacturing, and the increase in services, has been a strong contributor to increased rural poverty. That is, the increase in service sector jobs may have provided more employment opportunities, but they are so low-paying that the condition of the poor has not been

improved. Furthermore, it is believed that those who shifted to service jobs from other industries also often shifted into poverty. The remainder of this section will examine the employment characteristics of the rural poor versus the nonpoor in an attempt to address this issue.

Labor Force Status of the Rural Poor and Nonpoor

What are the employment characteristics of the rural poor? To what extent are they employed, and in what types of industries and occupations? How do these characteristics differ from the rural nonpoor? Before examining the specific influence of the changing industrial structure on rural poverty and economic well-being, this section will first describe the changing nature of the poor's employment status from 1972 to 1987. The focus will be on "at risk" male heads in two-parent families with children, and female heads of households with children, based on data for the population "at risk of poverty" from the ENEP sample described in Section III.

Employment levels. A common perception of a cause of poverty is that the poor do not have jobs. Tables 17 and 18 show that this clearly was not the case in the early 1970s and 1980s for the vast majority of the rural poor. Among the "at risk" population, there *are* large differences between the poor and nonpoor in the percent of male heads who consider themselves unemployed, with the gap widening during economic recession. Nevertheless, for poor male heads (Table 17), over three-fourths considered themselves permanently employed during most of the period of analysis. This decreased to about two-thirds in the severe recession years of the early 1980s, but recovered with the improved economy. A similar pattern exists among female heads (Table 18). For most of the period, approximately half of the poor female heads of households with children were employed. The percent employed declined to about 35 percent in the recession years of the early 1980s. As with male heads, nonpoor female heads had employment rates approaching 90 percent, except for the recession years. Again, unemployment rates were considerably higher for poor female heads, increasing greatly during the 1980s recession. Also, a much greater percentage of poor than nonpoor female heads consider themselves as primarily keeping house, between 25 and 30 percent versus 5 percent or less, respectively.

Occupational concentration. These findings certainly beg the question of the nature of the employment among the poor -- full- versus part-time, wage levels, and types of occupations. Occupations are examined in Tables 19 and 20, which compare the percent of poor and nonpoor family heads "at risk of poverty" that work

Table 17. Employment Status Among Male Household Heads in Two-parent Families With Children, Selected Interview Years, PSID.[a]

	1972		1977		1982		1987	
Employment Status	Poor	Not poor	Poor	Not poor	Poor	Not poor	Poor	Not poor
At work	91.7%[b]	92.6%[b]	76.7%	90.1%	65.8%	86.4%	78.9%	91.7%
Temporarily laid off or on leave			1.0	2.2	6.1	5.3	0.9	2.5
Looking for work, unemployed	4.6	1.9	12.3	4.0	17.1	4.7	8.4	3.3
Retired	3.7[b]	2.3[b]	3.3	1.6	0.6	1.0	1.4	0.1
Disabled			5.4	0.6	3.3	2.1	7.0	1.0
Keeping house	0	0.5	0.7	0	0	0	0	1.1
Student	0	2.7	0.3	1.5	5.7	0.5	1.3	0.3
Other	0	0	0.3	0	0.4	0	0	0

[a]Weighted results for male household heads 65 years of age or younger, ENEP sample.

[b] In 1972, fewer employment status categories were used in the PSID.

Table 18. Employment Status Among Female Household Heads With Children, Selected Interview Years, PSID.[a]

	1972		1977		1982		1987	
Employment Status	Poor	Not poor	Poor	Not poor	Poor	Not poor	Poor	Not poor
At work	46.8%[b]	86.0%[b]	53.6%	89.9%	34.7%	82.1%	51.1%	87.1%
Temporarily laid off or on leave			0.5	0	0.8	4.8	1.7	0.3
Looking for work, unemployed	7.4	0	8.8	0	25.7	7.7	12.6	5.8
Retired	8.7[b]	0[b]	1.0	3.3	1.6	0.9	0.2	1.4
Disabled			6.7	3.4	3.7	1.9	3.7	0.2
Keeping house	31.6	14.0	26.6	3.1	29.6	2.6	26.7	5.2
Student	5.4	0	2.8	0.2	3.9	0	4.0	0

[a]Weighted results for female household heads 65 years of age or younger, ENEP sample.

[b]In 1972, fewer employment status categories were used in the PSID.

in selected occupational categories from 1972 to 1987. In Tables 19 and 20, the "not working for money now" category is the sum of the last six categories in Tables 17 and 18 (including retired, disabled, students, housekeepers, as well as the unemployed who are looking for work). The remaining categories in Tables 19 and 20 are the occupations of those who are employed.

For male heads (Table 19), again there is a clear distinction between the poor and nonpoor in the percentage who are not employed. Over most of the analysis period, the percentage of the poor who are not employed is about three times that of the nonpoor. Since over three-fourths are employed, however, an equally important issue is whether or not there are differences in the types of occupations.

The occupational concentrations of the poor versus nonpoor male family heads show telling patterns. The higher-paid, higher-skill and higher-education white collar occupations -- professional/technical and managers/administrators -- are held primarily held by the nonpoor. In 1972, almost 11 percent of poor male heads of households were employed in these categories, versus 24 percent of the nonpoor but "at risk" male heads. The gap increased over the period, as lower percentages of the poor held these jobs, and the nonpoor maintained and increased their share of the better jobs. The poor also are relatively less represented in the other higher- paid, higher-skill occupation of craftsmen, where jobs primarily are in the manufacturing sector. The gap widens in years of economic recession, but narrows considerably as the economy improves.

On the other hand, higher percentages of the poor are employed in the lower-paid, lower-skill occupations, although this pattern is not totally consistent over time and across occupations. A slightly higher percentage of poor male heads are employed in the semi-skilled blue collar occupations of operatives. This pattern was reversed in the early 1980s recession, but was re-established later. There is also a higher concentration of the poor in the unskilled laborer occupations, except in economic downturns. In the primarily service sector occupations of sales, clerical, and service workers, the general tendency has been toward nonpoor domination. Further, the overall participation of the poor in these occupations is quite low. For example, only 6.4% of employed poor male heads in 1987 were in these occupations, versus 10.6% of the employed nonpoor but "at risk" population.

Table 19. Occupations Among Male Household Heads of Two-parent Families With Children, Selected Interview Years, PSID.[a]

	1972		1977		1982		1987	
Occupation	Poor	Not poor	Poor	Not poor	Poor	Not poor	Poor	Not poor
Professional, technical	1.4%	9.4%	2.7%	10.4%	1.9%	11.8%	1.2%	15.3%
Managers, administrators	9.4	14.4	2.2	13.9	5.9	12.7	9.3	15.0
Sales	2.8[b]	9.1[b]	1.0	4.1	4.1	3.9	1.7	3.0
Clerical			0	4.1	2.7	2.2	0.2	1.6
Craftsmen	11.5	19.7	18.2	18.5	12.7	24.6	23.8	26.8
Operatives	24.5[b]	19.5[b]	13.7	14.1	7.4	9.3	12.2	9.2
Transport operatives			9.4	6.0	8.1	9.6	10.7	9.3
Laborers, ex. farm			9.3	5.4	3.9	3.9	7.1	4.0
Farm laborers & foremen	18.8[b]	4.4[b]	7.9	1.4	8.9	2.5	9.8	0.7
Service workers, ex. household	-	-	4.2	3.0	3.7	5.4	5.5	6.2
Farmers & farm managers	23.2	11.2	7.7	9.9	12.6	4.8	1.3	3.9
Private households	0	0	0	0	0	0	0	0
Not working for money now	8.3	7.4	22.2	7.6	28.1	8.3	16.8	5.4
Military; miscellaneous	0.1	5.0	1.5	1.6	0	0	0	0

[a]Weighted results for male household heads 65 years of age or younger, ENEP sample.

[b]In 1972, fewer occupation categories were used in the PSID.

Table 20. Occupations Among Female Household Heads With Children, Selected Interview Years, PSID.[a]

	1972		1977		1982		1987	
Occupation	Poor	Not poor	Poor	Not poor	Poor	Not poor	Poor	Not poor
Professional, technical	0.1%	4.3%	7.7%	0.1%	2.0%	3.9%	3.3%	14.0%
Managers, administrators	0	0	5.6	11.4	0.4	5.8	1.4	15.2
Sales	11.1[b]	20.8[b]	0	3.5	2.9	2.4	0	3.9
Clerical			4.4	25.2	6.4	26.6	10.3	20.5
Craftsmen	3.9	14.9	0	8.2	0	4.0	0	6.0
Operatives	6.4[b]	22.9[b]	14.1	25.6	9.2	21.0	13.3	10.0
Transport operatives			1.9	0	0	0.1	0	0.2
Laborers, ex. farm			0.4	5.2	0.1	5.4	1.0	3.3
Farm laborers & foremen	16.7[b]	22.7[b]	0.3	0	0	0	0	0
Service workers, ex. household			17.5	0	11.0	17.6	25.7	12.1
Farmers & farm managers	0	0	0	0	0	0	0	1.8
Private households	0	0	3.4	7.8	3.5	0	0.3	2.5
Not working for money now	53.2	14.0	45.8	10.1	64.5	13.1	44.0	10.5
Military; miscellaneous	8.6	0.4	0.1	2.9	--	--	--	--

[a]Weighted results for female household heads 65 years of age or younger, ENEP sample.

[b]In 1972, fewer occupation categories were used in the PSID.

A strong and consistent pattern emerges in the agricultural occupations. In general, the poor are much more concentrated in agricultural occupations than the rural population as a whole, and much more than the rural nonpoor, particularly in the laborer occupations. The poor also tend to dominate in the farmer and farm manager category through the early 1980s, but a significant change appeared in 1987. The percentage of the poor working as farmers or farm managers decreased from 23% in 1972 to 13% in 1982, and then to 1.3% in 1987, well below the nonpoor rate of 4% in the last year. Apparently, the agricultural shake-out of the mid-1980s greatly affected poor farmers.

For female heads with children, the most dominant occupational characteristic is that 45 to 65% of poor female heads did not have paying jobs, over the 1972 to 1987 period. This compares with only 10 to 14% of female heads that were not poor but were "at risk". Among those who worked for pay, poor female heads are only slightly represented in the high-paying, high-skill jobs. The occupations showing the largest concentration of poor female heads are the semi-skilled blue collar occupations and service workers, in general. This last occupational category is the only one in which there is a tendency for poor female heads to dominate. Again, similar to male heads, participation among female heads of households in all occupations declines during economic downturns.

Industry concentration. Tables 21 and 22 show the concentration of the poor and nonpoor family heads "at risk of poverty" employed by alternative industry sectors. At the bottom of each table the industries are aggregated into four major sectors (service, manufacturing, extractive, construction), in addition to a category for those not working. Clear and similar patterns are evident for both male and female household heads.

For rural male family heads, the extractive industries (agriculture, forestry, mining) traditionally have been a major source of employment, although declining in importance in recent decades. Table 21 shows that this pattern holds for rural male heads at risk of poverty, and particularly for the poor. The rural poor also appear to rely more heavily on traditional rural extractive employment during periods of economic recession, as in the early 1980s. At the beginning of the 1970s, over 35% of poor male heads were employed in the extractive industries, primarily in agriculture, versus only 12% of the nonpoor. Dependence of poor male household heads followed the national trend and decreased to less than 12% by 1987. Considering only those working, this was

Table 21. Employment by Industry Among Male Household Heads of Two-parent Families With Children, Selected Interview Years, PSID.[a]

	1972		1977		1982		1987	
	Poor	Not poor	Poor	Not poor	Poor	Not poor	Poor	Not poor
Industries unemployed, not working	8.3%	7.4%	22.2%	7.7%	28.1%	8.3%	16.8%	5.4%
Agriculture, forestry, fish	31.2	12.2	16.0	13.0	21.6	8.0	11.2	6.3
Mining	4.3	0	0	0	0	2.6	0.4	1.5
Construction	8.4	8.0	13.1	7.6	5.7	11.1	11.8	10.9
Manufacturing	18.9	25.5	21.6	27.1	19.9	26.5	20.4	24.1
TCU	7.7	6.0	8.4	5.0	2.7	9.8	10.4	7.8
Trade	13.6	13.3	8.7	15.5	9.5	11.5	15.3	15.2
Retail	6.8	10.6	8.4	12.9	7.5	9.3	13.9	9.6
Wholesale and others	6.8	2.7	0.3	2.6	2.0	2.2	1.4	5.6
FIRE	0.1	3.2	0	1.9	2.8	1.8	1.7	1.8
Business and repair services	3.2	1.4	1.7	2.1	4.3	3.0	6.1	3.4
Personal services	0.1	1.5	1.5	1.0	0.1	0.9	0.1	1.1
Entertainment and recreation	1.6	0	0	0.5	0	0.8	0.9	1.0
Professional & related services	1.7	12.4	3.3	10.7	3.8	9.8	2.2	12.0
Public administration	1.0	6.1	2.1	5.5	1.5	4.9	2.6	10.3
Military	0	3.1	1.5	2.2	0	0	0	0
Major Industrial Sectors								
Service Sectors	29.0	43.9	25.7	42.2	24.7	42.5	39.3	52.6
Manufacturing	18.9	25.5	21.6	27.1	19.9	26.5	20.4	24.1
Extractive	35.5	12.2	16.0	13.0	21.6	10.6	11.6	7.8
Construction	8.4	8.0	13.1	7.6	5.7	11.1	11.8	10.9
Unemployed, not working	8.3	7.4	22.2	7.7	28.1	8.3	16.8	5.4

[a]Weighted results for male household heads 65 years of age or younger, ENEP sample.

Table 22. Employment by Industry Among Female Household Heads With Children, Selected Interview Year, PSID.[a]

	1972		1977		1982		1987	
	Poor	Not poor	Poor	Not poor	Poor	Not poor	Poor	Not poor
Industries unemployed, not working	53.2%	14.0%	45.8%	10.1%	64.5%	13.1%	44.0%	10.5%
Agriculture, forestry, fish	0	0	0.3	0	0	0	0	2.6
Mining	0	0	2.8	0	0	0	0	0
Construction	0.2	4.2	0.3	2.8	0.1	4.4		0.8
Manufacturing	7.7	34.2	16.4	38.7	7.5	28.4	13.2	27.2
TCU	0	2.6	0	1.9	0	3.9	1.1	2.5
Trade	10.6	8.5	10.1	10.6	14.1	11.6	11.8	19.3
Retail							9.9	19.3
Wholesale and others							1.9	
FIRE	4.9	0.5	2.8	10.0	0.3	9.0	2.1	3.4
Business and repair services	0.2	5.0	0	3.9	1.4	4.2	1.6	2.6
Personal services	11.0	0.3	8.0	1.1	6.0	2.7	10.8	4.7
Entertainment and recreation	0	5.3	0.3	0	0	0.1	0	0
Professional and related services	3.4	24.7	13.1	12.9	5.9	16.6	11.4	21.2
Public administration	0.2	0.5	0	5.0	0	5.9	2.6	5.2
Military	8.6	0.1	0.1	2.9	0	0	0	0
Major Industrial Sectors								
Service Sectors	38.9%	47.5%	34.4%	48.3%	27.7%	54.0%	41.4%	58.9%
Manufacturing	7.7	34.2	16.4	38.7	7.5	28.4	13.2	27.2
Extractive	0	0	3.1	0	0	0	0	2.6
Construction	0.2	4.2	0.3	2.8	0.1	4.4	0	0.8
Unemployed, not working	53.2	14.0	45.8	10.1	64.5	13.1	44.0	10.5

[a]Weighted results for female household heads 65 years of age or younger, ENEP sample.

about a 27% higher concentration in extractive industries than in nonmetro areas as a whole in the United States in the late 1980s (10.9%). The rural nonpoor, on the other hand, were employed in extractive industries, particularly agriculture, at a lower level than the national average for nonmetro areas.

In the goods-producing sectors of construction and manufacturing, poor male heads have held construction jobs at rates equal to or greater than the nonpoor, except in the recession of the early 1980s. In the late 1980s, the percentage of the poor employed in construction was about three times the national nonmetro average, with the nonpoor in the sample at twice the average. In manufacturing, poor rural male heads consistently have trailed the nonpoor in the percentage employed in these industries, although the gap narrowed in the late 1980s. Considering only those working, however, the percentages of the poor and nonpoor employed in manufacturing have been almost the same over the study period.

The main difference in employment by industry sector between the poor and nonpoor is observed in the service industries. The percentage of poor male heads employed in the service sector as a whole has been considerably less than among "at risk" nonpoor male heads over the entire study period. When only those working are considered, the gap is somewhat less, but still sizeable. The difference was relatively stable through the early 1980s, but narrowed in the late 1980s. An examination of specific service industries shows that most of the gap between the poor and nonpoor is because the poor are employed to a much less extent in the professional services and government. This difference widened in the late 1980s. Interestingly, the percentage of the poor employed in retail also was considerably lower than the nonpoor in the mid-1970s and early 1980s, but this reversed in the late 1980s.

In summary, for male heads of two-parent families with children, the main factors distinguishing the poor from the nonpoor are (1) the poor are less likely to hold paying jobs than the nonpoor "at risk", (2) the poor are more heavily represented in the construction and traditional extractive industries, and (3) the poor are *not* obtaining service sector jobs to the extent that the nonpoor are, particularly the better service jobs that pay higher wages.

Similar results are evident for female heads with children, particularly the lack of paying jobs (Table 22). Extractive and construction employment is negligible for rural women, although female heads employed in

construction tend not to be among the poor. The percentage of poor female heads with manufacturing jobs has been consistently much lower than among the "at risk" nonpoor, although the gap narrowed somewhat in the late 1980s. And, as was true for male heads, the major difference is that poor female heads are not finding employment in services to the extent that the nonpoor are finding employment in services. Again, the main differences are seen in employment in the higher-paying professional services and government, plus the finance, insurance and real estate industries (FIRE). In the trade sectors, poor female heads had slightly higher percentages of employment for most of the study period. Strangely, in 1987, female heads of households employed in the trade sectors tended not to be poor.

Shifts Between Industries and Poverty Status

Another concern arising from the economic restructuring in rural areas is that the poor who lose or change jobs are forced disproportionately into (low paying) service sector jobs. It is contended that this has helped lead to an increase in rural poverty levels. To investigate this, the changes in industry of employment by poor family heads were examined for the years 1982 to 1987, when more detailed PSID data became available. The major industry sectors examined are extractive, construction, manufacturing, and service, plus unemployment. Shifts are measured as a change from any of these categories to another. Shifts also are measured within the broad service category, as PSID data allowed for these counts.

Table 23 shows the percentage of all industry changes that occurred between each of the sectors for family heads that were poor in 1982. (Appendix Table E.1 shows the total number of shifts, and Appendix Table E.2 disaggregates these by household heads and wives/"wives," for each poverty category.) Almost half of all industry changes were made into the service sectors, with a fifth made within service industries. Over 20% of all changes were into unemployment. Thus, over 70 percent of all industry changes made by poor family heads from 1982-1987 were either into unemployment or into the service industries. The three largest individual change categories were from service to service industries (20.5% of all changes), unemployment to service industries (15% of all changes), and service to unemployment (13.6% of all changes).

Table 23. Percent of Total Industry Changes Made Between Each Industry, Poor Family Heads, 1982-87.

To / From	Unemployment	Extractive	Construction	Manufacturing	Service	Total
Unemployment	0[a]	1.54	2.59	4.42	14.94	23.49
Extractive	1.84	0.17	0.71	1.04	2.17	5.93
Construction	2.34	0.79	0[a]	1.46	3.59	8.18
Manufacturing	4.42	0.71	1.63	0[a]	8.05	14.81
Service	13.60	1.71	3.88	7.93	20.48	47.60
Total	22.20	4.92	8.81	14.85	49.23	100.0

[a]There are no changes recorded within categories, by definition. Extractive and service categories show changes because they are aggregate categories from combinations of industries for which change data existed in the PSID data set.

Table 24 shows the percentage of the changes made from one industry sector that went to each of the other sectors. For example, of those poor family heads that left unemployment, almost 19 percent went into manufacturing jobs, and over 63 percent went into service industry jobs. Of those family heads who lost or left jobs in specific industry sectors, about 30 percent became unemployed. The largest recipient sector of shifts from each sector was services. Clearly, when shifting from unemployment or any industry category, a family head was much more likely to move to a service industry than any other industry.

Of special interest are the jobs taken by rural poor family heads who left or lost jobs in the extractive and manufacturing sectors, the industries that particularly suffered declines in the early 1980s. The service industries were by far the most likely next job for those leaving manufacturing, with over 54 percent moving into service sector jobs. For those leaving jobs in the extractive industries, however, service sector jobs were much less likely (37 percent) than for those previously employed in other industries. A possible reason for the low percentage of shifts from extractive to service jobs is that extractive activities (mining, forestry and much of agriculture) is distant from more urban areas where most service activity is located.

Another question of interest is whether or not these industry shifts differ by poverty category. For example, do the patterns of industry shifts from the chronically poor family heads differ from heads who only suffered one short-term poverty spell? Table 25 examines the shifts from unemployment, manufacturing and service sectors for poor family heads, by the six poverty categories discussed in Section III. Of those shifting from unemployment, family heads in five of the six poverty categories were at or near the average of 63.5 percent moving into the service sector. Those in the single spell, 2-5 year category, however, moved into service sector jobs at an 88 percent rate. And those poor only once, for at most one year, tended to obtain manufacturing jobs at a slightly higher rate than those in the other poverty categories. Thus, the short-term, single spell poor tended to obtain service sector jobs at a higher rate when moving from unemployment.

Of the poor heads shifting from service jobs, the chronically poor show a distinctly different pattern from the other poverty categories. Half of the chronically poor shifts are to unemployment, versus between 19 percent and 30 percent for the other poverty categories. The chronically poor also shift to service jobs at a much lower rate. The long-term single spell poor follow this latter pattern somewhat, also obtaining service jobs at lower

Table 24. Percent of Industry Changes Made From Each Industry to the Other, Poor Family Heads, 1982-87.

To / From	Unemployment	Extractive	Construction	Manufacturing	Service	Total
Unemployment	0[a]	6.57	11.01	18.83	63.59	100.0
Extractive	30.99	2.82	11.97	17.61	36.62	100.0
Construction	28.57	9.69	0[a]	17.86	43.88	100.0
Manufacturing	29.86	4.79	10.99	0[a]	54.37	100.0
Service	28.57	3.59	8.15	16.65	43.03	100.0

[a]There are no changes recorded within categories, by definition. Extractive and service categories show changes because they are aggregate categories from combinations of industries for which change data existed in the PSID data set.

Table 25. Percent of Industry Changes Made From Each Industry to the Others Among Poor Family Heads, 1982-87, By Poverty Category.

To	Unemployment	Construction	Manufacturing	Service
From Unemployment:				
Chronic	NA[a]	11.0%	14.4%	63.0%
Multiple spell (2-5 yrs.)		10.4	21.7	59.1
Multiple spell (6-14 yrs.)		12.5	20.6	62.5
Single spell (1 yr.)		10.5	26.3	63.2
Single spell (2-5 yrs.)		3.0	9.1	87.9
Single spell (6-14 yrs)		14.3	14.3	64.3
From: Manufacturing:				
Chronic	45.1%	11.8%	NA[a]	37.2%
Multiple spell (2-5 yrs.)	29.0	13.2		55.3
Multiple spell (6-14 yrs.)	29.3	7.8		59.5
Single spell (1 yr.)	25.4	10.5		58.2
Single spell (2-5 yrs.)	13.9	19.4		63.9
Single spell (6-14 yrs)	38.1	9.5		38.1
From: Service:				
Chronic	50.3%	4.3%	10.2%	31.6%
Multiple spell (2-5 yrs.)	23.5	9.0	20.8	43.0
Multiple spell (6-14 yrs.)	30.6	7.4	16.5	43.2
Single spell (1 yr.)	20.2	8.0	17.0	50.0
Single spell (2-5 yrs.)	19.0	15.2	21.0	61.0
Single spell (6-14 yrs)	19.6	13.7	21.6	41.2

[a]There are no changes recorded within categories by definition. Extractive and service categories show changes because they are aggregate categories from combinations of industries for which change data existed in the PSID data set.

rates. At the same time, the short-term single spell poor heads obtain service jobs at much higher rates than heads in the other poverty categories. Similar patterns are seen in the shifts out of manufacturing industries. The chronic and long- term poor move into unemployment at much higher rates, and into service sector jobs at much lower rates than household heads in the other poverty categories.

The information in Table 25, then, supports the previous observation about the effects of the service sector on poverty. That is, it does not appear to be because only low-paying service jobs are available that leads to poverty, but because the poor, particularly the chronically or persistently poor, are not obtaining jobs in the service sector.

Conclusion

The effects on rural poverty of replacement of jobs lost in the traditional extractive and manufacturing industries by service sector employment previously has been discussed primarily on an anecdotal or speculative basis. The PSID data set for 1982-87 provides a unique opportunity to examine the issue. With these data, the industries in which the rural poor work, their occupations, and the industries into which they move when leaving unemployment or changing jobs can be determined.

One clear conclusion is that while the poor are unemployed at higher rates than the nonpoor, a large majority of male family heads and half of female heads hold jobs. Further, economic downturns cause unemployment among poor heads to a much greater extent than among the "at risk" nonpoor. In addition, differences exist between the poor and nonpoor in types of occupations, both white collar and blue collar. In general, the poor are found disproportionately in the lower skilled, lower paid occupations, regardless of industry sector.

Among male family heads, the poor are employed in extractive industries at higher percentages than the "at risk" nonpoor, and also at higher rates than among the rural population as a whole. The poor also hold jobs in construction at higher rates than the nonpoor. This, plus the nature of both of these industry sectors, puts the poor at greater economic risk than the nonpoor. The extractive sectors are in long run decline, and construction employment of all types is cyclical. Employment in manufacturing of rural poor family heads is at about the same rate as among the nonpoor.

With respect to the service sector, the key difference is that poor male heads do not have jobs in the service industries to the extent that the nonpoor do, particularly in the higher paying, more stable occupations. Poor female heads of households also are employed at much lower rates in manufacturing than the nonpoor, and are less likely to have service sector jobs than nonpoor but "at risk" female heads.

Examination of shifts between industries by poor family heads revealed that it is definitely true that service industries are the largest single recipient of job shifts. Those shifting from unemployment and manufacturing primarily went into service sector jobs, and those leaving extractive employment were the least likely to get service jobs. However, the longer-term poor were much less likely to obtain any job, including service sector employment, than the short-term poor.

The main overall implication, thus, is not that service sector employment leads to increased poverty rates, but that the rural poor are not getting jobs in the expanding service sector industries at rates similar to the nonpoor. This is particularly true of the longer term poor.

SECTION VI

Conclusions

This report has examined differences in participation in market work among the chronically, frequently and temporarily poor in rural areas of the U.S., and has identified work-related strategies used by poor households to move out of poverty. Initially the demographic and socio-economic characteristics of different types of households are compared, poor and nonpoor, between metro and nonmetro areas using data from the Panel Study of Income Dynamics (Section II). These comparisons are followed in Section III by descriptions of the chronically, frequently, and temporarily poor, based on the frequency and duration of poverty among a sample of nonmetro households from the PSID. Comparisons are made among real incomes (excluding transfer payments) and cumulative real incomes for each of six poverty categories over the 1970-86 period. Further, important characteristics of households in poverty -- e.g., race and education -- are then examined across poverty categories.

Section IV then identifies work-related strategies that poor households use to "escape" poverty, at least temporarily. Potential strategies include working overtime, holding multiple jobs, self-employment, working more weeks per year, and migration, among other strategies used by different types of households. In addition, constraints to transitions from poverty (e.g., race, disability, low education, and children) are assessed.

Finally, differences in occupations and industries of employment of the poor and nonpoor, and the industries into which the poor shift when employment states change are explored in Section V. More specifically, the effects of recent service sector growth on rural households "at risk of poverty" are examined.

Observations

Although the proportion of households in poverty that are female-headed households is smaller in rural than urban areas, it is clear that poverty among female-headed households is chronic and represents a persistent problem not readily addressed by policies that encourage market work. A principal problem is the low wages paid by many rural jobs to women (McLaughlin and Perman 1991, Findeis 1992). This problem is exacerbated by the constraints of child care among female-headed households with children, and by age, disability, and lack

of work experience among female-headed households without children. The problem is compounded when the female head is not white or has acquired only low levels of education.

Female heads of households that are able to move out of poverty often do so by working more hours in a work week -- this strategy was found to be a successful strategy for female heads. Among female heads that work, the picture that emerges is one of women working year-round at low wage jobs, with higher incomes principally a function of more hours of work per week. The conflict that arises, given this scenario, is that allocating more hours per week to market work typically means allocating fewer hours per week to child care, at least for female heads with children. In this context, the issues of providing affordable child care to low income mothers and providing a more time-flexible workplace that recognizes the problems associated with child/elder care become issues that must be faced if increased work participation among poor households is the goal. The strategies that "work" for female heads with children (e.g., multiple job-holding and working more hours per week) are highly dependent on reducing hours allocated to nonmarket work. In addition, these strategies depend on being able to work odd hours in jobs that not only match each other in terms of time requirements but match the time requirements of nonmarket work as well. Piecing together jobs and child care represents a significant challenge in rural areas where unemployment rates have been higher (than urban) in the 1980s and where child care options typically depend on friends, neighbors, and relatives. Interestingly, self-employment which is often suggested as a possible solution to the problem of matching jobs to child care was not found to be a successful strategy among female household heads.

Male-headed households with and without children were also found to represent a significant proportion of the rural poor, a greater percentage than observed in urban areas. Such families were less likely to be chronically poor but were very often among the frequently poor, moving out of poverty and then becoming poor again, often soon. Among these households, the work of the (male) head is key. Local unemployment rates affect the ability of these households to move out of poverty, an effect not observed among female-headed households. Further, multiple job-holding by the male head, the head working more weeks per year or more hours per week, or increases in farm income generally helped poor male-headed households to move out of

poverty. Self-employment and earnings from overtime work were not shown to increase the likelihood that a poor male-headed family would become nonpoor.

What also helps is when other potential earners in the household do, in fact, engage in market work. As was also true (and important) for female-headed households, the market work of others in the household other than the head or spouse was shown to consistently be an important contributor to transitions out of poverty. In addition, work by the female spouse (or co-habitor) also strongly influences the likelihood of becoming nonpoor, at least among households with children. What emerges from the analysis is that variations in work among female spouses is a very important predictor of poverty in households with children -- a high proportion of women in nonpoor but "at risk" households, do, in fact, work (about 71%), whereas significantly fewer women in poor households have been able to find work (only about 33%). And in at least some of these households, the male head is not employed or not at work, making work by the female spouse critical.

From a policy perspective, programs that serve to increase the general wage level in rural areas have the potential to affect significant numbers of rural households -- female-headed as well as more traditional male-headed households. Rural development programs that help to create and maintain rural jobs are also well-directed. Such programs can help to fill the void of jobs, including service sector jobs, that exist for those individuals that are poor. One goal of such programs should be to provide a wider diversity of local employment opportunities when possible, not only to provide employment stability in a community but also to provide a wider range of occupations for men and women alike. Finally, work-related strategies that for many families mean each individual piecing together his or her own work, and then jointly piecing together the market and nonmarket work of all family members, requires a flexible workplace, particularly given the lack of support services that exist in rural areas -- e.g., public transportation and child care.

The relationship between poverty and the types of jobs available in rural areas has also become a concern. It has been hypothesized that the shift in economic structure to a predominance of service sector jobs is contributing to the persistence of poverty. The results of this study indicate that, indeed, poor rural household heads who leave unemployment or jobs in more traditional rural activities do move primarily to service sector jobs. At the same time, however, the poor obtain service industry employment at much lower rates than the

nonpoor. Thus, it does not appear that service sector employment increases the likelihood of poverty, but quite the reverse. If the poor were able to obtain service jobs, their likelihood of poverty would be reduced.

Society can choose to bear the cost of financially supporting low income households that cannot or choose not to participate in market work. Alternatively, policies to increase work participation among the poor can (and are being) adopted. This study has shown that strategies dependent on work are already being used by many poor rural households to help make the transition from poverty, but it is clear that these strategies often diverge from our traditional conceptions of work and the allocation of work within the family. For these families, a single wage earner working full-time at a single job is likely a rarity, and certainly not the norm. Policies and programs to aid rural poor families will need to recognize this reality, at least until rural wages improve.

Appendix A

Characteristics of Male-headed Single Parent Households

Table A.1. Characteristics of Male-headed Single Parent Families in Nonmetro and Metro U.S., by Poverty Status, 1987 Interview Year.[a]

	In Poverty		Not in Poverty	
Characteristics	Nonmetro	Metro	Nonmetro	Metro
Characteristics of Household Head	n=7	n=23	n=16	n=47
Average age (years)	30.9	31.1	48.1	37.7
Percent of household heads:	(%)	(%)	(%)	(%)
Completed high school	31.9	69.5	50.0	71.2
Not white	6.5	39.8	7.2	12.4
Elderly	0.0	2.5	16.6	3.7
Disabled	1.6	18.6	21.3	27.0
Income and Work Characteristics				
Percent of household heads:	(%)	(%)	(%)	(%)
At work in 1986	62.9	42.7	73.2	86.2
With employment in 1986[b]	62.9	42.7	73.2	91.2
In labor force in 1986	100.0	76.8	73.2	96.4
Retired	0.0	13.3	19.6	3.6
Average total 1986 income (1986$)[c]	$9,828	$8,281	$34,307	$43,907
Head's average 1986 income from work (1986$)	$4,794	$7,770	$18,624	$35,239
Family Characteristics				
Average family size (persons)	2.6	3.0	3.3	3.1

[a]Comparisons based on weighted PSID data, with unweighted n (excluding observations with zero weights) given.
[b]Includes employed and unemployed persons.
[c]Values for this variable are positive.

Table A.2. Characteristics of Male-headed Households in ENEP Sample, 1987 PSID Interview Year.[a]

Characteristics	Chronic	Multiple Spells: ≤ 5 yrs.	Multiple Spells: 6-14 yrs.	Single Spell: 1 yr.	Single Spells: 2-5 yrs.	Single Spells: 6-14 yrs.	All
Characteristics of Household Head	n=9	n=5	n=15	n=4	n=2	n=2	n=37
Average age (years)	37.2	36.8	30.6	44.6	46.4	59.9	38.1
Percent of household heads:	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Completed high school	22.7	48.1	67.3	100.0	52.8	15.9	55.8
Not white	40.0	0.0	6.0	8.1	0.0	15.9	11.9
Elderly	22.0	0.0	0.0	0.0	0.0	0.0	4.3
Disabled	23.3	27.1	30.8	32.4	0.0	0.0	24.4
Income and Work Characteristics							
Percent of household heads:	(%)	(%)	(%)	(%)	(%)	(%)	(%)
At work in 1986	44.0	97.0	69.2	100.0	100.0	15.9	73.3
With employment in 1986	44.0	97.0	69.2	100.0	100.0	15.9	73.3
In labor force in 1986	78.0	100.0	100.0	100.0	100.0	15.9	91.0
Retired	0.0	0.0	0.0	0.0	0.0	84.1	4.8
Average total 1986 income (1986$)	$11,746	$30,464	$23,514	$82,792	$20,873	$19,844	$30,456
Head's average 1986 income from work (1986$)	$ 8,208	$24,153	$21,840	$66,979	$11,042	$10,050	$26,283
Family Characteristics							
Average family size (persons)	3.7	3.3	2.8	2.5	3.0	4.7	3.1

[a]Sample was weighted using appropriate weights. Unweighted n is given. For individual cells, the sample size may be even smaller.

Appendix B

Distribution of Number of Poverty Spells and Duration of Poverty
Excluding Left-censored First Spells
(Unweighted)

Table B.1. Distribution of Number of Poverty Spells by Number of Years Poor Excluding Censored First Spells, PSID, 1968-87.[a]

Years in Poverty	Number of Poverty Spells Over 19 Year Period						Percent by Years
n = 6133	1	2	3	4	5	6	
1	1291						21.07
2	410	490					14.67
3	189	307	161				10.71
4	125	261	146	43			9.38
5	100	186	151	36	10		7.88
6	100	166	111	25	15		6.80
7	72	107	124	59	16	1	6.18
8	28	63	69	41	19	18	3.88
9	22	41	91	45	6	4	3.41
10	39	63	40	24	16	3	3.02
11	33	37	44	33	8	1	2.54
12	54	41	29	23	13		2.61
13	30	32	38	8	7		1.88
14	23	55	18	24			1.96
15	24	40	13	11			1.43
16	25	11	5	3			0.72
17	36	37	6				1.29
18	15	5					0.33
19	16						0.26
Percent by Spells	42.93	31.66	17.06	6.11	1.79	0.44	

[a]The sample includes all individuals in the ENEP sample but excludes first spells for those already poor in 1968. A total of 1315 individuals experienced a poverty spell in 1968 but no additional spells thereafter.

Figure B.1. Number of Years Poor for PSID Nonmetro Poor Sample Excluding Censored First Spell, 1968-87.

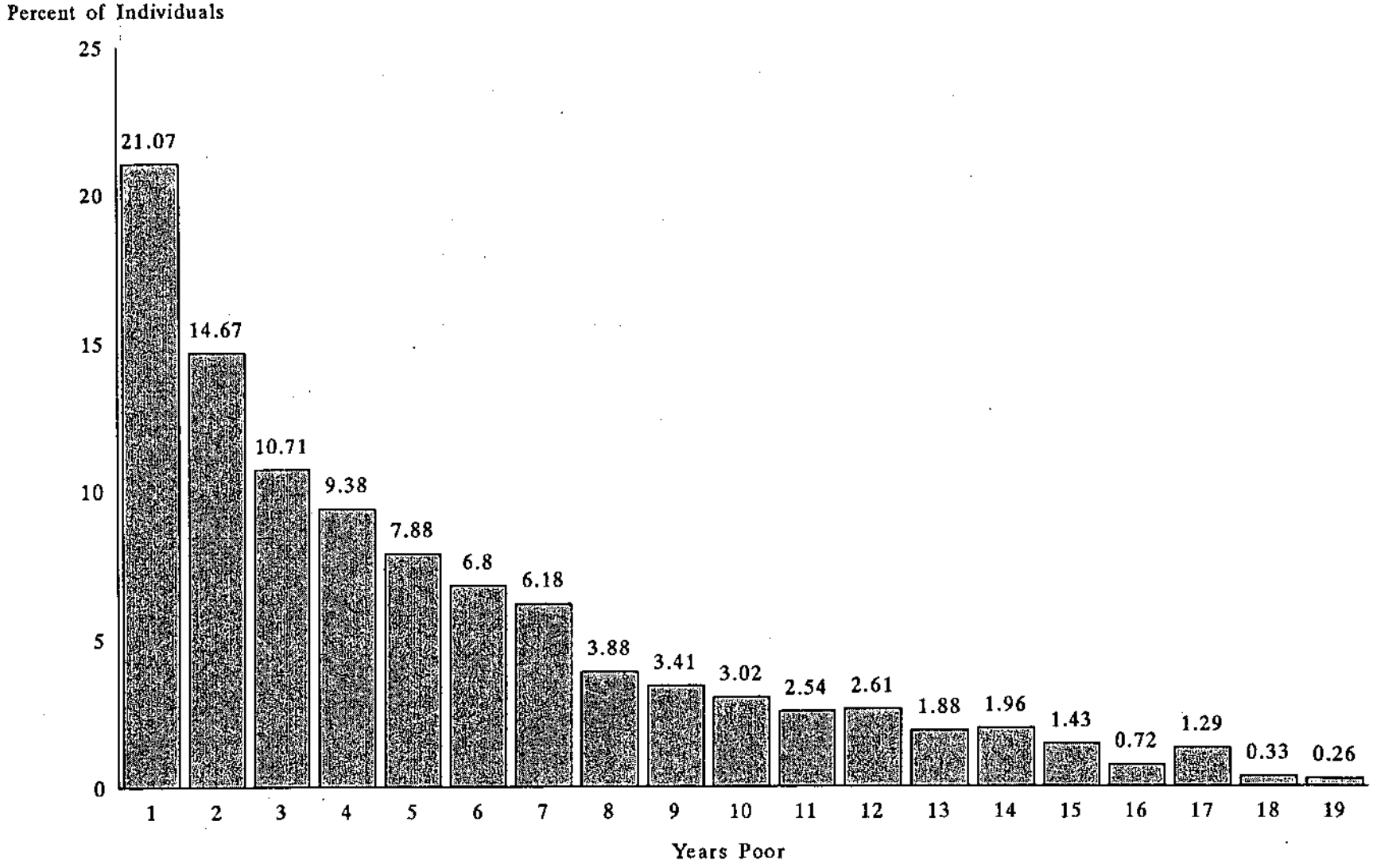


Figure B.2. Number of Poverty Spells by Number of Years Poor Excluding Censored First Spells, PSID, 1968-87.

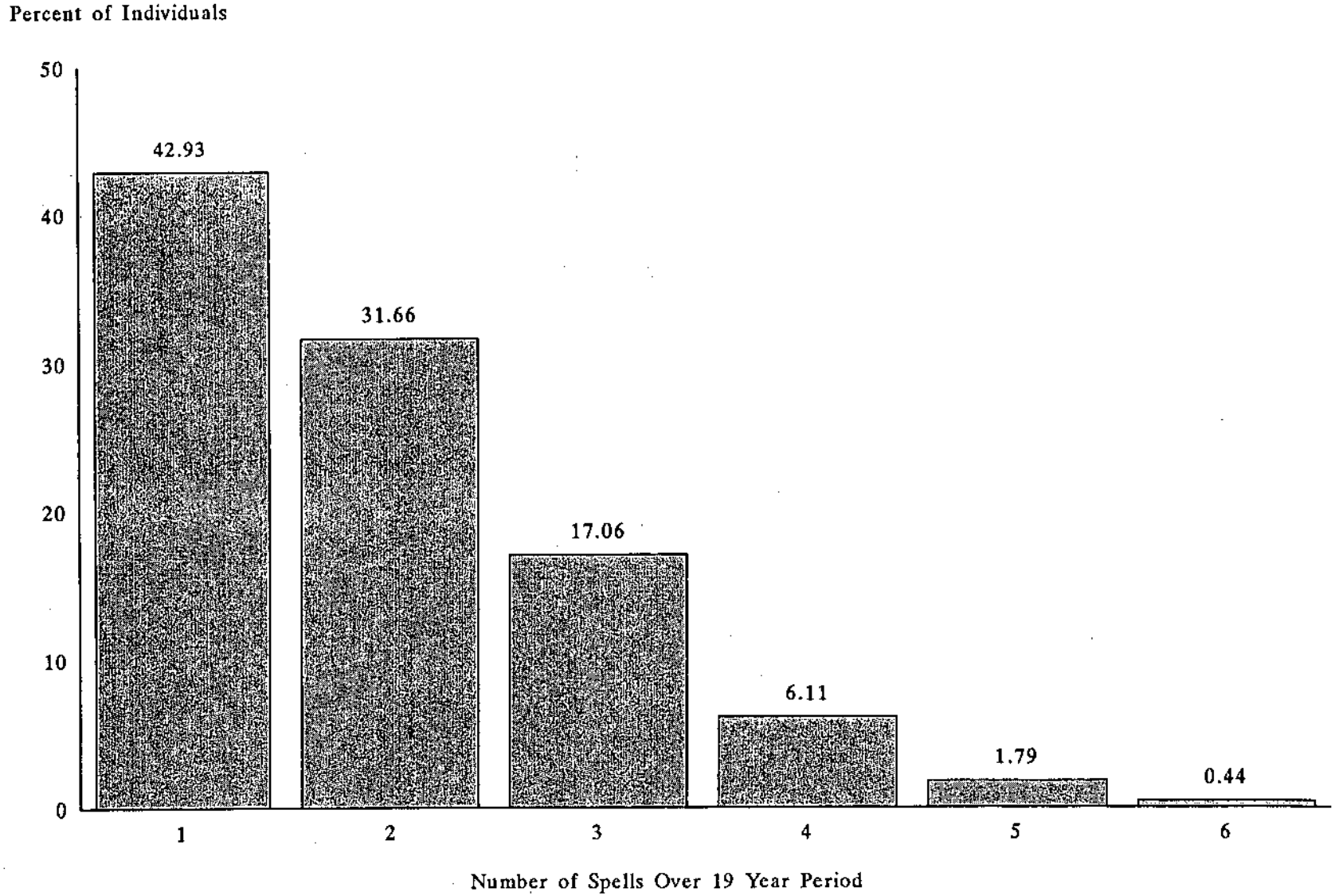


Figure B.3. Number of Years Poor for Nonmetro Respondents Poor in 1968, PSID, 1968-87.

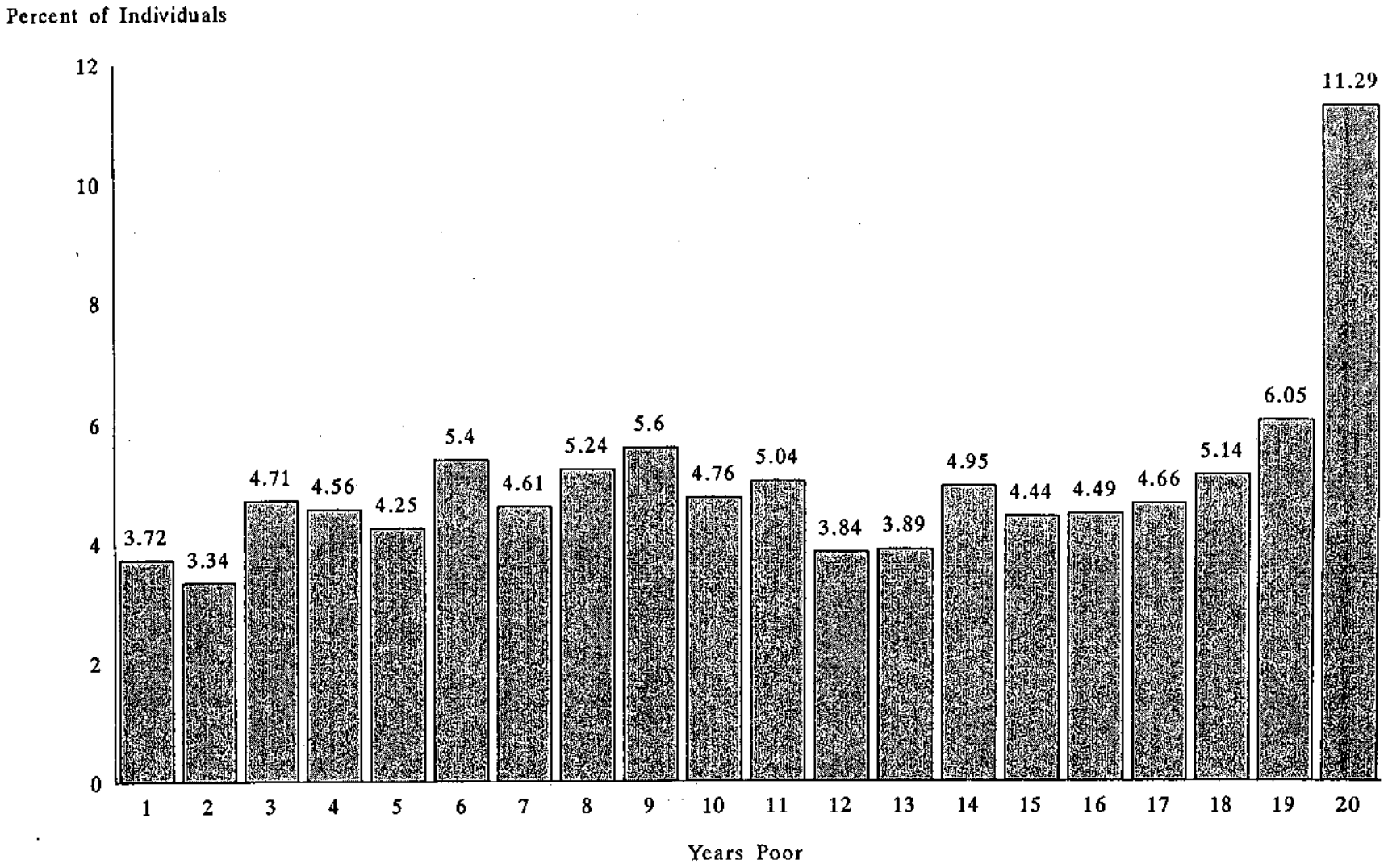
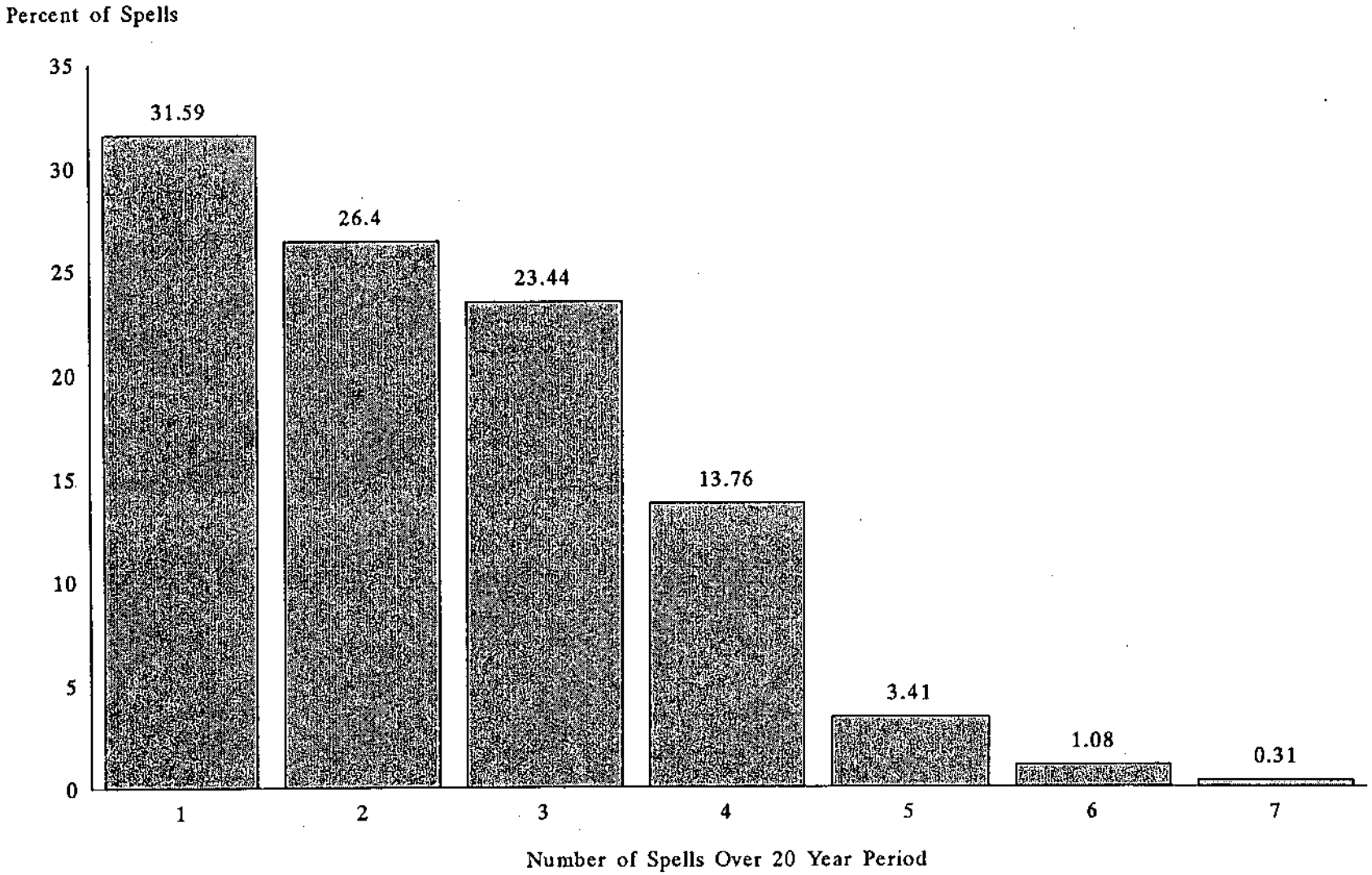


Figure B.4. Number of Poverty Spells for Nonmetro Respondents Poor in 1968, PSID, 1968-87.



Appendix C

Cumulative Average Incomes for Poverty Sample
(Unweighted)

Figure C.1. Deviations from Real Average Incomes (Net Transfer Payments) for Multiple Spell and Chronically Poor Households, Unweighted ENEP Sample, 1970-86.

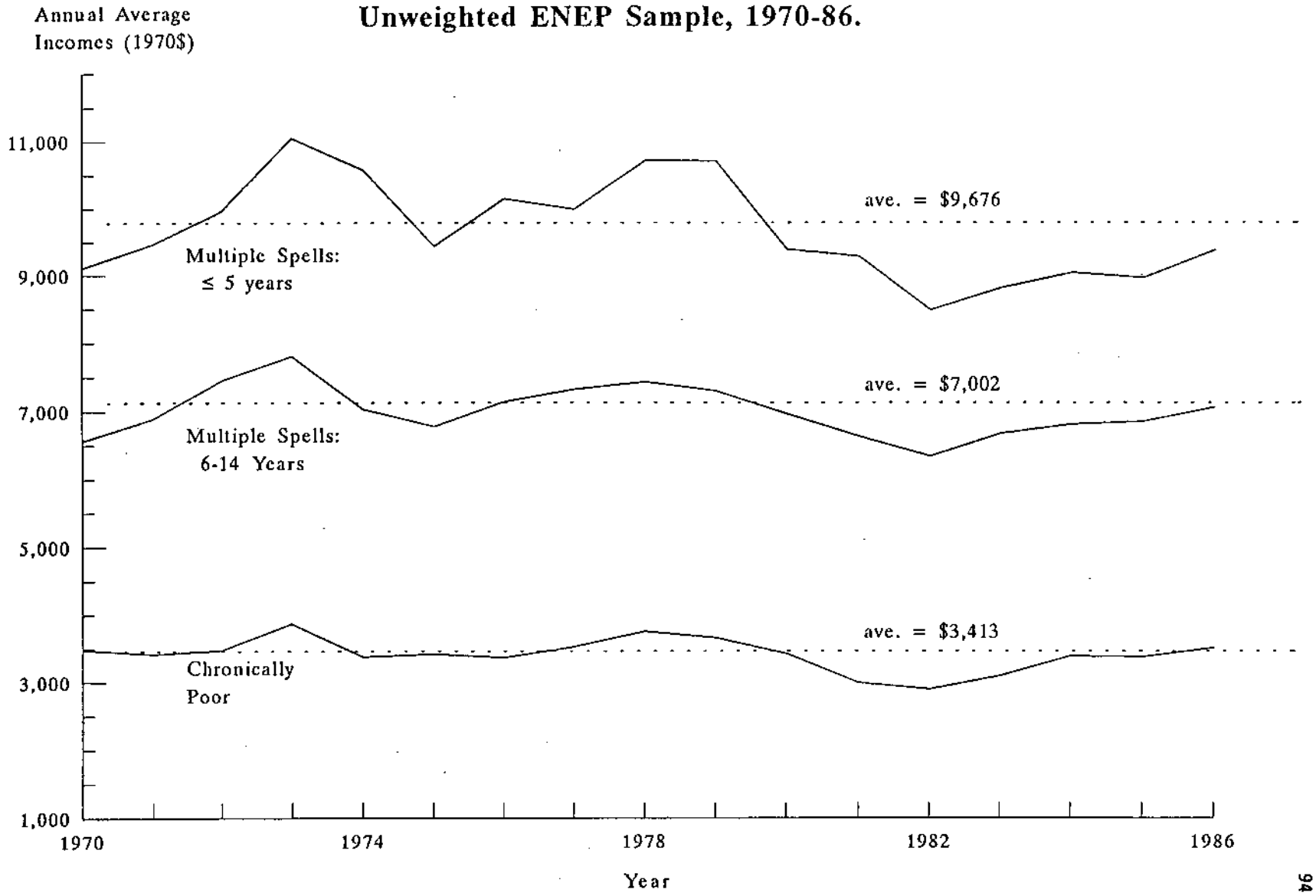


Figure C.2. Deviations From Real Average Incomes (Net Transfer Payments) for Single Spell Poor Households, Unweighted ENEP Sample, 1970-86.

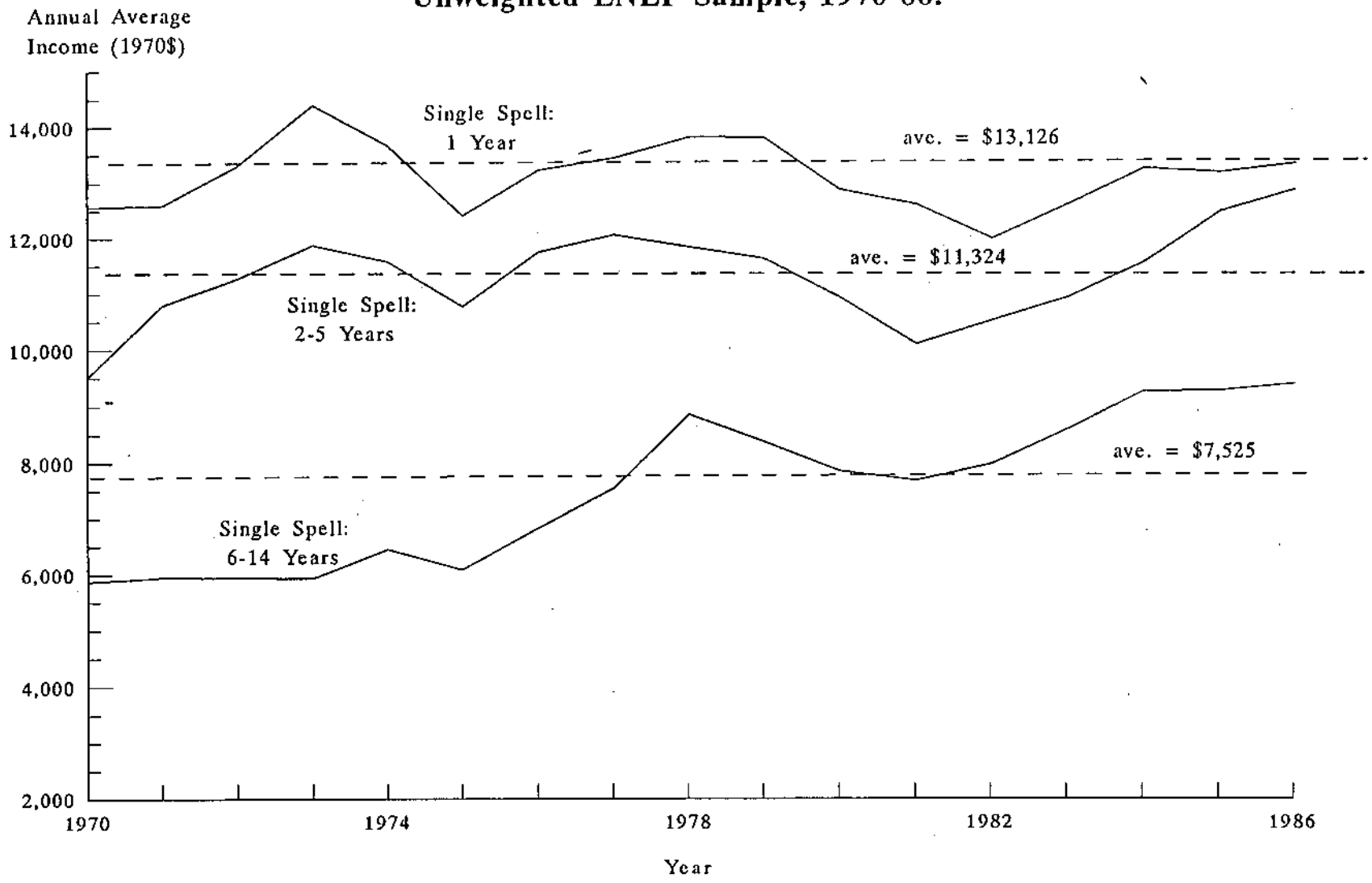


Figure C.3. Cumulative Average Incomes (Net Transfer Payments) for Unweighted Nonmetro Poor Sample, 1970-86.

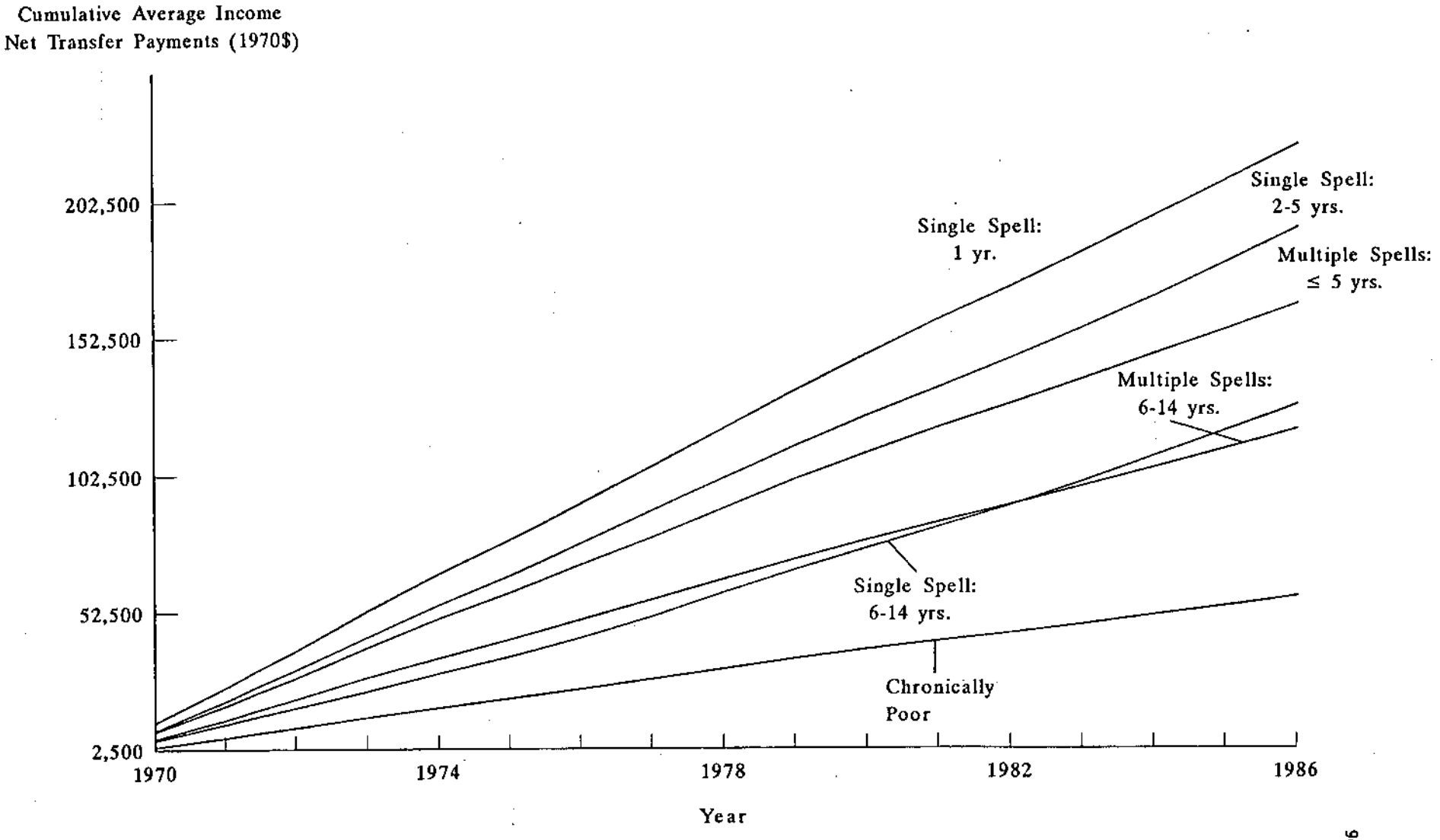


Figure C.4. Comparison of Total Cumulative Real Average Incomes (Net Transfer Payments) for 1970-86 for Unweighted ENEP Sample, PSID.

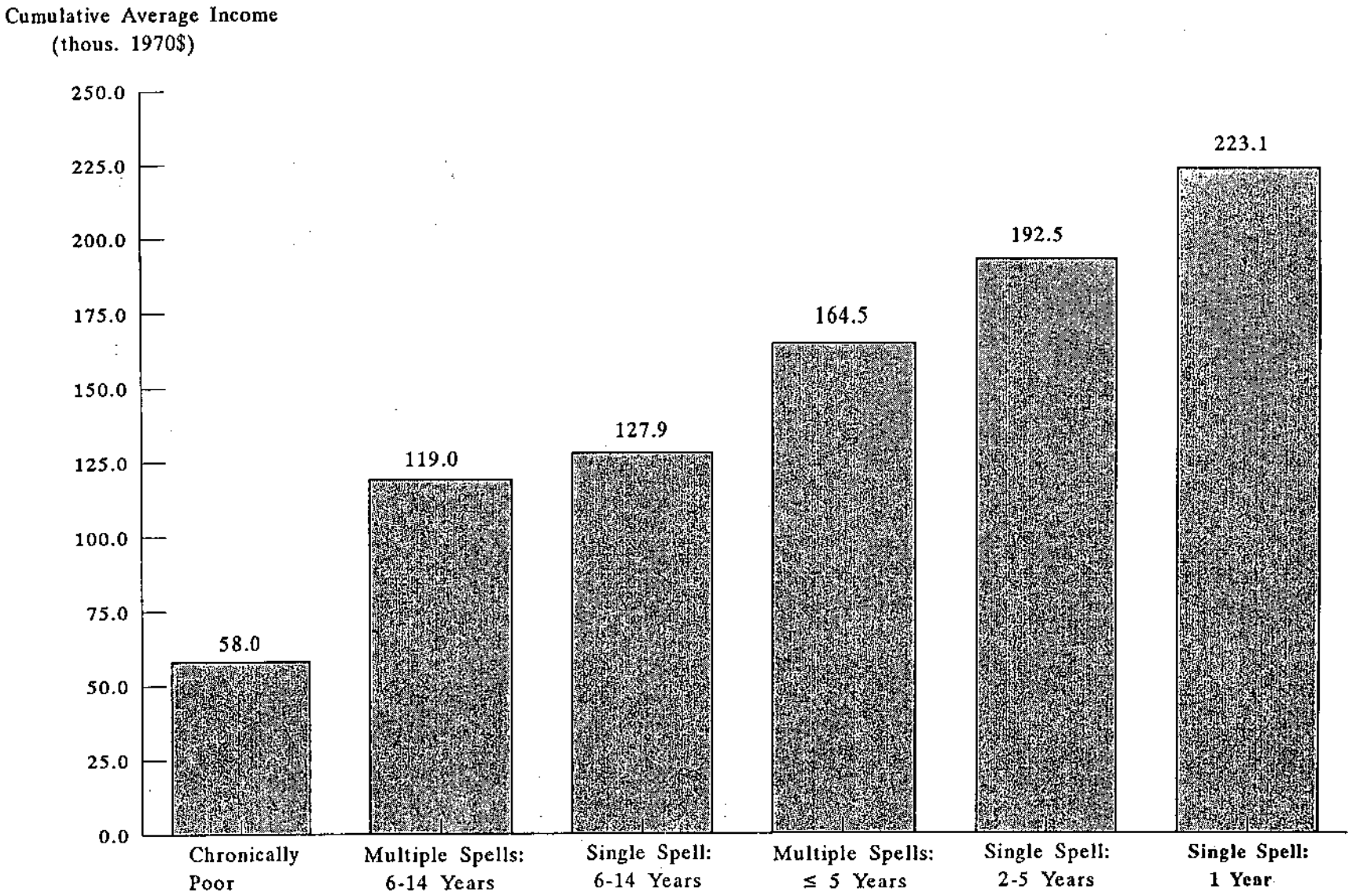
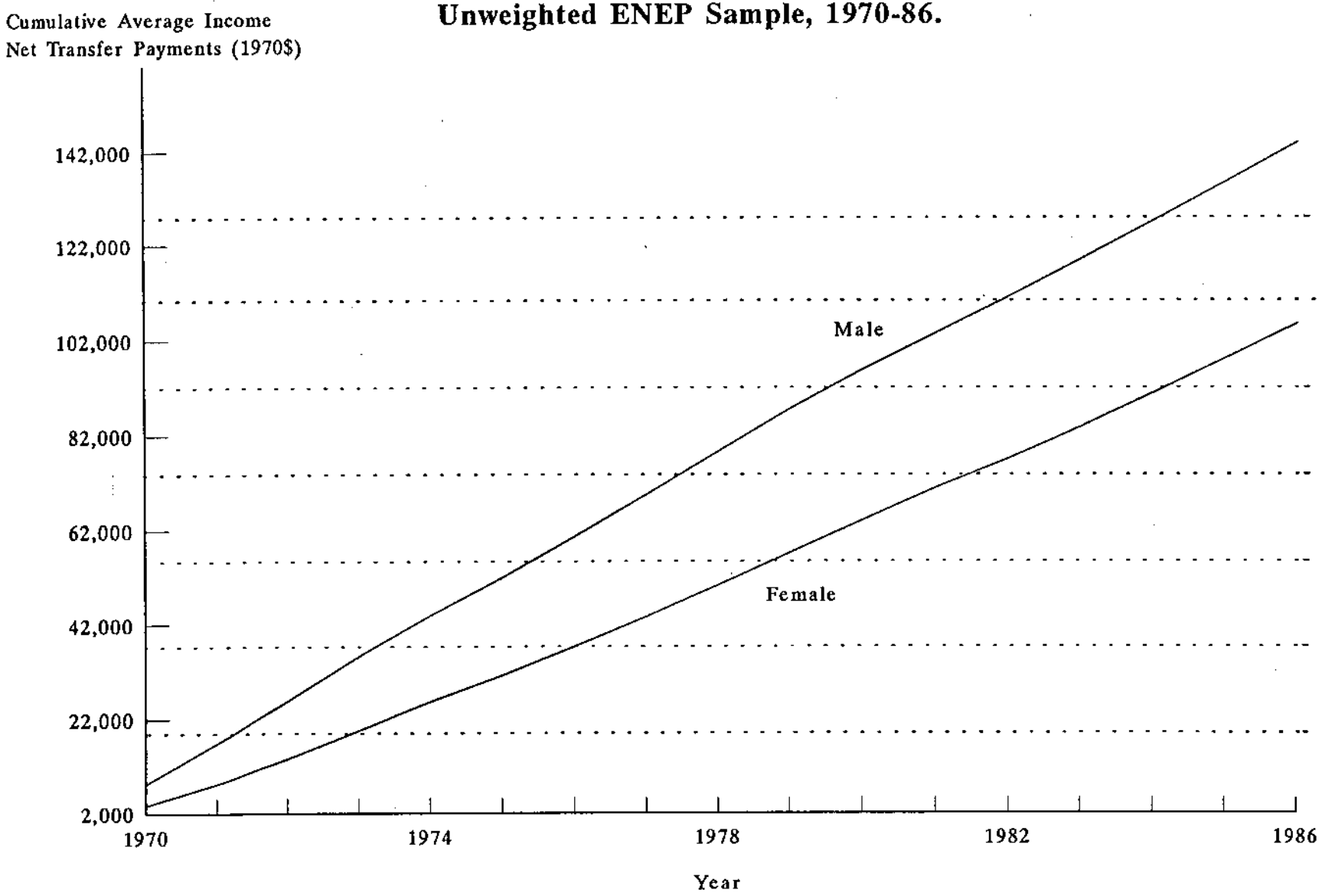


Figure C.5. Comparison of Cumulative Average Incomes (Net Transfer Payments) for 1970 Male and Female Household Heads in Unweighted ENEP Sample, 1970-86.



Appendix D

Characteristics of ENEP Sample, by Poverty Category
(Weighted)

Table D.1. Demographic Characteristics of Female-headed Families in Weighted ENEP Sample, 1987 PSID Interview Year.[a]

Characteristics	Chronic	Multiple Spells: ≤ 5 yrs.	Multiple Spells: 6-14 yrs.	Single Spell: 1 yr.	Single Spell: 2-5 yrs.	Single Spell: 6-14 yrs.	All
Characteristics of Female Household Head	n=119	n=48	n=100	n=19	n=15	n=11	n=312
Average age (years)	37.4	33.0	32.3	39.1	34.8	36.7	34.9
Percent of female heads:	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Completed high school	40.2	87.6	53.2	90.1	82.6	40.9	64.1
Not white	66.9	13.7	29.9	3.5	15.6	50.0	32.7
Elderly	3.6	3.0	0.8	6.0	0.0	0.0	2.5
Disabled	27.8	9.6	13.9	38.6	17.4	29.5	19.8
Income and Work Characteristics							
Percent of female heads:	(%)	(%)	(%)	(%)	(%)	(%)	(%)
At work in 1986	43.4	75.3	63.7	57.5	82.4	65.9	62.0
With employment in 1986	44.1	92.1	67.3	57.5	82.4	65.9	63.1
In labor force in 1986	51.5	97.1	90.7	62.8	83.9	65.9	71.4
Retired	0.6	2.8	0.1	11.7	0.0	0.0	2.1
Average total 1986 income (1986$)	$7,256	$16,548	$11,276	$18,016	$21,561	$20,166	$13,215
Average 1986 income from work (1986$)	$6,574	$10,766	$ 7,799	$10,949	$17,943	$13,196	$9,909
Family Characteristics							
Average family size (persons)	3.3	2.8	3.0	2.9	2.9	2.9	3.0

[a]Weighted results. Unweighted n is given.

Table D.2. Demographic Characteristics of Two-parent Households With Children in ENEP Sample, 1987 PSID Interview Year.[a]

Characteristics	Chronic	Multiple Spells: ≤ 5 yrs.	Multiple Spells: 6-14 yrs.	Single Spell: 1 yr.	Single Spell: 2-5 yrs.	Single Spell: 6-14 yrs.	All
Characteristics of Male Parent:	n=75	n=104	n=156	n=104	n=48	n=26	n=513
Average age (years)	36.6	35.4	35.0	34.2	37.1	32.5	35.1
Percent of male parents:	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Completed high school	36.6	74.3	58.5	90.2	87.1	69.4	73.2
Not white	36.2	8.9	9.8	4.7	6.3	31.2	10.8
Elderly	6.0	0.1	0.4	0.1	0.0	0.0	0.6
Disabled	21.1	13.8	24.1	7.7	4.9	4.5	13.9
At work in 1986	79.2	94.6	82.6	92.4	93.0	89.0	89.2
With employment in 1986	82.5	96.5	84.1	94.8	95.4	89.0	91.2
In labor force in 1986	93.1	96.5	90.8	96.7	98.0	100.0	95.1
Retired	6.6	0.3	1.3	0.1	0.0	0.0	0.9
Characteristics of Female Parent:							
Average age (years)	34.2	33.7	30.0	33.3	33.1	29.3	33.2
Percent of female parents:[b]	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Completed high school	29.4	81.4	58.7	94.1	88.0	72.9	74.0
Elderly	4.8	0.0	0.0	0.0	0.0	0.0	0.4
Disabled	14.8	8.3	14.7	12.0	8.3	4.1	11.2
At work in 1986	53.3	61.5	54.9	73.4	67.3	71.7	62.7
With employment in 1986	95.5	61.5	57.9	73.4	67.7	80.9	64.1
In labor force in 1986	96.9	62.5	59.7	73.4	69.2	81.5	65.2
Retired	3.0	0.0	0.1	0.0	0.0	0.0	0.3
Family Characteristics							
Average family size (persons)	4.6	4.3	4.2	3.9	4.2	4.0	4.2
Average number of children (persons)	2.2	2.2	2.0	1.8	2.2	1.9	2.3
Household Income Characteristics							
Average total 1986 income (1986$)	$13,282	$28,964	$22,820	$41,104	$42,783	$29,312	$31,143
Head's average 1986 income from work (1986$)	$ 9,629	$18,741	$14,414	$27,117	$29,408	$18,261	$20,549
Wife's/"Wife's" average 1986 income from work (1986$)	$ 4,864	$8,956	$7,436	$14,658	$11,903	$9,825	$9,999

[a]Weighted results. Unweighted n is given.
[b]Race is not given in the PSID for the wife/"wife".

Table D.3. Demographic Characteristics of Couple Households With No Children in ENEP Sample, 1987 Interview Year.[a]

Characteristics	Chronic	Multiple Spells: ≤ 5 yrs.	Multiple Spells: 6-14 yrs.	Single Spell: 1 yr.	Single Spell: 2-5 yrs.	Single Spell: 6-14 yrs.	All
Characteristics of Male Parent:	n=39	n=71	n=72	n=54	n=22	n=18	n=276
Average age (years)	63.6	50.3	49.7	51.3	49.4	55.3	51.6
	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Percent of male parents:	65.0	59.7	39.1	61.4	79.4	29.5	52.0
Completed high school	29.7	5.0	12.9	5.9	2.3	10.2	8.8
Not white	53.4	28.4	20.7	28.7	23.5	35.9	28.6
Elderly	50.9	29.2	37.1	32.0	35.1	49.4	34.9
Disabled	26.7	66.2	60.6	63.8	69.0	49.4	60.8
At work in 1986	35.3	66.2	64.6	63.8	69.0	49.4	62.3
With employment in 1986	41.5	66.2	72.8	65.2	69.0	49.4	64.9
In labor force in 1986	57.1	31.1	25.2	32.8	25.2	45.0	32.4
Retired							
Characteristics of Female Parent:							
Average age (years)	51.7	48.9	44.6	51.2	41.0	51.3	48.0
Percent of female parents:[b]	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Completed high school	29.0	65.2	66.3	72.9	85.2	35.6	64.0
Elderly	29.1	15.9	12.8	20.1	12.8	27.7	17.9
Disabled	58.6	34.0	26.9	24.9	20.3	40.8	31.5
At work in 1986	23.1	46.5	54.9	55.2	70.4	48.9	51.1
With employment in 1986	23.1	46.5	60.2	55.2	92.0	48.9	52.2
In labor force in 1986	30.9	50.1	64.8	58.9	96.3	48.9	56.3
Retired	5.2	16.1	8.7	9.9	3.7	14.3	10.3
Household Income Characteristics							
Average total 1986 income (1986$)	$8,607	$23,882	$20,696	$31,543	$29,550	$22,215	$24,411
Head's average 1986 income from work (1986$)	$5,385	$13,700	$14,155	$21,722	$18,388	$13,726	$15,958
Wife's/"Wife's"average 1986 income from work (1986$)	$5,960	$10,530	$7,922	$13,011	$12,206	$10,865	$10,519

[a]Weighted results. Unweighted n is given.
[b]Race is not given for the wife/"wife" in the PSID.

Table D.4. Demographic Characteristics of Single-headed Households With No Children in ENEP Sample, 1987 Interview Year.[a]

Characteristics	Chronic	Multiple Spells: ≤ 5 yrs.	Multie Spells: 6-14 yrs.	Single Spell: 1 yr.	Single Spell: 2-5 yrs.	Single Spell: 6-14 yrs.	All
Characteristics of Single Male:	n=87	n=46	n=89	n=35	n=28	n=24	n=309
Average age (year)	41.5	39.2	38.3	35.9	35.8	32.6	38.0
Percent of male parents:	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Completed high school	40.8	73.7	66.6	90.3	87.1	83.2	71.1
Not white	42.1	21.5	15.4	1.5	4.2	39.0	18.7
Elderly	17.1	7.2	17.2	7.0	4.2	0.0	10.8
Disabled	32.6	10.5	20.5	17.6	6.7	19.5	18.3
At work in 1986	51.0	72.4	68.3	80.3	86.5	85.9	71.7
With employment in 1986	51.4	81.4	38.8	89.5	86.5	85.9	75.1
In labor force in 1986	61.3	84.3	77.9	91.9	86.5	89.2	80.5
Retired	19.5	10.1	18.8	7.9	0.0	0.0	11.9
Average total 1986 income (1986$)	$7,214	$20,683	$11,336	$23,685	$32,473	$17,363	$17,689
Head's average 1986 income from work (1986$)[b]	$7,592	$20,222	$11,842	$22,423	$26,131	$15,343	$17,292
Characteristics of Single Female:	n=124	n=58	n=101	n=51	n=30	n=21	n=385
Average age (years)	67.0	52.2	61.9	50.1	36.1	55.8	56.7
Percent of female parents:	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Completed high school	21.6	74.2	46.1	87.1	77.7	76.4	57.2
Not white	33.7	7.8	10.3	4.6	95.9	14.8	14.1
Elderly	61.2	35.6	54.2	30.4	10.9	40.4	43.7
Disabled	59.4	35.6	46.6	25.9	22.9	57.3	42.2
At work in 1986	17.1	54.9	30.6	64.3	70.5	49.4	42.6
With employment in 1986	17.6	56.0	68.3	64.3	70.5	49.4	42.9
In labor force in 1986	19.7	59.1	68.9	70.1	70.5	49.4	45.3
Retired	24.3	33.8	31.1	19.8	5.2	18.7	25.2
Average total 1986 income (1986$)	$5,649	$14,877	$9,222	$20,838	$14,352	$14,500	$12,342
Head's average 1986 income from work (1986$)[b]	$4,000	$12,761	$10,273	$16,105	$11,653	$14,484	$12,153

[a]Weighted results. Unweighted n is given.
[b]Includes only heads that worked.

Appendix E

Industry Changes Over 1982-87 Period Among Poor Household Heads and Wives/"Wives"

Table E.1. Number of Industry Changes Made by Poor Family Heads, 1982-87.[a]

To / From	Unemployment	Extractive	Construction	Manufacturing	Service	Total
Unemployment	0	37	62	106	358	563
Extractive	44	4	17	25	52	142
Construction	56	19	0	35	86	196
Manufacturing	106	17	39	0	193	355
Service	326	41	93	190	491	1,141
Total	532	118	211	356	1,180	2,397

[a]Based on weighted ENEP sample.

Table E.2. Number of Industry Changes Over 1982-87 Period Among Poor Family Heads.[a]

Number of Changes Made	Chronic		Multiple Spells: 2-5 yrs.		Multiple Spells: 6-14 yrs.		Single Spell: 1 yr.		Single Spell: 2-5 yrs.		Single Spell: 6-14 yrs.	
	#	%	#	%	#	%	#	%	#	%	#	%
0	306	57.2	215	47.5	313	44.3	191	52.6	127	55.5	93	61.6
1	94	17.6	97	21.4	163	23.1	67	18.5	37	16.2	22	14.6
2	67	12.5	73	16.1	124	17.5	63	17.4	41	17.9	18	11.9
3	46	8.6	40	8.8	76	10.7	26	7.2	15	6.6	8	5.3
4	18	3.4	21	4.6	25	3.5	12	3.3	7	3.1	8	5.3
5	4	0.7	7	1.5	6	0.8	4	1.1	2	0.9	2	1.3

Number of Industry Changes Over 1982-87 Period by a Poor Wife/"Wife".

0	124	55.9	140	43.6	172	37.8	106	40.5	79	48.5	47	47.5
1	57	25.7	75	23.4	114	25.1	65	24.8	41	25.2	23	23.2
2	30	13.5	59	18.4	90	19.8	45	17.2	21	12.9	17	17.2
3	6	2.7	36	11.2	58	12.7	30	11.5	13	8.0	7	7.1
4	5	2.3	9	2.8	18	4.0	12	4.6	6	3.7	4	4.0
5	0	0	2	0.6	3	0.7	4	1.5	3	1.8	1	1.0

[a]Based on weighted ENEP sample.

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