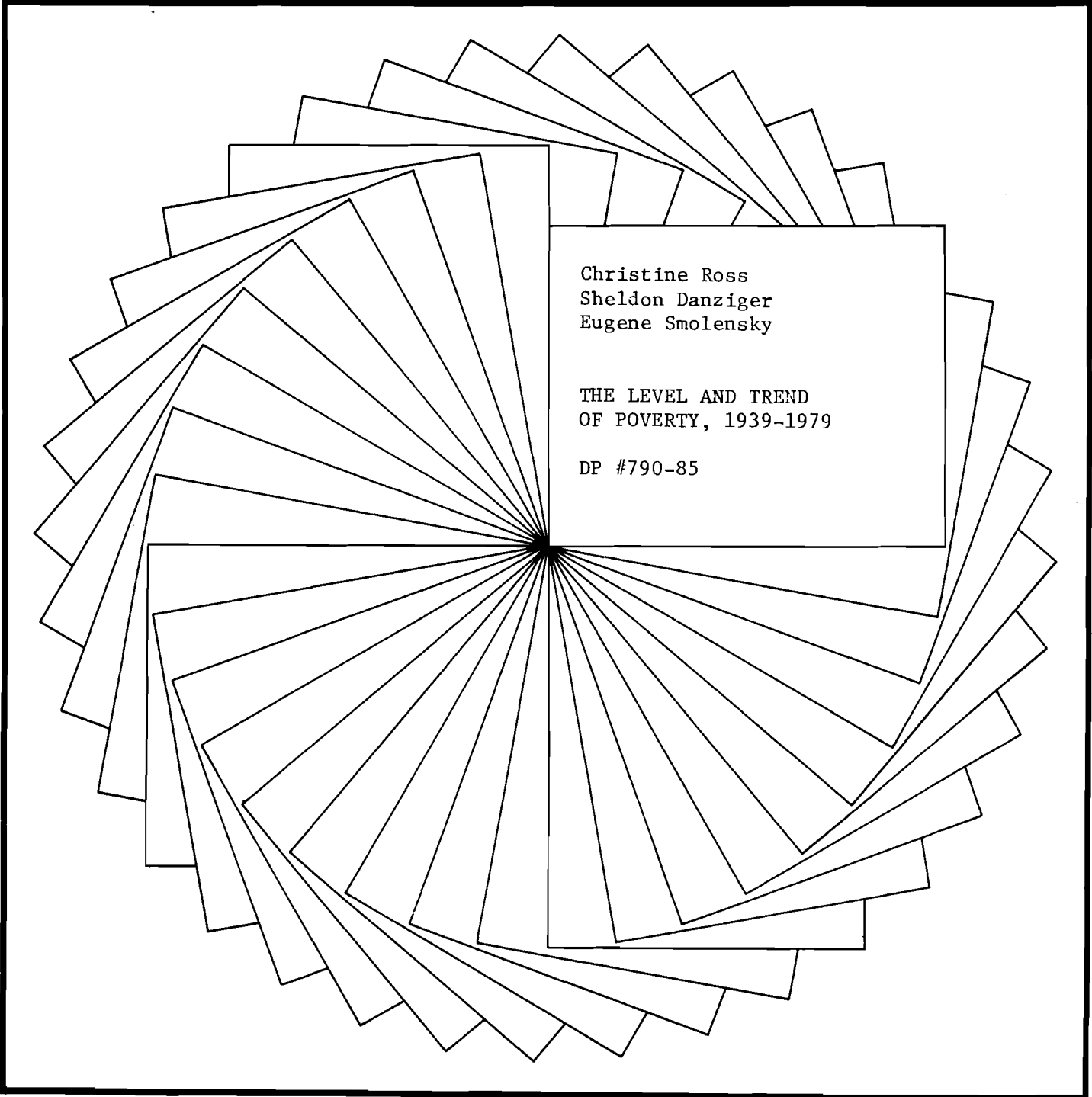


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THE LEVEL AND TREND
OF POVERTY, 1939-1979

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The Level and Trend of Poverty, 1939-1979

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Abstract

For the years from 1965 to the present, we have a detailed record of the number and characteristics of persons in poverty. This paper extends the historical record of the incidence of poverty, its intensity, and the changing role of its various socioeconomic correlates by analyzing the 1-in-100 sample files of the Censuses of 1940-80. We provide measures of poverty which correspond as closely as possible to the officially published poverty statistics and we carry them as consistently as possible across all five Census years. We estimate the extent to which the changes that have occurred between 1940 and 1980 in the composition of the population by age, sex, race, Hispanic origin, and the employment status of the household head have affected the aggregate poverty rate.

Several findings can be highlighted. As measured by the absolute lines, earnings poverty declined from almost 70 percent among all persons in 1939 to about 30 percent in 1979. By the relative lines, earnings poverty declined only slightly, from about 40 to about 35 percent. Absolute post-transfer-income poverty fell from 40.5 percent in 1949 to 13.1 percent of all persons in 1979. In relative terms it declined less, from about 24 percent to about 20 percent. For each measure the percentage decline in post-transfer-income poverty was greater than for earnings poverty.

Across all age groups, both earnings and posttransfer poverty rates are lowest among white men as compared to nonwhites and women. Poverty rates for elderly groups declined by more than those for any other group, primarily because of the growth of social security and private pensions.

Male-female differentials, holding race and age constant, widened considerably.

The earnings of nonwhites grew rapidly over the period relative to those of whites. In 1939, white-nonwhite earnings differences (for households with earnings) were greater than male-female earnings differences. By 1979, the white-nonwhite gap still existed, but was much narrower. The gap between the average earnings of men and women is now larger than the earnings gap between races. For example, consider men between the ages of 25 and 64. In 1939, the nonwhite/white ratio was .44; by 1979, it had increased to .80. The ratio for white women to white men in this age group was .67 in 1939, but only .49 in 1979. The ratio for nonwhite women to white women of that age increased dramatically, from .42 in 1939 to .89 in 1979.

If the age, sex, and race composition of the population had remained as it was in 1940, then absolute earnings poverty in 1979 would have been 13.5 percent below the actual level (25.0 instead of 28.9 percent of all persons) and absolute income (posttransfer) poverty would have been lower by 22.9 percent (10.1 instead of 13.1). Thus, changes in the age, race, and sex composition of the population increased poverty. The effect of demographic change on relative poverty is similar, but slightly lower for each type of threshold. Between 1969 and 1979, the poverty-increasing effect of demographic change was particularly large because of the rapid increase in the percentage of the population living in households headed by women.

Changes in the composition of households by race or ethnicity and sex and employment status of the head and spouse had offsetting effects on the aggregate poverty rate. Increases in the proportions of persons living in households headed by women and nonwhites and Hispanics relative to men and to whites were poverty-increasing, while increases in the proportion of persons living in two-earner families relative to one-earner were poverty-reducing. Over the 40-year period, these effects tended to offset each other.

The Level and Trend of Poverty, 1939-1979

For all years since 1965, we have a detailed record of the proportion of the population in poverty according to the official fixed (or absolute) measure and several relative measures. For selected recent years, we also have measures that include the effects of in-kind transfers and direct taxes. And for the period since 1965, we have an annual measure of the intensity of poverty--the poverty gap. Finally, drawing upon the same data set--the Current Population Surveys and their enriched extensions, the Surveys of Economic Opportunity conducted in 1967 and 1968--we have a description through time of changes in the relative importance of the several socioeconomic correlates of poverty--age, race or ethnicity, sex of the household head, family size, educational achievement of the household head, etc.

With the release during 1984 of the public use sample tapes for the 1940, 1950, and 1980 Censuses, we now have an opportunity to extend the historical record with respect to the incidence of poverty, its intensity, and the changing role of various socioeconomic correlates. It is in the latter two areas that the largest gains in new information can be made, since from the previously published data at least some very crude estimates of the incidence of poverty have been possible for the 1947-59 period.

In this paper, we describe the proportion of the population in poverty from 1939 through 1979, using the 1-in-100 sample files of the decennial Censuses of 1940 through 1980. We look at two types of poverty thresholds: absolute and relative; and two income definitions: household earnings and household posttransfer income. These are defined

in the next section. Then, poverty rates for a variety of demographic groups are compared. We find that the aggregate poverty rate and the rates for all groups have declined over the period, but that the levels of and trends in poverty for these groups vary widely. The growth between 1940 and 1980 in the percentage of persons living in households headed by those more likely to be poor (for example, those headed by single women) and the corresponding decline for persons living with those less likely to be poor (for example, prime-aged white men) means that measured poverty in 1980 is higher than it would have been in the absence of change in the demographic composition of the population. Thus, we also compute what the level and trend of poverty would have been in the absence of demographic change.

MEASURES OF POVERTY

In this paper, we provide the first consistent time series on poverty for the 40-year period. We use both absolute and relative thresholds.

An absolute standard fixes a level of needs in a single year, and then adjusts that level by a price index over time. We use as our absolute measure of poverty in each Census year the official poverty lines, which we have projected back to 1939 via the Consumer Price Index (CPI). We thus extend the record of official poverty back from 1965 in the same manner and for about the same length of time as the official measure extends it forward from that year.

A relative measure of poverty, by contrast, maintains a direct link to the income distribution in each year. In this paper, we use as the relative measure of poverty 44 percent of the median income-to-needs ratio for all workers in each Census year. Income is

defined as all reported income, which in 1939 was earned income only and in all other years was posttransfer income. Both the absolute and the relative measures use the equivalence scales that are implicit in the official poverty line to adjust for differences in household composition. (See the Appendix for details.)

We next turn to measures of resources. Both income and poverty lines are defined for households. An ideal measure of household resources would include the value of household consumption plus any changes in the household's net worth. In income terms, this measure would correspond to all cash income (including asset income), after taxes have been subtracted and government transfers have been added, including the value of any public or private in-kind transfers received.

The measures of income used in this paper attempt to approximate this measure of resources as closely as the data permit. In 1940, only earned income (wages and salaries) is reported.* Since 1940 is the earliest available Census year, and the only measured income source is wage and salary earnings, we carry this income measure through 1979 to obtain a consistent series on earnings poverty for the 40-year period.

Beginning with the 1950 Census, however, households were asked about all sources of cash income.** The total of all cash income we refer to as posttransfer income, and we use it for 1949 through 1979. The

*There is also an indicator which denotes whether or not the household received \$50 or more in other income. We found that adding \$50 to total income for households with this indicator did not significantly change the 1939 poverty rate, so we make no use of that indicator.

**We also lack data on in-kind transfers received and taxes paid for all Censuses. Exclusion of these two factors leads to poverty rates that are biased up each year. The bias increases over time.

difference between earnings and posttransfer income in any year is due to self-employment income, property income, government transfers, private pensions, and other income sources. Because of data limitations, we cannot distinguish government transfers from other sources of income until the 1960 Census. Because we are primarily interested in first extending the historical record of poverty back in time, we do not single out the effects of government transfers on poverty for the 1960-80 period in this paper.*

In the empirical work which follows, we define a household as an income-sharing unit. For all Census years we include only those household members related to the head. Unrelated individuals aged 15 and over and secondary families are counted as separate households. Thus, for example, two unrelated individuals living in a single household are assumed not to share income and each is counted as a separate one-person household. They would also be counted as separate households if they lived with another family. Subfamilies by definition are related to the household head and are thus included as part of the primary family. Our definition of household is thus consistent with the Census Bureau's concept of (1) family unit and (2) unrelated individuals.

In 1950, the Census Bureau collected income information from a 20 percent sample of persons, rather than from a sample of households. We are therefore restricted to this sample for the analysis of 1949 incomes. Unfortunately, the respondents in this 20 percent subsample were

*For a complete discussion of poverty and the antipoverty effect of transfers for the past twenty years, see the Williamsburg Conference papers produced for the Institute for Research on Poverty and the Department of Health and Human Services.

not asked about the incomes of other members of the household unless the respondent was the household head. For example, if the wife answered the questionnaire we know only her own income, while if the husband did so, we know both his own and the household's total income. Therefore, we included only household heads and unrelated individuals in our analysis, which cut the 1950 sample from 461,076 to 151,043.

There is a potential for bias in the estimates of income and poverty because the household head reports the income of other household members. The Census states: "The procedure for obtaining information on income provided an unbiased 20-percent sample of families and persons, but it resulted in some underreporting in family income. If each member of the family had been questioned individually about each type of income, probably a larger amount would have been reported" (U.S. Department of Commerce, Bureau of the Census, Technical Documentation, Census of Population, 1950, p. 1.10).*

A difference also exists between the treatment of households in the Census and in the annual Current Population Surveys (CPS) because these

*Our use of a sample of household heads and unrelated individuals enables us to analyze the sample without weights. The reason is that, first, persons were sampled randomly, so that we have a random sample of unrelated individuals. Second, since we have a random sample of persons, the probability of drawing a person from a particular household depends on the size of that household; i.e., NH/NP , where NH is the number in the household and NP is the total U.S. population. But the probability that that individual is the head of that particular household is inversely related to the size of the household, $1/NH$. Hence, the probability that a particular household head appears in the sample is $1/NH * NH/NP$, or $1/NP$, which is the random sampling probability for persons. Therefore, we do not use the sampling weights in analyzing the 1950 data on household heads and unrelated individuals.

annual surveys collect detailed information on family relationships. For example, consider a household unit which consists of a primary family of four persons and two unrelated individuals. In the Censuses, we would count this as three income units--the family and two single-person units. The CPS would tell us whether the two unrelated persons were related to each other, and, for example, if they were married, we would have only two CPS units. Thus, poverty rates from the Censuses of 1960, 1970, and 1980 are likely to be higher than those from the corresponding Current Population Surveys.

In sum, we have tried in this paper to provide measures of poverty that correspond as closely as possible to the officially published poverty statistics, but the reader should bear in mind both the differences over time in the measures presented here and the differences between these measures and those based on the Current Population Surveys.

THE LEVEL AND TREND OF POVERTY

The poverty rates for all persons as derived from the absolute poverty lines and earned and posttransfer income in the five Census years are shown in the first two rows of Table 1.* Table 2 shows the corresponding set of relative poverty lines. By the absolute lines, earnings poverty declined from almost 70 percent of all persons in 1939 to about 30 percent in 1979. By the relative lines, earnings poverty declined only slightly, from about 40 to about 35 percent. Absolute

*All poverty rates in this paper are based on the percentage of all persons in the population who reside in households that have earnings or income below the poverty thresholds.

Table 1
 Percentage of All Persons in Poverty,
 Absolute Threshold

	1939	1949	1959	1969	1979	% Change 1939-79
Earnings	68.1	53.2	35.8	26.9	28.9	-57.6
Posttransfer income	n.a.	40.5	22.1	14.4	13.1	-67.7 ^a
Percentage point reduction in poverty due to nonearned income sources (Row 1 - Row 2)	n.a.	12.7	13.6	12.5	15.8	--
Percentage difference between earnings and posttransfer poverty (Row 3 ÷ Row 1)	n.a.	23.9	38.3	46.5	54.7	--

Note: In all tables, percentage change is defined as 100 times the latest-year value less the initial-year value divided by the initial-year value.

^aPercentage change is from 1949 to 1979.

Table 2
 Percentage of All Persons in
 Poverty, Relative Threshold

	1939	1949	1959	1969	1979	% Change 1939-79
Earnings	39.4	40.1	34.2	31.2	34.6	-12.2
Posttransfer income	n.a.	24.4	20.2	19.6	19.9	-18.4 ^a
Percentage point reduction in poverty due to nonearned income sources (Row 1 - Row 2)	n.a.	15.7	13.9	11.6	14.7	--
Percentage difference between earnings poverty and post- transfer poverty (Row 3 ÷ Row 1)	n.a.	39.2	40.9	37.2	42.5	--

^aPercentage change is for 1949 to 1979.

posttransfer income poverty fell from 40.5 percent in 1949 to 13.1 percent in 1979, whereas in relative terms it declined less, from about 24 percent to about 20 percent. For each measure the percentage decline in posttransfer income poverty exceeded that in earnings poverty.

As the Appendix tables show, the absolute and relative poverty lines were quite similar in value in 1959. As a result, the incidence of poverty for posttransfer income in that year was 22.1 percent according to the absolute and 20.2 percent according to the relative measure. This similarity is a function of the relative poverty measure we used--it was originally set at 44 percent of the median income-to-needs ratio so that absolute and relative poverty would be equal in 1965 (see Robert Plotnick and Felicity Skidmore, Progress Against Poverty [New York: Academic Press, 1975], pp. 169-70). The absolute measure shows a much larger decline in poverty because it is adjusted only for price changes. Thus in 1939, the absolute line for a family of four actually exceeded mean household income, while in 1979 the line was only about 41 percent of the mean. The relative line is only about a third of the absolute line in 1939 (\$455 versus \$1408), but is about a third above it in 1979 (\$10,040 versus \$7355). As a result, relative poverty falls less because the relative line starts below the absolute line and then rises more rapidly.

Most of the decline in the absolute measure is due to the general rise in mean household income, a change which of itself does not affect relative poverty. Relative poverty declines only to the extent that the incomes of those at the lower end of the income distribution grow faster than the mean.

The last two rows of Tables 1 and 2 show the percentage-point reductions in poverty due to nonearned income and the percentage difference between earnings and posttransfer poverty. Both indicators increase--especially the latter for the absolute measure. The increased anti-poverty effectiveness of nonearned income is probably due primarily to government transfers, which rose from 3.5 percent of personal income in 1939 to 19.4 percent in 1979. The other sources of nonearned income as a percentage of personal income--the sum of self-employment income, pensions, rents, dividends, and interest--declined slightly over the 40-year period. They represented 32.6 percent of personal income in 1939 and 27.9 in 1979.

POVERTY RATES BY AGE, RACE, AND SEX OF THE HOUSEHOLD HEAD

In this section we describe earnings and posttransfer poverty rates, based on absolute and relative measures, for population groups defined by the age, race, and sex of the household head. We classify the population into twelve mutually exclusive groups according to the age, sex, and race of the household head. We also look separately at a dichotomous classification of the population into persons living within or outside of an SMSA.

Table 3 shows earnings poverty as measured by the absolute poverty lines.* The growth of real earnings over the period is reflected in the decline in the absolute poverty rates for all groups except elderly

*Earnings poverty includes only wage and salary income because that is all that is available in the 1940 Census. Earned-income poverty should ideally include self-employment income as well. As a result, the self-employed are counted as zero earners and earnings poverty is biased upwards.

Table 3

Percentage of Persons in Earnings Poverty,
Categorized by Various Household Types, Absolute Measure

Household Head	1939	1949	1959	1969	1979	% Change, 1939-79
Young (ages 15-24)						
White men	72.6	51.9	35.3	25.9	25.8	-64.5
Nonwhite men	94.3	82.0	63.9	39.3	38.8	-58.9
White women	82.2	75.6	76.7	67.0	59.5	-27.6
Nonwhite women	96.9	90.6	87.7	75.4	74.5	-23.1
Prime (ages 25-64)						
White men	63.2	45.5	25.6	14.9	15.3	-75.8
Nonwhite men	90.8	75.1	52.0	27.0	23.1	-74.6
White women	69.9	61.3	50.7	42.9	38.1	-45.5
Nonwhite women	94.7	86.1	77.5	65.9	58.0	-38.8
Elderly (ages 65+)						
White men	75.5	70.7	65.6	66.8	71.7	-5.0
Nonwhite men	95.6	89.6	78.9	69.7	68.2	-28.7
White women	74.2	80.5	72.2	77.1	81.1	+9.3
Nonwhite women	95.7	94.1	84.0	77.5	77.0	-19.5
Outside SMSA	83.4	69.3	45.2	33.4	34.3	-58.9
Inside SMSA	54.7	41.1	32.4	24.9	26.6	-51.4
Total	68.1	53.2	35.8	26.9	28.9	-57.6

Note: The self-employed are not considered as earners because in 1939 self-employment income was not counted by the Census. Thus, earnings poverty is higher than poverty based on all sources of earned income, since poverty rates are computed for all persons. Since the percentage of the population reporting self-employment income has been declining over time, this bias should also decline over time.

women. For the entire 1939 to 1979 period (last column) poverty rates fell more for men than for women in each age group, and more for whites than for nonwhites (the one exception is for elderly men), holding age and sex constant. However, for the 1959 to 1979 sub-period, rates generally declined more for nonwhites than for whites. While rates for persons living outside of SMSAs exceed those of persons living inside of SMSAs in every year, the rates for the former declined more rapidly over the 40-year period.

Table 4 gives the average wage and salary earnings in constant dollars for households in each group in each year. The averages are computed only for nonzero values (i.e., only for households with earnings) so that we have a measure of what an individual from each group could expect to earn at a wage and salary job. The earnings of nonwhites grew rapidly over the period relative to those of whites. In 1939, white-nonwhite earnings differences among households with earnings were greater than male-female earnings differences. By 1979, the white-nonwhite gap still existed, but was much narrower. The gap between the average earnings of men and women is now larger than the earnings gap between races. For example, consider men between the ages of 25 and 64. In 1939, the nonwhite/white ratio was .44; by 1979, it had increased to .80. The ratio for white women to white men in this age group was .67 in 1939 but only .49 in 1979. The ratio for nonwhite women to white women of that age increased dramatically, from .42 in 1939 to .89 in 1979.

Table 5 shows posttransfer poverty rates, using absolute lines, for the four Census years in which that income measure is available. Within any age group, the poverty rates for white men are again the lowest. Poverty rates for the elderly declined by more than those for the other

Table 4
Average Real Household Earnings (1979 Dollars)

Household Head	1939	1949	1959	1969	1979	% Change 1939-79
Young (ages 15-24)						
White men	\$4,243	\$6,064	\$7,872	\$9,898	\$10,337	143.6
Nonwhite men	2,326	3,956	5,852	8,898	8,436	262.7
White women	2,555	3,346	3,504	4,574	5,028	96.8
Nonwhite women	1,552	2,476	3,205	5,348	5,049	225.3
Prime (ages 25-64)						
White men	8,100	10,425	16,002	22,166	23,078	184.9
Nonwhite men	3,595	5,919	9,904	16,164	18,517	415.1
White women	5,466	6,561	8,918	11,315	11,320	107.1
Nonwhite women	2,294	3,462	5,262	8,353	10,111	340.8
Elderly (ages 65+)						
White men	7,196	7,789	10,539	12,696	11,720	62.9
Nonwhite men	2,681	3,641	5,984	8,621	10,470	290.5
White women	6,417	5,937	8,006	8,969	8,342	30.0
Nonwhite women	2,488	2,876	4,465	6,538	7,845	215.3
Outside SMSA	4,939	6,975	11,077	14,666	15,383	211.5
Inside SMSA	8,210	9,974	14,013	18,511	18,779	128.7
Total	6,945	8,894	13,293	17,638	17,819	156.6

Note: Averages are based on nonzero values only. All averages were converted to 1979 dollars using the Consumer Price Index.

Table 5

Percentage of Persons in Posttransfer Poverty
(All Cash Income Sources),
Categorized by Various Household Types, Absolute Measures

Household Head	1949	1959	1969	1979	% Change, 1949-79
Young (ages 15-24)					
White men	44.2	29.8	22.0	21.1	-52.3
Nonwhite men	79.5	59.8	35.4	34.3	-56.9
White women	73.4	73.8	62.3	54.1	-26.3
Nonwhite women	88.6	85.1	68.8	68.6	-22.6
Prime (ages 25-64)					
White men	31.3	12.9	6.0	5.6	-82.1
Nonwhite men	70.8	45.7	21.5	15.9	-77.5
White women	52.5	38.0	28.6	23.1	-56.0
Nonwhite women	83.8	71.5	56.4	47.2	-43.7
Elderly (ages 65+)					
White men	52.9	27.8	18.4	8.1	-84.7
Nonwhite men	85.9	62.9	42.6	25.9	-69.8
White women	67.9	48.4	40.5	22.1	-67.5
Nonwhite women	91.5	73.4	58.5	42.3	-53.8
Outside SMSA	53.9	29.9	19.1	15.5	-71.2
Inside SMSA	30.5	19.2	13.0	12.1	-60.3
Total	40.5	22.1	14.4	13.1	-67.7

two age groups, primarily because of the growth of social security and private pensions. Poverty rates declined more in percentage terms for whites than for nonwhites, holding age and sex constant. Poverty rates for men (holding race and age constant) declined much more in percentage terms than those for women.

The average ratio of posttransfer income to the absolute poverty line for each group is shown in Table 6. This measure corrects for both price changes over time and for differences in family size in each year. All groups show substantial increases. When race and sex are held constant, the largest gains are for the elderly. For example, in 1949 the household-size-adjusted income of households headed by elderly white men was 72 percent of that of households headed by prime-aged white men (1.31 versus 1.81); by 1979, this had increased to 83 percent (3.50 versus 4.23).

The average household-size-adjusted income of prime-aged nonwhite men gained relative to that of white prime-aged men, from a ratio of .54 in 1949 to .70 in 1979. The average income of households headed by prime-aged white women fell slightly relative to that of prime-aged white men, dropping from 68 percent in 1949 to 65 percent in 1979.

Prime-aged nonwhite women gained greatly relative to prime-aged white women. Their average income was 48 percent of white women in 1949 and 64 percent in 1979. However, their incomes were only 42 percent of those of prime-aged white men in 1979. Increases in real incomes, holding sex and race constant, were slower for households headed by the young than for either the prime-aged or the elderly.

In Table 7, we show the percentage change in poverty in each year that is due to adding all other sources of cash income to earnings. The

Table 6

Average Ratio of Posttransfer Household Income
Relative to the Absolute Poverty Line

Household Head	1949	1959	1969	1979	% Change, 1949-79
Young (ages 15-24)					
White men	1.17	1.52	1.94	2.17	112.7
Nonwhite men	0.71	0.96	1.49	1.55	171.9
White women	0.61	0.74	1.07	1.30	176.6
Nonwhite women	0.37	0.51	0.92	0.98	250.0
Prime (ages 25-64)					
White men	1.81	2.79	3.81	4.23	139.0
Nonwhite men	0.98	1.58	2.49	2.95	220.7
White women	1.29	1.96	2.55	2.75	127.3
Nonwhite women	0.62	0.97	1.44	1.76	214.3
Elderly (ages 65+)					
White men	1.31	2.26	2.94	3.50	177.8
Nonwhite men	0.55	1.10	1.55	2.03	298.0
White women	0.84	1.42	1.83	2.19	167.1
Nonwhite women	0.37	0.76	1.04	1.39	286.1
Outside SMSA	1.23	1.94	2.48	2.87	141.1
Inside SMSA	1.70	2.45	3.19	3.48	113.5
Total	1.51	2.32	3.03	3.30	127.6

Notes: A ratio below 1.0 means that the average person in the group had income below the poverty line. Ratios are corrected for price changes and differences in family size in each year.

Table 7

Effect of Nonearned (Posttransfer) Income on Poverty:
Reduction in Poverty Attributable to Cash Income
Other than Earnings^a

Persons in Households Headed By	1949	1959	1969	1979
Young (ages 15-24)				
White men	14.8	15.6	15.1	18.2
Nonwhite men	3.0	6.4	9.9	10.3
White women	2.9	3.8	7.0	9.1
Nonwhite women	2.2	3.0	8.8	7.9
Prime (ages 25-64)				
White men	31.2	49.6	59.7	63.4
Nonwhite men	5.7	12.1	20.4	31.2
White women	14.4	24.7	33.3	39.4
Nonwhite women	2.7	7.7	14.4	18.6
Elderly (ages 65+)				
White men	25.2	57.6	72.5	88.7
Nonwhite men	4.1	20.3	38.9	62.0
White women	15.7	33.0	47.5	72.7
Nonwhite women	2.8	12.6	24.5	45.1
Outside SMSA	22.2	33.8	42.8	54.8
Inside SMSA	25.8	40.7	47.8	54.5
Total	23.9	38.3	46.5	54.7

^aCalculated as 100 times the difference between earnings poverty (Table 3) and posttransfer poverty (Table 5), divided by earnings poverty.

most dramatic increase in the antipoverty impact occurred among the elderly. In 1949 nonearned income reduced poverty by 25.2 percent for households headed by elderly white men and by 23.9 percent for all persons.* By 1979 these impacts had grown to 88.7 percent for elderly white men and 54.7 percent for all persons. Holding age and sex constant, the effects are larger for whites than for nonwhites; holding age and race constant, the effects are larger for men than for women. The magnitudes of these effects are primarily related to the categorical nature of income transfer programs--social insurance benefits that are related to prior earnings are larger for whites and men than for nonwhites and women, and public assistance benefits, particularly those received by female household heads with children, generally are the lowest.

Table 8 shows earnings poverty by demographic group of the household head, using relative poverty lines. While the absolute rates shown in Table 3 declined over the 40-year period for almost all of the groups, the relative rates declined for only a small number. Relative poverty declined only for nonwhite men, for white men aged 25-64, and for persons living outside of an SMSA. For all other groups relative poverty increased, and these increases were large for young white women and elderly whites of both sexes. For the elderly, this is attributable to their decline in labor force participation.

Much of the difference in poverty trends between the absolute and relative measure disappears when we turn to posttransfer incomes.

Table 9 shows posttransfer poverty rates using relative lines. Between

*These effects are overstated for two reasons. First, the self-employed were considered to have no earnings. Second, these calculations do not adjust for labor-supply responses to public or private transfers.

Table 8

Percentage of Persons in Earnings Poverty,
Categorized by Various Household Types, Relative Measure

Household Head	1939	1949	1959	1969	1979	% Change, 1939-79
Young (ages 15-24)						
White men	33.2	32.6	32.5	33.0	35.3	+6.3
Nonwhite men	62.6	59.2	59.4	49.0	50.0	-20.1
White women	53.5	67.9	75.5	72.0	66.7	+24.7
Nonwhite women	74.1	84.2	86.8	80.2	80.9	+9.2
Prime (ages 25-64)						
White men	33.8	32.2	24.1	18.5	19.7	-41.7
Nonwhite men	58.7	56.2	49.0	36.0	32.1	-45.3
White women	42.5	51.3	49.3	48.2	45.9	+8.0
Nonwhite women	65.7	75.6	75.9	72.5	67.1	+2.1
Elderly (ages 65+)						
White men	55.0	62.6	64.6	69.4	76.0	+38.2
Nonwhite men	77.3	82.3	77.3	74.5	74.9	-3.1
White women	55.7	75.1	71.7	78.9	84.3	+51.3
Nonwhite women	73.7	86.7	82.2	80.9	82.4	+11.8
Outside SMSA	56.0	55.4	43.2	38.9	41.2	-23.6
Inside SMSA	24.8	28.6	30.9	28.8	31.7	+27.8
Total	39.4	40.1	34.2	31.2	34.6	-12.2

Note: See Table 3.

Table 9

Percentage of Persons in Posttransfer Poverty
(All Cash Income Sources),
Categorized by Various Household Types, Relative Measure

Household Head	1949	1959	1969	1979	% Change, 1949-79
Young (ages 15-24)					
White men	23.3	27.2	29.3	30.7	+31.8
Nonwhite men	53.5	55.2	45.8	46.4	-13.3
White women	64.6	72.3	68.5	63.2	-2.2
Nonwhite women	81.3	83.9	76.6	77.2	-5.0
Prime (ages 25-64)					
White men	15.4	11.4	9.5	9.7	-37.0
Nonwhite men	49.6	42.5	30.7	25.3	-49.0
White women	39.1	35.8	35.6	32.3	-17.4
Nonwhite women	70.1	69.5	65.8	59.3	-15.4
Elderly (ages 65+)					
White men	37.2	25.0	26.2	16.4	-55.9
Nonwhite men	71.1	59.6	53.7	41.1	-42.2
White women	55.7	46.2	49.5	40.2	-27.8
Nonwhite women	80.2	70.8	68.2	60.5	-24.6
Outside SMSA	34.8	27.7	25.9	23.8	-31.6
Inside SMSA	16.7	17.6	17.6	18.2	+9.0
Total	24.4	20.3	19.6	19.9	-18.4

1949 and 1979, relative posttransfer poverty declined for most of the groups, but in each case the reduction in the relative measure is less than that in the absolute measure. Among the prime-aged group, comparatively large decreases in the poverty rate occurred for nonwhite men. Among the elderly, the decline in poverty was greater for men than for women. Relative poverty declined among those living outside of an SMSA, but increased for those inside an SMSA.

POVERTY GAPS BY AGE, RACE, AND SEX

The intensity of poverty may be measured by the dollar gap between a household's income and its poverty line (in this section, only absolute poverty lines are used). For any group, we measure the poverty gap for a representative individual by summing the dollar values and dividing by the number of poor households. (The poverty gap for the nonpoor is, by definition, zero.) In a single year, this provides a reasonable means by which to compare the intensity of poverty across demographic groups. But over the 40-year period examined in this paper, both incomes and the poverty lines increased, so that cross-year comparisons of dollar gaps are difficult to interpret.

In order to permit comparisons across both groups and years, we compute the poverty gap as a percentage of the poverty line for each household, and then average these percentage gaps over the poor households of each group. These numbers must therefore lie between zero and one. The higher the number, the farther away the household is from the poverty line. Table 10 presents earnings poverty gaps for 1939 through 1979, and Table 11 presents posttransfer poverty gaps for 1949 through 1979.

Table 10

Earnings Poverty Gaps as a Percentage of Absolute Poverty Line

Persons in Households Headed By	1939	1949	1959	1969	1979
Young (ages 15-24)					
White men	.62	.62	.52	.55	.60
Nonwhite men	.73	.64	.60	.64	.70
White women	.75	.82	.77	.72	.66
Nonwhite women	.80	.83	.84	.81	.80
Prime (ages 25-64)					
White men	.67	.71	.73	.76	.77
Nonwhite men	.69	.63	.59	.62	.71
White women	.74	.80	.79	.79	.78
Nonwhite women	.75	.75	.73	.77	.79
Elderly (ages 65+)					
White men	.85	.89	.90	.90	.92
Nonwhite men	.86	.87	.86	.86	.90
White women	.89	.94	.93	.94	.96
Nonwhite women	.87	.89	.87	.90	.93
Outside SMSA	.76	.77	.76	.79	.82
Inside SMSA	.66	.73	.77	.81	.82
Total	.71	.75	.77	.80	.82

Note: The higher the number in each row, the farther the household is from the poverty line.

Table 11

Posttransfer Poverty Gaps as a Percentage of Absolute Poverty Line

Persons in Households Headed By	1949	1959	1969	1979
Young (ages 15-24)				
White men	.53	.49	.52	.54
Nonwhite men	.58	.57	.61	.65
White women	.80	.74	.67	.59
Nonwhite women	.81	.77	.70	.64
Prime (ages 25-64)				
White men	.46	.44	.46	.48
Nonwhite men	.54	.47	.45	.51
White women	.67	.58	.55	.48
Nonwhite women	.68	.58	.54	.50
Elderly (ages 65+)				
White men	.61	.42	.38	.33
Nonwhite men	.67	.47	.44	.34
White women	.70	.52	.42	.31
Nonwhite women	.74	.54	.49	.35
Outside SMSA	.56	.51	.49	.46
Inside SMSA	.57	.50	.50	.50
Total	.57	.50	.50	.48

In Table 10 it is striking how little change occurs, and the change which does occur is generally toward greater poverty. As we showed earlier, the percentage of the population in poverty declines over the period. These data show that those who remain poor in later years have incomes that are on average farther below the poverty line. Thus, in 1939, when 68.1 percent of the population was considered earnings poor, the typical poor household earned 29 percent of the poverty line and the gap was 71 percent. In 1979, when 28.9 percent were earnings poor, the typical poor household earned only 18 percent of the poverty line. We should point out, however, that a more conventional measure which computed the poverty gap as a percentage of mean household income would fall--our denominator, the poverty line, is fixed in real terms, while mean household income would provide an increasing denominator.

The intensity of earnings poverty declined slightly for most groups of households headed by young persons, but has increased for the prime-aged and the elderly. For households headed by young men (white and nonwhite) and prime-aged nonwhite men, earnings poverty gaps fell between 1939 and 1959, then increased between 1959 and 1979.

Posttransfer poverty gaps are shown in Table 11. Overall, the gap declined by 16 percent between 1949 and 1979. Large reductions in the gap for the elderly are due to the growth of social insurance and private pensions. Average posttransfer poverty gaps also fell for households headed by prime-aged and young women, but rose in households headed by nonaged men. In any year, it is usually the case that the percentage gap is greater for nonwhites than for whites, and greater for women than for men, although these differences are not large.

THE EFFECT OF CHANGES IN THE AGE, RACE, AND SEX COMPOSITION OF THE
POPULATION ON POVERTY

Whereas absolute posttransfer income poverty has declined for all groups, it remains stubbornly high for some demographic groups, especially those in households headed by young women of both races and by prime-aged and elderly nonwhite women.

As the population has grown over the 40-year period, the proportion of the population in each demographic group has changed. Specifically, the proportion of households headed by white men has declined, while all other groups have proportionally increased. The proportions of each group in the total population in each of the five Census years is shown in Table 12. The effect of this demographic change has been to raise the poverty rate above what it might have been in the absence of such change, since the group least likely to be poor has declined, and the groups most likely to be poor have increased most, in percentage terms. For example, the percentage of all persons living in households headed by white men between the ages of 25 and 64 dropped from 69.7 to 57.8 percent. All other groups increased their relative shares, the largest increases coming from the young and from households headed by nonwhite women. The number of persons living in a household headed by a woman increased overall from 12.4 to 18.6 percent.

The effect of demographic change on the poverty rate can be estimated according to a method described by Danziger and Plotnick ("Demographic change, government transfers, and income distribution," Monthly Labor Review, 100 (1977), 7-11). This calculation assumes that the demographic change had no effect on each group's poverty rate. The aggregate poverty

Table 12
 Percentage of Population in Each Age, Race,
 and Sex Group, 1940-1980

Persons in Households Headed By	1940	1950	1960	1970	1980	% Change, 1940-80
Young (ages 15-24)						
White men	2.9	4.6	4.4	5.4	4.8	65.5
Nonwhite men	0.5	0.7	0.5	0.7	0.9	80.0
White women	0.7	1.3	0.7	1.3	1.8	157.1
Nonwhite women	0.2	0.3	0.2	0.3	0.7	250.0
Prime (ages 25-64)						
White men	69.7	65.3	68.2	64.3	57.8	-17.1
Nonwhite men	6.9	7.3	7.6	7.4	9.4	36.2
White women	7.3	7.4	5.7	6.7	7.9	8.2
Nonwhite women	1.6	2.1	2.0	2.7	4.1	156.3
Elderly (ages 65+)						
White men	7.0	7.2	7.1	7.2	7.6	8.6
Nonwhite men	0.7	0.7	0.8	0.8	1.0	42.9
White women	2.3	2.9	2.5	3.0	3.5	52.2
Nonwhite women	0.3	0.3	0.3	0.4	0.6	100.0
Outside SMSA	46.8	42.0	26.3	23.7	30.5	-34.8
Inside SMSA	53.2	58.0	73.7	76.3	69.5	30.6
Total observations						
in sample (millions)	1.289	0.483	1.781	2.009	2.244	

rate in the absence of demographic change may then be computed by using the group-specific poverty rates for a given year and the 1940 population proportions for each group. The results of these calculations are presented in Table 13 (using the absolute poverty lines) and Table 14 (using the relative poverty lines). If the demographic composition of the population had remained as it was in 1940, then absolute earnings poverty in 1979 would have been 13.5 percent below the actual level (25.0 instead of 28.9 percent of all persons) and absolute income poverty would have been lower by 22.9 percent (10.1 instead of 13.1). Thus changes in the age, race, and sex composition of the population increased poverty. The effect of demographic change on relative poverty is similar, but slightly lower for each type of threshold (compare Tables 13 and 14). Between 1969 and 1979, the poverty-increasing effect of demographic change was particularly large because of the rapid increase in the percentage of the population living in households headed by women.

POVERTY AND THE CHANGING EMPLOYMENT STATUS OF MEN AND WOMEN

In addition to changes in the age, race, and sex composition of the population analyzed above, there have been important changes in the labor force participation of various groups. The decline in labor force participation of men and the concomitant increase for married women lead us to analyze the incomes and poverty status (according to the absolute lines) of groups defined by the labor force participation, as well as by the sex and race, of the household head.

We look separately at whites, nonwhites, and Hispanics, and divide the population in each of these three mutually exclusive groups into six mutually exclusive subgroups (for a total of 18 mutually exclusive

Table 13

The Effects of Changes in the Age, Race, and Sex Composition of the Population on the Absolute Poverty Rate, 1939-1979

	Earnings Poverty (Official Lines)		
	Actual	1940 Demographic Composition	Percentage Change in Poverty Rate Attributable to Demographic Change ^a
1939	68.1	68.1	0
1949	53.2	53.0	+0.4
1959	35.8	35.4	+1.1
1969	26.9	25.1	+6.7
1979	28.9	25.0	+13.5
% Change 1939-79	-57.6	-63.3	--
	Posttransfer Poverty (Official Lines)		
	Actual	1940 Demographic Composition	Percentage Change in Poverty Rate Attributable to Demographic Change ^a
1949	40.5	40.3	+0.5
1959	22.1	21.5	+2.7
1969	14.4	12.7	+11.8
1979	13.1	10.1	+22.9
% Change 1949-79	-69.0	-75.3	--

^aDefined as [actual rate] - [rate with demographic composition of 1940] ÷ [actual rate]. A positive sign indicates that the demographic change that occurred after 1940 served to increase the aggregate poverty rate.

Table 14

The Effects of Changes in the Age, Race, and Sex Composition
of the Population on the Relative Poverty Rate, 1939-1979

	Earnings Poverty (Relative Lines)		
	Actual	1940 Demographic Composition	Percentage Change in Poverty Rate Attributable to Demographic Change ^a
1939	39.4	39.4	0
1949	40.1	40.0	+0.2
1959	34.2	33.8	+1.2
1969	31.2	29.3	+6.1
1979	34.6	30.2	+12.7
% Change 1939-79	-12.2	-23.4	--
	Posttransfer Poverty (Relative Lines)		
	Actual	1940 Demographic Composition	Percentage Change in Poverty Rate Attributable to Demographic Change ^a
1949	24.4	24.3	+0.4
1959	20.2	19.7	+2.5
1969	19.6	17.6	+10.2
1979	19.9	16.0	+19.6
% Change 1949-79	-25.2	-34.4	--

^aDefined as difference between actual rate and rate with demographic composition as in 1940 divided by the actual rate. A positive sign indicates that the demographic change that occurred since 1940 served to increase the aggregate poverty rate.

groups)--households headed by men, cross-classified by whether the man and wife do or do not work; and those headed by women, by whether she works or does not. Because the income data refer to the year preceding the Census, we define labor force participation by the number of weeks worked in the prior year. Male and female heads and wives are classified as not working only if they did not work at all during this entire year. Work therefore refers to both part-time and full-time jobs.

As we mentioned earlier, in 1950 we confined our analysis to household heads and unrelated individuals in the sample file. Because very little family information was available in the head's own record, we were unable to determine the employment status of the spouse. Therefore, in 1950 we can define only four categories in each of the three racial/ethnic groups--male head, man working; male head, man not working; female head, working; and female head, not working.

In addition, the quality of information by which to identify Hispanics varies among Censuses. We used the best available information in any year; consequently, the variables used to define Hispanics are not the same in every year. For 1940 through 1960, we used "Spanish surname," which indicates that the individual's name was on a list of Spanish surnames drawn up in 1980. In 1960 this variable applied only to individuals residing in the five southwestern states, so Hispanics in other states in 1960 were omitted from this category. In 1940 and 1950, this list was checked for all individuals in the sample. In 1970 and 1980, the household head was asked if she or he was of Spanish descent. This variable was used to classify Hispanic families in 1970 and 1980. Thus, the numbers for 1960 are clearly too low, while those in 1970 and 1980 are likely to be higher because of their reliance on self-reports.

Table 15 shows the percentage of the population in each of the 18 groups in the five Census years. The largest increases in absolute terms have occurred among male-headed households in which both head and wife work, and male-headed households in which only the wife works. There has been a corresponding decline in the share of male-headed households in which only the man works. (This group includes both single and married men.) For example, in 1940, 10.9 percent of all persons (summed over whites, nonwhites, and Hispanics) lived in households where both the husband and wife worked. By 1960, this had increased to 28.8 percent, and by 1980, to 37.9 percent. The proportion of persons living in "traditional" families where the husband worked and the wife did not fell dramatically, from 68.0 percent in 1940 to 53.2 percent in 1960 to 32.4 percent in 1980.

Between 1940 and 1980, two-earner families increased by about 250 percent for whites and 125 percent for nonwhites, while households in which only the man worked declined by about 55 percent for whites and 40 percent for nonwhites. In 1940, male-headed households with only the head working were by far the dominant form for whites and nonwhites. By 1980, two-earner families were the largest population share for whites and nonwhites, with "traditional" families a fairly close second.

The percentage of all persons who are Hispanic has grown considerably, from 1.2 percent to 6.2 percent between 1940 and 1980, owing to actual growth in the size of this group as well as to changes in Census reporting procedures.* Hispanics have similar trends in the labor

*Because of the very small base for Hispanics in 1940, the percentage changes shown in the last column of Table 15 are not very reliable.

Table 15

Percentage of Population in Each Demographic Group

Persons in Households Headed By	1940	1950	1960	1970	1980	% Change 1940-80
<u>White</u>						
Male Head						
Husband and wife work	8.9	68.1	24.8	29.6	31.5	253.9
Only the head works	61.7		47.6	37.4	26.9	-56.4
Only wife works	0.7	7.5	0.9	1.2	2.0	185.7
Neither works	7.2		4.6	5.0	6.9	-4.2
Female Head						
Works	4.1	5.6	4.7	6.1	7.7	87.4
Does not work	6.1	5.6	4.0	4.2	4.9	-19.7
<u>Nonwhite</u>						
Male Head						
Husband and wife work	1.9	7.7	3.5	4.0	4.3	126.3
Only the head works	5.4		4.4	3.6	3.2	-40.7
Only wife works	0.1	1.0	0.2	0.3	0.4	300.0
Neither works	0.6		0.7	0.8	1.2	100.0
Female Head						
Works	1.2	1.6	1.4	1.9	2.7	125.0
Does not work	0.8	1.1	1.0	1.4	2.1	162.5
<u>Hispanic</u>						
Male Head						
Husband and wife work	0.1	1.4	0.5	1.4	2.1	2000.0
Only the head works	0.9		1.2	2.1	2.3	155.6
Only wife works	0.0	0.2	0.0	0.1	0.1	--
Neither works	0.1		0.1	0.2	0.5	400.0
Female Head						
Works	0.0	0.1	0.1	0.3	0.6	--
Does not work	0.1	0.1	0.1	0.4	0.6	500.0

Notes: These data classify persons by their household status in the Census year, but their labor force status in the prior year. In 1950, there are only 2 groups of male-headed households by employment status, because in that year we do not know the employment status of the spouse--only of the head. Hence, the categories are "head works" and "head doesn't work."

supply of heads and wives as those for whites and nonwhites. The male-headed household in which only the man worked was the most common household type in 1940, whereas by 1980 there was a nearly even split between this form and the two-earner family.

For all three racial/ethnic groups, we see a growth in the relative share of persons living in female-headed households. For whites there has been both an increase in female headship and a trend toward market work by women heading households: about 4 percent of persons in 1940 lived with female household heads who worked, about 8 percent in 1980; 6 percent of persons in 1940 but 5 percent in 1980 lived with female household heads who did not work. For nonwhites and Hispanics, the population share of both working and nonworking female household heads has increased.

Changes in the composition of families by employment status alone have obvious implications for household earnings and poverty rates. We now turn to trends in poverty and average earnings for these groups over the 40-year period. We then discuss the impact on the aggregate poverty rate of these changes in the composition of the population by race, ethnicity, sex of the head, and employment status of the head and spouse.

Table 16 presents earnings poverty rates for the 18 groups. Poverty rates for households in which the husband and wife both work are the lowest of all groups in any year, and their rates fell by the largest amounts in both absolute and percentage terms over the 40-year period. Among women heading households, those who work have much lower earnings poverty rates than those who do not. Nonwhite-white differentials narrow, especially for the 1959-79 sub-period. For example, the

Table 16

Earnings Poverty Among Persons, Absolute Line

Persons in Households Headed By	1939	1949	1959	1969	1979	% Change 1939-79
<u>White</u>						
Male Head						
Husband and wife work	51.8	43.8	17.6	8.3	7.7	-85.1
Only the head works	63.1		29.5	19.6	20.2	-68.0
Only wife works	81.7	86.1	53.0	42.9	38.3	-53.1
Neither works	88.8		85.4	89.4	89.7	+1.0
Female Head						
Works	61.7	47.7	40.5	33.5	30.2	-51.1
Does not work	78.1	83.4	79.7	85.2	86.8	+11.1
<u>Nonwhite</u>						
Male Head						
Husband and wife work	89.2	74.7	46.5	16.6	8.9	-90.0
Only the head works	91.4		54.8	33.9	28.1	-69.3
Only wife works	96.6	95.4	81.4	66.8	49.2	-49.1
Neither works	98.7		92.0	89.6	89.0	-9.8
Female Head						
Works	93.3	81.4	70.4	52.6	40.2	-56.9
Does not work	97.5	95.6	91.1	88.8	89.0	-8.7
<u>Hispanic</u>						
Male Head						
Husband and wife work	67.4	66.3	31.1	12.3	10.6	-84.3
Only the head works	86.5		52.9	29.5	27.1	-68.7
Only wife works	82.6	93.8	67.7	60.0	49.3	-40.3
Neither works	94.6		86.2	88.5	87.3	-7.7
Female Head						
Works	84.0	65.9	65.5	42.3	37.0	-56.0
Does not work	93.6	94.7	85.1	87.8	89.1	-4.8
All	68.1	53.2	35.8	26.9	28.9	-57.6

Note: For explanation of demographic groups in 1949, see Table 15.

nonwhite-white ratio of earnings poverty rates for two-earner households was 2.64 in 1959 (46.5 versus 17.6 percent poor) and only 1.16 in 1979. Poverty among nonwhites declined more than among Hispanics between 1939 and 1959.

Table 17 presents average real household earnings for each of the demographic groups. Only those with any earnings at all are included in the calculations.* Mean earnings of households in which the male head works, with and without a working wife, are much larger than those of other households. The fastest rates of growth and the highest levels of earnings, holding race or ethnic status constant, are for households in which both husband and wife work. For example, in 1939, nonwhite households with two earners had earnings that were about 18 percent above those of male-earner-only households; by 1979, this differential had increased to 85 percent. For whites, the differential in two-earner versus male-earner households was 18 percent in 1939 and 40 percent in 1979.

Holding sex of head and employment status constant, the fastest rates of earnings growth for each of the six categories were for nonwhites, followed by Hispanics, both of which exceeded the growth rates of whites. For example, in 1939 the nonwhite-white earnings ratio for two-earner households was .43; by 1979 it had increased to .94. Among female household heads who work, the nonwhite-white ratio increased from .45 in 1939 to .99 in 1979.

*Thus the categories "neither work" and "female head doesn't work" are not very reliable, because the only households in these categories are ones in which someone other than the head or spouse works--a very small group relative to other households in this category. Therefore, the poverty rates for these groups are still very high, because the poverty rates are based on all households, with and without earnings.

Table 17

Average Real Household Earnings (1979 dollars)

Persons in Households Headed By	1939	1949	1959	1969	1979	% Change 1939-79
<u>White</u>						
Male Head						
Husband and wife work	\$9,125	\$9,992	\$16,921	\$23,401	\$25,171	175.8
Only the head works	7,714		14,033	18,204	17,994	133.3
Only wife works	4,599	7,179	7,015	8,848	9,666	110.2
Neither works	6,161		10,223	11,147	9,665	56.9
Female Head						
Works	4,672	5,795	7,767	9,450	9,413	101.5
Does not work	6,642	7,603	9,817	10,787	9,830	48.0
<u>Nonwhite</u>						
Male Head						
Husband and wife work	3,914	5,646	11,271	19,261	23,586	502.6
Only the head works	3,313		8,273	11,585	12,717	283.9
Only wife works	2,279	3,976	4,189	6,375	9,470	315.5
Neither works	2,670		6,196	8,528	8,685	225.3
Female Head						
Works	2,127	3,237	4,876	7,771	9,360	340.1
Does not work	2,796	3,928	5,772	7,524	9,542	241.3
<u>Hispanic</u>						
Male Head						
Husband and wife work	6,987	7,077	14,102	19,602	21,130	202.4
Only the head works	4,588		9,386	13,359	13,366	191.3
Only wife works	3,627	5,434	6,888	8,021	9,630	165.5
Neither works	4,844		7,050	8,777	8,854	82.8
Female Head						
Works	3,204	4,769	5,665	8,660	8,787	174.3
Does not work	3,951	5,126	7,207	8,924	8,185	107.2
All	6,945	8,895	13,293	17,639	17,819	156.6

Note: Averages are based on households with any earnings; no-earnings households excluded. All averages were converted to 1979 dollars using the Consumer Price Index. For explanation of demographic groups in 1949, see Table 15.

The trends in posttransfer poverty rates in Table 18 are similar to the trends in earnings poverty, though of course posttransfer poverty rates are lower. For all three racial and ethnic groups, poverty is lowest for male-headed households in which both partners work. In 1949, the poverty rate for white two-parent families was 29.5 percent. By 1979, the poverty rate for these families was 5 percent. For nonwhites, posttransfer poverty among these groups fell from about 71 percent in 1949 to about 12 percent in 1979; for Hispanics, the decline was from 61 to 14 percent.

From 1959 to 1979, the decline in poverty was faster for two-earner than one-earner households. Among whites, the rate fell by 66 percent for the former and only 46 percent for the latter; for nonwhites, the respective declines were 86 and 58 percent; for Hispanics, 70 and 55 percent. Again, nonwhites experienced greater declines than Hispanics, who in turn experienced greater declines than whites.

Poverty rates for groups in which neither the head nor spouse worked were the highest within any given year, but there were also sizable declines in these rates over the 40-year period. For white female-headed families in which the head did not work, posttransfer poverty fell from 72 percent in 1949 to about 37 percent in 1979. For nonwhite families of this type, there was less progress against poverty, as the rate fell from 94 percent in 1949 to about 70 percent in 1979. There was a similar change for Hispanics, from about 90 percent poor in 1949 to about 72 percent poor in 1979.

Among working women who headed households, posttransfer poverty fell slightly more in percentage terms for nonwhites and Hispanics (59 and 53 percent respectively) than for whites (52 percent), although because

Table 18

Posttransfer Poverty Among Persons, Absolute Line

Persons in Households Headed By	1949	1959	1969	1979		% Change 1949-79
<u>White</u>						
Male Head						
Husband and wife work	29.5	7.0	2.5	2.4	} 5.0	83.1
Only the head works		14.9	8.0	8.1		
Only wife works	70.4	26.0	13.8	9.0	} 16.9	76.0
Neither works		49.3	36.0	19.2		
Female Head						
Works	40.4	28.5	22.2	19.6		51.5
Does not work	72.2	60.7	53.8	36.6		49.3
<u>Nonwhite</u>						
Male Head						
Husband and wife work	70.6	40.6	12.8	5.7	} 11.9	83.1
Only the head works		48.1	27.5	20.2		
Only wife works	91.0	66.4	43.1	23.7	} 43.8	51.9
Neither works		79.5	65.7	51.0		
Female Head						
Works	78.7	64.9	44.3	32.1		59.2
Does not work	93.7	83.5	76.3	69.5		25.8
<u>Hispanic</u>						
Male Head						
Husband and wife work	61.1	23.7	8.6	7.0	} 14.1	76.9
Only the head works		45.6	22.9	20.6		
Only wife works	88.9	50.0	37.5	26.3	} 45.4	48.9
Neither works		69.1	60.7	50.8		
Female Head						
Works	63.7	57.5	32.3	30.1		52.7
Does not work	90.4	74.7	71.3	72.1		20.2
All	40.5	22.1	14.5	13.1		67.7

Note: For explanation of demographic groups in 1949, see Table 15.

poverty rates in 1949 were much lower among whites than among nonwhites and Hispanics, the rates in 1979 for the minority groups were still higher than those for whites. In 1949, the poverty rate for households headed by white women who worked was 40 percent; in 1979 it was about 20 percent. For nonwhite women who worked, posttransfer poverty fell from 79 percent to 32 percent. For comparable Hispanics, the posttransfer poverty rate declined from 64 percent in 1949 to 30 percent in 1979.

These tables indicate that changes in the composition of households by race, ethnicity, sex, and the employment status of the head and spouse had offsetting effects on the aggregate poverty rate over the 1940-80 period. Increases in the proportions of persons living in households headed by nonwhites and Hispanics relative to whites tend to increase the aggregate poverty rate, since nonwhites and Hispanics are more likely to be poor. And increases in the proportions living in female-headed households tend to increase aggregate poverty, for the same reason. But offsetting these two trends was the movement of married women into the labor force. Two-earner couples, with their very low rates of poverty, became the most prevalent household type by 1980.

Table 19 shows the actual earnings and posttransfer poverty rates for 1939 through 1979 as compared to the rates that would have prevailed if the demographic composition of the population had remained as it was in 1940. Earnings poverty for the years 1949 through 1979 was lower than it would have been in the absence of demographic change, which indicates that the poverty-reducing effects of the increase in working wives more than offset the poverty-increasing effects of changes in the composition of the population by race, ethnicity, and sex of household head.

Table 19

The Effects of Changes in Employment Status and the
Composition of the Population by Race and Ethnic
Group on the Absolute Poverty Rate, 1939-1979

	<u>Earnings Poverty (Official Lines)</u>		
	Actual	1940 Demographic Composition	Percentage Change in Poverty Rate Attributable to Demographic Change ^a
1939	68.1	68.1	0
1949	53.2	53.5	-0.6
1959	35.8	44.4	-19.4
1969	26.9	30.7	-14.1
1979	28.9	30.3	-4.6
% Change 1939-79	-57.6	-55.5	
	<u>Posttransfer Poverty (Official Lines)</u>		
	Actual	1940 Demographic Composition	Percentage Change in Poverty Rate Attributable to Demographic Change ^a
1949	40.5	40.8	-0.7
1959	22.1	24.4	-10.4
1969	14.5	15.7	-8.3
1979	13.1	12.4	+5.3
% Change 1949-79	-69.0	-70.0	

^aDefined as [actual rate] - [rate with demographic composition of 1940] ÷ [actual rate]. A positive sign indicates that the demographic change that occurred after 1940 served to increase the aggregate poverty rate.

Posttransfer poverty was lower between 1949 and 1969 than it would have been with the 1940 demographic composition. In 1979, however, it was slightly higher (13.1 percent versus 12.4 percent), probably because the poverty increasing effects of the larger proportion of households headed by women from 1970 to 1980 offset the poverty-reducing increases in the number of married women in the labor force.

SUMMARY

This paper has used the recently available microdata from the 1940 through 1980 Censuses to extend the historical record of poverty back to 1939. We have presented a variety of poverty measures--based on two types of poverty thresholds and two income definitions--as applied to a variety of demographic groups. The trends described here have shown what can be done with the Census data. We leave it to future research to explain the forces determining these trends.

Appendix

Poverty Thresholds

This paper employs two poverty thresholds for the 1940-80 period. The absolute (official) poverty lines, fixed at a particular level in 1963 and applied since 1965, are extended forward and backward via the Consumer Price Index. The relative poverty lines are based on the median income in each Census year. We discuss each of them in turn.

The official poverty thresholds depend on family size, the age and sex of the household head, the number of children under 18 years old, and farm-nonfarm residence. In 1979, the poverty threshold for a family of four (two adults and two children) was \$7355. In the same year, the poverty line for an aged head of household and his spouse was \$4392. These thresholds incorporate the notions that household needs differ by the characteristics of their members, and that there are economies of scale in family size. For this reason, they are superior to measures, such as per capita income, that depend on household size alone. The poverty lines are adjusted each year with the Consumer Price Index. They can therefore be used as a basis for comparing income across years as well as across households.

The poverty lines were developed in 1963 by Mollie Orshansky of the Social Security Administration to specify, in dollar terms, a minimum level of adequate income for families of different types that was in keeping with American consumption patterns. These poverty cutoffs are based on the cost of the Economy Food Plan for the family, multiplied by three. The Economy Food Plan was the least costly of four family food

plans developed by the Department of Agriculture from findings of the 1955 Household Food Consumption Survey. The cost of this plan was multiplied by three, reflecting the importance of food in the American budget.

The basis for these official poverty lines is worth noting, because poverty is essentially a relative concept. Thus, the notion of "needs" as defined in 1963 may be quite different from what would have been considered an adequate income in 1939. Similarly, the notion of "needs" in 1979 might be quite different from that of 1963. However, the poverty cutoffs have been extended forward in time to define a basic level of income to the present day, and they have been officially extended backward as far as 1959.

For this analysis, we have adjusted the official poverty lines for 1959 back to 1939 by using the Consumer Price Index (CPI). Table A-1 compares poverty lines for selected types of households in the five Census years and shows the value of the CPI. In current dollars, poverty lines in 1939 were about one-half of those in 1959; those in 1979 were about two and one-half times those in 1959. Because the poverty line is fixed in real terms, but real mean incomes have increased over time, the poverty lines fell dramatically relative to mean household earnings and posttransfer incomes (last two rows of Table A-1).

In all five Census years, we used the full matrix of over 100 poverty lines. In each year, the age and sex of the household head and farm/nonfarm residence were available. However, the definition of a family (thus, family size) and the determination of the number of children varied slightly.

In all years except 1950, a family consists of all persons living in the household and related to the head, and all unrelated persons under the age of 15. Unrelated individuals aged 15 years or more become single-person households, as detailed information is available only on the relations of individuals to the head (not to each other). Therefore, in these years the number of children includes persons under age 18 and related to the head, and persons under age 15 and unrelated to the head.

In 1950, we analyzed household heads and unrelated individuals over age 14 from the 20 percent subsample of the 1-in-100 sample because family income information was available on these records only. The number of children used to calculate the poverty line is the number of own children under 18 rather than all persons under 18. The number of persons used to calculate the poverty line was all persons in the household (not just the family). This overstates the actual number of persons in cases of households that include a primary and secondary family. But better information on the size of the family was unavailable on the head's record.

The relative poverty lines were calculated directly from the income distribution in each year. We used all reported income, which in 1940 was wage and salary income, and in each of the other years was all cash income (posttransfer income). Median income was computed only for households in which the head worked in the preceding year (weeks worked greater than zero) and income was nonnegative. Households with non-working heads were excluded because we wanted the median of the income distribution for current earners, not weighted by those temporarily poor

owing to schooling or retirement choices. However, in computing relative poverty, all households were counted, including those with zero income.

These relative poverty lines (shown in Table A-2) also vary by family size. To incorporate our adjustment, we computed the median welfare ratio, defined as the ratio of household income to the absolute poverty line in each year. This procedure is equivalent to adopting the equivalence scales implicit in the official lines. Any household whose income was below 44 percent of the median welfare ratio was counted among the relative poor. We chose this cutoff so that our relative poverty series could be compared to the series for 1965 to the present, first discussed in Robert Plotnick and Felicity Skidmore, Progress Against Poverty (New York: Academic Press, 1975).

Because we had some trouble with the 1950 Census data, we used a slightly different procedure for that year. Rather than compute the median welfare ratio for all households, we used 44 percent of the median family income for a family of four as reported in Herman P. Miller, Trends in the Income of Families and Persons in the United States: 1947 to 1960 (U.S. Department of Commerce, Bureau of the Census, Technical Paper No. 8). For any other household size, we multiplied this income by the ratio of the absolute poverty line for a household of that size to the absolute line for a family of four.

Several features of these absolute and relative poverty lines should be noted. First, the relative lines for 1939 are lower than they would have been if they could have been computed in the same manner as the lines for the later years--i.e., if they had been based on all sources of income rather than only earnings.

Second, in each year, the same equivalence scale for households of varying size is used for both sets of poverty lines. For example, the ratio of the poverty line for a single person to that of a family of four (2 adults, 2 children) is .53 in each year. (In 1959, the absolute line for a single person was \$1572, for a family of four \$2955. The respective relative lines in that year were \$1464 and \$2751. In each case the ratio is .53.)

Finally, the absolute and relative poverty lines were at approximately the same dollar values in 1959, \$2955, and \$2751 respectively. However, over the 40-year period the relative line grew faster than the absolute line, because it is indexed to both prices and median household income. For example, the relative poverty line for a family of four in current dollars in 1979, \$10,040, was about seven times the 1949 line, \$1,495. The absolute poverty line went up about three times (from \$2,417 to \$7,355) over the same period because that was the increase in the Consumer Price Index (fourth row of Table A-1). Median family income, and hence the relative poverty lines, rose almost three times after price changes have been taken into account. Thus, while the absolute poverty lines fall relative to household incomes, the relative poverty lines do not--they are fixed at .44 of the median.

Table A-1

Absolute Poverty Cutoffs in Current Dollars for Selected
Family Types, and the Consumer Price Index

	1939	1949	1959	1969	1979
Single nonaged person	\$749	\$1286	\$1572	\$1976	\$3912
Two adults, aged head	841	1443	1764	2218	4392
Two adults, two children	1408	2417	2955	3714	7355
Consumer Price Index (1967 = 100)	41.6	71.4	87.3	109.8	217.4
Absolute poverty line for a family of four relative to mean household earnings	1.46	1.06	0.71	0.52	0.53
Absolute poverty line for a family of four relative to mean household posttransfer income	1.09 ^a	0.79	0.53	0.42	0.41

^aEstimate, as no data on household incomes are available.

Table A-2
 Relative Poverty Cutoffs in Current Dollars
 for Selected Family Types

	1939 ^a	1949	1959	1969	1979
Single nonaged person	\$242	\$796	\$1464	\$2468	\$5340
Two adults, Aged head	272	893	1642	2770	5995
Two adults, two children	455	1495	2751	4639	10,040

^aBased only on earnings; for all other years, the lines are based on posttransfer income.