Poverty in America: Trends and Explanations

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Abstract

Despite robust growth in real per capita GDP over the last three decades, the U.S. poverty rate has changed very little. In an effort to better understand this disconnect, we document and quantify the relationship between poverty and four different factors that may affect poverty and its evolution over time: labor market opportunities, family structure, anti-poverty programs, and immigration. We find that the relationship between the macro-economy and poverty has weakened over time. Nevertheless, changes in labor market opportunities predict changes in the poverty rate rather well. We also find that changes in female labor supply should have reduced poverty, but was counteracted by an increase in the rate of female headship. Changes in the number and composition of immigrants and changes in the generosity of anti-poverty programs seem to have had little effect.

1. Introduction

The 1990's witnessed what are arguably the most dramatic changes in anti-poverty policy since Lyndon B. Johnson's War on Poverty. The Aid to Families with Dependent Children program, which had formerly been the lynchpin of the federal government's poverty reducing efforts, was transformed from a means-tested entitlement program into a program that provides transitional assistance and mandates work. At the same time, assistance to the working poor was greatly expanded through substantial increases in the Earned Income Tax Credit. These changes were motivated by individuals' perceptions, and misperceptions, about the poor. Who are the poor? Why has the poverty rate fluctuated over time? Are the mechanisms that contribute to the poverty rate responsive to public policies in a way that will allow individuals to achieve economic success?

This article summarizes what we know about the answers to these questions. Due to space limitations, we focus on poverty among the non-elderly population, since the causes of poverty among the elderly and non-elderly are likely to be different. We document the extent of poverty in the United States, describe trends in poverty over the past four decades, and consider the degree to which changes in labor market opportunities, government programs and the population's demographic composition can explain these trends. The degree to which economic policy and government programs can "solve" the poverty problem will depend on who the poor are, and on how they behave. We show that poverty has no simple cause. Changes in the poverty rate over time reflect complex interactions between demographic trends, government policies and labor market conditions. Designing effective policies to combat poverty will, therefore, require careful targeting.

A common misperception is that the typical poor person in America is a person of color, living in a female-headed family, who is not engaged in the labor force. In fact, we show that none of these perceptions is true: the modal poor individual is a non-Hispanic white, and most of the poor are living in either a married couple family or a family without children. Half of the poor are living in families in which the head worked in the past year. These statistics can be a bit misleading, however: while most of the poor are white, minorities are much more likely to be poor. In 2003, 24% of individuals living in black families were poor, whereas only 8% of individuals living in non-Hispanic white families had incomes below the poverty line. Similarly, while more than half of the poor do not live in single parent families, in 2003, the poverty rate among individuals living in single parent families was nearly six times the poverty rate of individuals living in married couple families.

Because family structure is so highly correlated with poverty, changes in family structure over time have contributed to changes in the poverty rate. In particular, over the past four decades, increases in the fraction of families headed by a single parent have put substantial upward pressure on the poverty rate. If all else had been held constant over the past forty years, changes in family structure would have led to a rise in the poverty rate from 13% (in 1967) to 17% (in 2003). Other demographic changes have had a minor effect. For example, although the fraction of the population that are foreign born is small, increases in their share of the population since 1980, together with increases in their likelihood of being poor, have increased the poverty rate by about 0.3 percentage points more than it otherwise would have been. An important question is how the higher poverty rates that are predicted by these demographic shifts have been avoided. We find that government programs aimed at alleviating poverty have had limited impact.

We also show that labor market opportunities and economic growth are very important determinants of poverty, although their relationship may be more complicated than many people believe. A traditional view has been that economic growth is closely tied to living standards, and that poverty can be reduced by policies that stimulate the economy. This view came under fire during the early 1990's, however, after a decade during which the poverty rate continued to rise despite continued economic growth. We find that since 1980 there has been a substantial weakening of the relationship between labor market opportunities and poverty rates, however, unemployment rates, median wages, and inequality actually do a very good job of predicting changes in poverty over the past two decades. On the other hand, holding the macro-economy constant, increases in women's labor force participation should have lead to a reduction in the poverty rate that we do not observe. After all of these factors are taken into account it looks as though poverty "should" have declined by more than it did.

In sum, poverty rate dynamics reflect a complicated set of interactions between demographic trends and labor market conditions—a set of interactions that we do not yet fully understand. Unlike the conventional wisdom, we find that macroeconomic variables correlate well with changes in poverty since the 1980's. During the last twenty five years, however, there has been tremendous growth in female labor supply, coupled with increases in female headship, and these two changes have pulled the poverty rate in opposite directions. Our findings suggest that a better understanding of how the trends in women's labor force participation and family structure are linked would provide valuable insight into the question of why the poverty rate has not fallen more.

2. The Facts on Poverty in the United States

The risk of poverty varies dramatically across the population, and has varied significantly over time. In this section, we summarize some basic facts about poverty in the US, relying on a combination of previously published data from the Census Bureau and our own tabulations based on Current Population Survey data from 1967 through 2003. Throughout the paper we measure individual poverty rates (the alternative is to measure poverty rates among families). To measure poverty we use the Census Bureau definition under which individuals are considered poor if their total family pre-tax money income in a given year is below the poverty threshold for their family size and age composition. By construction, all persons in the same family have the same poverty status. Poverty thresholds are based on an index developed in the 1960s that was intended to cover the costs of basic needs for a family. In 2004, the poverty threshold for a family of four was roughly $19,000, and for a single individual it was approximately $10,000. This definition of poverty has been used as the official measure since the 1960s (with only minor modifications) although some aspects of it are controversial. In section 3 we discuss some of these issues, and the measure's key limitations.

A. Trends over time in US Poverty

Trends in poverty from 1959 to 2003 for all individuals in the US, and for elderly (defined as individuals aged 65 and older) and non-elderly (individuals under 65 years of age) persons are shown in Figure 1. Focusing on the trend for all individuals, there is a dramatic decline in poverty during the 1960s. Overall poverty rates are at 22.4% in 1959, but are cut almost in half, to 12.1% by 1969. Over the next two decades, poverty rates gradually increase, averaging 11.8% over the 1970s, and 13.8% over the 1980s. During the long expansion of the

1990s poverty rates decline and are at 12.5% by 2003. There are clear business cycle effects, with poverty rates rising during recessions and declining with expansions.

The trend in poverty among the elderly looks quite different. In 1959, 35.8% of elderly individuals were poor. As was true for the population as a whole, the elderly saw dramatic declines in their rates of poverty during the 1960s, and by 1969 the poverty rate for this group had declined by ten percentage points to 25.3%. In contrast to the overall population, however, elderly poverty rates continued to decline through the mid-1980s, so that by 1985, the poverty rate for this group was at 12.8%. Additional declines occurred during the second half of the 1990s.

As Figure 1 makes clear, long-run trends in poverty differ dramatically for elderly and non-elderly populations in the US. In 1959 the elderly poverty rate was 1.75 times the rate for the overall population; by 2003 the elderly poverty rate was about 20% *below* that for all individuals. Many have attributed the lengthy decline in poverty among the elderly to the expansion of Social Security**.** Recent work by Engelhardt and Gruber (2004), for example, shows that expansions of Social Security benefits over time can explain virtually all of the decline in elderly poverty rates between 1967 and 2001. Given the divergence between trends in elderly and overall poverty, and probable differences in the underlying causes of poverty among these two groups, the remainder of this paper focuses on poverty among non-elderly individuals.

As shown in Figure 1, the time pattern of poverty rates among the non-elderly closely follows the overall pattern. At the beginning of the period, the non-elderly rate is slightly below that for all individuals, but from the 1970s forward the two poverty rates track one another closely. This should guarantee that our focus on non-elderly poverty does not dramatically affect the conclusions we draw about the factors that drive changes in poverty over time.

Because poverty among children is often of particular interest, Figure 1 also shows the trend in poverty among those 18 or younger. During the 1960's, the poverty rate among children declined somewhat more dramatically than poverty rates overall. Children also experienced a sharper increase in poverty rates during the 1970s and 1980s than did all non-elderly individuals, reaching approximately 23% during the business cycle troughs in 1982 and 1992. Since 1992, children's poverty rates have declined along with overall rates.

Trends in non-elderly poverty rates by race and ethnicity are displayed in Figure 2. Among blacks and Hispanics, poverty rates are much higher than in the overall population. The increase in poverty rates at the end of the 1970s is particularly dramatic for blacks and Hispanics. The other striking aspect of the trends in Figure 2 is the relatively steep decline in black and Hispanic poverty rates that began in the early to mid-1990s. Black poverty rates fell from 33 to 22 percent over the course of the 1990s, with Hispanic rates declining by a similar amount.

B. A snapshot of poverty rates by individual and family characteristics, 2003

We next ask what poverty rates looked like in 2003 (the most recent year for which CPS data are available) for individuals with different characteristics. Table 1 shows poverty rates for non-elderly individuals, by a variety of individual and family characteristics. Our tabulations are based on data from the March 2004 Current Population Survey (CPS) which provides information on income and poverty for calendar year 2003. In that year, 12.8% of all non-elderly individuals lived below the poverty line and 17.6 percent of children lived in families with incomes below the poverty line. Because children always live in households with at least some non-earning members (the children themselves) poverty rates are generally higher among children relative to adults.

Women are more likely to be poor than men; in 2003, the poverty rate for males was 11.7% and for females was 13.9%. This relatively small difference is driven by the fact that men and women live together in most families, and so have the same family income and poverty standard. When the populations is divided using characteristics of the head of household, or family structure, (rather than on the basis of individual characteristics) the differences in poverty rates are more dramatic. In the few rows of Table 1, we show individual poverty rates for individuals living in families with three different family structures: married, single with children, and single without children. The poverty rate for individuals for whom the head of the family is married was 7%. In contrast, among individuals in families with an unmarried head and children present (83% of whom are *female* unmarried heads) the poverty rate was 40.3%. Finally, among those with single heads, but no children present, the 2003 poverty rate was 17.9%.

As shown in Figure 2 above, race and ethnicity are also strongly related to the probability of living in poverty. The 2003 poverty rates among blacks and Hispanics were 24.3% and 22.5%, respectively, nearly 3 times the poverty rate for whites. There are also differences in poverty rates by native versus immigrant status. Individuals who were born in the US have a poverty rate of 11.8%, while those who are immigrants have a rate of 17.4%.

Finally, education is a strong predictor of poverty status. Among individuals living in families in which the head has less than a high school education, 31.3% are below the poverty line, compared to just 9.6% of those whose head has at least a high school education.

C. A snapshot of the poor in 2003

While the summary statistics in Table 1 describe the risk of being poor across different groups, it is also useful to look at the characteristics of the current poor because various public

programs, and much policy attention, are focused on "the poor" as a distinct group. This provides a somewhat different picture of poverty, because it combines information on the distribution of characteristics in the population with relative poverty rates such as those shown in Table 1. In keeping with our focus on the non-elderly poor, Table 2 lists the fraction of the non-elderly poor who have a variety of individual and family characteristics. For comparison, we also show the fraction of the total non-elderly population with these same characteristics.

The first row of Table 2 shows that the poor as a group are younger than the overall population, with children making up approximately 40% of the non-elderly poor, compared to 29% of the overall non-elderly population. The slightly higher poverty rates among women, who are roughly half of the population, of course mean that the poor are also disproportionately female (55% of the non-elderly poor). Family structure is heavily skewed towards single parents with children. Almost 40% of the poor are living as part of a single parent family, although persons in such families make up only 14.4% of the total non-elderly population.

The racial and ethnic composition of the non-elderly poor is disproportionately minority, but the modal poor individual is a white non-Hispanic. In 2003, 42.2% of the non-elderly poor were white, 24.1% black, and 26.8% Hispanic. In the overall non-elderly population, whites make up 65.7%, blacks make up 12.6% and Hispanics 15.1%. 17.4% of the non-elderly poor are immigrants.

Another issue of policy interest is the extent to which the poor are attached to the labor force. The bottom row of Table 2 shows that half of the poor were in a family whose household head worked in the past year. In contrast, in the population overall, 81% of household heads worked.

D. Short- versus long-term poverty

One dimension of poverty that cannot be captured using repeated cross-sectional data from the CPS is its typical duration. A stable poverty rate of 0.10 can result from the same 10 percent of individuals living below the poverty line from one year to the next, or from a different set of individuals living below the poverty line each year. If there are consequences to living below the poverty line, they are likely to be magnified for individuals who remain in poverty over many years.

Influential work by Bane and Ellwood (1986) established some basic facts about the persistence of poverty in the US. Bane and Ellwood calculated two alternative measures of poverty persistence, and highlighted the distinction between these stock- and flow measures. First, they noted that most individuals who ever become poor (a flow measure) will be poor for a relatively short period of time. A stock-based measure, in contrast, will show that, among individuals who are currently poor, a large fraction will be in the midst of a spell of poverty that will last for a long period of time.

A drawback of the Bane and Ellwood study is that it did not consider multiple poverty spells. Stevens (1999) shows that among those who leave poverty in a given year, there is substantial re-entry in future years. The implication of this is that Bane and Ellwood likely understate the degree of poverty persistence. For example, using data from the 1968 through 1988 waves of the Panel Study of Income Dynamics (PSID), Stevens shows that approximately 35% of individuals beginning a spell of poverty will be poor for at least five of the next ten years, with about half of these occurring across multiple spells.

Table 3 (reproduced from Stevens 1999) presents information on the persistence of poverty and how this varies with individual and family characteristics. Table 3 presents

estimates of the probability that individuals will remain poor for five or more of the next ten years, and highlights several facts about poverty persistence. First, children who are born into poverty face longer stays than young adults beginning a period of poverty. The fraction of poor children facing very long stays in poverty ranges from 17 to 90%, depending upon race, family structure and education of the household head. Among young adults falling into poverty, the comparable range is 8 to 64%. Second, there are large differences in poverty persistence by race, education of the family head, and family structure. For example, 17% of white children who enter poverty but are living in two parent families in which the head has at least a high school education will face long-term poverty. At the other extreme, nearly all (90%) of black children living with a single, less-educated mother who become poor will be poor for many years.

3. Issues in Poverty Measurement

All of the statistics presented in this paper are based on the official definition of poverty in the United States. This is an *absolute* measure of poverty and reflects the fraction of persons or families with income below some threshold. The poverty thresholds were developed in 1963-1964 by Mollie Orshansky, an economist at the Social Security Administration, and were designated as the official definition of poverty in August 1969[1]. The thresholds were constructed by estimating the cost of the Department of Agriculture "economy food plan" for different family sizes. The food cost measures were multiplied by three to construct the poverty thresholds. The multiplier comes from tabulations of the 1955 Household Food Consumption Survey which showed that on average, one-third of family after tax income was spent on food.[2] These thresholds are adjusted each year using changes in the cost of living using the CPI-U.

[1] The discussion of the history of the poverty rate comes from Fisher (1992).
[2] A higher multiplier was used for families with less than three persons to reflect the high fixed costs of housing.

Otherwise, the official poverty measure has changed little since it was created in 1969.[3] Here, we briefly discuss some important issues in the measurement of poverty with a focus on issues relevant to our main question—what explains poverty rates over time.

The main alternative to the measure used in the U.S. is *relative poverty* which, as described in Smeeding (this issue), is more commonly used outside the U.S. Relative poverty measures the fraction of persons or families with income below some societal benchmark (e.g., 50 percent of median income). A consequence of using relative poverty lines is that a general increase in income leads to no measured improvement in poverty. For both absolute and relative poverty standards, one could also examine the *poverty gap* which is difference between the poverty threshold and family income. The *aggregate poverty gap* is the total income necessary to raise all of the country's poor out of poverty.

There are three steps involved in measuring absolute poverty: define the economic unit for measuring income (family, household); construct the total income measure for the economic unit (before tax or after tax, including in kind benefits or not); and define the poverty thresholds for the economic units. Poverty is then assigned by comparing income with the appropriate threshold for each economic unit. The remainder of this section highlights some important issues within these three areas.

The economic unit used by the Census is the family—which is defined as all persons living in a household who are related by birth, marriage or adoption.[4] A limitation with this definition is that changes in living arrangements (with no change in income) can lead to changes

[3] Poverty thresholds are now created for family sizes 1 to 9 or more persons and vary depending on the number in the family that are less than 18 and, if a one or two person family, whether the head is over 65. Up until 1981, separate thresholds were also provided for farm and nonfarm families, and for different family types (female headed household or not).

[4] Households, therefore, can consist of multiple families. Persons living alone or living with other unrelated persons form their own single-person economic units for the purposes of assigning poverty. The only persons not included in poverty statistics are unrelated individuals less than age 15 (such as foster children) as they are too young to have measured income yet they are not part of any Census family. In practice this group is quite small.

in poverty. For example, if a married couple with a child instead cohabitate, then poverty is calculated separately for the mother-and-child "family" and the father. Because of the economies of scale that are built in to the poverty thresholds, poverty rates will differ in these two cases even if household income does not. Typically, splitting up the family leads to increases in poverty rates. As another example, if a woman and her child move in with her parents then measured poverty will be lower then if the parents and daughter-granddaughter reside separately. Given significant changes in marriage, living arrangements, and household composition, these changes may be important.

We explore the importance of these issues by comparing the official poverty rates to two alternatives: a household poverty rate and a "little" family poverty rate. The household measure combines the incomes of all persons living in the household, and crudely gets at the first case above. The "little" family measure splits up the Census ("big") family into more atomistic units and gets at the second case above. In the three generation example, the mother would be one family and the daughter-granddaughter would be another. In each case, we can use the official poverty thresholds for the appropriate size of the economic unit. Figure 3 presents the trends in these three measures from 1967-2003 for persons less that 65 using the March CPS. As expected, the little family poverty rates are above and the household level poverty rates are below the official poverty rates. But remarkably, the trends in the poverty rates are very similar across the three definitions. In our analyses, we determine whether or not an individual is poor based on the official definition—whether the "big" family that they are living in is poor.

Income used to compute poverty status consists of before-tax money income. Notably, this does not include in kind government benefits such as food stamps and housing subsidies.[5] Further, it does notinclude the Earned Income Tax Credit (EITC), which provides cash transfers to low income working families as part of the tax system. These omissions may be particularly important here because of the substantial increases in the EITC (Hotz and Scholz 2003) as well as the rising importance of noncash public assistance benefits (Moffitt 2003). As expected, alternative poverty rates measures that include taxes and in kind benefits, show lower (in some cases substantially lower) poverty rates compared to official statistics.[6] However, the trend in poverty rates is quite similar across the official and alternative measures (Short et al 1999).

In 1995, a report by the National Research Council provided expansive recommendations for updating poverty measurement in the United States (Citro and Michael 1995) addressing many of the concerns raised above. The panel recommended updating the measure of family resources to include the value of near-cash in kind benefits (such as food stamps, housing subsidies, school lunch, and energy assistance) and to subtract income taxes, payroll taxes, out of pocket medical costs, work expenses and child care expenses. The panel also made recommendations for changing poverty thresholds including relying on expenditure data on food, clothing and shelter, allowing for geographical variation, and updating the threshold each year by changes in spending in these three areas (as opposed to general price levels in the CPI-U). While the panel's report has generated significant discussion, as of this writing there has been no change in the official poverty measure.

[5] A challenge with adding in kind transfers to income is how to value those transfers. In the case of food stamps, it seems reasonable to treat benefits as cash. It is less clear with other benefits such as public housing and public health insurance (Medicaid).

[6] Including taxes leads to lower poverty rates because of the EITC, which acts as a negative tax.

4. What Explains Trends in Poverty Rates?

Here we discuss and evaluate four determinants of changes in the poverty rate that have been advanced in the literature. As stated above, we focus on the determinants of nonelderly poverty rates. In the first section, we examine the impact of labor market opportunities using measures of macroeconomic cycles, growth, and inequality. Next we examine the role of changes in family structure. In the third section, we examine the role played by government transfer programs such as Aid to Families with Dependent Children or AFDC (now Temporary Assistance for Needy Families or TANF) and the EITC. Finally, in the last section we explore the role of changes in immigration. Throughout the discussion, we discuss the existing literature and, where possible, provide our own analysis to highlight and extend our knowledge of key determinants of trends in poverty.

A. Labor Market Opportunities, Inequality and Macroeconomic Cycles

The literature on the "causes" of poverty consistently cites the importance of labor market opportunities. Some of the literature focuses on the poverty rate's cyclical nature (Hines, Hoynes and Krueger 2001, 2005; Hoynes 2000). Others identify three separate factors associated with labor market opportunities—growth, inequality, and macroeconomic cycles—and explore their contribution to poverty (Blank and Card 1993; Danziger and Gottschalk 1995, 2004; Freeman 2001; Gottschalk 1997). Historically, economic expansions have been highly correlated with improvements in poverty rates. During the 1980's, however, this relationship appeared to weaken, with the mid 1980's expansion being associated with only a modest decline in poverty. In this section we explore the extent to which labor market opportunities can reduce poverty.

We build on the existing literature by using cross-section/time-series variation in multiple labor market opportunity measures over a longer period. Like many studies, we use regional (as opposed to aggregate) variation in labor markets as our source of identifying variation (Blank and Card 1993; Danziger and Gottschalk 1995, 2004; Freeman 2001; Gottschalk 1997; Hines, Hoynes and Krueger 2001, 2005; Hoynes 2000),[7] focusing on the nine census divisions. This allows us to take advantage of substantial variation in business cycles and labor market opportunities both across areas and over time. Further, using regional labor market variation allows for us to control for unrestricted time effects in the analysis, which one can not do with time series data.

We use the 1968-2004 March Current Population Survey (CPS), which provides data on employment, earnings and income for the prior calendar year. The sample size is approximately 150,000 persons per year. With nine divisions and 37 years, our sample consists of 333 observations.

We estimate the following model relating poverty rates to labor market opportunities:

$$Povrate_{jt}=\alpha+\beta_1 urate_{jt}+\beta_2 ln(medwage_{jt})+\beta_3 ln(p50_{jt}/p20_{jt})+\gamma_j+\eta_t+\varepsilon_{jt}$$

All variables are constructed using the CPS data. The dependent variable $povrate_{jt}$ is the poverty rate for all persons less than 65 in division j in year t and is based on the official definition of poverty. In particular, the person's poverty level is determined by family income and all persons

[7] An important issue that arises throughout this literature is whether one should use national or regional (division, state, metropolitan area) controls for labor market variables. The main appeal of using national data is that variables are measured precisely and they reflect movements in the aggregate economy. However, the principle weakness of using aggregate data is that it may pick up the influences of unmeasured aggregate variables. In contrast, using regional variation in labor market opportunities leads to an increase in the size of the estimation sample and allows for the estimation of models with unrestricted time effects. The time effects control for the unmeasured aggregate variables that are a concern in the aggregate models. Furthermore, some argue that labor market outcomes are more influenced by local variables than national variables (Blanchflower and Oswald 1994, Bartik 1994).

in the same family have the same poverty rate.[8] We control for macroeconomic cycles with the unemployment rate, $urate_{jt}$ which we calculate with the March CPS sample because the BLS Local Area Unemployment statistics do not begin until 1975.

We use the real median weekly wage $ln(medwage_{jt})$ to control for overall income and growth in the economy and the ratio of the median weekly wage to the 20th percentile weekly wage, $ln(p50/p20)_{jt}$, as the measure of inequality. Both the growth and inequality measures are specified in logs. Weekly wages are constructed by dividing annual earnings by weeks worked.[9] In constructing the median and 20th percentile weekly wages, we limit the analysis to men working full-time. We also drop self-employed individuals, those working without pay or in the military, observations with negative weights, and those with very low wages.[10] We limit the sample to full-time men because of the desire to specify a price of labor (for a given skill level). Because of the enormous rise in women's labor force participation during this time period (rising from 40.8 percent in 1967 to 60.1 percent in 2003), the 20th or 50th percentile "worker" may have changed significantly over time. We did not want our wage measures to vary due to this change in composition of the working population.

There are many measures of inequality used in the literature. We use the ratio of the median to the 20th percentile to recognize that inequality at low end of the distribution is what matters for poverty. Blank and Card (1993), in contrast, use the standard deviation of wages. This captures dispersion, but the dispersion will vary in part due to inequality at the upper deciles

[8]Note that we use the simplified poverty thresholds implemented in 1981 to construct the poverty thresholds for years prior to 1981. This adjustment reflects changes in the CPI whereas the actual thresholds prior to 1981 also varied by farm/nonfarm status and family structure.

[9] For survey years 1975 and earlier, the weeks worked variable in the CPS is given within six intervals. We impute weeks within the intervals by assigning the empirical mean within the interval from 1976 (the first year with continuous weeks worked).

[10] Specifically, we drop men with weekly earnings less than 128 dollars (in 2003 dollars). For this full time working sample, this is equivalent to having an hourly wage of $3.18/hour (2003$). This is done to eliminate obvious measurement error.

of the distribution, which should not matter for poverty. Finally, the model controls for division fixed effects γ_j and year fixed effects η_t. The identification in this model comes from variation in trends within the divisions.

Before presenting the regression estimates, it is useful to examine the trends in these four variables over time. Figure 4 presents the trends in the poverty rate, unemployment rate, and real median weekly wage. The figure shows the strong cyclical component in the poverty rate—with relatively higher poverty rates in high unemployment periods such as 1971, 1975, 1983, and 1993. It is striking, however, that the rise in poverty rates associated with increasing unemployment rates is lower through the early 1970s. At the same time, increases in real median wages are associated with reductions in the poverty rate. The periods where real wages are increasing (1967-1973, 1983-1986, 1996-1999) are also periods with falling poverty rates. To explore this further Figure 5 presents the trends in the poverty rate and inequality. The patterns here are less striking, but it appears that periods of falling inequality (1987-1990, 1991-1996) are also periods of falling poverty. Of course, these trends could be capturing many other influences that are not being controlled for. By using variation across division level labor markets, we can control for secular aggregate trends with time fixed effects. We now turn to the results of the regressions.

The first three columns of Table 4 present the results from our main analysis. Column 1 presents the results from a model that does not include any additional controls. In column 2 we add year fixed effects to control for national trends in the poverty rate. The coefficient estimates produced by this regression come from cross-sectional differences across the divisions regions as well as differences in trends across divisions. Column 3 presents estimates from a model that includes both year and division fixed effects, which allows us to further control for region-

specific factors that affect poverty but are constant over time. The coefficients in this model are identified off of within region variation in labor market opportunities relative to the overall economy. Across specifications, all of coefficient estimates are substantive and significant. Poverty rates are higher with higher unemployment rates, lower median wages, and higher inequality. Specifically, the regression estimates imply that an increase in the unemployment rate of 1 percentage point increases the poverty rate by between 0.4 and 0.7 percentage points and a ten percent increase in the median wage decreases the poverty rate by about 2 percentage points. We can also see that controlling for year and division specific fixed effects has a substantive effect on the magnitude of the estimated labor market effects. In particular, abstracting from national trends leads to increases in the estimated impact of the unemployment rate and inequality, whereas controlling for fixed regional differences reduces the magnitude of estimated unemployment and wage effects. This implies that there are omitted division variables that are leading to an upward bias—other variables associated with high wage, low unemployment states that also lead to lower poverty rtes.

Inequality also contributes substantially to explaining long-term trends in poverty over the past three decades. The ratio of median wages to the 20^{th} percentile of wages is positive and significantly related to poverty rates across the three specifications in columns 1-3 of Table 4. Conditional on both year and division fixed effects, a 10 percent increase in the 50-20 ratio (approximately the increase in this inequality measure between 1975 and 1985) leads to an increase in the poverty rate of approximately two and half percentage points. As we show more clearly in our predictions below, the virtually continuous increase in wage inequality below the median is an important explanation for the upward drift in poverty rates over much of the period we study.

Relying on within division changes over time clearly eliminates much of the variation in labor market opportunities. The advantage of this approach, however, is that our estimates are purged of omitted variables bias resulting from variables common to all regions that are changing over time (such as changes in rates of female headship) or fixed differences across geographic areas (such as differences in immigrant shares) that might also influence the poverty rate. We, therefore, carry forward the specification that includes year and region fixed effects in the remainder of this section.

The last three columns in Table 4 explore how the impacts of labor market opportunities on poverty rates have changed over time. We split the period into three periods: 1967-1979, 1980-1989, 1990-2003, roughly coinciding with the calendar decades and including a combination of boom and bust years in each sub-period. These results show quite strikingly that the impact of unemployment rates, growth, and inequality weakened after the first period. For example, in 1990-2003 the coefficients on the labor market variables are about half of their values in the 1967-1979 period. We return to this point below.

To explore the importance of the labor market opportunity variables in explaining trends in poverty rates, we use the estimates for the full sample period (column 3) to produce counterfactual estimates of what the poverty rate would have been if two of the three variables capturing labor market opportunities had remained at their 1967 levels and only the third variable had changed over time. Figure 6 plots the actual poverty rate as well as the predictions from changing labor market opportunity variables, one variable at a time. The dashed line, for example, shows our estimate of what would have happened to the poverty rate if median wages and inequality had remained at their 1967 levels and only the unemployment rate had fluctuated. As expected, the unemployment rate does a good job of predicting the peaks and troughs in the

poverty rate over time, although the prediction is quite a bit higher than the actual in the pre-1982 period. Of particular note, however, is that if median income and inequality are held constant, the regression model predicts that trends in the poverty rate should have been upward over time. If the unemployment rate had been the only labor market characteristic that changed over time then the poverty rate in 2003 would have been approximately 2 percentage points higher than its current level of 12.8 percent.

Similarly, the solid line in Figure 6 is simulated by holding unemployment and inequality constant at their 1967 levels and allowing only the median wage to change. Again, we see that since changes in median wages follow the business cycle, they predict fluctuations in the poverty rate, though the relationship is not as strong as the relationship between poverty and unemployment. If unemployment and inequality had been held constant and only the median wage had changed, then the poverty rate in 2003 would have been approximately 0.8 percentage points higher than it currently is.

Finally, we show what the poverty rate would have been if unemployment and median wages had remained at their 1967 levels, and only the relative wages of the median and 20th percentile workers had changed. This is given by the line with open circles on Figure 6. The increase in inequality at the bottom of the income distribution over the entire period predicts substantial increases in the poverty rate over time. If only inequality had changed between 1967 and 2003, the predicted poverty rate in 2003 would be nearly 5 percentage points higher than the actual rate.

In Figure 7, we combine the three labor market variables—median wages, inequality, and the unemployment rate--and show how poverty rates would have evolved based on changes in these three factors. As expected, given the predictions from the labor market variables taken

individually, the predictions substantially overpredict actual poverty rates by the end of the period. Based on this figure, the surprising aspect of poverty rates over time is not that they did not continue to fall from 1980 through 2003, but that they did not increase by more. One possibility is that these estimates ignore another important labor market development over time, the increasing fractions of women in the labor force. Poverty rates may have been held down by increasing numbers of women entering the workforce. To examine this issue, we added to the basic regressions an indicator for the fraction of women between the ages of 25 and 64 who are working in each division-year cell. This did not, however, substantially change the regression coefficients shown in Table 4, or the predictions summarized in Figure 7.

The overprediction of poverty rates by labor market factors may be better understood by returning to the results in Table 4 showing starkly different coefficients on the labor market variables depending on the time period of the estimation. Because the coefficients on the labor market variables fall significantly from 1980 forward, the results based on pooling all years do not reflect the apparent change in the relationship between poverty rates and median wages, inequality and unemployment rate after 1980. Blank (1993) notes that the role of economic growth (measured by growth in real GNP) in reducing poverty fell significantly during the 1980s. Blank argues that the economic expansion of the 1980s, unlike previous lengthy expansions, was not accompanied by wage growth and so had a different effect on poverty rates. As wage inequality grew, and median wages stagnated, economic growth lost some of its power to reduce poverty rates. Our results take this finding a step further. Even after conditioning on both median wage growth and inequality at the bottom of the wage distribution, we see a dramatic reduction in the relationship between macro-level labor market factors and poverty rates.

To illustrate the importance of this change in the role of labor market factors beginning in the 1980s, we first re-estimate model (3) in Table 4 for the period 1980-2003. Then we perform the same predictions as in Figure 6-7 using the estimates from this more narrow time period. Figure 8 shows actual poverty rates and those predicted by our three labor market variables. Using the weaker relationship between poverty and our labor market indicators after 1980, the predicted poverty rates are very close to the actual rates. The question remains why this relationship changed after 1980, but it is clear that median wage growth, rising inequality and the evolution of unemployment explain poverty rates well over the past 25 years.

Finally, as we did with the estimates based on the full sample of years, we have also added an indicator for the level of women's employment to the regressions for the 1980 to 2003 period. In this later period, women's employment has the expected effect, with higher rates of female employment decreasing the poverty rate. The dotted line in Figure 8 shows the pattern of poverty rates over time predicted by the three labor market variables and the level of women's employment. Rising female employment predicts declining poverty rates from 1980 through 2003. Thus, including female employment as one of our labor market indicators suggests that poverty rates were substantially higher in 2003 than predicted by labor market trends. An interesting question is why the predictive power of these different labor market variables seems to be changing over time.

Our analysis in this section confirms the central role of the changing wage distribution in explaining poverty rates over time. This point has been made in earlier work by Blank (1993), Blank and Card (1993), Freeman (2001), and Gottschalk and Danziger (2003). Our findings echo and strengthen the findings of Blank and Card on the importance of wage inequality to poverty, by extending an analysis based on regional variation in labor market opportunities

through the 1990s. We find strong evidence that wage growth and wage inequality (particularly inequality at the bottom of the distribution) affect poverty rates during the entire period from 1969 through 2003. In fact, we can match the time pattern of poverty rates quite well from 1980 through 2003 using only variation in the unemployment rate, median wage growth, and changes in the lower part of the wage distribution. This a less than complete explanation for trends in the poverty rate, however, since adding a trend in women's labor force participation from 1980 forward suggests that poverty rates should have fallen by more than they did, even conditional on the evolution of these labor market variables. Finally, other factors such as demographic changes, anti-poverty spending, and immigration may also affect poverty trends. We next turn to these additional factors.

B. Family Structure

In addition to the effects of labor market opportunities and government programs, overall poverty rates are affected by demographic changes. Many previous authors, including Cancian and Reed (2001) and Blank and Card (1993), have calculated the extent to which demographic changes alone can explain trends in the poverty rate. Between 1967 and 2003, the fraction of non-elderly individuals living in families headed by a single female doubled, from approximately 6 percent to 12 percent. Since poverty rates among those in female headed families are typically 3 or 4 times as high as those for the overall population, such changes in the distribution of family types can have potentially large effects on poverty.

In Figure 9 we illustrate the changes in poverty that are predicted purely from changes over time in the fraction of individuals living in different family types. Specifically, we calculate poverty rates in each year for 6 different family types: married individuals with and without children; single females with and without children; and single males with and without children.

To produce the predicted poverty trend in Figure 9 we hold constant the poverty rates within each family type at their 1967 level, but allow the fraction of individuals living in each family type to change. For comparison, the figure also includes the actual poverty trend. Changes in family structure alone predict that poverty rates would have risen from 13.3% in 1967 to 17% in 2003. Thus, changes in family types substantially overpredict the actual increase in poverty rates over time. While we do not control for business cycle effects in this figure, a comparison of years with similar unemployment rates provides some idea of the predicted versus actual comparison abstracting from the effects of the business cycle. In 1999, the unemployment rate was 4.6%, similar to the rate at the beginning of our period. Despite this similarity, the poverty rate predicted by family structure changes is 17%, while the actual poverty rate in 1999 is somewhat lower than its starting value, at 12.2%.

An important question is how the starkly higher poverty rates predicted by the population shift towards female headed households were avoided. Much of the answer echoes our findings from the previous section with respect to labor market factors and women's labor force participation between 1980 and 2003. Cancian and Reed (2001) show that trends in women's labor force participation over this time period offset some of the increases predicted by changes in family structure. The increase in poverty was not as extreme as predicted by the shift to more female heads, because many women had rising earnings and rising labor force attachment. Increases in education were another countervailing force. While changes in family structure alone do not produce the time pattern of actual poverty rates, they are clearly another factor, along with income inequality noted above, that worked against substantial declines in poverty rates over time.

C. Government Tax and Transfer Programs

Government tax and transfer programs represent an important source of income for the poor. Among the nonelderly poor, the main sources for income support include cash welfare benefits (AFDC/TANF[11] and General Assistance) and, more recently, tax benefits (EITC). In addition to these cash based assistance programs are in kind benefits through Food Stamps, Medicaid, and housing assistance. In kind benefits have increased as a share of total means tested program spending—in 2002 in kind programs represented about 80 percent of the $522 billion in federal and state spending on means tested benefits (Burke 2003). Here we examine what role these programs play in explaining nonelderly poverty rates.

To understand fully the role played by government transfers, we have to consider both the direct and indirect impacts of these programs on income and poverty (Sawhill 1988). First consider AFDC/TANF, which provides cash benefits to low income (primarily female headed) families with children. The income transfers from AFDC will have the direct effect of increasing the incomes of the poor. Because AFDC/TANF benefits are phased out at income levels significantly below the poverty line, however, the program may have a smaller effect on poverty than on income itself. Further, the total impact of AFDC may be considerably smaller than the direct effect because the structure of program unambiguously discourages work leading to a reduction in earnings. The literature on the work disincentive impacts of AFDC/TANF suggests that this negative indirect impact of AFDC/TANF may be large (Moffitt 1983, 1992).

In contrast, both the direct and indirect effects of the EITC are expected to increase income. The EITC is a refundable federal tax credit which is targeted to low income working families with children. At very low earnings levels (e.g. up to $7,660 for a family with one child in 2003), the EITC is a pure earnings subsidy. With expansions in the EITC in 1986, 1990, and

[11] AFDC was reformed in 1996 and replaced by TANF.

1993, the subsidy is quite substantial at 34 (40) percent for families with one child (two or more children. The maximum benefit in 2004 is $2,604 ($4,300) for families with one child (two or more children). At higher earnings levels (e.g. beyond $14,040 in 2004) the EITC is phased out. Because the EITC transfers income much higher up the income distribution than AFDC/TANF it is expected to have much larger impacts on poverty. As for indirect effects, the EITC is expected to increase labor force participation, but may reduce hours worked for those already in the labor force. The research, which looks primarily at policy expansions, finds that the EITC has led to significant increases in employment for single mothers with little evidence that the credit leads to a reduction in hours worked (Eissa and Liebman 1996, Ellwood 2000 and Meyer and Rosenbaum 2000, 2001,).[12] Finally, it is important to note that, because the official poverty definition is based on pre-tax income, the impact of the EITC on official poverty will reflect only its indirect effects on labor supply.

Over the past 30 years, government spending on in kind transfer programs for the poor has far exceeded the spending on cash welfare programs. For example, between 1990 and 2001, real expenditures on Food Stamps increased by 6% and Medicaid increased by 175% compared to the 18% decrease in AFDC/TANF expenditures. Many authors, however, have made the point that these and the other in kind programs are not designed to reduce poverty and instead are targeted on improving nutrition, increasing access to medical care, etc (Burtless 1995, Blank 1997).

What we can conclude from the above discussion is that, with the exception of the EITC, government transfers to the poor are not expected to have large impacts on poverty rates (but

[12] The predictions in the text hold for single parents and primary workers in married couples. The EITC, however, is expected to reduce labor force participation and hours worked for secondary earners in low income married couples. Eissa and Hoynes 2004 show that these predictions hold in practice, although the behavioral responses are modest in size.

they may reduce the poverty gap). Most of the literature on the government transfers and poverty compare poverty rates including and excluding different sources of government support, thereby focusing only on the direct impacts of the programs.[13] These studies represent an upper bound effect on poverty as they do not consider the indirect impacts the programs have through reducing labor supply and earnings. In a recent study, Scholz and Levine (2001) estimate the pre-transfer poverty rate in 1997 to be 29 percent which they compare to a poverty rate of 26.1 percent after adding in all income conditioned (cash and in kind) transfers. The EITC has the largest anti-poverty effectiveness, with estimates suggesting that the programs lifted 4.9 million persons out of poverty in 2002 (Llobrera and Zahradnik 2004).

Here we contribute to the literature by estimating the impact of transfer programs on poverty rates. We again use the March CPS to construct variables identical to those used in section 4.A. However, because we wish to take advantage of state level variation in the generosity of welfare programs, our analysis is based on variation in *state* poverty rates. We use the 1978-2004 CPS surveys, which correspond to data for 1977-2003. With 27 years of data and 50 states, our estimation data set contains 1,350 observations.[14]

To explore the impacts of government transfer programs on poverty, we present estimates using four alternative measures of welfare generosity. The first measure, *pubwelf*, is state expenditures on "public welfare" per poor person. This category includes all income conditioned government transfers, including both cash and in kind programs. The second measure, *cashwelf*, is state expenditures on public welfare less "vendor payments" per poor person. By removing vendor payments (principally Medicaid payments to doctors and hospitals) *cashwelf* more

[13] Two exceptions are Neumark and Wascher (2000) who estimate the impacts of the EITC on poverty rates and Schoeni and Blank (2000) who estimate the impact of welfare reform on poverty rates. Both papers measure the indirect/behavioral impact of the programs on poverty.

[14] The CPS survey has incomplete data on state identifiers prior to the 1977 survey (1976 data). However, some of our data on welfare spending is available beginning in 1977, so we start the analysis with 1978 March survey.

closely corresponds to state cash transfers per poor person. The data on state expenditures comes from the Annual Survey of Governments which has been used recently by Baicker (2001, 2005) to examine impacts of congressionally mandated Medicaid expansions on state spending. We normalize the aggregate state spending by the number of poor persons in the state to obtain a measure of generosity, e.g. total resources expended per poor person. We also estimate models with the maximum real AFDC/TANF payment for a family of three persons, *maxafdc*, and the combined maximum real benefit for AFDC/TANF and Food Stamps for a family of three persons, *maxafdcfs*. These measures are narrower in scope than measures based on total state spending. But they have the advantage of being direct program parameters and therefore do not mechanically change with the composition of the population. Note that all four of these measures focus on the transfers and do not include the tax-based EITC.

To explore the possible role of welfare spending in explaining the trend in poverty rates, Figure 10 presents the trends in the four measures of welfare generosity over the sample period. Each of the measures is expressed in real terms and is normalized by its value in the first year (1977). All four measures decreased between 1977 and 1983. After 1983, however, AFDC/TANF benefits continued to fall in real terms throughout the period. Food stamp benefits are indexed for inflation, so the combined AFDC/TANF and Food Stamp maximum benefit is also declining, but at a slower rate. Total state cash and in kind welfare spending per poor person, on the other hand, increases steadily and at a fairly high rate from 1983 through 2003. This appears to be mostly due to Medicaid spending as the total state cash welfare spending per poor person increases much more modestly over the period.

The regression results are presented in Table 5. All results in the table include state and year fixed effects and therefore the impacts of welfare spending are identified using changes in

trends in spending across states. The first two columns use *pubwelf* as the measure of state public assistance generosity. Column (1) shows that a $1000 increase in annual real state cash and in kind spending per poor person leads to a 0.5 percentage point reduction in poverty rates. In column (2), we add the labor market variables used above in Section 4.A which reduces the impact of public welfare variable implying that states with increases in spending also have improving labor markets. Column 3 shows, as expected, if we limit state spending to include only cash benefits the estimated impact of public spending on poverty increases by about 75%. The results in column (4) show that a $1000 increase in maximum annual AFDC/TANF benefits leads to a 0.2 percentage point decrease in poverty rates. Column (5) shows that a $1000 increase in combined maximum benefits from AFDC/TANF and food stamps leads to a 0.3 percentage point decrease in poverty rates. Overall, the results consistently show that increases in welfare spending lead to reductions in poverty rates—however these reductions are quite modest. The last two columns of Table 5 show that the impact of a dollar in maximum benefits leads to a much smaller reduction in poverty rates in the later part of the period. This is consistent with the lower take-up rates of public programs following welfare reform (Blank 2002).

In Figure 11 we illustrate the changes in poverty that would predicted purely from changes over time in public welfare spending per poor person. The solid line represents poverty rates predicted from changes in total cash welfare per poor person (from column 3 of Table 5) and the dashed line represents poverty rates predicted from changes in AFDC/TANF and Food stamps maximum benefit (from column 5). These predictions show that changes in welfare spending do little to explain the trends over time in the poverty rate. While changes in total cash spending per poor person imply small *reductions* in poverty and changes in the maximum

AFDC/TANF and Food stamp benefits imply small *increases* in poverty, overall these changes are quite small. This does not imply that such programs fail to improve the well-being of the poor, however.

D. Immigration

Another factor that may contribute to trends in the poverty rate is the rapid growth of the foreign born population. For example, since 1980, the fraction of the population who are immigrants has doubled. On average, recent immigrants are less educated and have fewer skills than natives, so a higher fraction of them are poor. Table 6 shows that while 12.4% of natives had incomes below the poverty line in 1999, 17.4% of foreign born U.S. residents were living in poverty.[15] These differences, combined with the rapid influx of immigrants in recent years, have lead some to suggest that immigration is responsible for the fact that the poverty rate has not declined more dramatically over time.

To evaluate this claim, we divide the population into two mutually exclusive groups—those who live in families headed by an individual who was born in the United States, and those who live in families headed by an individual who was born abroad. We use data from the Integrated Public Use Microdata Series (Census) rather than the CPS because the CPS does not include information on country of birth prior to 1993. Table 6 shows that between 1959 and 1999 the poverty rate among U.S. natives fell by almost 50%, from 20.6% to 12.4%, whereas poverty among the foreign born increased by 3 percentage points. The year 1959 is probably a poor starting point, however, since the poverty rate fell so much between 1959 and 1969, while changes in the immigrant population occurred much later. A growing and increasingly low-income immigrant population cannot explain much of the trend in poverty prior to 1980. On the

[15] Calculated from the 2000 Census.

other hand, if we focus on the second half of the period, we see that while poverty rates among natives have changed little, poverty rates among immigrants have increased by nearly two percentage points, and the fraction of the population that is foreign born has increased by six percentage points. Taken together, these changes should put upward pressure on the poverty rate, but how much movement in the poverty rate do they imply?

To answer this question, we decompose changes in poverty over time by looking at changes in poverty within the two groups (immigrants and natives), and changes in the representation of the two groups in the population. We begin by considering the extent to which overall poverty would have declined if the share of immigrants had increased over time but immigrants and natives had remained at the same level of poverty as in 1979. We construct a counterfactual level of overall poverty for each year, holding poverty rates for the two groups constant at their 1979 levels, but allowing the population shares for each group to change. The results of this exercise are presented in Figure 12. We find that the increase in the immigrant share of the population would have increased the poverty rate by about 0.2 of a percentage point if the income distribution among immigrants had remained constant. In other words, the level of poverty among immigrants had stayed the same as it was in 1979, the rising share of immigrants would have increased the poverty rate from 12.3% (1979) to 12.5% (1999), a number that is only slightly bigger than the actual value of 12.4%.

We also consider the effects of changes over time in the fraction of immigrants who are poor. If we hold population shares and native poverty rates constant at their 1979 levels, but allow poverty rates among immigrants to vary across Census years then the predicted overall poverty rate in 1999 is about 0.1 percentage point higher than its 1979 level. Figure 12 suggests that although recent immigrants are poorer than their predecessors, their fraction of the

population is simply too small to effect the overall poverty rate by much. These calculations are based on an important assumption, however, which is that large influxes of immigrants do not reduce job opportunities available to natives. If the presence of immigrant workers depresses native's wages then the overall impact of immigration on the poverty rate will be higher. Evidence on the labor market effects of immigration is mixed (see Borjas 1999, for an overview of this literature), thus, it is safest to consider these estimates as lower bounds.

5. Conclusions

Relative to the large decline that was experienced during the 1960's, poverty rates have changed very little over the past three decades. A number of studies have suggested that the lack of improvement in the poverty rate reflects a weakened relationship between poverty and the macro-economy. We find that this relationship has weakened over time, but in spite of this, changes in labor market opportunities predict changes in the poverty rate rather well. Holding all else equal, changes in female labor supply should have reduced poverty further, but an increase in the rate of female headship may have worked in the opposite direction. Other factors that are often cited as having important effects on the poverty rate do not appear to play an important role: these include changes in the number and composition of immigrants, and changes in the generosity of anti-poverty programs.

To be sure, the analyses presented in this paper are incomplete in that they do not reflect the many indirect mechanisms through which poverty rates may be influenced. For example, we do not attempt to incorporate possible behavioral responses of family structure choices to changing labor market opportunities, nor do we account for the possible influence of immigration on native's labor market opportunities. Nevertheless, even our simple analyses

reveal that changes in poverty rates reflect a complex combination of changes in demographics and changes in labor market conditions.

Several questions remain for future work. In particular, what are the relationships between women's labor force participation, female headship, labor market opportunities for women, and poverty rates? Many analyses have linked two or three of these factors, but there may be important interactions between all of these that help determine the evolution of poverty rates. A related question is why rising women's labor force participation prior to 1980 does not push down poverty rates. Finally, what explains the change in the responsiveness of poverty to macroeconomic indicators starting in the 1980s? We show that it is not a simple matter of controlling more fully for wage growth and inequality; even after conditioning on these factors we see changes in the effects of key determinants of the poverty rate after 1980. Labor market measures play an important role in determining overall poverty rates, but their role has changed over time, and they are likely to interact in important ways with demographic and other social changes.

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Table 1
Poverty Rates by Individual and Family Characteristics, 2003

	Percent Poor
All	12.5
Non-elderly	12.8
Non-elderly and:	
Age < 18	17.6
Male	11.7
Female	13.9
Married head of family	7.0
Single head of family with kids	40.3
Single head of family no kids	17.9
White, non-hispanic	8.2
Black	24.3
Hispanic	22.5
Native-born	11.8
Immigrant	17.4
Family head < 12 years of schooling	31.3
Family head at least 12 years of schooling	9.6

Source: Authors' tabulations of the 2004 March CPS. The age, gender, race and ethnicity are assigned using the individual's characteristics. Family type, immigrant status, and education are assigned based on characteristics of the head of the family.

Table 2
Characteristics of the Non-elderly Poor, 2003
Percent with given characteristic

	Among non-elderly poor	Among all non-elderly
Age < 18	39.8%	28.8%
Male	45.5%	49.8%
Female	54.5%	50.2%
Family structure is		
Married	35.0%	66.6%
Single with kids	39.1%	14.4%
Single without kids	25.8%	18.9%
White	42.2%	65.7%
Black	24.1%	12.6%
Hispanic	26.8%	15.1%
Family head's education		
< high school	35.3%	14.4%
Native-born	82.6%	87.4%
Immigrant	17.4%	12.6%
Head worked last year	50.0%	81.1%

Source: Authors' tabulations of the 2004 March CPS. The age, gender, race and ethnicity are assigned using the individual's characteristics. Family type, immigrant status, education, and employment are assigned based on characteristics of the head of the family.

Table 3
Poverty Persistence by Individual and Family Characteristics
Fraction of those becoming poor who are poor for more than 5 of next 10 years

	Blacks	Whites
Age 1 at start of poverty spell		
Male head of family		
Head < high school education	55.6%	27.6%
Head >= high school education	33.3%	16.7%
Female head of family		
Head < high school education	89.5%	63.0%
Head >= high school education	68.9%	47.3%
Age 20 at start of poverty spell		
Male head of family		
Head < high school education	26.4%	13.0%
Head >= high school education	11.2%	7.7%
Female head of family		
Head < high school education	64.1%	39.6%
Head >= high school education	39.1%	26.4%

Source: Stevens (1999), Table 6.

Table 4
Estimates of the Impact of Labor Market Opportunities on Poverty Rates, Division Level Analysis

	(1)	(2)	(3)	(4)	(5)	(6)
Unemployment rate	0.413	0.699	0.453	0.898	0.388	0.394
	(0.045)	(0.067)	(0.056)	(0.150)	(0.111)	(0.108)
Ln(real median weekly wage)	-0.228	-0.243	-0.145	-0.251	-0.146	-0.135
	(0.011)	(0.010)	(0.017)	(0.060)	(0.026)	(0.025)
Ln(median/20th percentile)	0.103	0.240	0.262	0.266	-0.011	0.094
	(0.011)	(0.017)	(0.021)	(0.036)	(0.042)	(0.023)
Constant	1.556	1.611	0.943	1.612	1.041	0.934
	(0.079)	(0.067)	(0.115)	(0.393)	(0.177)	(0.168)
Year fixed effects		X	X	X	X	X
Division fixed effects			X	X	X	X
Sample years	1967-2003	1967-2003	1967-2003	1967-1979	1980-1989	1990-2003
Observations	333	333	333	117	90	126
R-squared	0.70	0.82	0.91	0.94	0.94	0.95

Notes: Data are at division-year level and cover 1967-2003.. All dollar figures are in 2003 dollars. Regressions are weighted using division population. Robust standard errors in parentheses
Source: Authors' tabulations of the 1968-2004 March CPS.

Table 5
Estimates of the Impact of Labor Market Opportunities and Public Welfare Spending on Poverty Rates, State Level Analysis

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Pubwelf (in $1000s per poor)	-0.0051	-0.0041					
	(0.0006)	(0.0005)					
cashwelf (in $1000s per poor)			-0.0073				
			(0.0008)				
maxafdc (in $1000s/year)				-0.0020			
				(0.0007)			
maxafdcfs (in $1000s/year)					-0.0029	-0.0026	-0.0007
					(0.0010)	(0.0016)	(0.0018)
Unemployment rate		0.432	0.473	0.467	0.467	0.377	0.351
		(0.035)	(0.034)	(0.037)	(0.037)	(0.051)	(0.070)
Ln (real median weekly wage)		-0.065	-0.091	-0.096	-0.096	-0.086	-0.074
		(0.010)	(0.010)	(0.011)	(0.011)	(0.017)	(0.019)
Ln (median/20th percentile)		0.074	0.078	0.097	0.097	0.082	0.074
		(0.010)	(0.011)	(0.012)	(0.012)	(0.017)	(0.014)
Constant	0.152	0.501	0.661	0.670	0.684	0.630	0.553
	(0.006)	(0.065)	(0.066)	(0.071)	(0.070)	(0.105)	(0.119)
Year fixed effects	X	X	X	X	X	X	X
State fixed effects	X	X	X	X	X	X	X
Sample Years	1977-2003	1977-2003	1977-2003	1977-2003	1977-2003	1977-1989	1990-2003
Observations	1350	1350	1350	1350	1350	650	700
R-squared	0.83	0.87	0.87	0.84	0.84	0.86	0.87

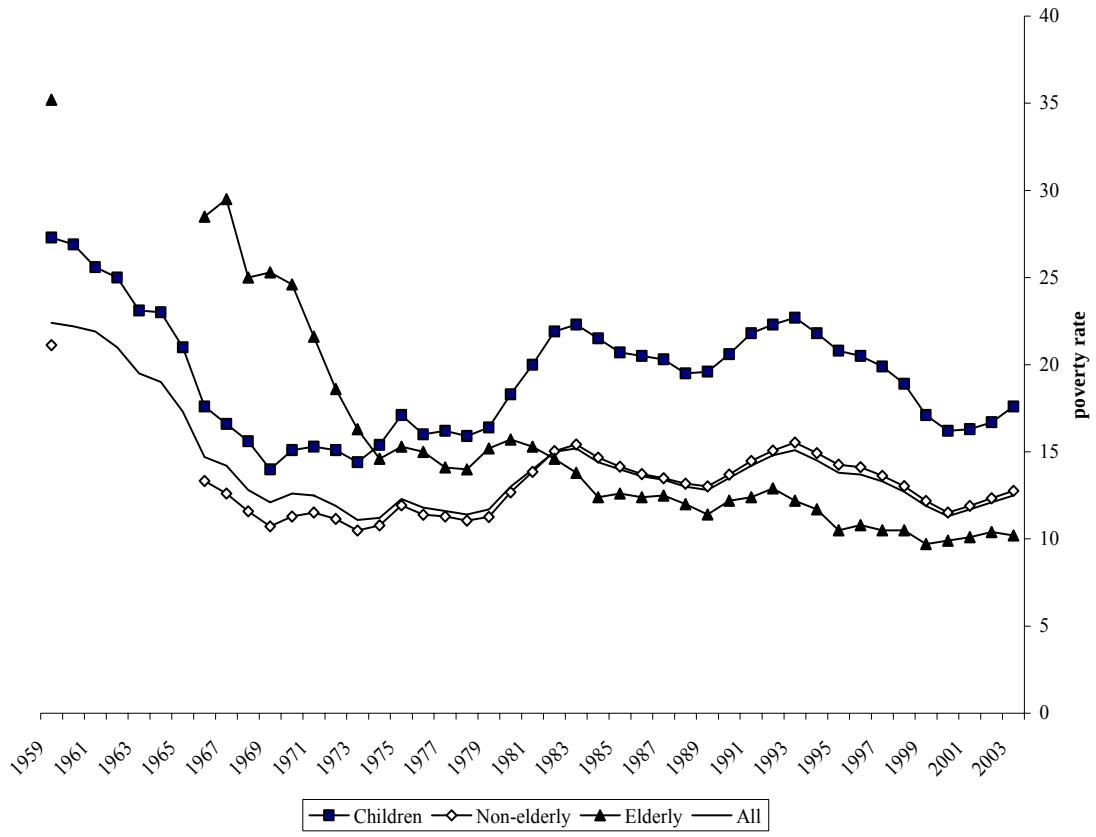
Notes: Data are at state-year level and cover 1977-2003. All dollar figures are in 2003 dollars. Regressions are weighted using division population. Robust standard errors in parentheses
Source: Authors' tabulations of the 1978-2004 March CPS.

Table 6
Poverty rates in native and immigrant households, by year

	All Persons	Persons in households headed by a natives		Persons in households headed by an Immigrant	
	poverty rate	poverty rate	% of population	poverty rate	% of population
1959	20.63	20.91	95.79	14.13	4.21
1969	12.42	12.47	95.90	11.18	4.10
1979	12.28	12.07	93.99	15.60	6.01
1989	12.89	12.45	91.37	17.53	8.63
1999	12.44	11.76	87.88	17.42	12.12

Source: Authors' tabulations of 1960, 1970, 1980, 1990 and 2000 Census files.

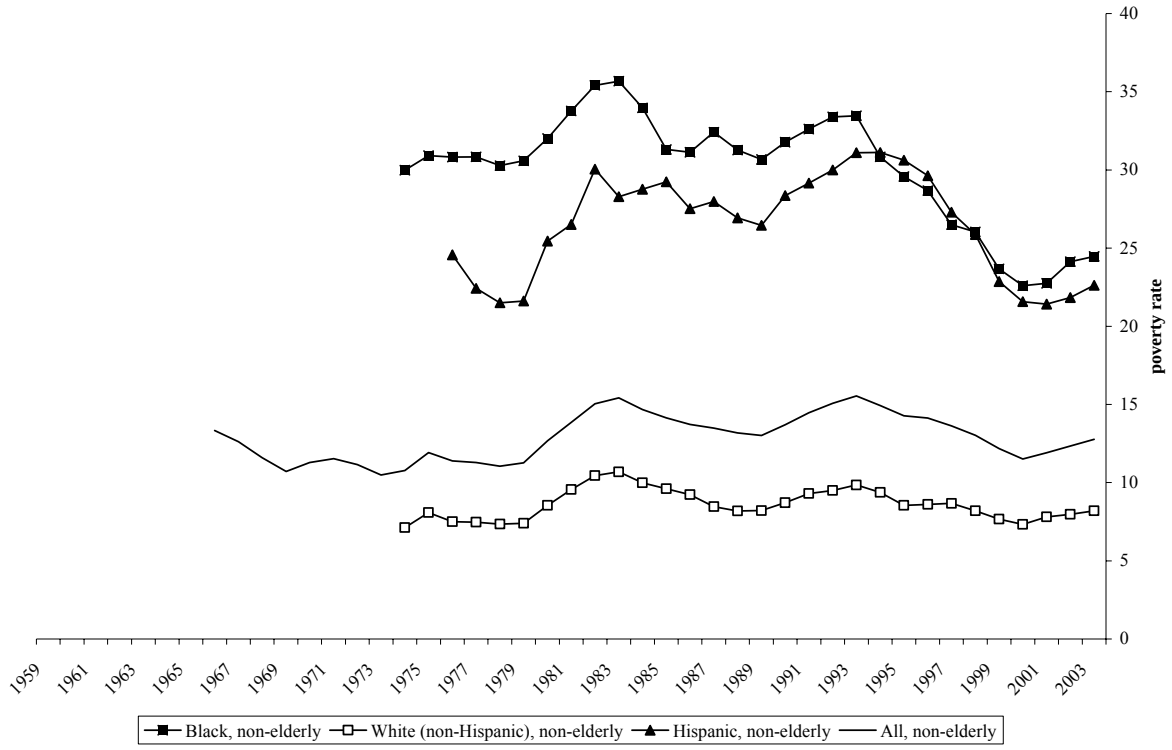
Figure 1
Trends in Individual Poverty Rates by Group, 1959-2003



Source: U.S. Bureau of the Census, Current Population Survey, Annual Social and Economic Supplements.

Note: Data are incomplete in the early years.

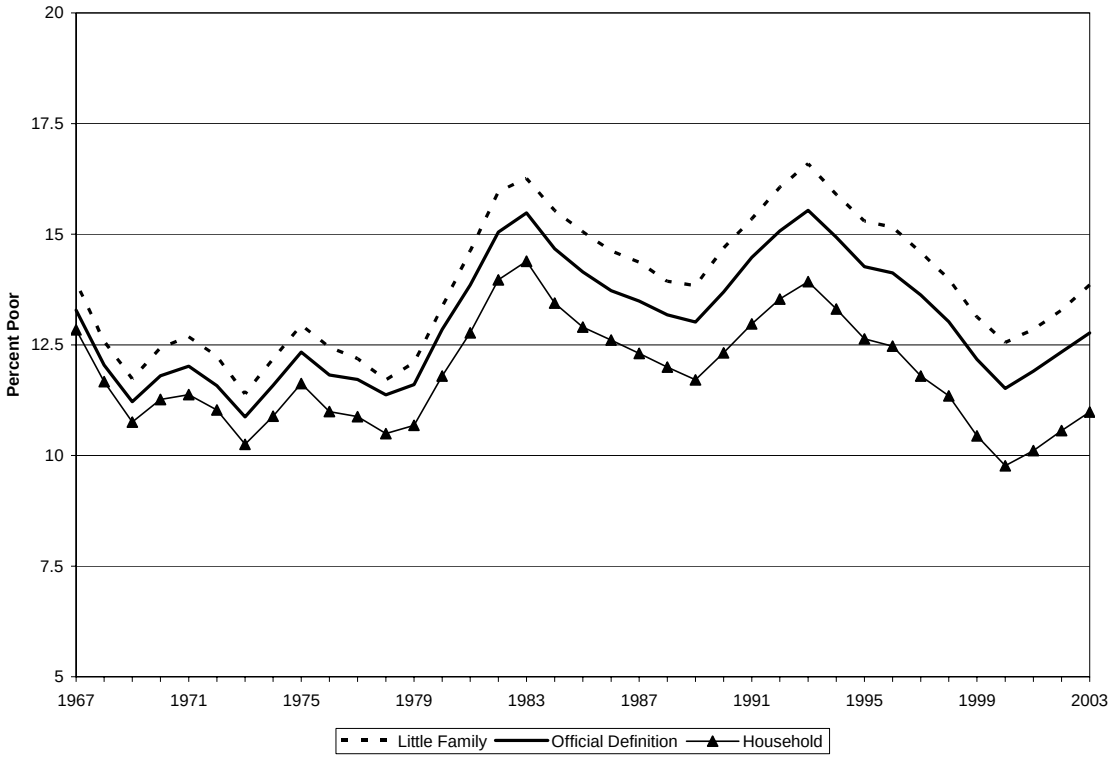
Figure 2
Trends in Non-Elderly Poverty Rates by Race and Ethnicity, 1959-2003



Source: U.S. Bureau of the Census, Current Population Survey, Annual Social and Economic Supplements.

Note: Data are incomplete in the early years.

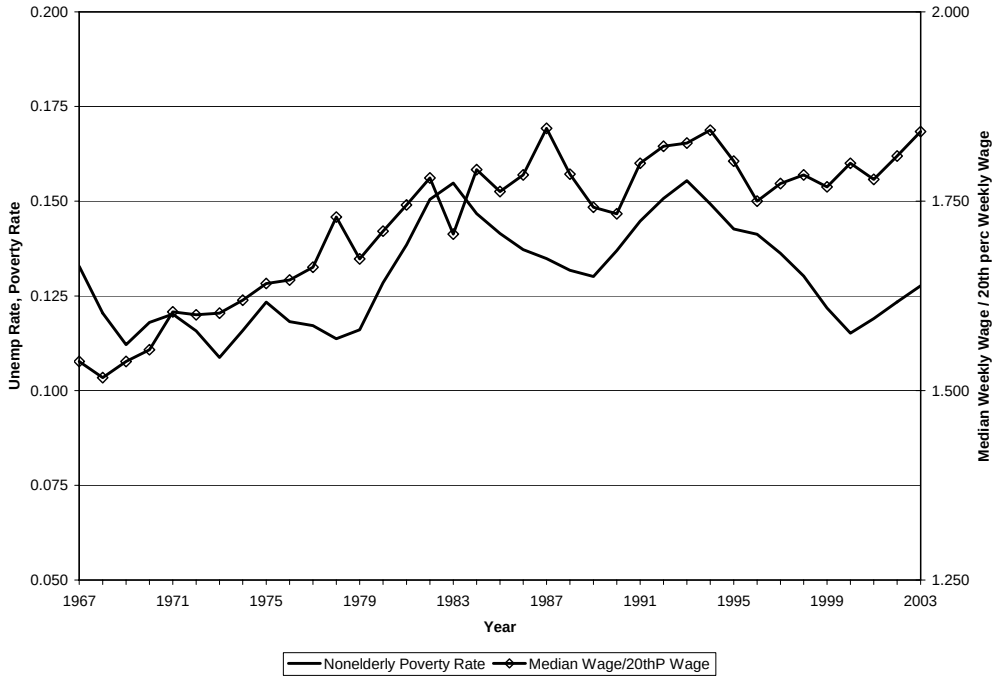
Figure 3
Percent of Persons who are Poor Under Alternative Definitions of Economic Unit, 1967-2003



Notes: Authors' tabulations of 1968-2004 CPS.

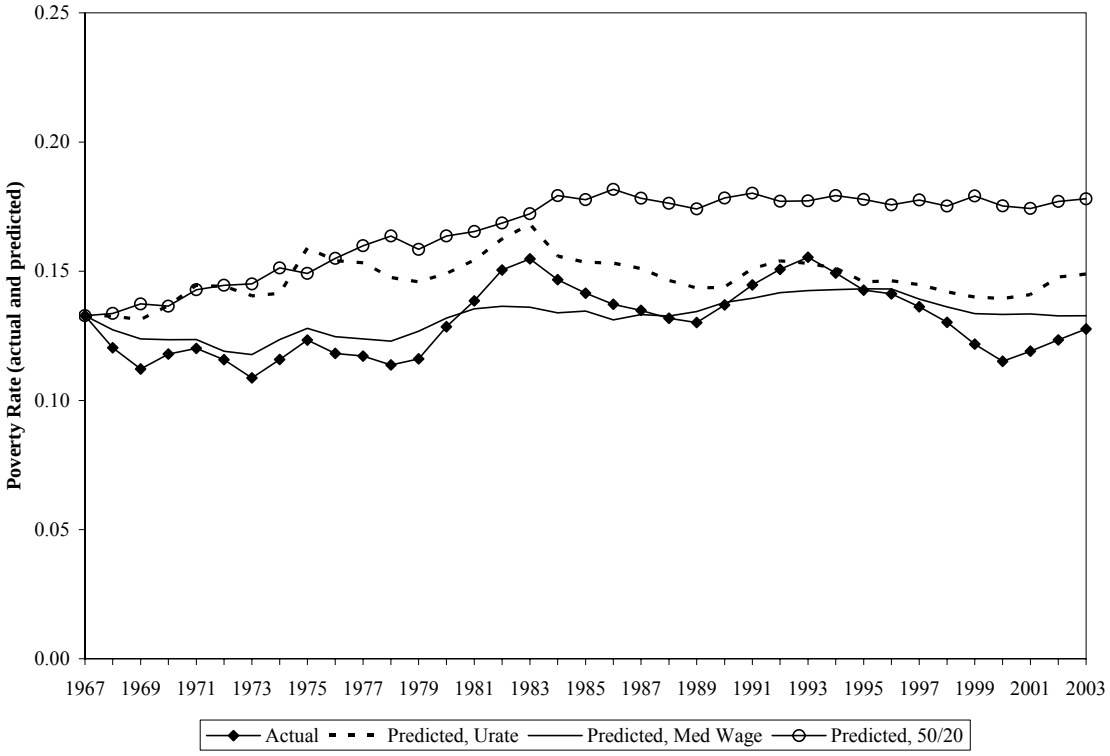
Figure 4
Poverty Rates, Unemployment Rates and Median Wages, 1967-2003

Figure 5
Poverty Rates and Inequality, 1967-2003



Notes: Authors' tabulations of 1968-2004 CPS.

Figure 6
Effect of Changes in Labor Market Opportunities on Poverty Rates

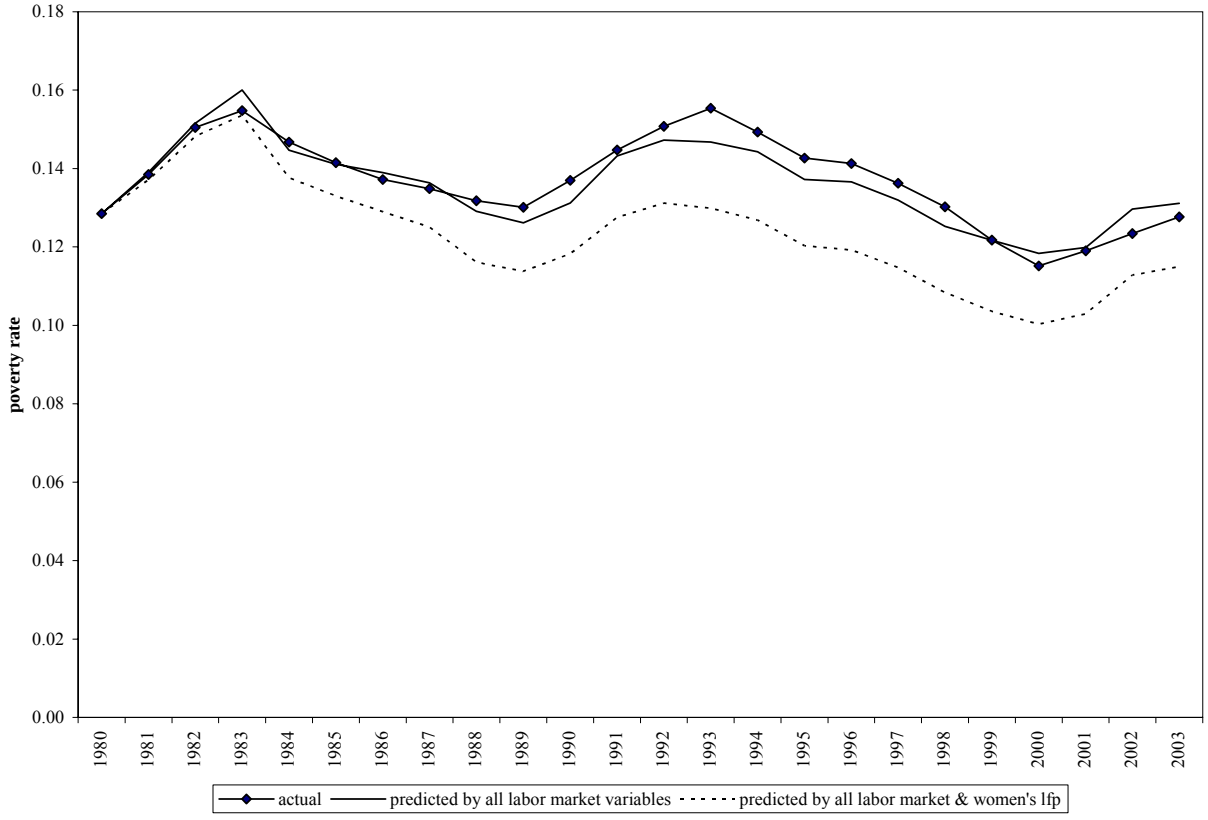


Notes: Authors' tabulations of 1968-2004 CPS.

Figure 7
Effect of Combined Changes in Labor Markets on Poverty Rates, 1967-2003

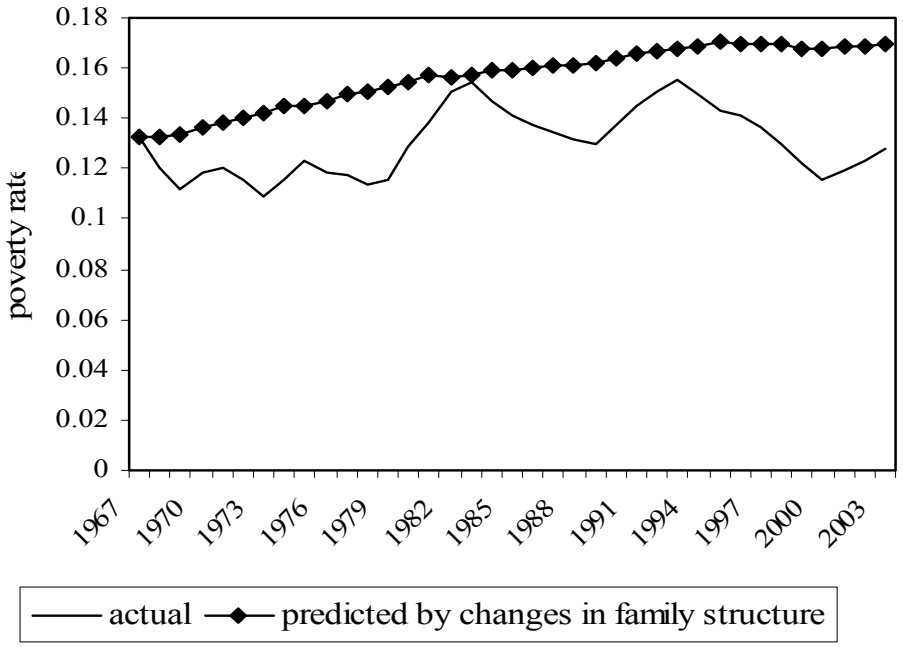
Notes: Authors' tabulations of 1968-2004 CPS.

Figure 8
Effect of Combined Changes in Labor Markets on Poverty Rates, 1980-2003



Notes: Authors' tabulations of 1981-2004 CPS.

Figure 9
Effect of Family Structure Changes on Poverty Rates



Notes: Authors' tabulations of 1968-2004 CPS.

Figure 10
Four Measures of Real Welfare Generosity Relative to Values in 1977

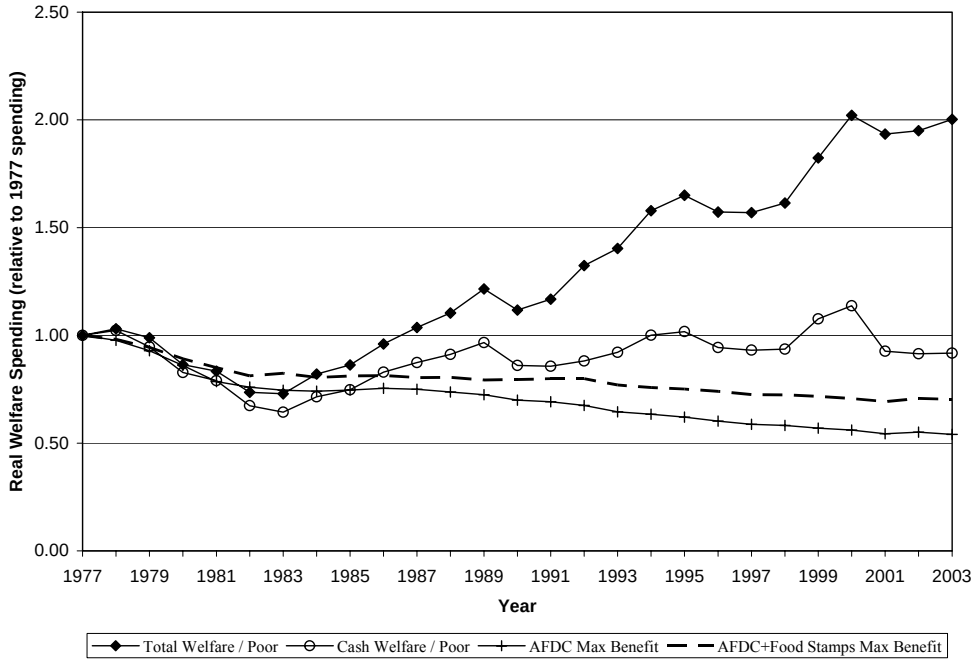
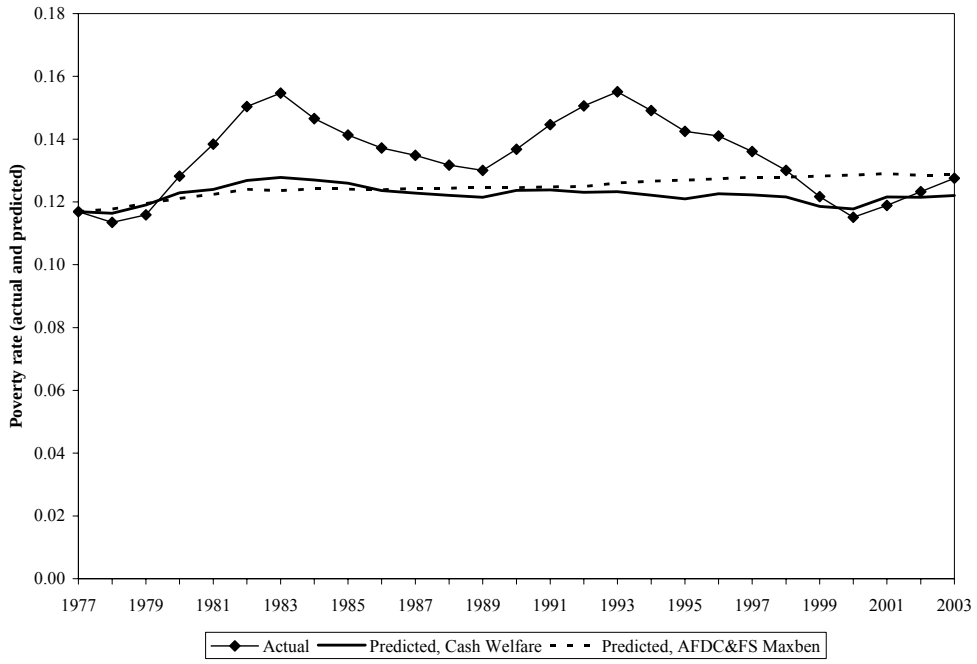
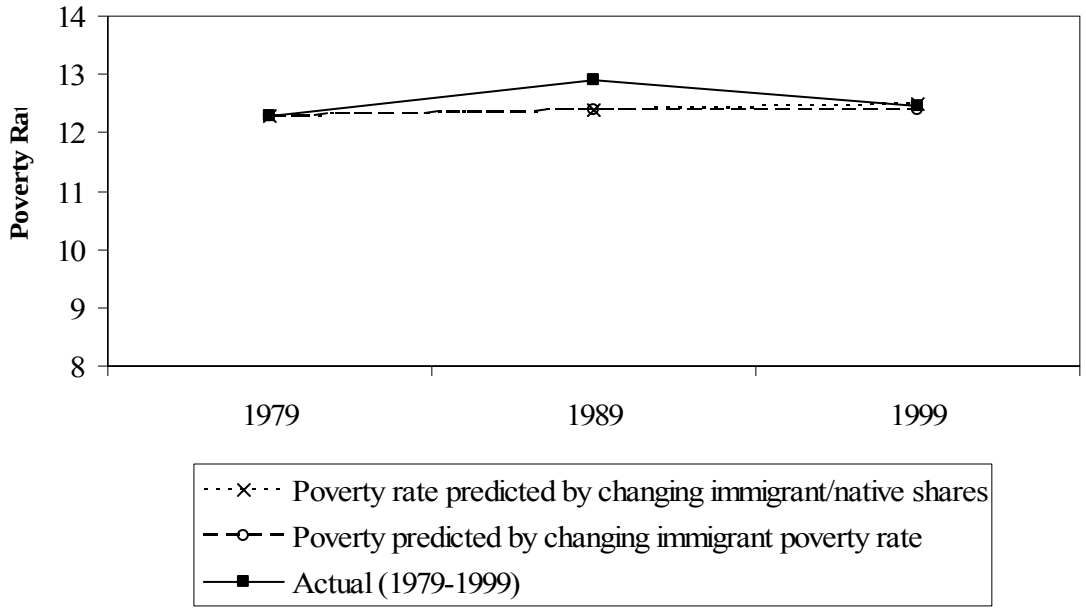


Figure 11
Effect of Changes in Public Welfare Spending on Poverty Rates



Notes: Authors' tabulations of 1968-2004 CPS.

Figure 12
Effect of Changes in Shares of Immigrants on Poverty Rates



Notes: Authors tablations of 1960, 1970, 1980, 1990 and 2000 Census files.