

Introduction

During the past 15 years, Aid for Families with Dependent Children (AFDC) was replaced by Temporary Assistance for Needy Families (TANF) in the Welfare Reform Act of 1996, while the Earned Income Tax Credit (EITC) program has grown. It is hard to see the affects of these programs because the US Census' absolute poverty measure is outdated and especially problematic when examining the working poor. The working poor have higher incomes than the poor who are not in the labor force, but they also have many other costs associated with working, such as childcare and transportation. These people don't fall below the current poverty line, even though they struggle to pay for these basic essentials. We will use a new relative measure of poverty and a broad definition of work to examine the trends in the working poor.

Data Sources and Methods

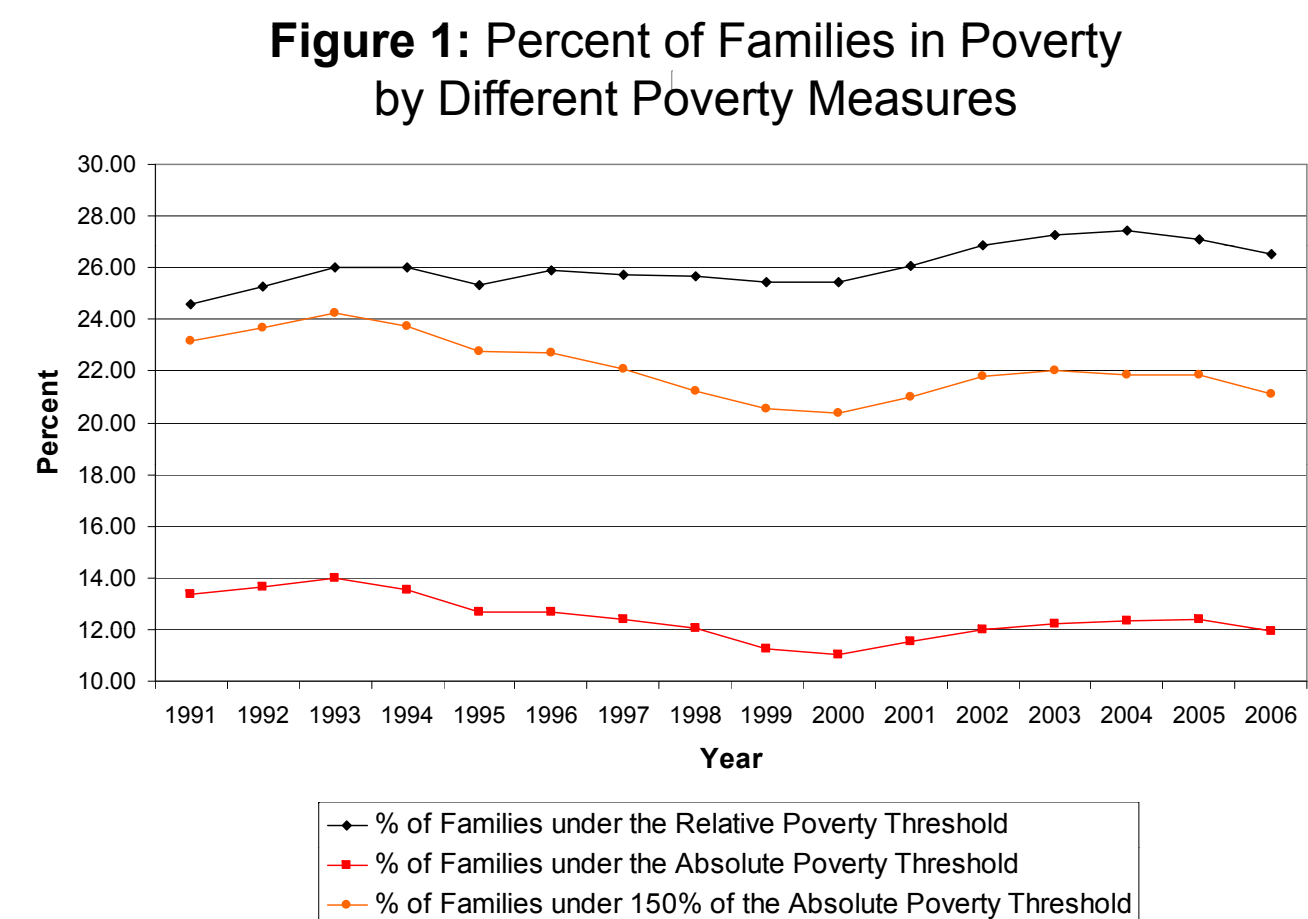
► Data was obtained from the Current Population Survey's (CPS) Annual Social and Economic Supplement (ASEC), which contains information about the incomes, work habits, and demographics of about 50 thousand households each year. This study analyzed the surveys from 1992 to 2007, downloaded with Data Ferret.

► We used the statistics program SAS to apply the CPS individual weight variable in order to estimate the numbers of working poor under our new definition. The results were graphed using Microsoft Excel.

Definitions of Poverty

► The official US Census Bureau absolute poverty line (Equation 1), created by Mollie Orshansky in 1963, was calculated by multiplying the cost of a low budget food plan by 3. This value was then scaled to different family sizes, as larger families spend more income on food but can also pool some resources. This threshold is updated yearly for inflation with the consumer price index (CPI).

► Today, rising costs of housing and healthcare have decreased the percent of expenditures allocated towards food. These non-food expenditures are even greater for the working poor, who must pay for childcare and transportation. This has caused the official absolute poverty line to underestimate the number of people in poverty, as it has fallen further behind median income.



Equation 1: Absolute Poverty Threshold

$$APT_{it} = 3F * S_i * \frac{CPI_t}{CPI_{1963}}$$

APT_{it} = absolute poverty threshold for family type i in year t .
 F = cost of food for a family in 1963.
 S_i = the equivalence scaling factor for family type i .
 CPI_t = the consumer price index in year t .

Equation 2: Relative Poverty Threshold

$$RPT_{it} = \frac{(I_t + I_{t+1} + I_{t-1} + 0.5I_{t+2} + 0.5I_{t-2}) / 4 * S_i}{2}$$

RPT_{it} = relative poverty threshold for family type i in year t .
 I_t = the median income in year t .
 S_i = the equivalence scaling factor for family type i .

► This study uses a relative poverty threshold (Equation 2), which uses half of median income as a base and the same equivalence scaling factors from the absolute poverty measure. The median income has increased at a rate slightly greater than the rate of inflation. Although the relative threshold was similar to the absolute in the 1960s, by 2006 it has grown to be almost twice as high.

► Median income is affected by short term economic changes, causing the relative poverty threshold to underestimate poverty during recessions. This was corrected by applying a moving average to the threshold, which smoothes the threshold curve, making it less dependent on fluctuations in median income.

► This relative poverty threshold, used in all the following trend graphs, is intended to give a measure of poverty that shows how many people can't keep up with the standard of living typical of the rest of society. Individuals just below the relative poverty line may manage to survive day to day, but still can't afford to buy a house, car, computer, or other such items that an American living at the median income would own.

Graphs of Trends

► Composition was calculated by dividing the number of the working poor with a certain demographic attribute by the total number of working poor.

► Risk was calculated by dividing the number of the working poor with a certain demographic attribute by the total number in the US population with that same attribute.

Figure 2A: Composition of the Working Poor by Age

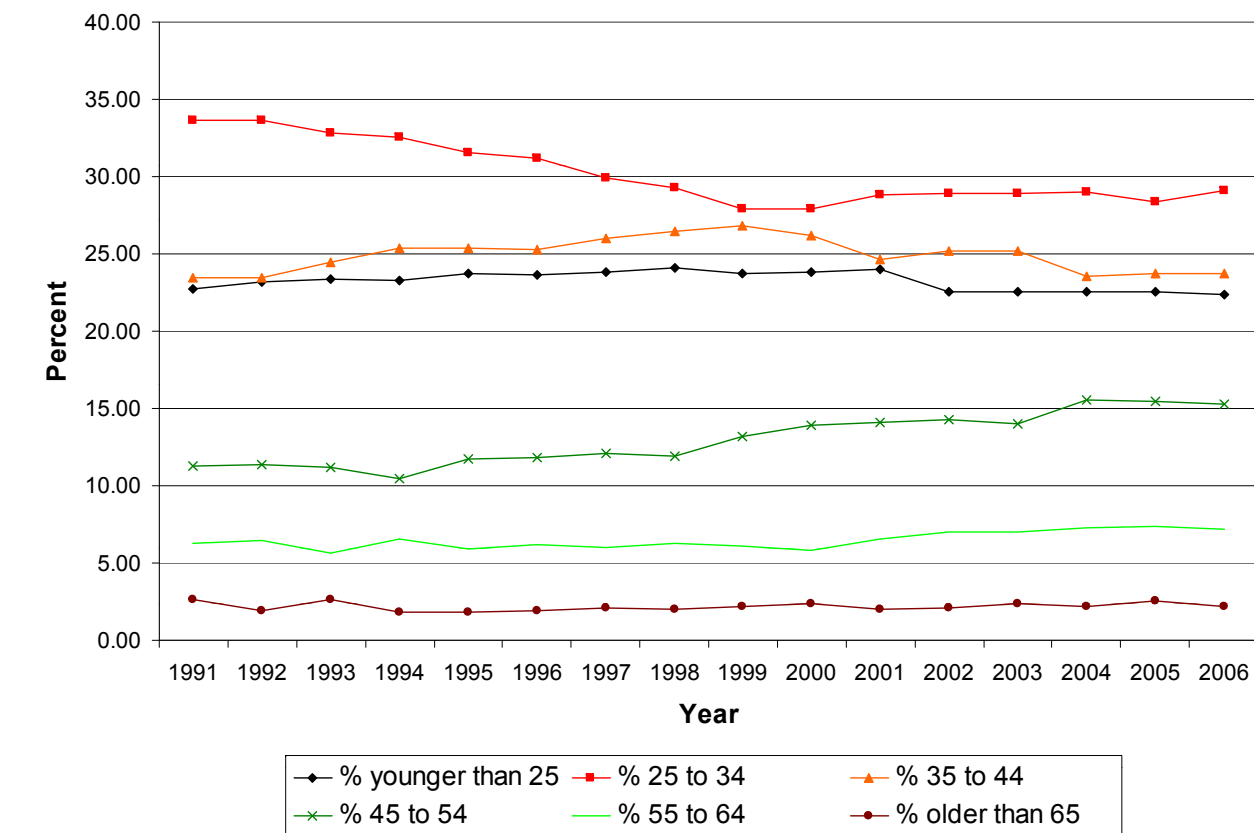


Figure 2B: Risk of Becoming Working Poor by Age

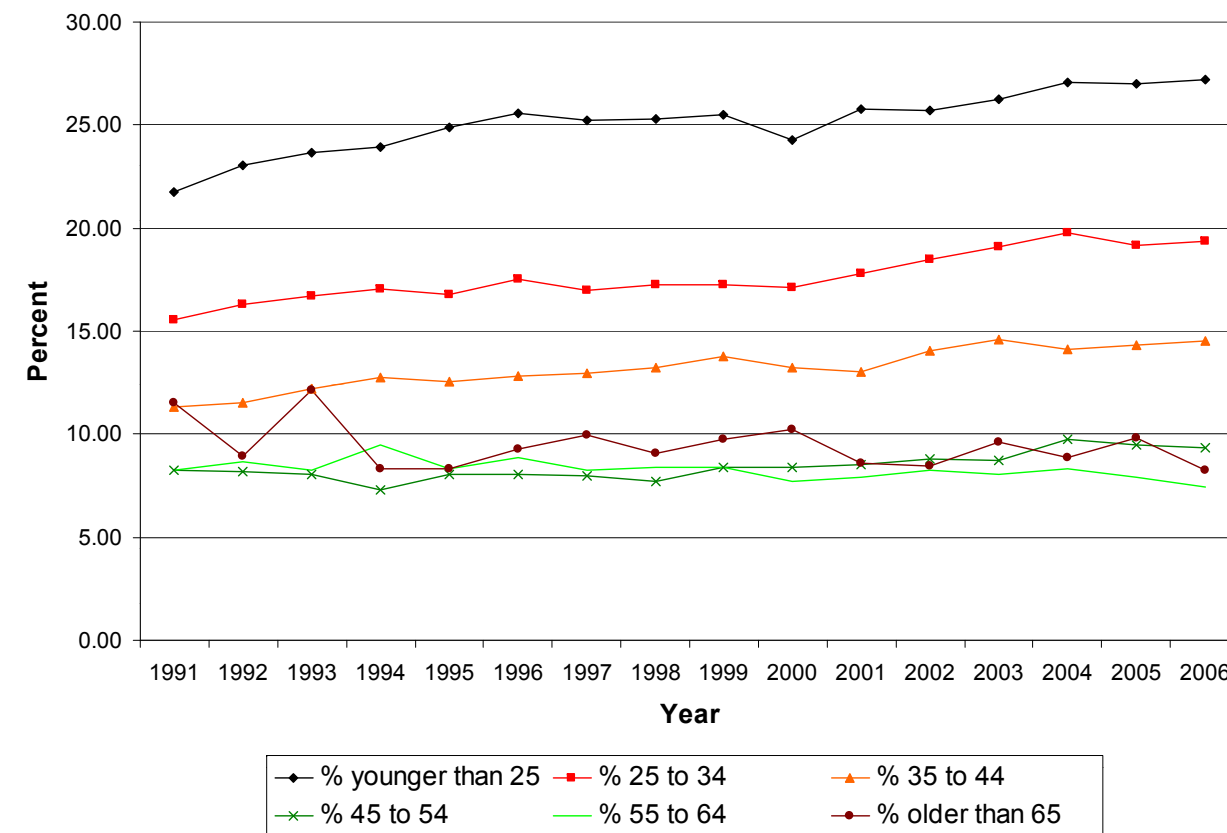


Figure 3A: Composition of the Working Poor by Education

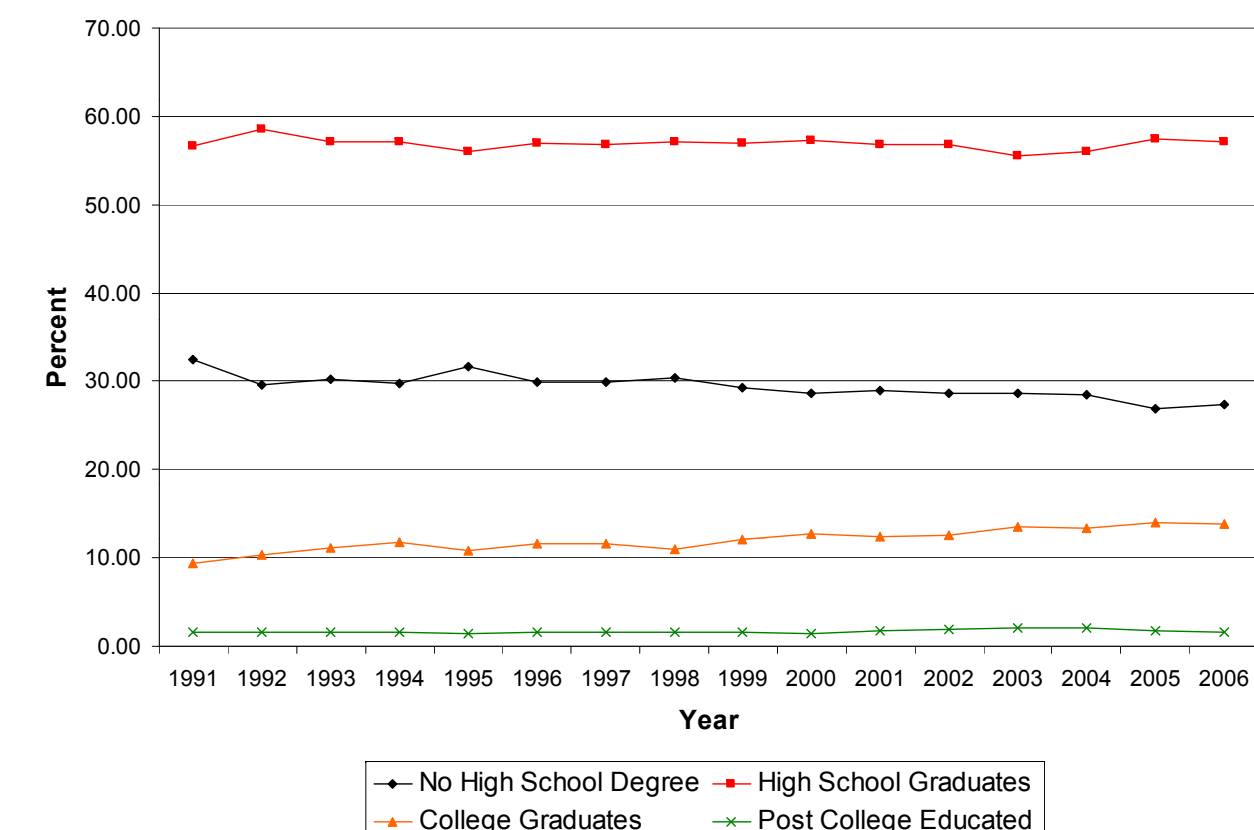


Figure 3B: Risk of Becoming Working Poor by Education

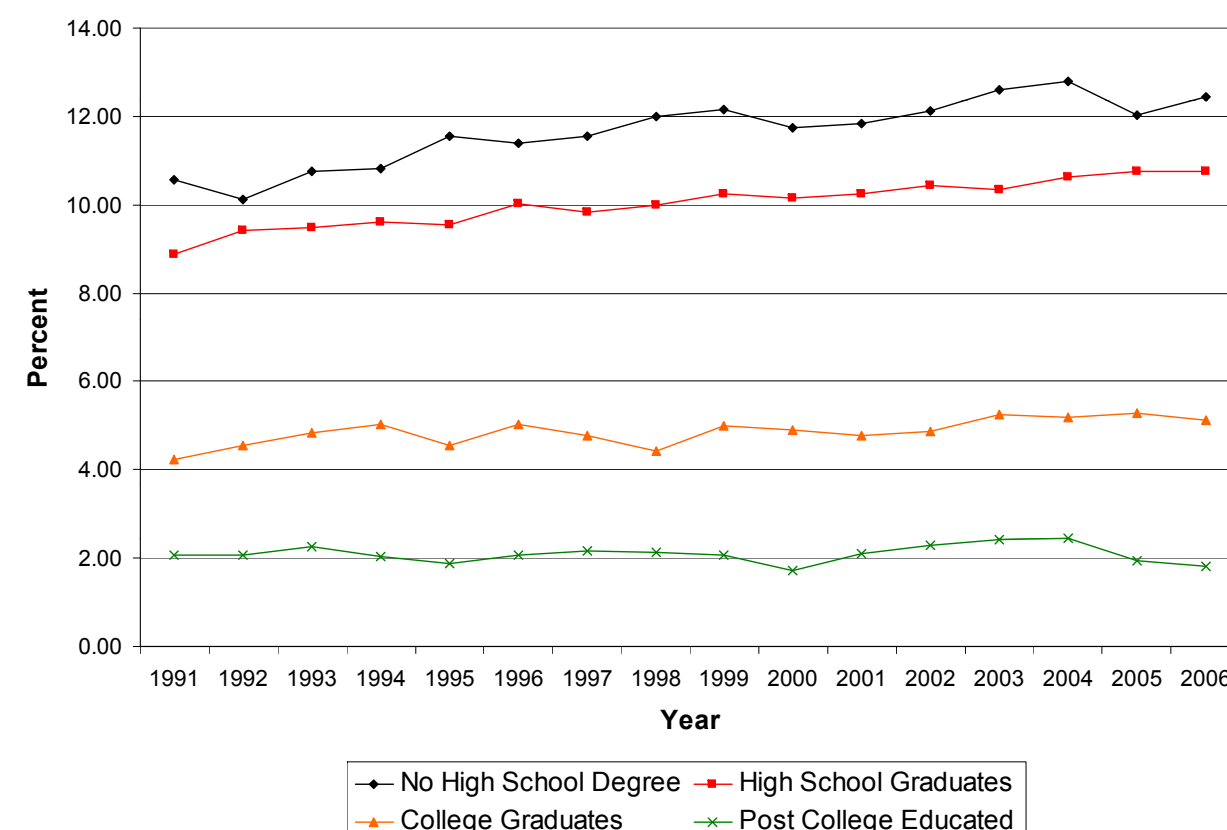


Figure 4A: Composition of the Working Poor by Gender

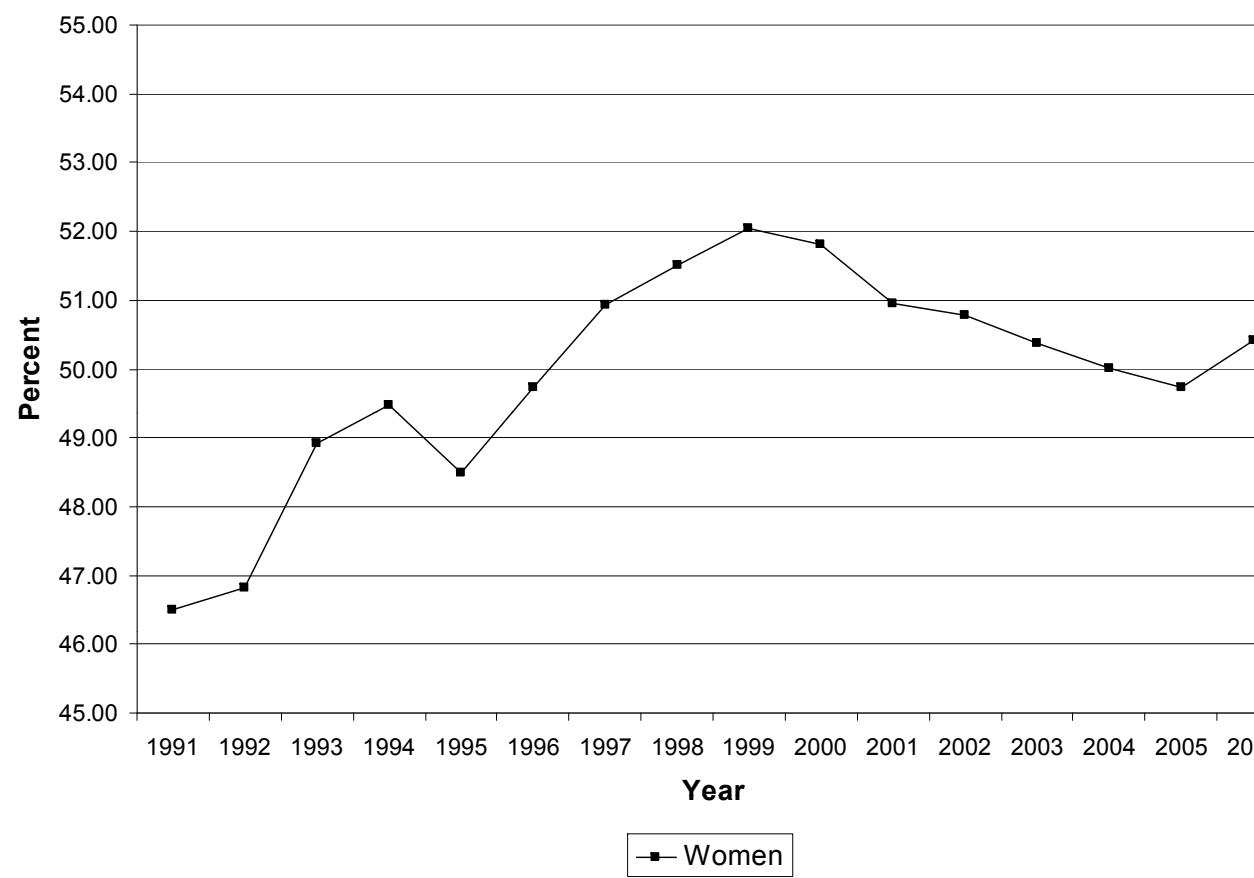


Figure 4B: Risk of Becoming Working Poor by Gender

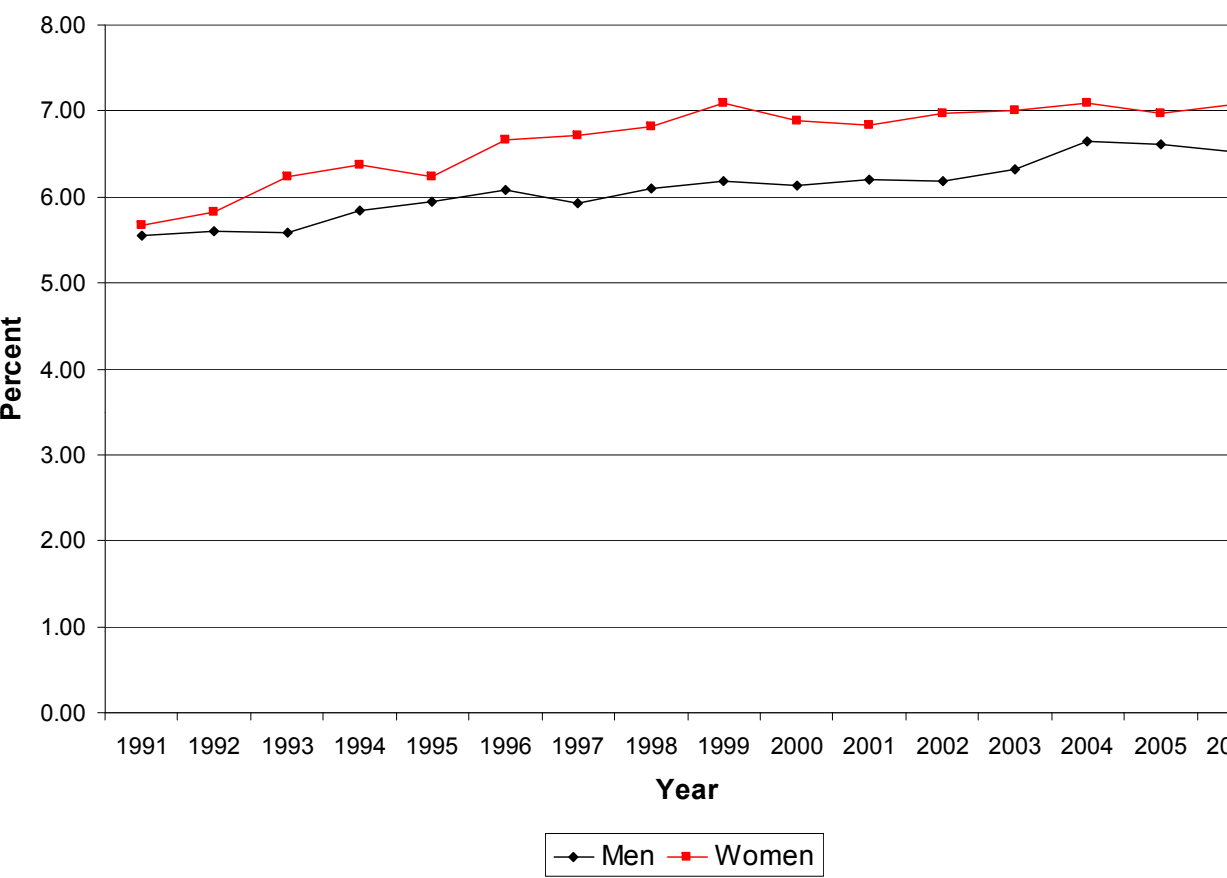


Figure 5A: Composition of the Working Poor by Family Type

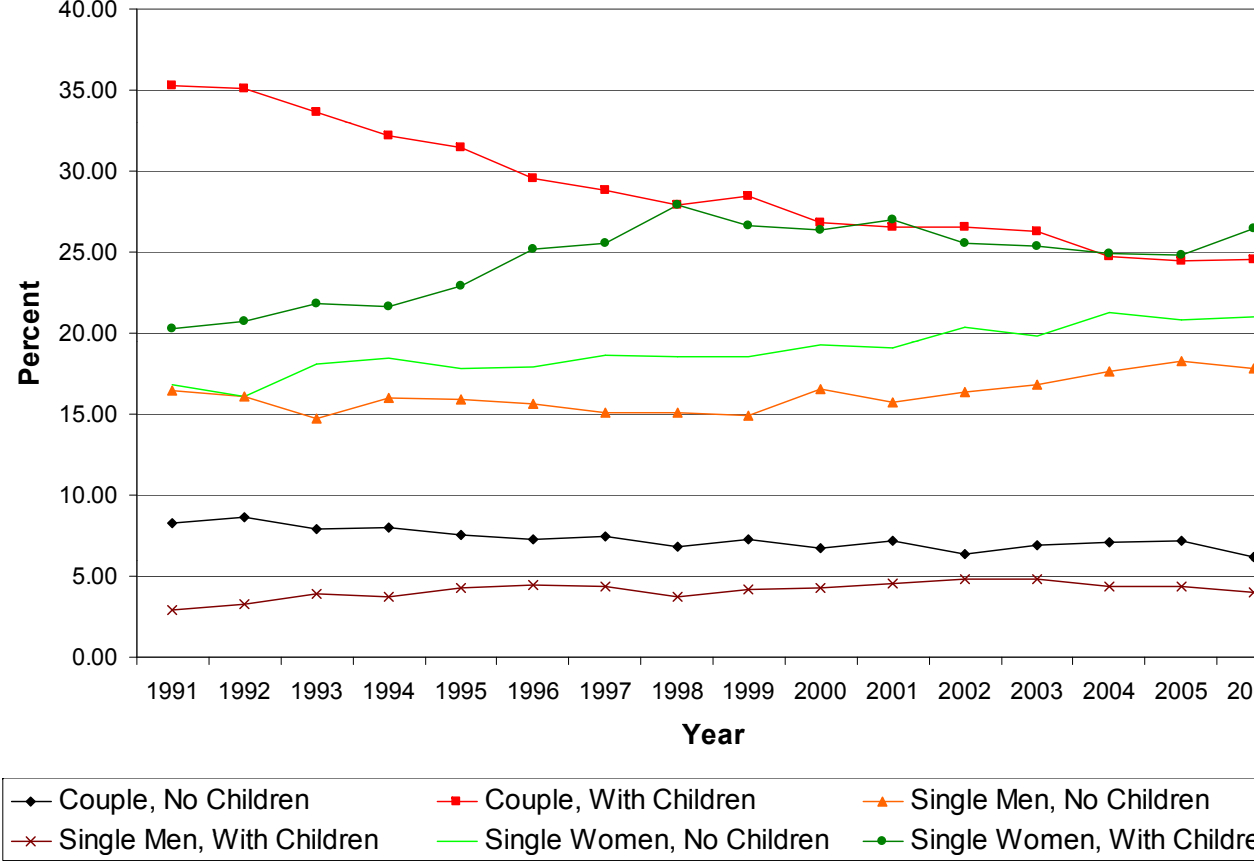


Figure 5B: Risk of Becoming Working Poor by Family Type

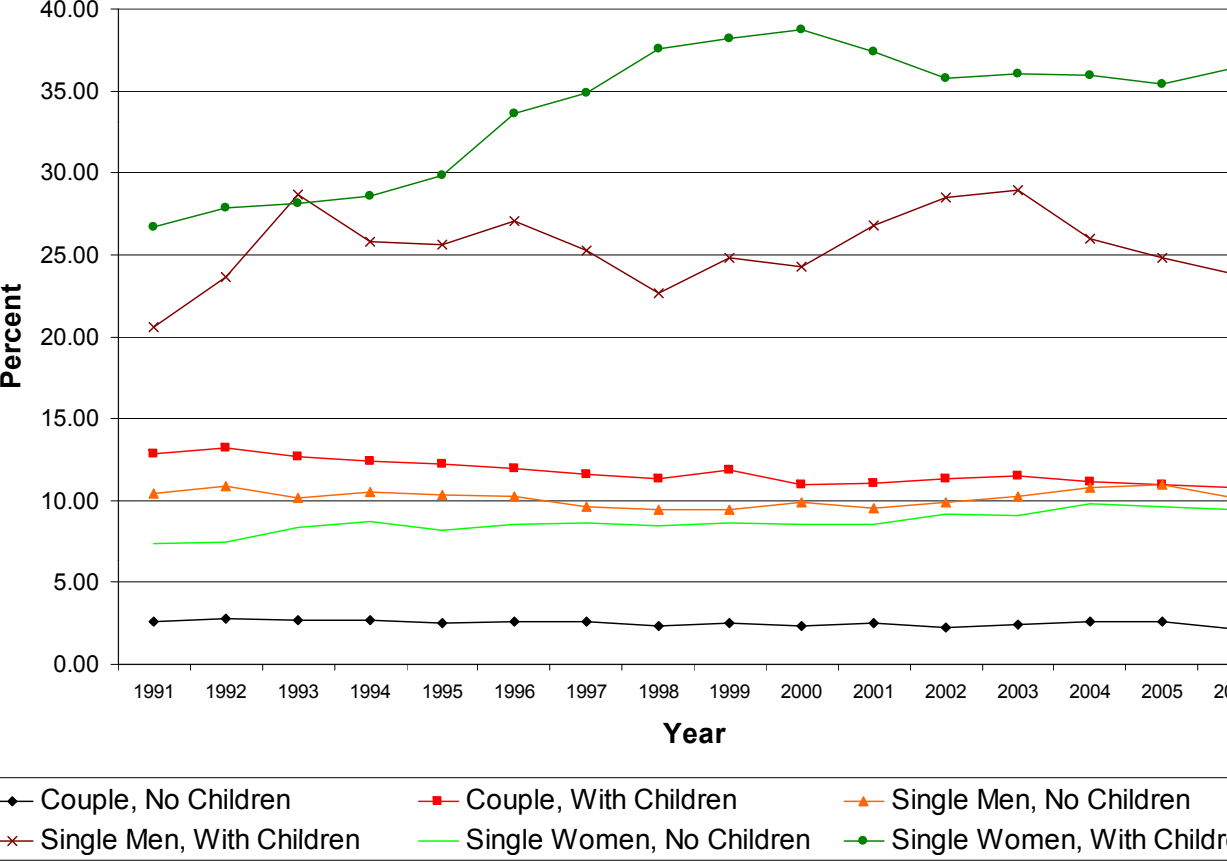


Figure 6A: Composition of the Working Poor by Race

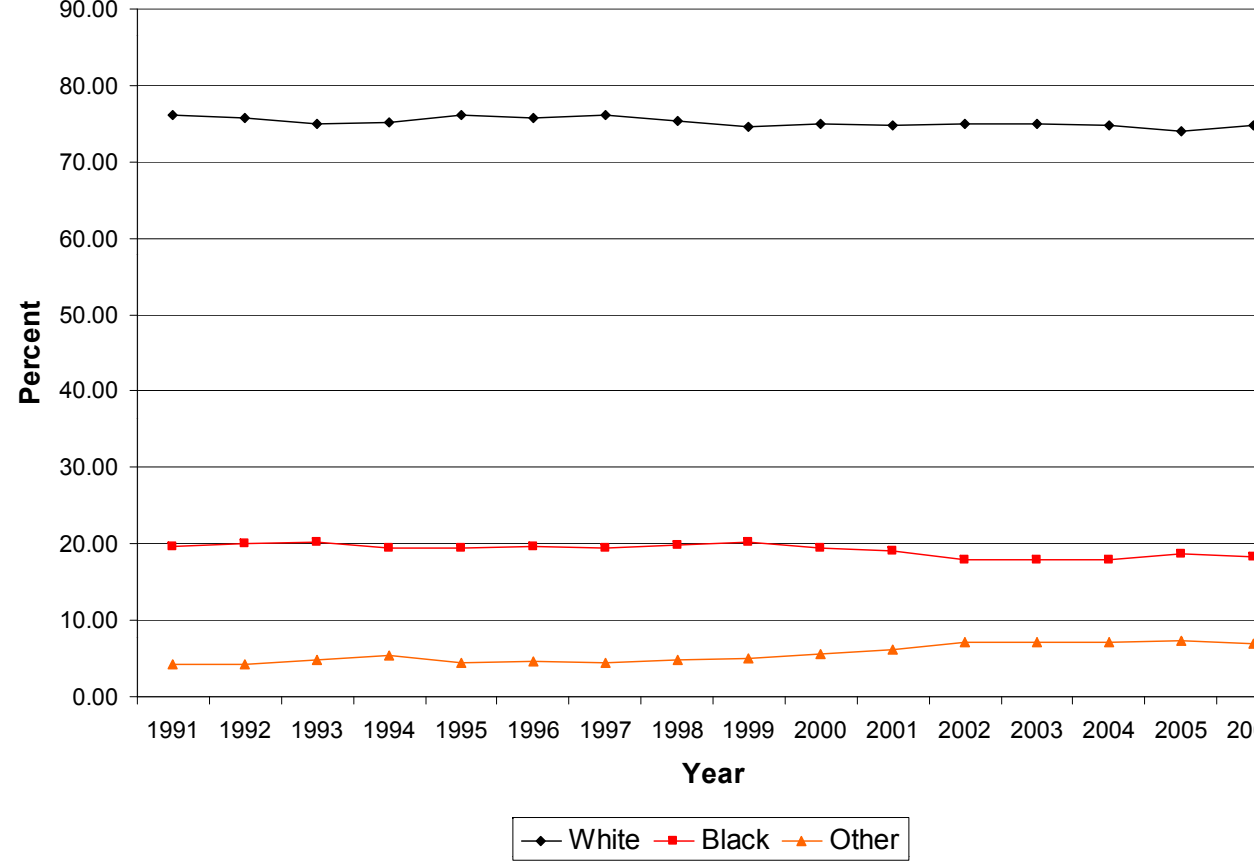
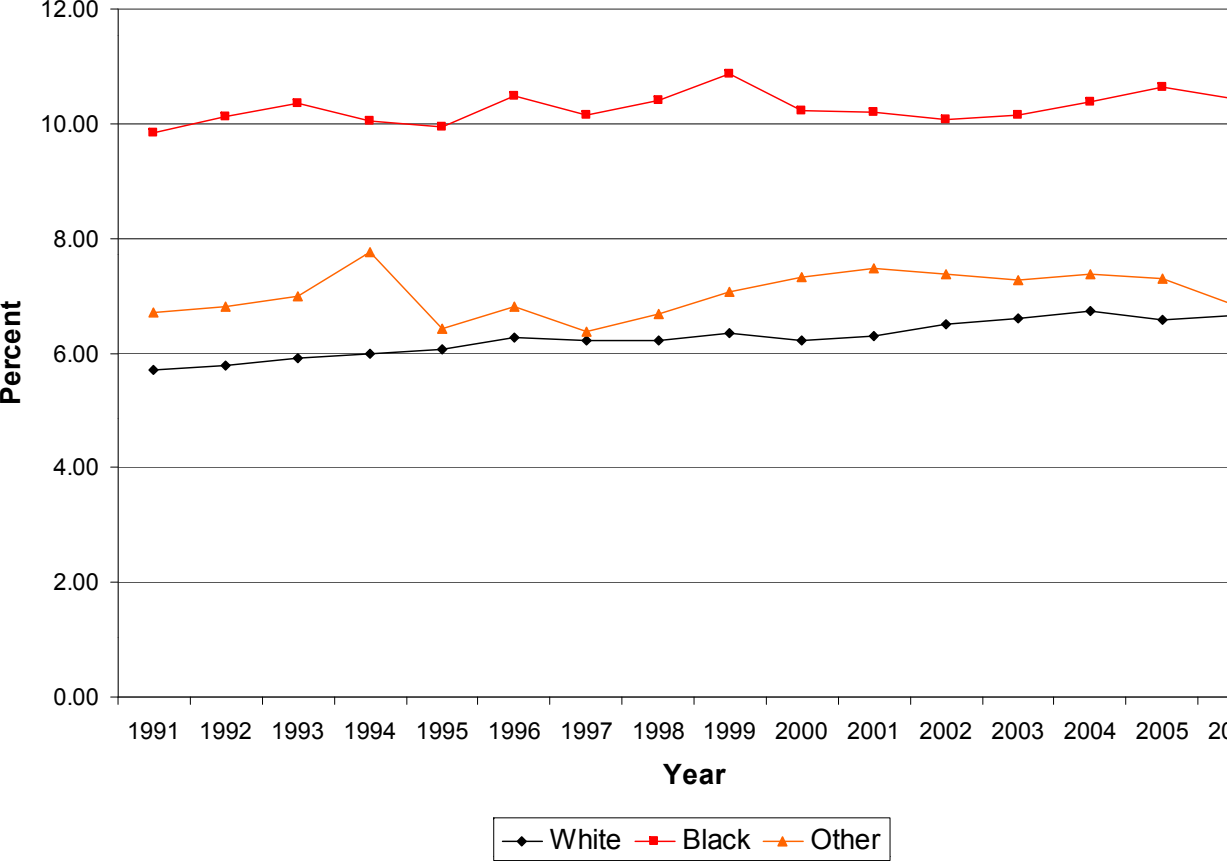


Figure 6B: Risk of Becoming Working Poor by Race



References

Betti, Gianni, and Vijay Verma. "Fuzzy Measures of the Incidence of Relative Poverty and Deprivation: a Multi-Dimensional Perspective." *Statistical Methods and Applications* 17 (2008): 225-250.

Blank, Rebecca M. *It Takes a Nation: a New Agenda for Fighting Poverty*. Princeton, New Jersey: Princeton UP, 1997.

Blank, Rebecca M. "Presidential Address: How to Improve Poverty Measurements in the United States." *Journal of Policy Analysis and Management* 27.2 (2008): 233-254.

Cormier, David, and Charles Craypo. "The Working Poor and the Working of American Labour Markets." *Cambridge Journal of Economics* 24.6 (2000): 691-700.

Danziger, Sheldon, and Peter Gottschalk. *America Unequal*. Cambridge, Massachusetts: Harvard UP, 1995.

Gardner, Jennifer M., and Diane E. Herz. "Working and Poor in 1990." *Monthly Labor Review* 115.12 (1992): 20-28.

Gleicher, David, and Lonnie K. Stevans. "A Comprehensive Profile of the Working Poor." *Labour* 19.3 (2005): 517-529.

Kim, Marlene. "The Working Poor: Lousy Jobs or Lazy Workers?" *Journal of Economic Issues* 32.1 (1998): 65-78.

Klein, Bruce W., and Philip L. Ronen. "A Profile of the Working Poor." *Monthly Labor Review* 112.10 (1989): 3-13.

Lambert, Thomas E. "The Poor and Transportation." *Journal of Economic Issues* 32.4 (1998): 1140-1143.

Mosisa, Abraham T. "The Working Poor in 2001." *Monthly Labor Review* 126.11 (2003): 13-19.

Sawhill, Isabel V. "Poverty in the U.S.: Why is It So Persistent?" *Journal of Economic Literature* 26.3 (1988): 1073-1119.

Weinberger, Catherine J., and Marlene Kim. "The Working Poor- a Statistical Artifact?" *Eastern Economic Journal* 25.2 (1999): 155-167.

Zagorsky, Jay L. "Health and the Working Poor." *Eastern Economic Journal* 25.2 (1999): 169-189.

Definition of Work

► CPS has data on how many weeks a person works, how many weeks they looked for work, and how many weeks they worked part time. A definition for work had to be broad enough to include those working poor who are currently unemployed, but not so broad as to include individuals who are usually not in the labor force.

► The first decision in creating this definition was deciding what constituted work. As seen in Figure 7A, the category "working or looking for work" includes a greater percent of the civilian labor force and shows the same trends. It is important to include those who are looking for work because members of the working poor often cannot find continuous steady work.

Figure 7A: Different Definitions of Work as a Percentage of the Civilian Labor Force

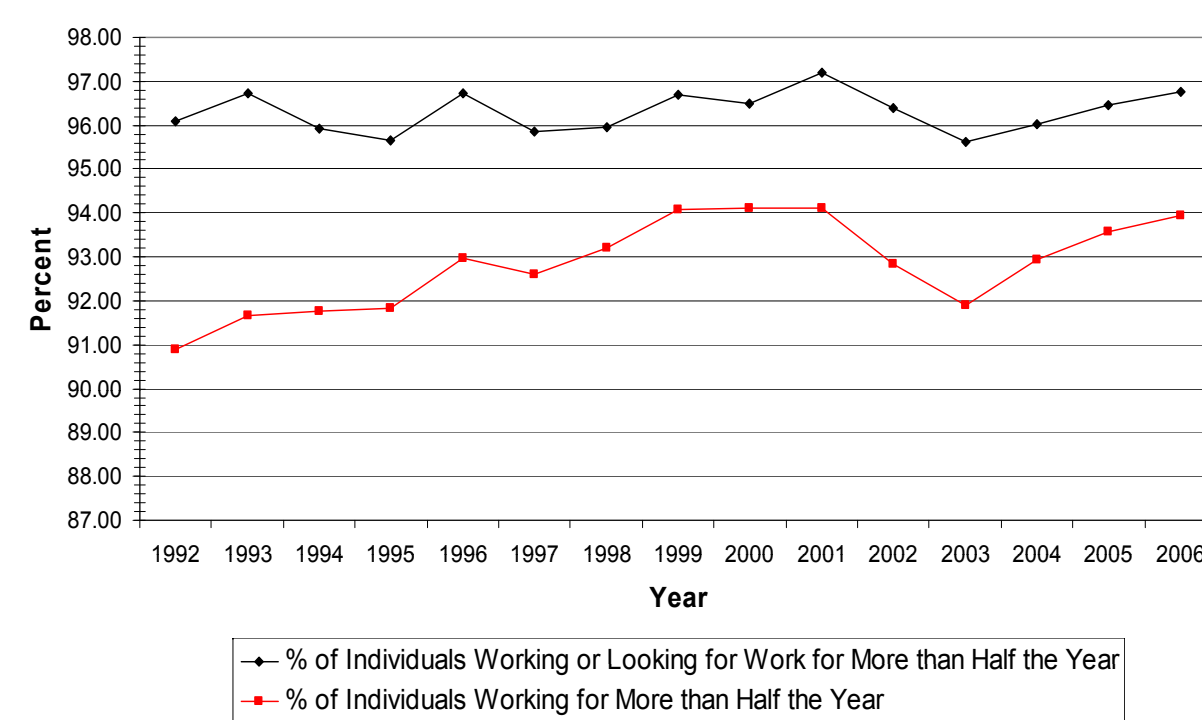
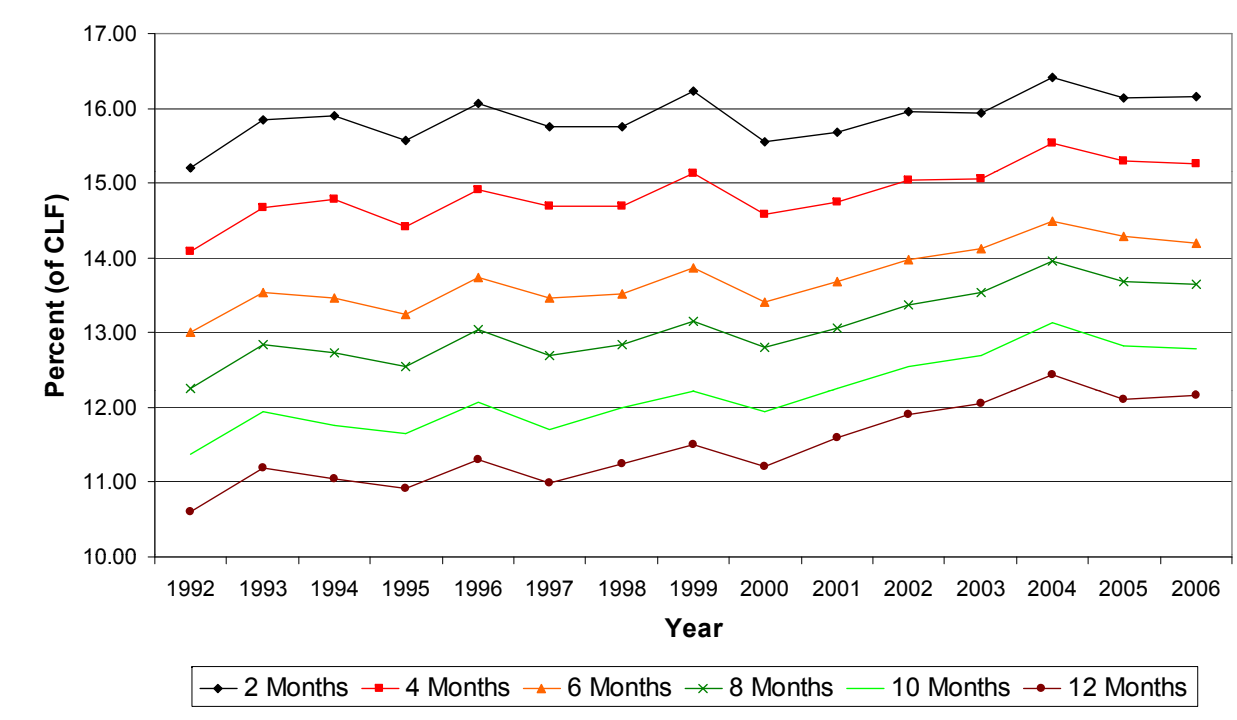


Figure 7B: Percent of Workers in Relative Poverty with Different Amounts of Work



► The second decision was how many weeks of work classify a person as a worker. Half the year was chosen because it included seasonal workers, but excluded groups like college students, who only work during the summer. As Figure 7B shows, the trends are very similar in all cases.

► This definition of work as "working or looking for work for more than half the year" was used in all of the following trend graphs.

Trends in the Working Poor

Age: Figure 2A shows that the working poor are made up of a greater number of older workers now than in 1991. Figure 2B shows that the risk of becoming working poor decreases substantially for older age groups.

Education: Figure 3A shows that most of the working poor are made up of those with no more than a high school degree. There is a slight increase in the percent of college graduates and a decrease in the percent of non high school graduates. Figure 3B shows that the risk of becoming working poor decreases substantially as education increases.

Gender: Figure 4A shows the gender composition of the working poor. Before 1996, the working poor were primarily male, but after 1996 they became mostly female. Figure 4B shows that the risk of becoming working poor increases for both men and women between 1991 and 2006. Women saw the greatest increase in risk before 1999, and since then they have had a relatively constant risk. Male risk of becoming working poor fluctuated to a minimum in 2000 and then increased in the next few years.

Family Type: Figure 5A shows that the percent working poor made up by couples decreased, while the percent of singles increased for every group. The percent of couples with children decreased dramatically before 1998, while the percent of single women with children increased. The risk of becoming working poor, seen in figure 5B, is highest for single women with children and second highest for single men with children. The risk increased for all single groups, especially for single women, but decreased for couples. The increase in risk for single women with children is steepest in 1996, which suggests that a large number of single mothers started looking for jobs after AFDC was ended in that year.

Race: Figure 6A shows the composition of the working poor by race. The working poor are predominantly white with about 20% black. Figure 6B shows that the risk of becoming working poor is much higher for blacks than for whites. From 1991 to 2006, the risk increased for all three racial categories.

Acknowledgements: I would like to thank Professor Wendy Rayack, Professor Manolis Kaparakis, and Aneliya Valkova.