

# Inequality in Mortality Over the Life Course: Why Things Are Not as Bad as You Think

Janet Currie



Olshansky et al. (2012)

# The New York Times

## *Life Spans Shrink for Least-Educated Whites in the U.S.*

By SABRINA TAVERNISE SEPT. 20, 2012

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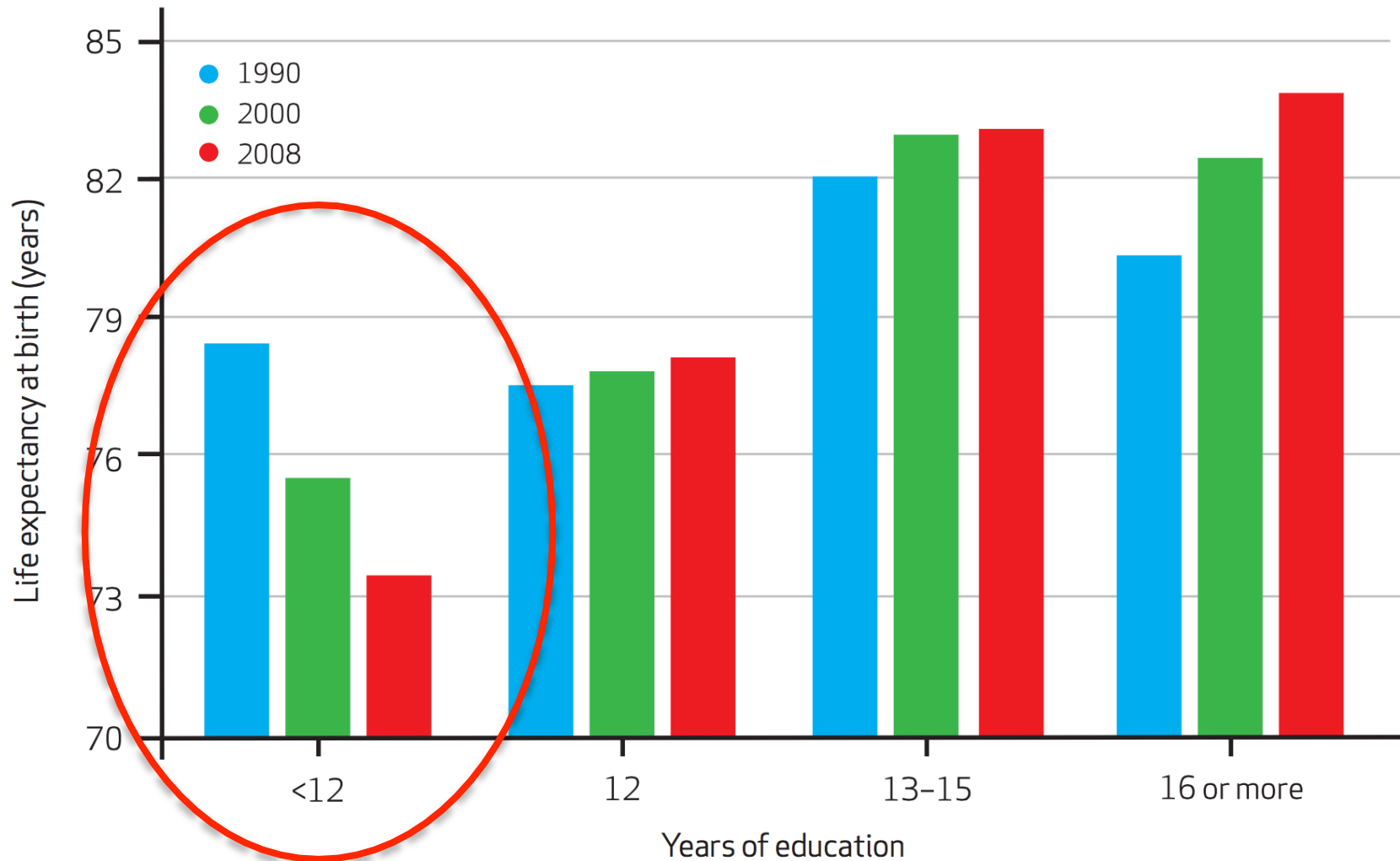
 More

For generations of Americans, it was a given that children would live longer than their parents. But there is now mounting evidence that this enduring trend has reversed itself for the country's least-educated whites, an increasingly troubled group whose life expectancy has fallen by four years since 1990.

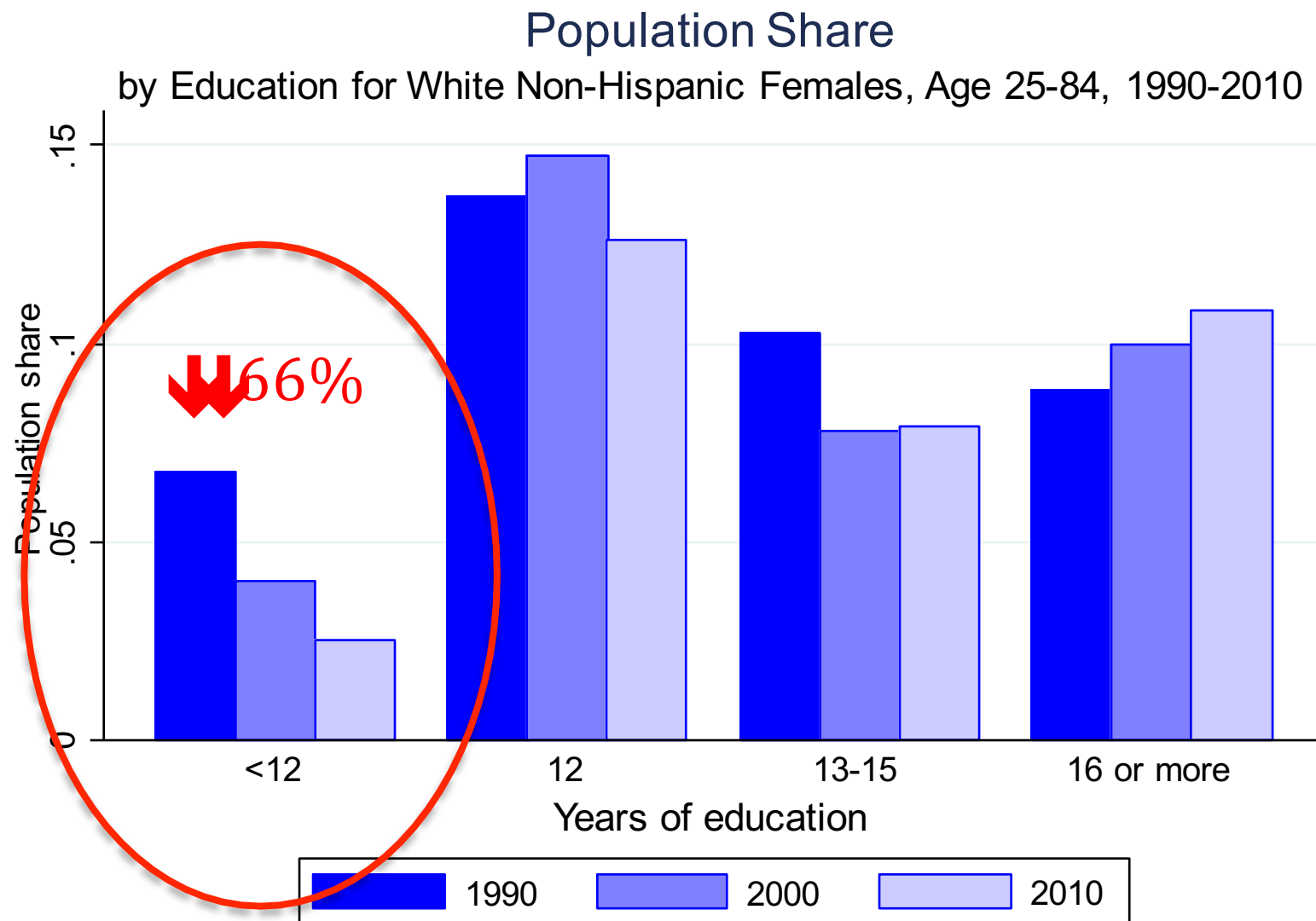
Researchers have long documented that the most educated Americans were making the biggest gains in life expectancy, but now they say mortality data show that life spans f  
Americans are actually contracting.

# Olshansky et al. (2012)

**Life Expectancy At Birth, By Years Of Education At Age 25 For White Females, 1990–2008**



# US Census

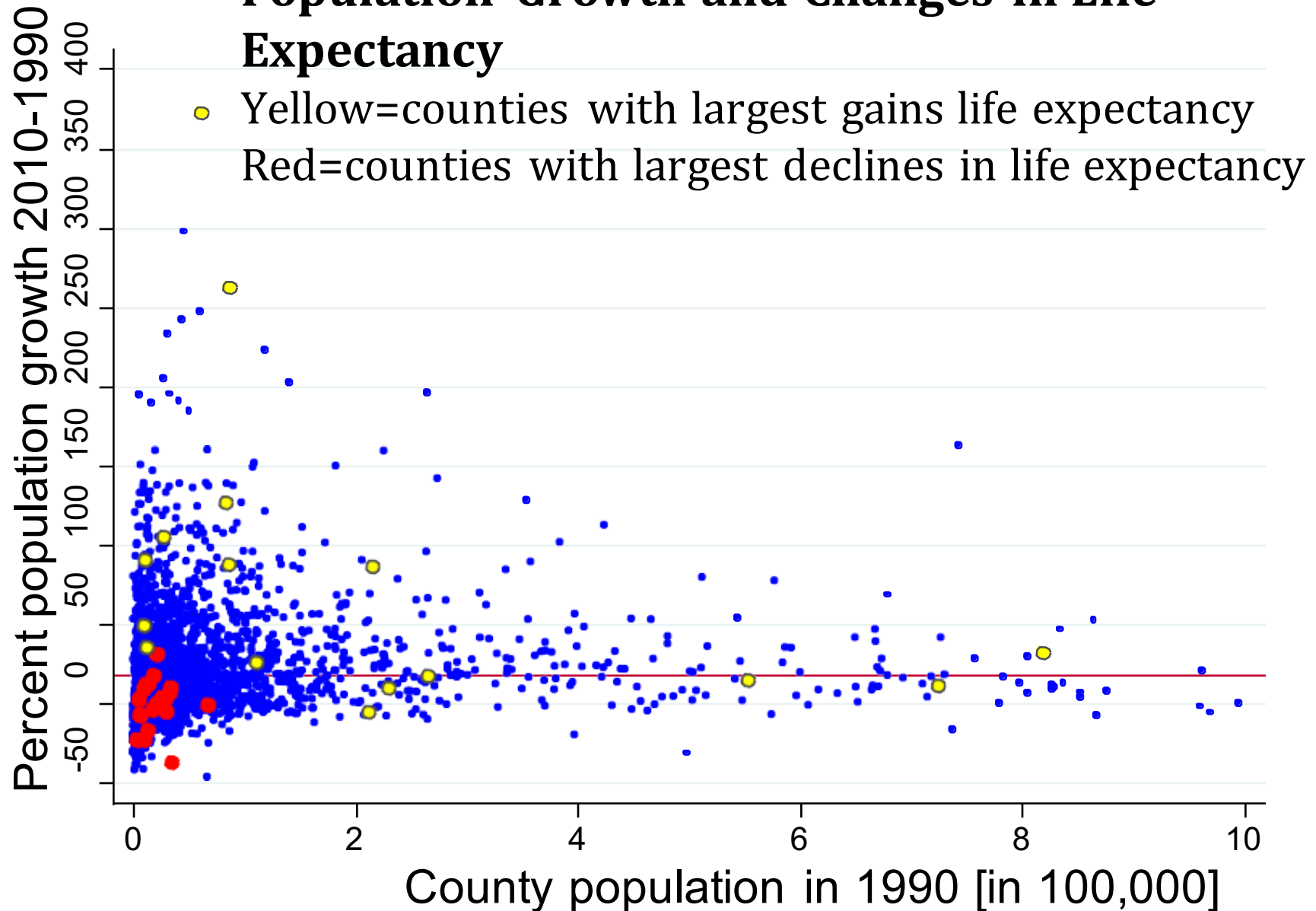


County is consistently reported in the Vital Statistics and Census data over time.

But people are mobile!

If the most able-bodied people are more likely to leave distressed areas, then the average health in those areas will decline over time even if there was no actual change in any individual's health.

# Population Growth and Changes in Life Expectancy



## Our Approach (Currie and Schwandt, Science 2016, JEP 2016)

First rank counties from richest to poorest.

Group counties into “bins” each representing about 5% of the population.

Do this separately for 1990, 2000, and 2010, so that in each Census year, we are considering mortality in the poorest counties and the richest counties.

## Look at mortality at all ages

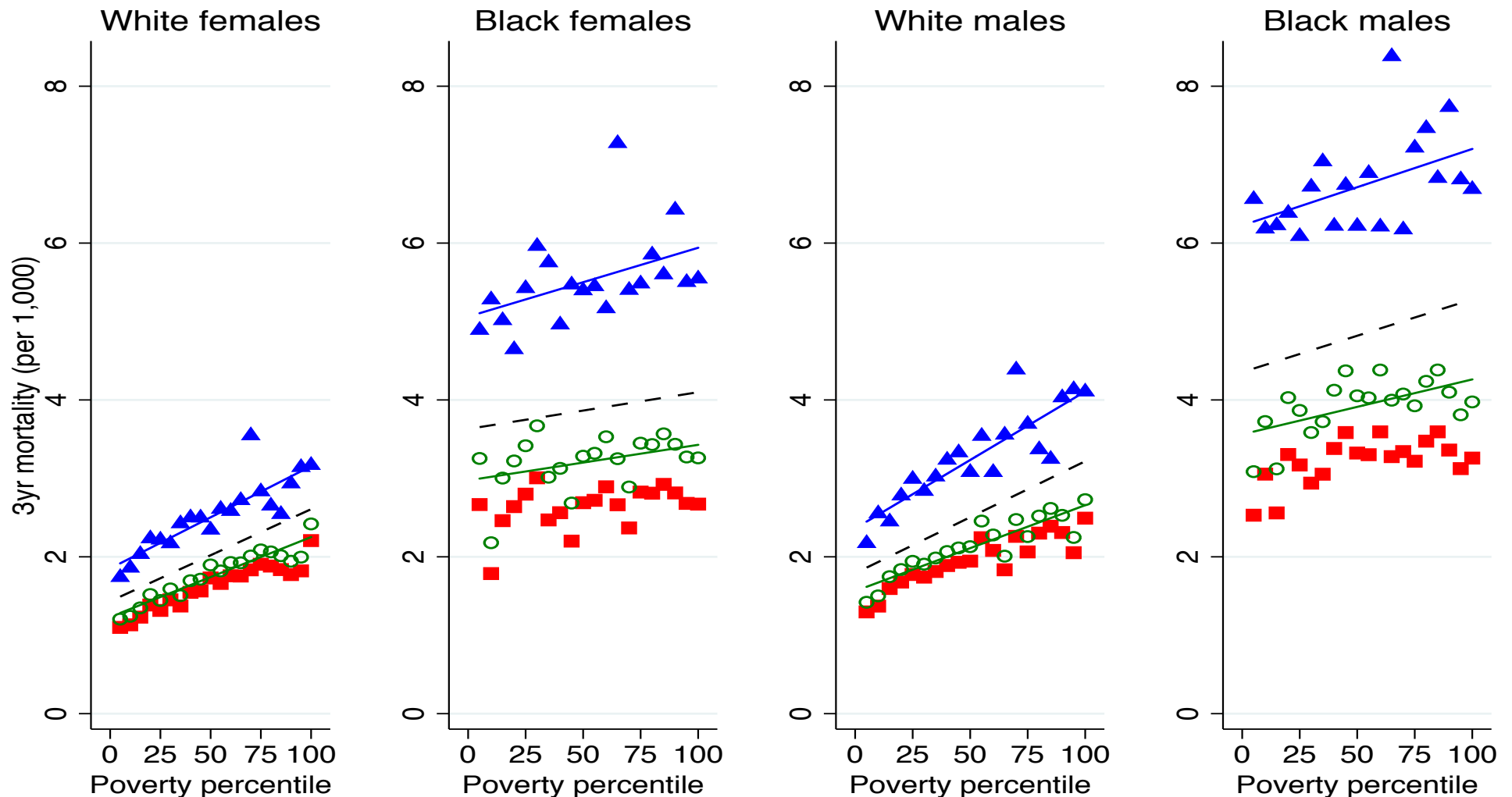
- Most deaths occur at older ages, but infant and child mortality is an important and sensitive indicator of population health.
- Declining mortality rates in childhood imply that these cohorts are likely to be healthier into the future.
- This is true even if the marginal survivors are likely to be in poor health, because those above the threshold for survival will also have better health, and there are many more of these individuals.



# 3-Year Mortality Rates Across County Groups Ranked by Poverty Rates, by Race and Gender.

(Blue triangle=1990, Green Circle=2010, Red Square=2010 with multiple race)

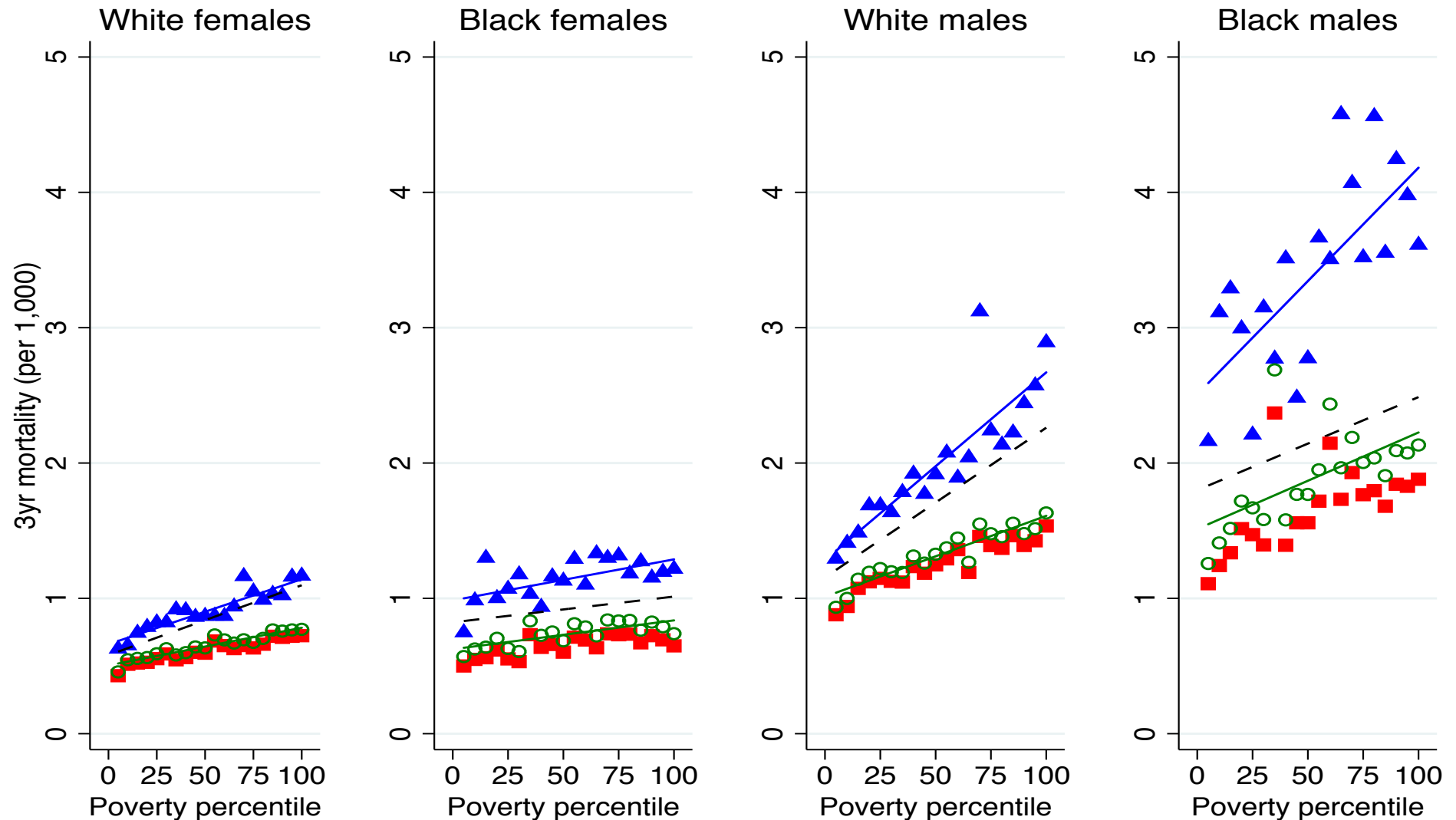
(A) Age 0-4



# 3-Year Mortality Rates Across County Groups Ranked by Poverty Rates, by Race and Gender.

(Blue triangle=1990, Green Circle=2010, Red Square=2010 with multiple race)

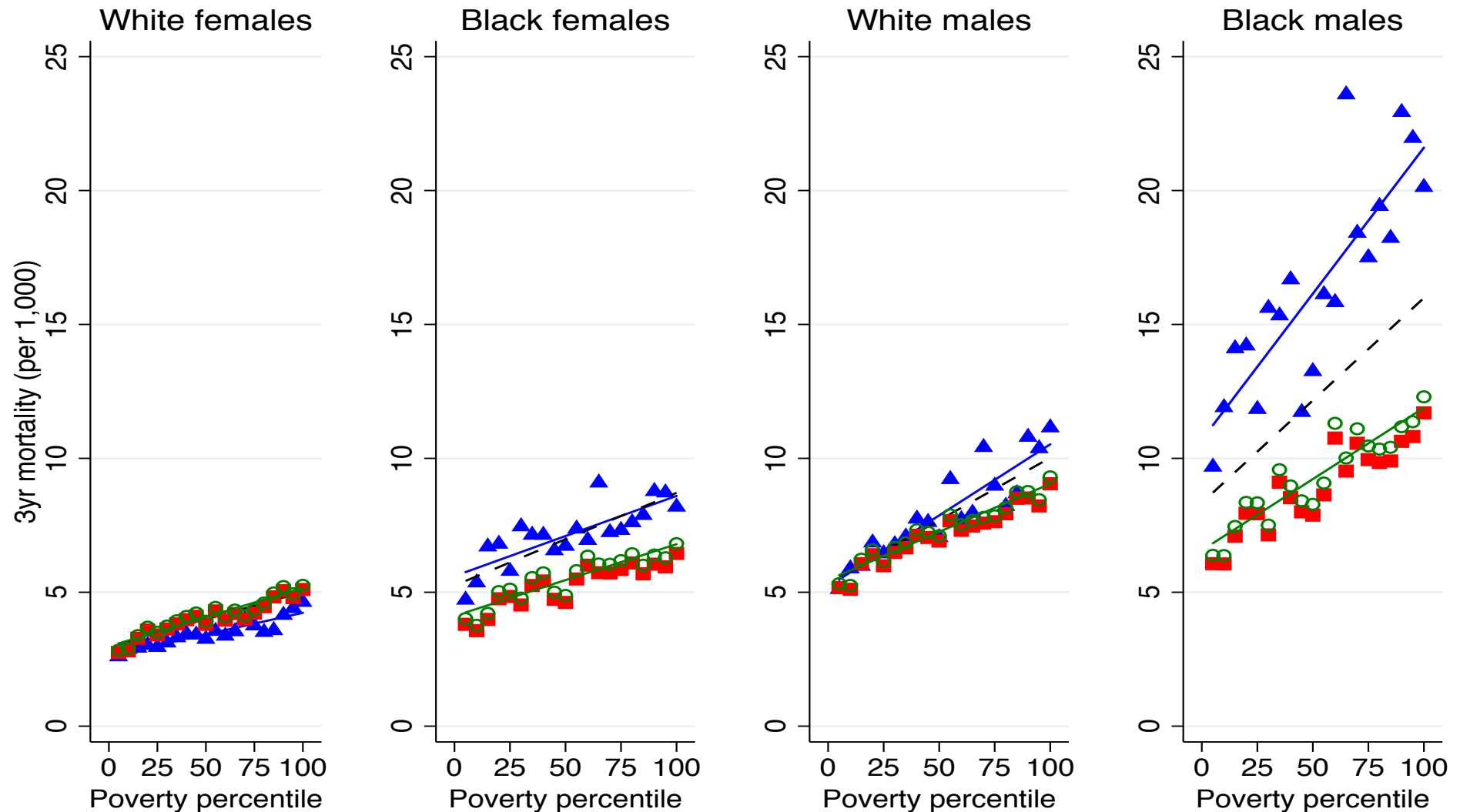
(B) Age 5-19



# 3-Year Mortality Rates Across County Groups Ranked by Poverty Rates, by Race and Gender.

(Blue triangle=1990, Green Circle=2010, Red Square=2010 with multiple race)

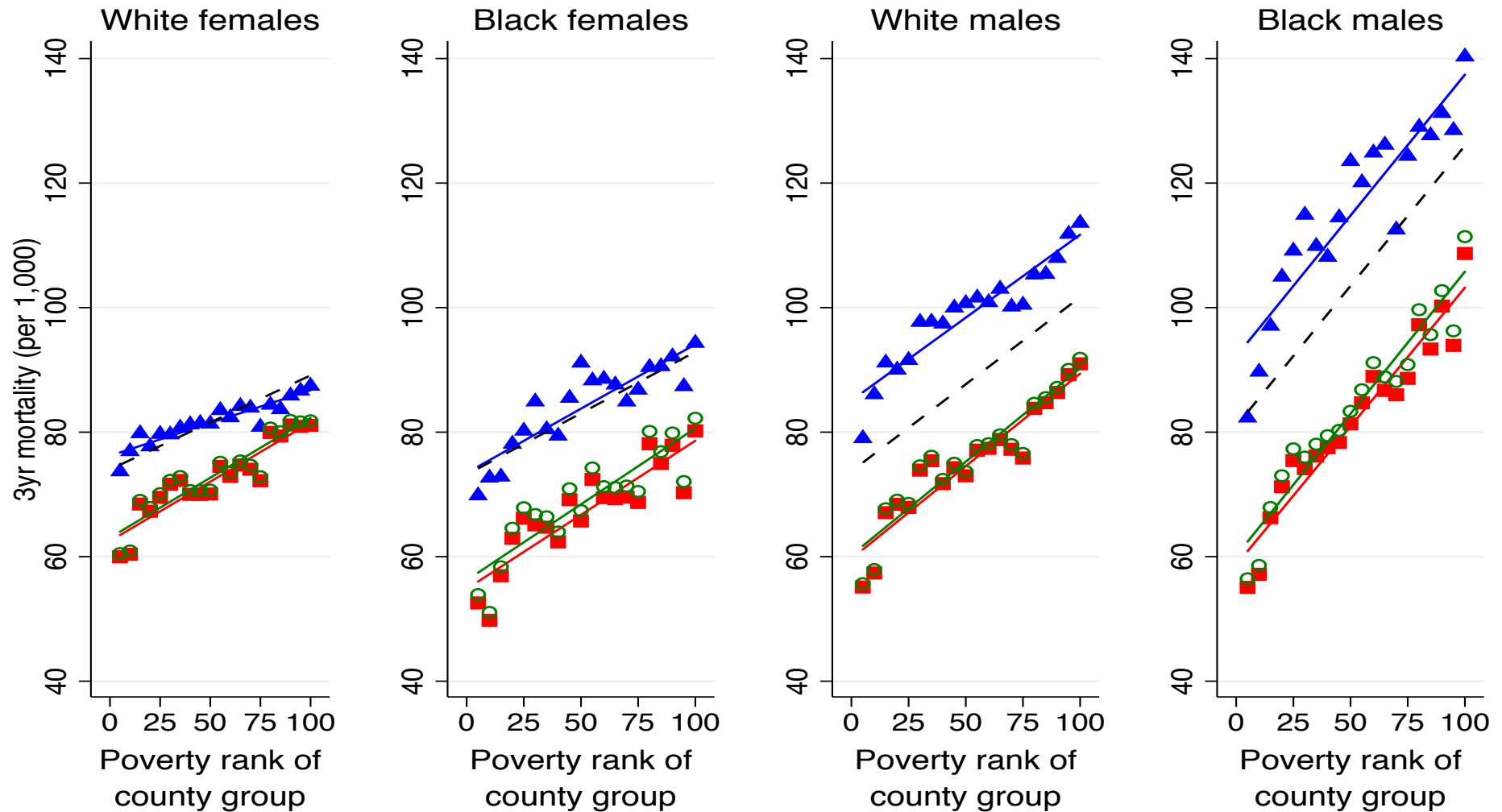
(C) Age 20-49



# 3-Year Mortality Rates Across County Groups Ranked by Poverty Rates, by Race and Gender.

(Blue triangle=1990, Green Circle=2010, Red Square=2010 with multiple race)

(D) Age 50+



## These results suggest that...

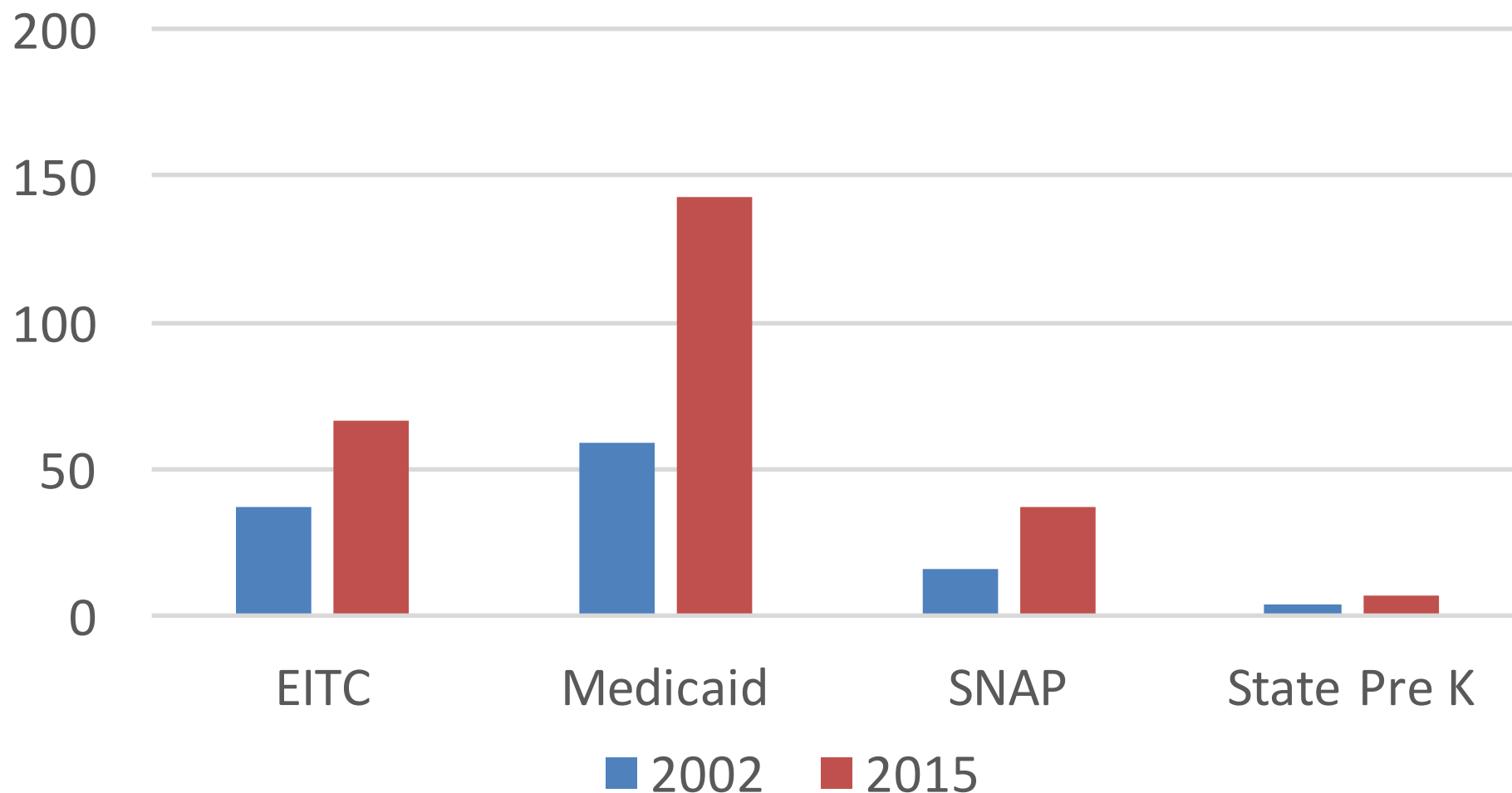
- Much of the previous research and media attention gives a seriously misleading picture of the relationship between income inequality and inequality in mortality.
- There may in fact be no necessary relationship between *changes* in income inequality and *changes* in mortality inequality.
- Past policy initiatives may in fact have been very effective at improving the health of the population.

# What Policies are Likely to Have Played the Greatest Role?

There are many candidates:

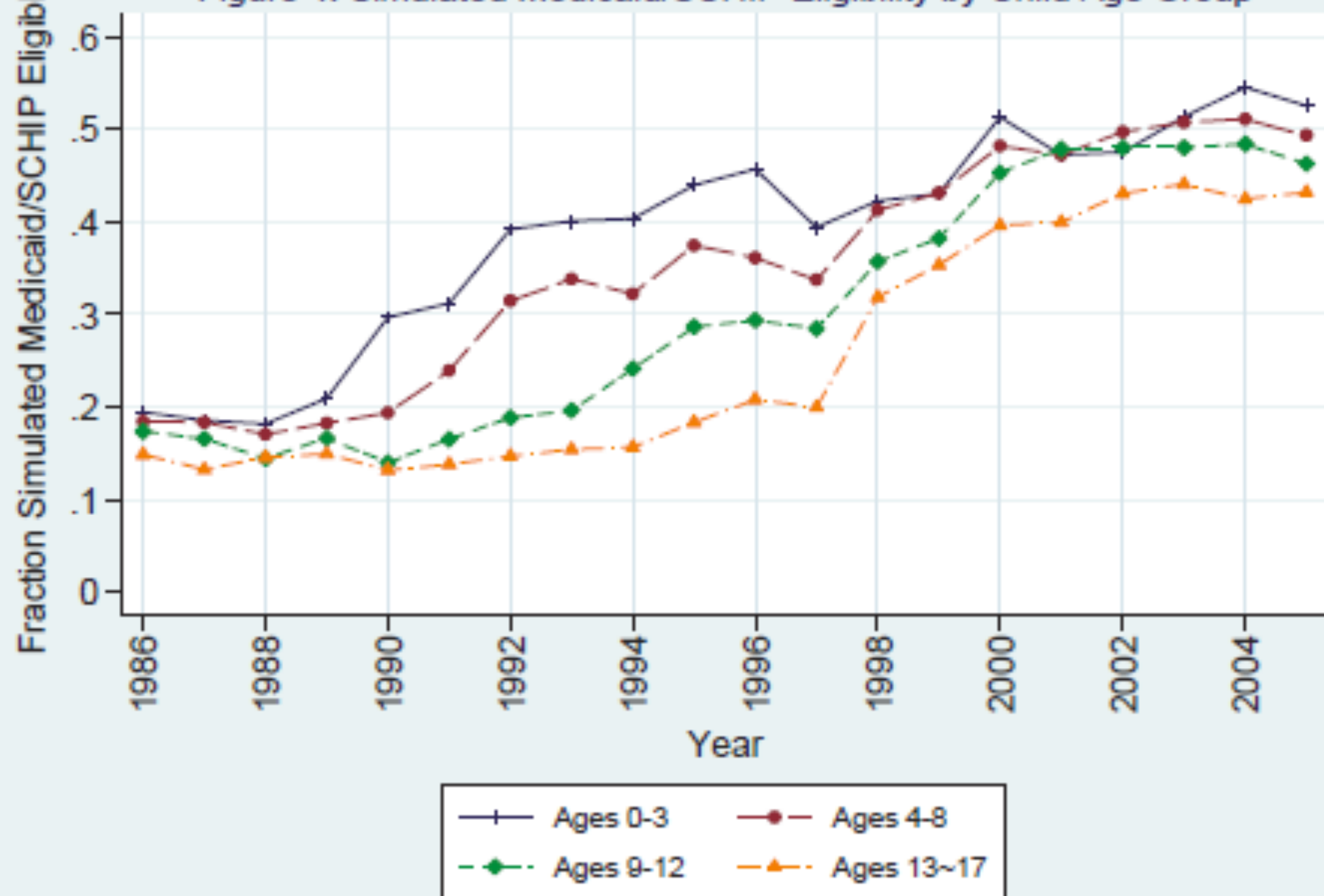
- Higher spending on children, especially Medicaid
- Changes in smoking behavior
- Reductions in pollution

## Overall Amounts Spent on Children Have Greatly Increased (\$2015)



Note: Only Medicaid for children and non-disabled adults is included.  
Assumed that ½ of Food Stamp payments go to families with children.

Figure 4: Simulated Medicaid/SCHIP Eligibility by Child Age Group



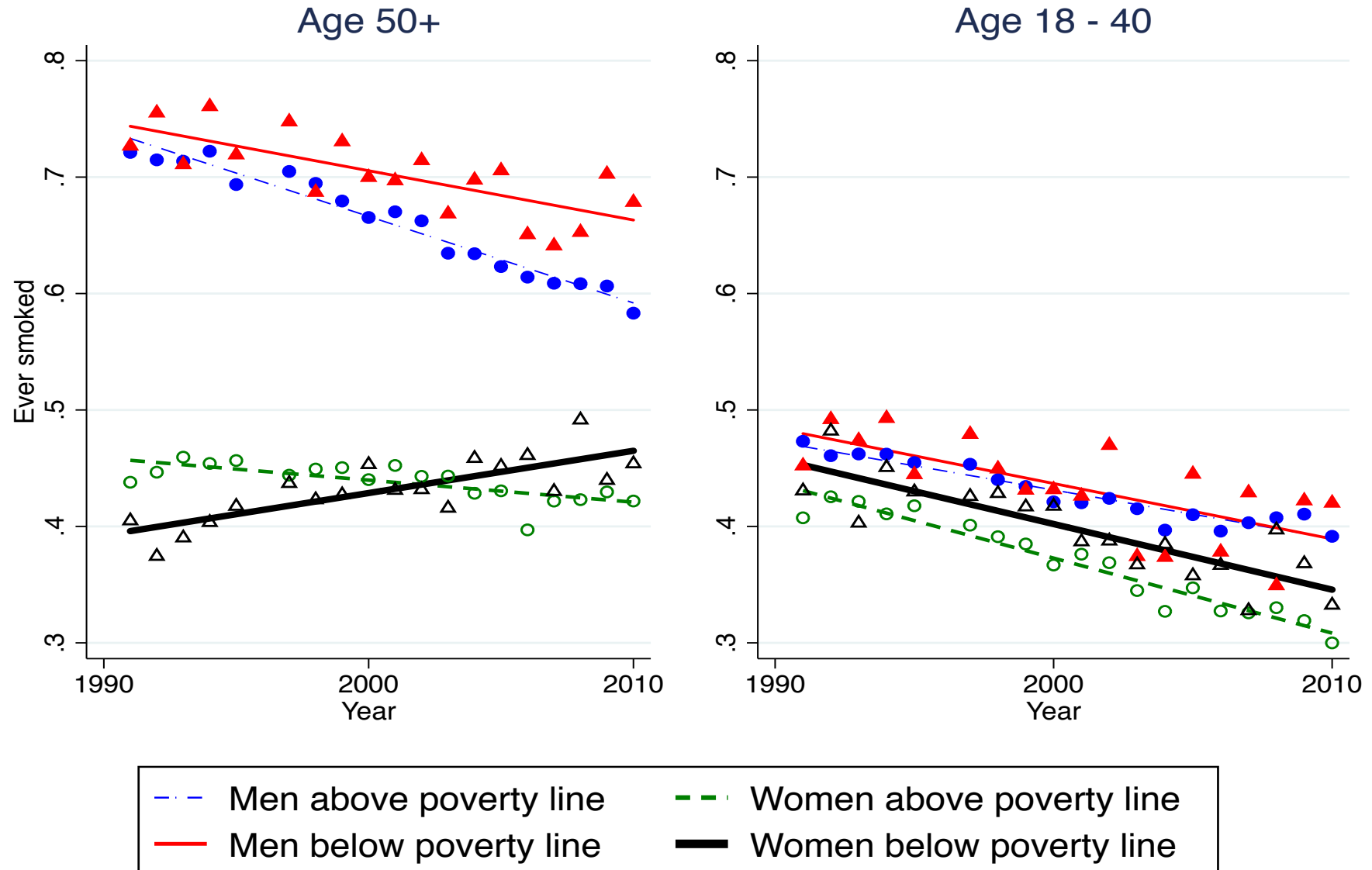


# Variation across states over time can be used to identify the effects of public insurance

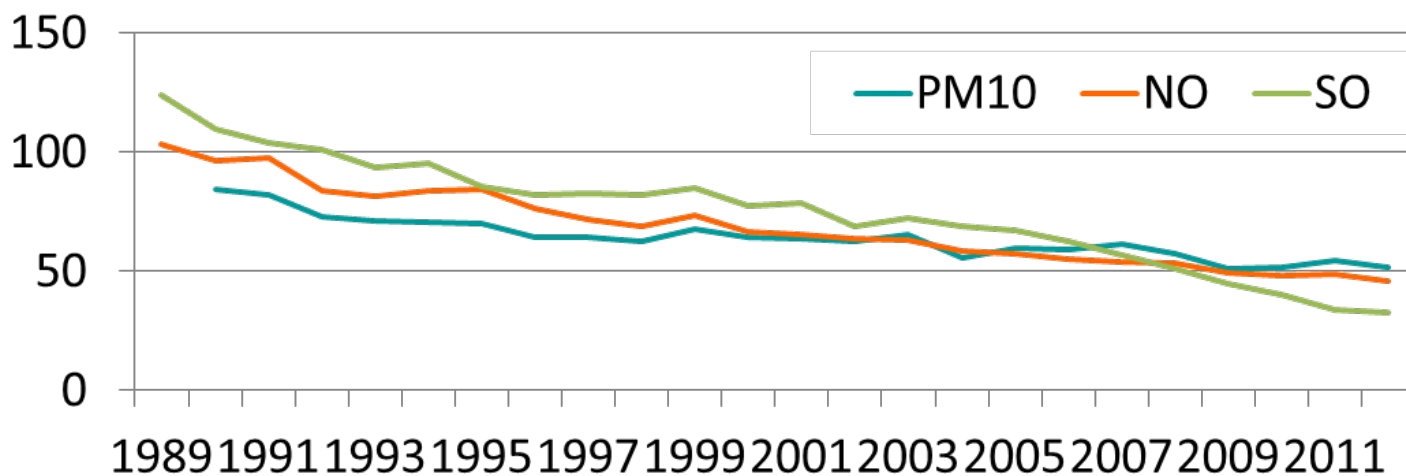
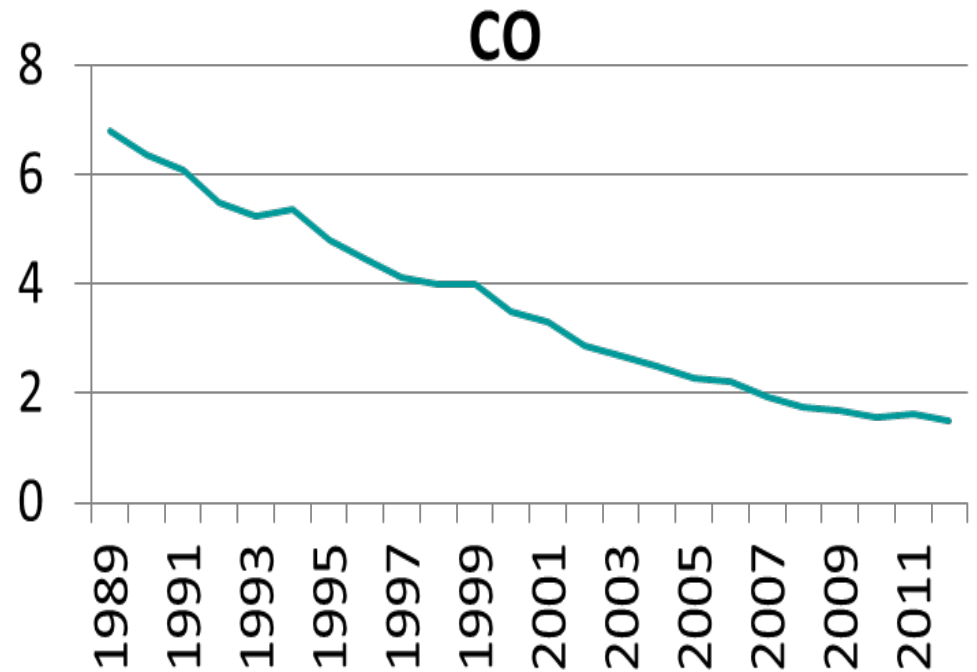
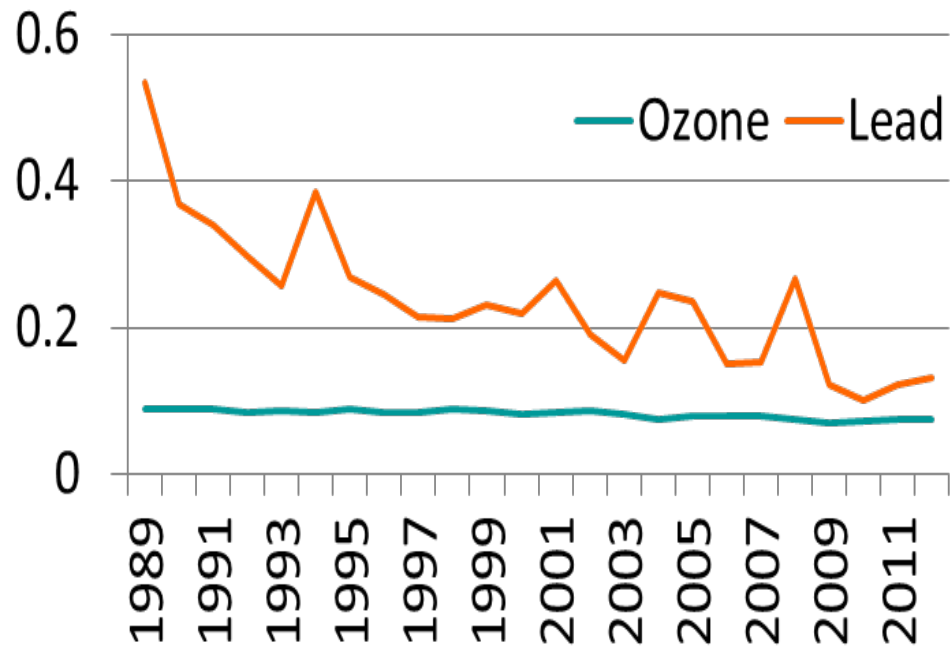
Only children born after September 1, 1983 were eligible for expansions, creating a discontinuity.

More recent research shows long term effects on the health and earnings of children who became eligible (Currie, Decker, Lin, 2008; Wherry et al. 2015; Wherry and Meyer, forthcoming; Kowalski et al. 2015)

# Huge declines in fraction “ever smoked” in young cohorts relative to older cohorts as a result of public policy



# Trends in Criterion Air Pollutants, 1989-2012



## Summary

- Even in a time of growing economic inequality, there were strong reductions in mortality among the poor.
- Mortality among poor children improved at a faster rate than among rich children, reducing inequality in mortality among children.
- Policy can effectively buffer the health effects of economic inequality.
- Since health in early childhood has long-term effects, we expect sustained improvements in the health of current younger cohorts as they age.