

# Heterogeneity in the Impact of Economic Cycles and the Great Recession: Effects Within and Across the Income Distribution

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Prepared for the AEA session “Impacts of the Great Recession on Low-Income Households”

# Motivation

- Great Recession marks worst shock since the early 1980s
- Prior work shows that recessions have larger negative effects for following groups:
  - Men, Hispanics & Blacks, young people, and the low-educated
- Is this true for well-being measured by the income to poverty ratio? Is the GR different?
- More generally, how are economic cycles experienced across the income distribution?

# Our approach

- Measure household after-tax-and-transfer income; compare to official poverty thresholds
- Examine effect of cycles across the income-to-poverty distribution up to 400% of poverty
- Look at effects overall, by subgroups defined by age, race/ethnicity, and marital status
- Also look at whether effects vary by GR or not

# Data

- Current Population Survey ASEC for calendar years 1980-2013
  - ATTI includes cash income, taxes (and tax credits), and cash value of transfers (SNAP/NSLP/LIHEAP/housing subsidies)
  - Sum within household, compare to household size's official poverty threshold
  - Collapse to state-year cell using weights; also by subgroup
  - No data for 1987/1991 for transfers, left out
- Cycles defined by state unemployment rate
  - Variation is across states and over time

# Empirical model

- State panel fixed effects model; cycle measured by state-year unemployment rate

$$y_{st} = \beta UR_{st} + \alpha_s + \delta_t + \varepsilon_{st}$$

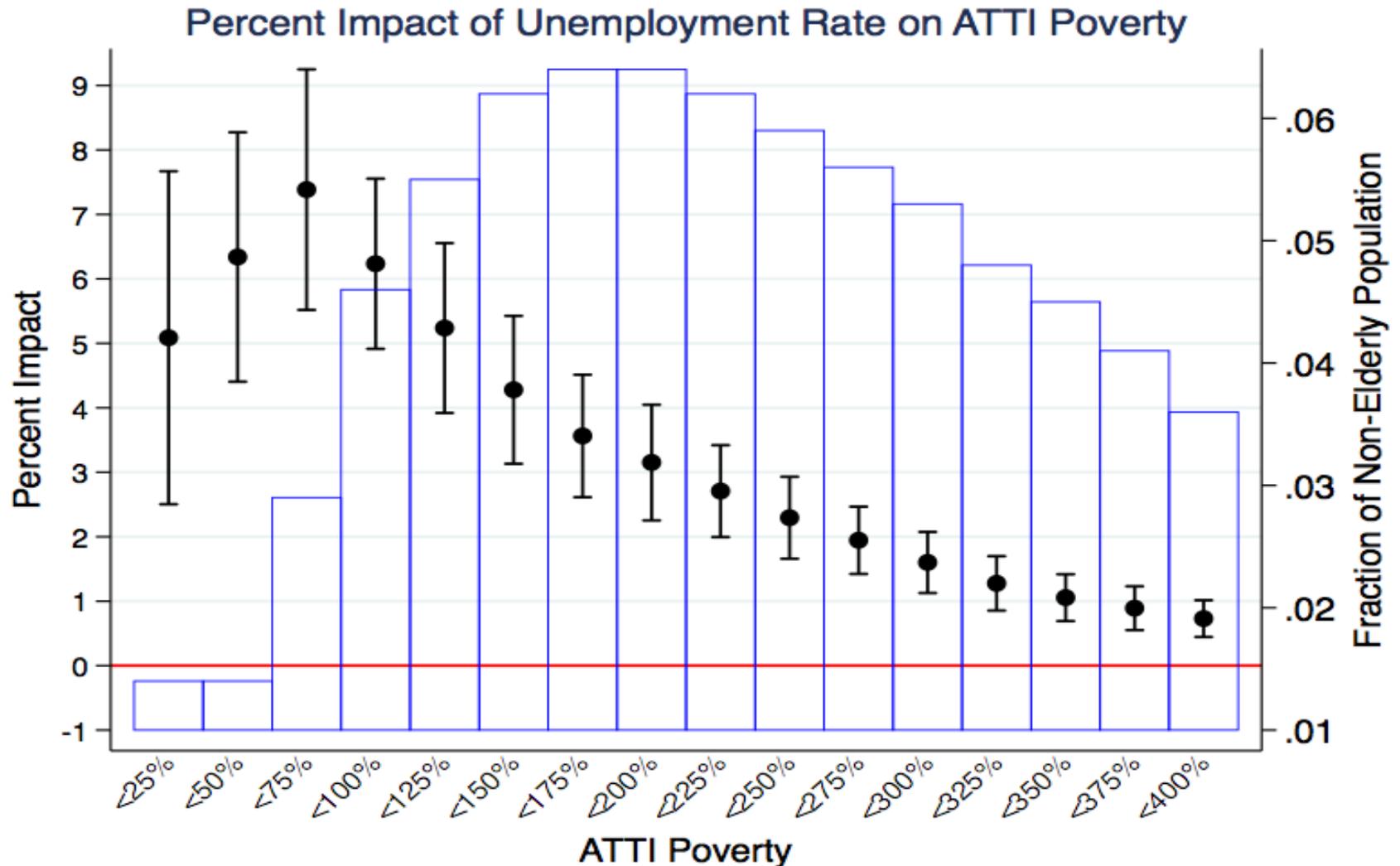
- Standard errors clustered on state, weighted using denominator
- Is GR different from 1980s cycles?
  - Compare GR cycle [2007+] to early 1980s cycle [1980-1989], rest of period is included

$$y_{st} = \beta_{80} D_{80} UR_{st} + \beta_{GR} D_{GR} UR_{st} + \beta_O D_O UR_{st} + \alpha_s + \delta_t + \varepsilon_{st}$$

# (1) Effect of cycle for full period

- Look at effects on the probability of being below various cuts of income to poverty, at increments of 25% up to 400%
  - In 2013, for a family of 3, poverty is \$18,769
- Variation in shares in these bins, so present percent effects (divide relevant coefficient by full period mean of Y)
- Start with nonelderly population

# Effects for non-elderly – full period



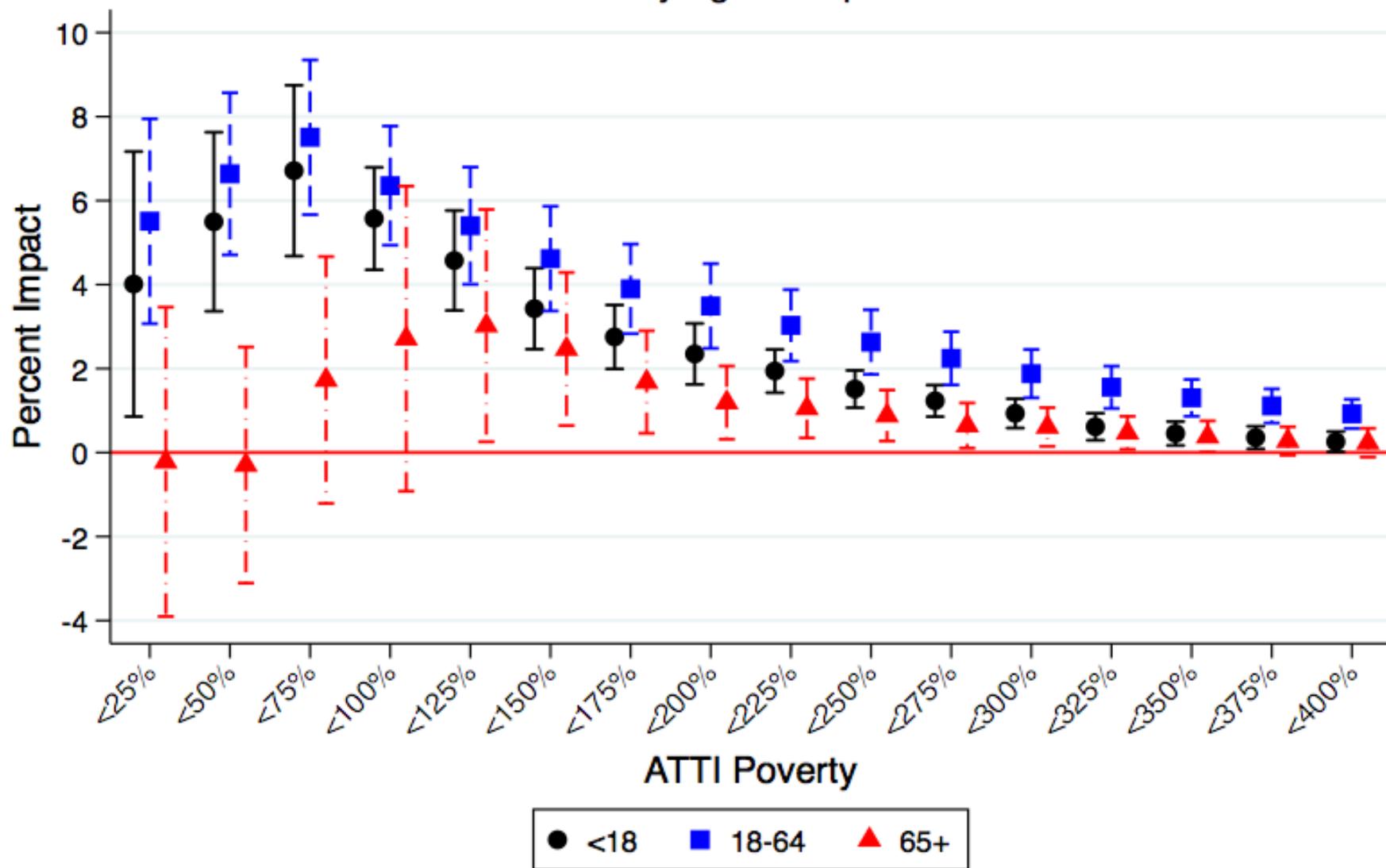
[25% of households have income above 400%]

# Effects for non-elderly

- Left axis, effects in percent terms
  - Effect of a 1 percentage point increase in unemployment is a 6.2 percent increase in the probability that non-elderly persons household income is below 100% of ATTI HH poverty
- Effects always positive and statistically significant all the way up to 400% of poverty [25% of persons above 400% of poverty]
- Effects decline in percentage terms as go up income-to-poverty distribution
  - Important exception, effects are lower at very bottom compared to 75%/100%, but is a small share of HH

## (2) Effects of cycle across demographic groups

## Percent Impact of Unemployment Rate on ATTI Poverty by Age Group



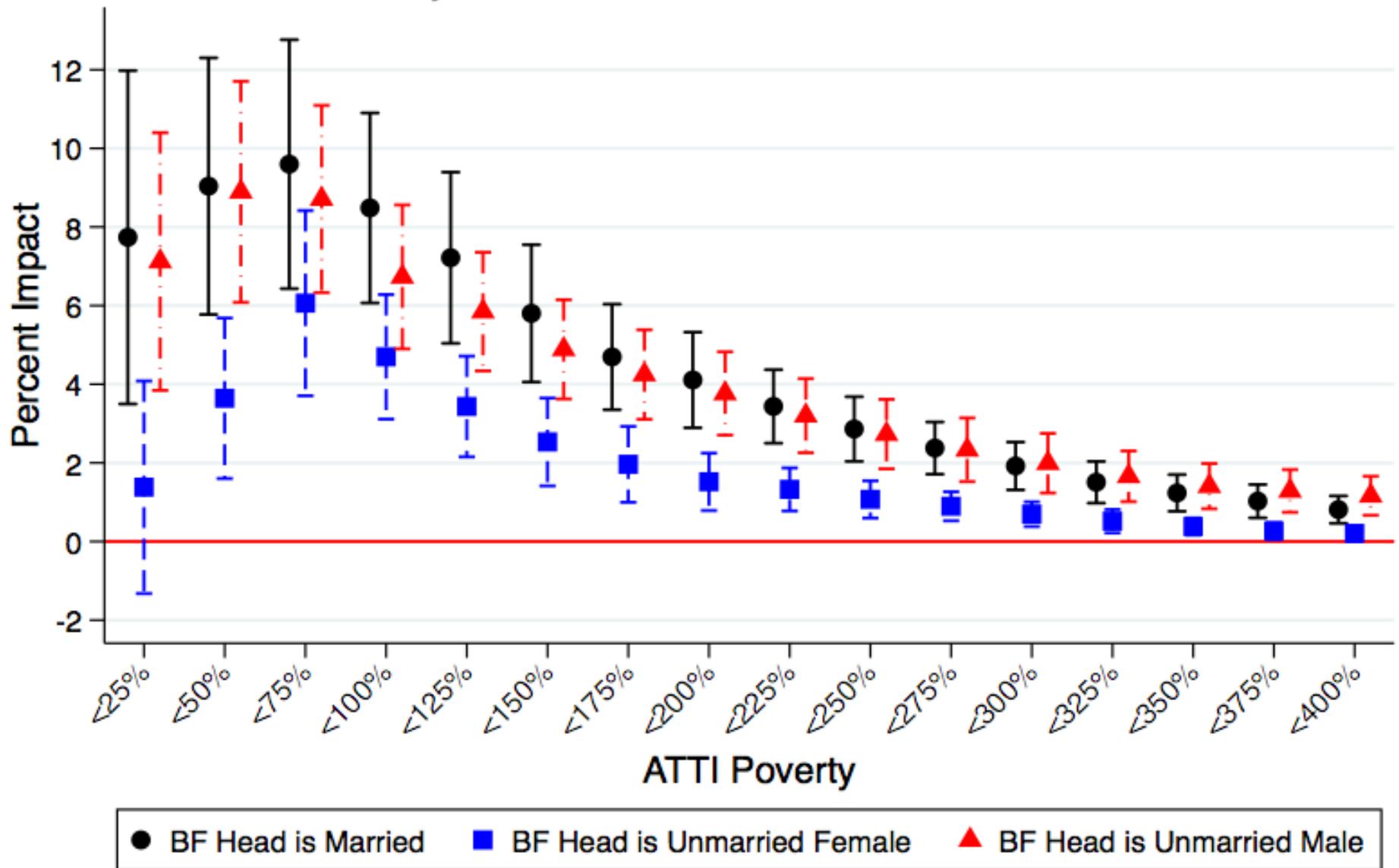
# Effects by age

- Effects for children and prime-age adults are very cyclical at the bottom
- Elderly effects are small and insignificant at bottom (up to 125% of income to poverty), and smaller than other age groups
  - Less exposure to shocks?
  - Protection through Social Security

# Effects for other subgroups

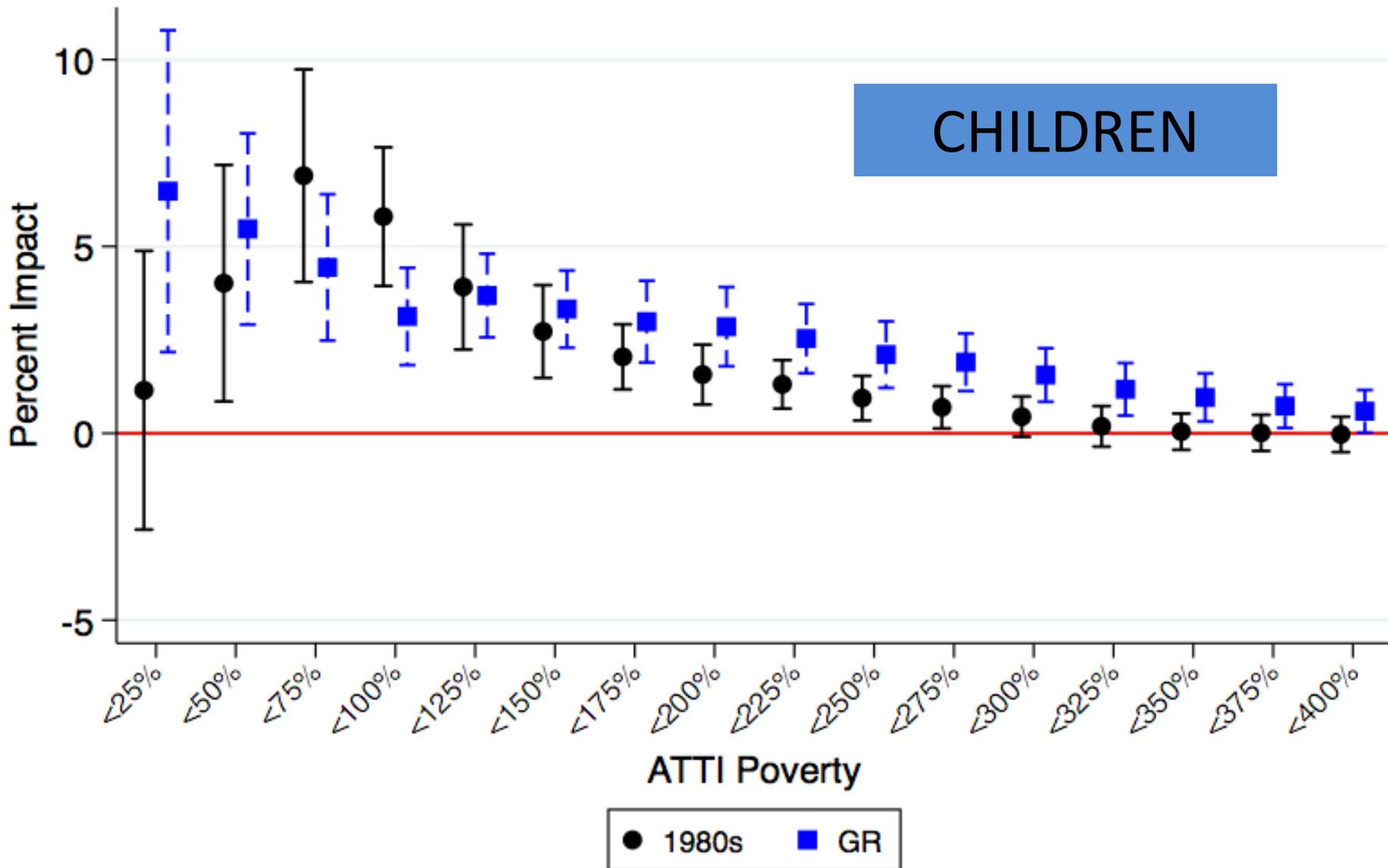
- Race/ethnicity of family heads: Striking in that there are no real differences
- Marital status: Probabilities of being below various income to poverty ratios for unmarried female family heads are significantly less cyclical at the bottom than income to poverty for unmarried male heads or married heads

## Percent Impact of Unemployment Rate on ATTI Poverty by Marital Status and Gender of BF Head



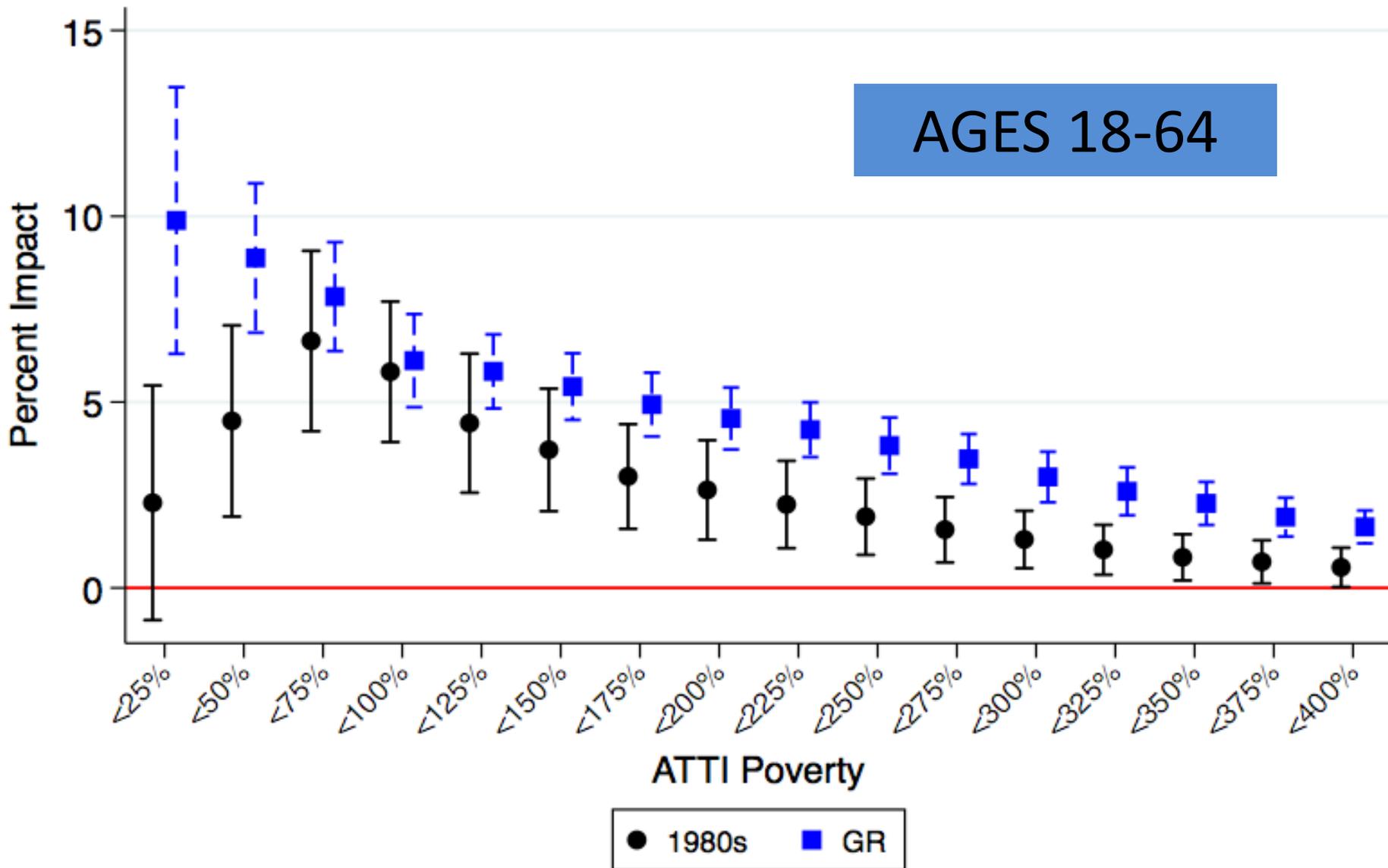
(3) Is the GR different from 1980s cycles?

# Percent Impact of Unemployment Rate on ATTI Poverty <18 Years Old, 1980s vs. Great Recession

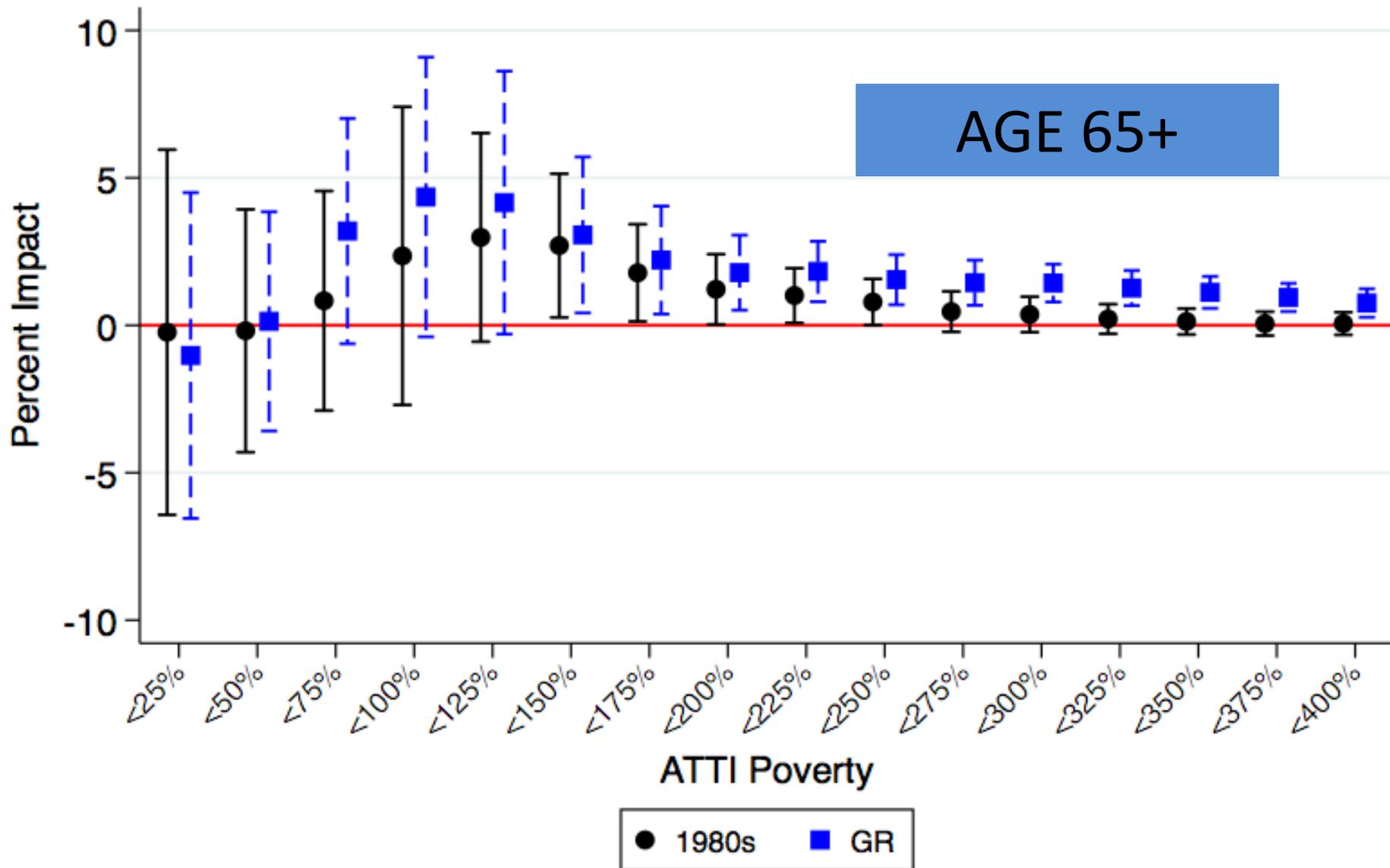


# Percent Impact of Unemployment Rate on ATTI Poverty 18-64 Years Old, 1980s vs. Great Recession

AGES 18-64



# Percent Impact of Unemployment Rate on ATTI Poverty 65+ Years Old, 1980s vs. Great Recession



# Is the GR different from the early 1980s cycles?

- General result – for nonelderly, extreme poverty has become more cyclical; a bit more protection at 75/100 poverty; more cyclical at higher levels
- For children, no statistically significant differences
- For adults, GR always more cyclical, often statistically so
- For the elderly, no significant or large (in magnitude) differences

# Discussion

- Our previous work (Bitler and Hoynes 2014) suggests that some of this is about changes to the safety net
  - A loss of protection from AFDC with PRWORA/TANF shows up in the GR at the very bottom (more cyclical)
  - Some increase in protection from SNAP in GR (point estimates suggesting less cyclical for kids at 75/100%)
- Higher cyclical from 125%-400% probably due to changes in incidence of long-term unemployment

# Conclusion

- Comprehensively examined the effects of the business cycle on the HH distribution of ATTI income to poverty
- Effects are most cyclical at the bottom, less so higher up
- Gradient steeper in the GR
- Differences large by age, less so by other groups
- To do: Multiple testing