Employment Hysteresis from the Great Recession
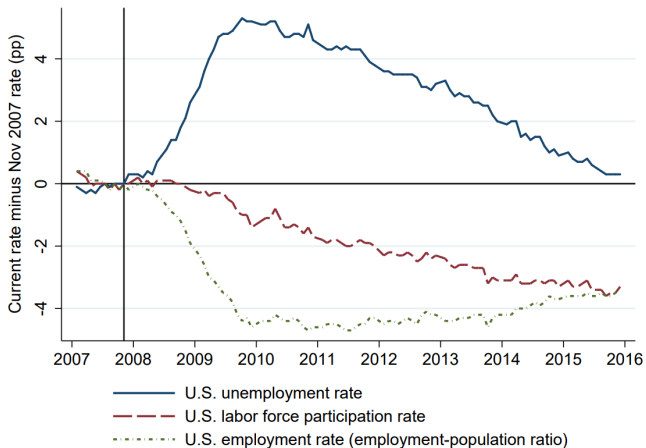
Danny Yagan (2018)

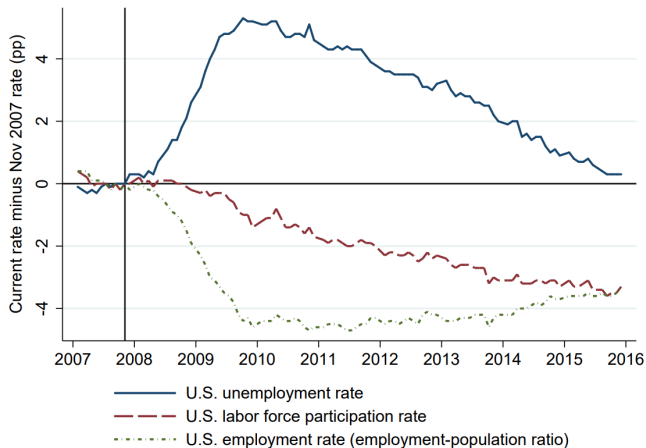### Presented by Sebastian Graves

September 9, 2019

Motivation

A. Current U.S. Aggregate Minus November 2007 U.S. Aggregate

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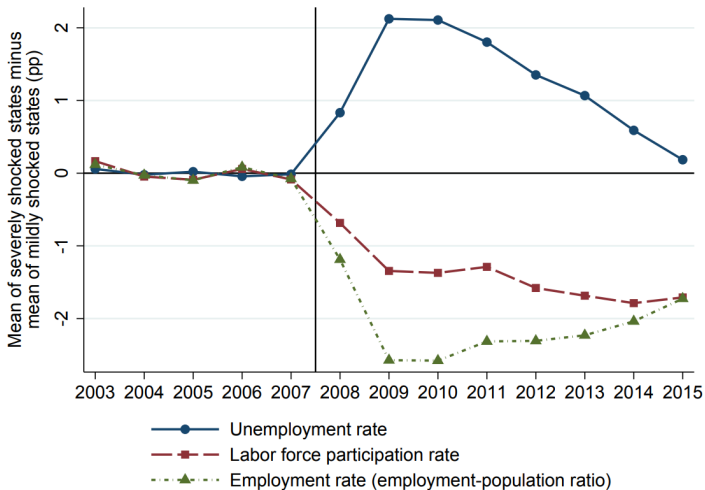

A. Current U.S. Aggregate Minus November 2007 U.S. Aggregate

- U.S. unemployment rate
- U.S. labor force participation rate
- U.S. employment rate (employment-population ratio)

How to disentangle effect of Recession from secular trends?

Cross-Sectional Evidence

B. Severely Shocked States Minus Mildly Shocked States

Legend:
- Unemployment rate
- Labor force participation rate
- Employment rate (employment-population ratio)

Possible sources of composition bias

1. Post-2007 sorting on labor supply
   - Areas hit hard by Recession may have attracted or retained those secularly out of the workforce (e.g. due to falling cost of living)

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Solution?
   - Use linked-employer-employee data in order to control for prominent dimensions of cross-area sorting

Empirical Design

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- ▶ SHOCK: percentage-point change in the individuals 2007 Commuting Zone unemployment rate from 2007 to 2009.

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- ► Identifying assumption: individuals were as good as randomly assigned across local areas within groups
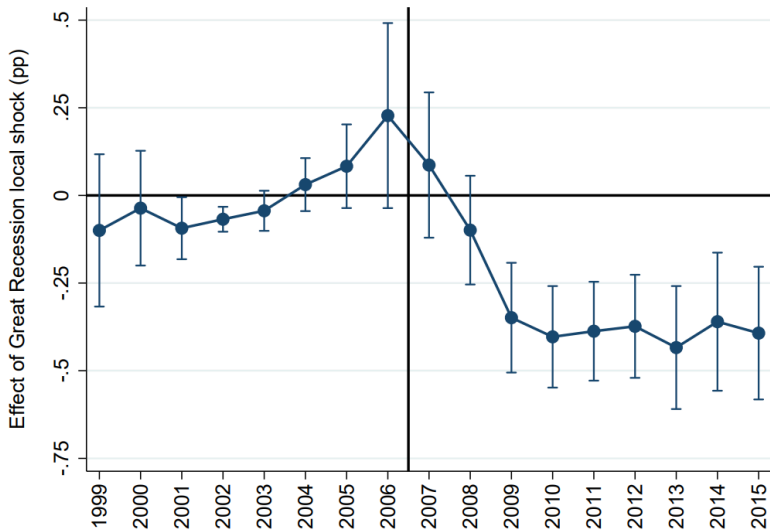
Local Shocks

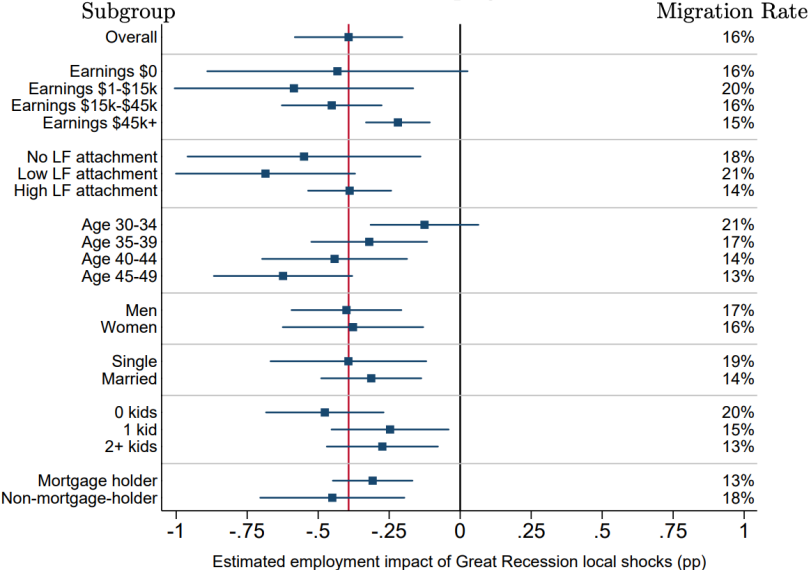Figure 3: Great Recession Local Shocks
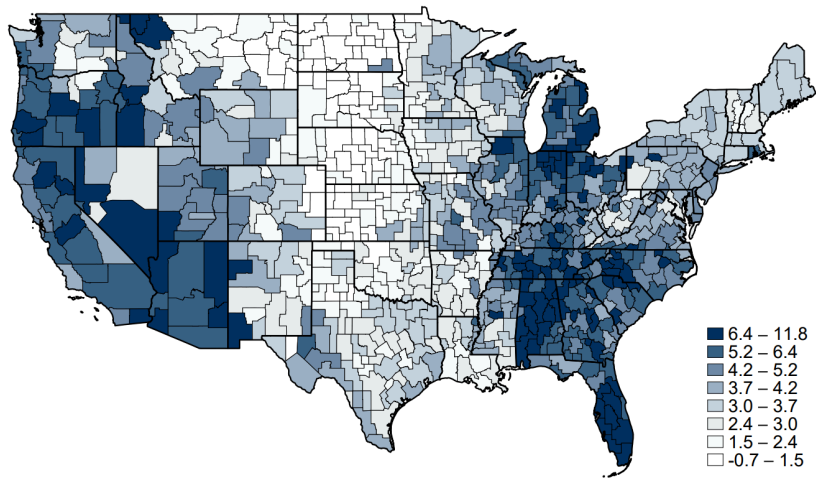
Effect on Employment

A. Employment Impact of Great Recession Local Shocks

Impact Heterogeneity

A. Employment

Estimated employment impact of Great Recession local shocks (pp)

Economic Significance

- US unemployment rate increased 4.63% from 2007 to 2009
- One p.p. higher local unemployment induced 0.393 p.p. decline in 2015 employment

$$\rightarrow 4.63 * 0.393 = 1.82$$

- Age-adjusted employment rate fell by 2.4% from 2009 to 2015
- So Great Recession caused 76% (= 1.82/2.40) of the decline