Is Current Decline in U.S. Employment Rate Persistent or Temporary?

Is the decline in aggregate employment rate in the ‘Great Recession’ more persistent than in previous recessions?

→ Does current gap in aggregate employment rates in the U.S. in the aftermath of ‘Great Recession’ represent ‘slack’ or permanently lower employment rate?

Does a strong rise in the level and duration of nonemployment in recessions by itself lower equilibrium aggregate employment (in what has been called ‘hysteresis’)?

→ We know recessions can leave lasting ‘scars’ on life-time earnings of individuals. Do recessions leave lasting ‘scars’ on employment of workers and aggregate labor market as well?
Compared to Previous Downturns, U.S. Great Recession Was Characterized by an Unprecedented Rise in Long-Term Unemployment and a Persistent Decline in Employment Rate


→ Are these developments signs of hysteresis? Reminiscent of lasting decline in employment rates in Europe in the early 1980s?

Difficulties in Assessing Persistence in Employment Rates (1)

Difficulty 1: Measurement of Long-Term Unemployment (LTU)

(1) Distinguish typically between unemployment & other types of nonemployment: Unemployed declare themselves available and searching for a job. Other nonemployed include, among others, marginally attached workers, discouraged workers, or retired workers.

→ In official U.S. statistics, spell duration currently ONLY measured for unemployed. Do not know spell duration for nonemployed in general.

→ Yet, number of nonemployed has been increasing in Great Recession. Figure is not informative for a rising no. of workers.

(2) It is well known that whether individuals self-declare themselves as unemployed changes with institutional environment and over time

→ We may be comparing apples & oranges when comparing LTU over time (or across groups of individuals or across countries)
Difficulties in Assessing Persistence in Employment Rates (2)

Difficulty 2: There is Little Direct Evidence of Hysteresis

→ Limited micro evidence that nonemployment duration causes further nonemployment. Difficult question, because long-term nonemployed workers may be less productive.

→ Difficult to assess whether degree of persistence changed at macroeconomic level, too, because cohorts of newly unemployed workers may differ as well

→ Hard to assess whether a rise in incidence & duration of nonemployment at individual (micro) level leads to a decline in employment rates at the aggregate (macro) level

Approach Today: Two Contributions Based on Longitudinal Administrative Data Covering More Than 30 Years on Annual Earnings and Employment of Workers and Employers

Contribution 1: Construct new measures of duration of nonemployment from 1980-2011 that are comparable over time

1. Based on these measures, can assess whether incidence of long-term nonemployment in Great Recession was truly exceptional
2. Based on our data, we can also examine whether duration of long-term nonemployment spells was much higher in Great Recession

Contribution 2: Obtain direct evidence of effect of job displacement in recessions on employment persistence

1. Can directly assess causal effect of recession-induced ‘shock’ on employment decline at individual level
2. Using these estimates and information on the incidence of job loss, we assess whether potential for hysteresis in Great Recession is strong
Snapshot of Three Main Findings

1. The Incidence and Duration of Long-Term Nonemployment is Similar in Great Recession as in Previous Recessions
   → In contrast to behavior of long-term unemployment, no evidence that Great Recession led to more long-term nonemployment

2. Job Displacements of Stable Workers Lead to Lasting Employment Losses. Effect was Not Greater in Great Recession

3. Since the Job Loss Rate Rises in Recessions, Job Losses Likely Induce a Persistent Reduction in Aggregate Employment Rates
   → Incidence of job displacement of higher-tenured workers, and job loss more generally, did not appear to be larger in Great Recession
   → Approximate estimates suggest that job loss-induced reduction in employment rates in Great Recession moderate

How We Measure Long-Term Nonemployment (LTNE) Using Administrative Data

Our Source of Data
→ Data on annual earnings from tax records 1980-2011 from Social Security Administration on workers and their employers, with info on gender and age

Our New Measure of Long-Term Nonemployment
→ Count number of people in prime working age with prior employment that had at least 1 (2) years of zero annual earnings & divide by number of people in labor force

Advantages of Our Measure
→ a) consistently defined over long period of time, b) does not vary with changes in self-reporting, c) captures all sources of nonemployment, not just active job searchers

Potential Issue with Our Measure
→ Captures nonemployment from any source, affected by secular participation trends?
Two Measures of Long-Term Nonemployment (LTNE) from early 1980s Recession to the Great Recession:  
Little Sign of Greater Incidence of LTNE in Great Recession

Figure 5A: Two Measures of Long-Term Nonemployment Rate  
Fraction of Workers Not Employed for 1 and 2 Calendar Years  
Men and Women, 1981–2011, Tabulations from SSA


Probability of Exit From Long-Term Nonemployment by Years Since Initial Nonemployment Spell:  
No Evidence of Greater Persistence in Great Recession

Figure 7B: Normalized Survivor Curve After 1-Year Nonemployment Spell  
Fraction of Workers Not Employed By Year Since 1-Year Gap  
Men and Women, By NBER Expansions (E) and Recessions (R)
Direct Evidence on Whether Recessions Can Lead to Persistent Employment Reductions Based on Job Losers

- Analysis of Long-Term Nonemployment Rates say something about changes in the incidence & duration of nonemployment spells over the cycle, but cannot assess numerical importance of micro-level persistence for aggregate employment rates.

- Here, we turn to an analysis of displaced workers to obtain direct evidence of the effect of a recession-induced shock on short-and long-term individual employment and aggregate employment rate.

- We define a worker as displaced if he had at least 3 years of job tenure at a firm with at least 50 employees and left that employer during a lasting decline in employer size of at least 30%: this is a subset of all job losers.

- Evolution of employment rates before and after job displacement of displaced workers is compared to a control group of non-displaced workers.

- Important Distinction: job displacement (of stable workers from larger firms) vs. job loss (any involuntary job loss for economic reasons). Narrower definition leads to better measures for smaller populations.

Displaced Workers Experience Persistent Decline in Employment Lasting Many Years: Effect is Similar in Great Recession as in Prior Recessions

Figure 12A: Change in Fraction with Positive Annual Earnings Averages for Displacements in NBER Recessions since 1980 Men with At Least 3 Years of Job Tenure Displaced at Firms Size 50+ Displaced as Firm has Lasting 30% Employment Drop Over 2 Years
Rate of Job Displacement Rises in Recessions, Inducing Persistent Declines in Employment: Yet, Displacement Did Not Rise More in Great Recession

Figure 4: Alternative Measures of Job Loss, 1975–2014


How Much of The Persistent Decline in Employment Rates After Great Recession Could Be Explained by Job Loss? Answer Depends on 2 Hard-to-Measure Statistics

Statistic No. 1: Size of Effect of Job Loss on Employment

→ Here we analyzed higher-tenured men from larger firms
→ Are effects similar for broader groups of workers?
→ Current evidence suggests the answer is probably ‘Yes’

Statistic No. 2: Incidence of Job Loss in the Population

→ Proportion of higher-tenured men displaced from larger firms among entire population is small
→ Proportion of all job losers among population can be substantial

⇒ Approximate Calculations Suggest Persistent Decline in Employment Due to Job Loss in Great Recession is Moderate
Summary of **Three** Main Findings

1. **The Incidence and Duration of Long-Term Nonemployment in Great Recession is similar to Previous Recessions**
   - In contrast to long-term unemployment, no evidence that Great Recession led to more long-term nonemployment

2. **Job Displacements Lead to Lasting Reductions in Employment, but Effect was Not Larger in Great Recession**

3. **Since the Displacement Rate Rises in Recessions, Recessions Likely Induce a Persistent Reduction in Employment Rates**
   - Incidence of job displacement not larger in Great Recession
   - Approximate estimates suggest that job loss-induced reduction in employment rates in Great Recession moderate

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Some Key Implications of Findings

1. **Findings appear to support notion that much of current decline in employment constitutes ‘slack’ rather than a shift in equilibrium employment rates**

2. **However, results also underscore the potential of recessions to lead to lasting effects on earnings & employment of affected workers and hence on the labor market**

3. **Findings reinforce view that behavior of nonemployment rates over the business cycles have to be better understood**

4. **In particular, results suggest that there was a potentially significant change how individuals self-reported themselves in the U.S. main labor force survey (Current Population Survey)**