

# Job Stability, Earnings Dynamics, and Life-Cycle Savings

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  1. Some workers have stable lifetime jobs
  2. Other workers trapped in employment-unemployment cycles

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  2. Connects micro behavior to macroeconomic dynamics

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  2. Single stochastic earnings process for earnings dynamics

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- Consumption-saving behavior well understood in these models
- Explore life-cycle consequences of heterogeneity in unemployment risk

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Document relationship between job stability and wealth accumulation

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- Study consequences of declining of U.S. labor market dynamism

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# Results

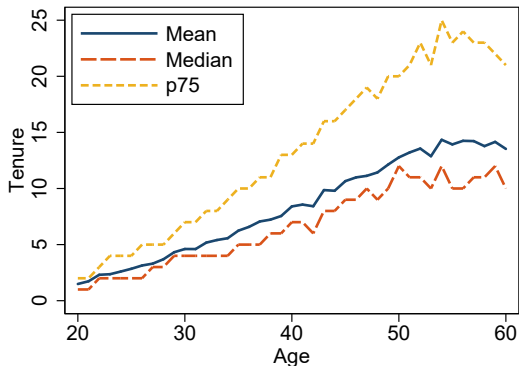
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- Large and persistent consequences of differences in separation rates
- Secular decline in labor market mobility implies 1.6% welfare gain for labor market entrants

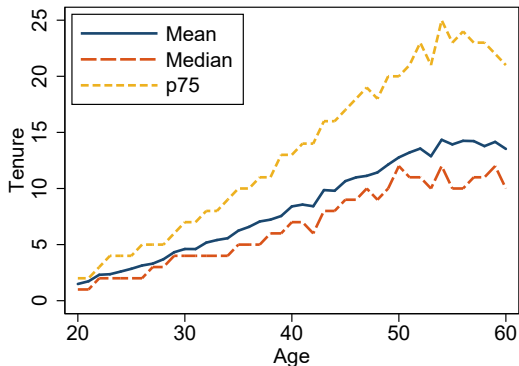
## Heterogeneity in separation rates

- Increasing dispersion of job tenure over the life cycle



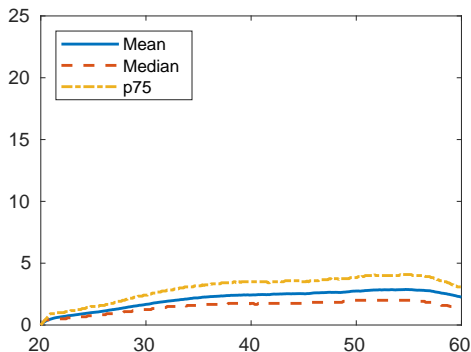
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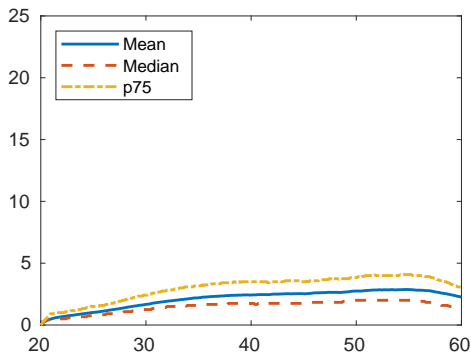
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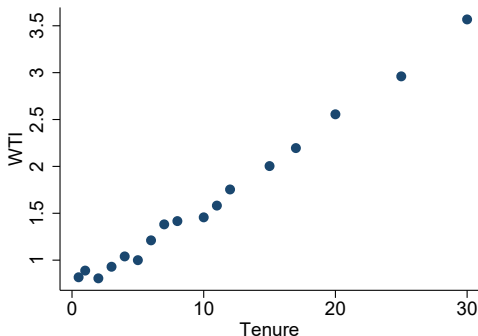
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- Large differences in job destruction rates across employers (BDS)





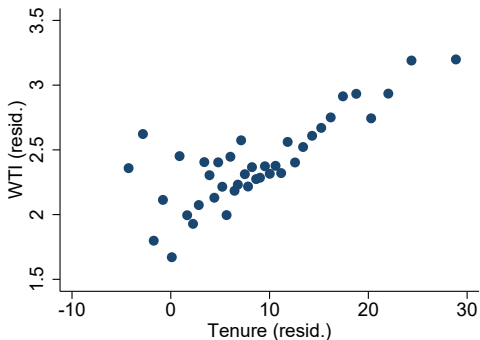
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- Wealth accumulation (wealth-to-income ratio) increasing in employer tenure (job stability)



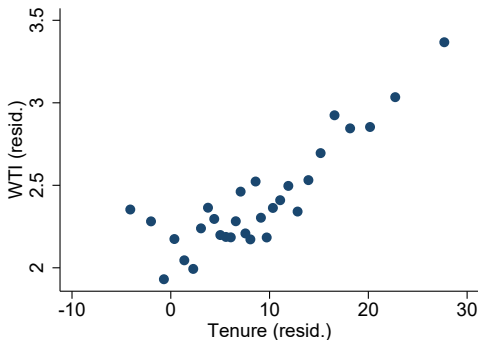
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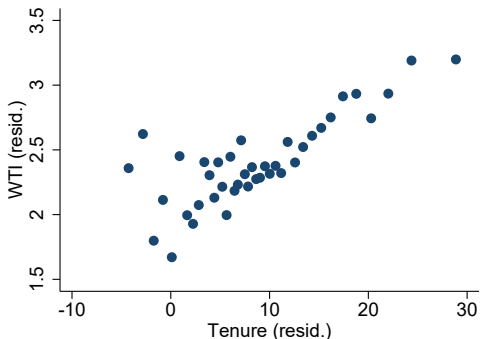
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- Wealth accumulation (wealth-to-income ratio) increasing in employer tenure (job stability)
- Strong positive relation robust after controlling age
- One year of tenure accounts for one monthly income as wealth



## Life-cycle consequences of differences in job stability

- Combine a life-cycle consumption saving model of risk-averse agents with a frictional labor market model

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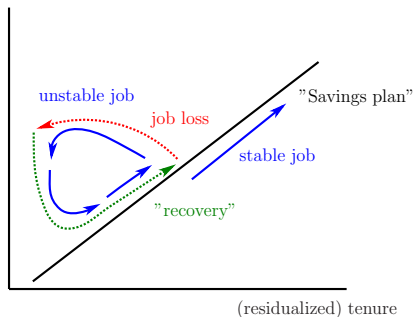
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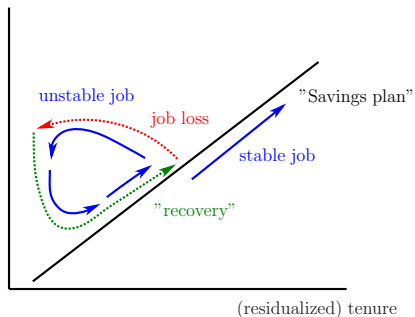
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## Consumption-saving decision



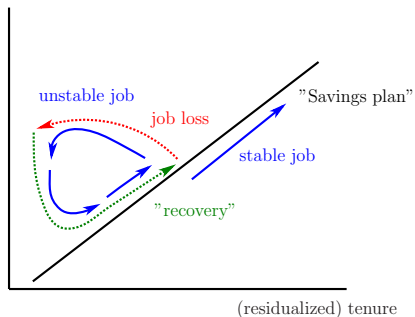
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## Consumption-saving decision



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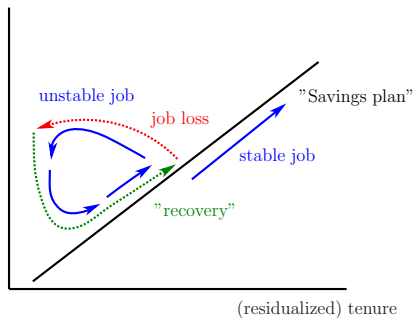
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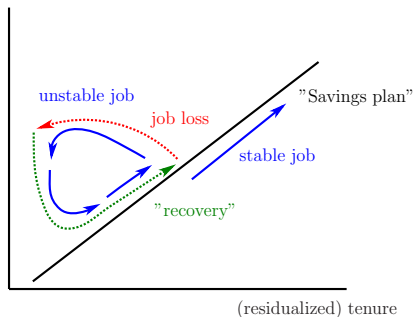


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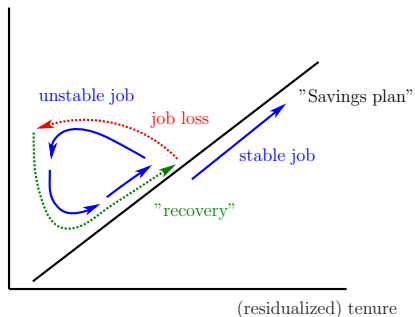
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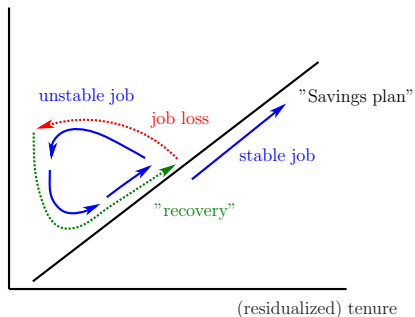
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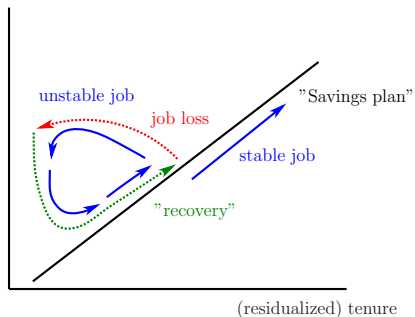
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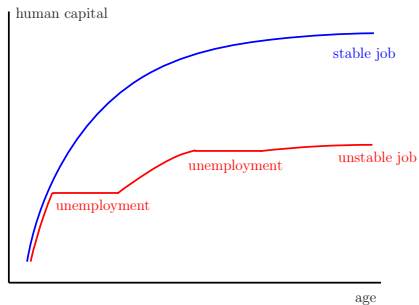
- **Unstable job:** “Sisyphos Cycle”
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# Consumption-saving decision



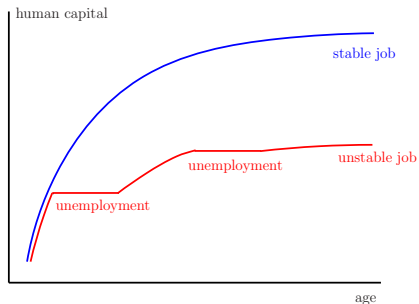
- **Unstable job:** *"Sisyphos Cycle"*
- **Stable job:** *"Modigliani savers"*

# Earnings dynamics



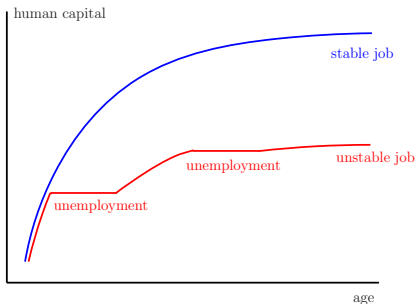
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## Earnings dynamics



- **Unstable job:** Unemployment prevents human capital accumulation, persistent job instability

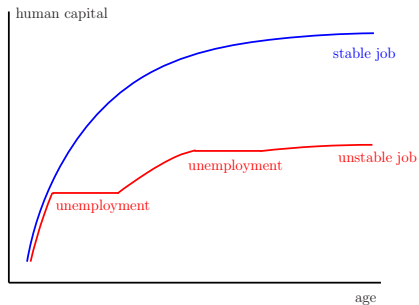
## Earnings dynamics



- **Unstable job:** Unemployment prevents human capital accumulation, persistent job instability, less earnings growth

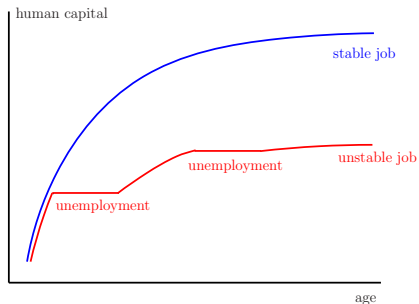


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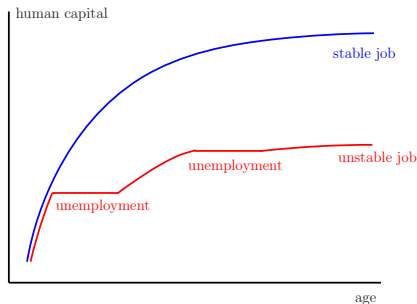
- **Unstable job:** “Dead-end job”

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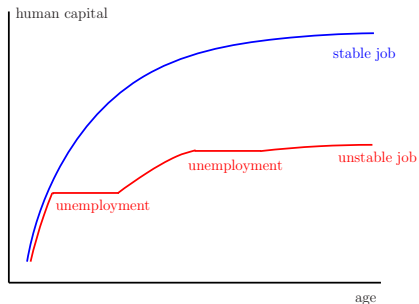
- **Unstable job:** “Dead-end job”
- **Stable job:** Constant human capital accumulation

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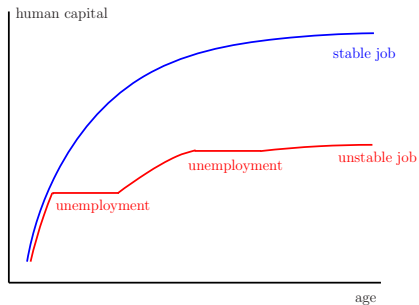
- **Unstable job:** “Dead-end job”
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# Earnings dynamics



- **Unstable job:** “Dead-end job”
- **Stable job:** Constant human capital accumulation, low unemployment risk, and high earnings growth

# Earnings dynamics



- **Unstable job:** “Dead-end job”
- **Stable job:** “Lifetime Job”

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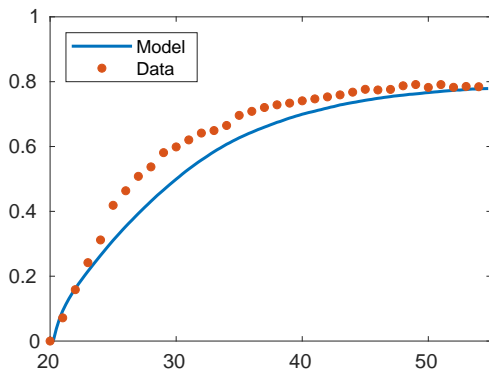
- Calibrate model to U.S. labor market using CPS and SCF data
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  3. mean and variance of earnings
  4. wealth-to-income ratio
- Relationship of job stability and wealth accumulation not targeted

## Earnings and wealth dynamics

- Model matches closely life cycle earnings and wealth dynamics

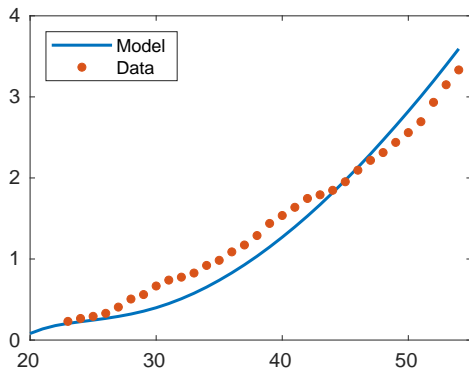
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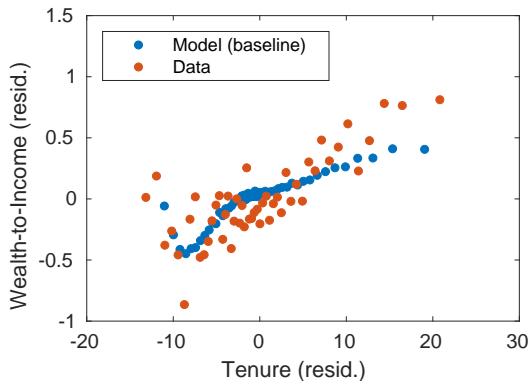
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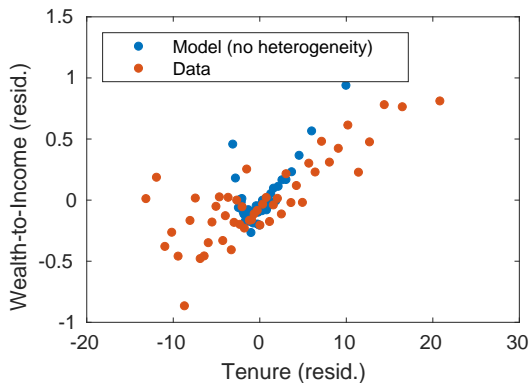
## Earnings and wealth dynamics

- Model matches relationship of job stability and wealth accumulation



## Earnings and wealth dynamics

- Model matches relationship of job stability and wealth accumulation
- Model without heterogeneity generates too little heterogeneity





## Consequences of heterogeneity in job stability

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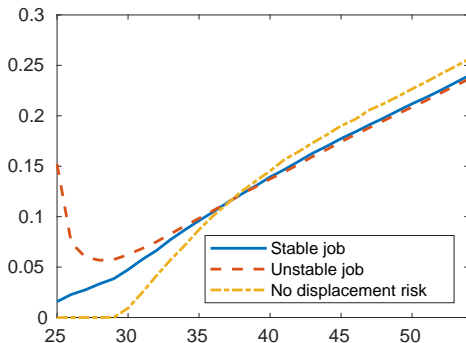
- Model matches large heterogeneity in job stability
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  - **Stable job:** 25th pct of age-specific separation rate distribution ( $\lambda_j^{25}$ )

## Consequences of heterogeneity in job stability

- Model matches large heterogeneity in job stability
- Model matches life cycle earnings, consumption, and wealth dynamics
- Laboratory to explore consequences of job stability heterogeneity
  - **Stable job:** 25th pct of age-specific separation rate distribution ( $\lambda_j^{25}$ )
  - **Unstable job:** 75th pct of age-specific separation rate distribution ( $\lambda_j^{75}$ )

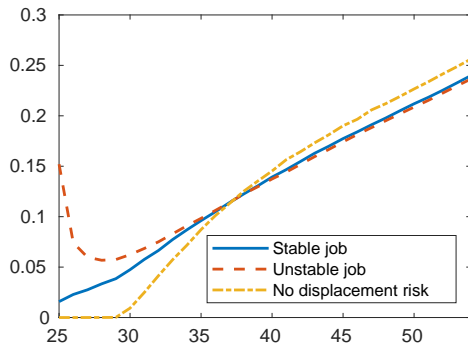
## Heterogeneity in job stability and precautionary savings

- Stable jobs allows for better life cycle consumption smoothing



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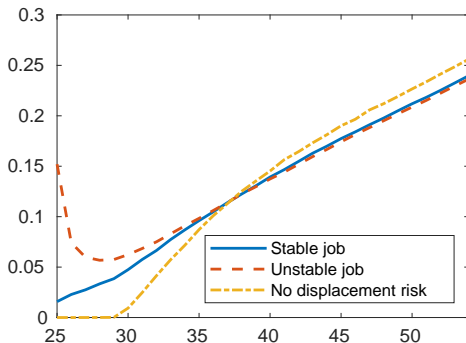
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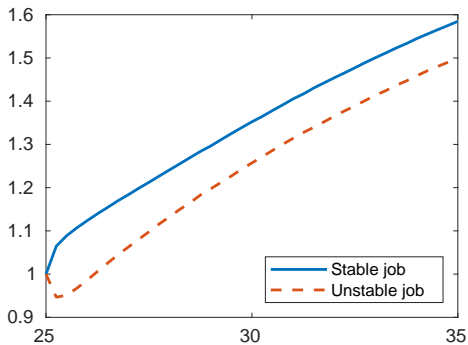


- 7-times lower saving rates at age 25 in stable job
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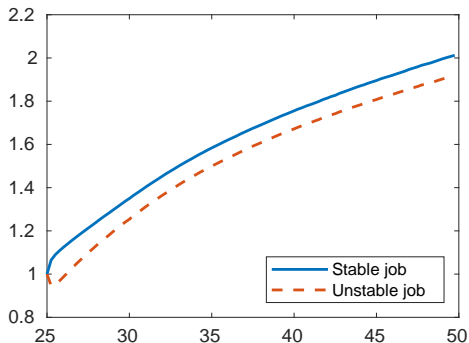
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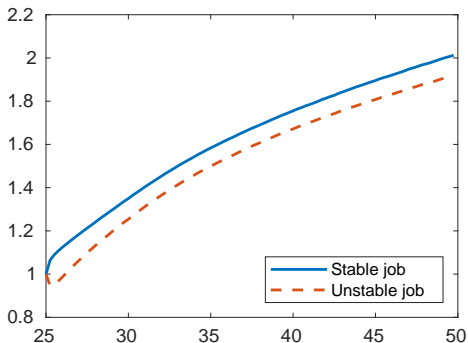
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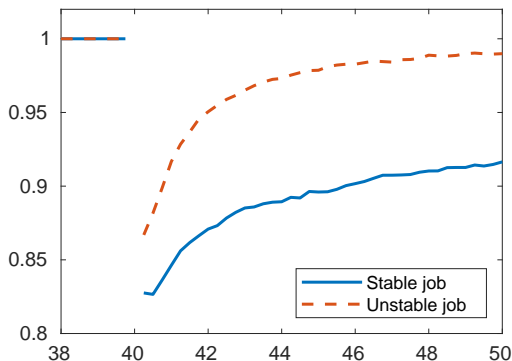
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- Job-stability heterogeneity perpetuates short-run search frictions

## Heterogeneity in job stability and consequences of job loss

- Unemployment risk key channel for micro-macro interaction

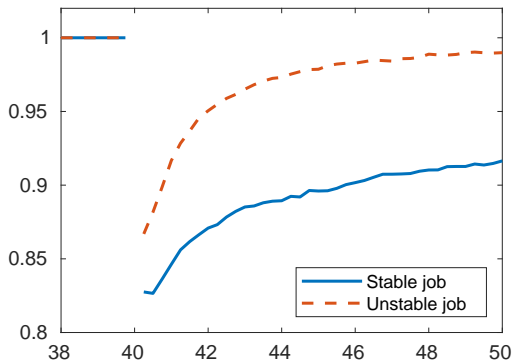
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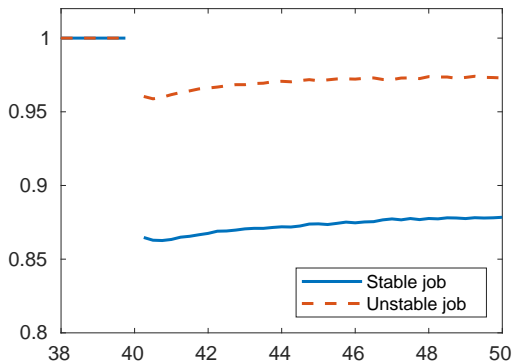
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- Large and persistent earnings shock only after losing stable job

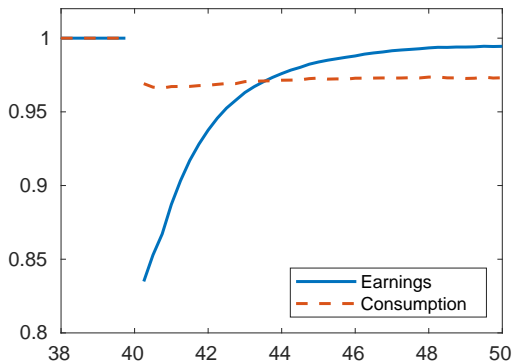
## Heterogeneity in job stability and job loss

- Consumption response anticipates and smooths present value of earnings shock
- Large and persistent consumption decline after losing stable job



## Job loss with *representative worker*

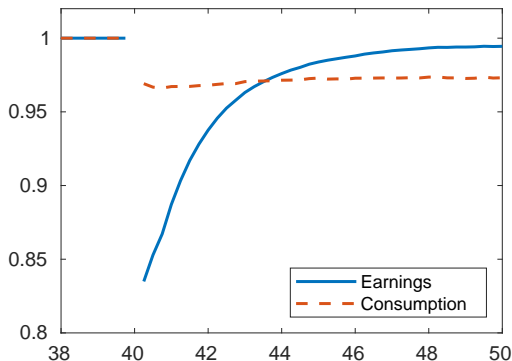
- Earnings losses from job loss in “representative worker” model similar to loss of unstable job with small consumption drop





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- Homogeneous job stability implies strong mean reversion

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- Job-stability heterogeneity perpetuates consequences of short-run search outcomes

# Job Stability, Earnings Dynamics, and Life Cycle Savings

Virtual ECONtribute Macro Workshop

July 3, 2020

## Related Literature

- **Heterogeneity in job stability:** Pinheiro and Visschers (2015), Jung and Kuhn (2018), Jarosch (2015), Huckfeldt (2016), Krolkowski (2017)
- **Consumption-saving and labor market mobility:** Low et al. (2010), Krusell et al. (2010), Lise (2011), Michelacci and Ruffo (2015), Herkenhoff (2016) Hubmer (2018), Larkin (2019)
- **Earnings dynamics and earnings dispersion:** Hornstein et al. (2010), Karahan and Ozkan (2013), Guvenen et al. (2015)
- **Life-cycle labor market dynamics:** Menzio et al.(2016), Cheron et al.(2013), Esteban-Pretel and Fujimoto (2014)

# Data

- Explore and combine data from four data sources

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    - Heterogeneity in job stability across employers

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    - Life-cycle labor market transition rates

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  - (4) Panel Study of Income Dynamics (1984 - 1999)
    - Individual wealth dynamics