The Insurance Role of Household Labor Supply for Older Workers: Preliminary Results

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Introduction

- Previous studies documented life-cycle patterns of employment, wages, unemployment etc. (see, e.g., Maestas and Zissimopoulos 2010)

- Employment risk high for older workers
  - Earnings loss associated with displacement increases with age (Rodriguez and Zavodny 2002; Farber 2005; Couch et al. 2009)
  - Older workers experience relatively longer post-job-loss unemployment spells (Chan and Stevens 2001)

- Welfare and policy implications of older population’s high employment risk depend on the extent that older households can use public or intra-household insurance
Introduction

- A couple household may adjust secondary earner’s labor supply to cushion impact of primary worker’s job loss

- Several studies document ‘added worker effect’: labor supply of secondary earner increases when primary earner is subject to earnings or employment shock
  
  
  - Longer-term perspective: Stephens Jr (2002) shows husband’s job displacement leads to a prolonged increase in his wife’s expected earnings and likelihood of employment
  
  - Blundell et al. (2012) demonstrate a consumption-smoothing role for household labor supply
Introduction

- Here, explore how older and younger couple households use adjustments in wife’s labor supply to mitigate effects of husbands’ negative employment shocks
  - Does added worker effect apply to older households?

- Policy implications: extent of intra-household insurance from labor supply for older households informs on function of e.g., DI, UI and Social Security

- Extend existing work in two further respects:
  - Distinguish between unemployment and non-participation - are demand constraints greater in older households?
  - Use monthly information husbands’ and wives’ labor market outcomes - examine household labor supply in the months immediately after the husband’s negative employment shock
Data & Sample

- Use monthly information about each spouse’s labor market status
  - Households report each spouse’s labor market status in each month of the previous calendar year
  - We distinguish three labor market states: employment, unemployment and non-participation
- Also extract demographic variables: age, education, state of residence
- Construct inflow sample of husbands’ unemployment spells
  - Follow wife’s and husband’s labor market outcomes in the months and years after husband transitions from employment to unemployment
  - Employment to unemployment transitions henceforth termed “negative employment shocks”
Data & Sample

(a) Men

(b) Women

- Note: Non-participation includes retirement
Methodology

- Use a difference in difference matching estimator (Heckman et al. 1997, Heckman et al. 1998)
  - Look at change in wives’ labor market outcomes relative to month before husbands’ employment shocks
  - Compare women whose husbands suffered employment shocks with similar women whose husbands remained in employment
  - Measure similarity via propensity score (probability of husband’s employment shock)

- Lots of overlap in distributions of propensity scores of households with and without employment shocks
- Test for balancing passed
  - Do not reject the joint hypothesis of the equality between the treatment sample and the sample of matched controls in the means of 13 characteristics
Results

- Present results in three stages

1. Own effect: how are labor market outcomes of cohabiting man impacted by negative employment shock?

2. Cross effect: how do husbands’ employment shocks impact on wives’ labor market outcomes

3. Explore smoothing function of adjustment in wives’ employment behavior

- Distinguishing between:
  - Younger households (man is aged under 40 years when he becomes unemployed)
  - Older households (man is aged 40 years or older at the start of his unemployment spell)

- Uncover an interesting life-cycle dimension to the nature of the household response to employment shocks
Results: Men’s behavior following own negative employment shock

(c) Younger households.
- Employment effect of negative employment shock concentrated in year after shock
- Negative employment shocks have no effect on non-participation (which includes retirement)

(d) Older households.
Results: Men’s behavior following own negative employment shock

(e) Difference between older and younger households.

- In line with previous findings, unemployment spells more persistent for older men
Results: Wives’ behavior following husbands’ negative employment shocks

(f) Younger households.

- Younger households: husbands’ negative employment shocks increase wives’ employment rate and decreases wives’ unemployment rate
Results: Wives’ behavior following husbands’ negative employment shocks

(g) Younger households.

- Younger households: 6 months after husband’s negative employment shock, wife is 7 percentage points more likely to be employed than if husband has remained in employment.
Results: Wives’ behavior following husbands’ negative employment shocks

(h) Older households.

- Older households: husbands’ negative employment shocks increase wives’ unemployment rate and decreases wives’ rate of non-participation
Results: Wives’ behavior following husbands’ negative employment shocks

(i) Older households.

- Older households: No added worker effect
Results: Wives’ behavior following husbands’ negative employment shocks

(j) Older households.

- In older households, appears that labor market rations the insurance function of adjustment in wives’ labor supply
Results: Further Exploring the Smoothing Role of Wives’ Labor Supply

- Explore how likelihood of household non-work is impacted by wife’s employment adjustment following husband’s negative employment shock

- Wife’s labor supply response particularly valuable if she increases employment when her husband is not in employment
  - Increases in the wife’s employment that occur when husband has returned to employment less effective at mitigating extreme consequences of employment shocks
Results: Further Exploring the Smoothing Role of Wives’ Labor Supply

- Younger households

(k) Household non-work. (l) Effect of wife’s employment adjustment on household non-work.

- Half of added worker effect occurs when husband is not working.
Results: Further Exploring the Smoothing Role of Wives’ Labor Supply

- Older households

(m) Household non-work.  (n) Effect of wife’s employment adjustment on household non-work.

- Female labor supply has no effect on household non-work
Summary & Conclusions

- Added worker effect restricted to younger households
  - However, in younger households only half of the added worker effect occurs when husband is not in employment

- In older households, following husband entering unemployment, woman more likely unemployed and less likely a non-participant
  - Consistent with rationing of labor supply in older households

- Intra-household insurance from labor supply seems not to provide insurance against employment shocks for older households
  - Combined with high persistence in unemployment for older workers, results highlight importance of savings and social insurance programs for older households

- Comments welcome!
References I


References II


References III


