Retiring from Unemployment: 
The Role of Personal Finances

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Framework

• Introduction
• Data
• Empirical Strategy and Results
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Introduction
1. Motivation

- The life satisfaction (LS) of the unemployed increases after retirement, as retirement restores social work norm (Hetschko, Knabe, and Schöb 2019).
- A nonmaterial-based explanation why unemployment reduces LS.
- However, material deprivation can be the root cause (McKee-Ryan and Maitoza 2018).
- Luo (2020) finds that unemployment means insufficient income for living, i.e., income $<$ minimum required income (MIQ).
2. What I Do

- **DiD.**
  
  Treatment: unemployment -> retire  
  Control: employ -> retire

- Entropy balancing (EB) to reweight treatment & control.

- Variable selection for EB:
  1: Manually selection
  2: Automated selection by machine learning algorithm LASSO
3. Results

- Average: LS increases from unemployment to retirement.
- Heterogeneity: LS increases mainly concentrated on those with income > MIQ.
- The role of personal finance is underestimated.
Data
1. SOEP and Sample Selection

- German SOEP (1984-2018): one of the most utilized datasets in happiness economics.
- 1,456 transitions from unemployment (treatment)
- 3,478 from employment (control).
- 5 years before and after the transition
- Totally 41,920 observations.
2. Variables

- *Life satisfaction (LS)*: dependent variable - How satisfied are you with your life?
- *Household income* is the monthly equivalent net household income.
- *Minimum required income (MRI)*: What would you personally consider the minimum net household monthly income that your household would need in your current living situation?
3. Summary Statistics

- Treat: income remains similar, LS increases
- Control: income decreases, LS remains similar

<table>
<thead>
<tr>
<th>Group</th>
<th>Unemployed (1)</th>
<th>Retired (2)</th>
<th>Employed (3)</th>
<th>Retired (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life satisfaction (0-10)</td>
<td>6.09 (2.1)</td>
<td>6.39 (1.96)</td>
<td>7.19 (1.67)</td>
<td>7.18 (1.74)</td>
</tr>
<tr>
<td>Household income</td>
<td>1471 (995)</td>
<td>1430 (825)</td>
<td>2445 (2091)</td>
<td>2104 (1311)</td>
</tr>
<tr>
<td>Observations</td>
<td>6181</td>
<td>6194</td>
<td>14381</td>
<td>15164</td>
</tr>
</tbody>
</table>
4. Visualization

- **Treat:** income remains similar, LS increases
- **Control:** income decreases, LS remains similar
Empirical Strategy and Results
1. Identification

• DiD: remove the “pure retirement” effect.

\[ LS_{it} = \alpha_i + \beta \text{RETIRE} + \gamma T + \delta (\text{RETIRE} \times T) + \theta X_{it} + \varepsilon_{it} \]

• Individual fixed effects (FE): eliminate bias caused by selection of time-invariant unobservables.

• Entropy balancing (EB) matching: eliminate bias caused by selection of observables.

  2 procedures used in control variable selection:
  manual selection
  machine learning algorithm Lasso
2. Replication

- LS increases for unemployment to retire.

<table>
<thead>
<tr>
<th></th>
<th>(1) No matching</th>
<th>(2) EB manual</th>
<th>(3) EB Lasso</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retire</td>
<td>0.111***</td>
<td>-0.235*</td>
<td>0.0691</td>
</tr>
<tr>
<td></td>
<td>(0.0268)</td>
<td>(0.125)</td>
<td>(0.0467)</td>
</tr>
<tr>
<td>Treat × retire</td>
<td>0.207***</td>
<td>0.391***</td>
<td>0.152***</td>
</tr>
<tr>
<td></td>
<td>(0.0397)</td>
<td>(0.134)</td>
<td>(0.0512)</td>
</tr>
<tr>
<td>Log income</td>
<td>0.369***</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>(0.0371)</td>
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<td>Observations</td>
<td>38,760</td>
<td>38,413</td>
<td>35,888</td>
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<td>R-square</td>
<td>0.019</td>
<td>0.141</td>
<td>0.108</td>
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2. Heterogeneity

- Divide $Treat \times retire$ by if income > MIQ
- Increase in LS is mostly concentrated on those income > MIQ

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<tr>
<td>Retire</td>
<td>0.110***</td>
<td>-0.235*</td>
<td>0.0674</td>
</tr>
<tr>
<td>(Income ≤ MIQ)</td>
<td>(0.0268)</td>
<td>(0.125)</td>
<td>(0.0468)</td>
</tr>
<tr>
<td>Treat × retire (Income ≤ MIQ)</td>
<td>0.0993</td>
<td>0.269*</td>
<td>0.0355</td>
</tr>
<tr>
<td>(Income &gt; MIQ)</td>
<td>(0.0752)</td>
<td>(0.146)</td>
<td>(0.0851)</td>
</tr>
<tr>
<td>Log income</td>
<td>0.223***</td>
<td>0.460***</td>
<td>0.171**</td>
</tr>
<tr>
<td>(Income &gt; MIQ)</td>
<td>(0.0603)</td>
<td>(0.144)</td>
<td>(0.0714)</td>
</tr>
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- Robustness tests.
Conclusion

- LS increases from unemployment to retirement.

- However, LS increases mostly concentrated on those with income > Minimum required income (MIQ).

- The role of personal finance is underestimated in the literature.