Job loss, unemployment, and post-unemployment subjective well-being

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Job loss, unemployment, reemployment and subjective well-being

- Job loss/unemployment $\rightarrow$ negative (causal) effects in the short-run
  (e.g. Kassenboehmer/Haisken-DeNew 2009, Winkelmann/Winkelmann 1998)

- Reemployment $\rightarrow$ positive (causal) effects in the short-run
  (e.g. Grün et al. 2010, Krueger et al. 2012)

see McKee-Ryan et al. 2005, Paul and Moser 2009, Wanberg 2012 for meta-analyses/reviews
Job loss, unemployment, reemployment and subjective well-being

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Combined effect on post-unemployment subjective well-being?

- Can reemployment compensate the effects of unemployment? (e.g. Young 2012)
- What are the durable economic and social costs (persistent scars)?
- Unemployment as a “trigger” for increasing inequality across the life course (DiPrete/McManus 2000)

1. Motivation + Research Questions

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<tr>
<th>Previous studies</th>
<th>This study</th>
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1. Motivation + Research Questions

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## 1. Motivation + Research Questions

### Previous studies
- Find persistent negative effects on average (e.g. Clark et al. 2001, Knabe/Rätzel 2011)
- Often unable to distinguish temporary from persistent effects
- Comparisons at reemployment or time since reemployment not modeled (exception: Lucas et al. 2004)

### This study
- Take into account the heterogeneity of unemployment experiences
- Job loss (exclude new search) (Young 2012)
- Involuntary vs. voluntary job loss
- Short-term vs. long-term unemployment
- Follow workers for up to 3-3.5 years after reemployment
- Attempt to observe whether effects are temporary or persistent
## 1. Motivation + Research Questions

**Previous studies**

- Find persistent negative effects on average (e.g. Clark et al. 2001, Knabe/Rätzel 2011)
- Often unable to distinguish temporary from persistent effects
- Comparisons at reemployment or time since reemployment not modeled (exception: Lucas et al. 2004)
- Cross-sectional comparisons
- Use fixed-effects models

**This study**

- Take into account the heterogeneity of unemployment experiences
- Job loss (exclude new search) (Young 2012)
- Involuntary vs. voluntary job loss
- Short-term vs. long-term unemployment
- Follow workers for up to 3-3.5 years after reemployment
- Attempt to observe whether effects are temporary or persistent
- Use a difference-in-differences propensity score matching model
- Use establishment closures for a sensitivity analysis (e.g. Strully 2009)
RQ 1: Job loss, unemployment, reemployment → psychological scars?

- Do job loss and unemployment have a persistent negative effect on workers post-unemployment subjective well-being?
  - Focus on workers who are reemployed (counter-mobility)
- Does this effect vary by a worker’s unemployment experience and across groups of workers (effect heterogeneity)?
What are psychological scars?
What are psychological scars?

job loss/ unemployment

reemployment

Y

pre-treatment  treatment  post-treatment

T

job loss → unemployment → reemployment
2. Theory and Hypotheses

**What are psychological scars?**

![Graph illustrating job loss, unemployment, and reemployment phases](image)

- Pre-treatment
- Treatment
- Post-treatment

**job loss → unemployment → reemployment**

- Untreated
- "temporary blemish"
2. Theory and Hypotheses

What are psychological scars?

![Graph showing the transition from pre-treatment to post-treatment with labels for untreated, temporary blemish, and persistent scar.](image)

- Pre-treatment
- Treatment
- Post-treatment

Job loss → unemployment → reemployment

Y-axis: Untreated

- "Temporary blemish"
- "Persistent scar"
2. Theory and Hypotheses

What are psychological scars?

![Graph showing the cycle of job loss, unemployment, and reemployment with a no effect untreated condition.](image)
2. Theory and Hypotheses

What are psychological scars?

- pre-treatment
- treatment
- post-treatment

Y-axis:
- no effect
- "temporary blemish"
- "persistent scar"

T-axis:
- job loss → unemployment → reemployment
2. Theory and Hypotheses

Theory

- Two lines of research
  - Job loss, unemployment → job quality
  - Job quality → subjective well-being
2. Theory and Hypotheses

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job loss → unemployment → job quality at reemployment → post-unemployment subjective well-being
2. Theory and Hypotheses

Theory

- Two lines of research
  - Job loss, unemployment $\rightarrow$ job quality
  - Job quality $\rightarrow$ subjective well-being

Diagram:

- Job loss $\rightarrow$ unemployment $\rightarrow$ job quality at reemployment $\rightarrow$ post-unemployment subjective well-being
- Life events, chronic strains $\rightarrow$ self-esteem
2. Theory and Hypotheses

**Theory**

- Two lines of research
  - Job loss, unemployment → job quality
  - Job quality → subjective well-being

Diagram:

- Job loss → unemployment
  - involuntary voluntary
  - short-term long-term
- Unemployment → job quality at reemployment
- Job quality at reemployment → self-esteem
- Life events, chronic strains → post-unemployment subjective well-being
- Post-unemployment subjective well-being → heterogeneous of unemployment experiences
2. Theory and Hypotheses

Theory

- Two lines of research
  - Job loss, unemployment $\rightarrow$ job quality
  - Job quality $\rightarrow$ subjective well-being

life events, chronic strains

job quality at reemployment

post-unemployment subjective well-being

self-esteem

heterogeneity of unemployment experiences

Effect heterogeneity e.g. sex, age, educational qualification
3. Research Design

**Data**
- SOEP 1992-2010: yearly ($p^*$, $h^*$) and monthly (artkalen) data

**Sample**
- Person-spells from $t$ (before treatment) to $t+3$ (after treatment)
  - 24641 person-spells from 11122 persons
  - Dependent employment at $t$, 18-59 years at $t$
  - No missing values on the outcome at $t$ and $t+3$ and the covariates

**Treatment and control spells**
- Treatment spells (1289 spells)
  - Sequence of employment, job loss, unemployment, and reemployment
  - Reason for job loss
- Control spells (23352 spells)
  - Continuous employment and the absence of a job loss
## 3. Research Design

### Descriptive statistics: treatment spells

<table>
<thead>
<tr>
<th>Reason for job loss</th>
<th>Count</th>
<th>%</th>
<th>Voluntary?</th>
<th>Exogenous?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishment closure</td>
<td>182</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Layoff/Firing</td>
<td>525</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Fixed-term contract expired</td>
<td>150</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Termination agreement</td>
<td>51</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Resignation/Quitting</td>
<td>116</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Not known</td>
<td>265</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other reason</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not specified</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not reliable</td>
<td>74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No job loss recorded</td>
<td>132</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Burgard et al. 2007) (Strully 2009)
3. Research Design

**Outcomes**

- Subjective well-being $\rightarrow$ life satisfaction scale (0-10)
- Dependent variable: $\Delta Y = Y_{t+k} - Y_t$ (with $k = 3, 4, 5$) *(Difference-in-differences)*

**Adjustment for observed covariates $X_t$ using propensity score matching (PSM)**

- Socio-Demographics: Age, sex, immigrant
- Educational attainment
- Work biography: recent and total (un)employment experience
- Job: Occupational class, earnings, public sector, part-time, tenure, job loss worries
- Household: Spouse/partner, children, household income
- Health, Well-being: Health satisfaction, pre-treatment trends in well-being, disability
- Context: Spell period, spell length, region, regional unemployment (federal state)

$\rightarrow$ Tables
3. Research Design

Method: (conditional) difference-in-differences
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\[ \text{net effect} = \text{gross effect}_1 + \text{gross effect}_2 \]

3. Research Design
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Method: (conditional) difference-in-differences

$$\text{net effect} = \text{gross effect}_1 + \text{gross effect}_2$$
3. Research Design

Method: (conditional) difference-in-differences

net effect = gross effect \(_1\) + gross effect \(_2\)
3. Research Design

Method: (conditional) difference-in-differences
Method: (conditional) difference-in-differences
3. Research Design

Method: (conditional) difference-in-differences

\[ ATT_{t+k} = \frac{1}{N_D_1} \sum_{i \in D_1 \cap S} \left[ (Y_{i,t+k}^1 - Y_{i,t}^0) - \sum_{j \in D_0 \cap S} w_{ij} (Y_{j,t+k}^0 - Y_{j,t}^0) \right] \]

Propensity score matching: radius matching weights
(with replacement, caliper = 0.001-0.005)
4. Results

Average treatment effect on the treated (ATT) and 90% CI

Average effect
4. Results

Average treatment effect on the treated (ATT) and 90% CI

<table>
<thead>
<tr>
<th>Time</th>
<th>Involuntary job loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>t</td>
<td>-0.75</td>
</tr>
<tr>
<td>t+3</td>
<td>-0.50</td>
</tr>
<tr>
<td>t+4</td>
<td>-0.25</td>
</tr>
<tr>
<td>t+5</td>
<td>0.00</td>
</tr>
<tr>
<td>t+6</td>
<td>0.25</td>
</tr>
<tr>
<td>t+7</td>
<td>0.50</td>
</tr>
<tr>
<td>t+8</td>
<td>0.75</td>
</tr>
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Average effect

Involuntary job loss
4. Results

Average treatment effect on the treated (ATT) and 90% CI

Average effect
Involuntary job loss
Voluntary job loss
4. Results

*Average treatment effect on the treated (ATT) and 90% CI*

*Involuntary job loss*
4. Results

Average treatment effect on the treated (ATT) and 90% CI

Involuntary job loss
Short-term unemployment
4. Results

Average treatment effect on the treated (ATT) and 90% CI

-1.25  -1.00  -0.75  -0.50  -0.25  0.00  0.25

Involuntary job loss
Short-term unemployment
Long-term unemployment

4. Results

Average treatment effect on the treated (ATT) and 90% CI

Involuntary job loss
Short-term unemployment
Long-term unemployment
4. Results

**Effect heterogeneity analyses (involuntary job loss)**

- The effects are similar for males and females

- The potential for persistent negative effects is greatest for workers aged 45-59
  - However, the magnitude of this negative effect (-0.33 at t+5) is rather small and the estimate uncertain

- The potential for persistent negative effects is greatest for workers with low education
  - However, the magnitude of this negative effect (-0.27 at t+5) is rather small and the estimate uncertain
5. Conclusion

**Summary and conclusion**

- No psychological scars on average
- Circumstances of unemployment matter
  - Small positive effect of voluntary job loss (escape effect? upward mobility?)
  - Medium strength negative effect of involuntary job loss if followed by long-term unemployment
- Some groups (older workers, low educated workers) might be more vulnerable

→ Shift attention from short- to long-term effects of unemployment
→ Examine the circumstances of unemployment
Thank you for your attention!

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Further results and future research

- Results for establishment closures only differ in t+5

→ however, suggests that we overestimate negative long-run effects

- Results are robust to smaller changes
  (e.g. definition of involuntary job loss)

- Examine voluntary job loss more closely

- Examine mechanisms directly (i.e. post-unemployment job quality)