

The Long-Term Impact of Job Displacement in Germany During the 1982 Recession

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Increasing Labor Market Flexibility – Boon or Bane?,

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Estimates of Long-Term Cost of Job Loss For Germany

Analyze Effects in Germany and Contrast with Results in U.S.

- Use 30 years of Administrative worker-firm data to estimate cost of job loss for Germany
- Compare to similar estimates for United States from companion paper (von Wachter, Song, Mancheseter '09)
- Use features of German data to address additional questions, in particular wages vs. earnings vs. time worked

Two Hypotheses: Workers in Germany Fare Better or Worse?

- ➔ Different labor markets: Less mobility & wage dispersion
- ➔ Different institutions: Longer UI, More Job Market Programs
- ➔ Programs help workers? Or not (Sargent&Ljungqvist '98)?



Current Literature: Job Loss, Mass Layoffs, and Earnings

United States: Earnings Losses 15-25% 5 Years After Job Loss

[Jacobson, Lalonde, Sullivan 93, Schoeni & Dardia 03, von Wachter, Hildreth, Handwerker 08, Couch and Placzek 09, von Wachter, Song, Manchester 09]

Germany: Mixed Evidence on Earnings Losses (6.5, 2-3 or 1-19%)

[Couch 01, Burda and Mertens 01, Bender, Dustmann, Margolis, Meghir 02]

No Comparable Estimates Available of Impact of Job Loss:

- 1) limited follow-up periods (up to 6 years)
- 2) no comparable definition of job loss
- 3) estimates based on different periods
- 4) lack of administrative data in Germany, GSOEP instead



Two Comparable Data Sources in Germany and the U.S.:

Administrative Data: 30 Years Earnings & Firm Information

- 1) Longitudinal earnings records for large sample of workers
- 2) Firm-level employment size by aggregation from 100%

Key Advantages Over Existing Data in Germany and the U.S.

- Large national panel covering almost 30 years: 1975 – 2005
- Information on careers and firms (establishments), program receipt
- Mass-Layoffs (MLF) identified using worker flow data to distinguish MLF and outsourcing/restructuring events.

Approach

- 1) Replicate JLS (1993)'s Analysis of Mass-Layoffs: Compare
- 2) Analyze Time Worked and Daily Wages for Germany



Identify Mass-Layoffs at Firm Level

Job Displacement: Separate from employer during a mass-layoff event

Mass-Layoffs: Lasting 30% Employment Drop Over Two Years.

→ Jacobson, Lalonde, and Sullivan (1993)

→ Hildreth, Von Wachter, Handwerker (2008)

Distinguish Mass-Layoffs from Restructuring:

- Use data on all worker flows between establishment identifiers in Germany.
- Define MLF as employment drops where workers are dispersed over many Employers.

Main Sample: Male workers age 25 - 52.

At least 5 Years of tenure at time of job loss

Establishment size > 50

Dynamic Pattern of Annual Earnings Losses

Distributed Lag Model Jacobson, Lalonde, and Sullivan (1993)

$$e_{i,t} = \alpha_i + \gamma_t + \sum_{|k| \leq m} D_i^k \delta_{tk} + f(a_i) + \varepsilon_i$$

k = years since job loss (to job loss)

Events

Leave Employer in 1981-1985
while Employer has MLF

Control Group

Any Worker Not Separating 1981-85
(Identify Year Effects) [*Stayers*]

Key Assumption

**Trend in Earnings of Control Group
(‘Stayers’) is Valid Counterfactual**

Dynamic Pattern of Annual Earnings Losses

Distributed Lag Model Jacobson, Lalonde, and Sullivan (1993)

$$e_{i,t} = \alpha_i + \gamma_t + \sum_{|k| \leq m} D_i^k \delta_{tk} + f(a_{i,t}) + \varepsilon_i$$

k = years since job loss (to job loss)

γ_t : time trend (= unrestricted year effect),
identified by stayers (control group)

δ_k : difference in wages before/after relative to time trend and
control group

fixed effects and year effects = pre-period du- Identification of worker dummies

Long-Term Effect of Displacement on Annual Earnings in Germany

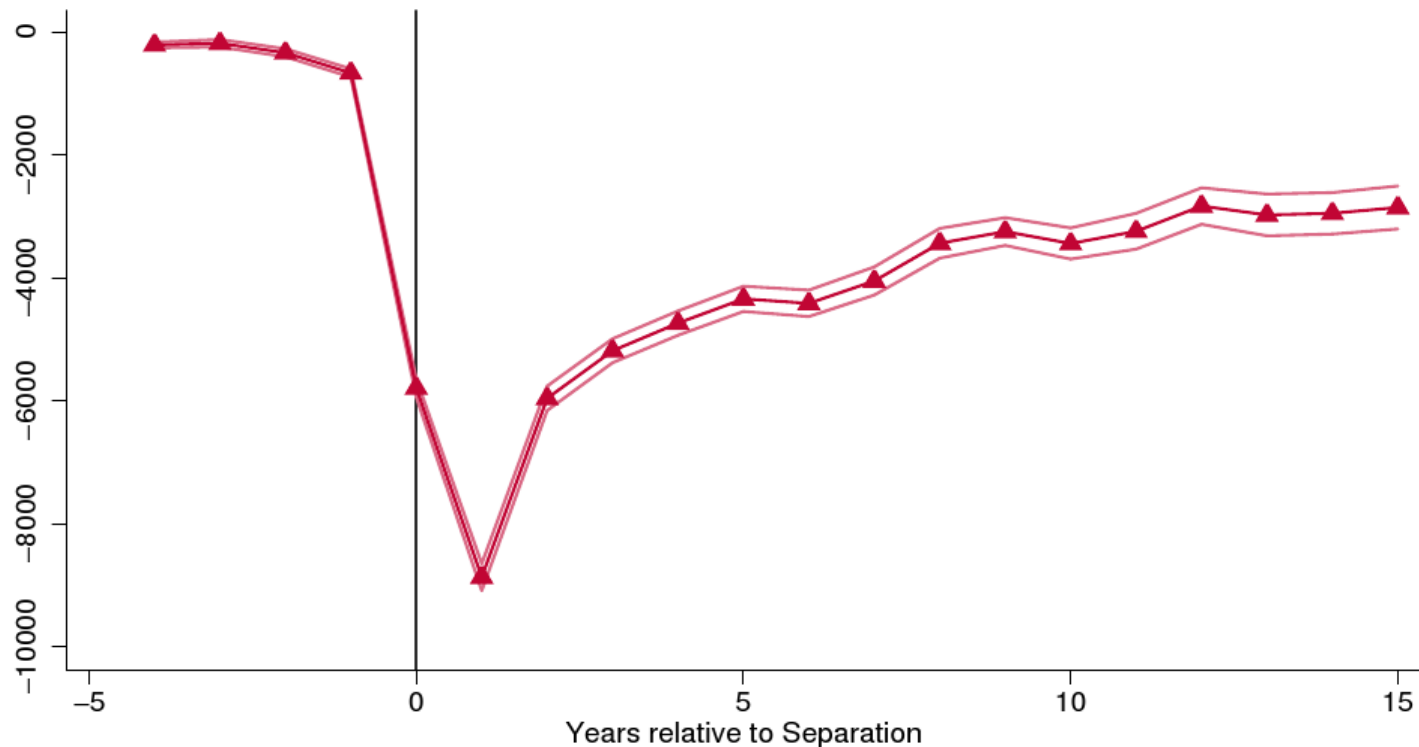
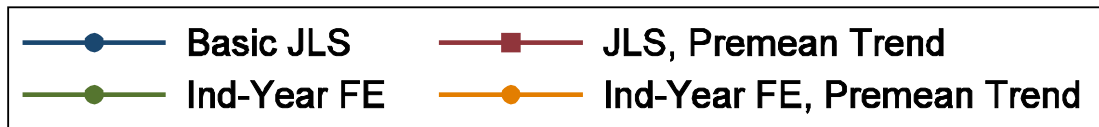
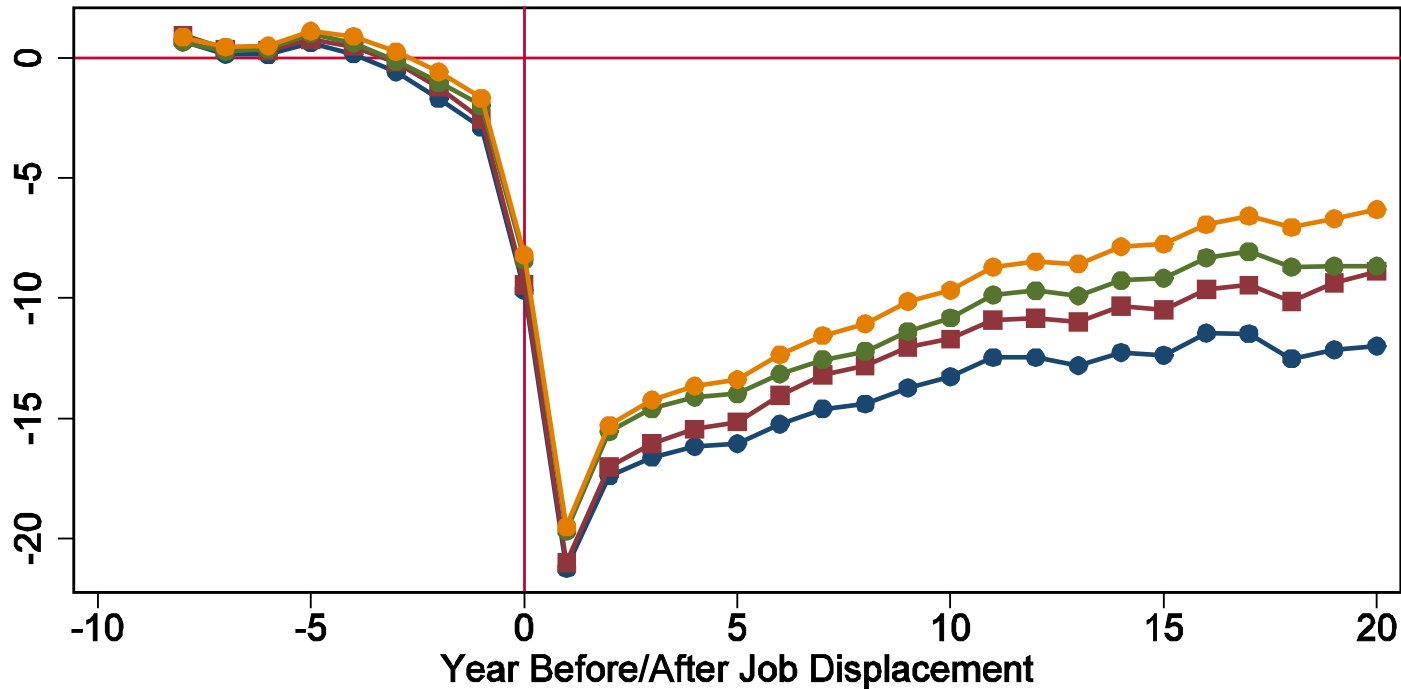


Figure 5: Total Yearly Earnings of Displaced Workers relative to Non-Displaced

Notes: For the sample description see Figure 2. The figure shows total yearly earnings of displaced workers relative to non-displaced workers after displacement. Each point is the dummy from a regression of earnings on years since 1982 interacted with a dummy for whether the person was displaced in 1982. The regression controls for year fixed effects (identified by the control group), individual fixed effects and experience.

Long-Term Effect of Displacement on Annual Earnings in United States

Earnings Losses at Job Separation 1980-1986 Relative to Non-Separators
Earnings All Jobs Including Zeros, Men in Stable Job 1974-1979 (in \$1000)



Source: 1% Files of Social Security administrative data (see text). Earnings in 2000 Dollars.

Long-Term Effect of Displacement on Daily Wages in Germany

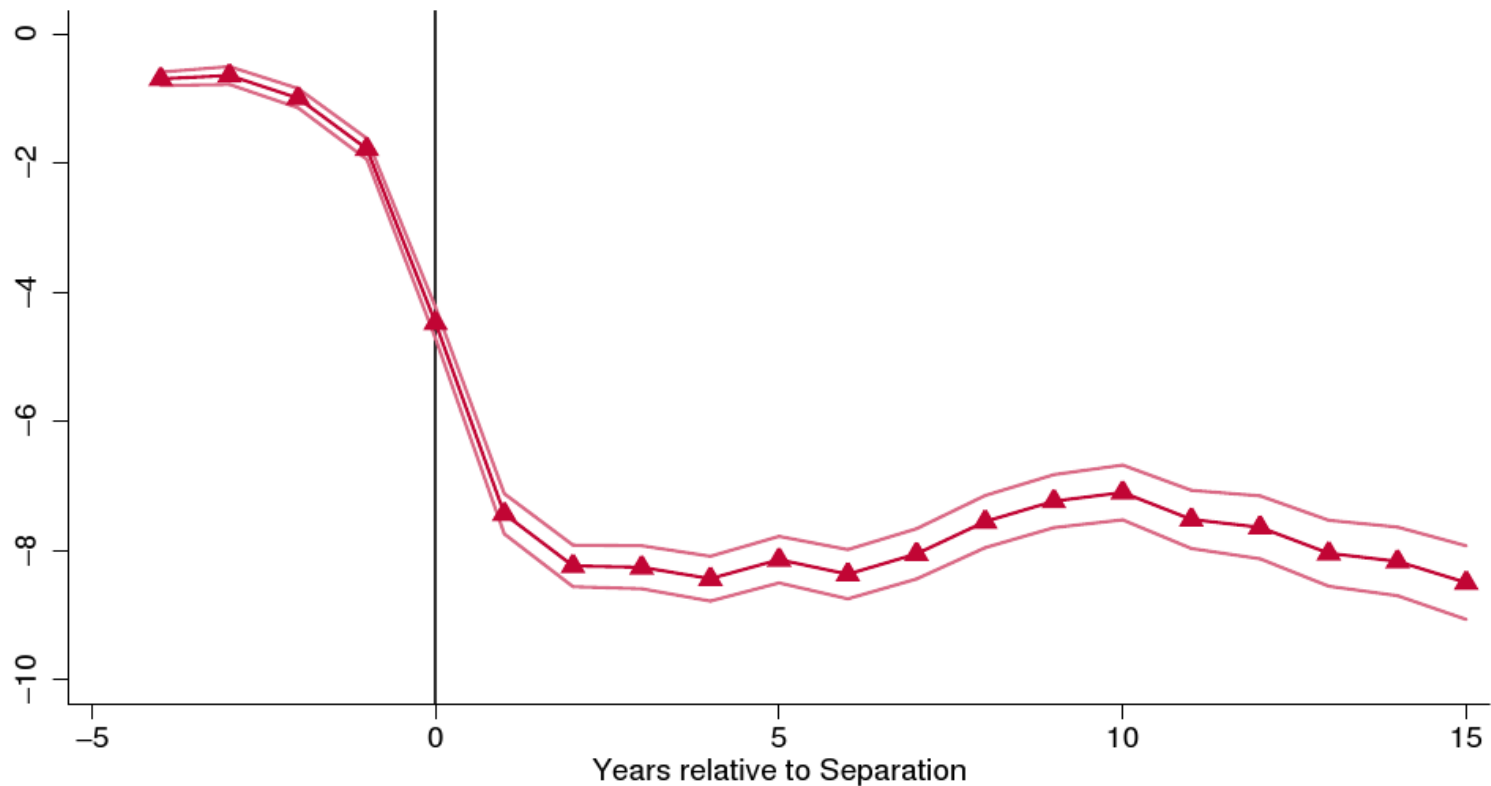
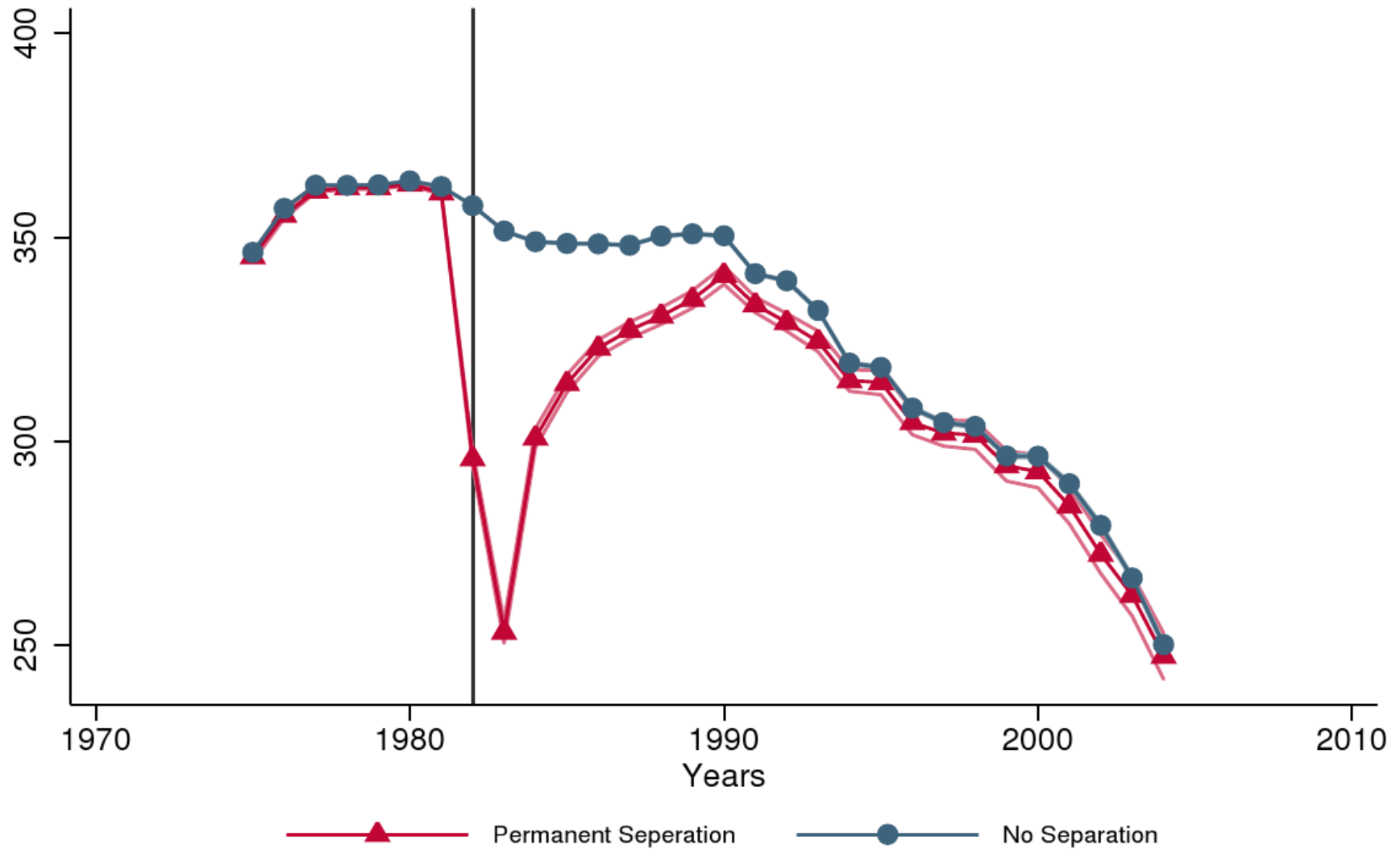


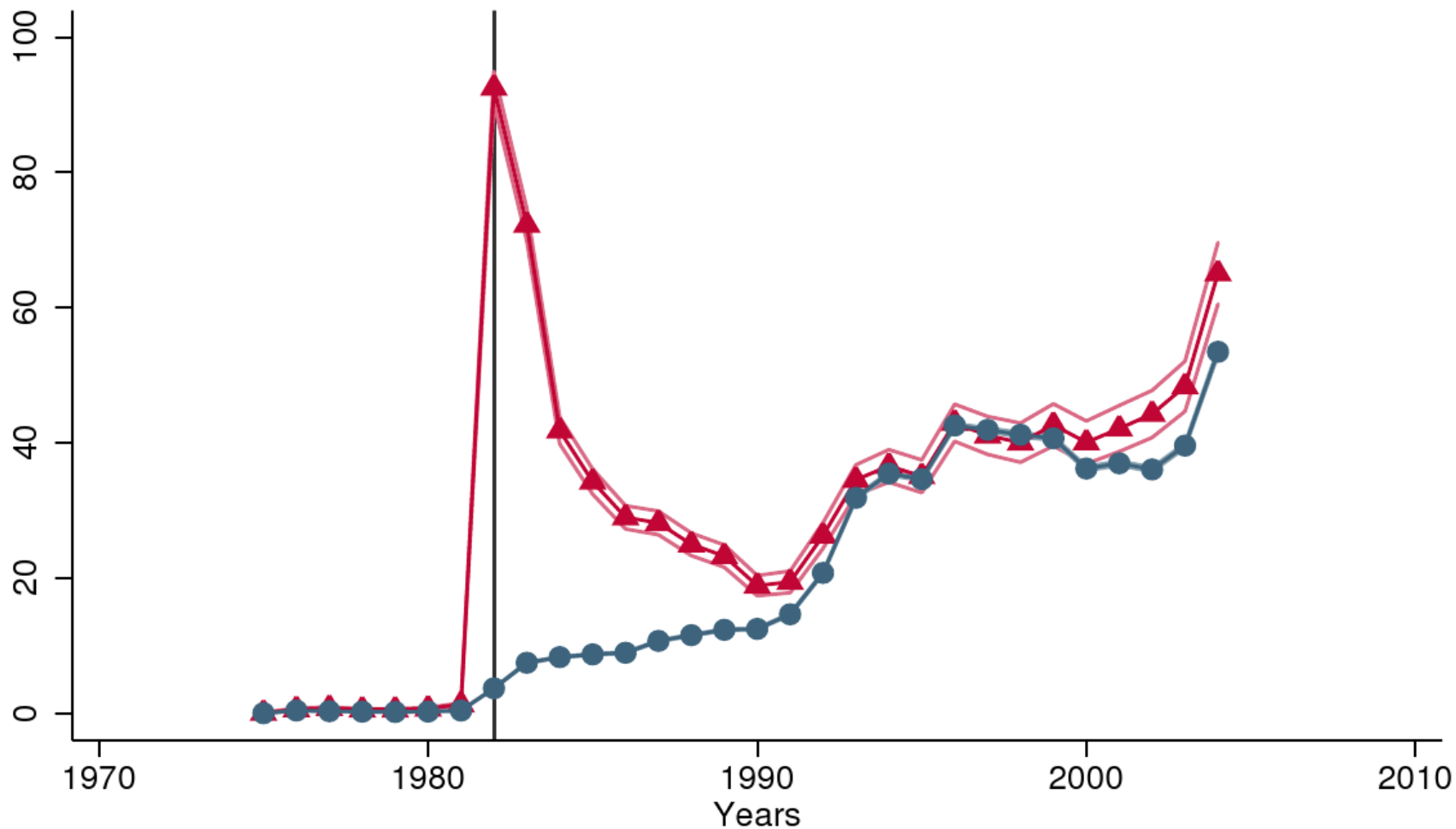
Figure 6: Daily Wage of Displaced Workers relative to Non-Displaced

Notes: The Figure is generated the same way as Figure 5, but with daily wage on the left hand side and is conditional on being employed.

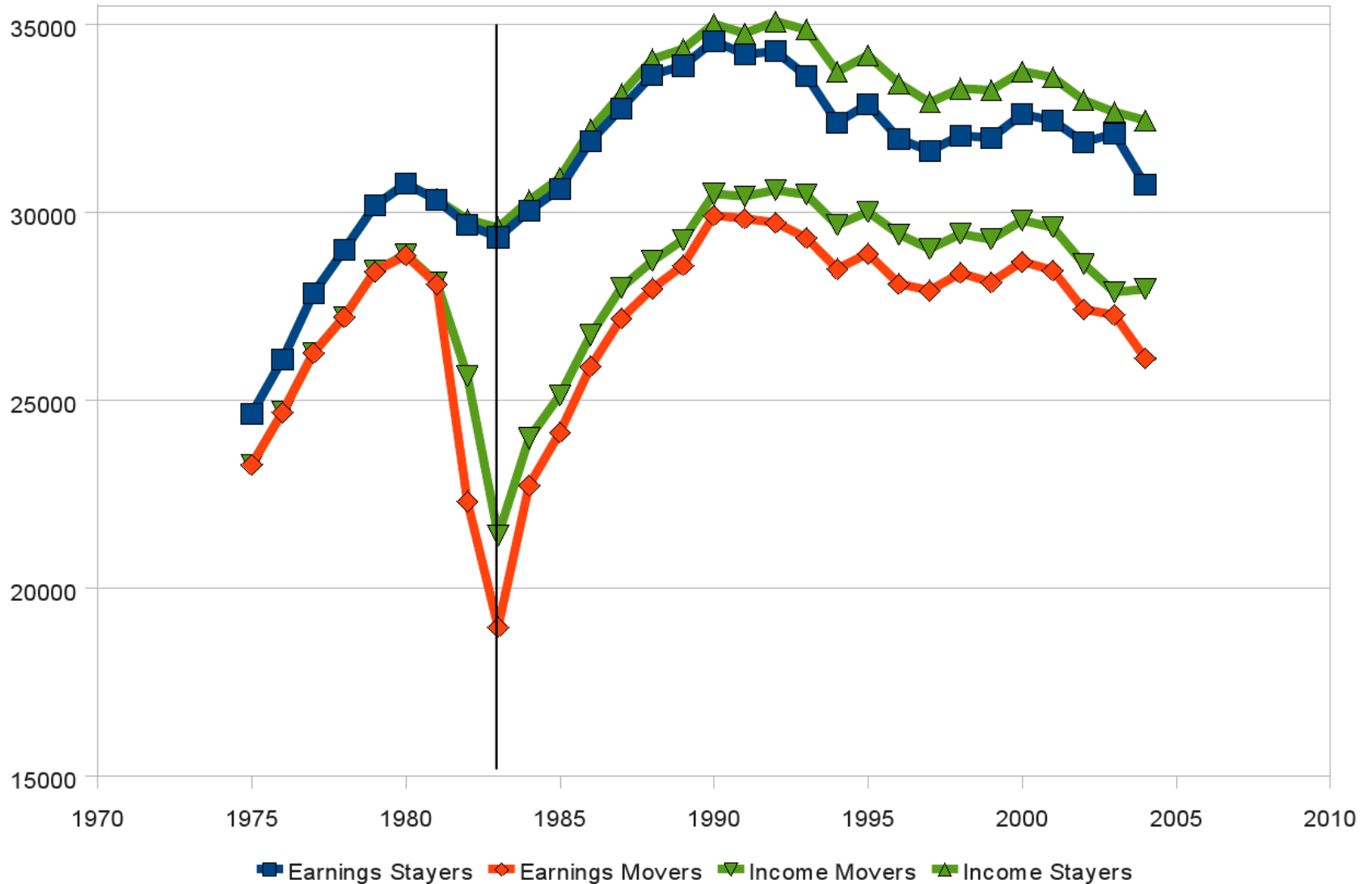
Long-Term Effect of Displacement on Days Worked in Germany [Job Loss 1982]



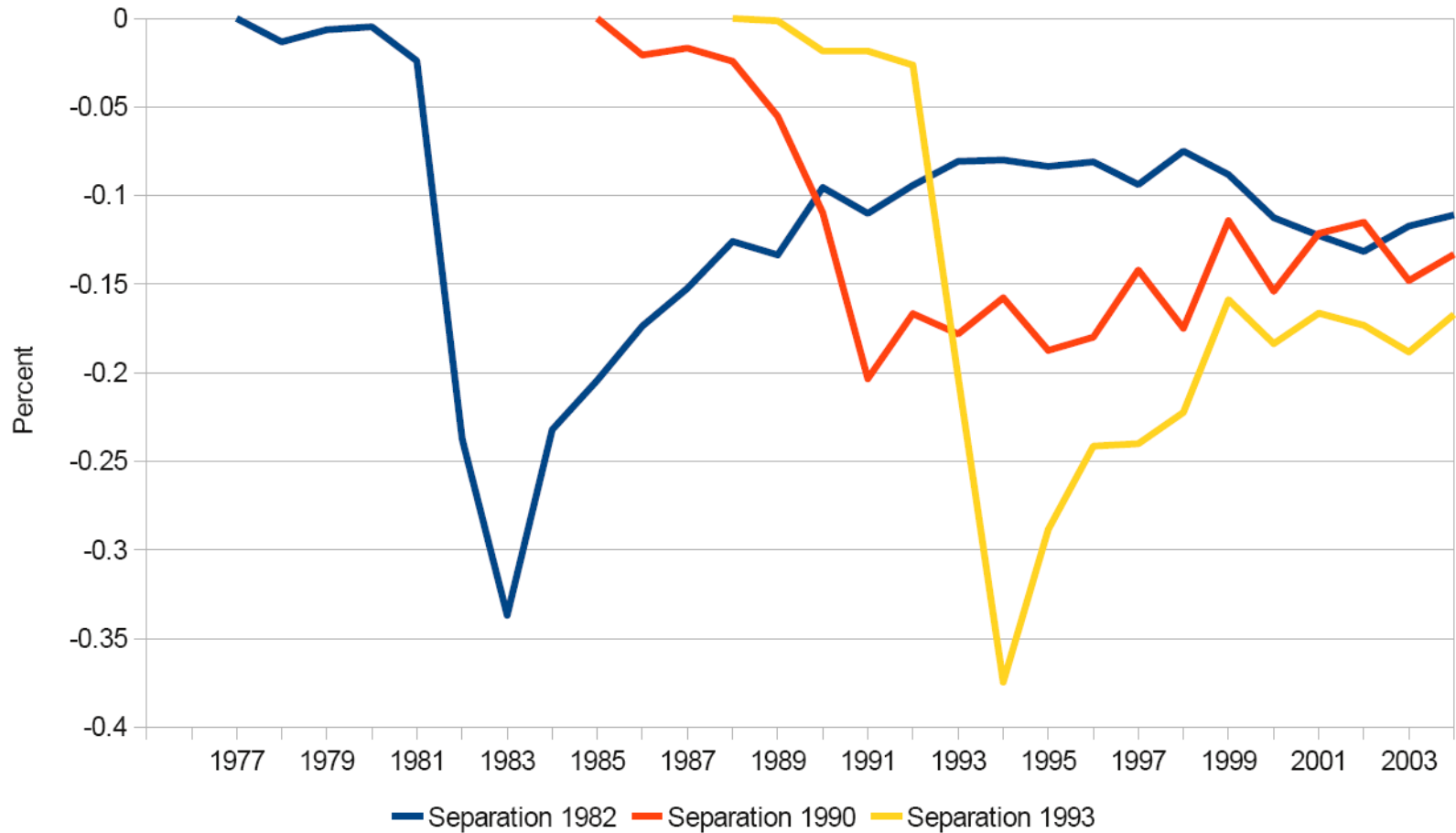
Long-Term Effect of Displacement on Days Receiving UI in Germany



Differential Effect on Annual Earnings and Annual Income in Germany [Job Loss 1982]



Earnings Losses of Displaced relative to Non-Displaced Workers in Different Displacement Years



Discussion and Conclusion

Similar Long-Term Costs of Job Loss in Germany and U.S.:

- ➔ Earnings losses from displacement last up to 20 years
- ➔ Similar size and duration of earnings losses
- ➔ Consistent with other studies contrasting labor markets

Earnings Losses Driven Mainly by Wages

- ➔ Confirm only indirect information from the U.S.
- ➔ Employment effect in Germany larger, but mainly responsible for short-term drop and recovery.

More Generous UI Differences Only Limited Effect

- ➔ Neither helpful shelter nor compensation

Earnings Losses are Countercyclical

- ➔ Nearly twice as big during recessions