

Employment trajectories in Germany: do firm characteristics, regional disparities and the business cycle matter?

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- employment period is an important and central stage in the life course
- opportunities in life (current wages, entitlements in the welfare system ...)
- job stability is generally considered desirable
- it shelters from the risk of unemployment
- allows to preserve and further develop occupational skills



Literature overview

- most research has focused on the individual determinants
- importance of the initial labour market state for the employment career (Blossfeld 1986; Mayer/ Blossfeld 1990)
- life course costs of unfavourable employment histories
- but: workers' actions always embedded within a particular framework (Coleman 1990)
- less attention was paid to firm-specific factors
- impact of regional disparities on employment trajectories hardly considered

Aim of this presentation:

- contribute more fully to research on employment trajectories by focusing on three structural framework conditions in greater detail:
 - firm-specific characteristics
 - regional determinants
 - economic conditions
- Can employees take advantage of particular framework conditions?

Firm characteristics and employment trajectories

- Referring to the new structuralism, it is important to take firm characteristics into account (Baron/ Bielby 1980).
- Recent approaches in human resource management systems (HRMS) as well as employment systems (Hendry 2003; Lepak et al. 2006)
 - derive segmentation processes from a firm's internal labor and employment organization.
 - perceive employment careers and mobility processes as the outcome of an interaction between employers and employees.

Regional disparities and employment (dis-)continuities

- Well-established labor market theories do not account for regional disparities or treat regional differences as short-term phenomena (Fujita et al. 2001).
- The “new economic geography” (Krugman 1991) has stimulated the emergence of a (new) wave of empirical work concerning geographical analysis.
- Thus, regional heterogeneities cause a diverse distribution of economic activities (Krugman 1991, 1998).



Regional disparities and employment (dis-)continuities

- In central or core economic locations a primary labor market segment is developed:
 - stable jobs
 - well paid jobs
 - good promotion prospects
- The periphery is characterized by a secondary labor market segment due to the unstable demand and less efficient firms (Fassmann/ Meusburger 1997).

Regional disparities and employment (dis-)continuities

- Endogenous growth theory (Lucas 1988; Romer 1990) states that
 - regional human capital endowment functions as an “engine of growth”.
 - all groups of workers (and firms) in a region benefit from productivity gains due to spillover effects.
- In contrast, according to the thesis of skill segregation, especially highly qualified employees profit from a high regional level of human capital (Acemoglu 1999; Duranton 2004).
- diverse distribution of economic activities



The dataset (1)

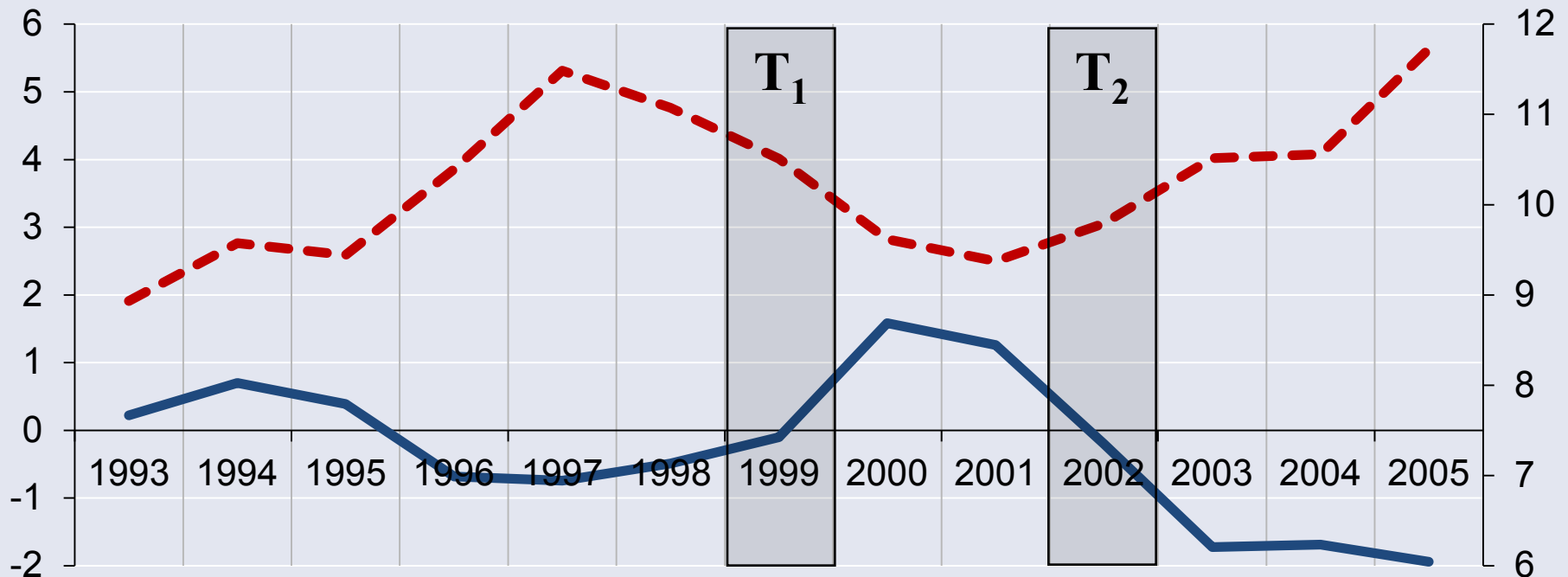
- We use the German LIAB, a linked employer-employee dataset of the Institute for Employment Research (IAB).
- This dataset integrates individual and establishment data from three different sources:
 - IAB Establishment Panel data: a representative annual establishment survey
 - BeH (“Employee-History”): data on individual employment histories
 - LeH (“Benefit Recipient History”): data on receipt of unemployment benefits, unemployment assistance or maintenance allowance



The dataset (2)

- Additionally the LIAB dataset was merged with data on regional characteristics taken from the Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR).
- These indicators are available for 97 planning regions (“Raumordnungsregionen”).
- The dataset permits simultaneous analyses of the employee and the employer sides as well as the regional context.

Observation periods and the economic cycle



— Output gap in percentages (left scale)

- - - Unemployment rate (based on the civilian workforce; right scale)

T: Observation period



Sample definition

- Data is restricted to persons aged 25 to 52 who are full-time employed.
- Spells of employment that include episodes of vocational training or home working were dropped.
- These requirements leave us with the following samples:

	Observation period 1999	Observation period 2002
Persons	370,779	363,339
Firms	1,836	2,140
Regions („Raumordnungsregionen“)	97	97



Econometric analyses – Method (1)

- Hierarchical structure of the data is to be taken into account (Moulton 1986, 1990).
- Inclusion of macro- and meso-variables in a conventional regression analysis leads to
 - an inefficient estimation of the coefficients and
 - biased standard errors.
- To solve this problem, three-level models with random effects are estimated (Rabe-Hesketh/ Skrondal 2008; Skrondal/ Rabe-Hesketh 2003).



Econometric analyses – Method (2)

- Employment trajectories are assessed in a two-stage procedure.
- First, we estimate the risk of job exit by a three-level logistic random intercept model.
- Second, we use four further three-level logistic random intercept models to explore the following destination states:
 - upward job-to-job mobility
 - lateral job-to-job mobility
 - downward job-to-job mobility
 - unemployment

Status after a separation (Indicated in percentages)

Competing Risks	1999	2002
Exit from job	9.16 %	8.34 %
Job to job – Upward mobility	20.04 %	13.73 %
Job to job – Lateral mobility	15.12 %	14.07 %
Job to job – Downward mobility	9.88 %	9.61 %
Unemployment	25.98 %	29.88 %
Gap	29.04 %	32.70 %

- Job exit states differ slightly due to the economic cycle.
- Employees are less able to realize promotions and to avoid unemployment in an economic downturn.
- Varying patterns of mobility indicate that fluctuations are procyclical.

Econometric analyses – Firm-specific determinants

Year	Independent variables	Exit from job	Internal career paths			Unemployment
			Upward mobility	Lateral mobility	Downward mobility	
1999	Investments in further training (1=yes)	-0.212***	-0.007	-0.325***	-0.241*	-0.178**
	State-of-the-art machinery (1=yes)	-0.145***	0.037	-0.225**	-0.327***	-0.368***
2002	Investments in further training (1=yes)	-0.316***	0.132	-0.486***	-0.946*	-0.314***
	State-of-the-art machinery (1=yes)	-0.006	0.260***	0.086*	-0.0683	-0.201***

Regression coefficients are reported; statistical significance: * $p = 0.05$; ** $p = 0.01$; *** $p = 0.001$

- Firms providing further training offer more stable jobs, whereat the risk of becoming unemployed can be diminished.
- Furthermore, state-of-the-art machinery stabilize employment and reduce the unemployment risk.
- Those employees who realize a job to job change in an economic downswing profit by the state-of-the-art machinery.
- Firm's investments impact positively on employment trajectories

Econometric analyses – Firm-specific determinants

Year	Independent variables	Exit from job	Internal career paths			Unemployment
			Upward mobility	Lateral mobility	Downward mobility	
1999	Blocked promotion-opportunities (1=yes)	0.159***	0.025	-0.199*	0.095*	0.135***
	Atypical employment	0.989***	0.307	1.035***	0.383	1.362***
2002	Blocked promotion-opportunities (1=yes)	0.105***	-0.035	0.409***	0.481	0.080**
	Atypical employment	0.962***	0.049	-0.033	1.303	1.561***

Regression coefficients are reported; statistical significance: * $p = 0.05$; ** $p = 0.01$; *** $p = 0.001$

- Employment trajectories are destabilized by
 - disadvantageous firm demographics and
 - intensive use of fixed-term employment.
- Opportunity structures significantly influence employment careers.

Econometric analyses – Regional determinants (1)

Year	Region-specific factors	Exit from job	Internal career paths			Unemployment
			Upward mobility	Lateral mobility	Downward mobility	
1999	Agglomerations with outstanding centers (1=yes)	0.293***	0.708***	0.637***	-0.017	0.126
	Urbanized areas of higher density (1=yes)	0.397***	0.773***	0.748***	0.130	-0.055
2002	Agglomerations with outstanding centers (1=yes)	0.209**	0.758***	0.457***	1.102**	0.156
	Urbanized areas of higher density (1=yes)	-0.001	0.114	0.454***	-0.397	-0.162

*Regression coefficients are reported; statistical significance: *p = 0.05; **p = 0.01; ***p = 0.001*

- In highly agglomerated and densely populated areas the probability of job exits is increased but also good promotion prospects are offered especially during the economic upswing.
- In case of economic downturn this can solely be observed in agglomerations with outstanding centers.

Econometric analyses – Regional determinants (2)

Year	Region-specific factors	Exit from job	Internal career paths			Unemployment
			Upward mobility	Lateral mobility	Downward mobility	
1999	Rural areas of lower density (1=yes)	0.110	0.043	0.0103	0.068	0.167
2002	Rural areas of lower-density (1=yes)	0.208*	0.203	0.213*	-0.951	0.224*

*Regression coefficients are reported; statistical significance: *p = 0.05; **p = 0.01; ***p = 0.001*

- However, during the economic downturn the risk of becoming unemployed is increased in rural areas with lower density.
- Unequal career prospects in different types of region indicate a regional segmentation of the labor market.



Econometric analyses – Regional determinants (3)

Year	Human capital endowment	Exit from job	Internal career paths			Unemployment
			Upward mobility	Lateral mobility	Downward mobility	
1999	Share of students	-0.002	-0.003	0.008*	0.005	0.004
2002	Share of students	0.001	0.009***	0.010***	0.154***	-0.003

*Regression coefficients are reported; statistical significance: *p = 0.05; **p = 0.01; ***p = 0.001*

- The human capital endowment has only a weak impact on employment trajectories.

Econometric analyses – Regional determinants (4)

The crosslevel effects provide a more differentiated picture:

- Less qualified employees
 - benefit from a high human capital endowment by realizing upward or lateral job-to-job mobility in an economic upswing.
 - On the contrary, an economic downturn causes downward mobility to a greater extent.
- The highly qualified profit from a high human capital endowment by being in more stable jobs.
- Due to the economic situation a high human capital endowment seems to differently influence employment trajectories.

Firm characteristics, region-specific factors and economic conditions play an important role in career mobility patterns.

1. Life course research emphasizes the significance of individual factors and endogenous causalities for employment careers.
 2. Firms offer different opportunity structures, which influence the chances and risks in employment careers in different ways.
 3. Regional factors explain job exit rates and employment trajectories. These unequal career prospects in different types of region indicate a regional segmentation of the labor market.
- Employees can minimize the significant impact of individual determinants and endogenous causalities by taking advantage of good opportunity structures and framework conditions.

This finding gains further significance particularly in light of the following three developments:

1. First, in recent years, market volatility due to processes of economic globalization and transnationalization has been leading to ever shortening economic cycles.
2. Second and related to this, human resource policy has changed particularly through an increased use of atypical employment contracts.
3. Third, several political initiatives, such as the European initiative for regional development and the promotion of metropolitan regions, have increased the importance of regional structures for growth and employment.



Future Work:

- In the next step, we want to broaden our view on regional heterogeneities.
- We intend to perform analyses on the effect of regional disparities in Europe (NUTS 2 or NUTS 3 level) on employment/ unemployment/ employment trajectories.
- We are looking for researchers/ colleagues, who are also interested in this topic, to join us as partners.
- We are looking forward for hints and advice regarding good/ adequate European data.



Thank you for your attention!