You Live and Learn: Private-Sector Training in Germany

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### MOTIVATION

**Background**
- Speed with which knowledge changes is enormous
- Need to extend working life (demographic change)
- These facts necessitate a broader provision of training (e.g., Brenke and Zimmermann, 2005)
- Consequence applies to many industrialized countries, but this study focuses on Germany
- Dominant view in Germany for many decades:
  - School education and initial training provide a sufficient endowment for the entire working life
  - Further qualifications - if necessary at all - can be obtained through on-the-job training
- This view has changed: Lifelong learning is now viewed as a necessary complement to school education and initial training

**Research Questions**
- Who participates in private-sector training?
- What are the effects of private-sector training on wages and earnings?
- What are the effects of different types of private-sector training on wages and earnings?
- What are the effects of private-sector training on subsequent employment?

### RESULTS

#### Training Incidence
- Both samples:
  - Significantly more likely to participate: More qualified individuals, German individuals, employees in larger firms
  - After additionally controlling for the occupational level, East Germans are significantly more likely to participate

#### Wage and Earnings Effects
- Fixed effects model (FE):
  \[ \ln w_i = \beta_0 + \beta_1 T_i + \gamma_1 T_i + \alpha_i + \epsilon_i \]
- Wage equation augmented with training variables \( T_i \)
- Unbiased estimates if unobserved individual effects are permanent
- Biased estimates if wage growth is different for trainees and non-trainees
- Random growth model (RG):
  \[ \ln w_i = \beta_0 + \gamma_1 T_i + \alpha_i + \delta_i + \epsilon_i \]
- Estimated by applying fixed effects to the difference equation

#### Wage and Earnings Effects by Type of Training

### RELATED LITERATURE

**Theoretical Background**
- Theoretical literature on workplace training comprehensively surveyed by Leuven (2005):
  - First milestones: Mincer (1962) and Becker (1962, 1993) which can still be considered as the dominant perspective on private-sector training
  - Important distinction: general vs. specific training
  - Further development: assumption of perfect competition was dropped and non-competitive theories of training evolved (Acemoglu and Pischke, 1999)
  - Important question: Does the worker or the firm pay for the training?

**Empirical Literature**
- Empirical studies of workplace training exist for a number of countries:
  - Pfeffer (2001) summaries findings for Europe
  - Frazis and Loewenstein (2005) summarizes findings for the U.S.
  - General finding: estimates of the wage returns to private-sector training typically very high
  - High wage returns may be actually the returns to some unobservable characteristic (e.g., Leuven and Oosterbeek, 2008)

### DATA

#### Data Set
- German Socio-Economic Panel Study (SOEP)
- Wide range of subjects covered annually, but some subjects are covered in modules which are not collected in every wave
- One example: module “training”
- Included in 1989, 1993, 2000, and 2004
- Information on training activities collected retrospectively for a period of three years prior to the interview
- Participation at all, number of courses
- Additional information available for the three most recent courses: start dates, duration, financing, etc.
- This study: training information in 2000 and 2004

#### Sample Selection
- Construction of two panels:
  1. 1997–2000
  2. 2001–2004
- Samples include individuals who...
  - belong to the target group of the training questions
  - are between 25 and 55 years old
  - employed during the entire observation period
  - have a training participant

### CONCLUSIONS
- Our results with regard to the incidence of private-sector training indicate a similar pattern in both periods
- Better educated and German individuals as well as employees in larger firms are significantly more likely to receive training
- The propensity to participate significantly decreases in potential experience (age)
- The effects of private-sector training on wages are not very robust to the econometric approach
- We find positive wage effects of about 4–6 percent in both samples in the fixed effects specifications
- These effects generally decrease quite substantially in the fixed growth rates specifications
- Participation in private-sector training raises the probability of being employed in subsequent years by 2.3 percentage points
- However, this positive employment effect disappears after around 5 years