Social Change and Income Inequality
Results of the German Mikrozensus 1962-2004

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1. Introduction

- Educational expansion in Germany since the 1950s
- Education and work are rather closely connected to each other in Germany
- Winner of the educational expansion:
  - girls/women
  - non-native persons
  - persons with lower socio-economic background
- Education as one of the main determinants of the risk of being unemployed and of the income level
- Do the returns of higher education change as well?
- Do these groups benefit to the same extent from their educational background regarding employment and income?
- How does income inequality in these groups and different sectors change over time?
2. Theoretical Implications

Theories to explain income inequality:
- human capital approach (Schultz 1960; Becker 1962, 1964; Mincer 1974)
- signalling and screening (Spence 1973)
- numerous social capital explanations
- social reproduction (Bourdieu 1983)

Theories of social discrimination:
- taste for discrimination (Becker 1957)
- statistical discrimination (Phelps 1972)

Mechanisms of social discrimination:
- glass ceiling
- hurdles
- threshold
3. Hypothesis (1/3)

- human capital approach
  
  education $\rightarrow$ productivity $\rightarrow$ higher income

- signaling and screening
  
  education $\rightarrow$ signal $\rightarrow$ higher income

$\Rightarrow$ impact of *education* on income level
3. Hypothesis (2/3)

- social reproduction
  \[ \text{SES} \xrightarrow{\text{education}} \text{higher income (SES)} \]

- taste for discrimination
  \[ \text{sex, ethnic group, etc.} \xrightarrow{\text{discrimination}} \text{lower income} \]

- statistical discrimination
  \[ \text{minority status} \xrightarrow{\text{estimation of productivity}} \text{lower income} \]

→ impact of *personal characteristics* on income level
3. Hypothesis (3/3)

Hypothesis regarding the correlation of educational expansion (EE) and employment position/income:

- "proletarianization" thesis (Schlaffke 1972)
  \[
  \text{EE} \xrightarrow{\text{limited # of high positions}} \text{unemployed academics}
  \]

- absorption thesis (Teichler et al. 1976)
  \[
  \text{EE} \xrightarrow{\text{change of hierarchies in firms}} \text{status quo (unemployment)}
  \]

- crowding out thesis (Fürstenberg 1978, Lutz 1979)
  \[
  \text{EE} \xrightarrow{\text{increasing # of academics}} \text{unemployed workers}
  \]
4. Data

- Joint project: Social Change in Germany
  Christof Wolf (ZUMA)

- „Mikrozensus“ covers about 1% of the German population.
- It is conducted every year since 1957.
- Since 1991 data of “East Germany” are available as well.
- About 830,000 individuals are collected per year.
- Around 500,000 cases are available as scientific use files.
5. Methodological challenges

- **Inflation rate**
  - individual hourly wage is inflation discounted to levels of 2004 and adjusted to buying power of each year (Lengerer et al. 2007)

- **Employment period**
  - especially starting one’s working life differs, depending on educational level (total returns versus age related returns)
    - age related returns because of trend design (multivariate models contain 30-60 years old persons)

- **Only net income available**
  - (problematic due to the German "Ehegattensplitting")
    - interaction effect: marry*higher income in hh
5. Measurement

- Education in years:
  similar to equal-distance model
  from lowest: ‘Hauptschule’ without apprenticeship
  to highest: ‘Abitur’ including university degree

- Work experience:
  Age - (education + 7 years)
  [unaccounted for unemployment]

- Data is assigned as a household sample:
  Personal weight is used to create an “individual” sample
6. Descriptive Results

Development of education (West Germany) according to gender

[Graph showing the development of education in West Germany for males and females from 1976 to 2004]
6. Descriptive Results

Development of education (West Germany) according to nationality
6. Descriptive Results

Development of individual net income
6. Descriptive Results

Development of individual net hourly wage

- west
- east
6. Descriptive Results

Development of individual working hours (full time jobs)
6. Descriptive Results

Development of tertiary sector (service) vs. industry, crafts & agriculture
6. Descriptive Results

Development of unemployment
6. Descriptive Results

Development of unemployed academics and “workers”
7. Multivariate Results

Returns separated by gender (display of regression coefficient, dep. var: log. hourly wage, from 1991 including west dummy, Germans only)

Covariates:
Exp, exp², marry, marryh, hhanz, tert
7. Multivariate Results

Returns separated according to gender (display of regression coefficient, dep. var: log. hourly wage, from 1991 including west dummy, Non-Germans only)

Reference value of German
Males: 0.08
Females: 0.07
### Social Change and Income Inequality

<table>
<thead>
<tr>
<th>Variable</th>
<th>md04</th>
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<th>wnd04</th>
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<td>.11</td>
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</tbody>
</table>

* p < 0.001
8. Summary

- Men still achieve higher levels of education than women.
- Non-Germans’ levels of education rises slightly after 1997 – the gap between Germans and Non-Germans expands.
- The percentage of unemployed academics rises.
- The returns of education for men are higher than the returns for women. This gap seems to enlarge in the recent past.
- The returns of education for Non-Germans are lower than the returns for Germans.
Thank you for your attention!

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