Social Change and Income Inequality

Results of the German Mikrozensus 1962-2004

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Content

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)

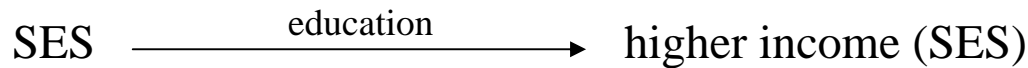➢ human capital approach

education ——— productivity ———→ higher income

➢ signaling and screening

education ——— signal ———→ higher income

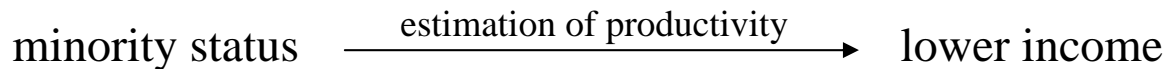➔ impact of *education* on income level

3. Hypothesis (2/3)

➢ social reproduction

SES $\xrightarrow{\text{education}}$ higher income (SES)

➢ taste for discrimination

sex, ethnic group, etc. $\xrightarrow{\text{discrimination}}$ lower income

➢ statistical discrimination

minority status $\xrightarrow{\text{estimation of productivity}}$ lower income
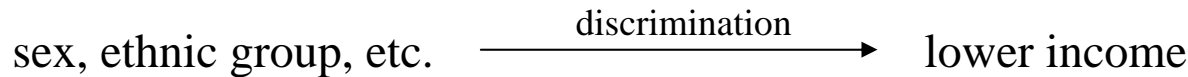
➔ impact of *personal characteristics* on income level

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3. Hypothesis (3/3)

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

➢ "proletarianization" thesis (Schlaffke 1972)

$$EE \xrightarrow{\text{limited \# of high positions}} \text{unemployed academics}$$

➢ absorption thesis (Teichler et al. 1976)

$$EE \xrightarrow[\text{firms}]{\text{change of hierarchies in}} \text{status quo (unemployment)}$$

➢ crowding out thesis (Fürstenberg 1978, Lutz 1979)

$$EE \xrightarrow{\text{increasing \# of academics}} \text{unemployed workers}$$

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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.

➢ Hourly wage available since 1973.

➢ 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.

➢ The cumulated data file (1962-2004) contains 12 Mio. cases
  in trend design.

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:
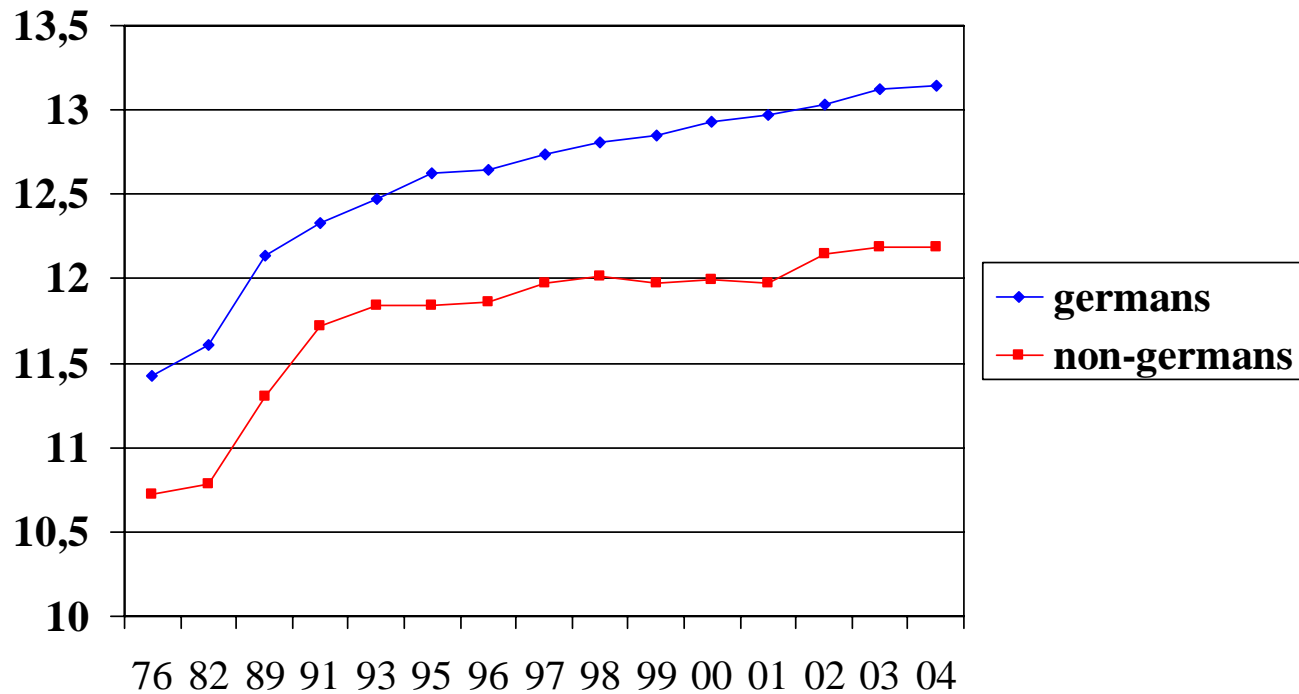 Personal weight is used to create an "individual" sample

6. Descriptive Results

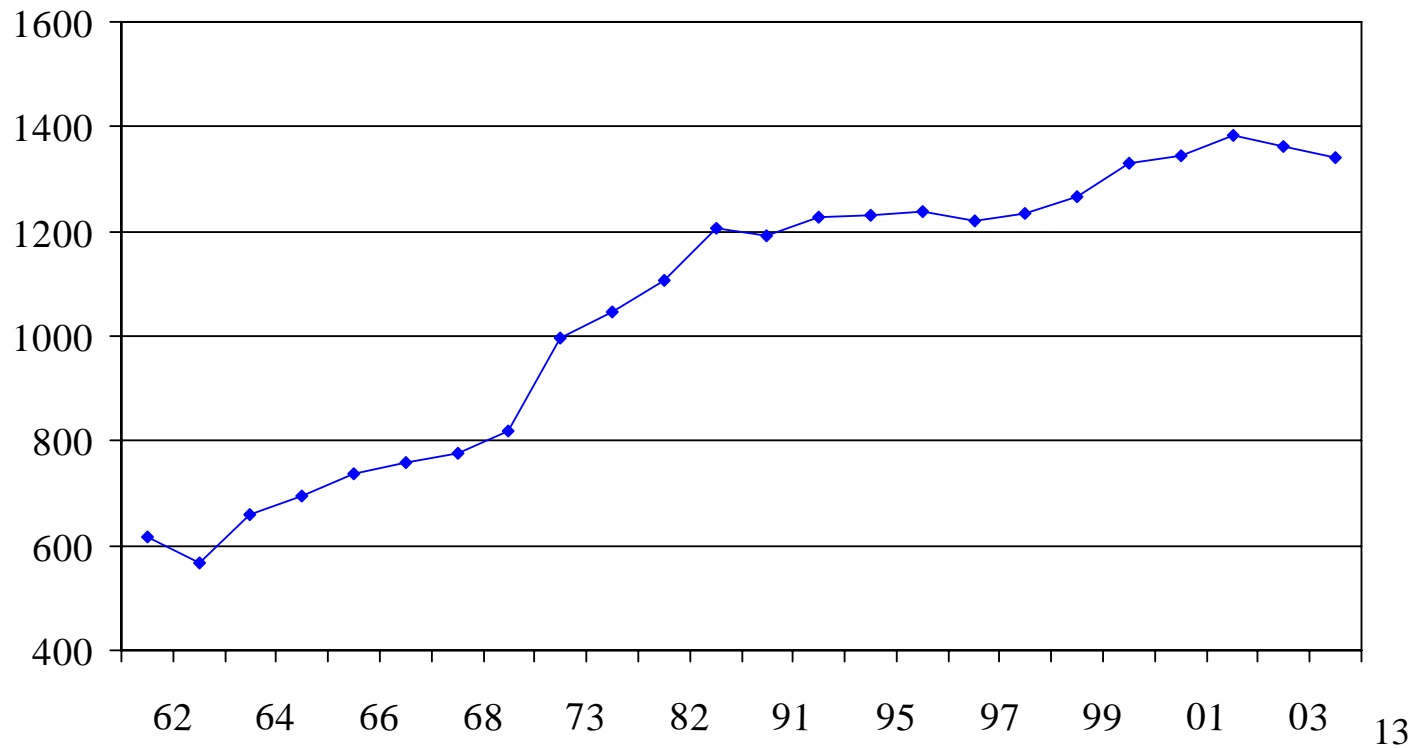Development of education (West Germany) according to gender
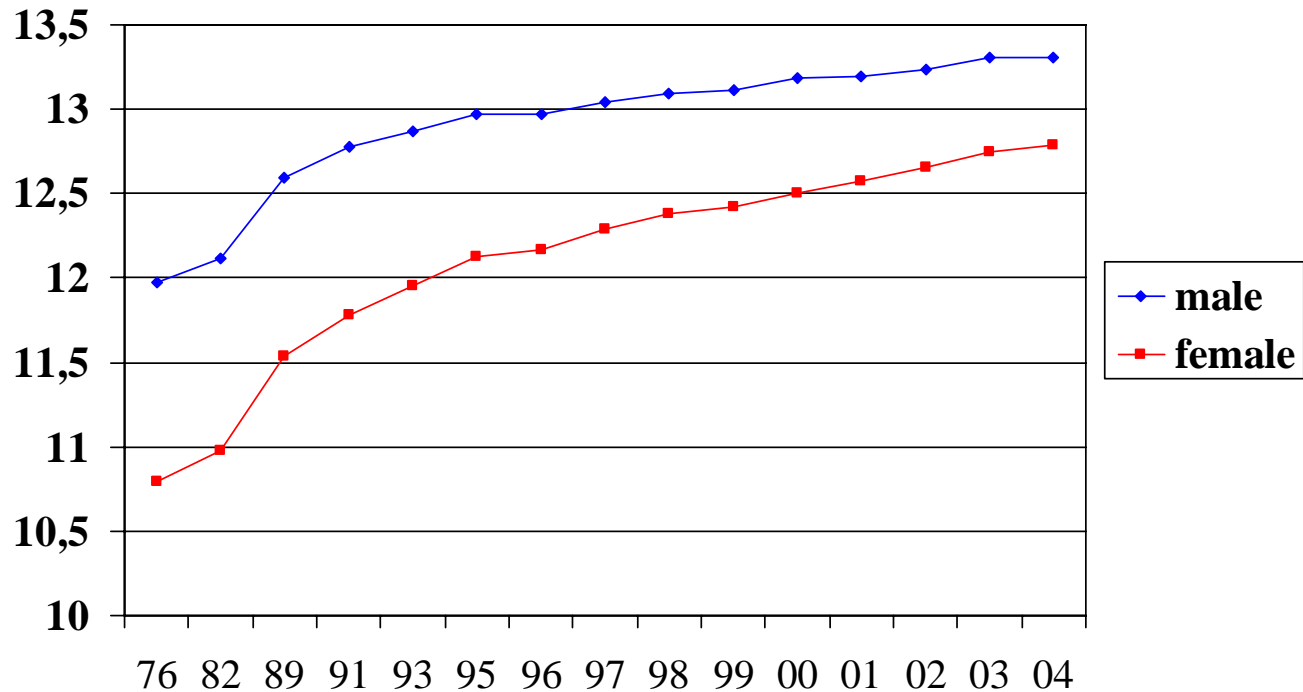
6. Descriptive Results

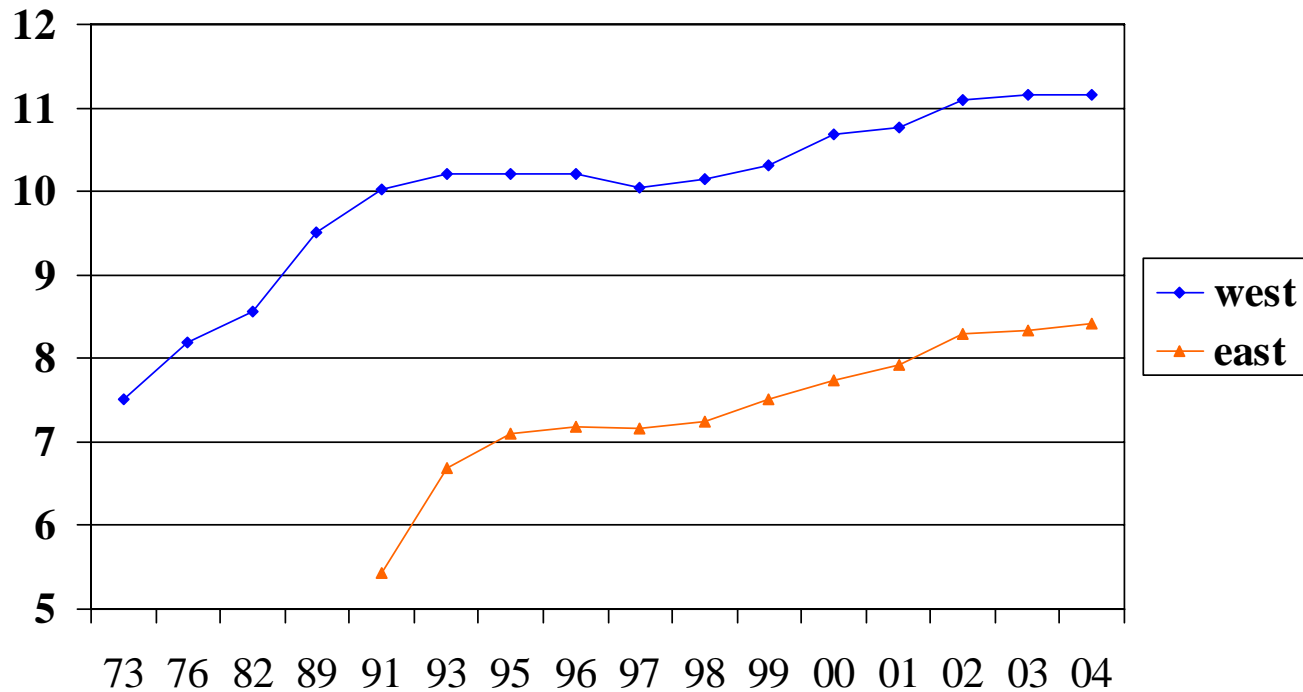Development of education (West Germany) according to nationality

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6. Descriptive Results

Development of individual net income

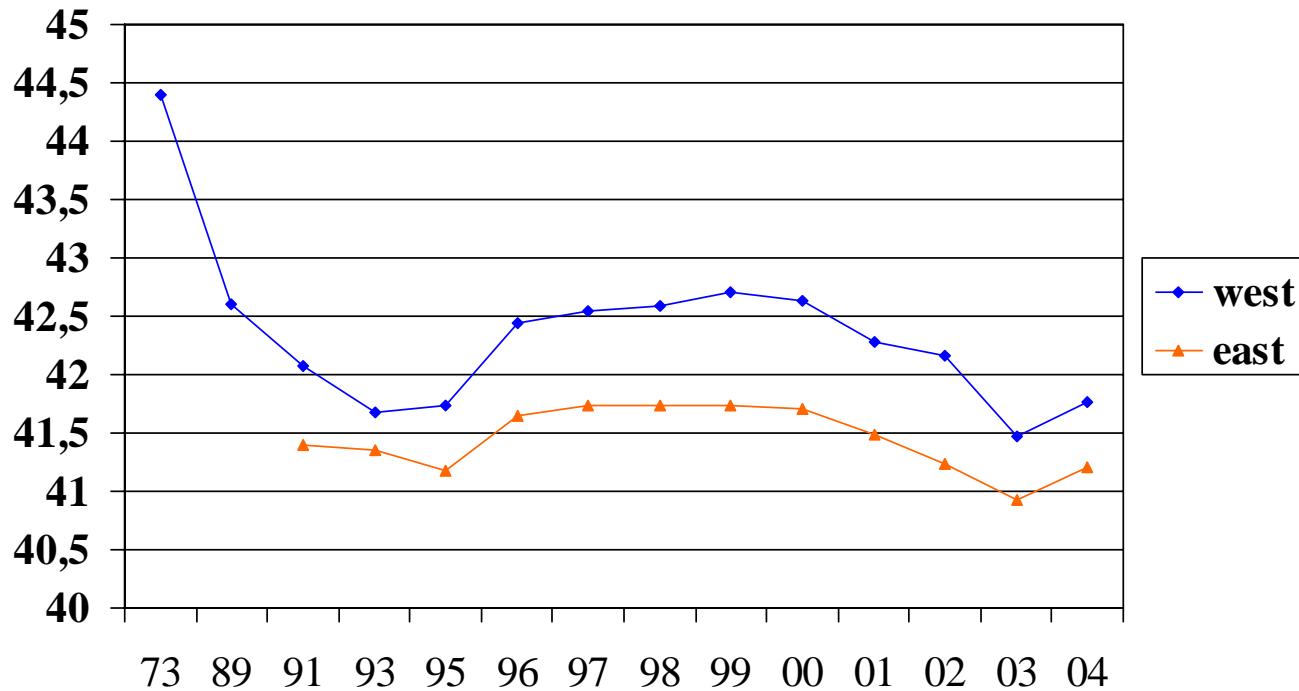# 6. Descriptive Results

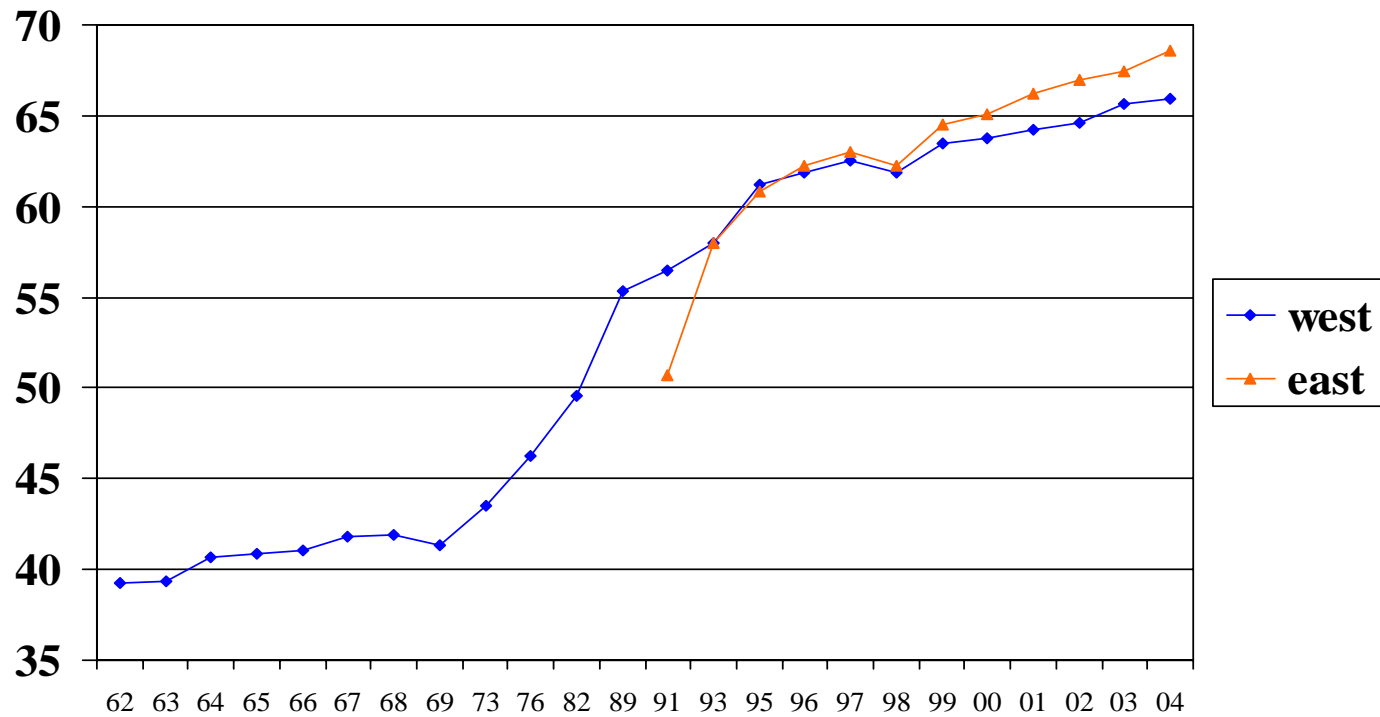Development of individual net hourly wage

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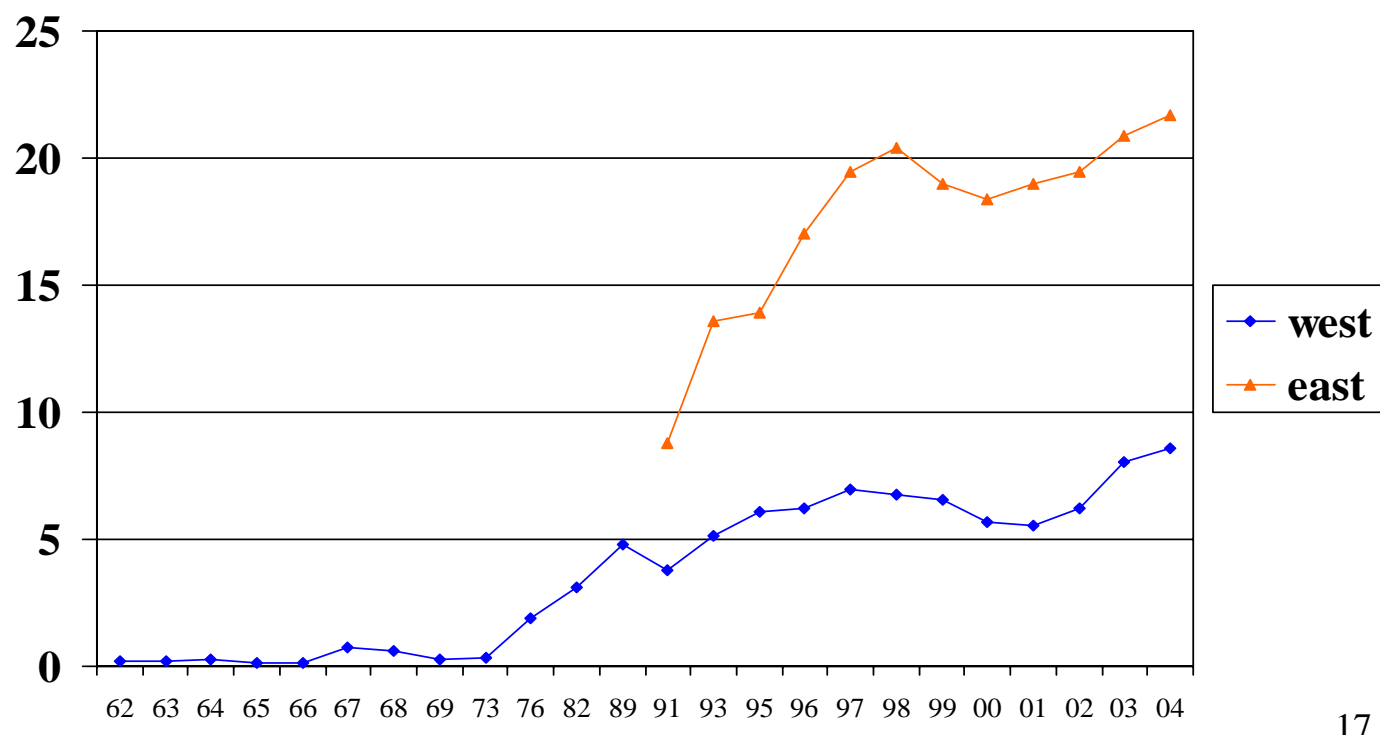
Development of individual working hours (full time jobs)

6. Descriptive Results

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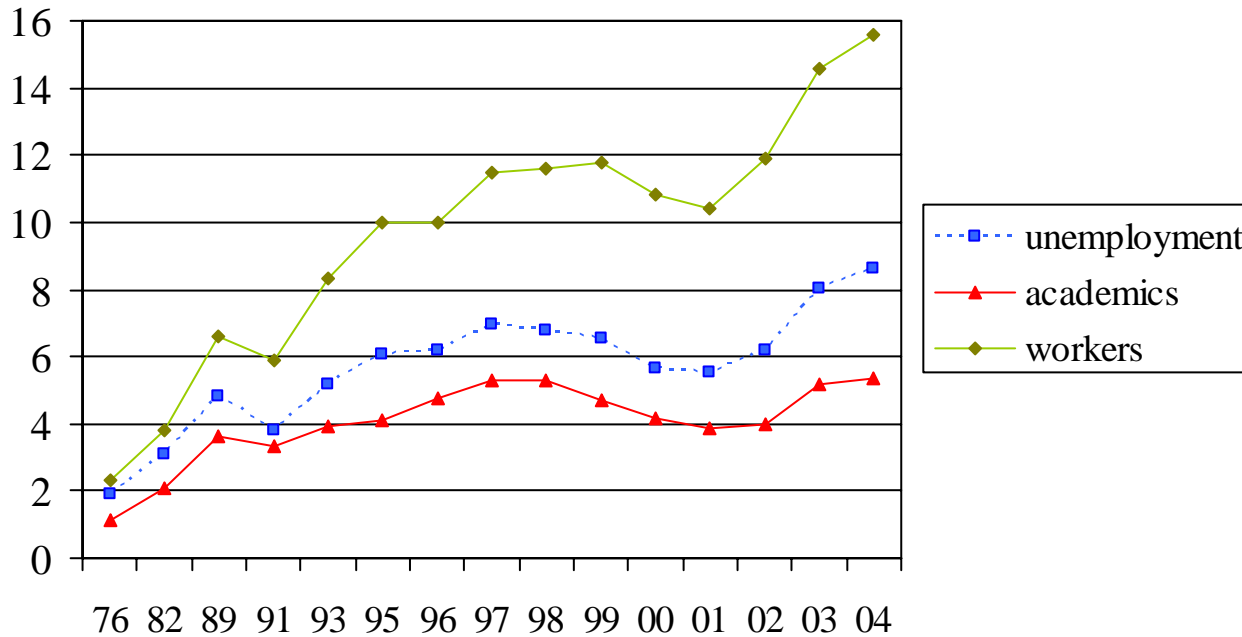industry, crafts & agriculture

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6. Descriptive Results
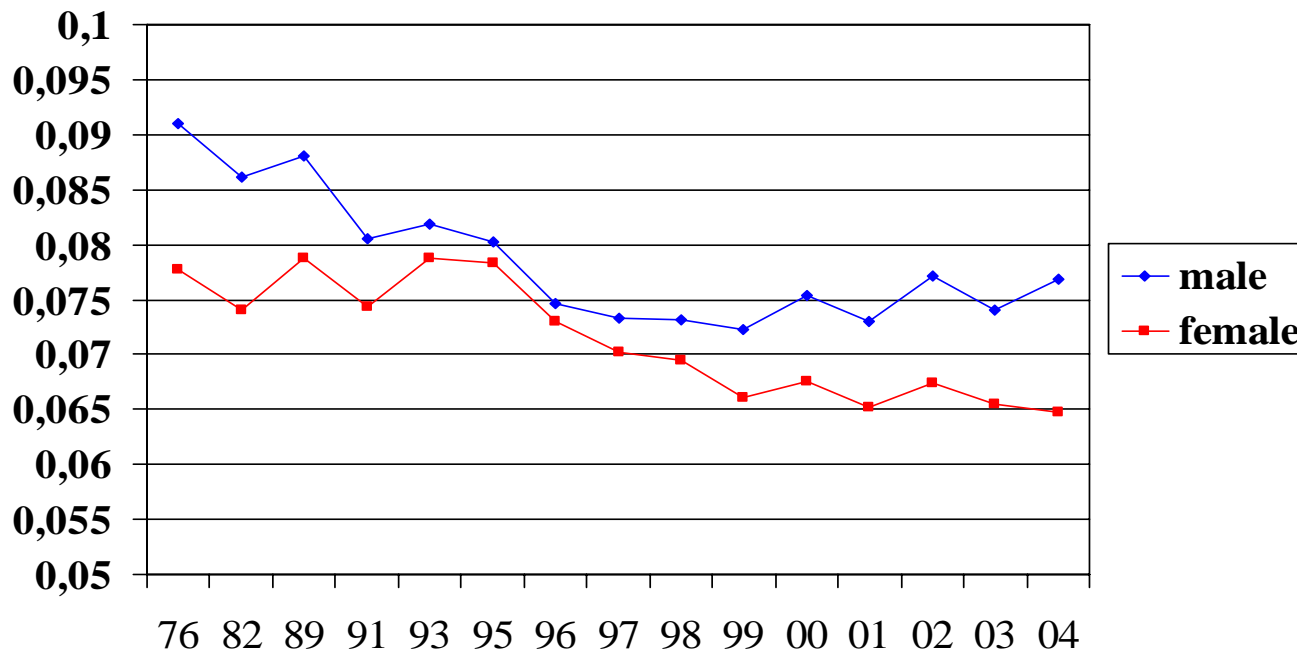
Development of unemployment

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)
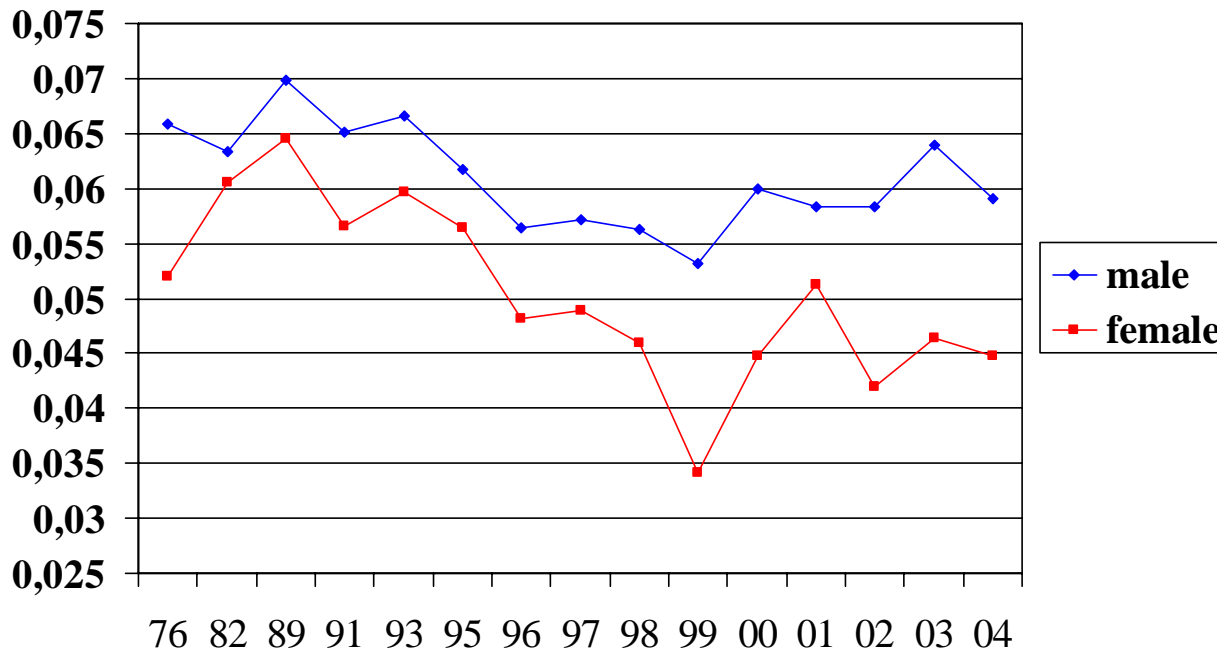

Covariates:

Exp, $\exp^2$, marry, marryh, hhanz, tert

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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

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---------------------------------------------------------------------
   Variable |    md04         wd04         mnd04         wnd04
-------------+-------------------------------------------------------
        exp |  .01620*      .02197*       .00349        .00778
       exp2 | -.00019*     -.00028*       .00005       -.00004
     summej |  .07684*      .06488*       .05910*       .04474*
      marry | -.22121*     -.28876*      -.29484*      -.31979*
     marryh |  .43384*      .37029*       .42478*       .28057*
      hhanz |  .03866*      .03944*       .05822*       .03101
       tert | -.03298*      .04711*      -.14393*       .02244
       west |  .34070*      .25300*       .30509*       .40139
       R2   |  .32          .16           .20           .11
---------------------------------------------------------------------
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   * 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 tertiary sector expands extremely after 1973.

➢ 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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