

The Long Way to Gender Equality

Gender Differences in Pay, 1873-2016

Relevance & Contribution

- Germany – one of the biggest and most prosperous economies in Europe still has one of the highest gender gaps in hourly earnings:



- Historical difference to other countries, e.g. in 1955 France had unadjusted gap of 14% vs. Germany 37% (Ziegler 2010, 74)

- **Where do present-day persistencies in gender pay differences originate?**
- **Did Germany take a different path towards gender equality than other European countries or the U.S.? What were the reasons?**

Contribution:

- Construct a time series of the unadjusted gender ratio from 1873 to the present & discuss possible reasons
- Make published earnings data usable for distributional and decompositional analysis (see Box "Further ideas")

Data & Coverage

Sources

1873/74 : Special reports on the situation of agricultural and industry workers
 1907-1943: irregular reporting of gross earnings by the statistical offices
 Since 1953: yearly reports on the actual gross earnings of salaried personnel and wage earners in industry, commerce and agriculture

3 Sector-Occupation Groups

Wage Earners in Agriculture	Wage Earners in Industry	Salaried Personnel in Industry
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Coverage



Coverage of approx. 56 - 68% of the labor force since 1882

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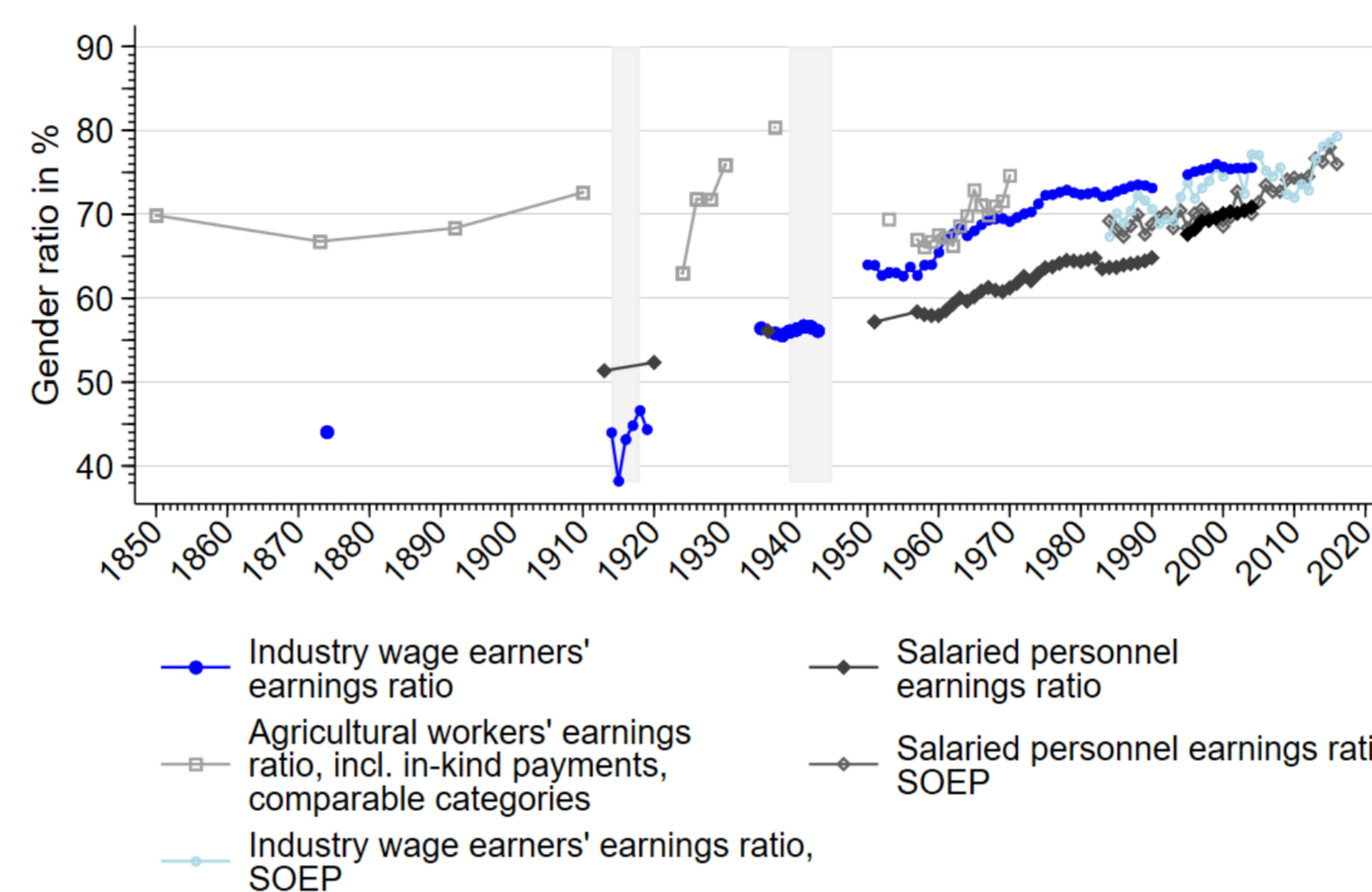
- The top of the distribution
- Civil servants
- Assisting family members
- Service sector

Method: Unadjusted Gender Ratio of Gross Earnings

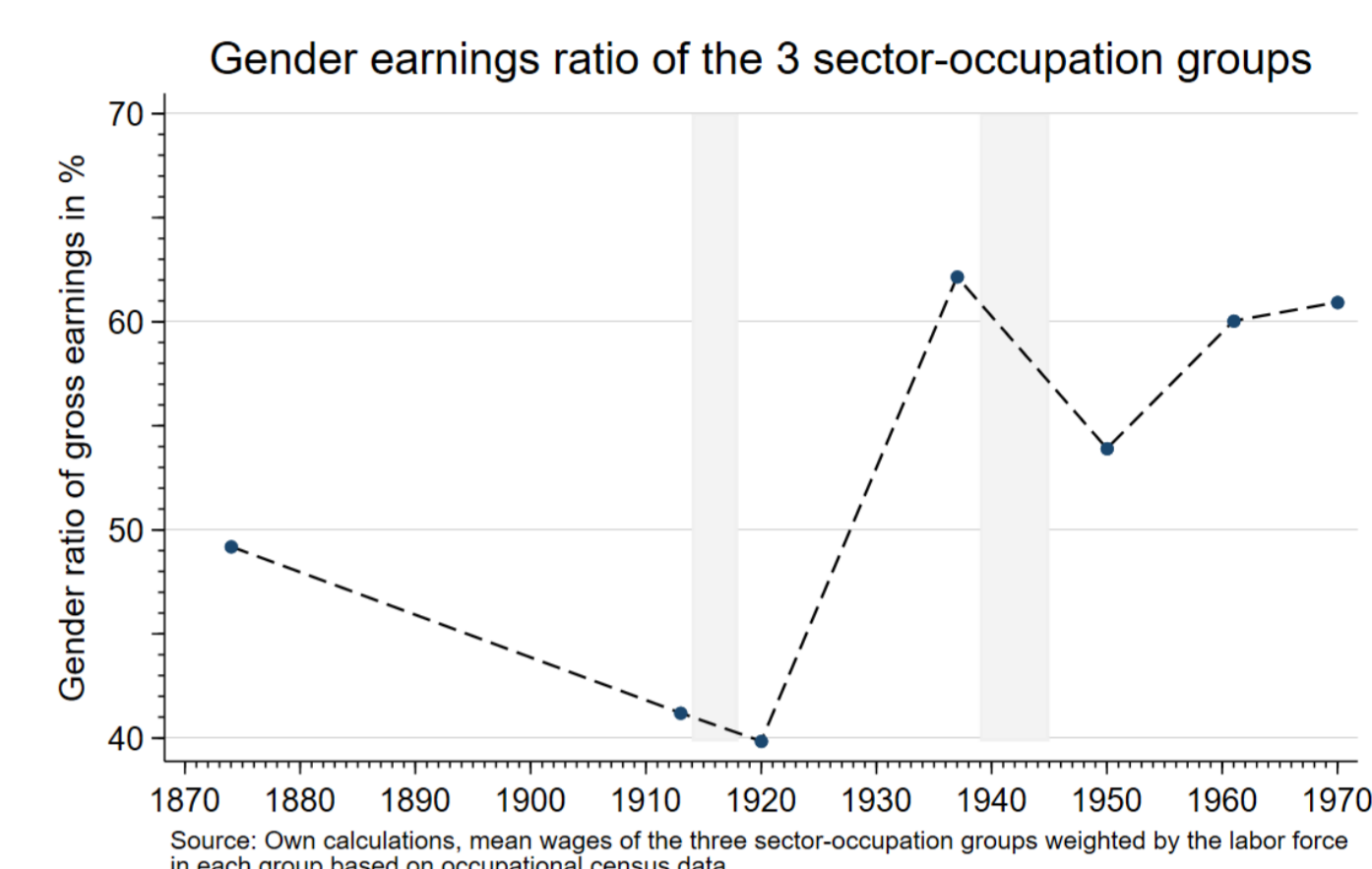
Gross earnings = wage or salary + social & other supplements + continuous premium payments (e.g. overtime) (+ in-kind payments for agricultural workers)

$$\text{Gender ratio} = \frac{\text{Women's gross earnings}}{\text{Men's gross earnings}} = 1 - \text{unadj. gender gap}$$

Results: Gender Earnings Ratios, 1873-2016



Combined by weighting the mean earnings of each gender-sector-occupation group by the labor force of each group

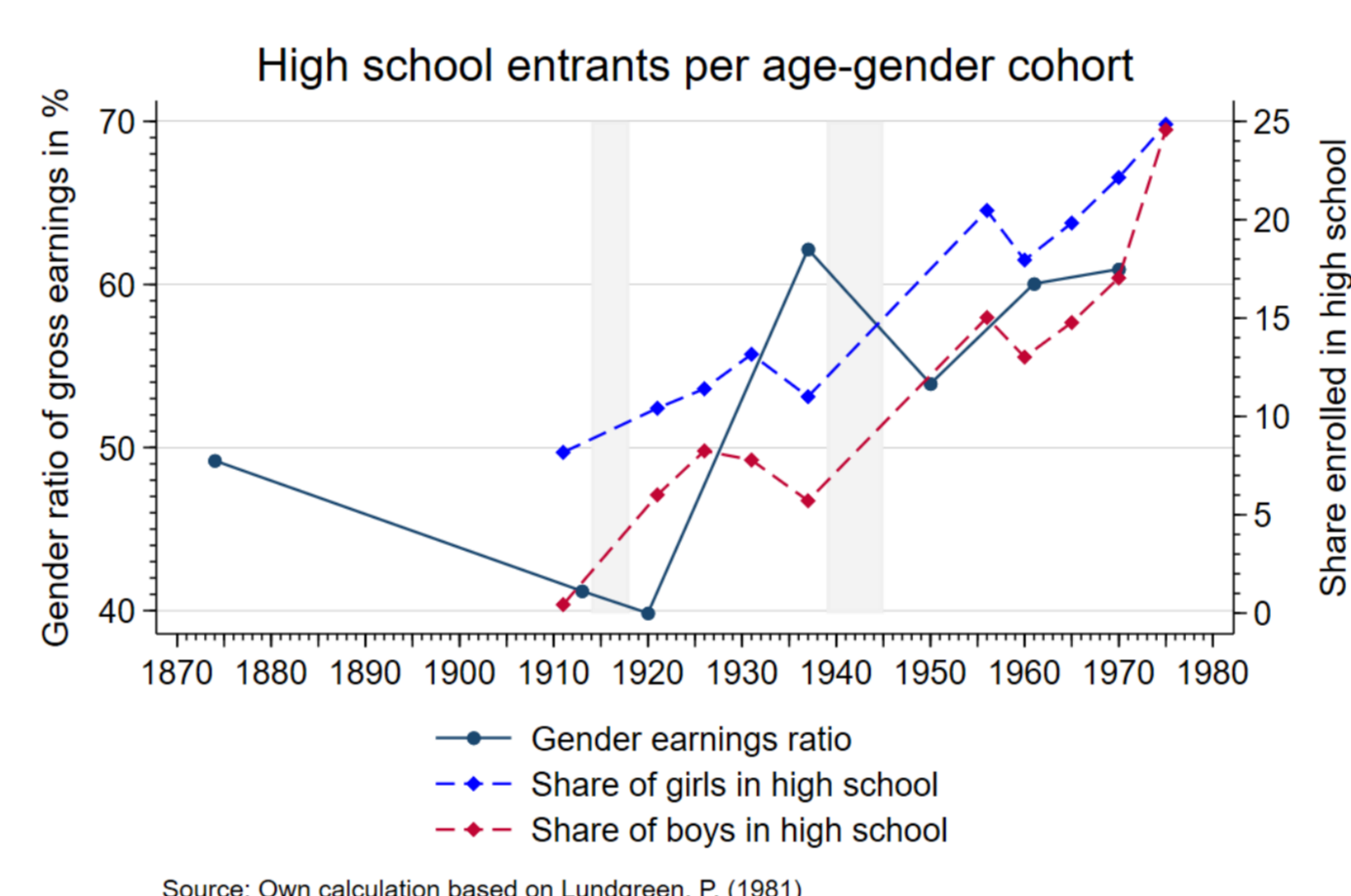


- Falling gender ratio 1873-1920 and 1939-1950 (WW II)
- Increasing gender ratio 1920-1939 and after 1950

Seeking for Explanations, 1873-1970

Human capital factors

- Decline in gender high school gap 1910-1930
- Difference in high school enrollment closes around 1975



- Further factors to be explored:
 - Experience, Tenure, ...

Sector and occupational change

- 1873-1913: Decline in gender ratio due to slower movement of women from low-pay agriculture to higher-pay industry?
- Post-1913: Occupational change in favor of women's pay



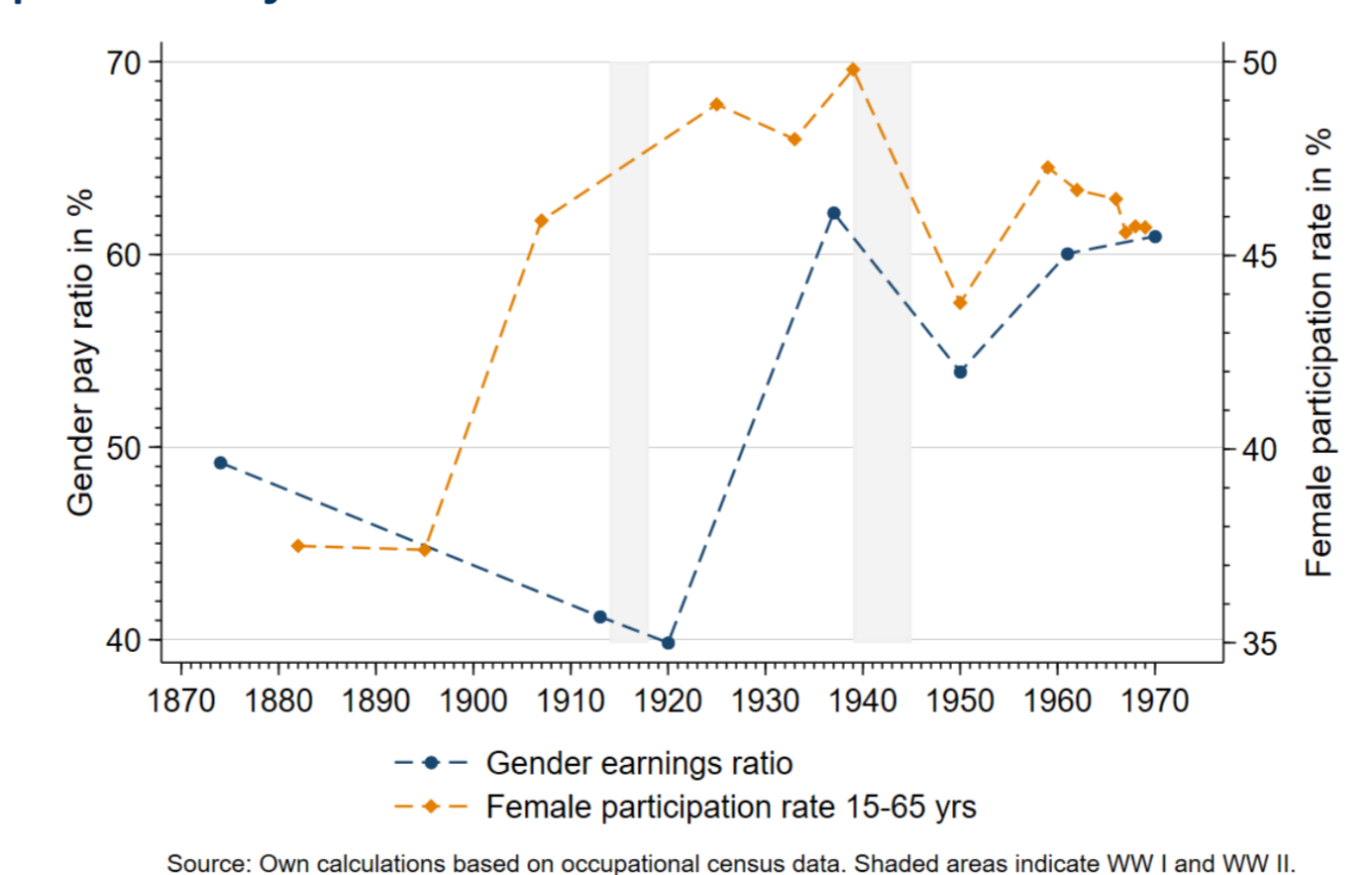
Selection into employment

Theory:

- Higher female participation rate → Lower gender pay ratio

Empirical evidence:

- Consistent with theory for 1880-1920
- Anomalous development for WW II
- Did returning men crowd out women in qualified jobs?

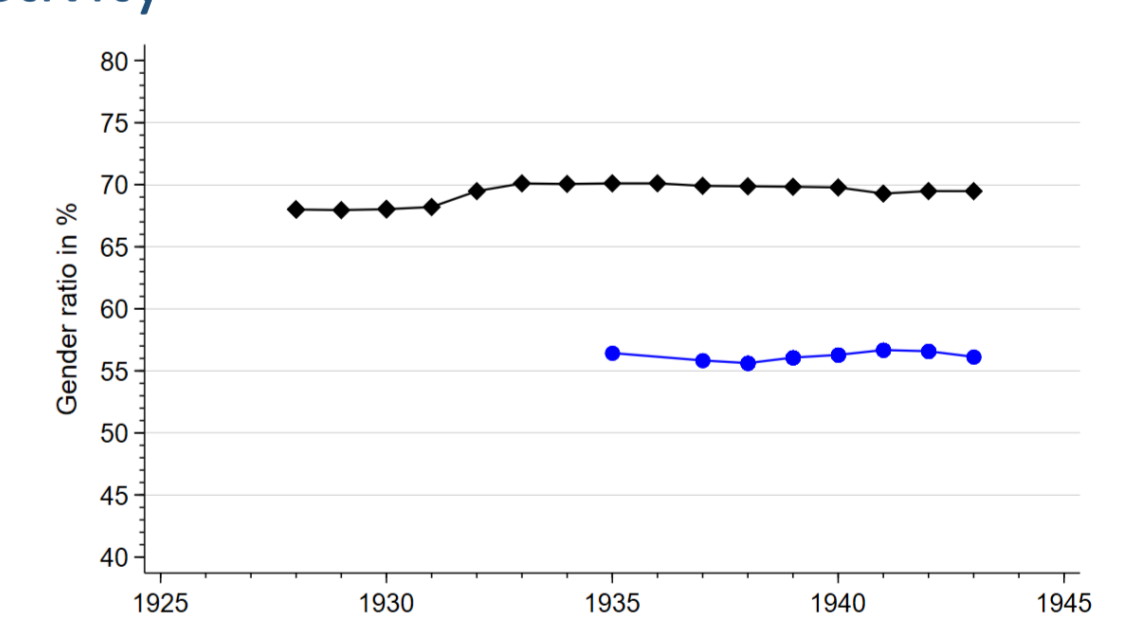


Male labor ≠ female labor

- Male and female labor not seen as homogeneous before 1945
- Gross wage ≠ marginal productivity

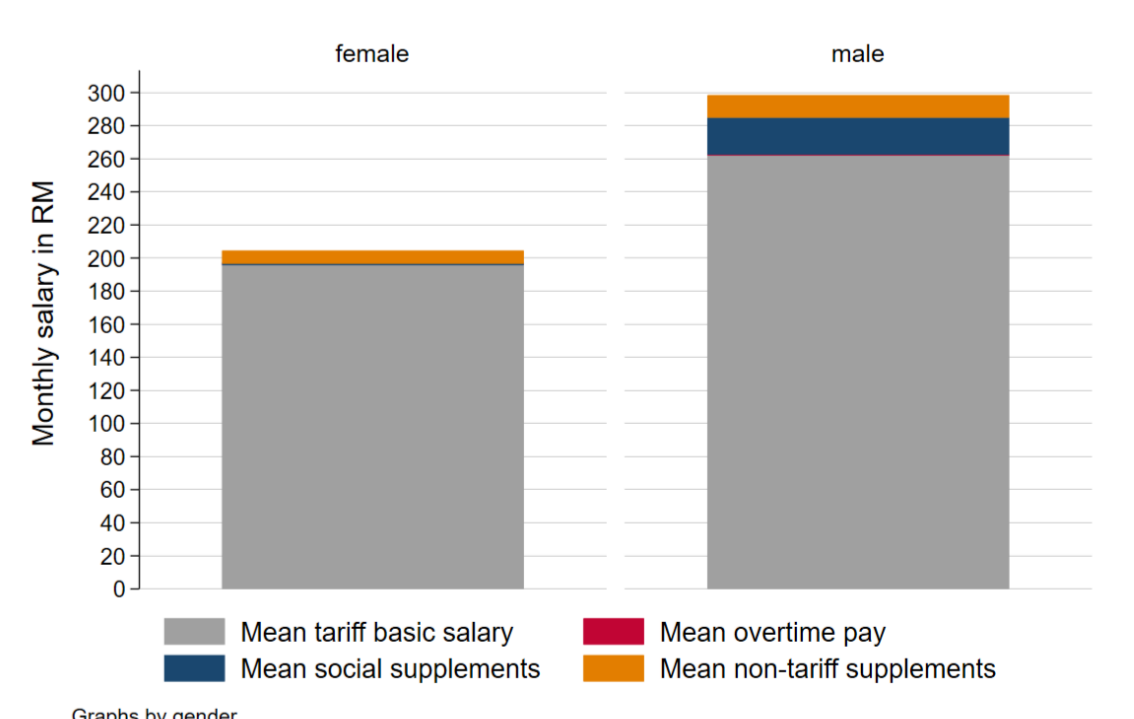
1. case study:

Gender differences in tariff agreement wages of industrial workers 1928-1943



2. case study:

Gender differences in wage supplements of clerical workers 1934

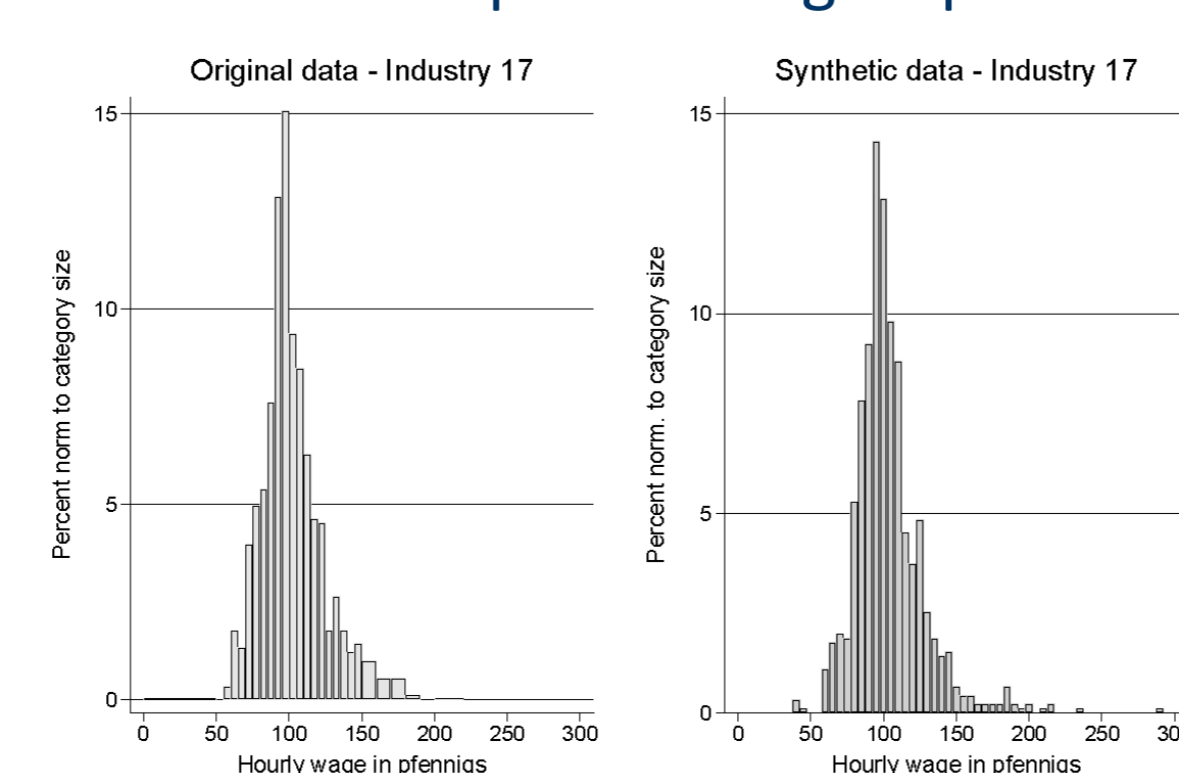


References

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Further Ideas to Be Discussed: Towards the Adjusted Gender Ratio

- Relevance:** Micro data of the *Structure of Earnings Surveys* was destroyed after the publication of detailed grouped data for all surveys before 1990 (1951/1953, 1957, 1962, 1966, 1972 and 1978)
- Aim:** Make published grouped data usable similar to micro datasets



Plan

- Oaxaca-Blinder decomposition from average wage data of industry-skill cells (Blau 1980)
- Generate a synthetic micro data set by linking grouped data via distribution assumptions
 - Estimate subdistributions (by gender and industry) by assuming the functional form of a Generalized Beta distribution of the second kind
 - Link the estimated distributions via assumptions (copulas?)
 - Analyze the data similar to current micro data