

Lifetime earnings inequality in Germany

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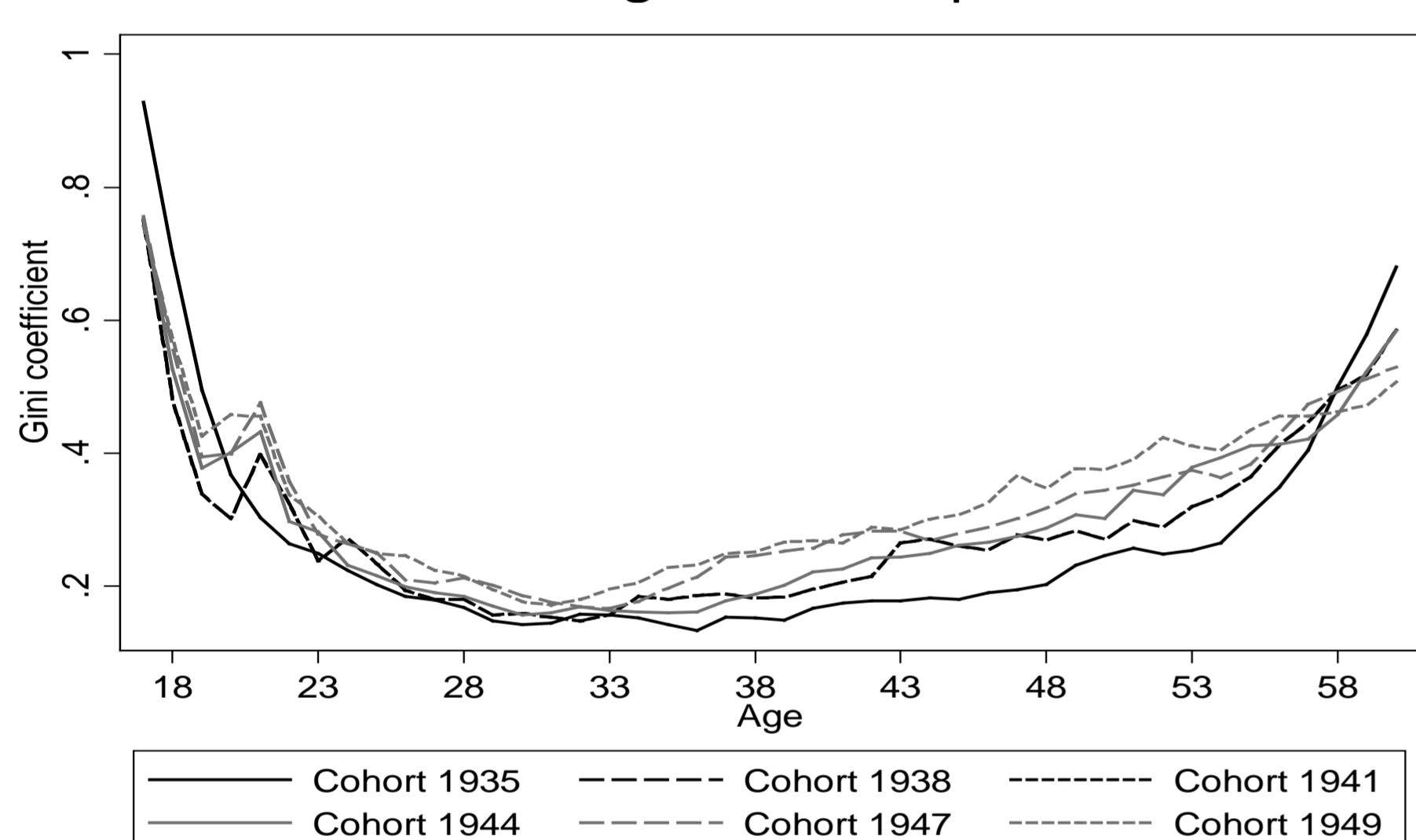
Motivation

We document for the first time **level, structure and development** of intragenerational lifetime earnings inequality for West German men. Questions of interest:

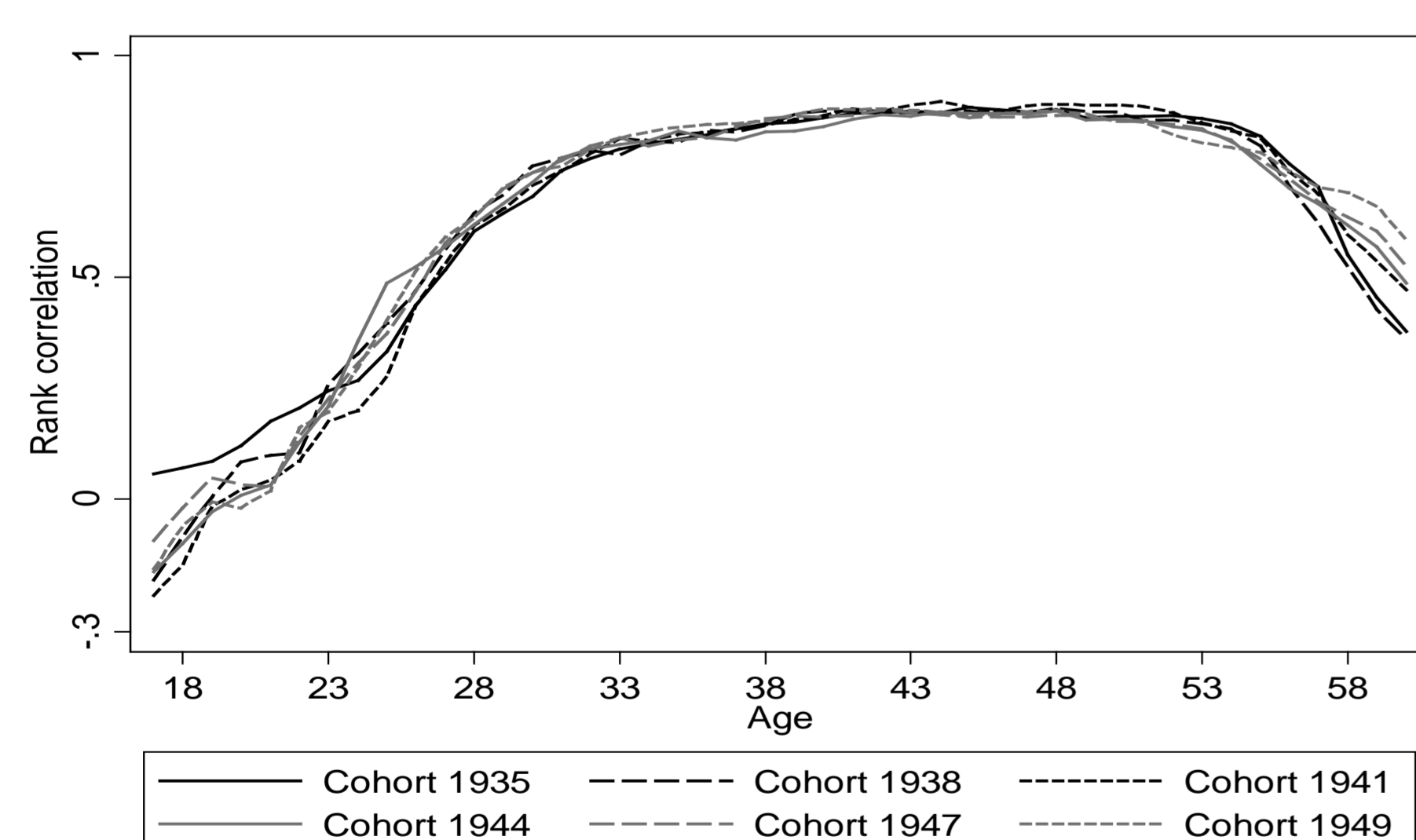
- (1) What is the magnitude of lifetime inequality in Germany?
- (2) How is lifetime inequality related to cross sectional inequality?
- (3) How do cohort-specific inequality and mobility develop over the life cycle?
- (4) Is the lifetime inequality of current workers different from those of their (statistical) parents?

Life-cycle inequality

Inequality and mobility over the life-cycle:
Ginis of annual earnings are u-shaped



Rank correlation of annual and lifetime earnings:
Mobility is high only at the beginning of the life-cycle

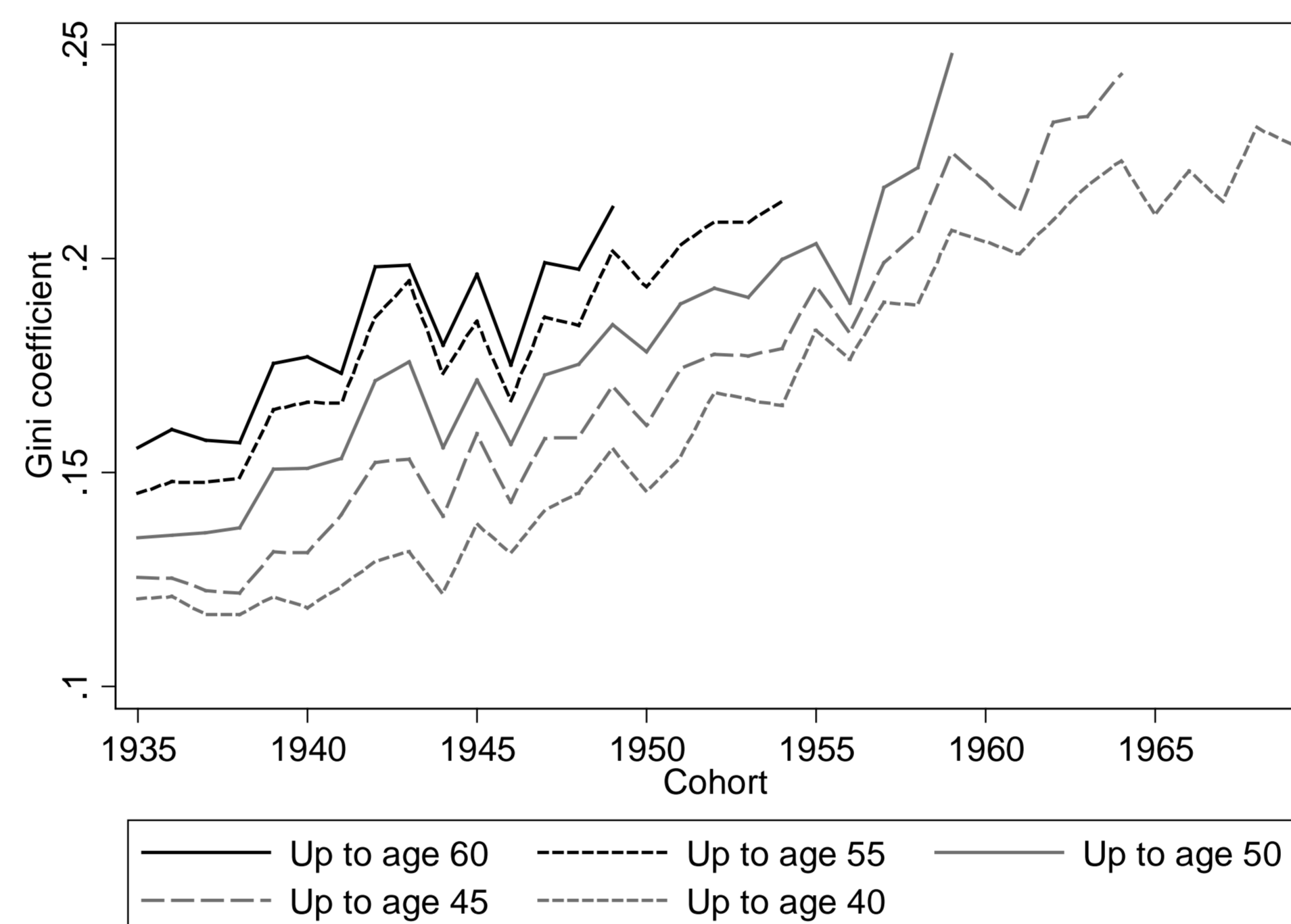


Lifetime inequality

UAX earnings: Present value of earnings up to a certain age X.

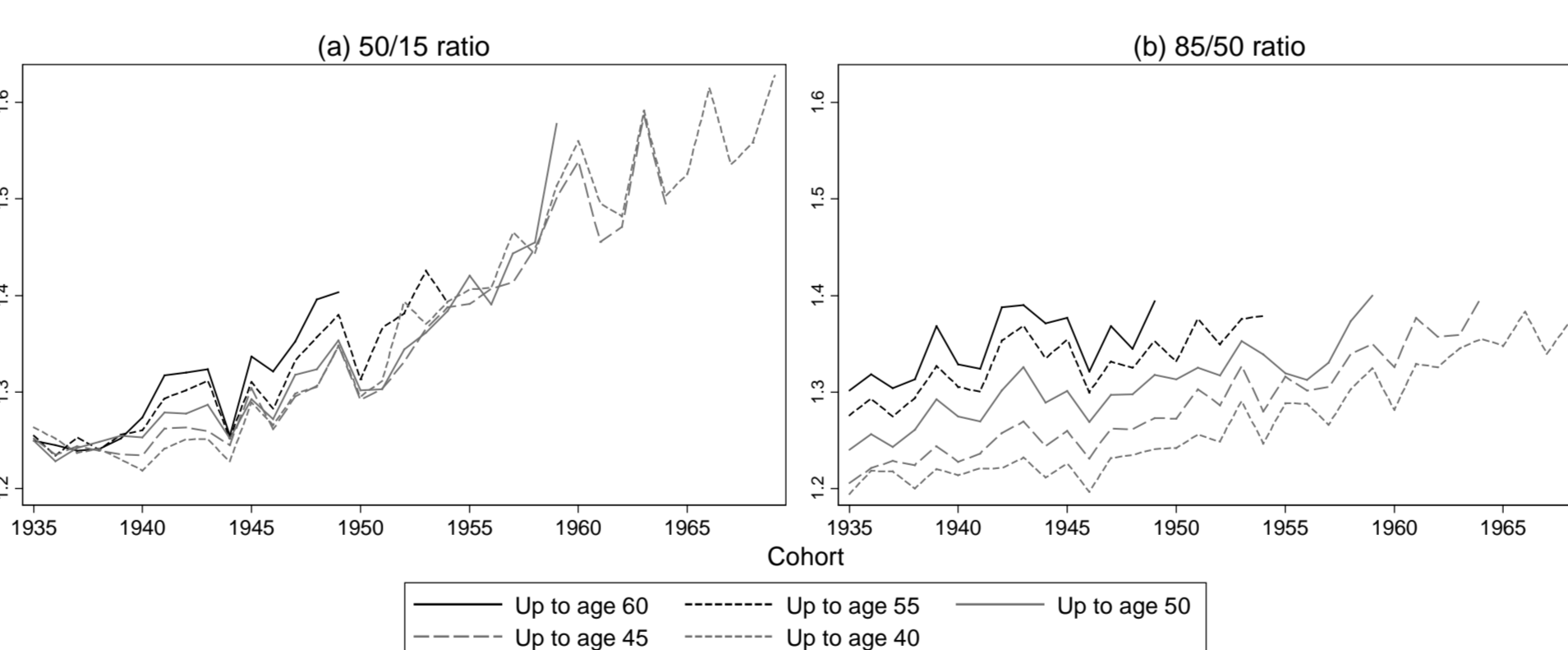
Main findings:

- (1) Ginis of lifetime earnings (up to age 60) fluctuate between 0.15 - 0.22, and are increasing.
- (2) The Ginis of earnings up to 40 allow for comparisons between generations, e.g. those born in 1935 to those born in 1963. **The inequality for earnings up to age 40 increases by about 85%.**



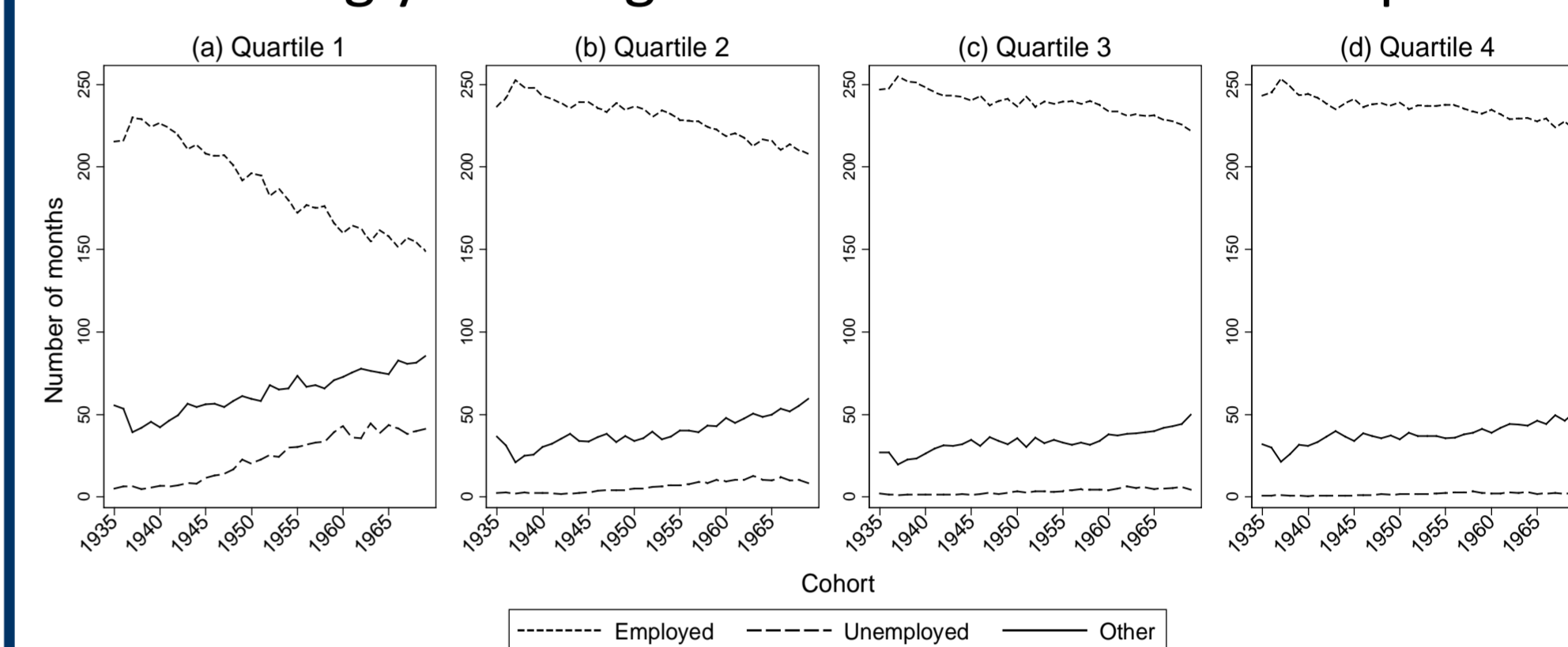
Results hold for annual earnings as well and are not counteracted by rising mobility.

Results for 50th / 15th and 85th / 50th ratio of UAX earnings reveal that the rise mainly occurred bottom of the distribution:

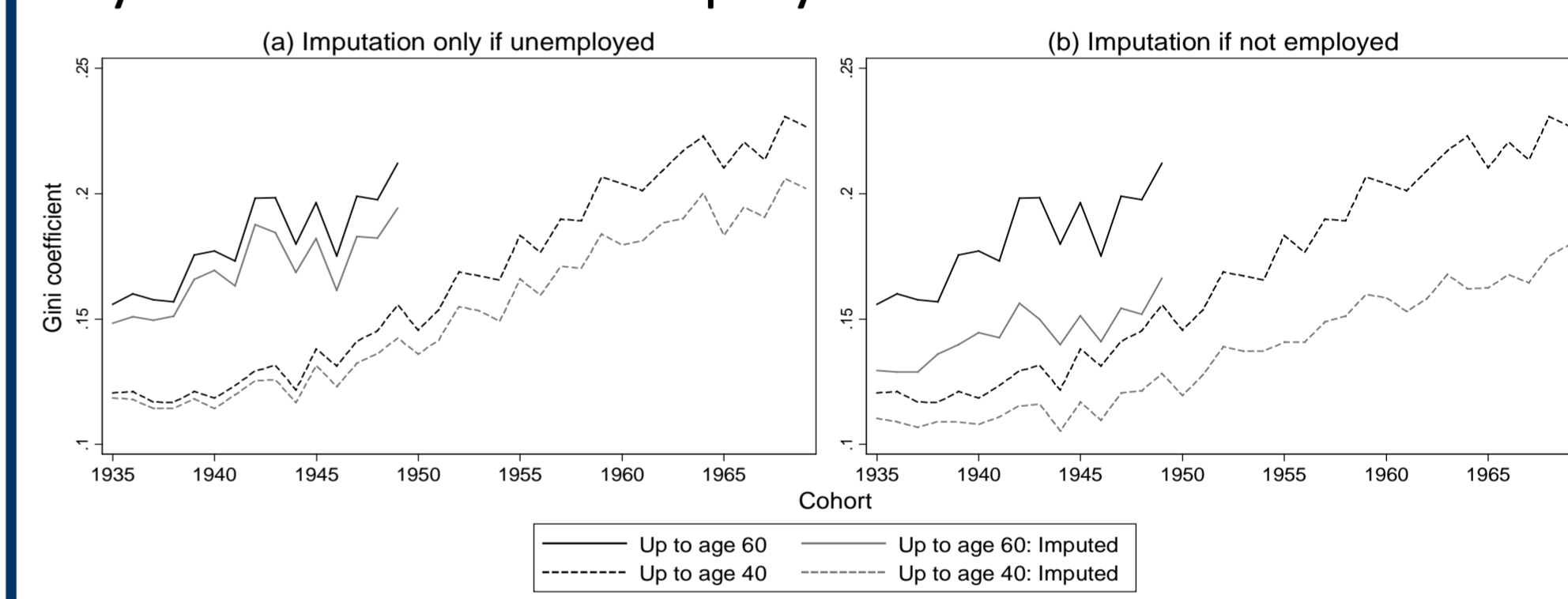


Determinants

Labor market status in month up to age 40 (sorted by the quartile of UA-40 earnings):
Times of unemployment and non-employment rose strongly across generations for the lowest quartile.



Imputing the last wage for times of unemployment/non-employment suggests that 20-40% of the rise is caused by an increase in unemployment.



Conclusion

- (1) Ginis of lifetime earnings for men fluctuate between 0.15 - 0.22.
- (2) Lifetime inequality amounts to 2/3 of cross sectional inequality.
- (3) Mobility is high at the beginning of the life cycle and low after age 40.
- (4) There are neither short-term nor long-term changes in mobility.
- (5) Lifetime inequality is rising: Western German men born in the 1960s face about 80% more lifetime inequality than their statistical parents. Inequality is rising for women, too.
- (6) Longer unemployment spells of workers at the bottom of the distribution accounts for 30 to 40 percent of this increase.

Data

Data basis: Insurance account sample 2002 - 2009 (process generated administrative data).
Precise monthly information: (Un-)employment, sickness, earnings, education...

Observations: Per sample about 240.000 insurance accounts. Insurants aged between 30 and 67 in the reference years.

Sample:

- (1) Mandatorily insured West Germans born between 1935 and 1969.
Further excluded: Fragmentary biographies
- (2) Social security earnings/market value of labor between the age of 17 and 60.
- (3) Number of observations: Between 1000 and 2000 per cohort and sex

Methodology

Construction of lifetime earnings:

- (1) Present values of earnings up to a certain age, discounted to age 17.
- (2) Discount factors: Federal Bonds and CPI.

Methods:

- (1) Inequality: Gini, percentile ratios
- (2) Mobility: (Rank-) correlation, age-earnings-profiles
- (3) Dismantling trends: Counterfactual analysis, Gini-decomposition

Further Information

The paper can be found as **CEPR DP8929** or at:

www.wiwiw.fu-berlin.de/fachbereich/vwl/boenke/forschung/publikationen/index.html

There is also an appendix providing more details.

Cooperation partners:

