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FOR DEMOGRAPHY AND
GLOBAL HUMAN CAPITAL

Childlessness trends in 20th-century Europe: limited link to growing educational attainment

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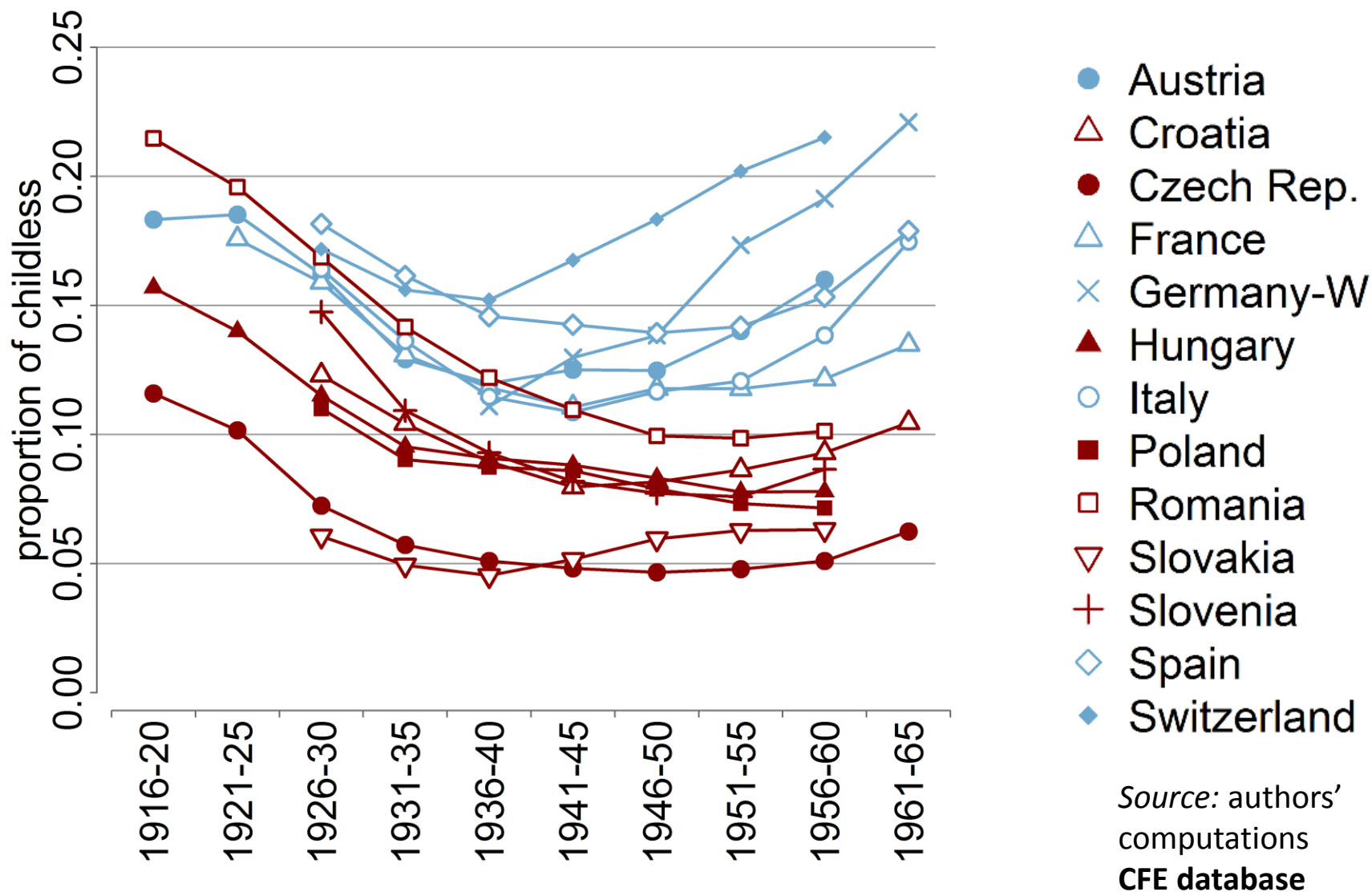




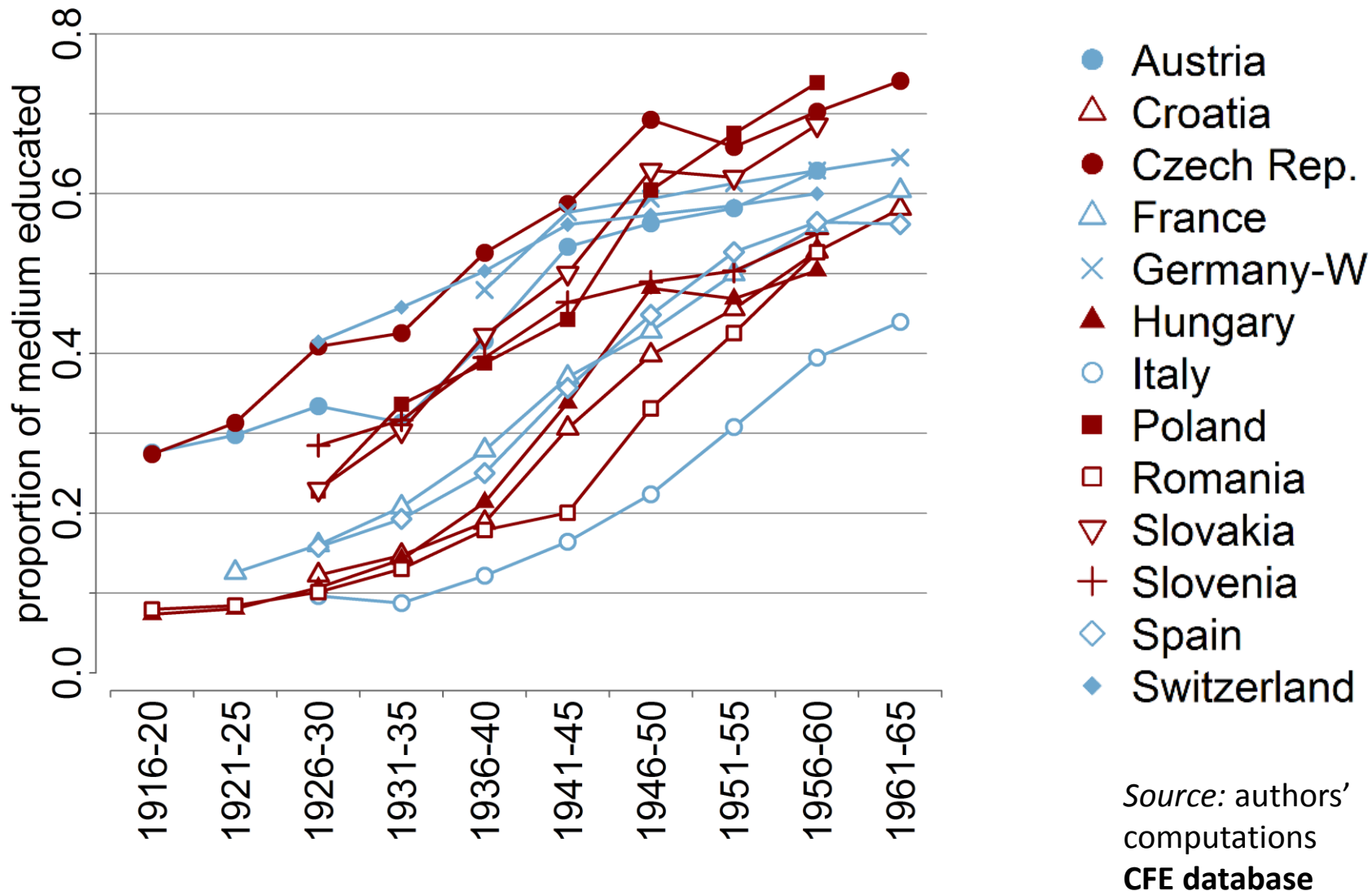
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Motivation

Trends in childlessness, coh. 1916-65: Decrease, then increase/stabilisation



Massive educational expansion, particularly of secondary education



Studies of childlessness by level of education: no comprehensive and long term view

- Existing studies

- Country comparisons: not by level of education
(Frejka 2008, Rowland 2007, Sardon and Robertson 2002)
- By education: one-country or -region studies
(Andersson et al. 2009 for Scandinavia, Hayford 2013 for the US, Kneale and Joshi 2008 for the UK, van Agtmaal-Wobma and van Huis 2008 for the Netherlands, Van Bavel 2014 for Belgium)



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Change in levels of ultimate childlessness

Educational differences in the East and the West across cohorts

- For cohorts born at the beginning of the century we anticipate similar educational differences in the East and West
 - Childlessness rates were high in both areas;
 - and like in the West, in the East family forms and structures seemed to be largely determined by socio-economic factors.
- For women born in the 1930–1960s, we expect gradients to be generally smaller on the Eastern side of the Iron Curtain
 - Indeed reproductive careers took place mainly under state-socialism when women had rather standard options with regard to family and career trajectories.
- For younger women who lived part of their reproductive life after the collapse of communism, the contemporary explanations of childlessness let us expect educational differences in childlessness to be country-specific rather than East-/West-specific (work-family reconciliation...).

Focus: changes in the East, in the West

- General trends across birth cohorts in each educational group
 - were they education-specific or similar to the overall trends?
- Change over cohorts and countries in educational gradient
 - Were the levels of childlessness among women with medium and low education becoming more similar across cohorts, in time of very large upward mobility?
 - Did childlessness among highly educated decrease with time as they were becoming less and less selective?
- Participation of the change in educational structure and in childlessness rates within groups to the overall change in childlessness



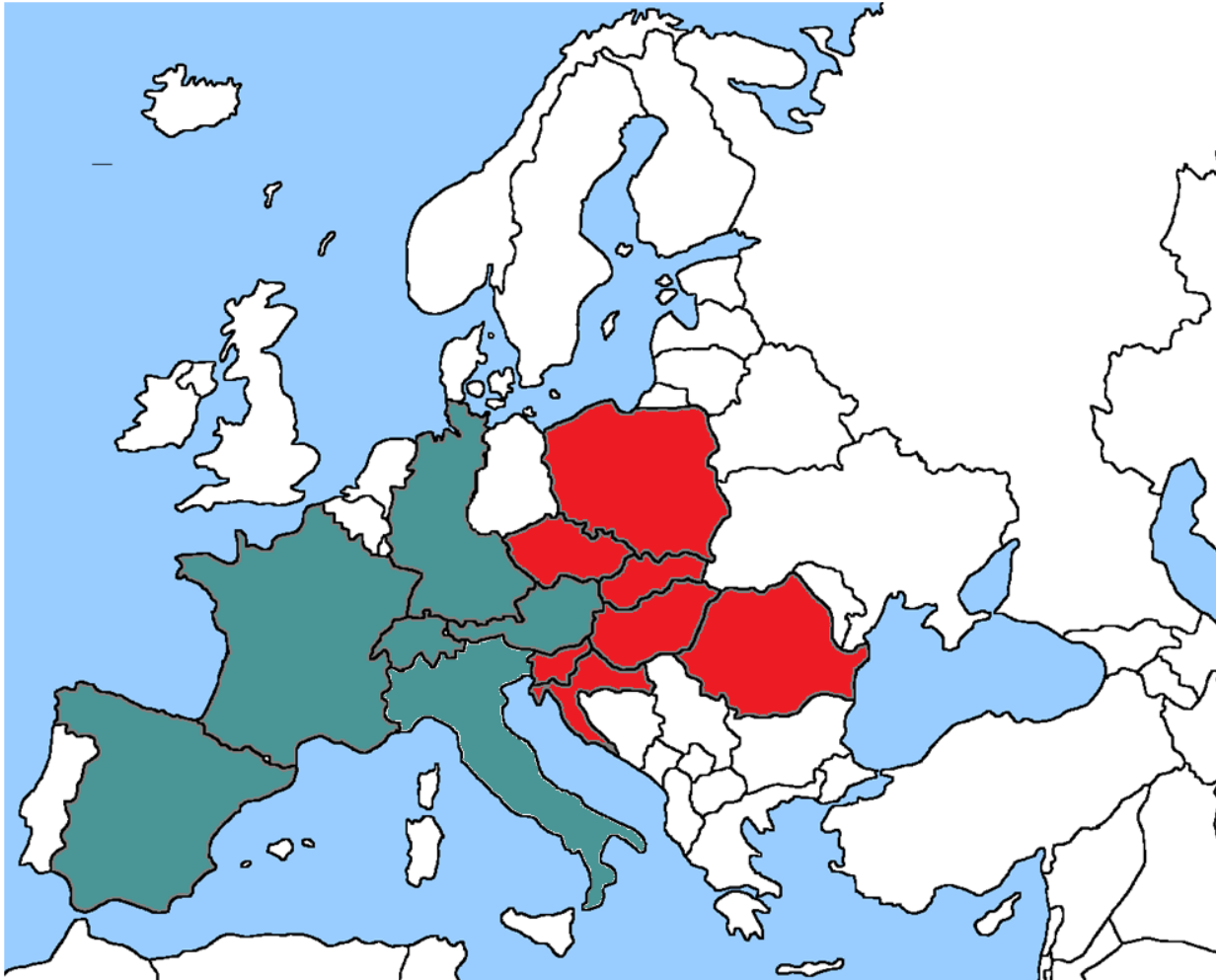
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Data and Methods

Data & Methods

- (Micro)Censuses & two large-scale surveys
- Conducted in the 1990s and 2000s
- 13 European countries
 - See Cohort Fertility and Education (CFE)-database
- Methods of descriptive demography
 - Trends
 - Standardisation (direct and indirect)
 - Low = Isced 0-2 (primary – lower secondary)
 - Medium = Isced 3-4 (higher secondary)
 - High = Isced 5-6 (tertiary)

Data & Methods



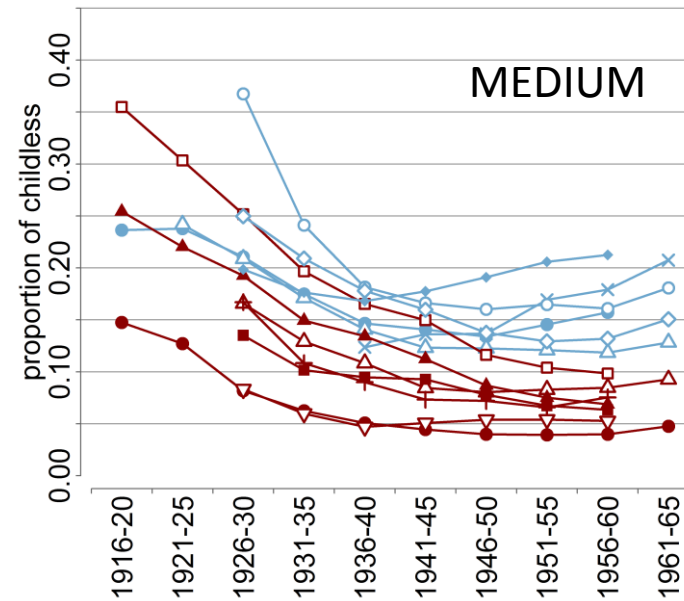
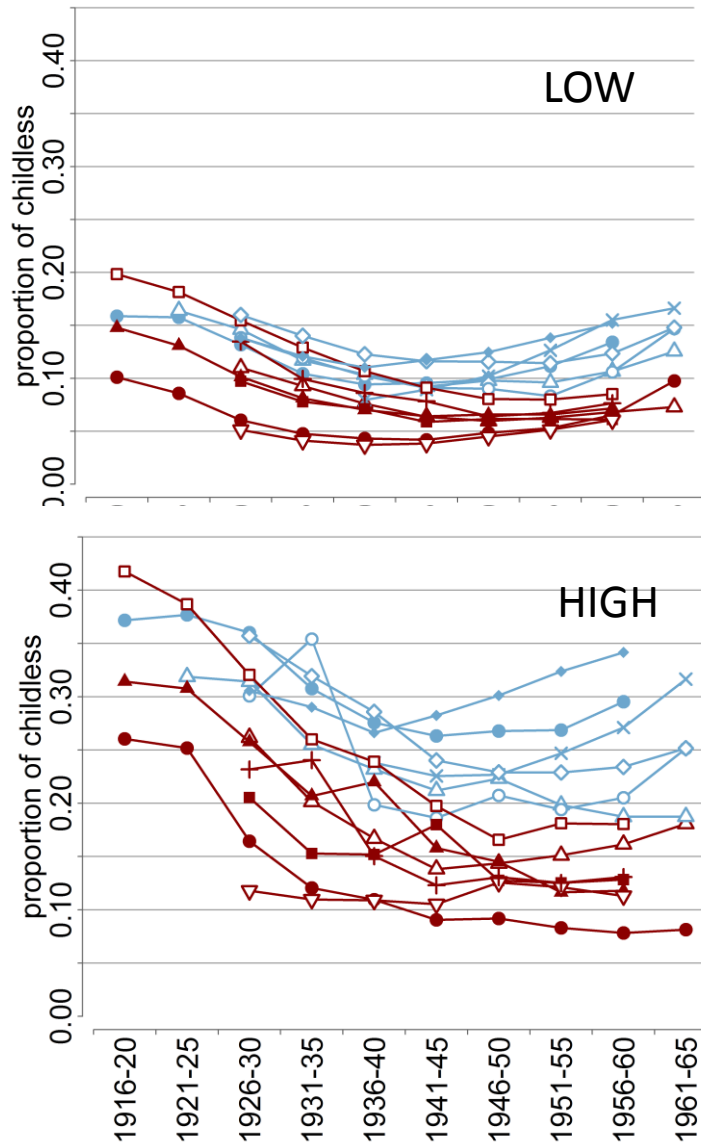
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Trends in education and childlessness

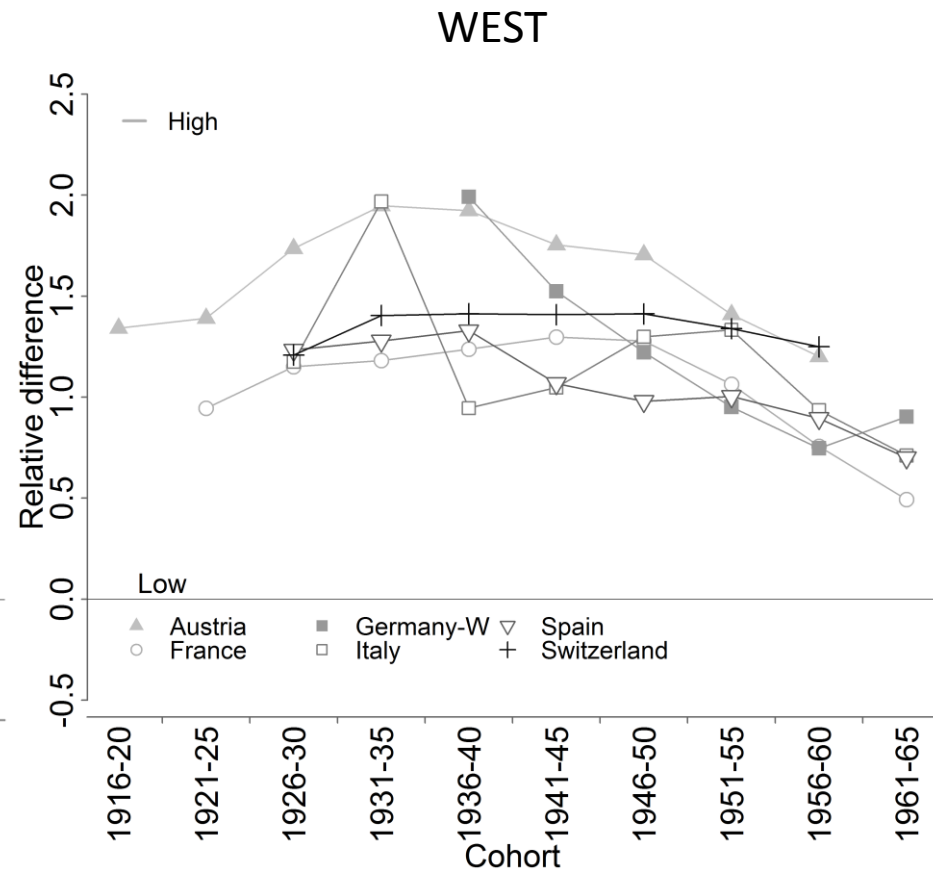
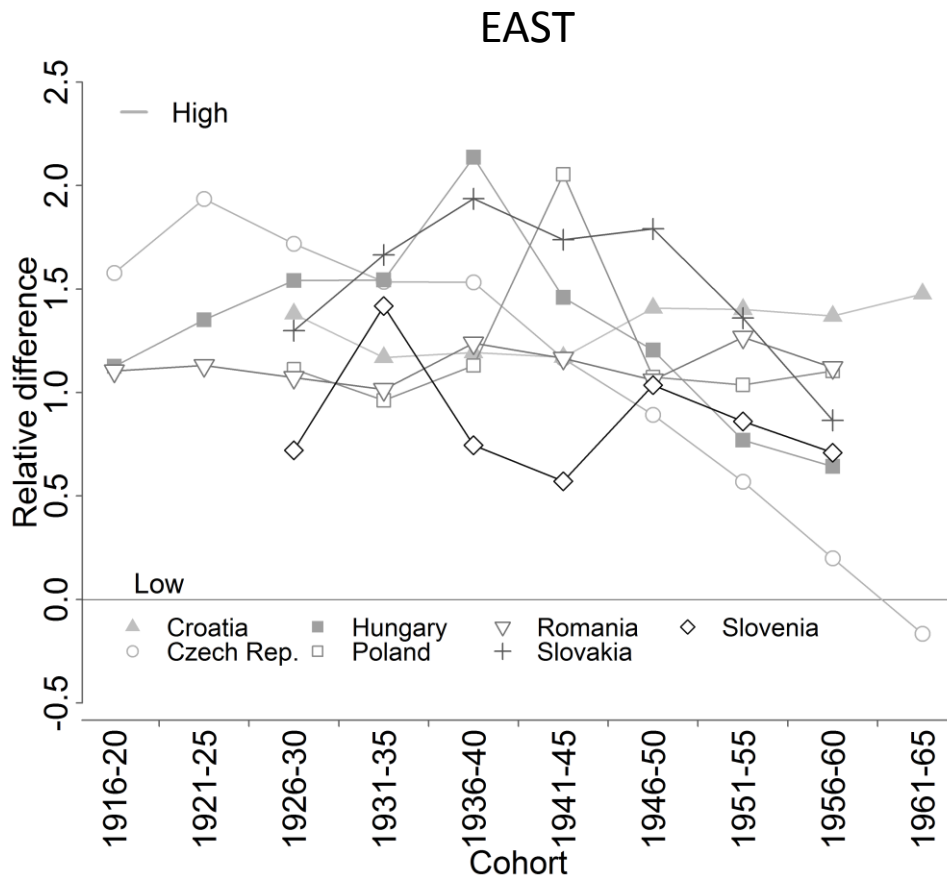
A common trend in childlessness for all educational groups, more marked for medium and high-education



- Austria
- △ Croatia
- Czech Rep.
- △ France
- × Germany-W
- ▲ Hungary
- Italy
- Poland
- Romania
- ▽ Slovakia
- + Slovenia
- ◇ Spain
- ◆ Switzerland

Source: authors' computations
CFE database

A strong positive educational gradient between high and low educated...

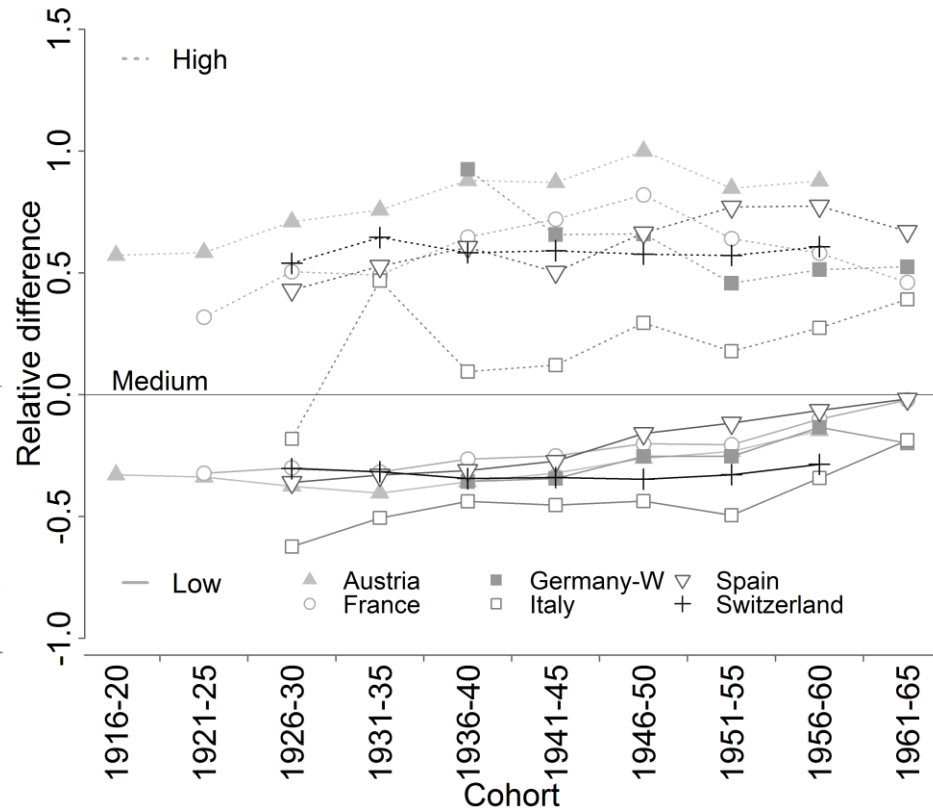
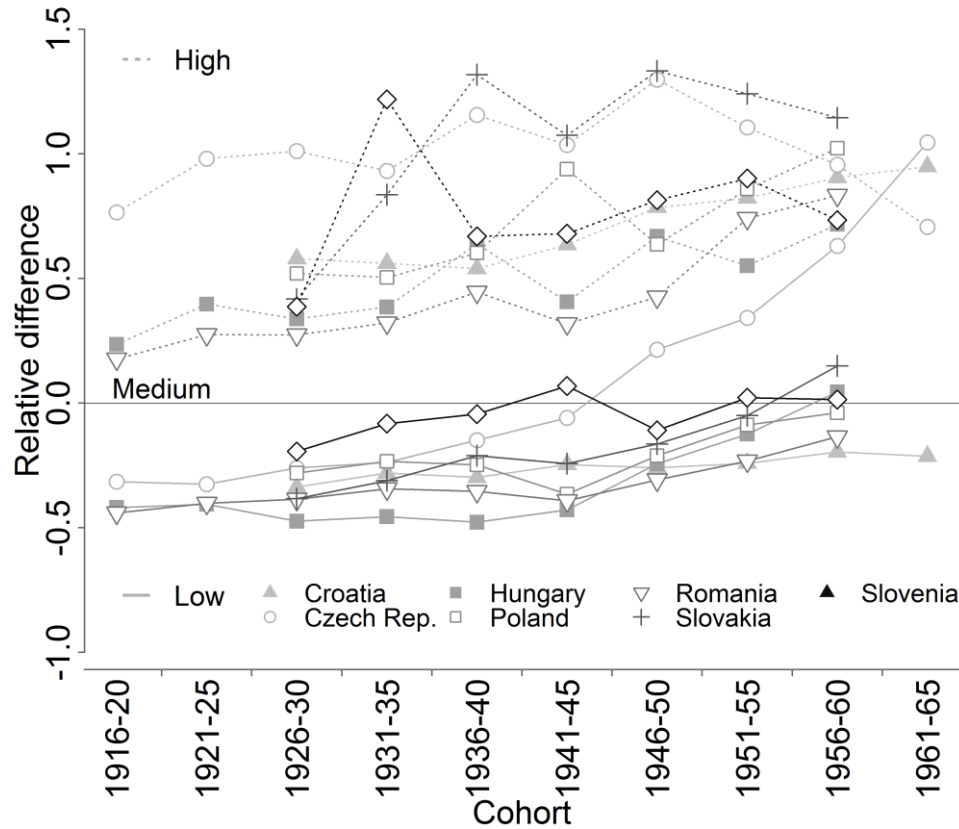


Source: authors' computations
CFE database

... but consisting in a vanishing gradient low-medium and a stable/increasing gradient high-medium

EAST

WEST



Source: authors' computations
CFE database



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Structure versus rate effect

Change in the educational structure explains relatively little of the change in childlessness

- Direct standardisation = keeping educational structure constant
 - In all countries, very small impact of the change in the educational structure
 - Explains 2-4 percent points of childlessness variations over the whole period studied
 - Same in East and West
- Indirect standardisation = keeping within educational groups childlessness rates constant
 - Much larger change due to educational-specific change
 - particularly in the earliest period, rates drove almost all the initial decline
 - Becomes much more varied afterwards, large country-variation, less contribution in the West



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Conclusions

Conclusions (1)

- Universal decline in cohort childlessness up to the 1936-40 cohorts, East-West divergence only afterwards
 - From then on, levels remained lower than in the West in all CEE countries under study
 - Similar trends observed in all educational groups

Conclusions (2)

- Overall educational gradient (high vs low) lessened across cohorts
 - But in fact, this hides a convergence between low and medium educated...
 - ... and the group of high educated remained distinct from medium educated despite its gradual growth, becoming even more different in the East
- Note a very strong continuity in the changes in educational gradient, e.g. no trace of the baby boom

Conclusions (3)

- The dramatic increase in female educational attainment in the second half of the century pushed up the proportion of childless women much less than one could have expected.
- In the period under study the overall level of childlessness was rather driven by the childlessness trends within the educational groups.

Discussion

- Cultural and socioeconomic changes affected family formation in all educational strata
- There seems to have been a process of entry into motherhood specific to women with high education
 - University degree holders stayed childless much more often than the other groups on both sides of the Iron Curtain
 - Economic disparities much smaller in the East than in the capitalist democracies during State socialism, but social inequalities and differences remained quite strong
- Future trends in childlessness
 - Will the East reach up Western childlessness levels, once the effects of State socialism have vanished?
- We observe that a disparity (already present in the past) re-emerges in the East



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THANK YOU

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FERTILITY AND REPRODUCTION
IN 21ST CENTURY EUROPE

Educational structure of the childless

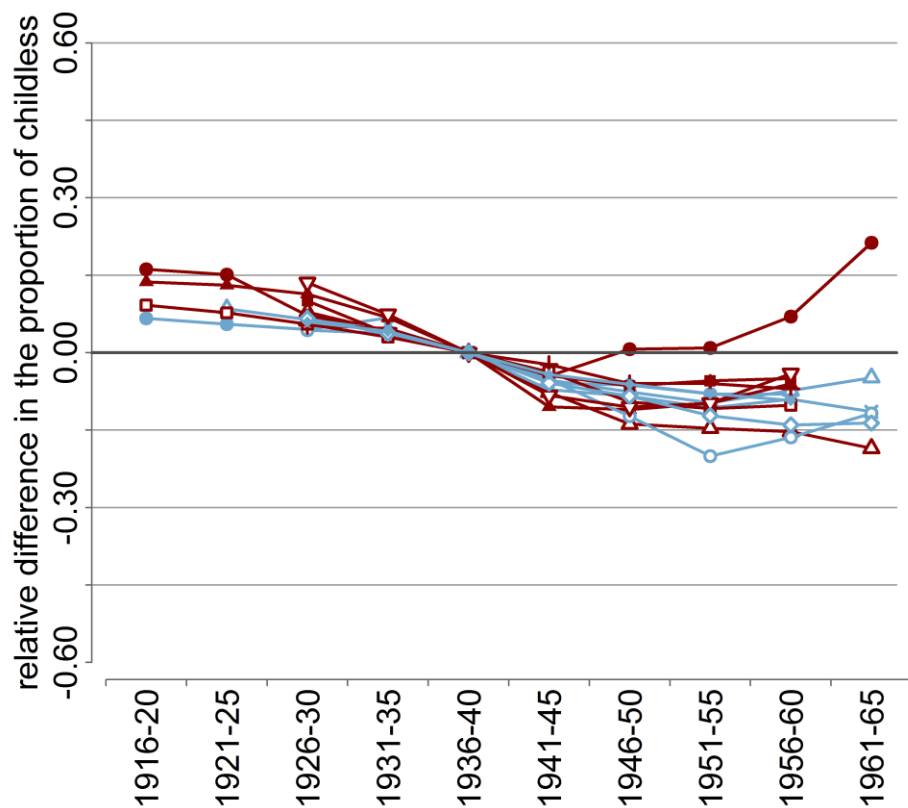
- Comparing the educational structure of childless women with that of all women (in each country separately)
- and expressing the difference in relative terms

$$\frac{\% \text{ low educated among chL} - \% \text{ low educ. among all}}{\% \text{ low educated among chL}}$$

- > 0 : overrepresentation (more women with low edu in the childless population than in the whole)
- < 0 : underrepresentation (fewer women with low edu in the childless population than in the whole)

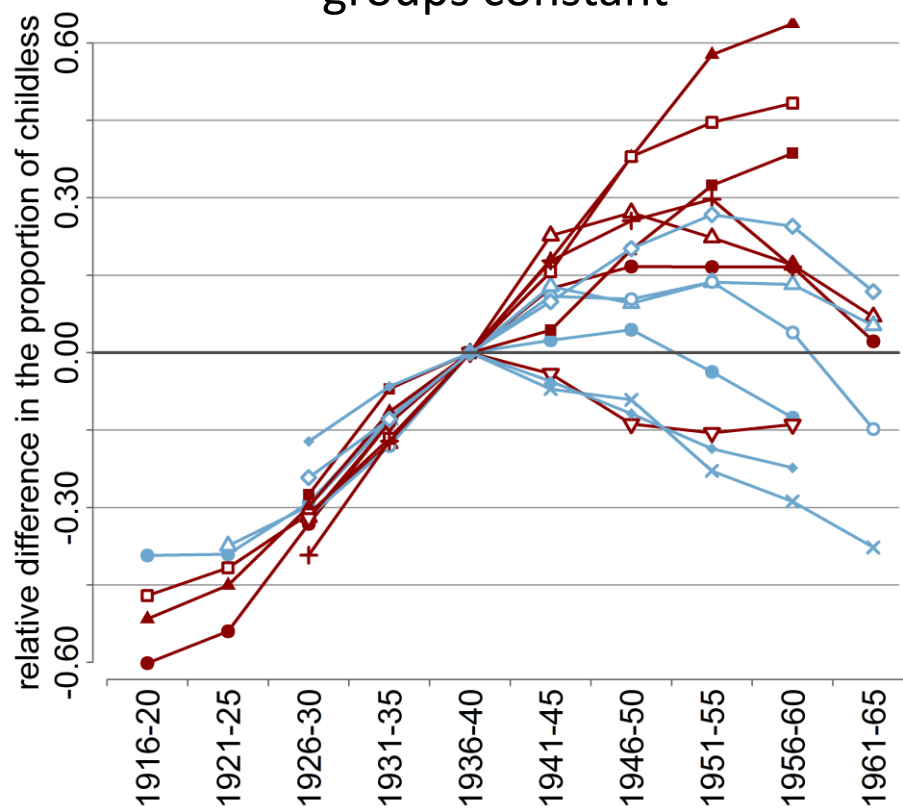
Change in the educational structure explains relatively little of the change in childlessness

Direct standardisation: proportion in education kept constant



Reference cohort: 1936-40

Indirect standardisation: childlessness rate within education groups constant



Relative difference = $(\text{stdsed} - \text{real}) / \text{real}$