



**Is there a reversal of the  
childlessness trend among highly  
educated women in Germany?**

\*

**Has the educational gradient been  
overestimated?**



**International Conference**

**Education and reproduction in low-fertility settings**

**Vienna, 2 - 4 December 2015**

**Martin Bujard**

**Federal Institute for Population Research, Wiesbaden, Germany**



## **Trends of childlessness by educational groups**

- Long-lasting educational differences of childlessness – future?
- Effects of Germany's paradigm change in family policy?
- Different processes by migration background and region

## **Theoretical approaches on childlessness**

Labour market: Opportunity costs, late entry, insecure jobs

Culture: SDT, childless lifestyle spreading to lower educational groups

Partner market, parental resources

Family policy and gender institutions

Progress in ART



## **Data problems in Germany before Micro Census Reform**

- No reliable data on parities and childlessness until 2006
- Overestimation in several publications before
- Myth “40 % childlessness of highly educated” in German media

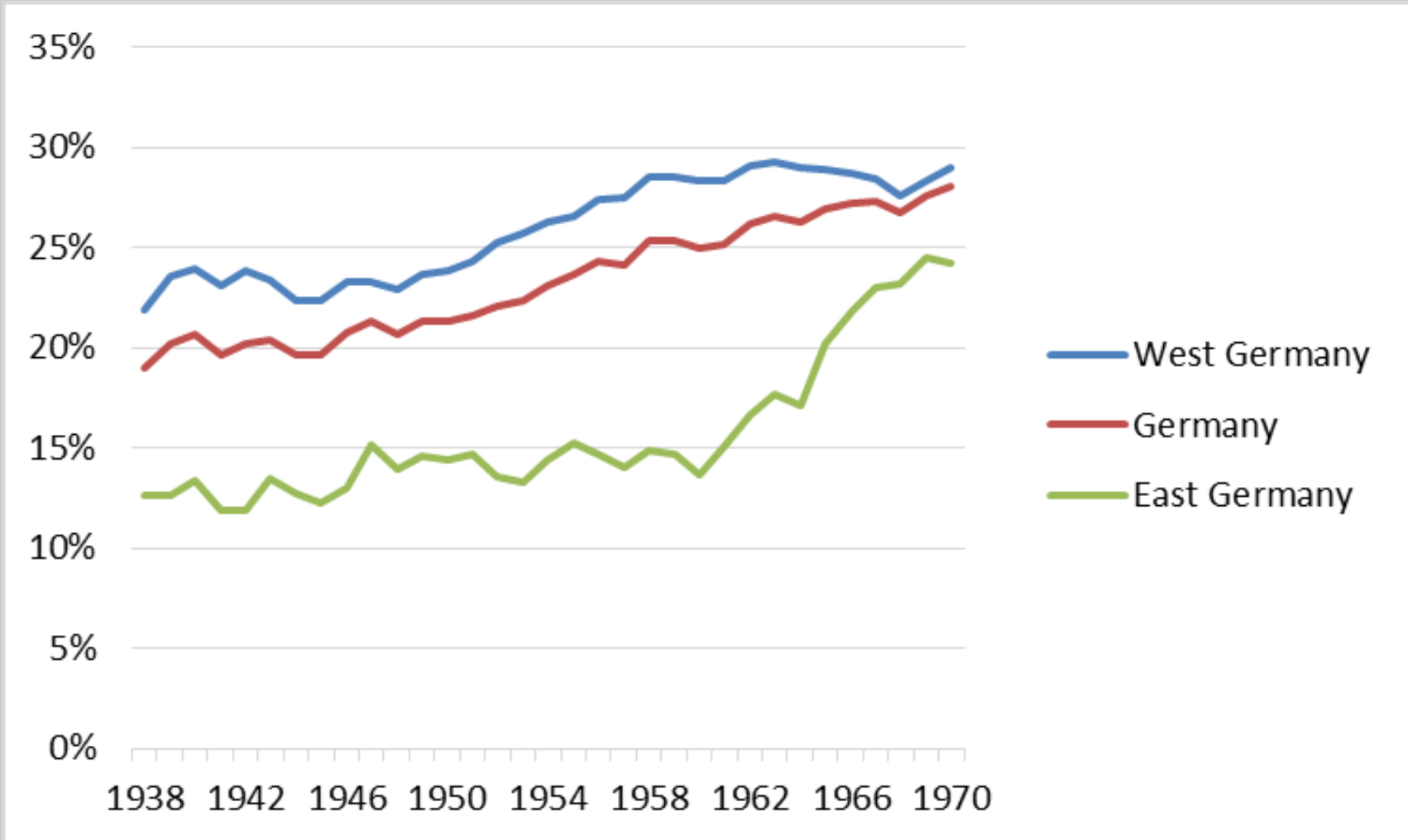
## **Data used**

- Micro Census 2012
- information on children in the household, Micro Census 2002-2014

## **Research design**

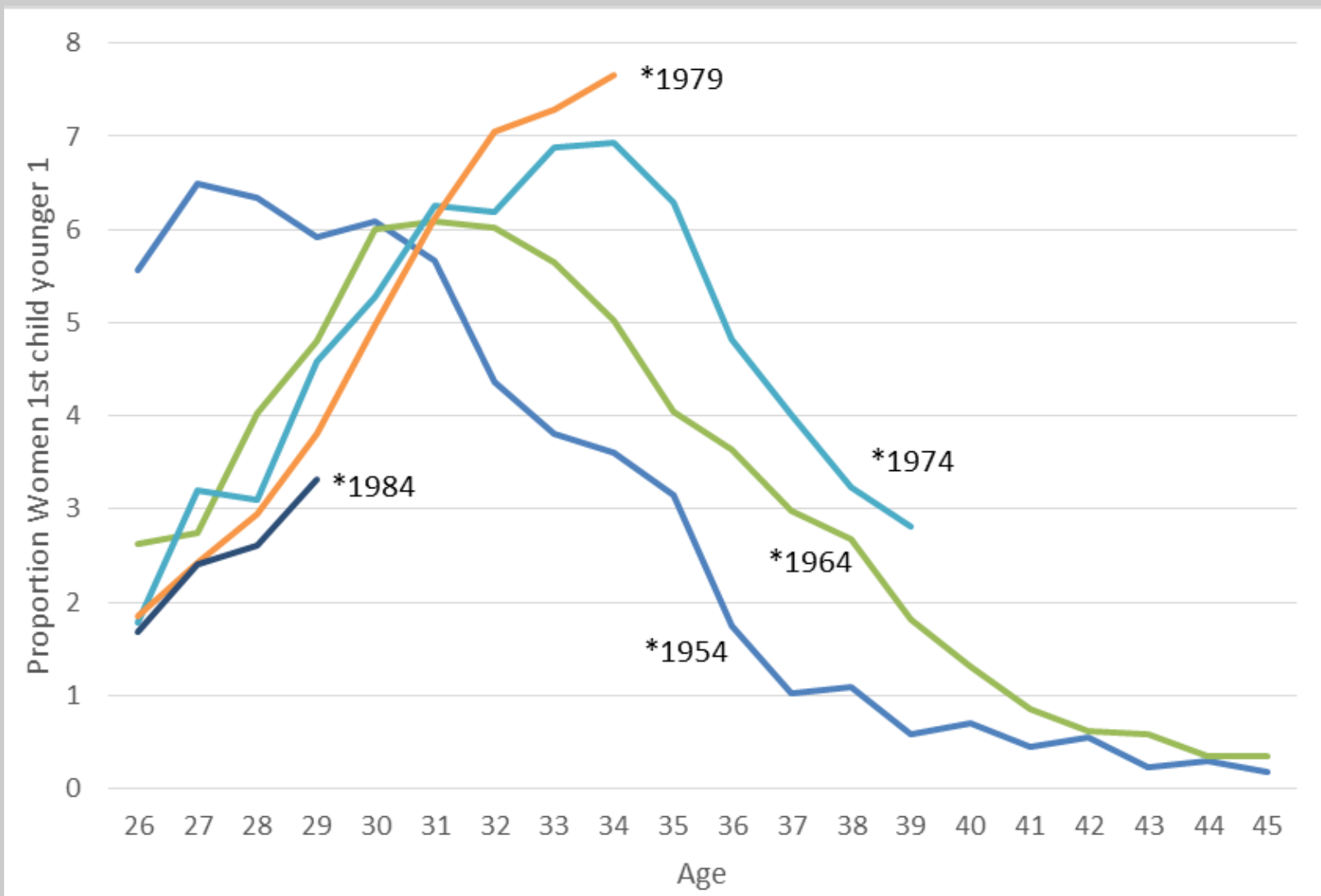
1. Extrapolation of childlessness for the cohorts 1966-1978 by educational groups
2. Trends for educational groups differentiated by region, urbanisation level and migration background
3. Effect of the education variable on  $R^2$  in logistic regressions

# Childlessness of highly educated women in Germany



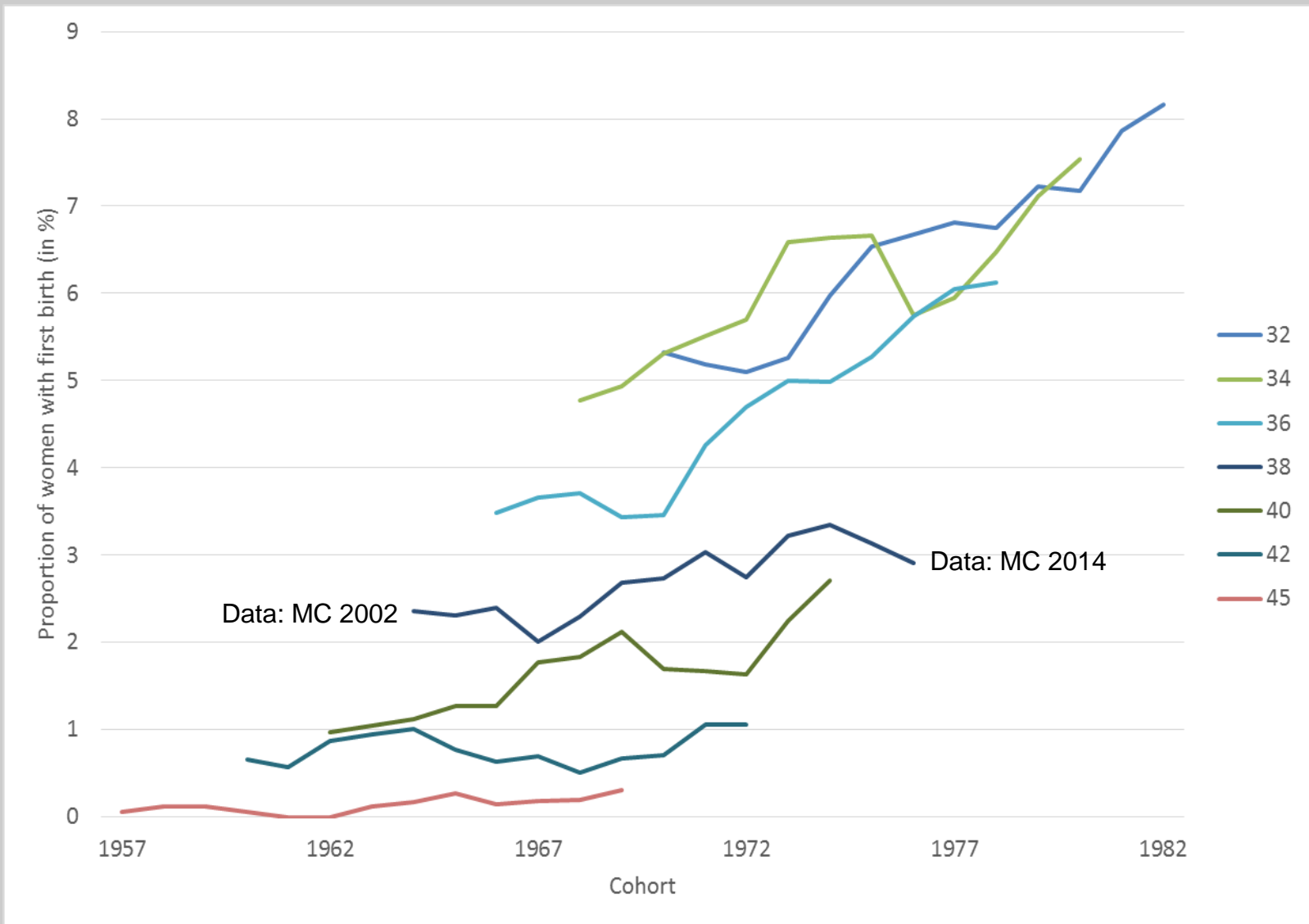
Source: Micro Census 2012, straightened by 5 years average.

# Postponement and recuperation patterns: Age specific first birth of highly educated women in Germany

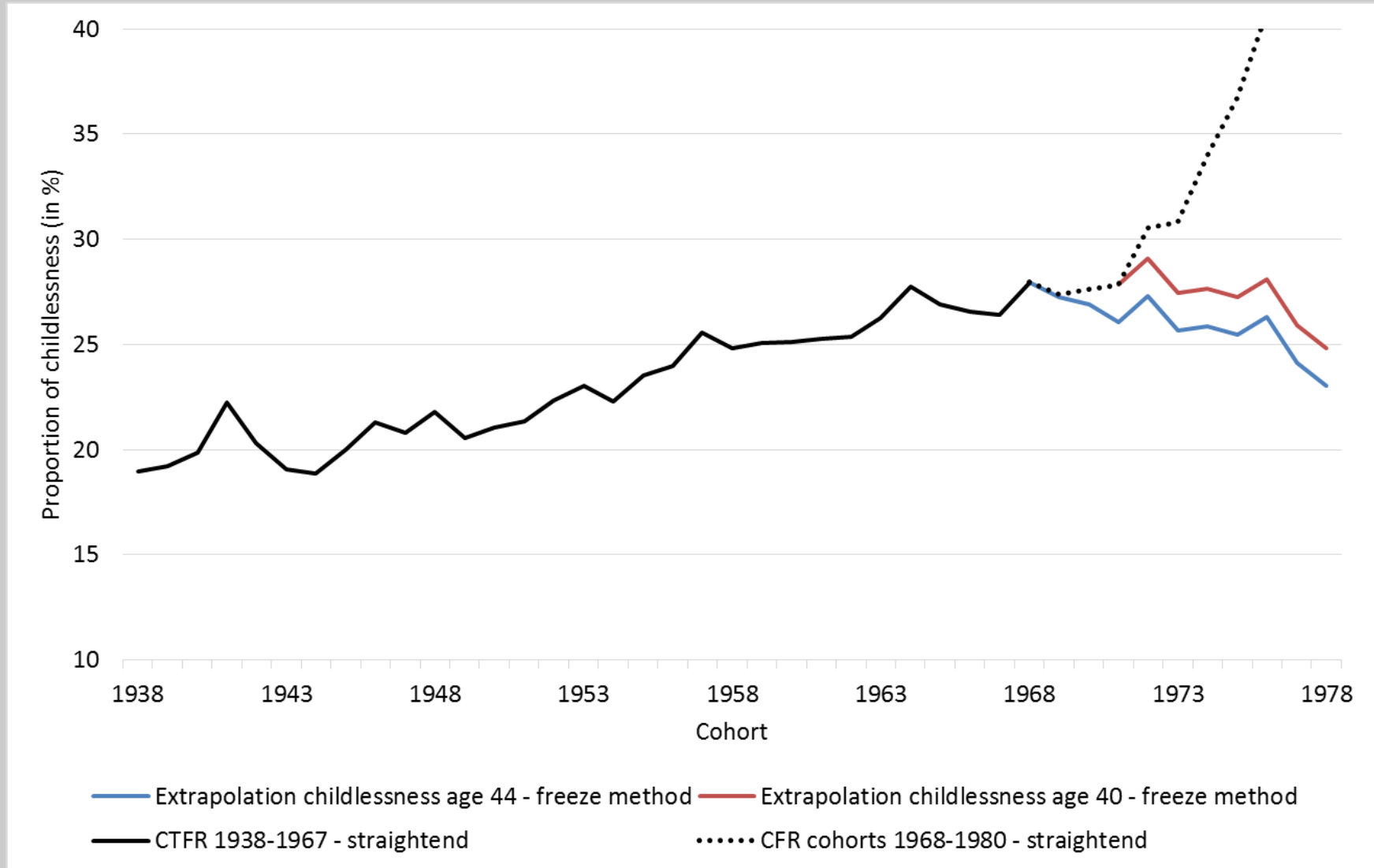


Source: Micro Census 2002-2014, own calculations. Note: The lines are straitened based on the three year average.  
 Note: Data before age 30 has a bias because of late entries in this educational group.

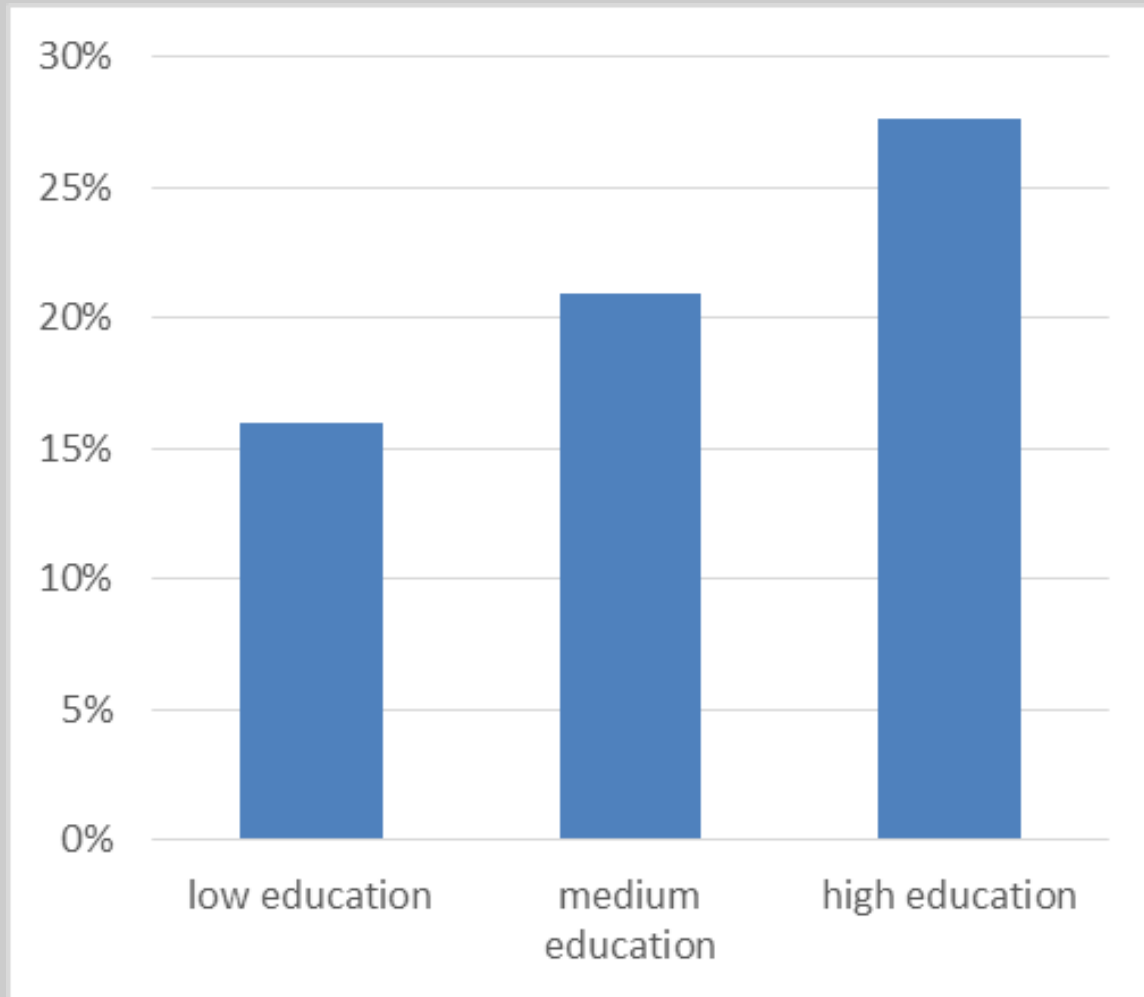
# Trends of age specific first birth: highly educated women



# Extrapolation of the proportion of permanent childlessness for the cohorts 1966-1978



# A strong educational gradient: Cohorts 1967-71



ISCED 1-2 3, 4, 5 B 5 A, 6

Note: 5 B = advanced vocational qualifications, i.e. *Meisterbrief*, or diploma Berufsschule in the dual system

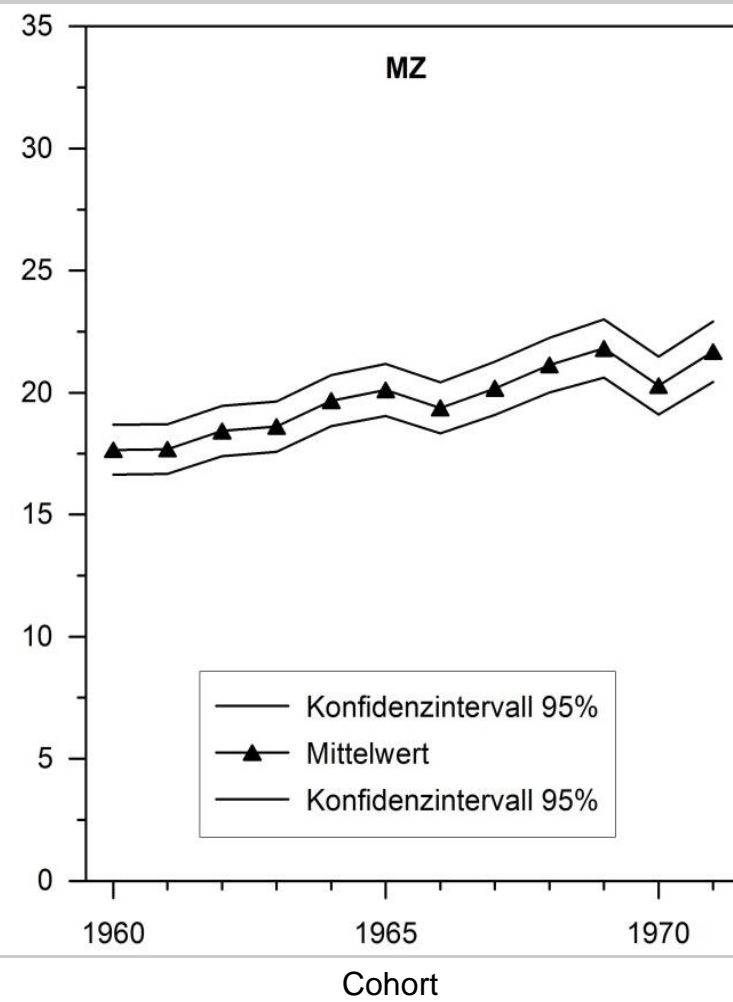
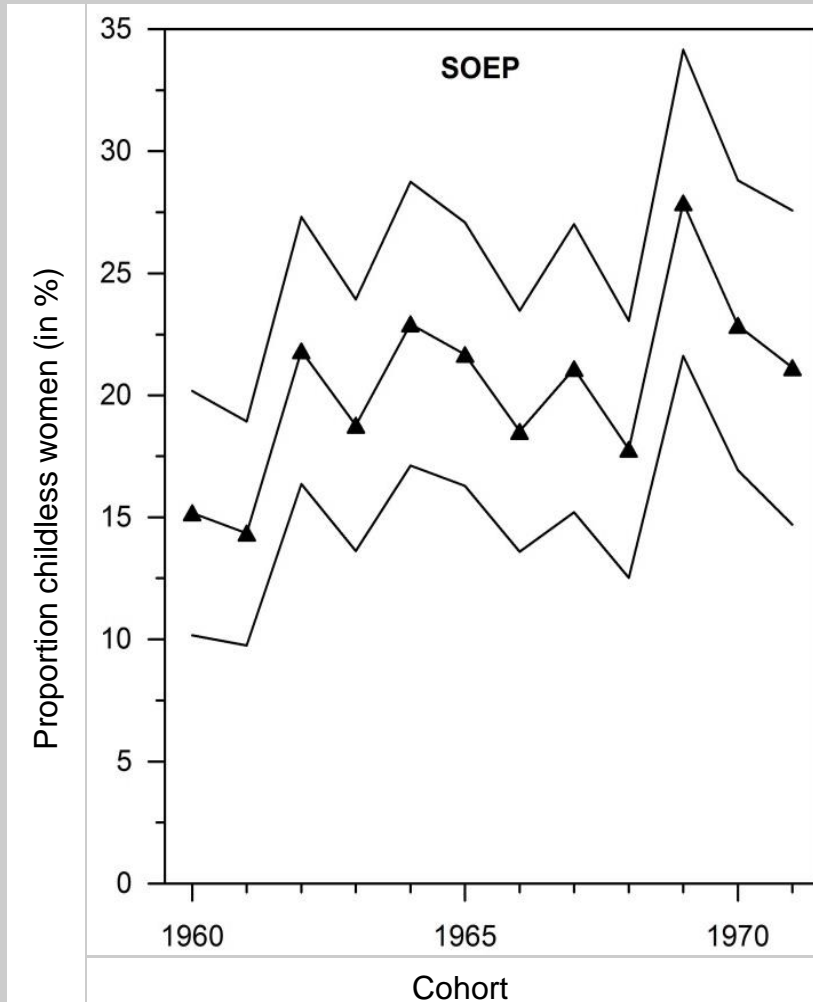




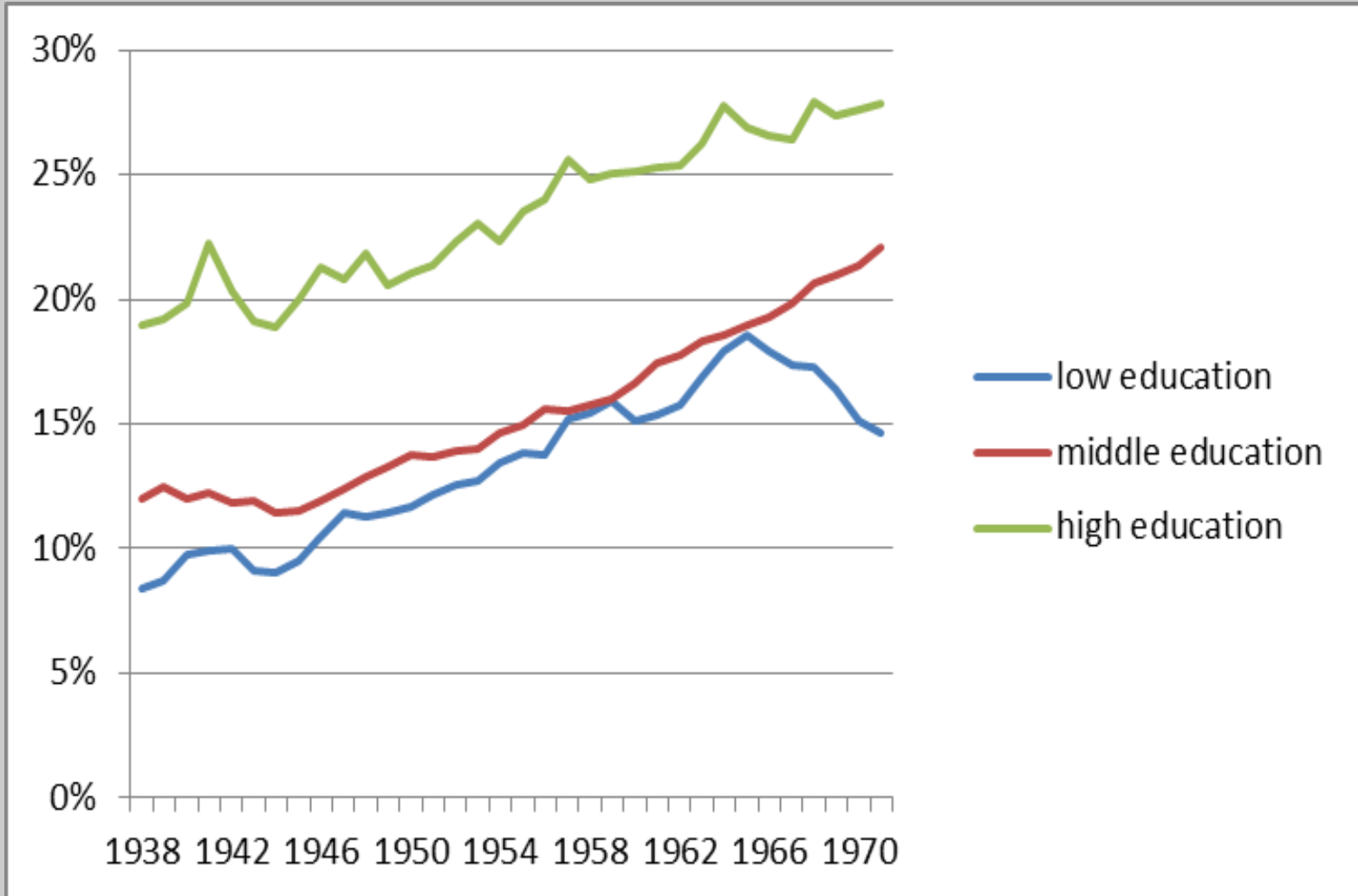
# The potential of large N – for analysing trends

**N = 265**

**N = 5.324** (mean per cohort)

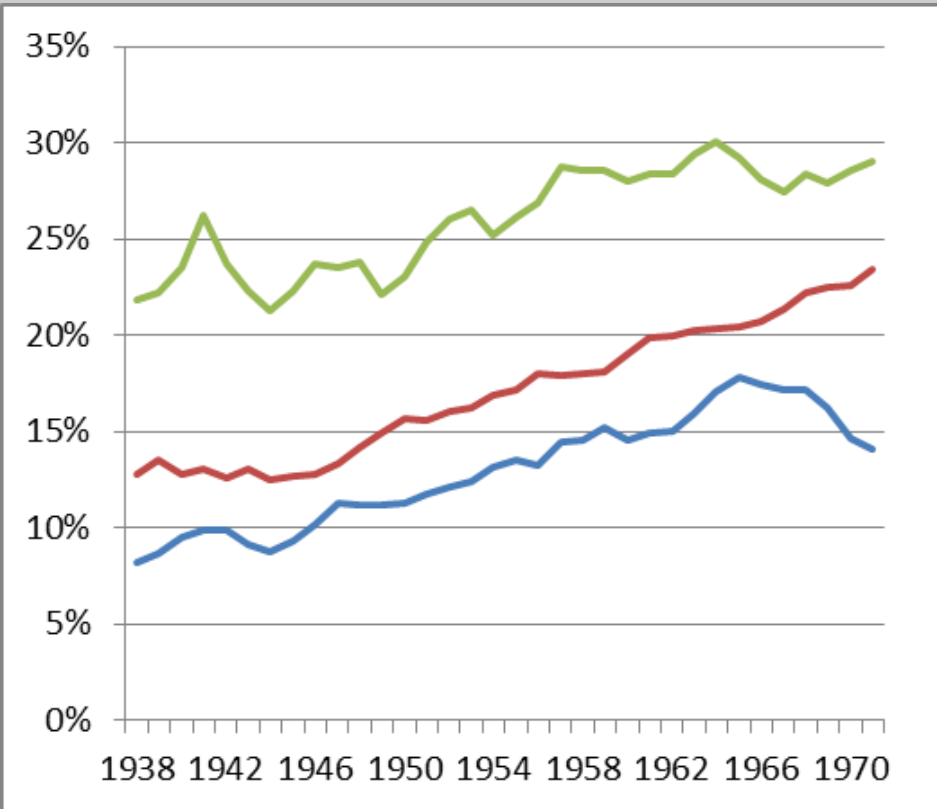


# Childlessness by education

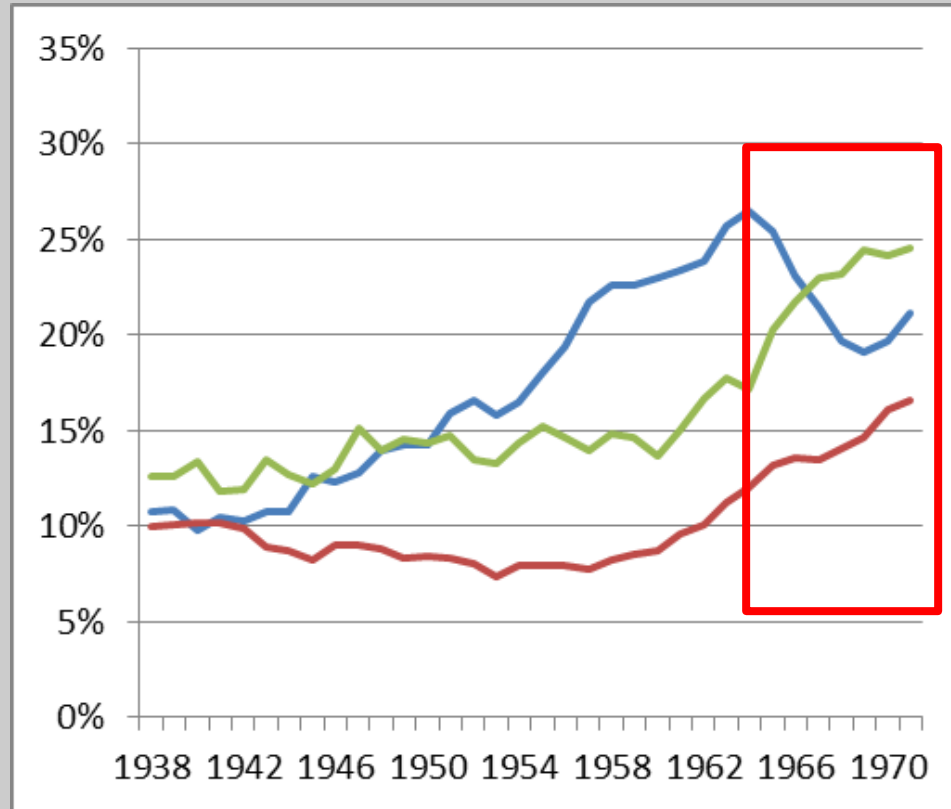


# Childlessness by education: Western and Eastern Germany

## Western Germany



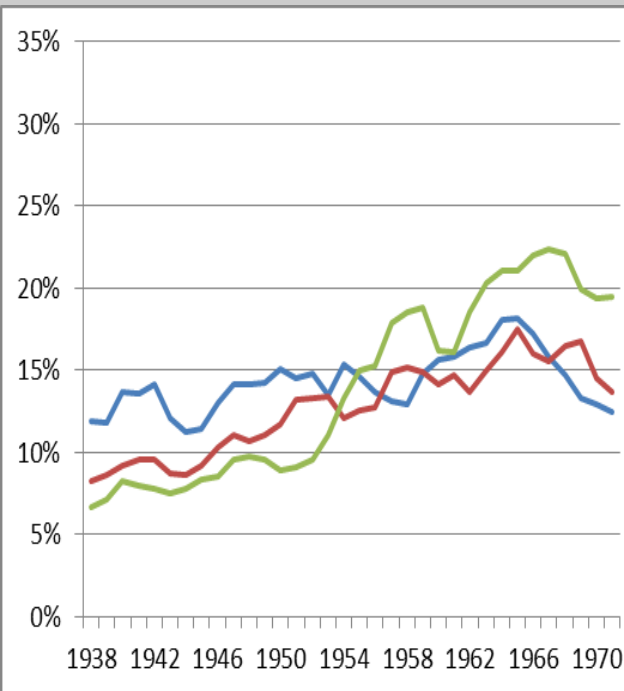
## Eastern Germany



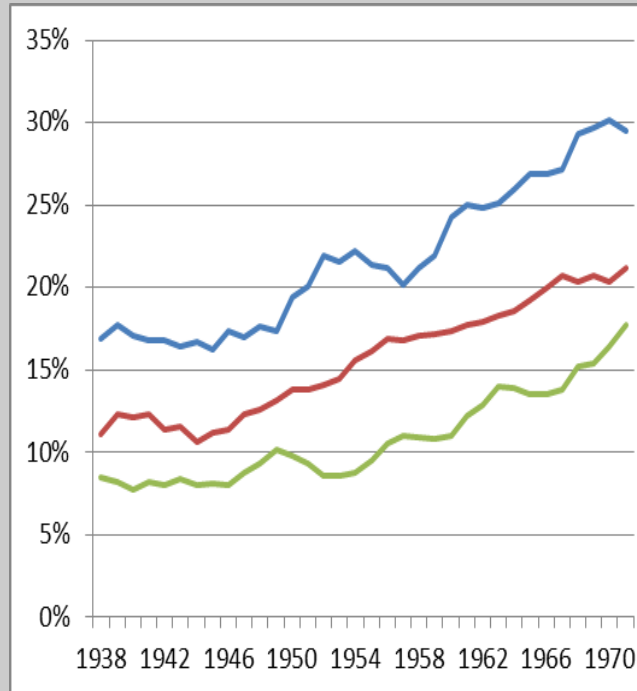
- low education
- middle education
- high education

# Childlessness by education and urbanisation level of residence

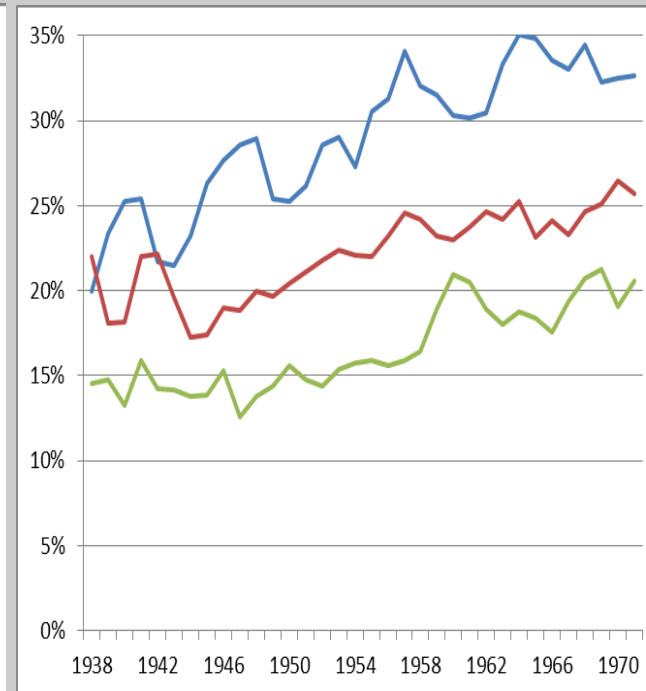
## Low education



## Medium education



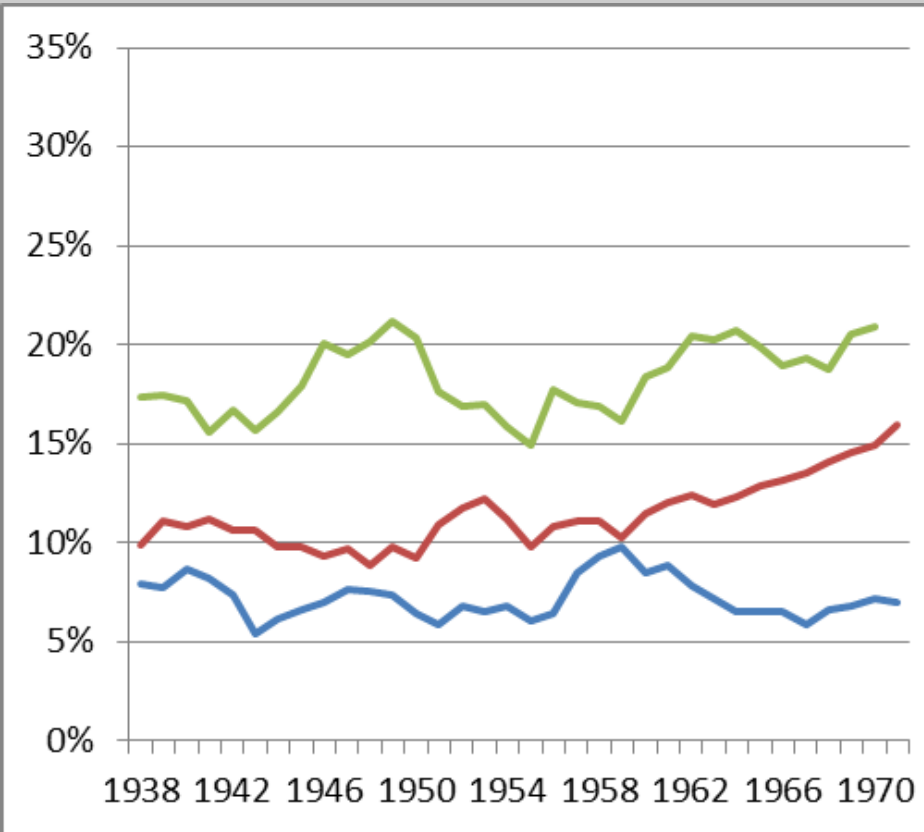
## High education



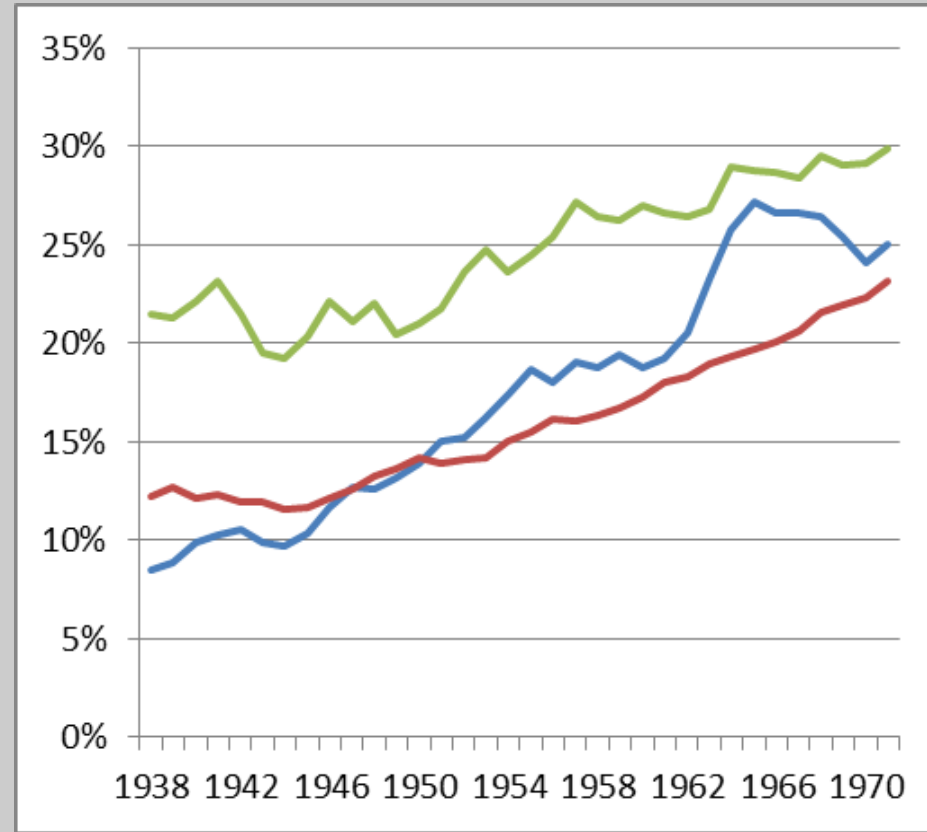
— large cities  
— urban districts  
— rural districts

# Childlessness by education and migration background

## Migration background



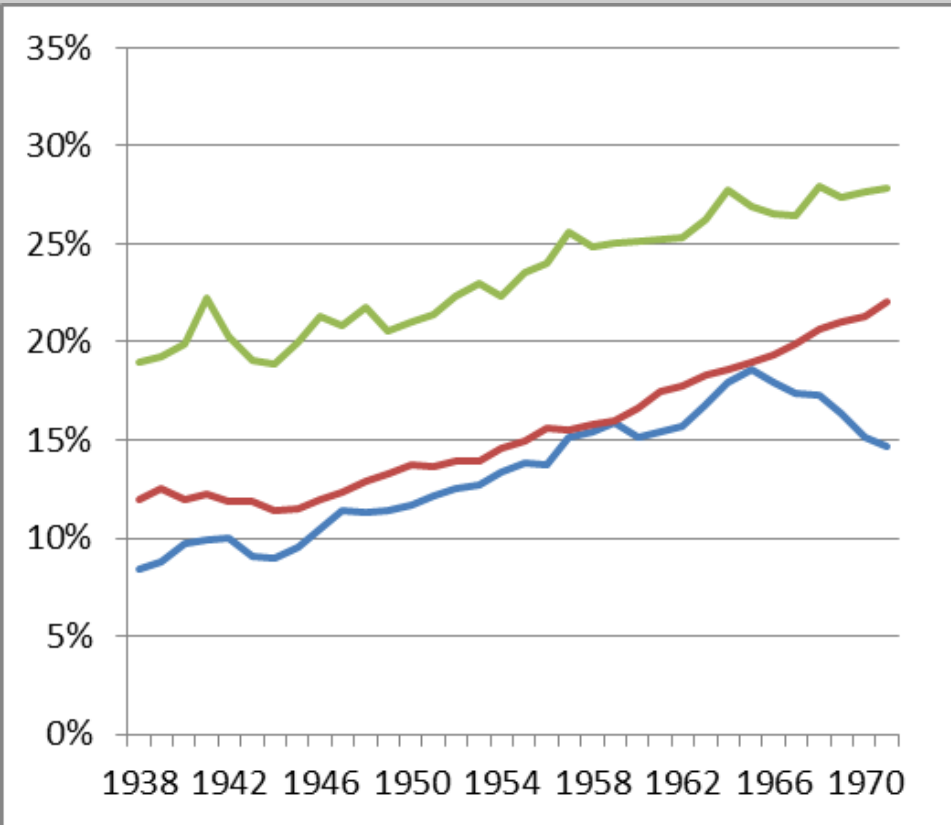
## No migration background



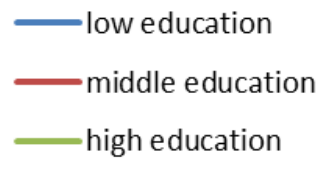
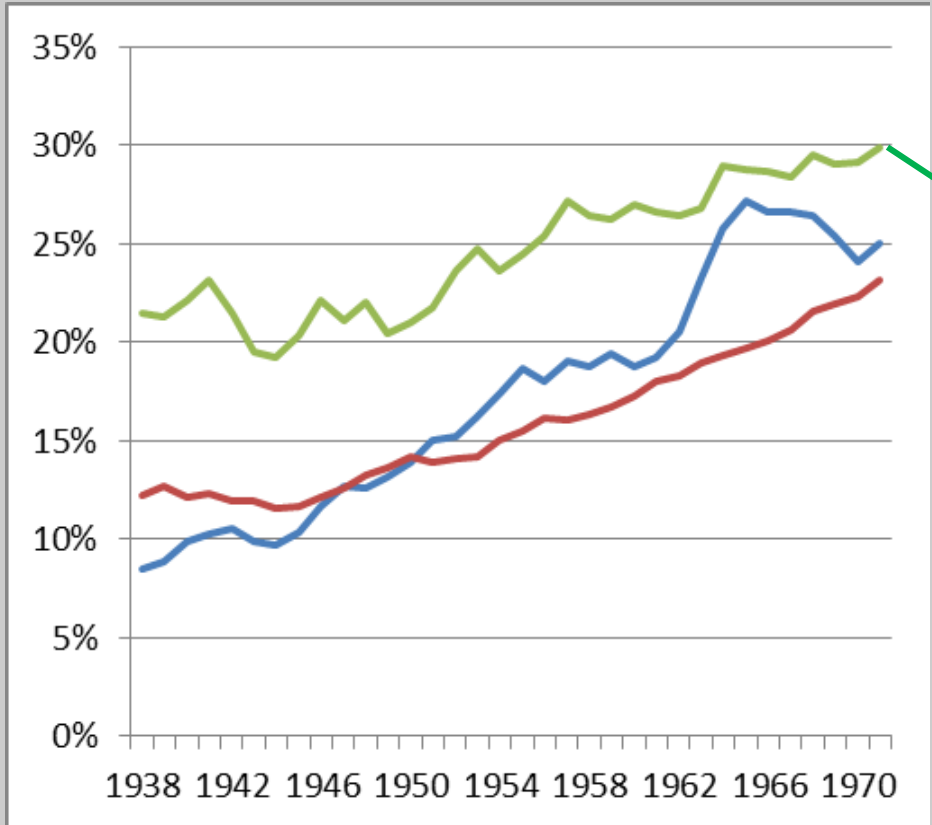
- low education
- middle education
- high education

# Childlessness by education and migration background

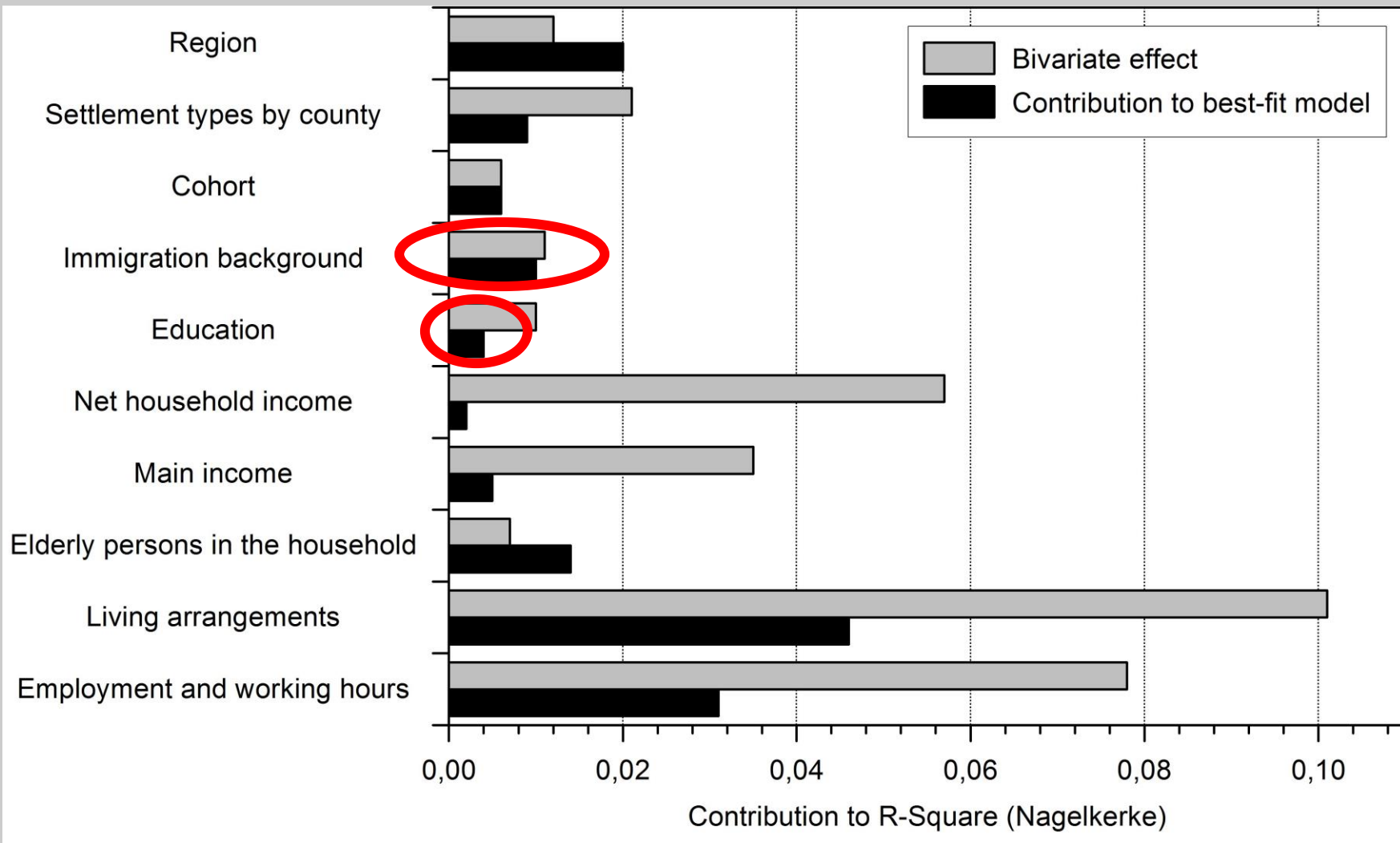
## Germany all



## No migration background



# Small educational effect in logistic regression on childlessness



# Summary and Discussion

## 1. Reversal of the childlessness trend ?

- YES.
- Peak in the cohorts end of 1960s with 28 %, end of 1970s 25 %

### Discussion:

Family policy reforms  
reproductive medicine



## 2. Educational gradient

- EG low-medium is mainly due to a composition effect of migrants with both low education and low childlessness
- Catch up of childlessness by low and medium educated women





Thank you for your attention ....

and see you in Mainz!



CfP ends Dec. 15<sup>th</sup> 2015

[martin.bujard@bib.bund.de](mailto:martin.bujard@bib.bund.de)

Federal Institute for Population Research

Friedrich-Ebert-Allee 4; 65185 Wiesbaden, Germany

Tel.: ++49(0)611-75 2883

[www.bib-demografie.de](http://www.bib-demografie.de)



# Transition to 2nd Child

	Full model	Model with interaction effect
<b>Age of first child</b>		
<1	1	1
1 - 2	2.68 **	2.69 **
2 - 3	3.31 **	3.31 **
3 - 4	1.64 *	1.63 *
4 - 5	1.3	1.3
5 - 6	1.16	1.17
6 - 7	1.04	1.07
7+	0.17 **	0.19 **
<b>Parental Leave Reform 2007</b>	0.93	control variables not shown
	.....	.....
<b>Age of mother</b>		
<= 25		1
26-30		1.15
31-35		1.1
36-45		0.77
<b>Interaction age* parental leave reform</b>		
Reform * <=25		1
Reform * 26-30		1.19
Reform * 31-35		1.61
Reform * 36-45		2.32 *
Constant	0.00 **	0.00 **
Personyears	64561	64561
No. Of persons	1740	1740
Events	405	405
Log Likelihood (0)	-1069.11	-1069.11
Log Likelihood	-838.2	-833.39



# ASFR 35-44 by Educational Groups

