

Educational Constellations of Couples and their Effects on Fertility Decisions.

Observing couples with women born between
1964 and 1967 with the German Mikrozensus
from 1996 to 2004.

Gerrit Bauer
(October 2007)



Outline

- Idea
- Questions
- Approaches
- Data
- Results
- Discussion

Idea

- Most children are born within a (more or less) stable parental constellation!
- Who decides over fertility? Women? Men? Both?
- Public debate: (alleged) low fertility of highly educated women (with university degree)
- Newer studies: low fertility of low educated men
- But: highly educated women are not married to low educated men
- Therefore: Modeling of couple behavior. Looking at the educational constellation of couples and their fertility behavior.

3

Questions

- How do educational constellations affect bargaining over children? Which constellations remain childless, which postpone parenthood?
- How does the welfare state influence the bargaining process / outcome?
- Why are (gendered) role expectations of importance?

4

Approaches (1)

- Structural explanation: Being childless is partly a consequence of not having a partner (Klein 2003)
- New home economics: Maximization of a household productivity function. Pooling resources. Decisions require consensus at the household level (G. S. Becker)
- Assumptions tested e.g. by Klawon & Tiefenthaler (2001). Result: different utility functions for women and men

5

Approaches (2)

Bargaining over children – how to make decisions when the preferences of both partners are not identical

- Decision rules (e.g. Corijn et al. 1996):
 - Patriarchal rule
 - Egalitarian rule
 - Sphere of interest rule
 - Power rule
- More formal modeling / game theory (e.g. Ott 1989):
 - Fertility lowers the (divorce-) threat point of the partner who invests in household productivity skills as opposed to market related human capital.
 - This already affects the distribution within marriage!

6

Data

- German Mikrozensus 2000
- German Mikrozensus 1996 – 2004
 - Parents living together with children aged 0 – 18 in the same household
 - Education: CASMIN with some collapsed classes
 - 0: neither secondary education nor vocational training;
 - 1: low secondary education without vocational training;
 - 2: low secondary education and vocational training;
 - 3: medium or high secondary education without vocational training;
 - 4: medium secondary education and vocational training;
 - 5: high secondary education and vocational training;
 - 6: high tertiary education (Ref.)

7

		Womens' Educational Level						
Husbands' Educational Level		0	1	2	3	4	5	6
	0	2,574 (1744)	1,979 (429)	1,691 (288)	1,718 (85)	1,445 (155)	1,625 (32)	1,167 (12)
	1	2,628 (733)	2,156 (5019)	1,922 (1406)	1,671 (647)	1,526 (633)	1,727 (139)	1,567 (90)
	2	2,158 (709)	1,959 (5506)	1,764 (15765)	1,910 (1407)	1,734 (11714)	1,591 (1883)	1,485 (693)
	3	2,214 (98)	1,968 (476)	1,720 (239)	1,678 (901)	1,512 (455)	1,041 (217)	1,039 (233)
	4	1,657 (172)	1,948 (1139)	1,716 (3832)	1,735 (1039)	1,684 (12094)	1,602 (2644)	1,436 (887)
	5	2,273 (22)	2,162 (154)	1,764 (551)	1,575 (334)	1,594 (2314)	1,602 (2133)	1,403 (678)
	6	1,360 (50)	2,064 (235)	1,829 (936)	1,810 (996)	1,780 (5479)	1,747 (3466)	1,626 (7754)

Description of the educational variables: 0: neither secondary education nor vocational training; 1: low secondary education without vocational training; 2: low secondary education and vocational training; 3: medium or high secondary education without vocational training; 4: medium secondary education and vocational training; 5: high secondary education and vocational training; 6: high tertiary education

8

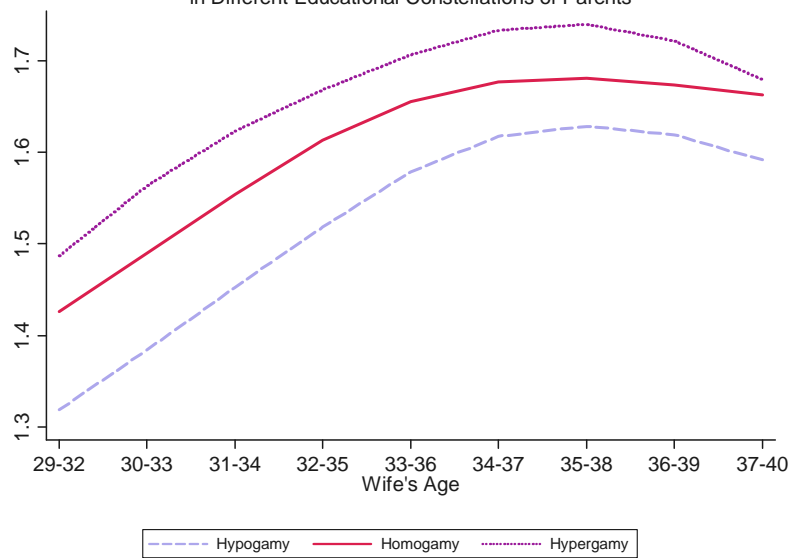
Data, Sample, Cohort Selection

- Sample restricted to married, west German couples, the wives are born between 1964-1967.
- Data used: German Mikrozensus 1996-2004

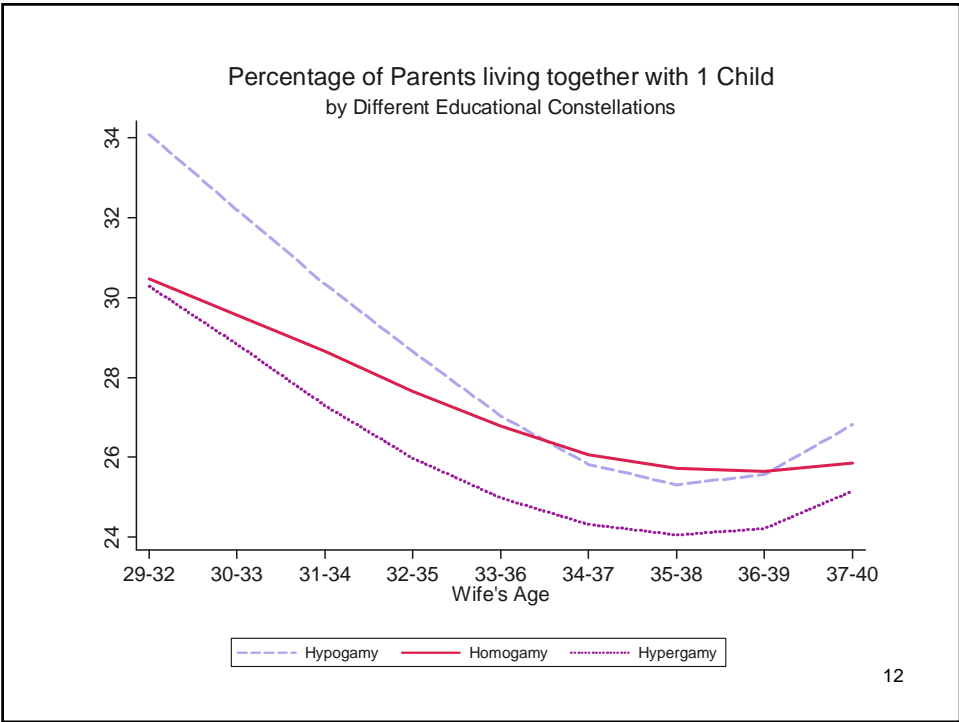
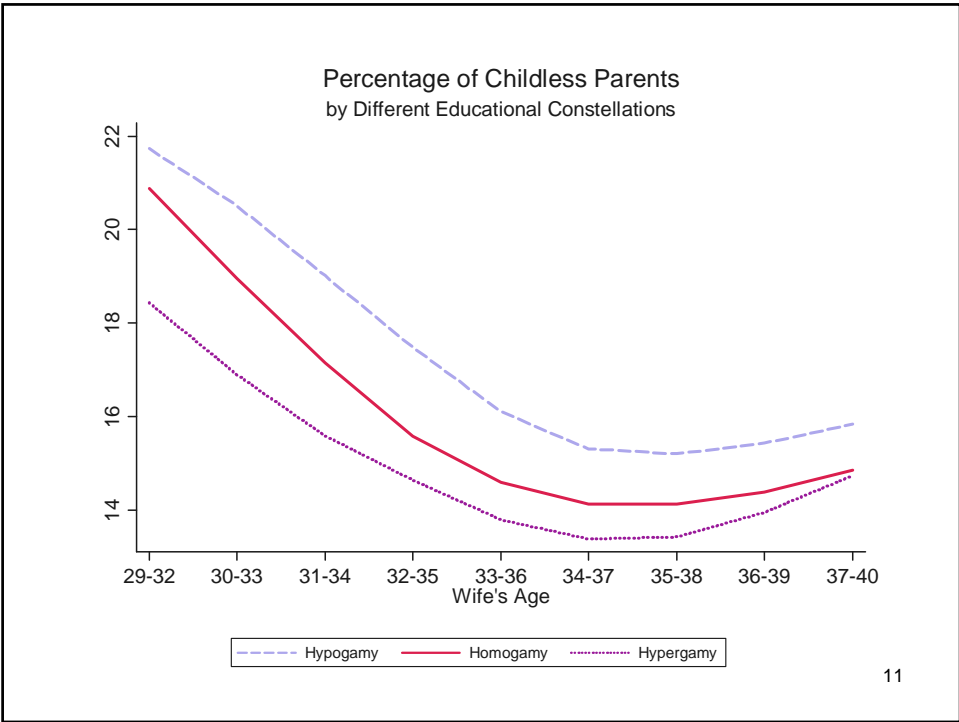
<u>Year of Survey</u>	<u>Wives' Age</u>
2004:	37-40
2003:	36-39
2002:	35-38
2001:	34-37
2000:	33-36
1999:	32-35
1998:	31-34
1997:	30-33
1996:	29-32

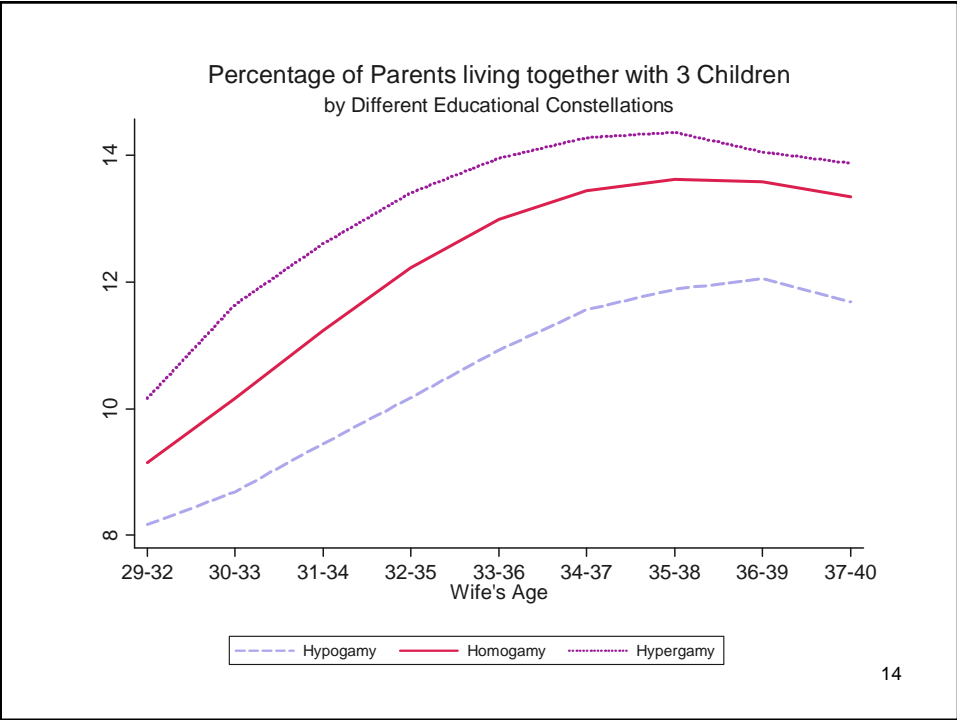
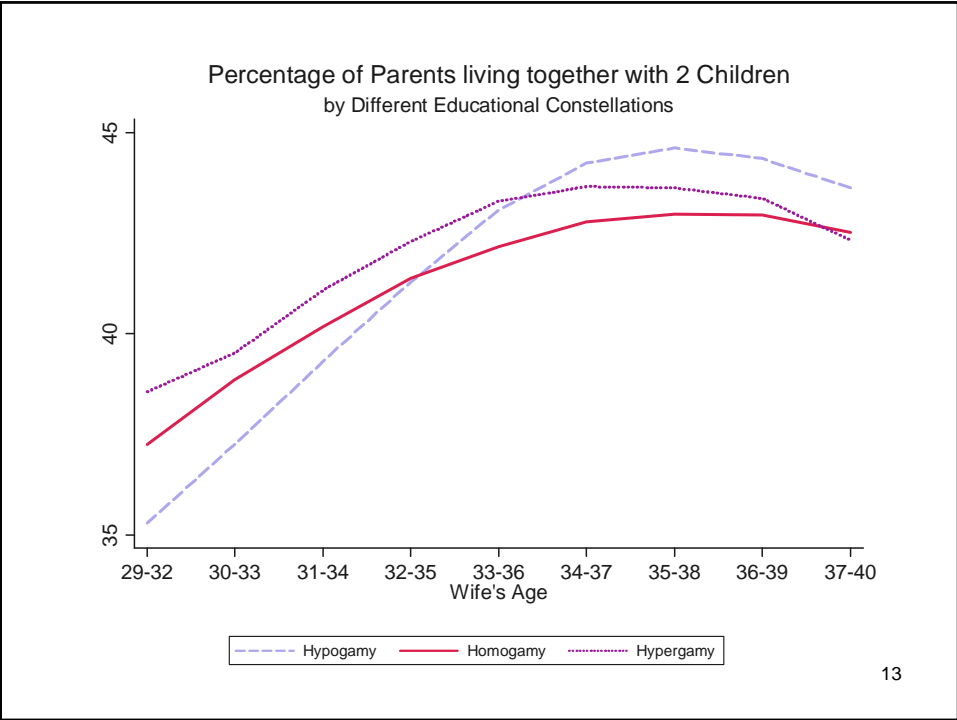
9

Average Number of Children
in Different Educational Constellations of Parents



10

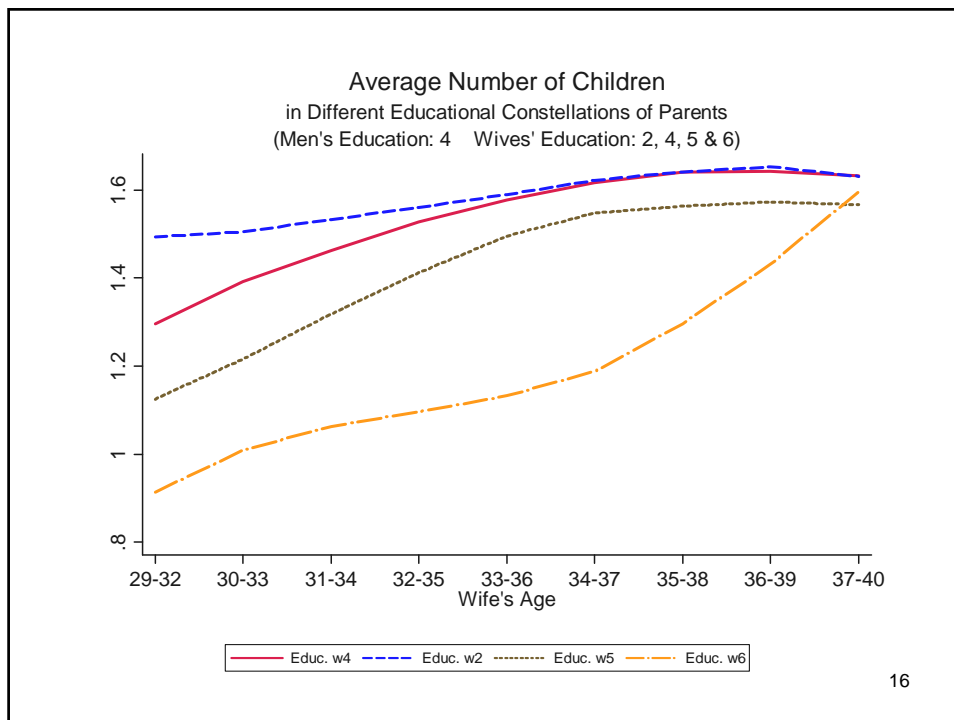


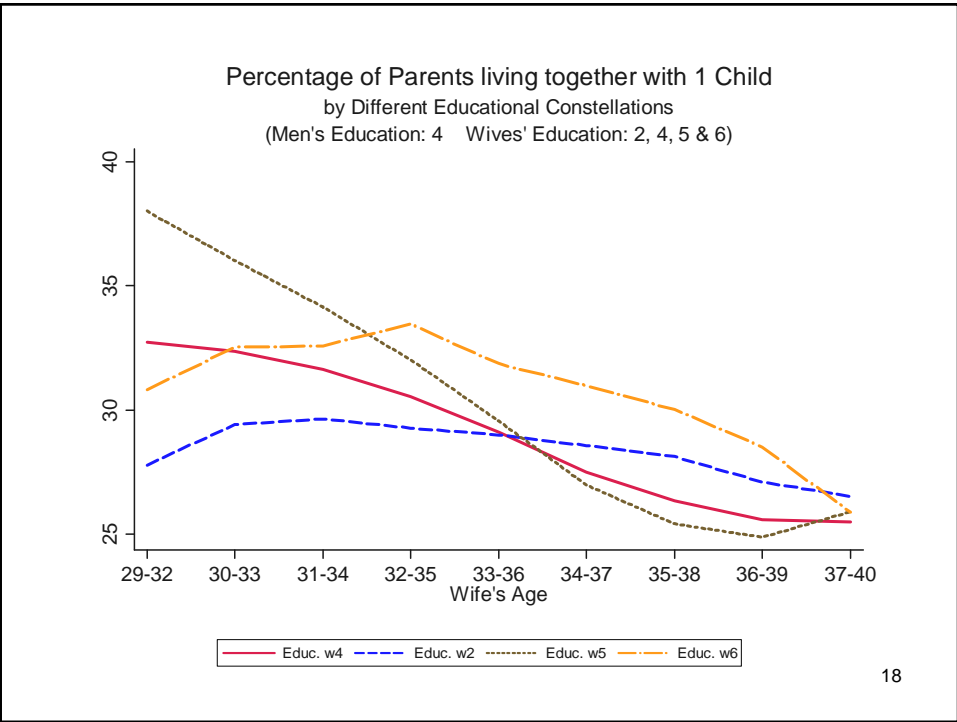
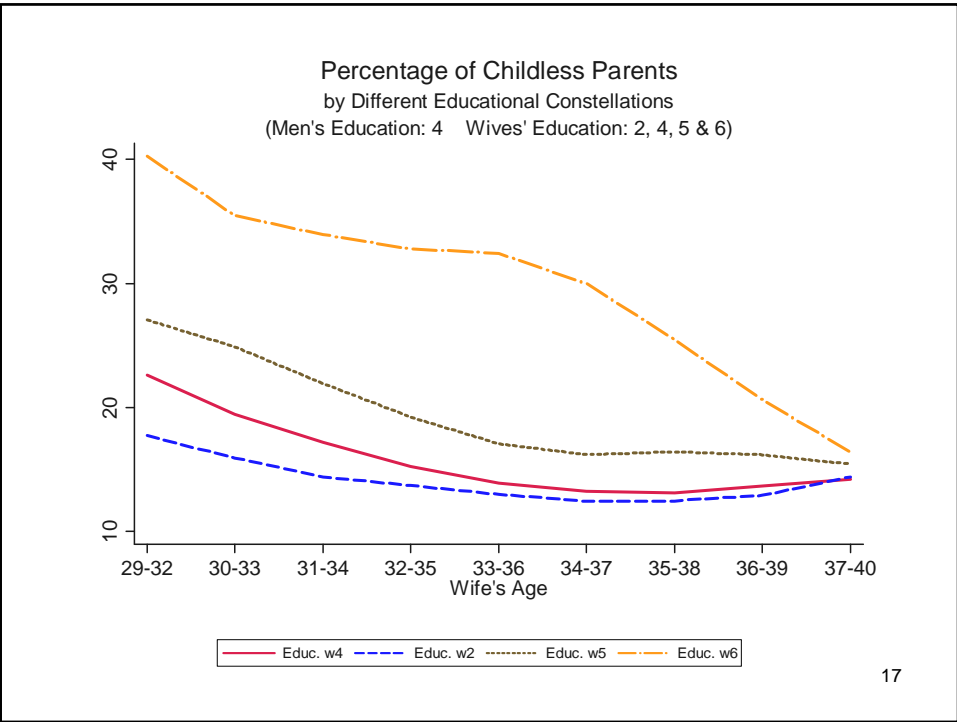


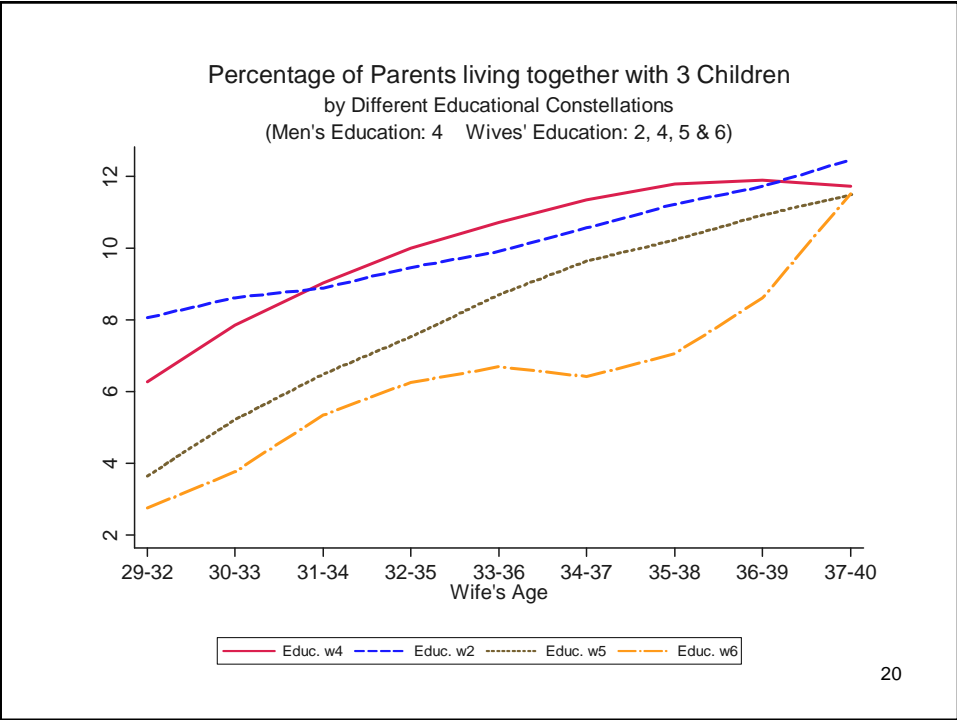
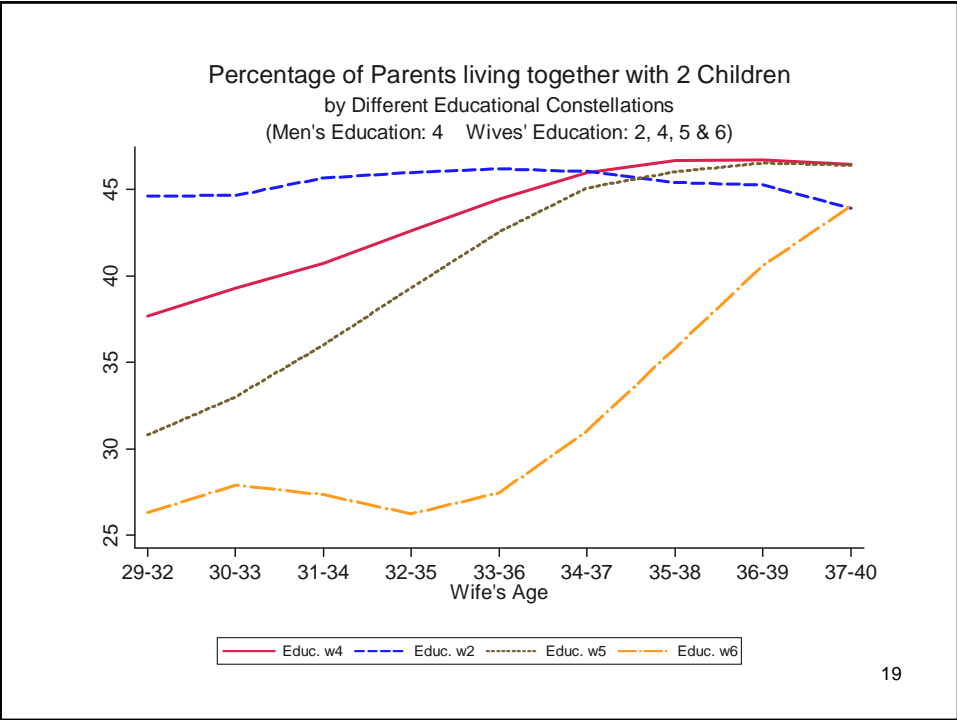
First Results

- The educational constellation of the couple seems to be of importance
- But: Is it really the constellation that matters?
- This could all be caused by the educational characteristics of one spouse, either the woman or the man.
- Analytical strategy: Keeping the education of one partner constant (here: at level 4)

15



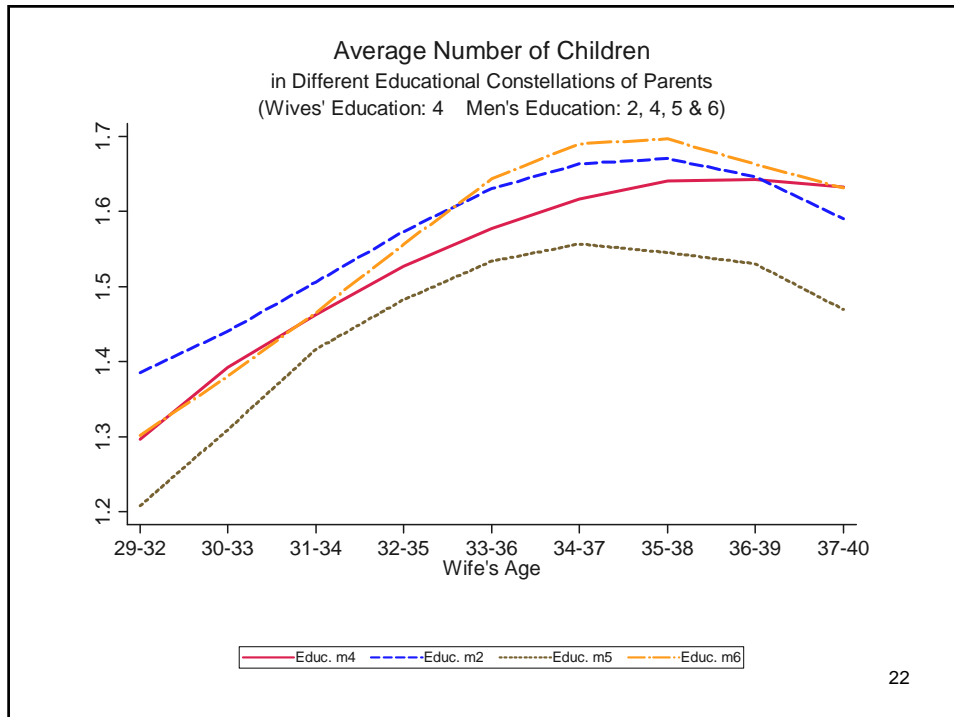


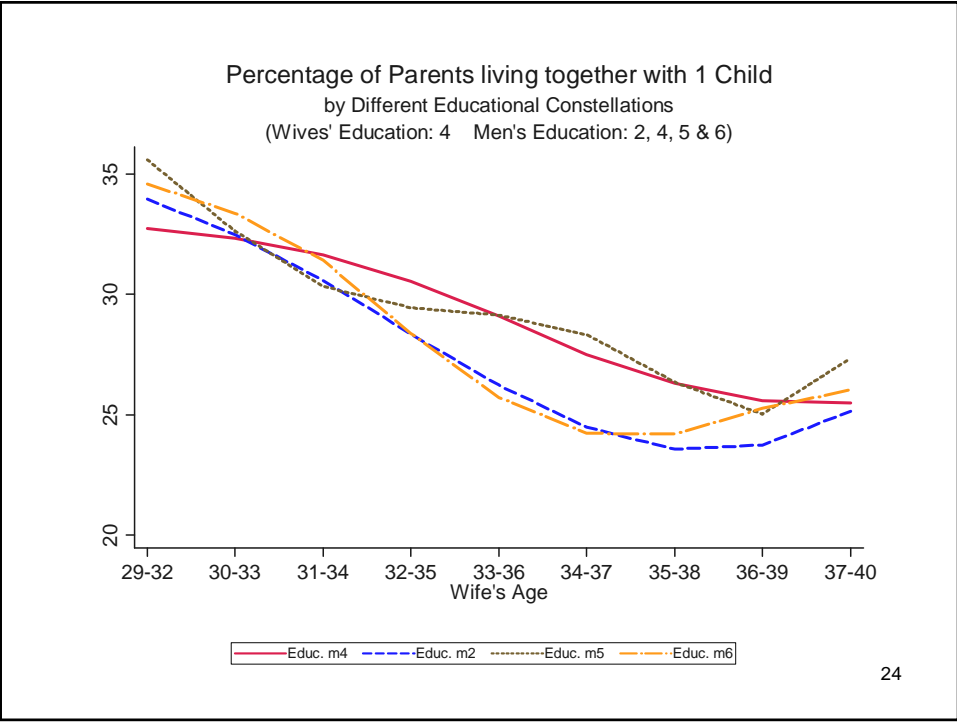
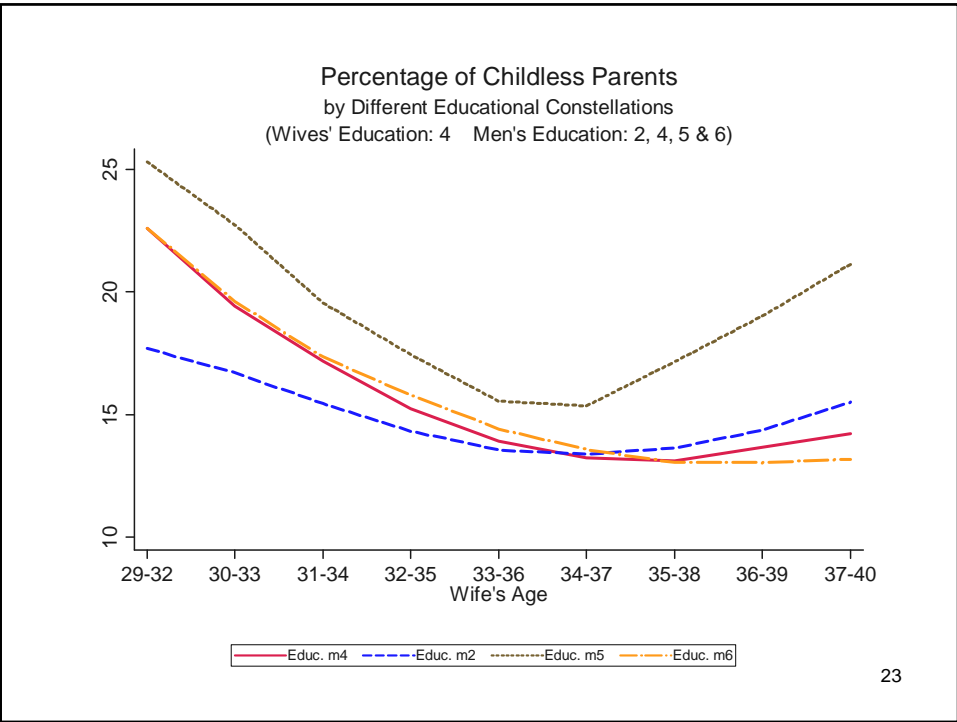


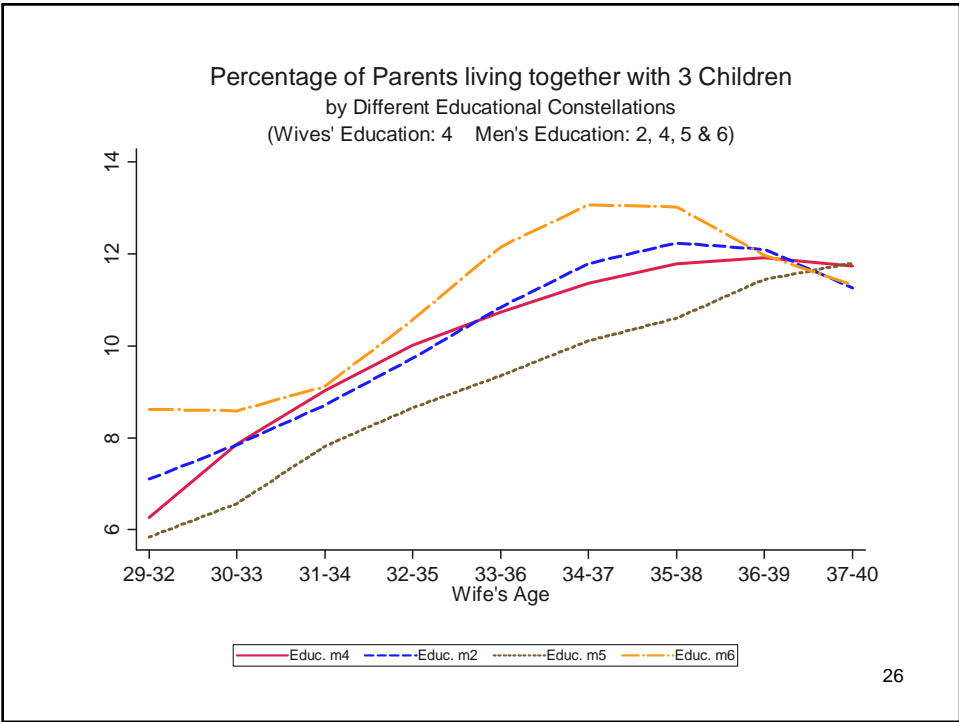
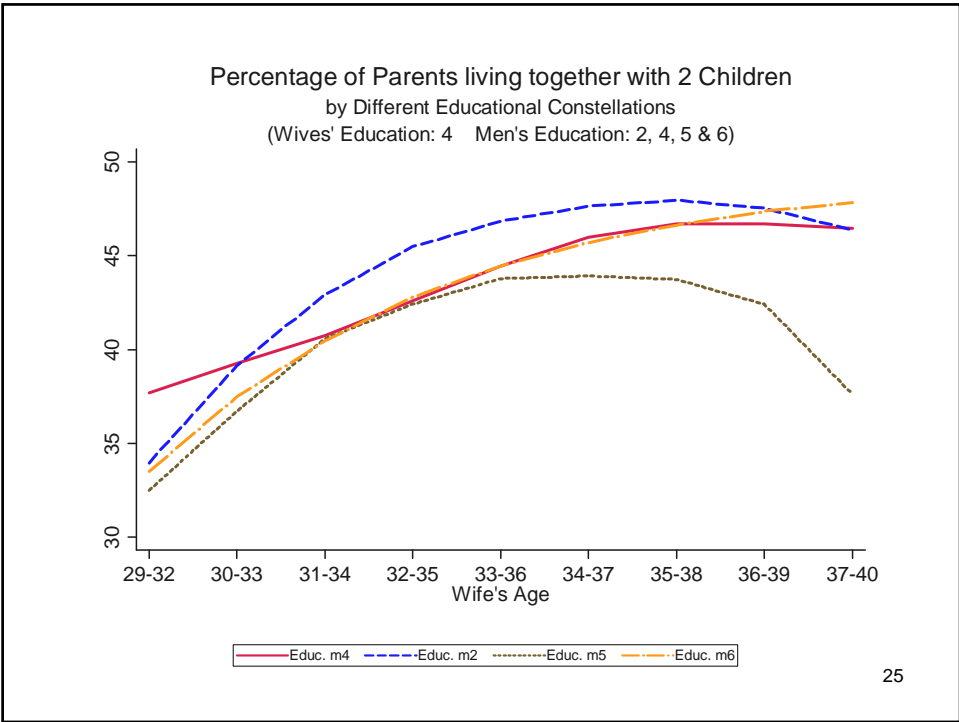
More Results

- Controlling for the husband's educational achievement, the typical (negative) effects of wife's education on fertility decisions can be reported

21







More Results

- There are differences between constellations when the education level of the wife is kept constant, but is there any systematic behind it?
- Next (and so far) last step: Logit regression on having a child, using again data from the Mikrozensus (year 2000 only) and predicting probabilities of having a child for different constellations

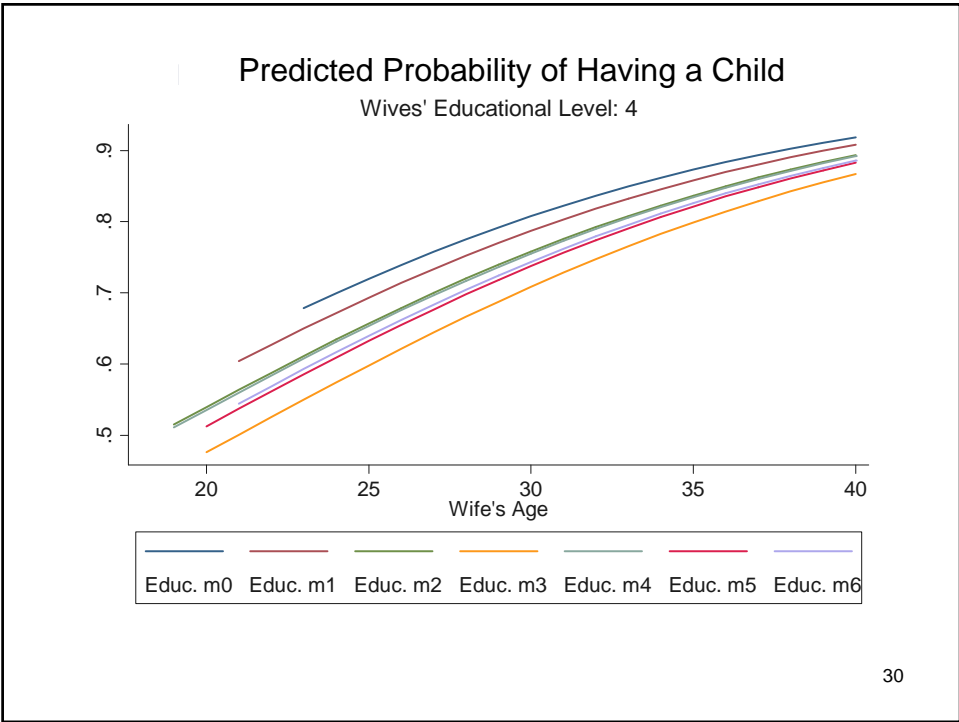
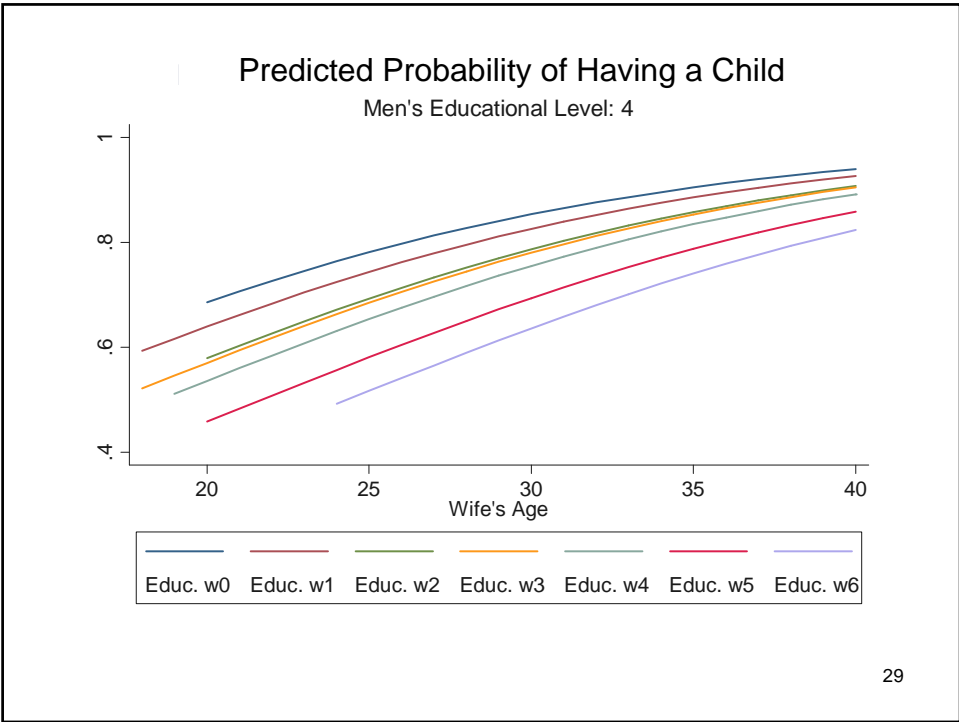
27

Having at least one child				
	Model 1	Model 2	Model 3	Model 4
Wife's Educ. 0	2.74***		2.556***	3.34***
Wife's Educ. 1	2.32***		2.286***	2.71***
Wife's Educ. 2	2.00***		1.986***	2.11***
Wife's Educ. 3	1.42***		1.517***	2.03***
Wife's Educ. 4	1.65***		1.661***	1.77***
Wife's Educ. 5	1.19***		1.213***	1.30***
<i>Wife's Educ. 6</i>	<i>Ref.</i>		<i>Ref.</i>	<i>Ref.</i>
Man's Educ. 0		2.02***	1.14	1.45***
Man's Educ. 1		1.67***	1.04	1.28***
Man's Educ. 2		1.42***	0.99	1.08**
Man's Educ. 3		0.81***	0.64***	0.84**
Man's Educ. 4		1.22***	0.95	1.06
Man's Educ. 5		0.99	0.89**	0.97
<i>Man's Educ. 6</i>		<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>
Wife's Age				1.10***
cons	2.47***	3.21***	2.54***	0.09***
N	51508	51508	51508	51508
Rseudo R ²	0.012	0.006	0.013	0.047

Note: Coefficients are odds ratios. Data: Mikrozensus 2000, restricted to married, west German women aged 18 to 40.

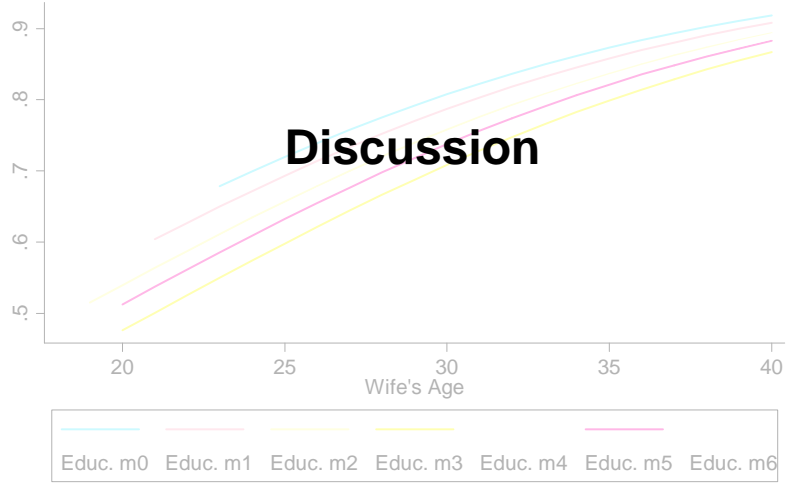
* p<.1; ** p<.05; *** p<.01

28



Predicted Probability of Having a Child

Wives' Educational Level: 4



31