



Wittgenstein Centre  
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UNIVERSITÀ  
DEGLI STUDI  
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DIPARTIMENTO DI STATISTICA,  
INFORMATICA, APPLICAZIONI  
"GIUSEPPE PARENTI"



# Partners' Educational Pairings and Fertility across Europe

Natalie Nitsche, Anna Matysiak, Jan Van Bavel, Daniele Vignoli

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# Our research questions are...

- ☐ What is the relationship between couples educational pairings and childbearing behavior?
- ☐ Are there differences or inequalities in first, second, and third birth rates within her education by his education and vice versa?
- ☐ Focus is on...
  - ☐ ...couples with high educational attainment, involving two medium educated or one highly educated partner
  - ☐ ...explorative descriptive study in multi country overview

# Why His & Her Educational Pairings?

- ❑ Relationship between women's or men's education on fertility a prominent issue in demographic studies
- ❑ Vast empirical research (e.g. Kravdal 2001, Kreyenfeld 2002, Klesment et al. 2014), but interaction between his and her education usually disregarded
- ❑ Yet...
  - ❑ Educational expansion: groups of highly educated ever expanding & increasingly diverse
  - ❑ Education-fertility relationship differs between women and men (Kravdal and Rindfuss 2008, Nisen et al. 2013, Oppermann 2014)
  - ❑ Women outperforming men in participating in and completing in higher education (Van Bavel 2012), increase in the incidence of hypogamy (Esteve, García-Román, and Permanyer 2012)
  - ❑ Couple-dynamics: Oppenheimer & others stress importance of understanding dynamics between partners for childbearing-decision making
- ❑ Handful of single-country studies looks primarily at transition to parenthood (Bauer and Jacob 2010; Wirth 2007; Dribe and Stanfors 2010; Corijn et al. 1996)

# Theoretically we lean on...

## ARGUMENT

1. Economic theory of the family/role specialization (Becker 1991)
2. Oppenheimer: pooling resources (Oppenheimer 1988 & 1994) and/or egalitarian values
3. Bargaining approach/power relations (Blood and Wolfe 1960)

## PREDICTION

1. Traditional male breadwinner higher transition rate than couples with highly educated women
2. Both partners highly educated have highest transition rate
3. She highly educated with lower educated spouse higher rate than both highly educated

# Our data come from...

- ❑ EU-SILC longitudinal sample (Survey on Income & Living Conditions):
  - ❑ Launched in 2003 throughout Europe, ongoing
  - ❑ Usually 4-year household panel
  - ❑ No full fertility, partnership, educational or employment histories
  - ❑ 8/2014 release, covering 2012 as last year
  
- ❑ Sample: 18 out of 27 countries

# The countries covered are...



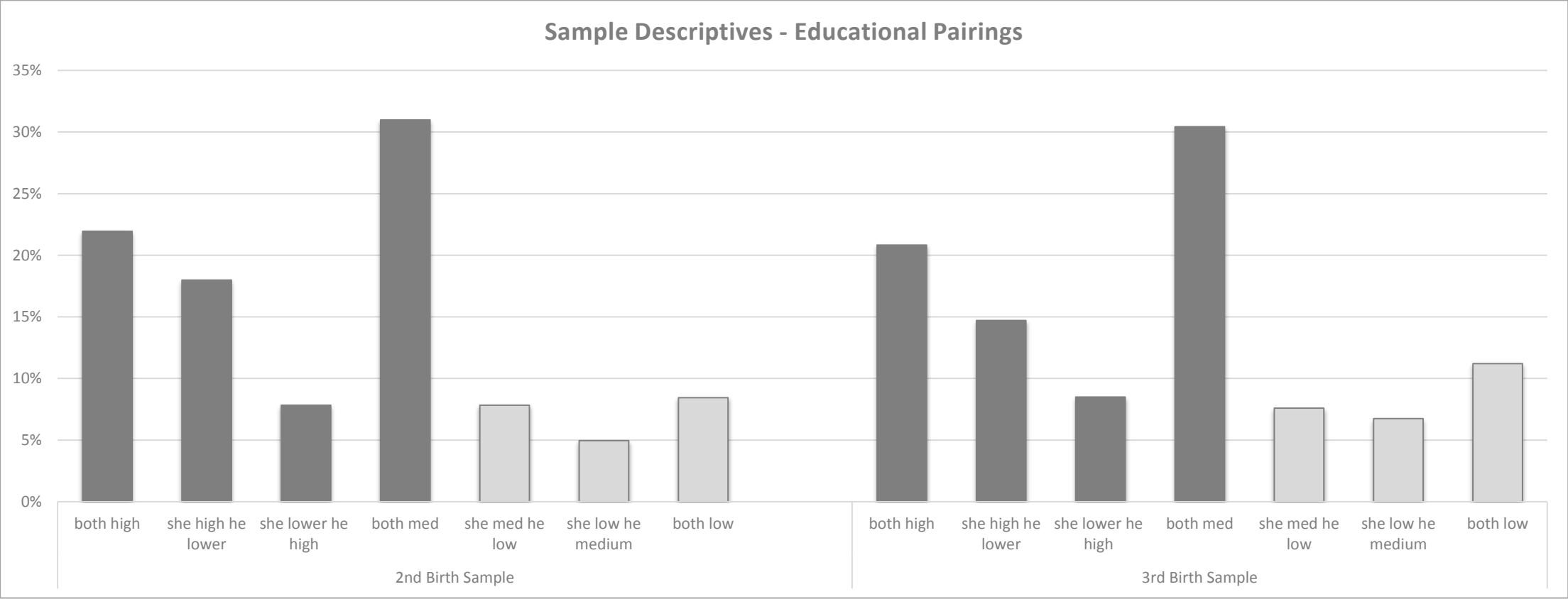
Country	1st birth		2nd birth		3rd + birth	
	couples	events	couples	events	couples	events
AT	627	88	547	119	989	67
BE&LU	1193	224	1096	292	1804	136
CZ&SK	826	129	1087	193	1768	47
EE&LT&LV	730	127	1186	128	1790	101
ES	1503	296	1633	271	2212	60
FI&DK	1830	238	1300	288	2635	160
FR	1294	332	1161	339	1863	191
IT	2092	518	2452	422	2881	110
NL	1173	234	1042	387	2080	157
NO	628	132	560	184	1144	111
SE	771	190	724	267	1155	81
SI	522	85	777	152	1403	58
UK	814	132	658	166	1052	73
Total	14 792	2894	15 705	3419	24 883	1427

# Our analytic strategy is...

- ❑ Discrete time event history models with random effects
- ❑ Separate models by parity (1<sup>st</sup>, 2<sup>nd</sup> 3<sup>rd</sup> +) & country
- ❑ Covariates:
  - ❑ All combinations of his/her high, medium & low education (lagged): ***both high, she high he lower, he high she lower, both medium***, she medium he low, he medium she low
  - ❑ Her enrollment (lagged)
  - ❑ Married/cohabiting
  - ❑ Partners' age difference
  - ❑ 1<sup>st</sup> birth: age\*educational pairings interaction
  - ❑ 2<sup>nd</sup>+ birth: Her age at last birth, age of youngest child (squared)
  - ❑ Period / year controls

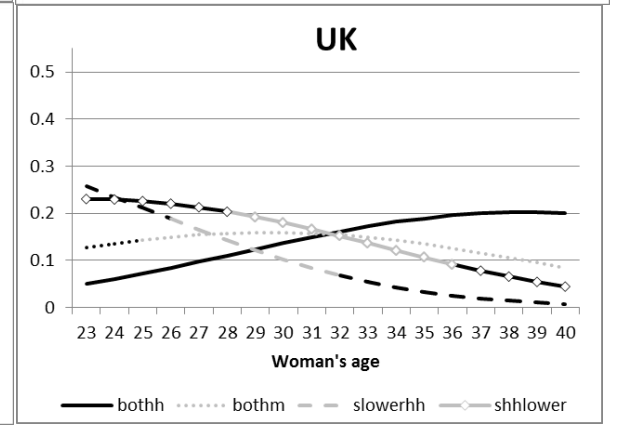
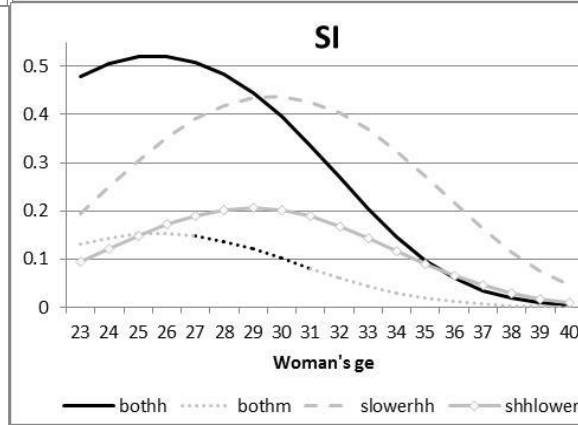
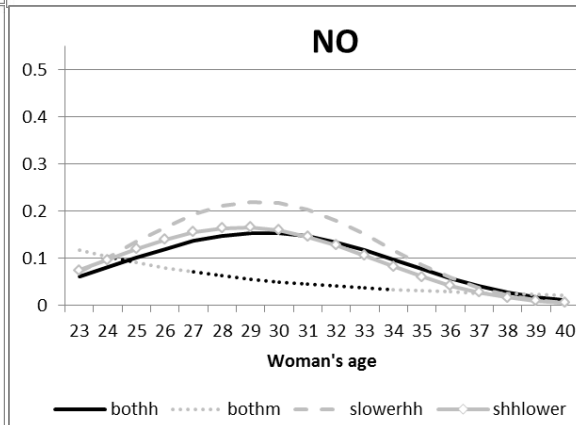
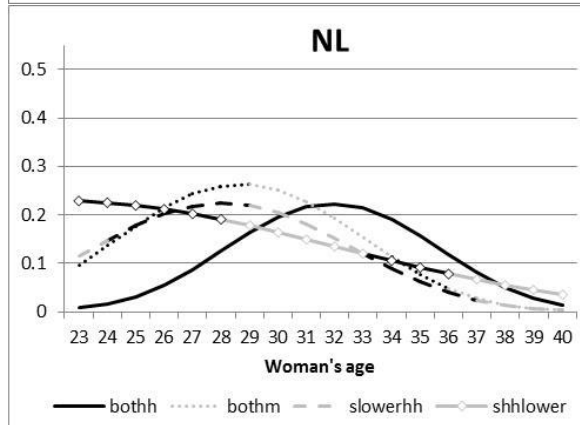
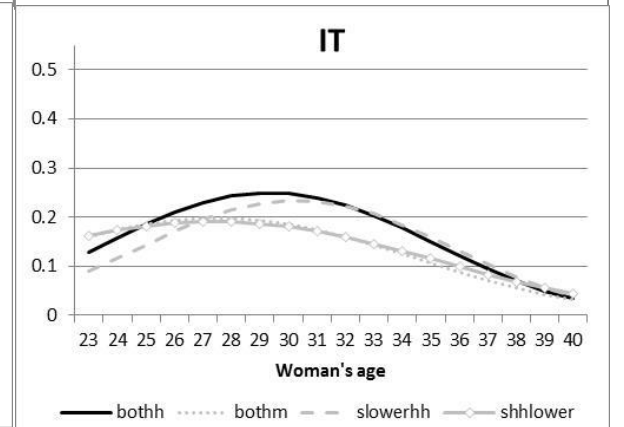
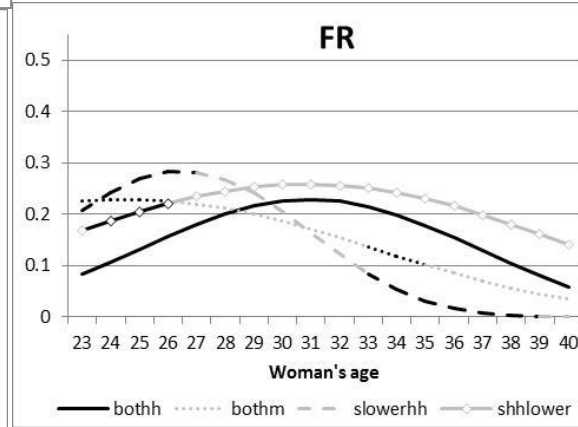
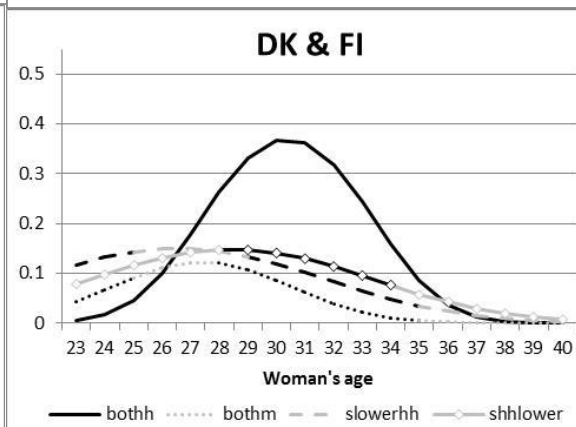
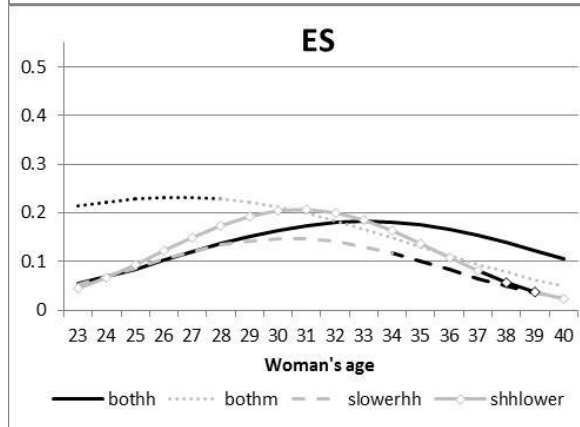
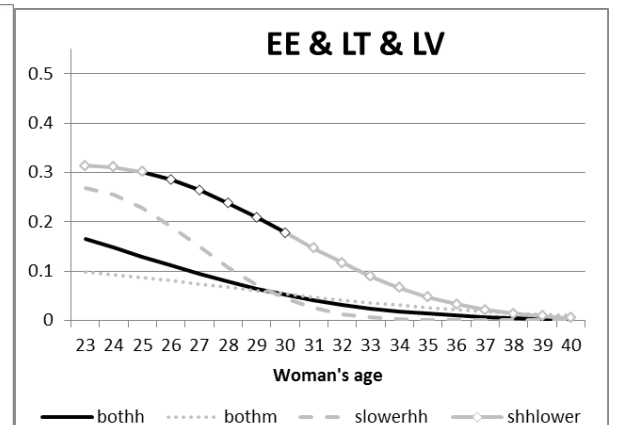
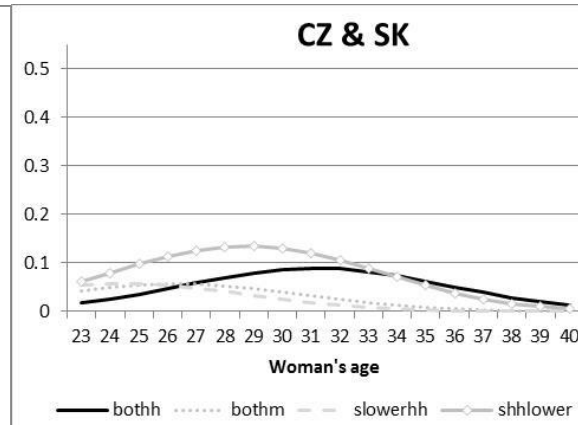
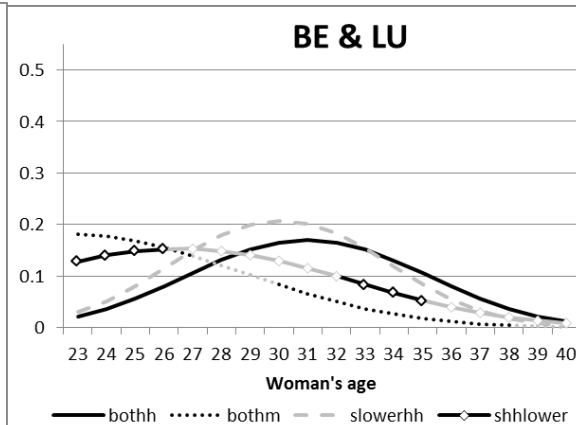
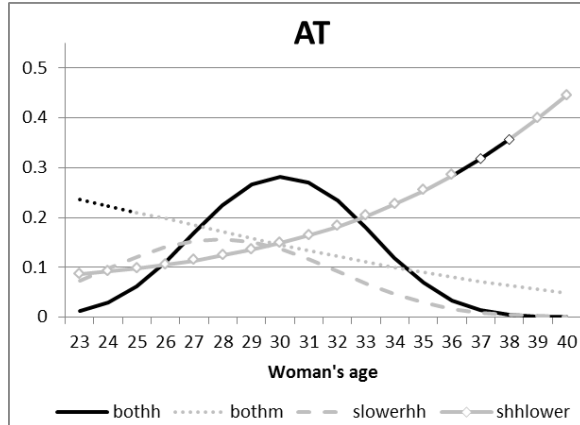


# Distribution of Educational Pairings...

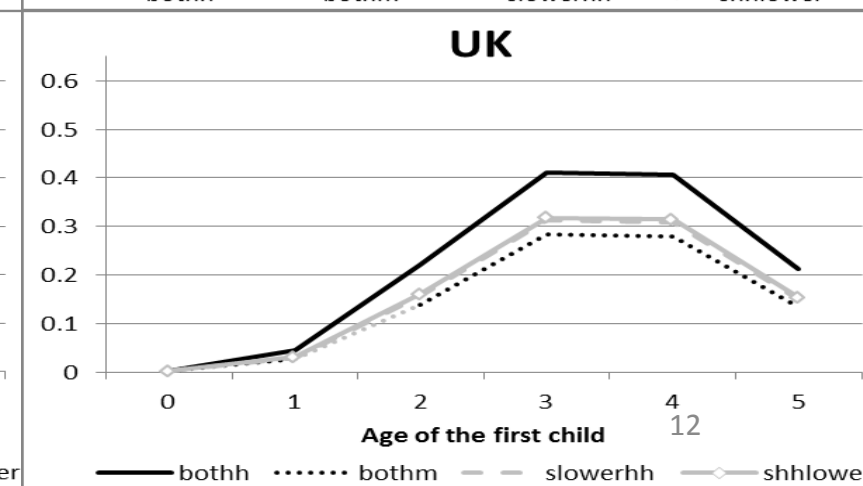
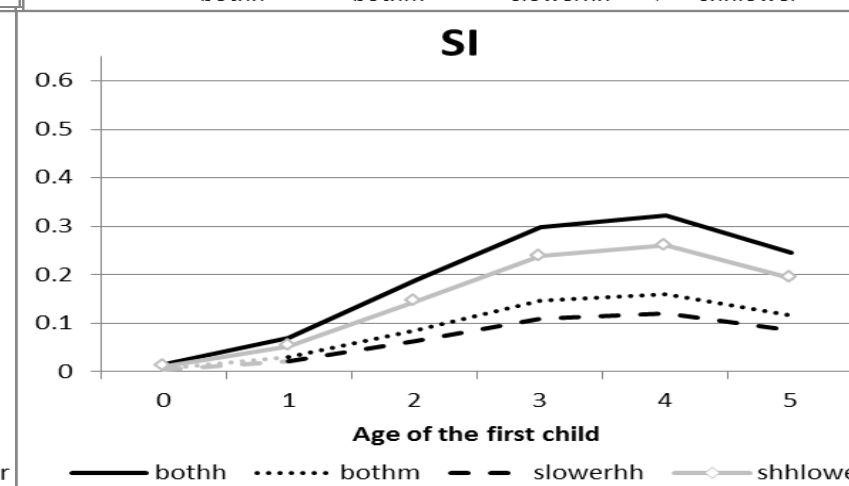
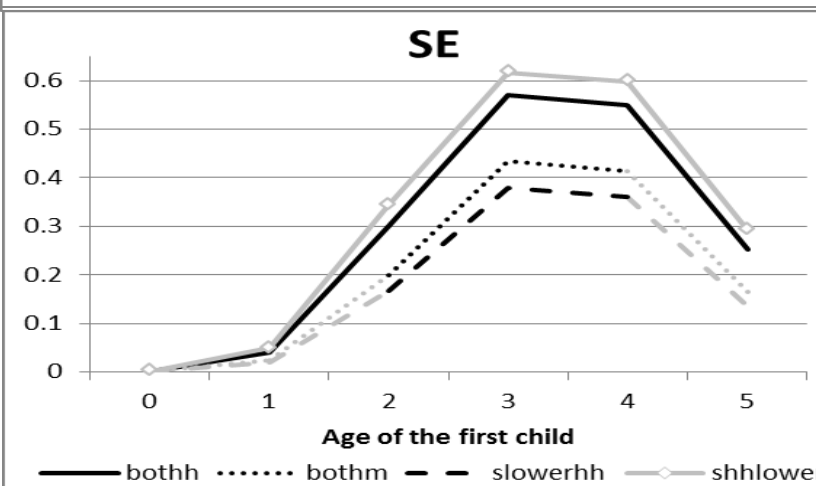
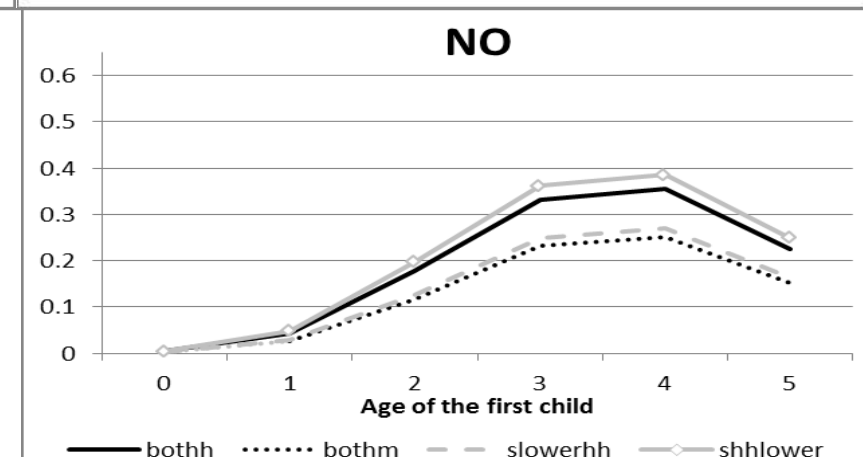
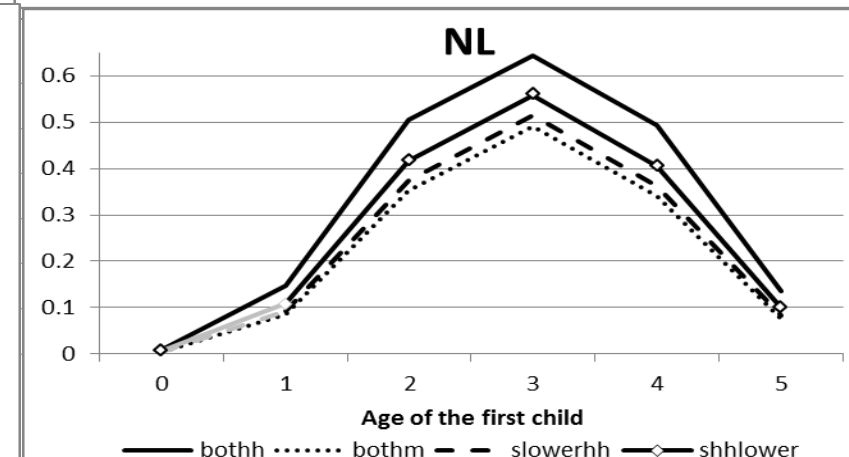
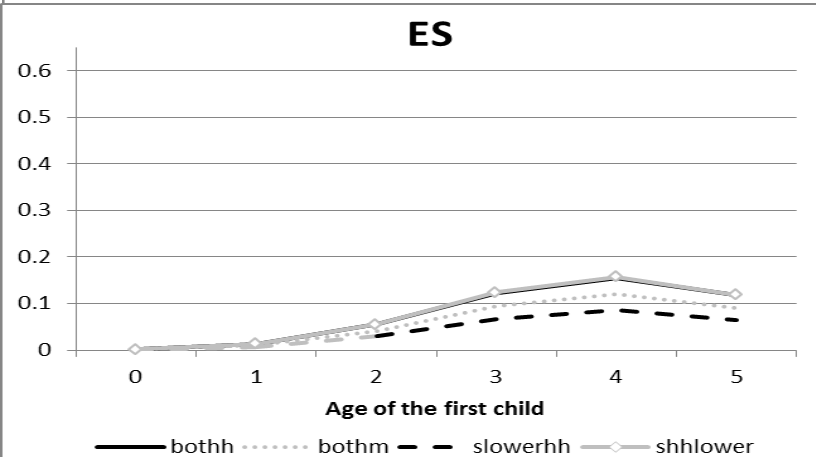
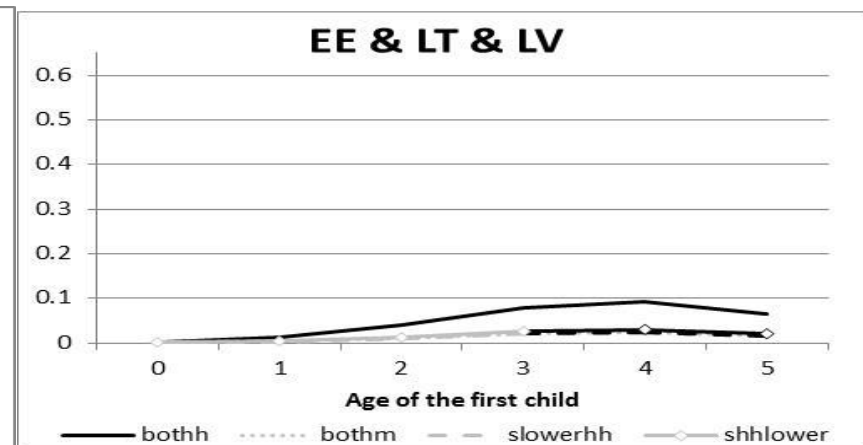
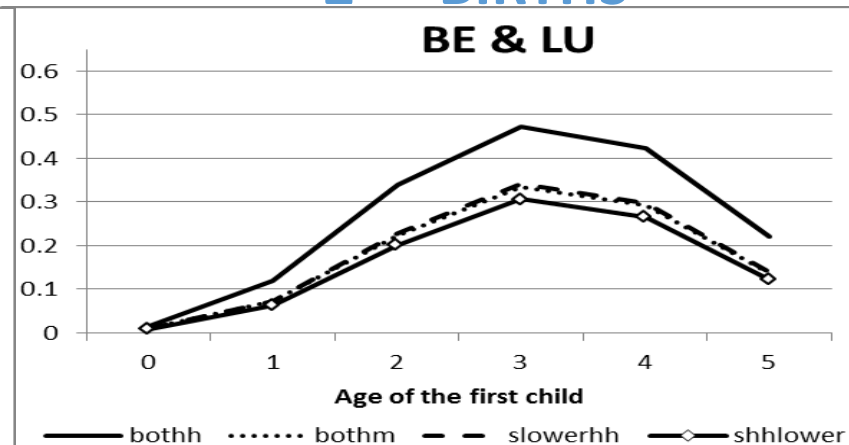
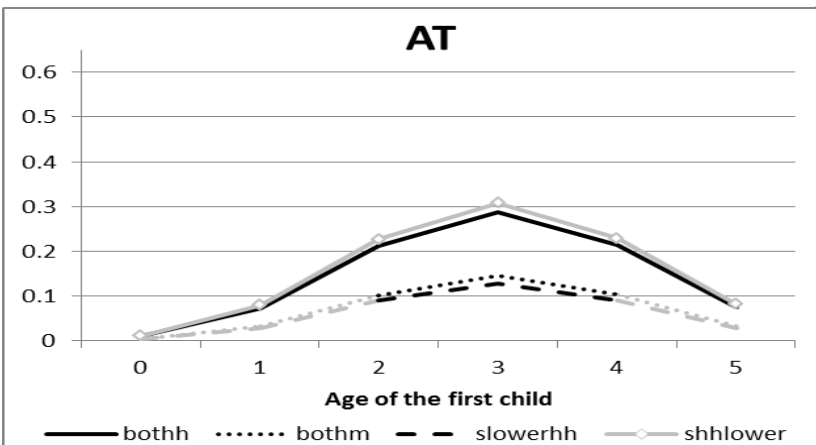


Our results look like this...

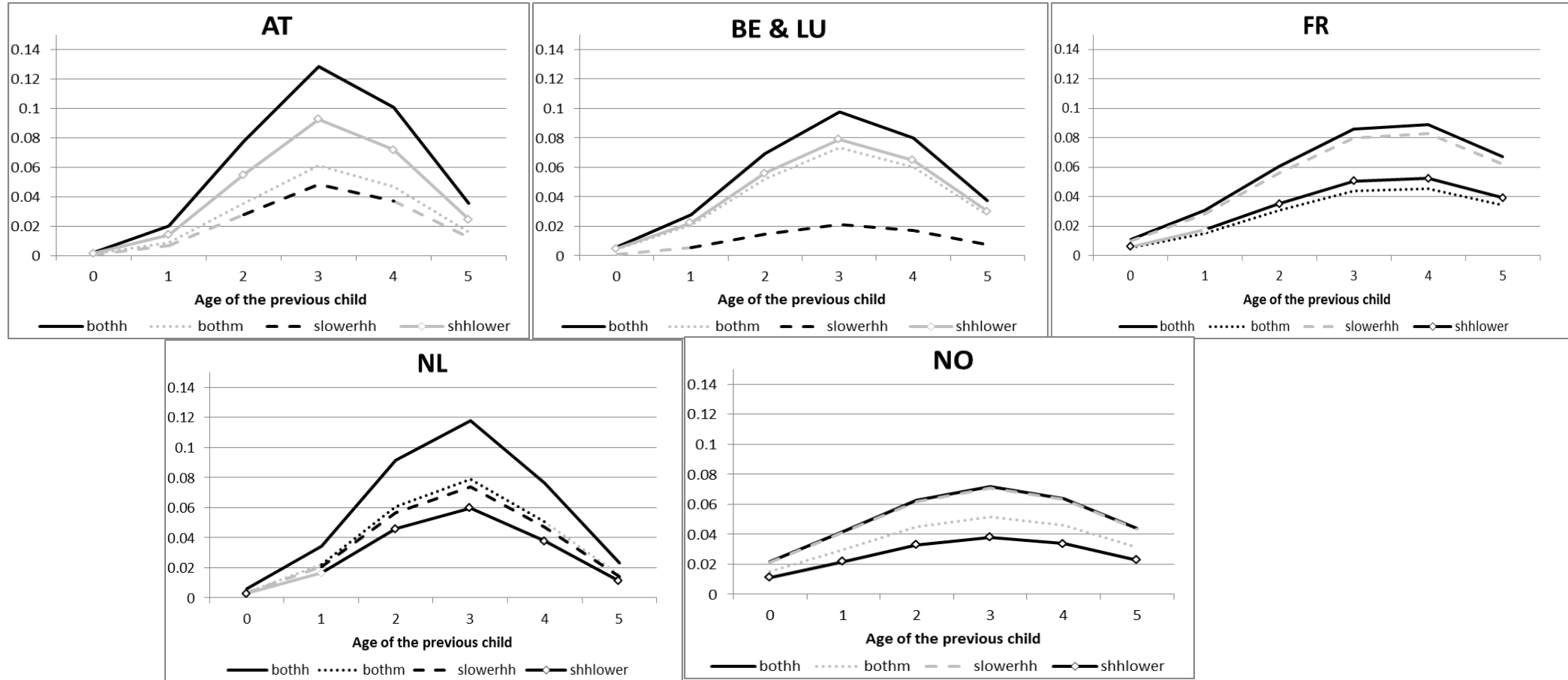
## 1<sup>st</sup> BIRTHS



## 2<sup>ND</sup> BIRTHS



# 3<sup>RD</sup> BIRTH



# We conclude...

- ❑ Looking at educational pairings extends knowledge on fertility-education relationship:
  - ❑ Differences in childbearing behavior within her education by partner's education & vice versa
- ❑ Homogamous highly educated couples have highest second/third birth risks: resource pooling, egalitarian value consensus, projected income & career stability?
- ❑ Traditional „male breadwinner couples” do *not* show highest birth rates across countries
- ❑ Emerging inequality in family formation / parity progressions?

# Some limitations...

## ❑ What exactly is behind the findings??

❑ Are those pure timing effects? Or do they translate to quantum effects in some countries? And: do we see timing effects of birth/postponement or of partnership formation timing? Both?

❑ Or is there a “differentiated” time-squeeze effect for highly educated homogamous couples only, but not for highly educated women with lower educated partner?

❑ Selection? Into stable partnerships/due to couples-perspective?

➤ More detailed data needed to differentiate between timing and quantum effects & to understand selection into unions, childbearing & union stability

➤ Yet our results give some suggestions on what to look for in follow-up studies



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# Thank you for your attention

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The research leading to these results is based on a collaborative effort. The authors received funding from the European Union's Seventh Framework Programme (FP7/2007-2013) under grant agreements: 1) no. 627543 for *COUPFER/Marie Curie Action* (Natalie Nitsche), 2) no. 320116 for the research project *FamiliesAndSocieties* (Anna Matysiak and Daniele Vignoli), and 3) ERC Grant Agreement no. 312290 for the *GENDERBALL* project (Jan Van Bavel).

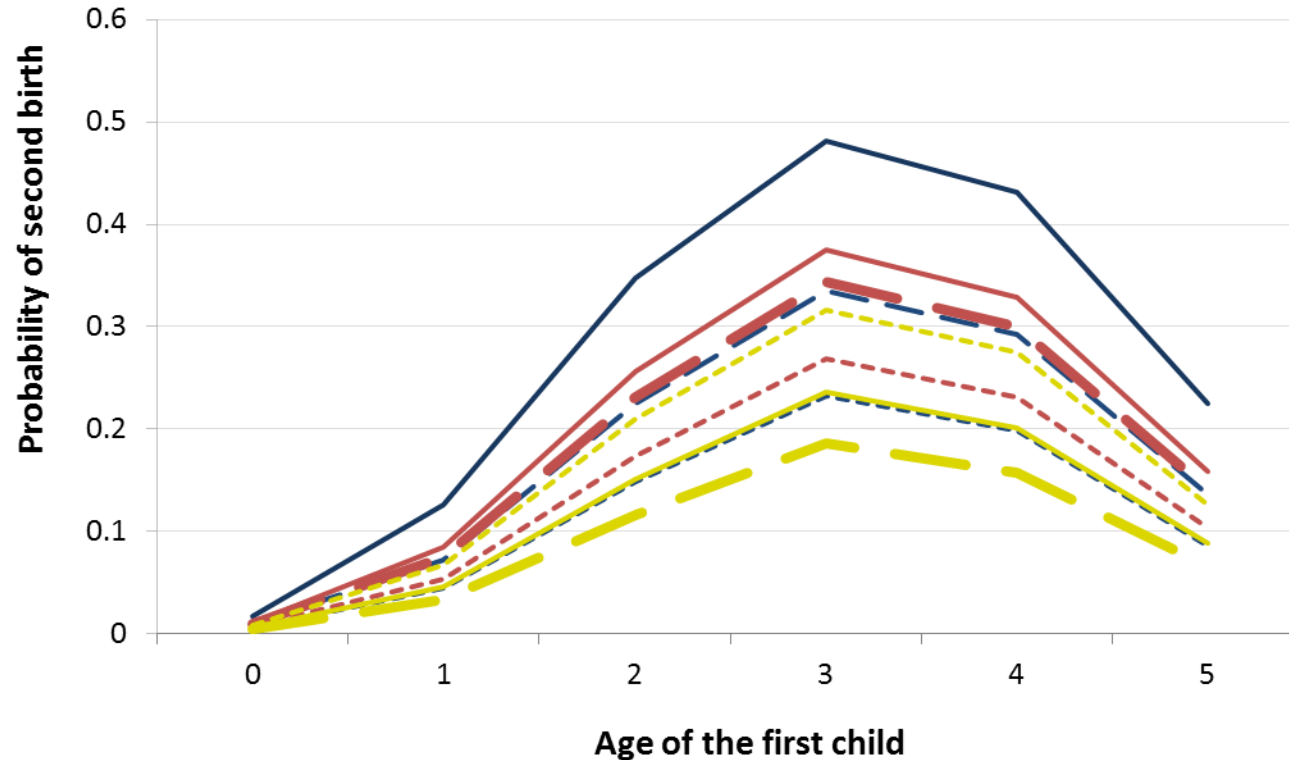
We are grateful to Tymon Słoczyński for his help at the early stages of this project.





# Highest fertility if both highly educated

Belgium & Luxembourg



## Significant contrasts:

bothh>shhm

bothh>shhl

bothh>smhh (marginal significance)

bothh>slhh

**bothm>slhm**

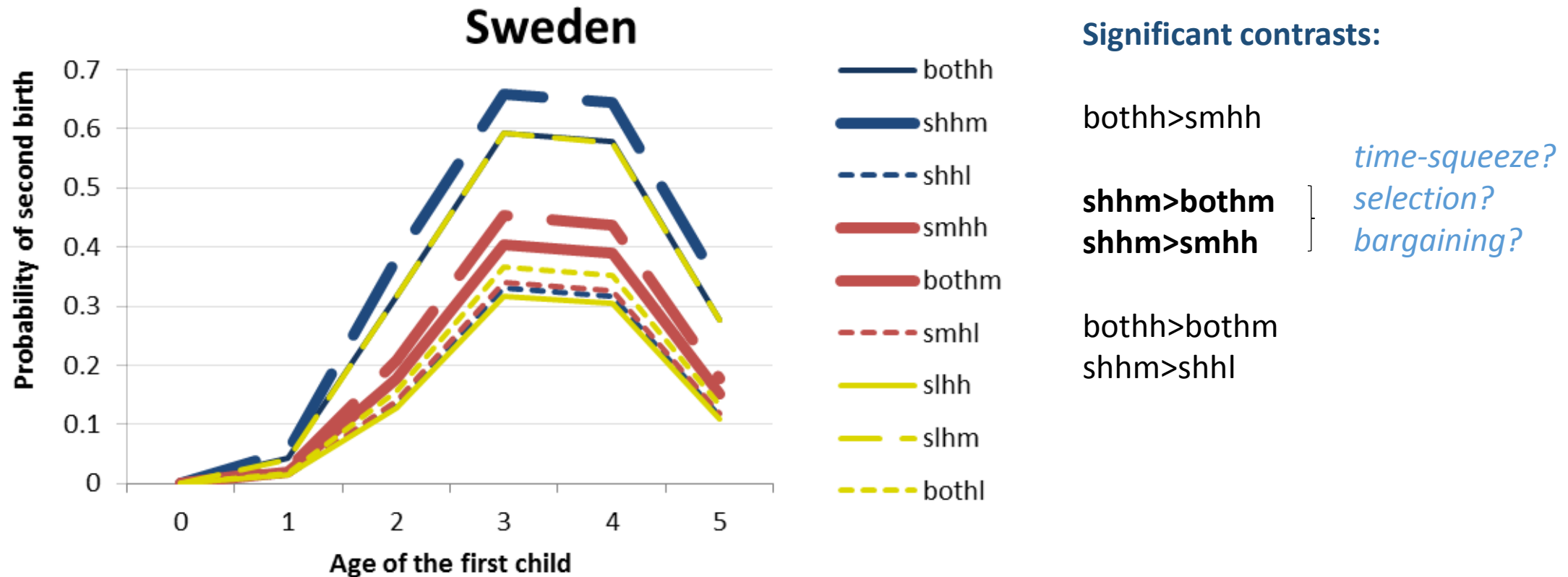
bothh>bothm

bothl>slhm (contradicting pattern)

Resource pooling / egalitarian values / stability of unions?

Similar patterns found also in Czech Rep & Slovakia and Estonia, Latvia and Lithuania

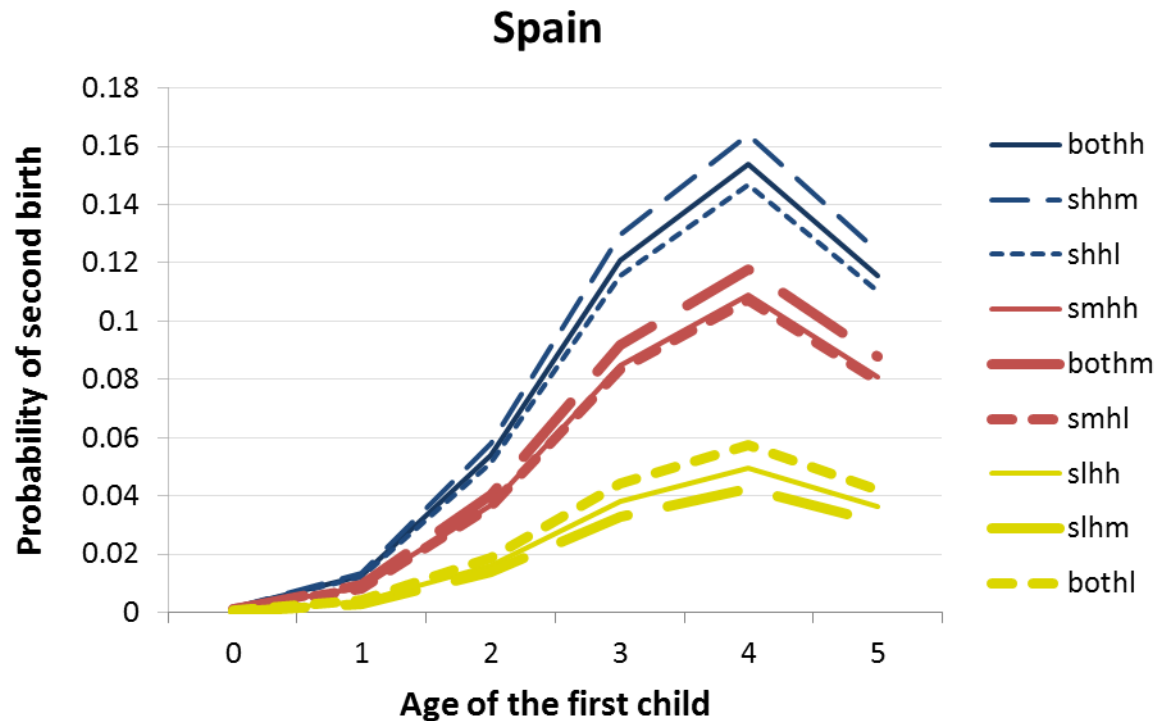
# Signs of bargaining ?



Resource pooling / egalitarian values ? Bargaining? Time-squeeze / selection?

Similar patterns found also in the United Kingdom, the Netherlands, Austria, Slovenia

# Disadvantaged position of low educated women



## Significant contrasts:

bothh>slhh

*Only her education matters*

smhl>bothl

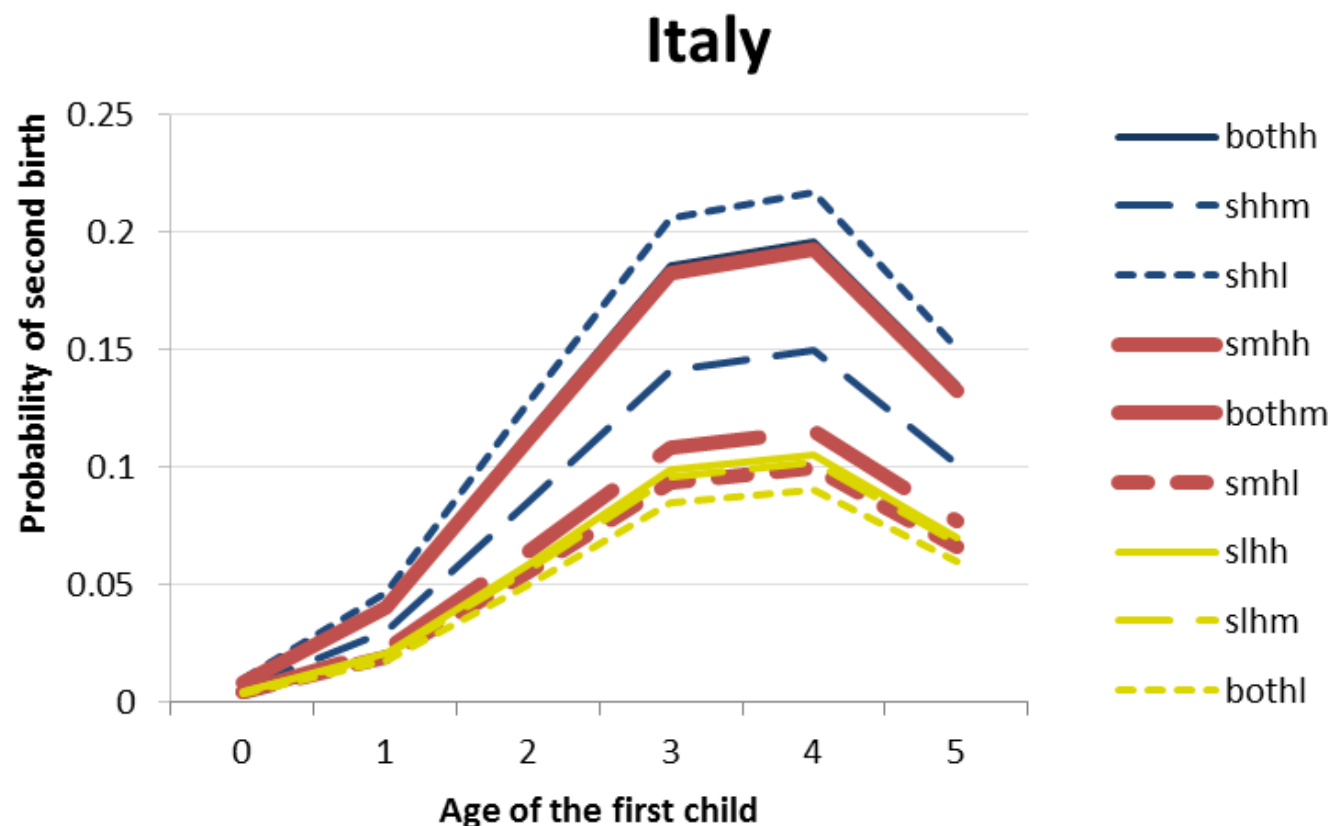
bothm>slhm

bothm>bothl

*Her low education strongly lowers the second birth risk*

Disadvantaged position of low educated was also found in Denmark and Finland, but there the disadvantaged group is “both low educated”

# His education plays a great role



## Significant contrasts:

**smhh>smhl**  
**smhh>bothm**

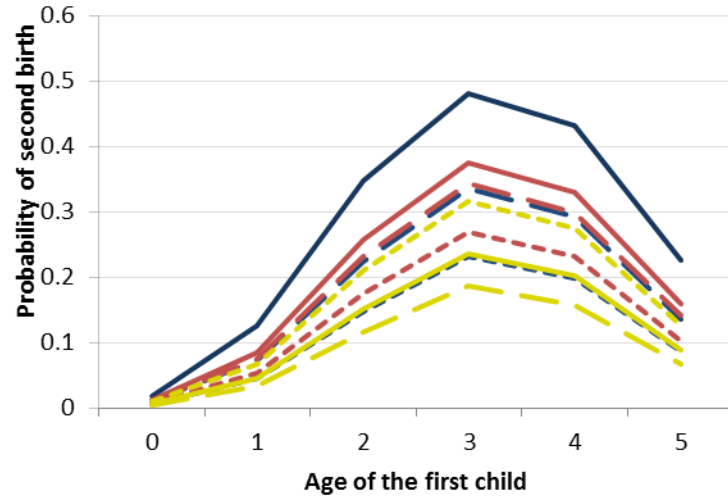
*his education matters  
role specialization?*

**bothh>bothm**

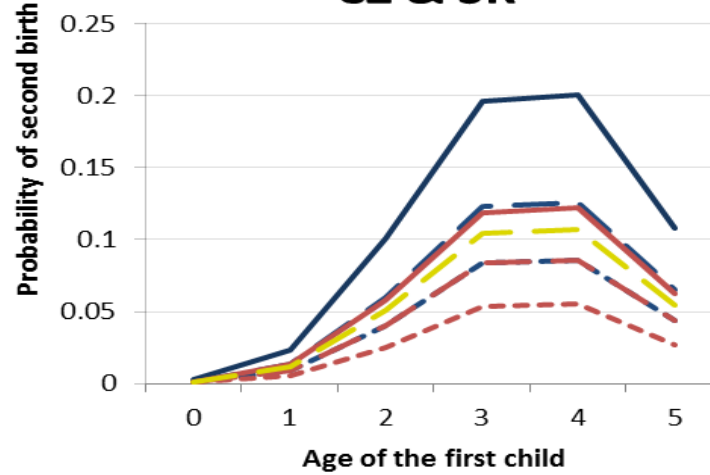
High fertility in couples with her high education irrespectively of his education may suggest time-squeeze / selection

# Results

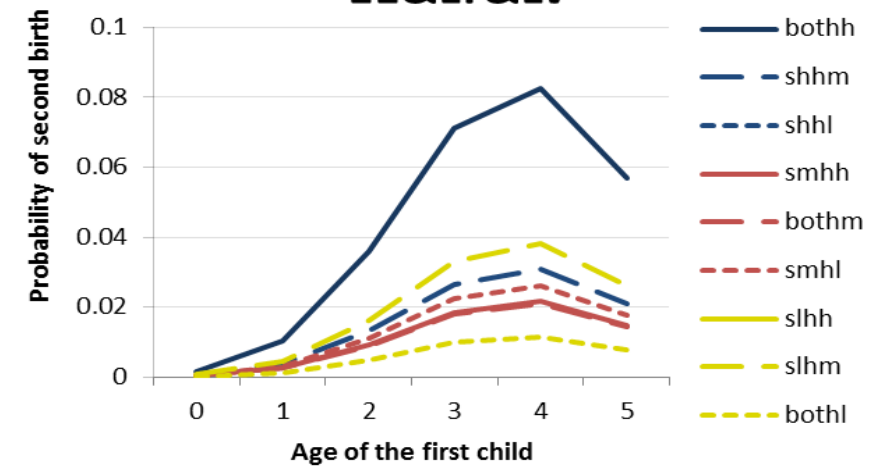
**BE & LU**



**CZ & SK**



**EE&LT&LV**



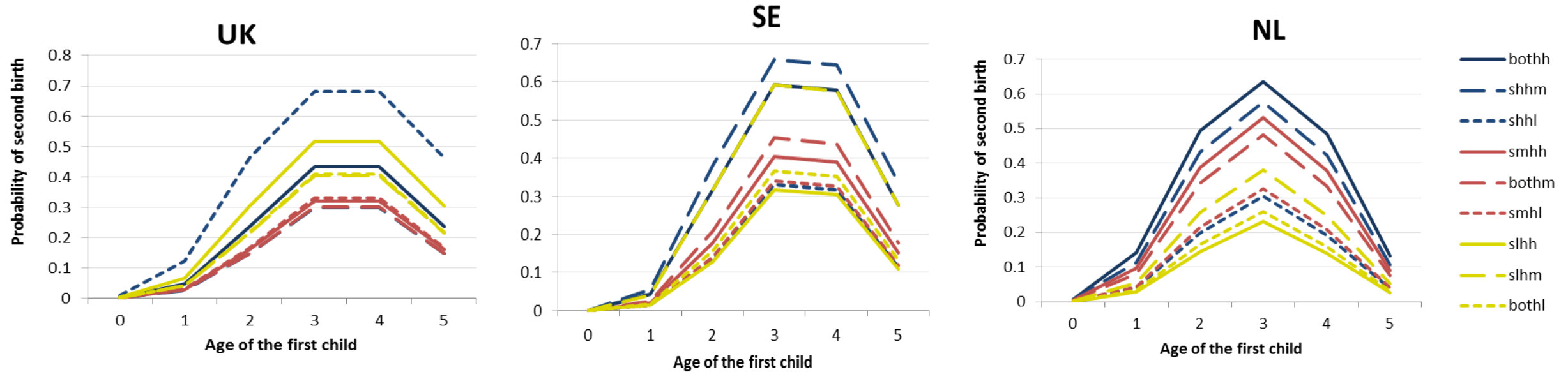
## Significant contrasts:

bothh>shhm  
 bothh>bothm  
 bothh>shhl  
 both>slhh  
 shhm>shhl (contradicting pattern)

bothh>bothm  
 bothh>shhl  
 bothm>bothl

bothh>shhm  
 bothh>smhh  
 bothh>bothm

# Results



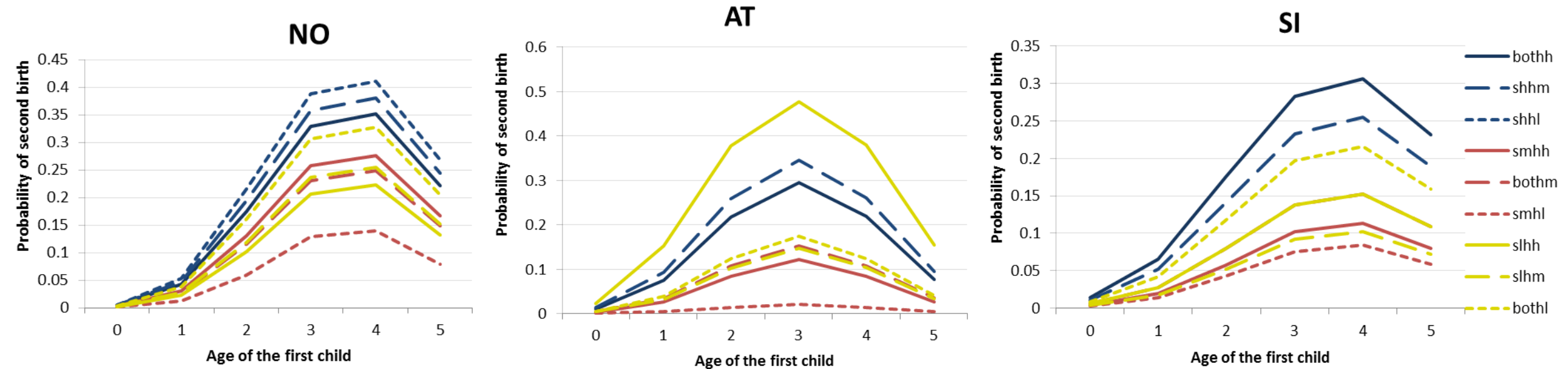
## Significant contrasts:

bothh>shhm  
 bothh>bothm  
 shhl>shhm - *signs of bargaining*

bothh>smhh  
 bothh>bothm  
 shhm>shhl  
 shhm>bothm  
 shhm>smhh } *signs of bargaining*

bothh>smhh  
 Bothh>bothm  
 Bothh>slhh  
 Bothh>shhl  
 Bothm>smhl } *his low education lowers second birth risk*  
 Shhm>bothm - *signs of bargaining*

# Results



## Significant contrasts:

bothh>bothm  
shhm>bothm  
shhm>bothm – *signs of bargaining / resource pooling*

bothh>smhh  
bothh>bothm  
bothm>smhl  
shhm>bothm  
shhm>smhh

*signs of resource pooling*

*signs of bargaining*

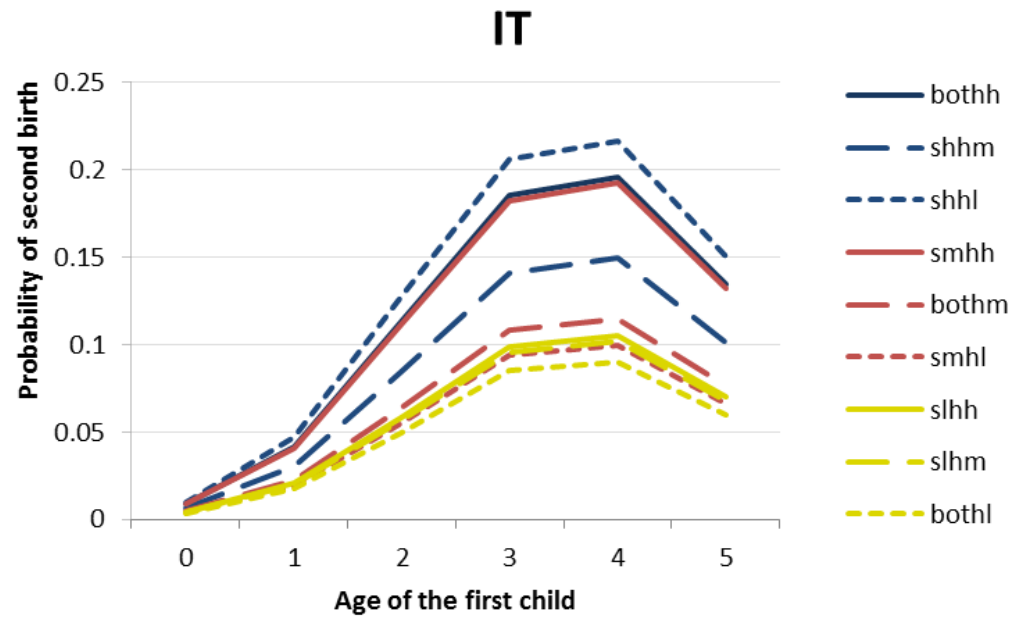
bothh>smhh  
bothh>bothm  
bothh>slhh  
shhm>bothm  
shhm>bothm  
shhm>smhh

*signs of resource pooling*

*signs of bargaining*



# Results

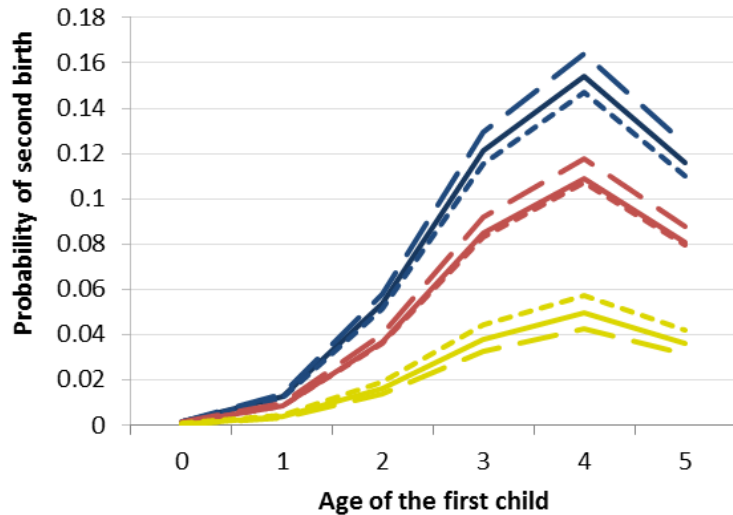


## Significant contrasts:

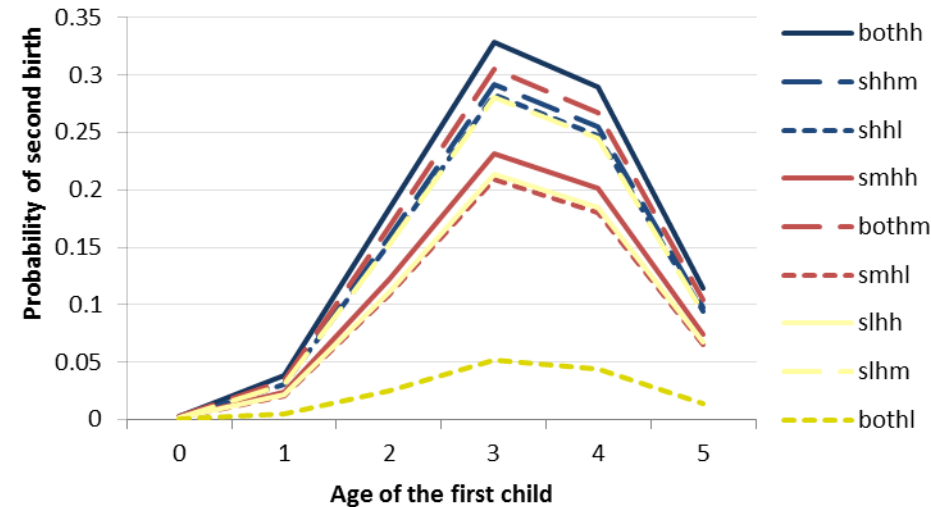
bothh>bothm  
smhh>smhl  
smhh>bothm } *his education matters*

# Results

ES



FI & DK



## Significant contrasts:

bothh>slhh  
smhl>bothl  
bothm>slhm  
bothm>bothl

*Her low education strongly lowers the second birth risk, his education has no effect*

bothm>bothl  
bothh>bothl

*Particularly low second birth risk among couples with both low educated partners*