

Fertility intentions and education in Europe

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Wittgenstein Centre

FOR DEMOGRAPHY AND
GLOBAL HUMAN CAPITAL



OUTLINE:

1. Fertility intentions: theories, concepts and measures
2. Cross-country multilevel analysis of fertility intentions in Europe
3. Case study of fertility intentions and level of education

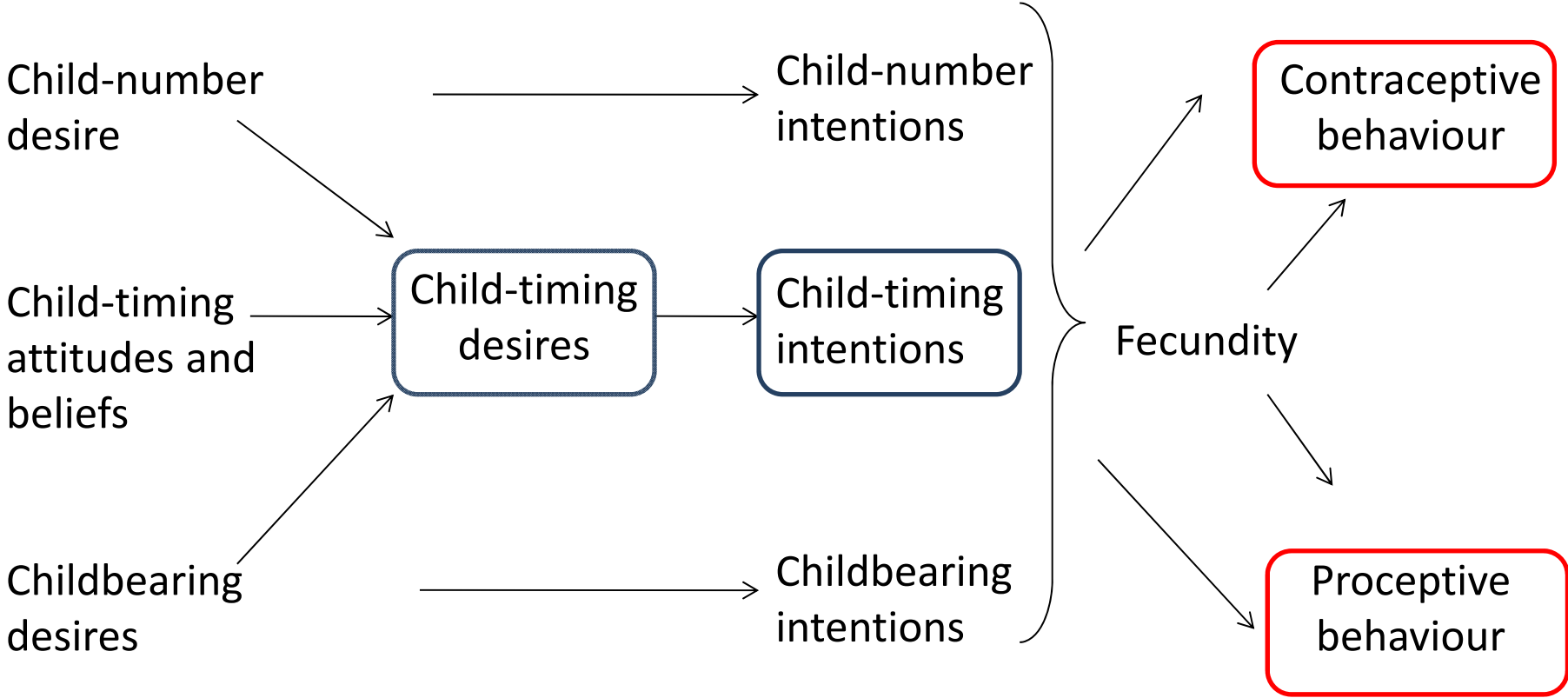
MOTIVATIONS:

1. Fertility intentions are a strong predictor of reproductive behaviour
2. Reproductive decision-making process inform us about both intended and actual family size
3. Thanks to contraception, people may have as many children as they want/intend to have

CONCEPTS AND MEASURES:

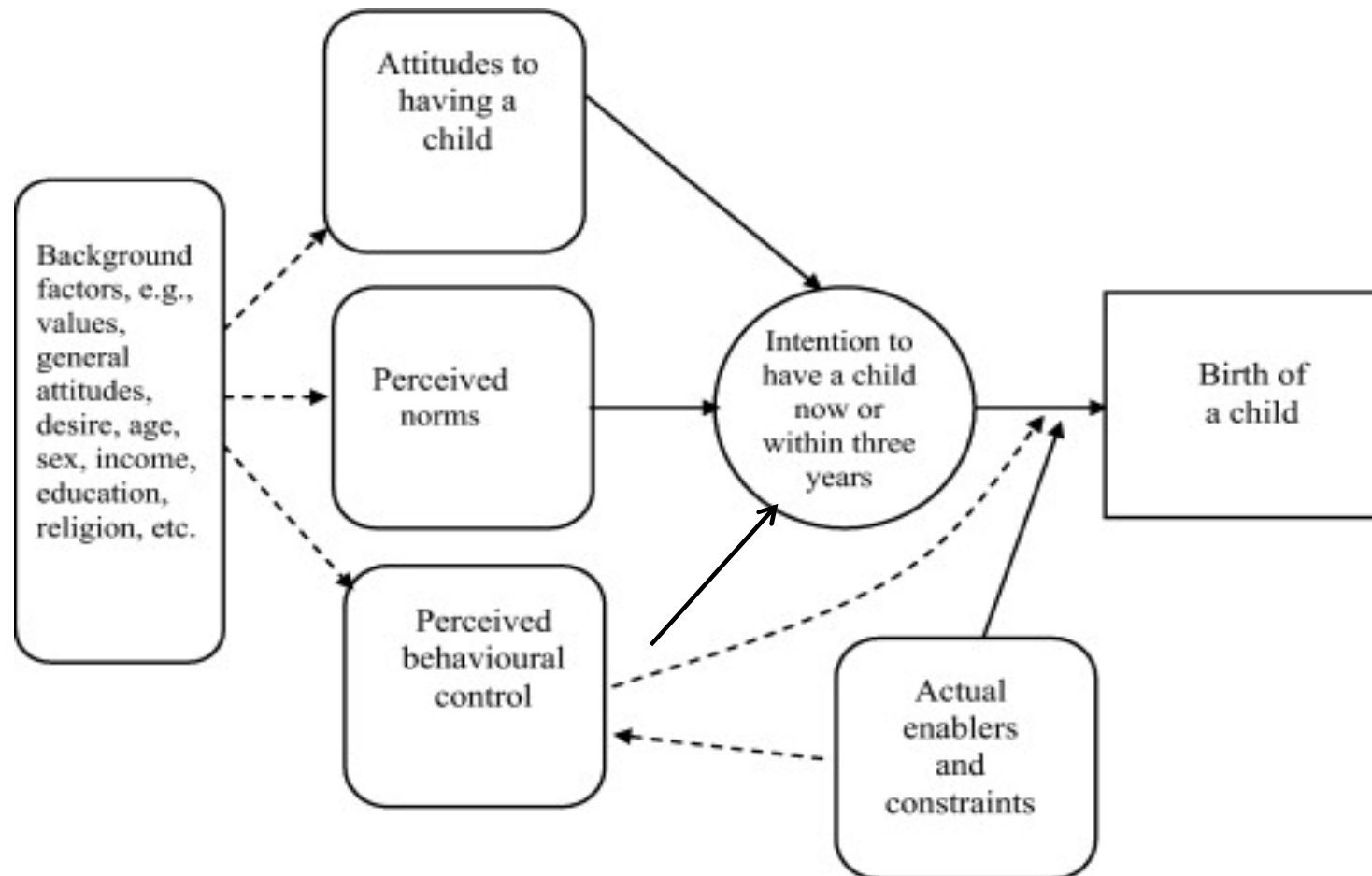
1. Fertility intentions: intentions to have a(n additional) child
2. Child-number intentions: intentions to have a certain number of children
3. Child-timing intentions: the intention to have a child in a given temporal framework

THE TRAITS-DESIRES-INTENTIONS-BEHAVIOUR THEORY



SOURCE: Miller 1994

THE THEORY OF PLANNED BEHAVIOUR



Source: Ajzen 1991

RESEARCH HYPOTHESES:

The relationship between women's level of education and lifetime fertility intentions is positive:

1. In those countries in which availability of childcare services offset the higher opportunity costs paid by the highly qualified women
2. In those countries in which egalitarian gender roles in the family and in the market offset the higher price of time paid by highly educated women
3. In those countries with better economic conditions (i.e., higher levels of GDP per capita)

DATA:

EUROBAROMETER DATA

designed for
comparative analysis
among national
populations

equal probability
samples of about
1,000 respondents in
each of the nations

comparisons
between sub-groups
by sex, age, and
education are possible

single uniform
questionnaire design
with **equivalent**
question wording
across languages

questions on ideal,
intended and actual
family size use exactly
the **same wording**
across rounds

selected sample:
women and men in
reproductive ages
20-45

MEASURES:

Wording of the questions on family size. Eurobarometer survey 2011.

Order	Family sizes	Survey items:
1	General ideal	<i>Generally speaking, what do you think is the ideal number of children for a family?</i>
2	Personal ideal	<i>And for you personally, what would be the ideal number of children you would like to have or would have liked to have had?</i>
3	Actual	<i>How many children, if any, have you had?</i>
4	Intended	<i>How many (more) children do you intend to have?</i>
5		<i>Do you intend to have a(nother) child in the next three years?</i>

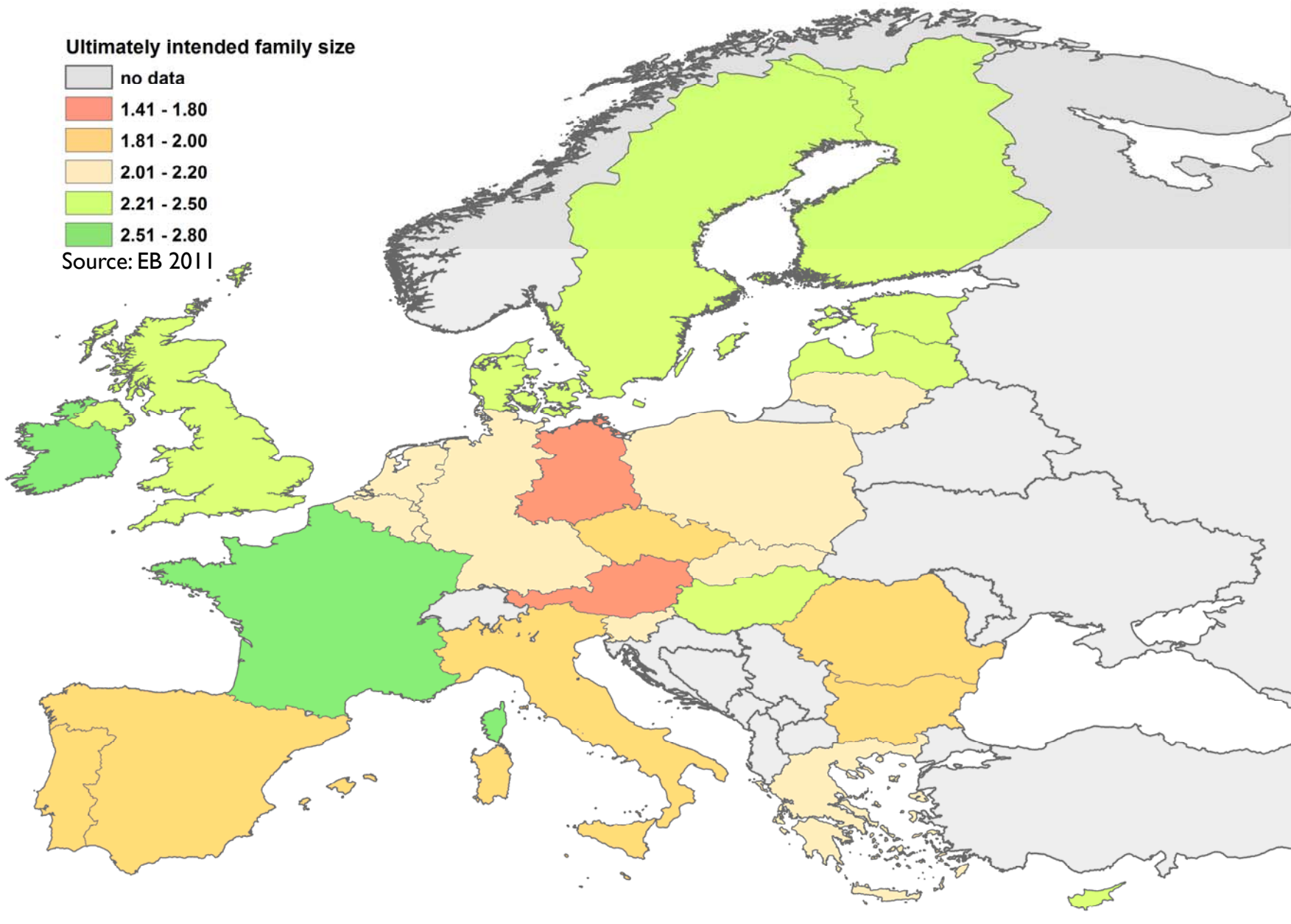
Note.

All the questions were placed in the same sequence as in the previous EB rounds

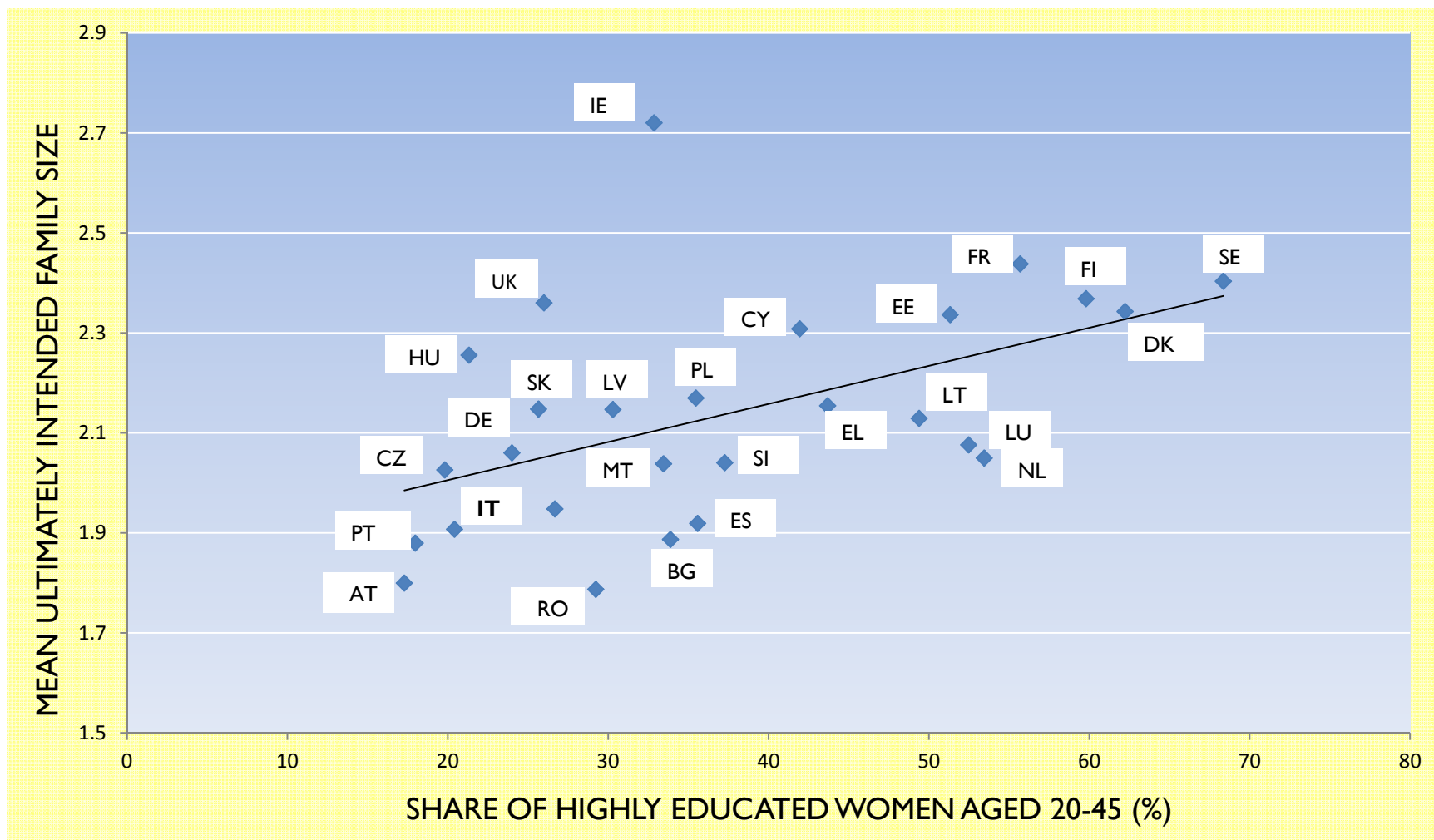
Ultimately intended family size

- no data
- 1.41 - 1.80
- 1.81 - 2.00
- 2.01 - 2.20
- 2.21 - 2.50
- 2.51 - 2.80

Source: EB 2011



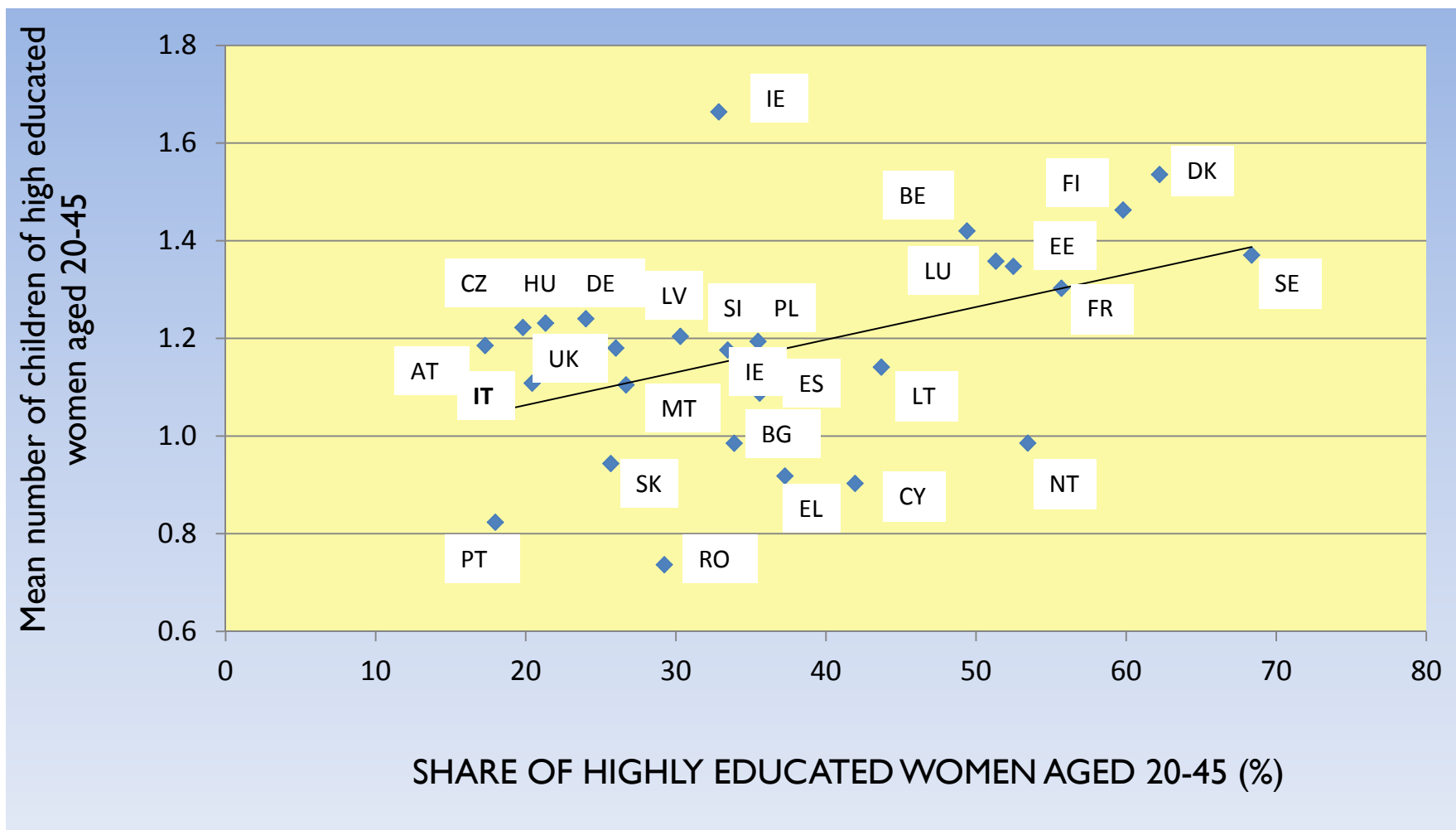
SHARE OF HIGHLY EDUCATED WOMEN AND MEAN ULTIMATELY INTENDED FAMILY SIZE EU-27. YEAR 2011



Note. Pearson correlation coefficient equal to 0.52

Source: Eurobarometer 2011

SHARE OF WOMEN WITH HIGH LEVEL OF EDUCATION AND MEAN ACTUAL FAMILY SIZE OF HIGHLY EDUCATED WOMEN. EU-27. YEAR 2011



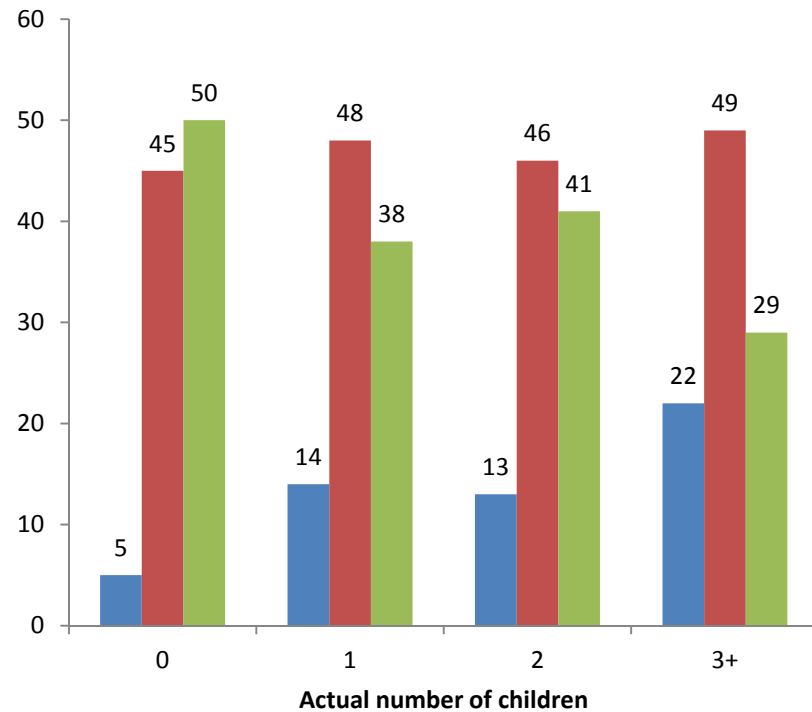
Note. Pearson correlation coefficient equal to 0.45

Source: Eurobarometer 2011

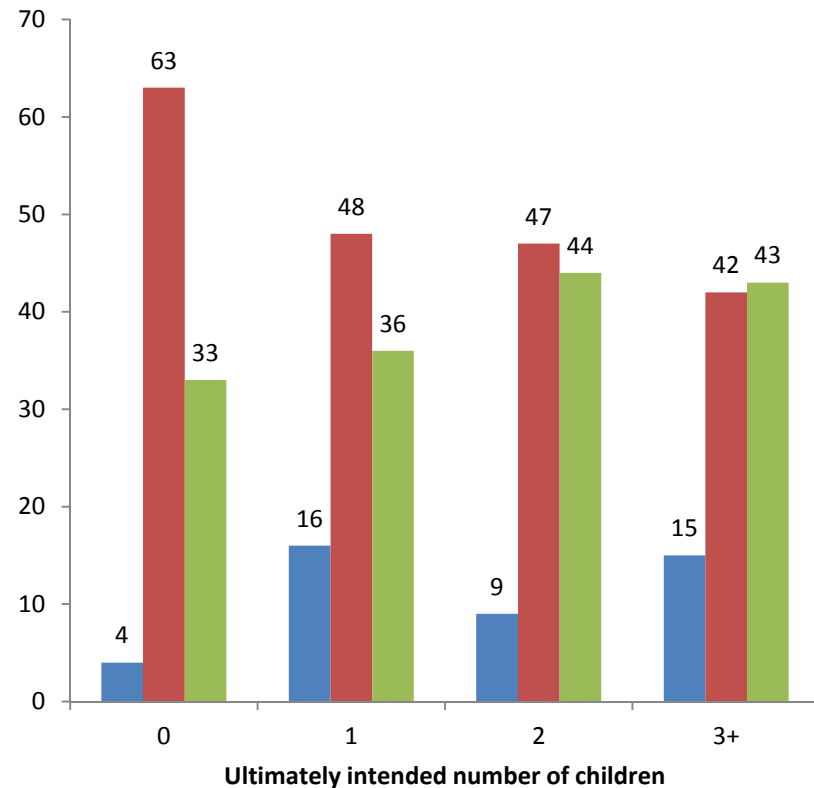
Educational gradient at each parity.

Year 2011

Actual family size



Ultimately intended family size



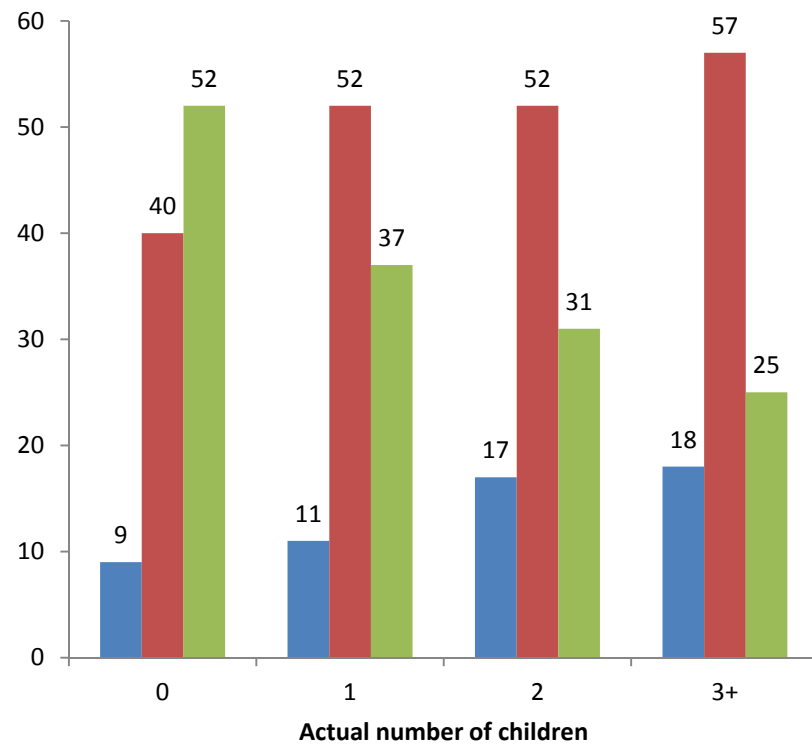
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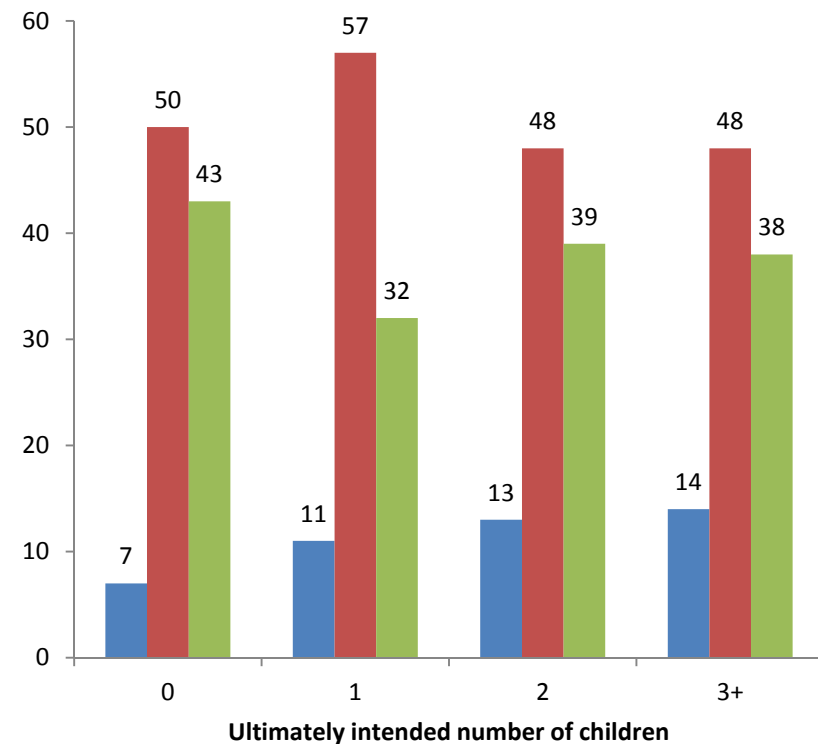
Educational gradient at each parity.

Year 2006

Actual family size



Ultimately intended family size



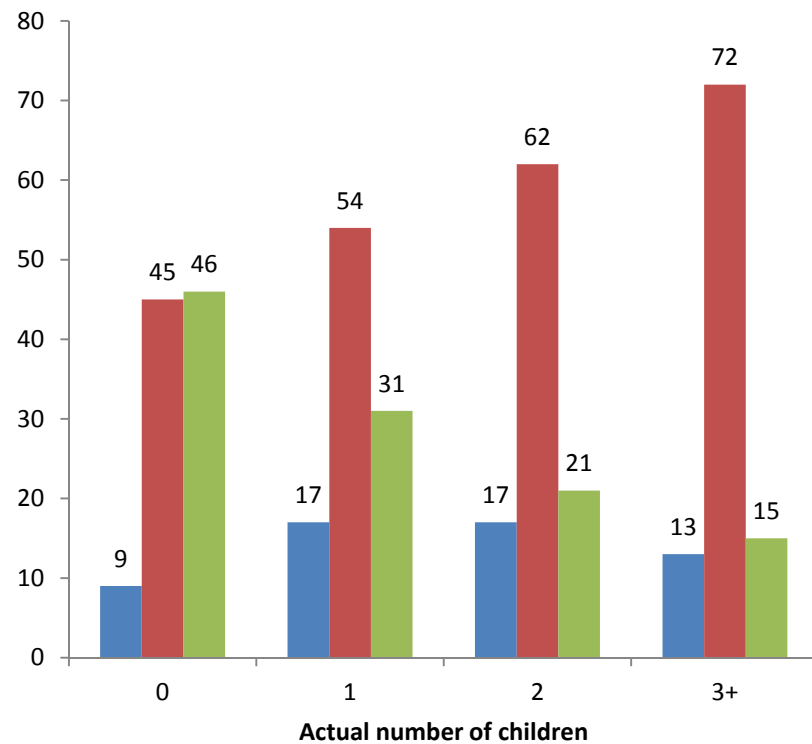
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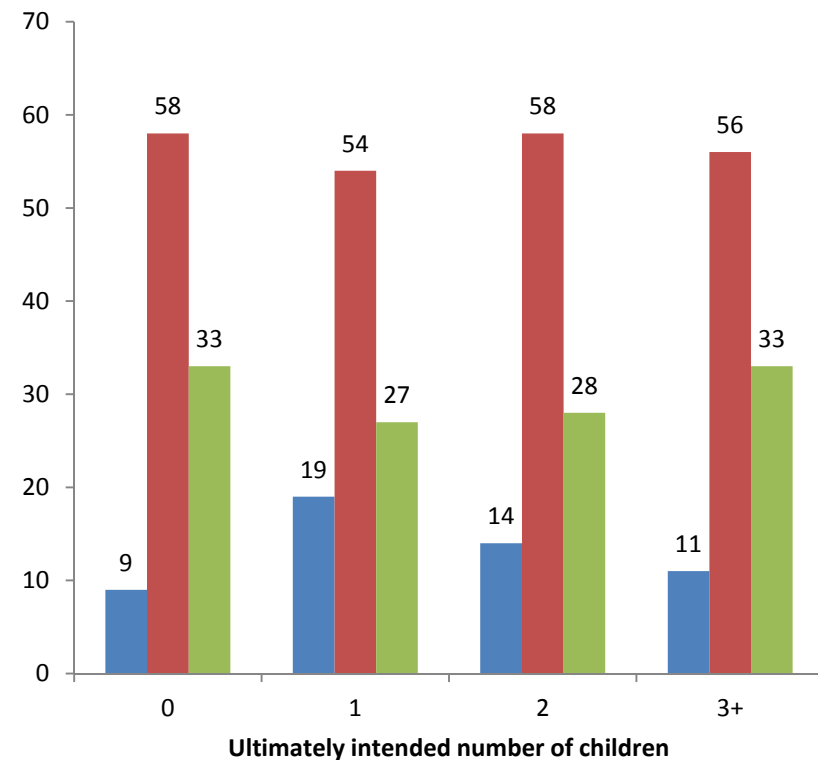
Educational gradient at each parity.

Year 2001

Actual family size



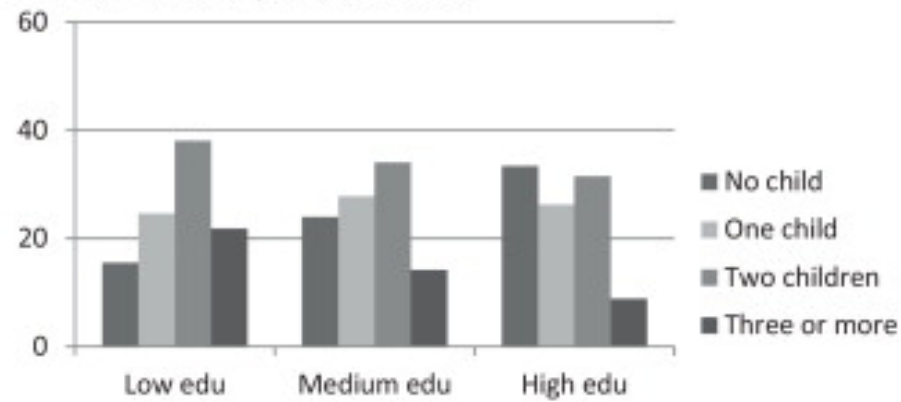
Ultimately intended family size



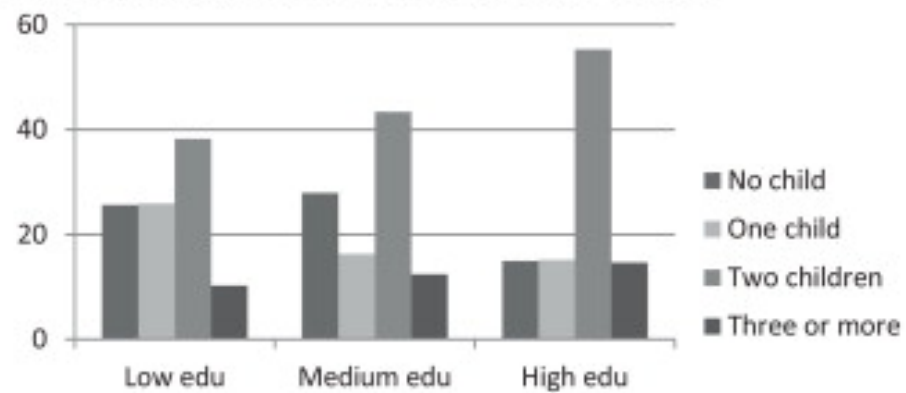
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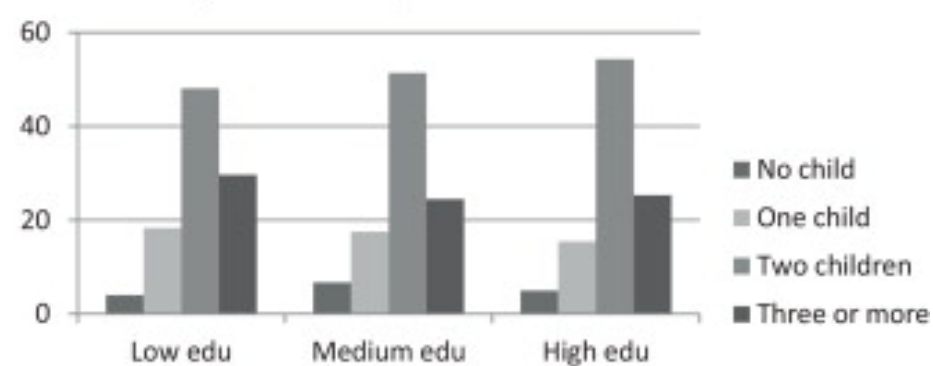
Panel a. Actual family size. All women



Panel b. Additionally intended family size. Childless women



Panel c. Ultimately intended family size. All women

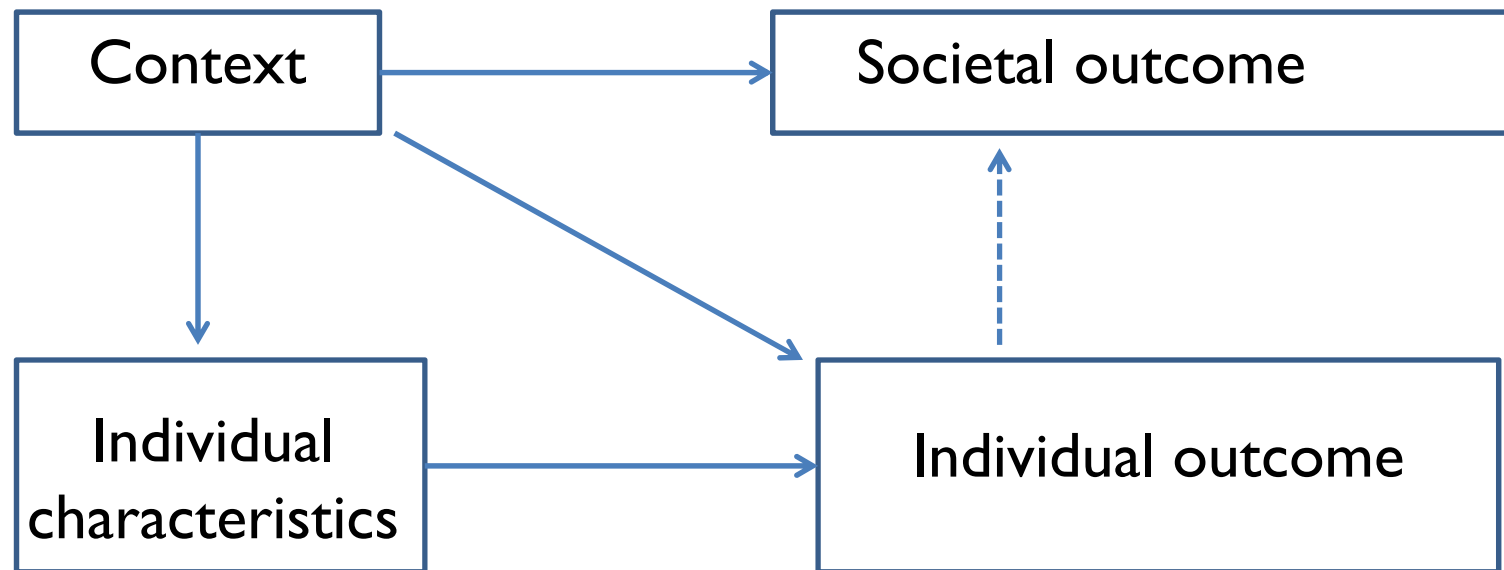


MULTIVARIATE SETTING:

- Additionally intended family size is regressed on level of education and a set of relevant demographic and socio-economic variables
- Regressions are performed by using the pooled dataset of 2006 and 2011 EB data
- A dummy variable controlling for the survey round is included in the models

FRAMEWORK:

Macro level



Micro level

RANDOM INTERCEPT ORDINAL REGRESSION MODELS.

	PARITY 0		PARITY 1		PARITY 2	
	(1)	(2)	(1)	(2)	(1)	(2)
Education						
Low	0.00	0.00	0.00	0.00	0.00	0.00
Medium	0.06	0.07	0.25	0.25	0.02	0.03
High	0.34 *	0.33 +	0.79 ***	0.78 ***	0.55 **	0.51 *
Country mean high edu	-	0.02 **	-	0.01 +	-	0.01
Pre-school children in ch	-	0.00	-	0.01	-	0.01
Gender empowerment	-	0.85	-	1.35	-	0.58
Log GDP per capita	-	0.03	-	0.18	-	0.21
cutpoint1	1.06 ***	0.66	0.19	1.35	1.85 ***	3.03 ***
cutpoint2	0.11	0.5	2.65 ***	3.81 ***	2.90 ***	4.08 ***
cutpoint3	2.65 ***	3.05 ***	4.85 ***	6.01 ***	4.77 ***	5.95 ***
Country-level variance	0.15 ***	0.11 ***	0.16 *	0.11 ***	0.19 ***	0.15 ***

Source: pooled dataset of EB surveys 2006 and 2011

Note: models controlled for socio-demographic variables

EXPLANATION:

Countries in which family policies and institutional contexts allowed the (older) highly educated women to reach larger family size, (younger) highly educated women in reproductive ages are more prone to make big investments in both human capital and family size because these two choices are not perceived as conflicting alternatives

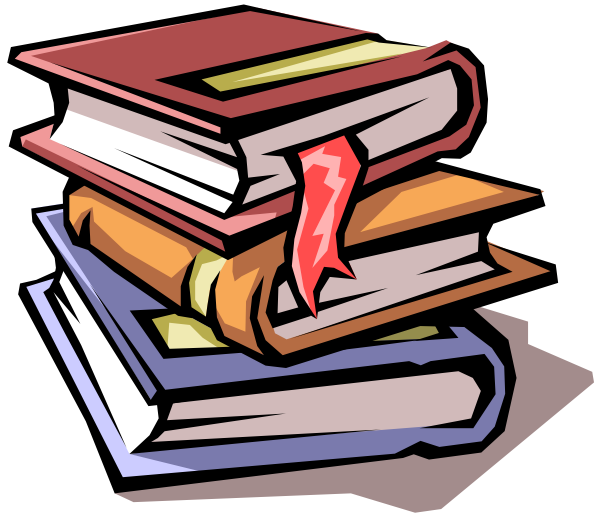
SUMMARY:

- Additionally intended family size is positively associated with women's level of education, both at the individual and at the country level
- The effect of high education on childbearing intentions does not vary across countries
- The effect of education on childbearing intentions varies across times being stronger in the most recent times

IMPLICATIONS:

- High educated people show the highest gap between actual and intended family size
- High educated people as a very important target group for policy makers willing to help people to realise their reproductive wishes
- Reconciliation between work and family life for high educated women should be at the core of policy intervention

QUESTIONS? COMMENTS? SUGGESTIONS?



Testa, Maria Rita “On the positive correlation between education and fertility intentions in Europe: Individual- and country-level evidence”
Advances in Life Course Research (in press)

<http://dx.doi.org/10.1016/j.alcr.2014.01.005>

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THE EFFECT OF COUPLE DISAGREEMENT ABOUT CHILD-TIMING INTENTIONS: A PARITY SPECIFIC-APPROACH

Maria Rita Testa, Laura Cavalli and Alessandro Rosina

Population and Development Review 40(1):31-53

MOTIVATIONS:

Having a birth is a dyadic decision

Several studies have provided couple analysis of fertility

Absence of a theory of couple fertility decision-making process which considers couple's interaction

AIM:

To Test competing decision rules adopted by couple in disagreement by

- Investigating the childbearing outcome of partners with conflicting intentions
- Examining gender equality and bargaining power within the couple
- Looking at different types of couple disagreement
- Extending upon results of a previous study

Features of the Italian context:

- Lowest low fertility (1.4)
- Low female labour force participation (36%)
- Traditional gender role
- Strong system of family ties
- Scarce presence of childcare services
- Marginal support to families with children
- Latest late transition to adulthood

Research Hypotheses (1/2)

- ***H1- absolute effect of disagreement***

The effect of disagreement does not depend on whether the female or the male partner wants a child

- ***H2- sphere of influence rule***

Woman prevails in childbearing decision-making

H2-a If men equally share housework and childcare responsibilities with women, partners have the same degree of influence on childbearing decisions

Research Hypotheses (2/2)

- ***H3- economic power rule***

Men prevail in childbearing decision-making

H3-a If woman works, her degree of influence on childbearing decisions increases significantly

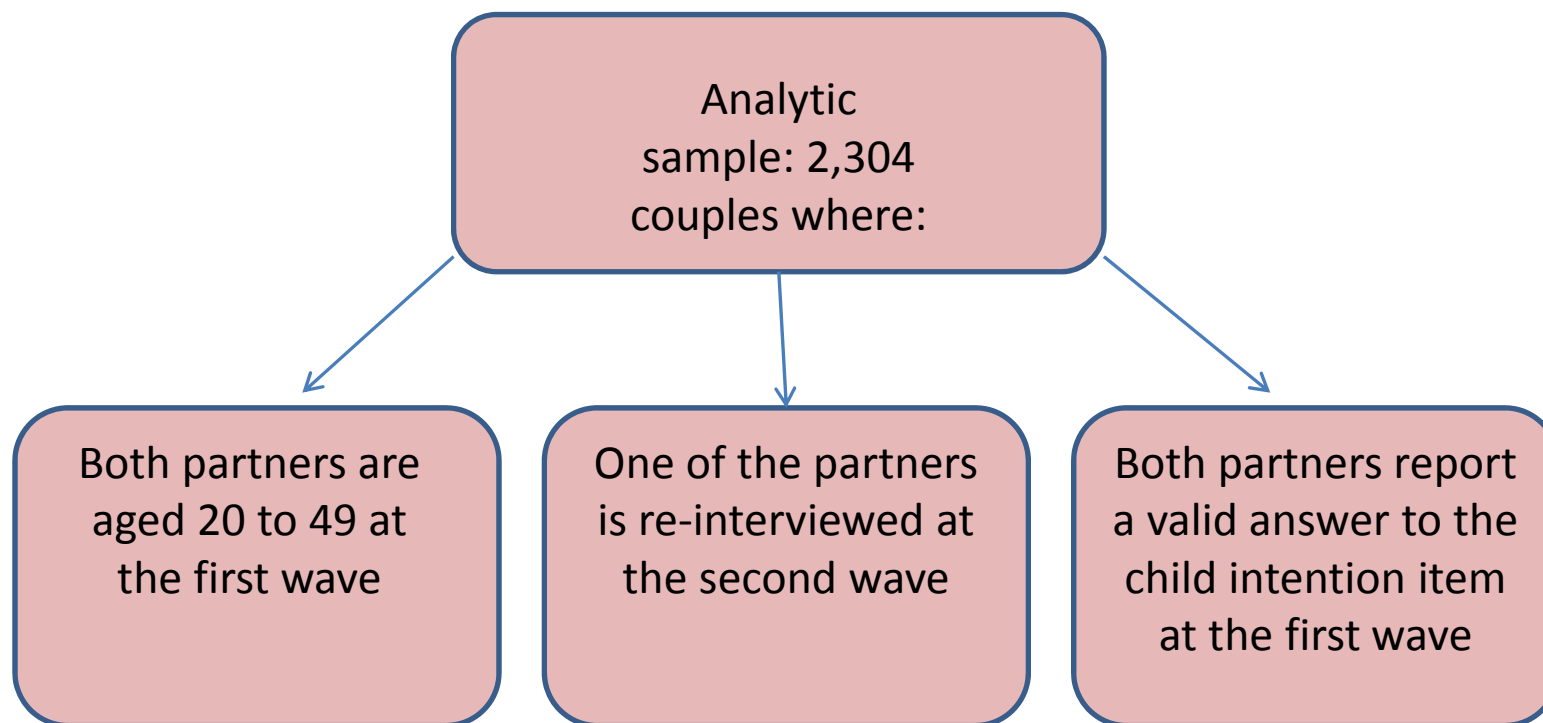
H3-b If woman has the same education level as man, her degree of influence on childbearing decisions increases significantly

- ***H4- veto power rule***

Disagreeing partners are more likely not have a child than to have a child

Data:

Longitudinal study on "Famiglie e soggetti sociali" carried out by the Italian National Institute of Statistics between 2003 & 2007



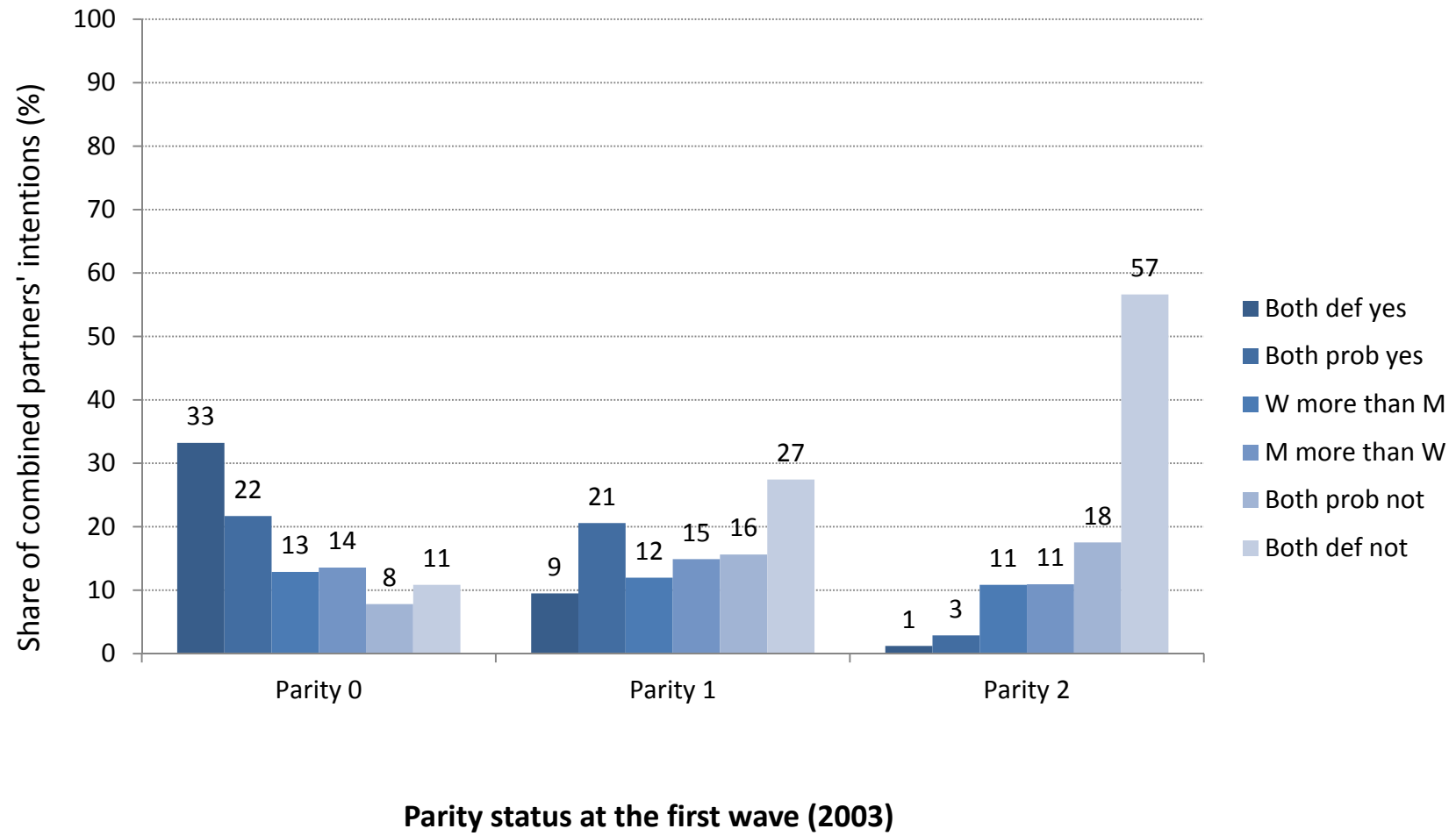
Defining couple disagreement:

Partners answers going in opposite directions

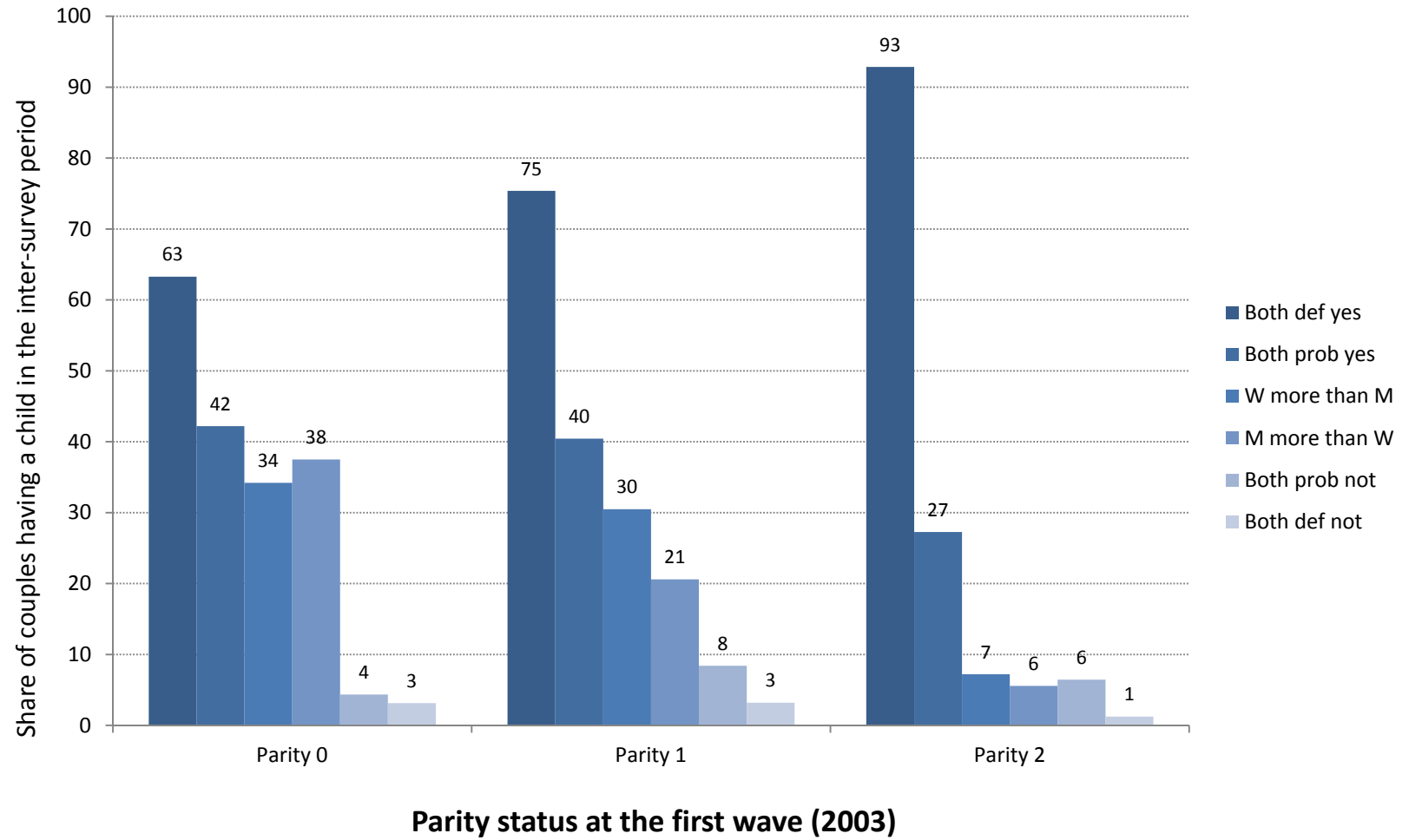
Survey item: *Do you intend to have a child in the next 3 years?*

	HE	Definitely not	Probably not	Probably yes	Definitely yes
SHE					
Definitely not		Both no		M yes, W no	
Probably not					
Probably yes		M no, W yes		Both yes	
Definitely yes					

COUPLES' SHORT-TERM FERTILITY INTENTIONS BY PARITY



COUPLES HAVING A CHILD BETWEEN 2003 AND 2007 BY SHORT-TERM FERTILITY INTENTIONS AND PARITY IN 2003



Logistic regression

Testing H1 *Absolute vs. signed effect of disagreement*

	Childless		One child		Two children	
Model I						
Both def yes	3.05 ***		2.91 ***		6.02 ***	
	(0.84)		(0.43)		(1.12)	
Both prob yes	2.52 **		1.19 ***		2.34 ***	
	(0.86)		(0.35)		(0.52)	
W intends more than M	1.90 *		1.32 **		0.74	
	(0.90)		(0.41)		(0.44)	
M intends more than W	2.57 **		0.77		0.50	
	(0.91)		(0.41)		(0.47)	
Both def or prob not (ref.)						
Constant	-3.82 ***		-2.98 ***		-4.21 ***	
	(0.91)		(0.42)		(0.52)	
Log-likelihood	-133.42		-233.92		-153.93	
AIC	308.85		509.84		349.85	
Model II						
Both def yes	3.02 ***		2.92 ***		6.02 ***	
	(0.83)		(0.43)		(1.12)	
Both prob yes	2.48 **		1.20 ***		2.34 ***	
	(0.85)		(0.35)		(0.52)	
Absolute disagreement	2.21 **		1.04 **		0.63	
	(0.85)		(0.35)		(0.36)	
Both def or prob not (ref.)						
Constant	-3.76 ***		-2.96 ***		-4.23 ***	
	(0.90)		(0.42)		(0.52)	
Log-likelihood	-134.07		-234.85		-154.02	
AIC	308.14		509.71		348.04	
Difference in BIC'	4.655		4.924		6.888	

Couple disagreement in Italy

Logistic regression

Testing H4 Veto power effect

Model II	CHILDLESS		ONE CHILD		TWO CHILDREN	
Both def yes	3.02 ***		2.92 ***		6.02 ***	
	(0.83)		(0.43)		(1.12)	
Both prob yes	2.48 **		1.20 ***		2.34 ***	
	(0.85)		(0.35)		(0.52)	
Absolute disagreement	2.21 **		1.04 **		0.63	
	(0.85)		(0.35)		(0.36)	
Both def or prob not (ref.)						
Constant	-3.76 ***		-2.96 ***		-4.23 ***	
	(0.90)		(0.42)		(0.52)	
Log-likelihood	-134.07		-234.85		-154.02	
AIC	308.14		509.71		348.04	
Difference in BIC'	4.655		4.924		6.888	
Model III						
Linear specification of partners' fertility intentions	0.56 ***		0.54 ***		0.69 ***	
	(0.14)		(0.09)		(0.11)	
Constant	-3.51 ***		-3.44 ***		-4.82 ***	
	(0.72)		(0.44)		(0.52)	
Log-likelihood	-135.19		-240.66		-165.54	
AIC	306.39		517.32		367.09	
Difference in BIC'	9.269		1.434		9.348	
N.cases	291		677		1130	

Couple disagreement in Italy

Logistic regression

(CONTINUED)

Variables	Childless	One child	Two or more
Woman's age	-0.06	-0.13	-0.05
Man's age	-0.09	-0.10	-0.11
Woman's low education	-0.48	-0.19	0.51
Woman's high education	0.93**	-0.24	0.87**
Man's low education	-0.05	-0.34	-0.69**
Man's high education	0.34	0.37	0.37
Cohabiting	-1.01**	0.28	0.79
Woman's employment	3.13*	-0.16	-0.12
Woman's enrolled in education	2.67	-0.09	0.19
Man's employment	0.92	2.56***	0.41
Man's enrolled in education	0.53	-2.06	-0.21
Constant	-3.98	0.22	-4.47

Summary:

- If the two-child family has not been reached yet, one partner's intentions not to have a child is not always sufficient to prevent a birth
- At parity two or higher, The childbearing outcome of disagreement is closer to that of agreement on not having a child than to that of agreement on having a child
- Results are not responsive to gender equality and intra-household distribution of bargaining power

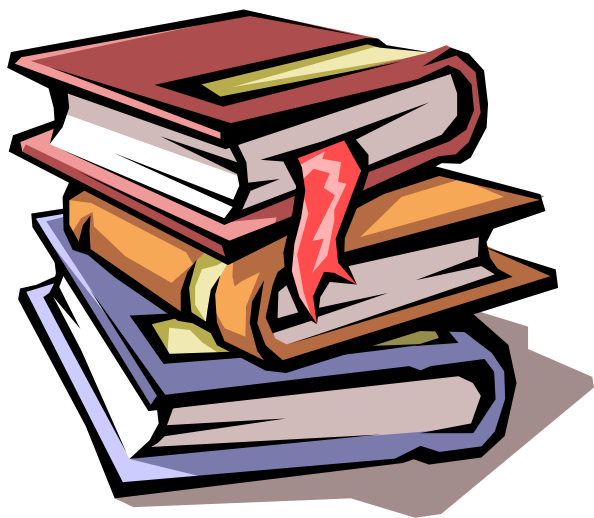
Implication:

- Models including only the women's intentions are likely to be miss-specified, but if the choice between one of the partners has to be made, models based on female child-timing intentions have to be preferred over models based on male child-timing intentions

Caveats:

- Lack of detailed information about the earlier stages of the fertility decision-making sequence
- Child-timing intentions may reflect the resolution of a negotiation process between the partners
- Lack of detailed information on contraceptive behaviour

QUESTIONS? COMMENTS? SUGGESTIONS?



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