



# Did your mother work?

## Impact of mother's occupational status on daughter's fertility intentions

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# Background: Fertility intentions

- **Theory of planned behavior** (Ajzen, 1991): Intentions are proximate determinants of fertility (e.g. Barber, 2001; Bongaarts, 1992)
- **Principle of linked lives** (Elder, 1977; 1994):
  - parental behaviour & parent-child relationship influence desires & behaviours of the children also in adulthood
  - intergenerational transmission of fertility is a driving mechanism of fertility intentions (e.g. Fernandez & Fogli, 2006)

# Research question

What is the effect of having had a working mother at teenage on daughter's fertility intentions at reproductive age?



# Underlying mechanisms



- Income effects
- Marriage market
- Reconciliation of work & family

- Start of childbearing
- Opportunity costs
- Competing preferences in other life domains

# Central hypothesis



# Data and sample

- “**Generation and Gender Survey**” (GGS) conducted around 2002
- Countries: Austria, Italy, Germany, Georgia, Bulgaria and Norway
- Working sample: **13,055** women aged **18-49** coded as respondents in the survey (pooled dataset of all countries)



# Dependent variable(s)

1. Intention to have an (additional) child  
[childbearing intention]



2. Intention to have a given number of children  
[child-number intention]



# Key Explanatory variables

- Mother's **occupation** when the daughter was 15 years old
  - ISCO 88 classification (for Austria, Bulgaria, Georgia, and Norway)
  - country specific codes (for Germany and Italy)
  - binary variable = 1 if the mother was 'working' and 0 otherwise.
- Mother's **education** (ISCED 0-2 = low; 3-4 = medium; 5-6 = high)
- Controls: daughter's age & age squared, marital status, number of children, time since left parental home, activity status; country dummies; partner's age and education.

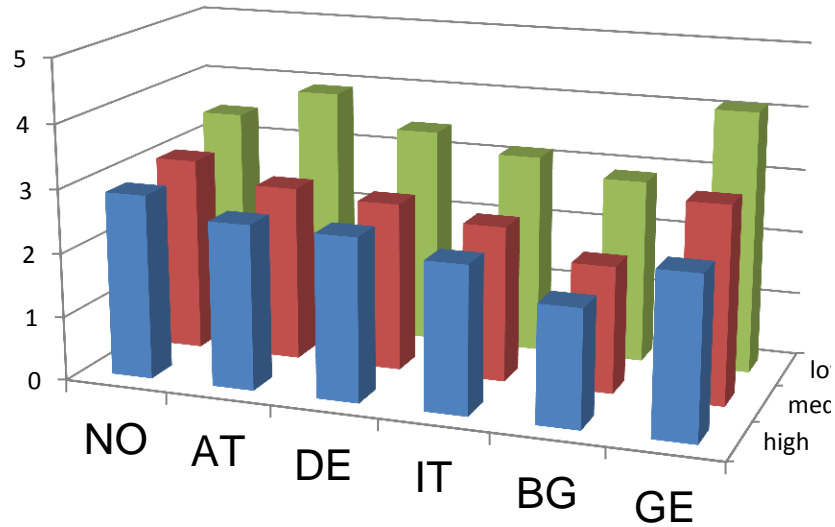


# Method

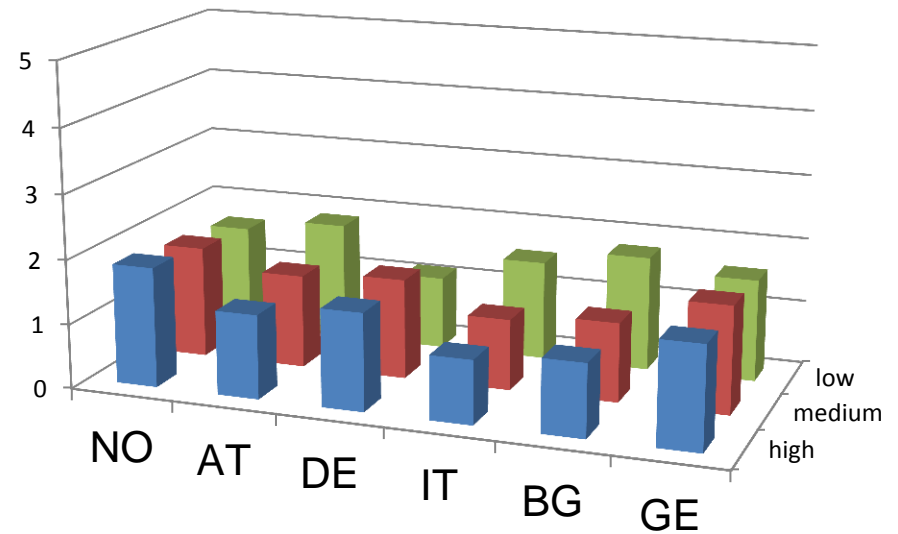
- Count response variable: number of additional intended children
  - some zeros (i.e., expected) → standard Poisson distribution
  - others (“unexpected”) lead to excess of zeros → binomial distribution
- **Zero-Inflated Poisson (ZIP)** (e.g. Lambert, 1992)
  - statistical model (one distribution) which fits simultaneously two separate regressions.

# Descriptives

Mean number of children in mother's generation



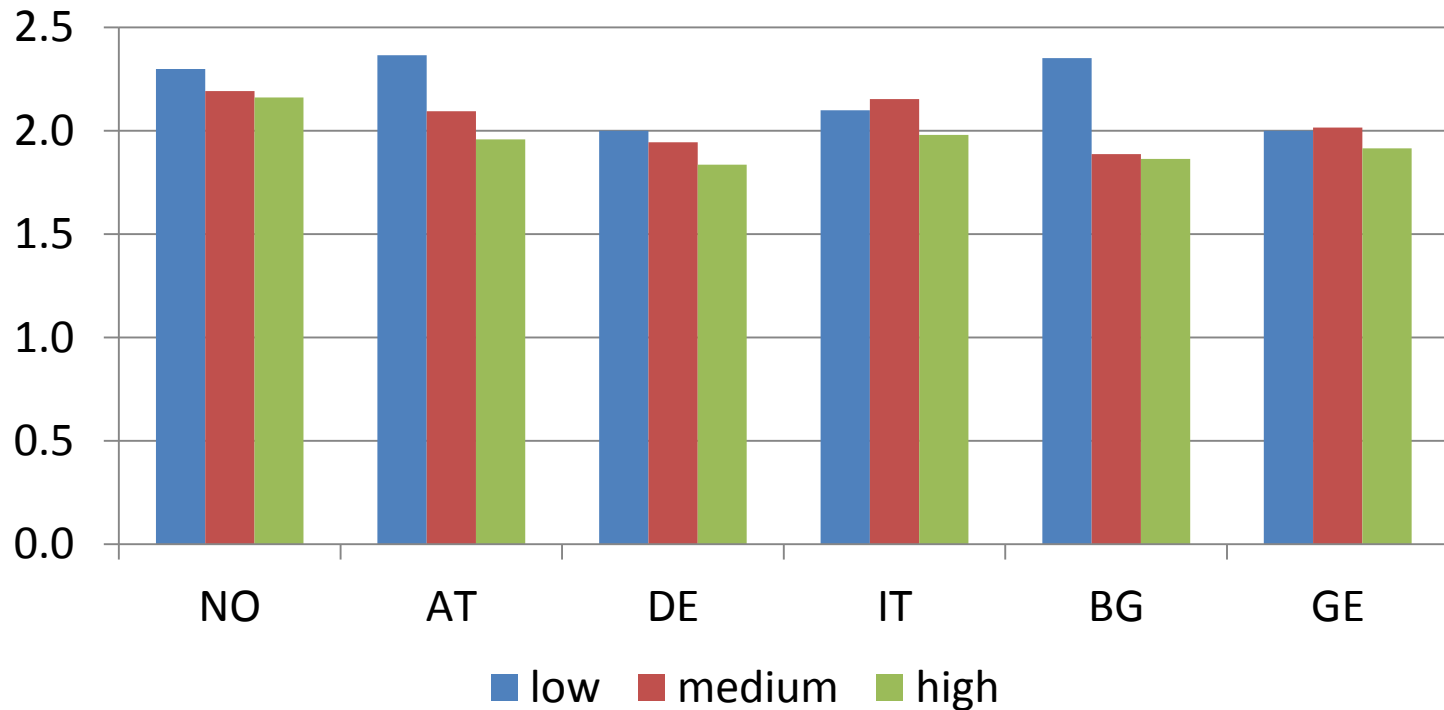
Mean number of children in daughter's generation



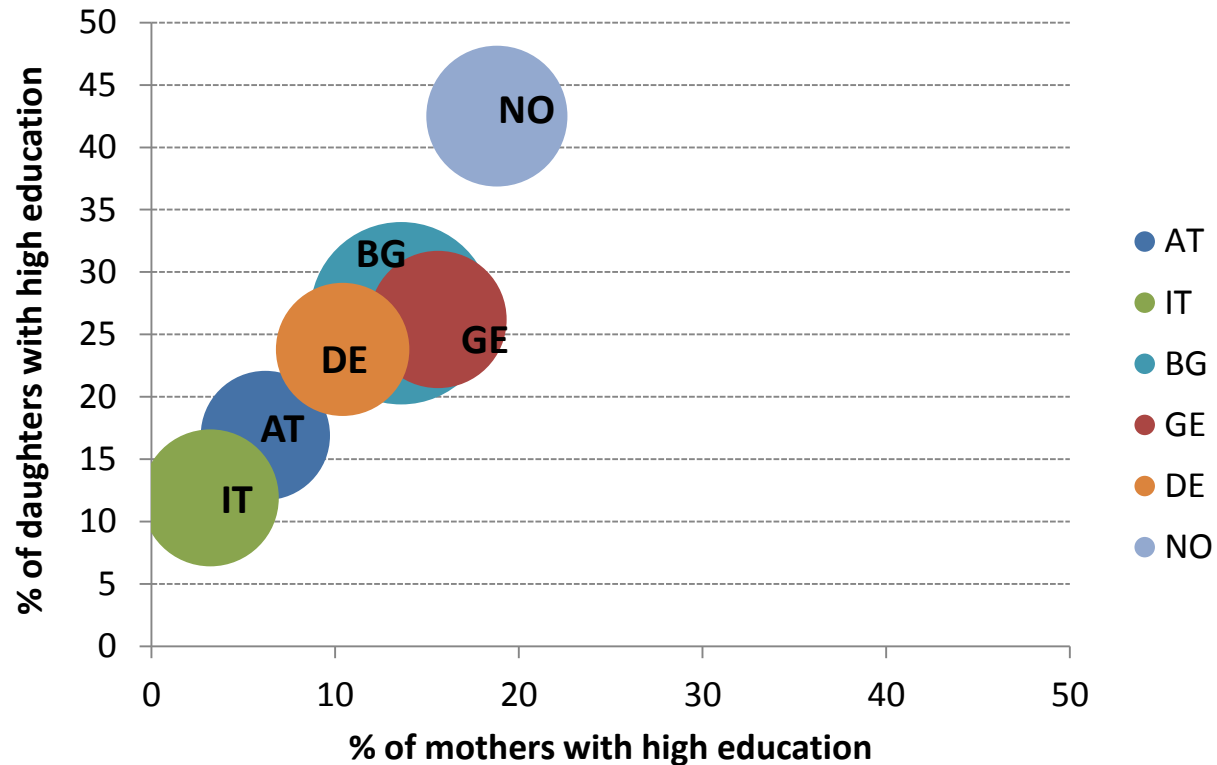
■ high ■ medium ■ low

# Descriptives (2)

Intended family size (= actual fertility + intention of additional children)



# Descriptives (3)



# Descriptives (4)

Female employment rates. 1960-2012

	1960	1980	2000	2012
	15-64	15-64	15-64	15-64
<b>Norway</b>	26.1	58.4	58.4	73.8
<b>Austria</b>	-	52.4	59.3	67.3
<b>Germany</b>	35.0	34.8	58.1	68.0
<b>Italy</b>	28.1	33.2	39.7	47.1
<b>Bulgaria</b>	-	66.5 <sup>a</sup>	60.7	63.0 <sup>c</sup>
<b>Georgia</b>	-	55.0 <sup>a, b</sup>	55.0 <sup>b</sup>	56.0 <sup>b, c</sup>

Note: a) data from 1990; b) data from World Bank on female labor participation rate (i.e. % of female population ages 15+ slightly underestimates female employment rates at 15-64 years old); c) data from 2011.

# Predictors of childbearing intentions

	MODEL I	MODEL II	MODEL III
	DAUGHTER	+ MOTHER'S EMPLOYMENT STATUS	+ MOTHER'S EDUCATION
Daughter's education (low)			
medium	0.684***	0.674***	0.616***
high	1.372***	1.352***	1.121***
Mother's education (low)			
medium			0.239*
high			0.792***

# Predictors of child-number intentions

	MODEL I	MODEL II	MODEL III
	DAUGHTER	+ MOTHER'S EMPLOYMENT STATUS	+ MOTHER'S EDUCATION
Daughter's education (low)			
medium	0.058+	0.059+	0.059+
high	0.098*	0.093*	0.088+
Mother's education (low)			
medium			-0.026
high			0.042

# Predictors of childbearing intentions

	MODEL I	MODEL II	MODEL III
	DAUGHTER	+ MOTHER'S EMPLOYMENT STATUS	+ MOTHER'S EDUCATION
<b>Daughter's employment status (working)</b>			
<b>unemployed</b>	-0.107	-0.131	-0.119
<b>inactive</b>	0.310*	0.284*	0.296*
<b>student</b>	1.298**	1.268**	1.254**
<b>Mother's employment status (worked)</b>			
<b>Did not work</b>		-0.107	-0.016
<b>Did not work * IT</b>		0.5+	0.5+



# Predictors of child-number intentions

	MODEL I	MODEL II	MODEL III
	DAUGHTER	+ MOTHER'S EMPLOYMENT STATUS	+ MOTHER'S EDUCATION
<b>Daughter's employment status (working)</b>			
<b>unemployed</b>	-0.042	-0.045	-0.046
<b>inactive</b>	-0.147**	-0.162**	-0.167**
<b>student</b>	0.030	0.031	0.021
<b>Mother's employment status (worked)</b>			
<b>Did not work</b>		-0.012	-0.006
<b>Did not work * IT</b>		0.1+	0.1+

# Other significant predictors

## Childbearing intentions



1. Age (-)
2. Single/Cohabiting (+)
3. Actual number of children (-)
4. Cross-country differences (all countries but Italy: less intentions than Austria)

## Child-number intentions



1. Age (-)
2. Single/Separated or widowed (-)
3. Actual number of children 1&2(-);  $\geq 3(+)$
4. Cross-country differences (Italy has the strongest preference for large families)
5. Number of siblings (+)


# Conclusion

- Education:

- Daughter:  to intend to have a(nother) child
- Mother:  to intend to have a(nother) child, also after controlling for daughter's education

- Activity status:

- Daughter:  to intend to have a large family size
- Mother:  to intend to have a(nother) child (& large family size)

 statistically significant only in Italy where the share of mothers' generation not working when the daughters were teenagers was remarkably higher compared to the other countries

- Cross-country differences





thank you!

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