

# Single motherhood and education: Changes in the educational gradient across European countries since the 1970s

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## Introduction

- Single parent households have fewer financial and time resources than couple parent households
- 14% of households with dependent children were single parent households in 2016, mostly headed by mothers (Eurostat 2018)
- U.S.: risk of single parenthood higher among lower educated mothers, this gradient has widened over time → *diverging destinies* (McLanahan 2004)
- Different family structures have contributed to increase in inequality: lower educated lose resources through divorce/separation (also in next generation)
- U.S. specific pattern: very high share of single mothers, low welfare state provision → high poverty rate, intertwined with race

## Research question

- Changes in the education gap in single motherhood in 8 European countries
- Austria, France, Germany, Ireland, Italy, Norway, Poland, United Kingdom
- Since the 1970s: divorce rates rose along with liberalization of divorce legislation
- Focus on differences in education gap by family life course stage (age of youngest child)

## Literature review (1)

- Härkönen (2017): negative relationship with education and increasing gap; no/weak gradient in Southern Europe and partly CEE countries

### Family life course stage

- Consequences differ between continuously single households and experience of divorce or separation; child's age at divorce/separation matters
- Type of problems differ, e.g. separation anxiety, nightmares or school performance (Clarke-Stewart et al. 2000; Cavanagh & Huston 2006)
- Longer-term consequences seem to be stronger among children who experienced their parents' divorce at a younger age

## Literature review (2)

### Why has the education effect turned from positive to negative?

- Goode hypothesis: at the onset divorce is costly, later diffusion to lower educated
- Growing labour market uncertainties and flexibilization → increased economic strain on family relationships
- Gender egalitarian attitudes prevail more among highly educated → higher relationship satisfaction
- Changing composition of low and highly educated

## Country characteristics

	Total divorce rate		Child-care enrolment rate, 3-5 year olds		At-risk of poverty rate before and after social transfers, single parents (2016)			“A child needs a home with both a mother and a father to grow up happily” (% tend to agree)		
	1985	2015	Mid-1980	2014 (% in full-time childcare 2016)	Before	After	% lifted out of poverty	1981	2008	Diff. highly educ – less educ 2008
<b>Austria</b>	31	42	60	83 (26)	59	30	51	94	81	0
<b>Germany</b>	32	42	66	97 (53)	57	33	58	92	86	-4
<b>Ireland</b>	-	-	51	79 (26)	84	47	56	75	66	-8
<b>UK</b>	42	40	47	94 (27)	79	32	41	69	59	0
<b>France</b>	31	42	98	100 (57)	62	35	56	87	82	-12
<b>Poland</b>	17	30	49	74 (46)	51	34	67	99	93	-6
<b>Italy</b>	4	30	-	95 (74)	42	33	79	92	90	-10
<b>Norway</b>	33	43	38	97 (78)	58	34	59	79	69	-10

Sources: (1) Recent demographic developments in Europe; Eurostat database, (2) OECD Family database; Eurostat database; (3) Eurostat database; (4) European Values Study

# Data and methods (1)

COUNTRY	SURVEY	YEARS
Austria	Population census	1971
	National LFS	1984-2017
France	Population census	1962, 1968, 1975, 1982, 1990, 1999, 2006, 2011
	EU-LFS	2012-2015
Germany	National LFS	1973, 1980, 1985, 1990, 1995, 2000
	EU-LFS	2005-2015
Ireland	Population census	1971, 1981, 1986, 1991, 1996, 2002, 2006, 2011
	EU-LFS	2012-2015
Italy	National LFS	1977-2017
Norway	National LFS	1972-2016
Poland	Population census	1978
	National LFS	1993-1999
	EU-LFS	2002-2015
United Kingdom	National LFS	1975, 1977, 1979, 1983-1991, 1994, 1995
	EU-LFS	1998-2015

## Data and methods (2)

- Prioritize datasets that have family information (Bradshaw, Keung and Chzhen 2018); EU-LFS since 1998 (or later)
- Single mothers: live with their child(ren) up to age 19, but without a partner; we include mothers of all marital statuses
- Education: low (ISCED 0-2), medium (3-4), high (5-6)
- Age of youngest child: 0-4, 5-9, 10-14, 15-19

### Logistic regression analysis

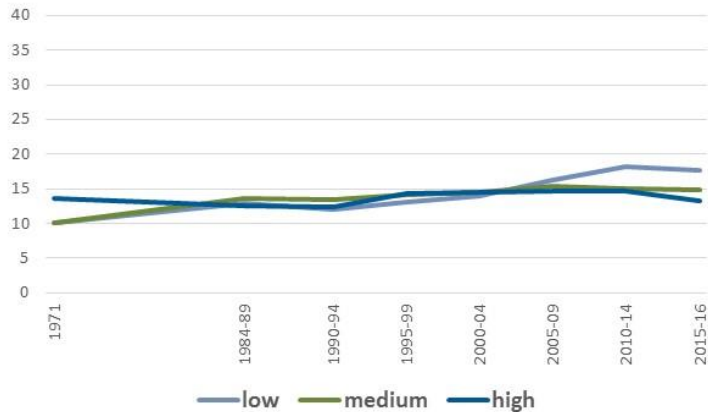
- Dependent variable: (0) mother in couple, (1) single mother
- Independent variables: year, education, age of youngest child (+ interactions)
- Control variables: number of children, mother's age (centered around mean), mother's age squared



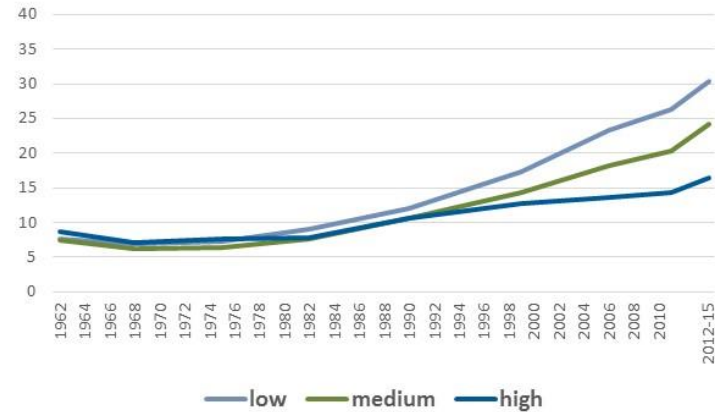
# Results (1)

**Figure:** Single motherhood by mother's education (in %)

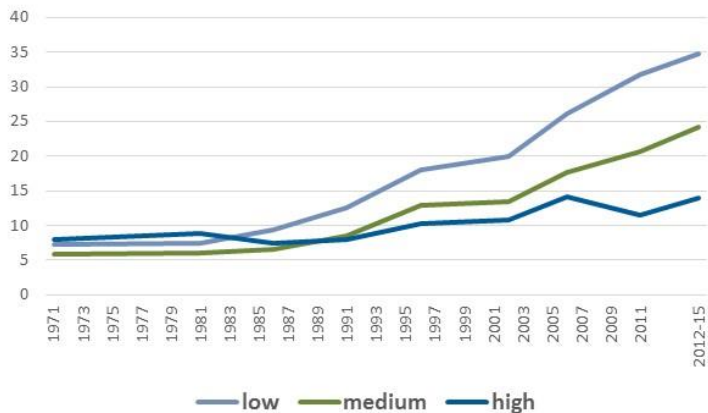
## Austria



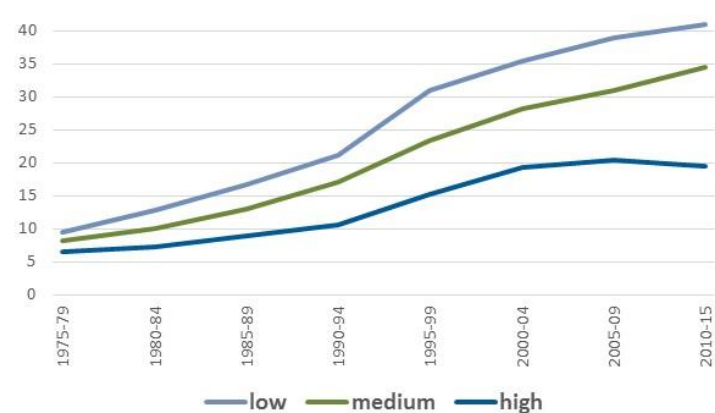
## France



## Ireland



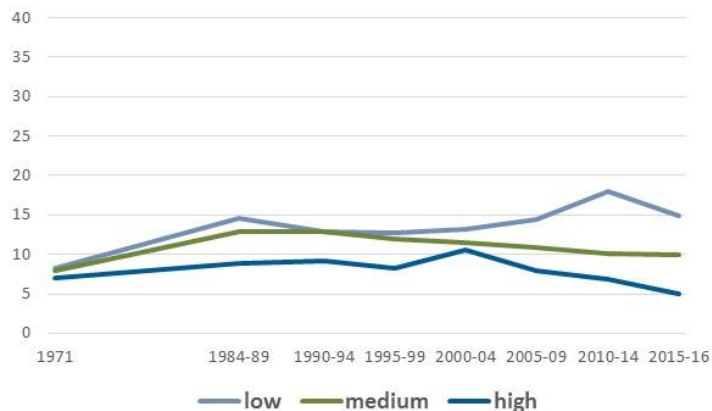
## United Kingdom



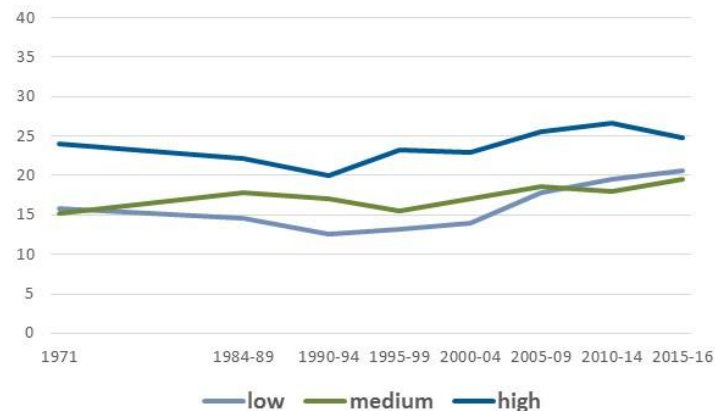
# Results (2)

**Figure:** Single motherhood by mother's education and age of youngest child (%)

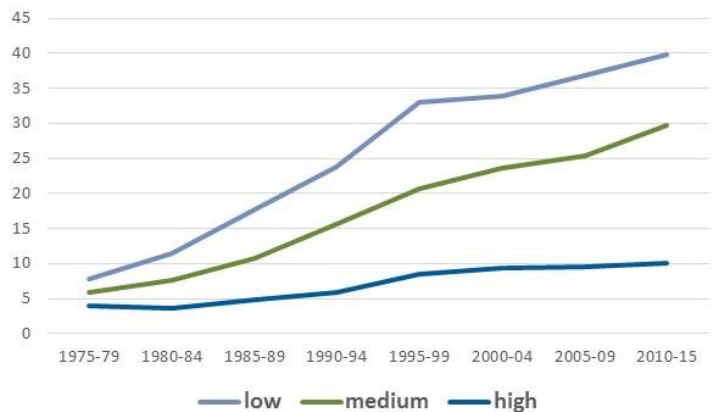
## Austria: 0-4 years



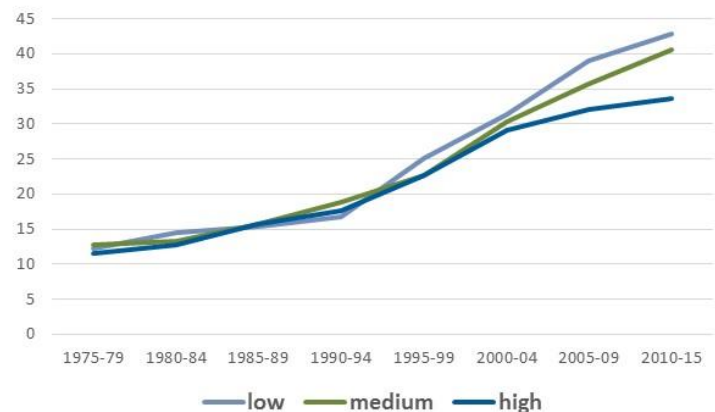
## 15-19 years



## United Kingdom: 0-4 years



## 15-19 years



## Results (3)

**Table:** Results from logistic regression: (0) mother in couple, (1) single mother

	AUSTRIA	FRANCE	IRELAND	UNITED KINGDOM
<b>Year (centered around first survey year)</b>	1.020***	1.041***	1.050***	1.067***
<b>Medium education</b>	1.136**	0.763***	0.757***	0.971
<b>Higher education</b>	1.787***	1.274***	1.565***	0.971
<b>Medium educ. X Year</b>	0.996**	1.000	0.996***	0.990***
<b>Higher educ. X Year</b>	0.986***	0.983***	0.969***	0.977***

Controlled for: age of the youngest child, number of children, mother's age (centered around mean), mother's age squared

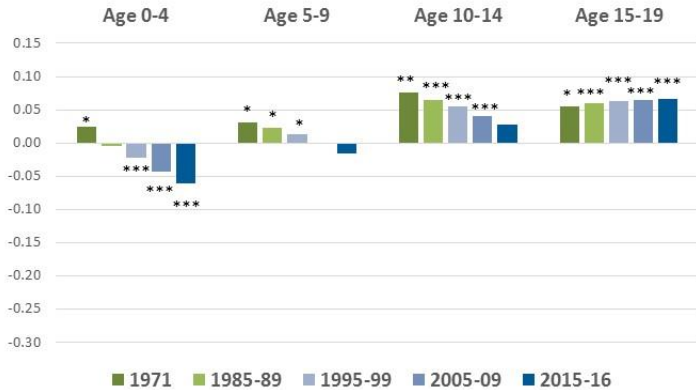
Significance levels: \*  $p < 0.001$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.05$  (two-tailed tests).

# Results (4)

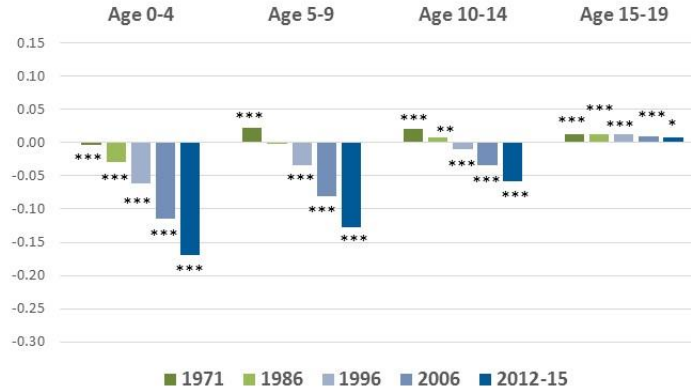
**Figure:** Difference b/n higher and less educated in single motherhood by age of the youngest child (in percentage points)

Positive values: Single motherhood higher among highly educated

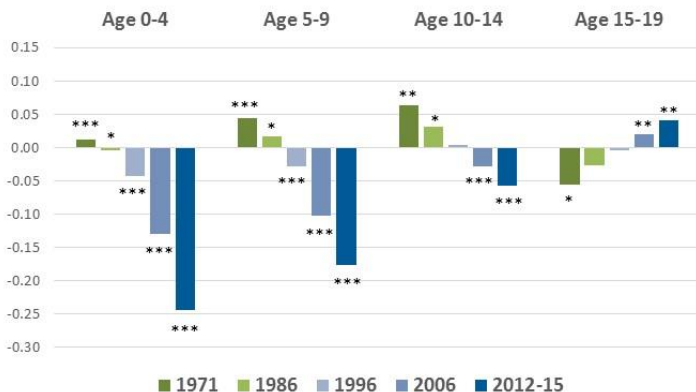
## Austria



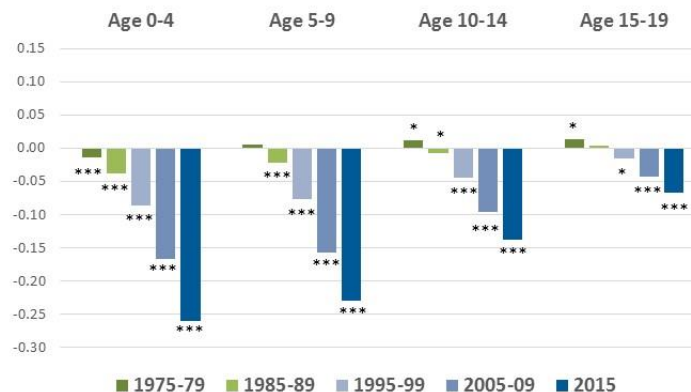
## France



## Ireland



## United Kingdom



*Logistic regression models with three-way interaction*

*Marginal effects at representative values: 2 children, mean mother's age (squared)*

## Conclusion

- Educational gap generally turns from positive to negative, at different times
- Rise in single motherhood among highly educated in some countries (e.g. UK, FR), but not in others (e.g. IE, AT, U.S.)
- Low educated increasing risk of single motherhood, predominantly with younger children (0-4, 5-9 years) → single mothers at birth
- By age 15-19: convergence of educational groups
- Around 2015: educational gap largest in UK and Ireland (approx. 20 pp.), moderate in France, Norway and Poland (10-15 pp.), lowest in Austria and Italy (< 5 pp.) (not shown in presentation), nowhere near U.S. value (40 pp., McLanahan and Jacobsen 2015)

## Questions? Comments?

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FATE website: [www.fate-project.at](http://www.fate-project.at)



**FATE**  
Families and inequality:  
Trends in the education gap  
in family behaviour



**FWF**

Der Wissenschaftsfonds.

## With control for % low educated (at regional level)

**Table:** Results from logistic regression: (0) mother in couple, (1) single mother

	AUSTRIA		FRANCE		IRELAND	
<b>Year (centered around first survey year)</b>	1.020***	1.008	1.041***	1.073***	1.050***	1.030***
<b>Medium education</b>	1.136*	1.067	0.760***	0.820***	0.757#	0.789
<b>Higher education</b>	1.787***	1.600**	1.265***	1.465***	1.565*	1.720**
<b>Medium educ. X Year</b>	0.996*	0.997	1.000	1.000	0.996	0.994
<b>Higher educ. X Year</b>	0.986***	0.989**	0.983***	0.981***	0.969**	0.966***
<b>% low educated (at regional level)</b>		0.990#		1.024***		0.986***

With controls; clustered standard errors

Significance levels: \*  $p < 0.001$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.05$  (two-tailed tests).