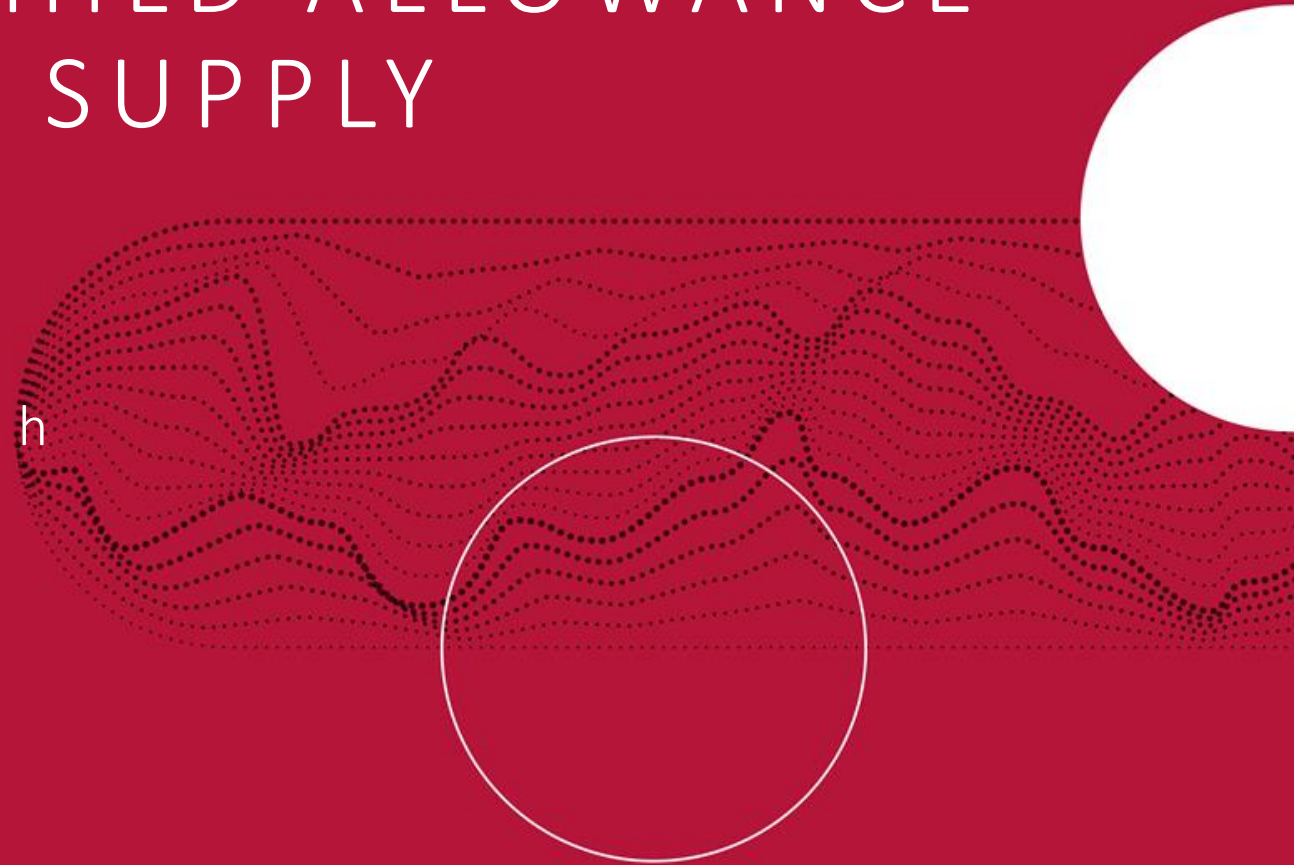


# THE “FAMILY 500+” CHILD ALLOWANCE AND FEMALE LABOUR SUPPLY IN POLAND

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## Introduction of the “Family 500+” programme in Poland, 2016

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- Unconditional cash transfer (500 PLN monthly) for each 2nd and subsequent child
- Means tested for 1st child (fully withdrawn once family income rises above ceiling)
- It doesn't influence the eligibility to other family benefits
- Aim of the programme – to increase fertility, reduce child poverty

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# Research question

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- Expected side effect: significant increase in out-of-work income  
-> reduces incentives to labour force participation (income effect)
- Did the introduction of the “Family 500+” programme have a negative impact on female labour supply?
- Evidence so far mostly from countries with higher average incomes  
What is the impact in a different institutional context?

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# A very big change in terms of cash benefits for families

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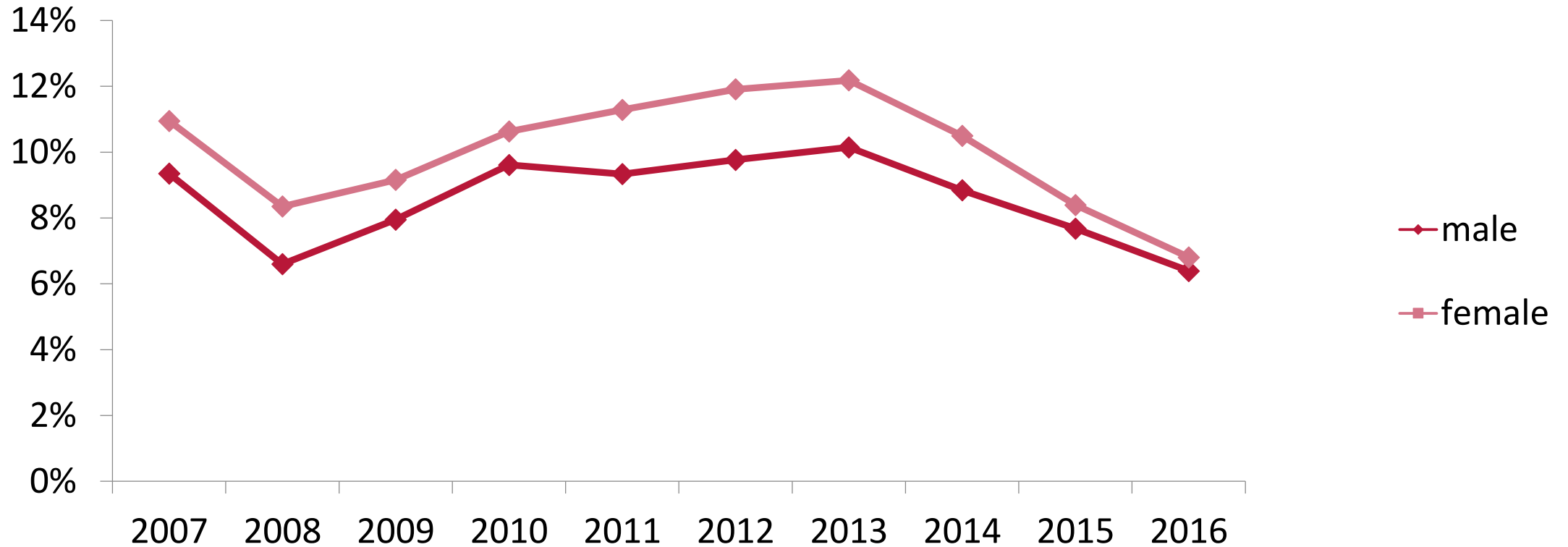


- Big in the amount
  - > worth 1/3 of minimum wage (12% in Germany)
  
- Much wider coverage
  - > 2.7 million families (before 1.0 million)

# Decrease in unemployment rate (since 2013)



Unemployment rate, age 20-49, Poland

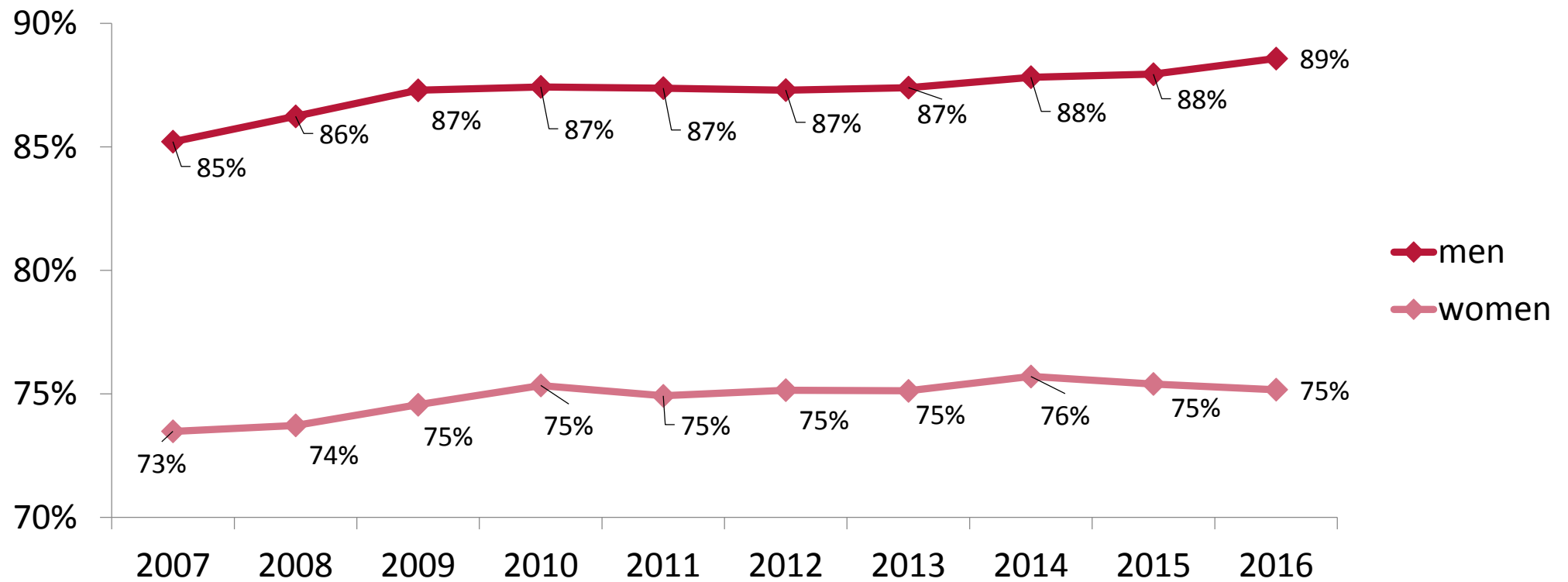


Source: Own calculations based on Polish Labour Force Survey data.

# Men's participation rates slightly increasing since 2013, stable among women



Labour force participation rates, age 20-49

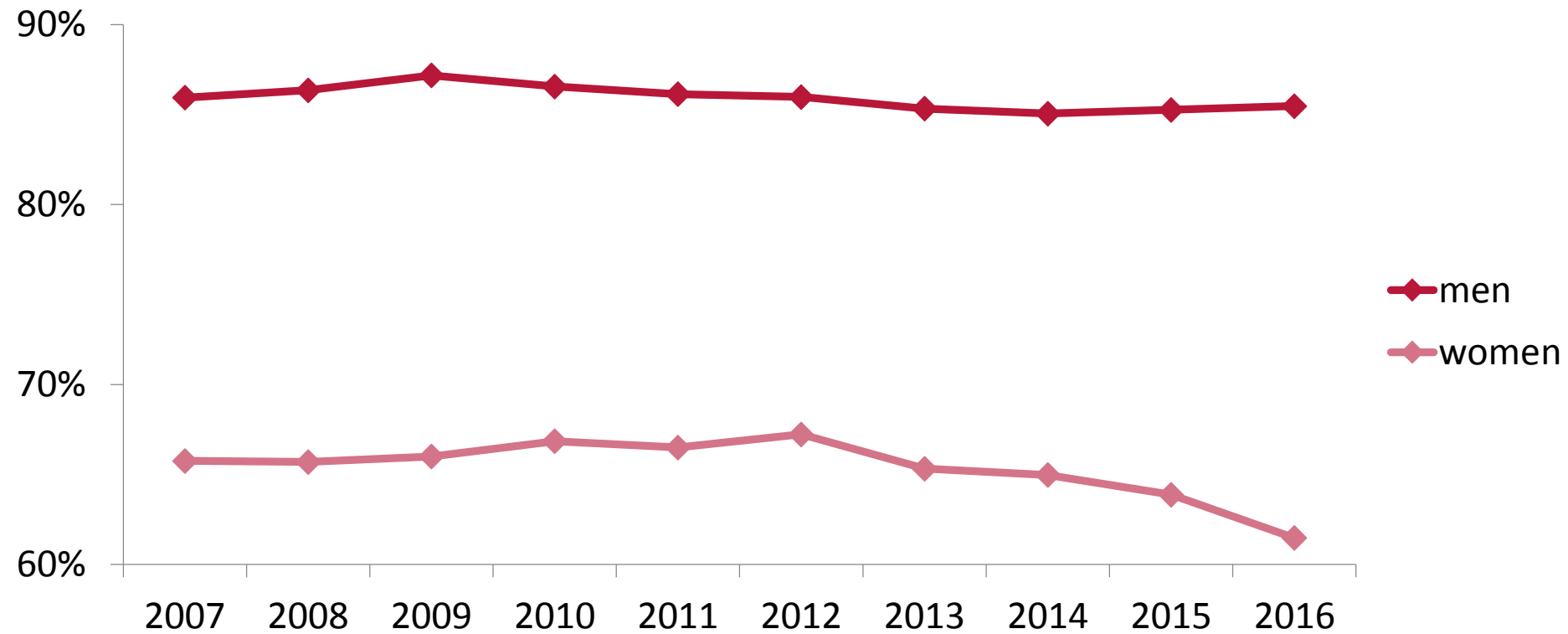


Source: Own calculations based on Polish Labour Force Survey data.

# Decline in LFPR among low educated women



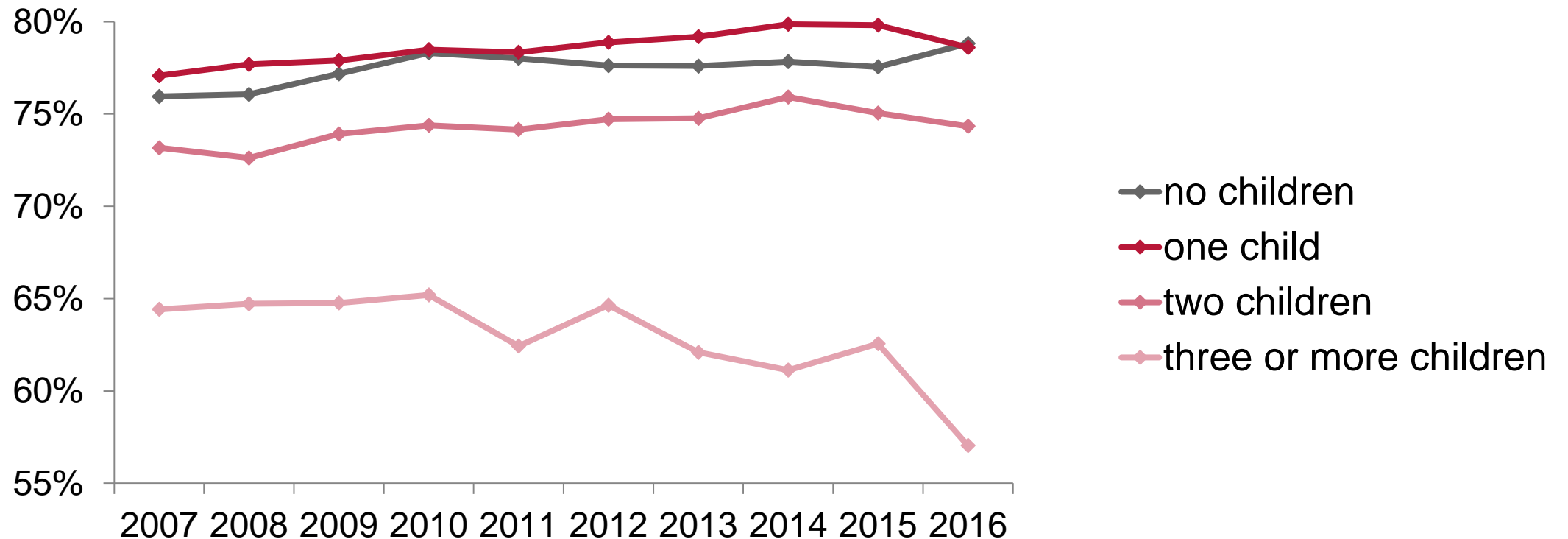
Labour force participation rates  
for low educated (basic vocational and lower) men and women, age 20-49



# 2016 decrease in LFPR among women with children



Labour force participation rates of women (age 20-49) by number of children



Note: Number of children aged less than 18 and living in the same household.

Source: Own calculations based on Polish Labour Force Survey data.



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# Disentangling the effect of Family 500+ programme

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Difference-in-differences approach

- Treatment: eligibility to the 500+ allowance (as of mid 2016)
- We study **changes** in labour force participation rates for treated and control group
  - Verification whether the same prior to the treatment
  - If difference after treatment -> can be attributed to the 500+ effect

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# Treatment specifications

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## Main specification

- Treated group: women with one or two children
- Control group: childless women

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# Treatment specifications

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## Main specification

- Treated group: women with one or two children
- Control group: childless women

## Alternative specifications

- A) Treated group: only women with two children
- B) Dividing the group of mothers with one child into treated and control group

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# Data & methodology

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- Polish Labour Force Survey, 2010-2016 and 2017 (q1, q2)
- Sample: women aged 20-49
- Separate models for single and partnered

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We estimate the following equation

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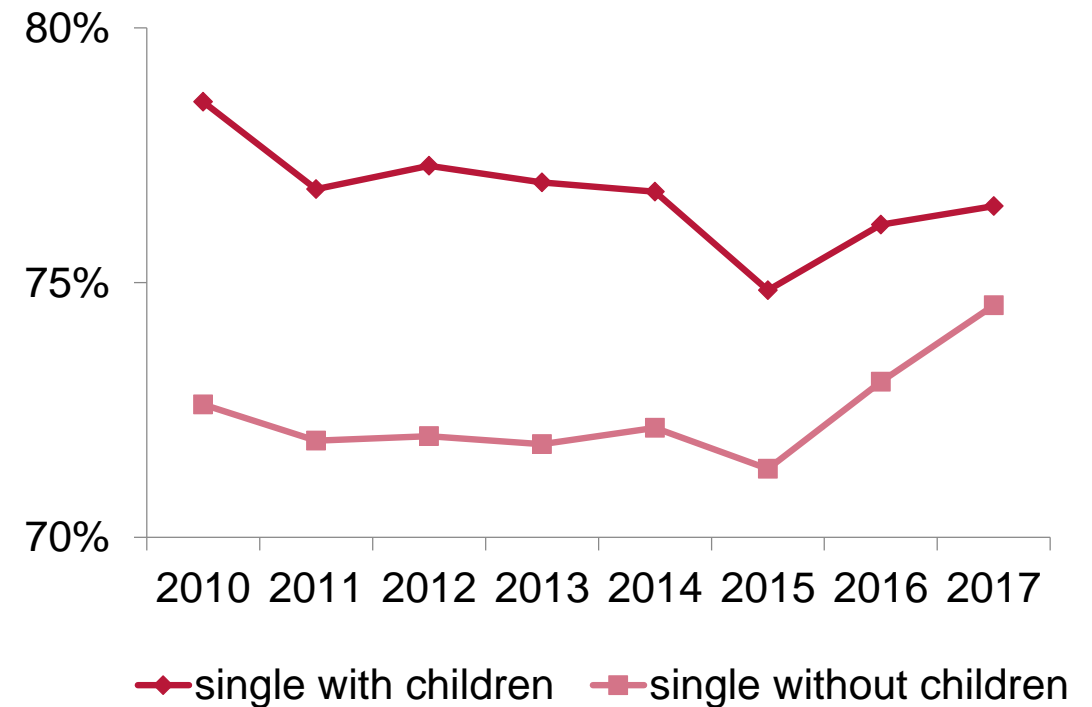
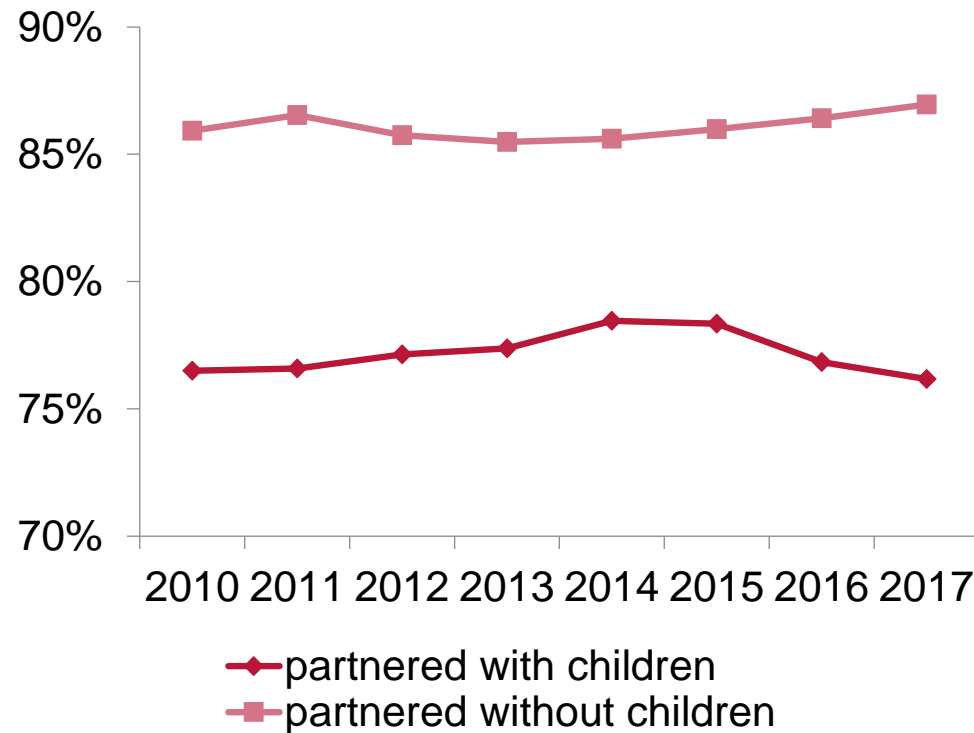
$$A_{it} = \alpha + \beta X_{it} + \gamma T_i + \delta Y_t + \theta Post_t * T_i + \varepsilon_{it}$$

- $A_{it}$  – dummy for labour force participation
- $X_{it}$  – vector containing a set of individual-specific characteristics (*age, education, size of place of residence, number of children, age of the youngest child, region, student status, partner's labour market status, partner's educational level*)
- $Y_t$  – time-fixed effects
- $T_i$  – treatment group variable (group effect)
- $Post$  - dummy for the period following the second quarter of 2016

# Common trend assumption



## Labour force participation rates of women aged 20-49



Note: 2017 only for the first half of the year.

Source: Own calculations based on Polish Labour Force Survey data.

## Estimated impact of the 500+ on women's LFPR



- Both single and partnered mothers labour force participation might have been on average **2.4 pp** higher in the absence of the 500+

	Partnered women [1]	Single women [2]
<b>Group effect</b>	-0.059***	0.002
<b>Treatment effect (2nd half of 2016 &amp; 1st half of 2017)</b>	-0.024***	-0.024***
<b>Observations</b>	299 662	159 506
<b>R-squared</b>	0.116	0.277

*Significance levels: \*\*\* 0.01, \*\*0.05, \* 0.1.*

*Source: Own calculations based on Polish Labour Force Survey data.*

## The effect strengthened with time



	Partnered women [1]	Single women [2]
<b>Treatment effect in the 2nd half of 2016 (<math>\theta_{2016}</math>)</b>	-0.017**	-0.014
<b>Treatment effect in the 1st half of 2017 (<math>\theta_{2017}</math>)</b>	-0.027***	-0.029**
<b>Observations</b>	299 662	159 506
<b>R-squared</b>	0.116	0.277

*Significance levels: \*\*\* 0.01, \*\*0.05, \* 0.1.*

*Source: Own calculations based on Polish Labour Force Survey data.*

The effect in absolute terms: around 100 thousand women (lower boundary estimates)



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# Heterogeneous treatment effects

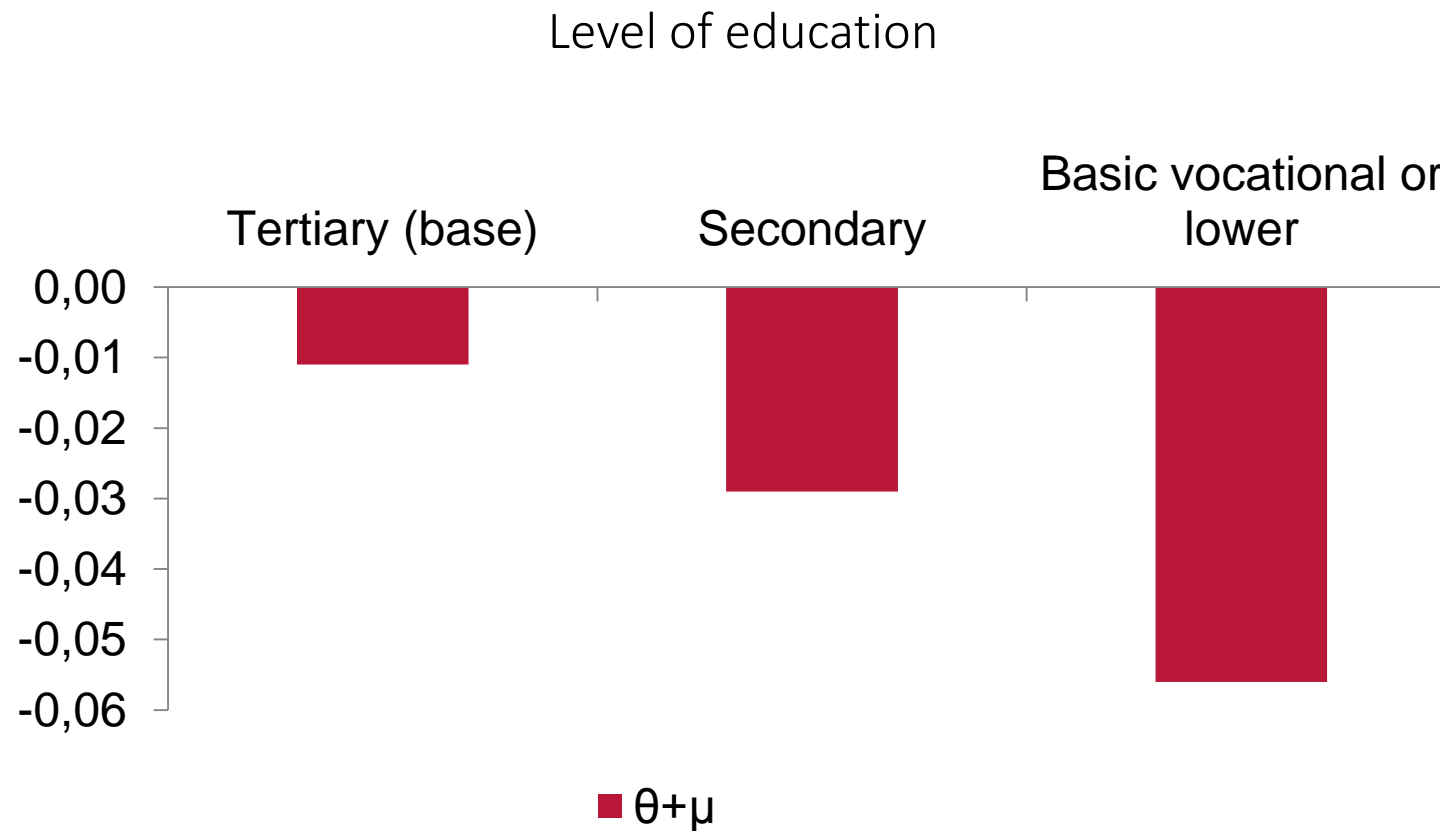
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Separately for each socio-economic variable  $X$ :

$$A_{it} = \alpha + \beta X_{it} + \delta Y_t + \gamma T_i + \delta T_i X_{it} + \theta Post_t * T_i + \mu Post_t * T_i X_{it} + \rho Post_t X_{it} + \varepsilon_{it}$$

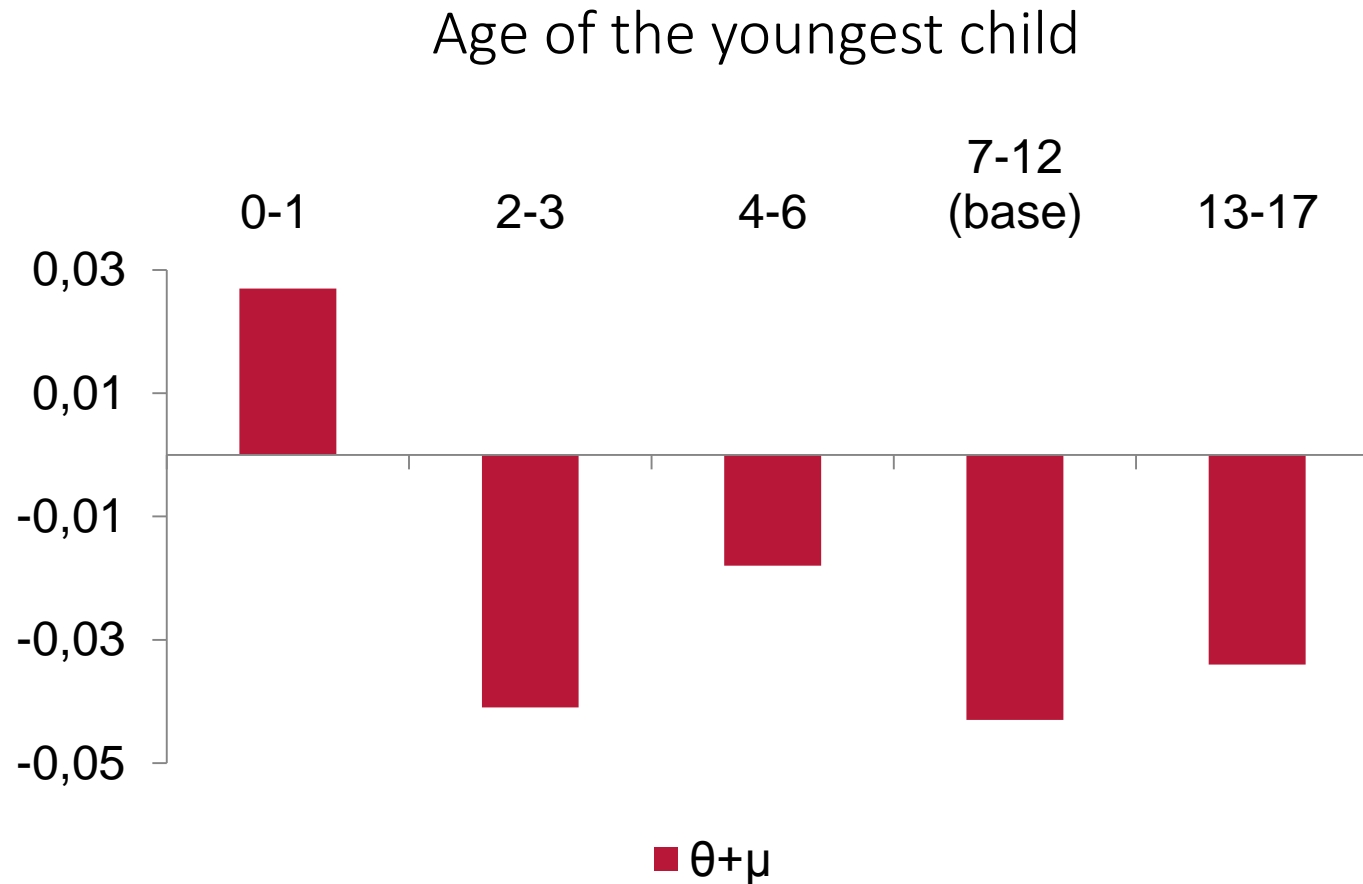
# Heterogeneous treatment effects for partnered women



Separately for each socio-economic variable X:

$$A_{it} = \alpha + \beta X_{it} + \delta Y_t + \gamma T_i + \delta T_i X_{it} + \theta Post_t * T_i + \mu Post_t * T_i X_{it} + \rho Post_t X_{it} + \varepsilon_{it}$$

# Heterogeneous treatment effects for partnered women



Separately for each socio-economic variable X:

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# Conclusions

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- The Family 500+ had a negative impact on labour force participation of mothers
- The effect strengthened with time
- The effect was stronger for single mothers
- Among partnered women, those with lowest educational level reacted most strongly

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# Questions for further research

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- This effect in the longer term
- The extent to which 500+ may lengthen career interruptions of mothers
- The effect on labour supply of men and unregistered employment
- The effect of the benefit on fertility

## Working paper:

Magda, I., Kielczewska, A., Brandt, N. (2018). The “Family 500” child allowance and female labour supply in Poland. *IBS Working Paper 01/2018*.

<http://ibs.org.pl/publications/program-rodzina-500-a-podaz-pracy-kobiet-w-polsce>

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