

Does paternity leave affect mothers' labour outcomes?

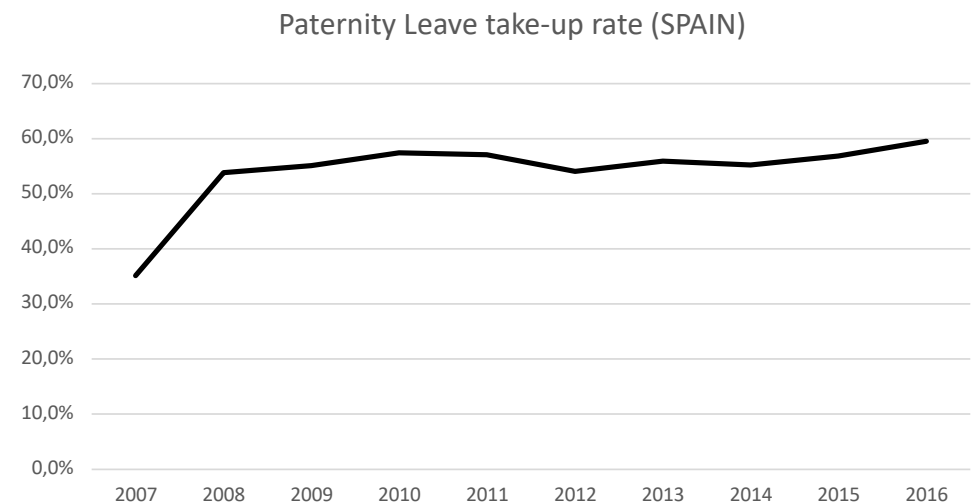
Empirical analysis of Spanish data.

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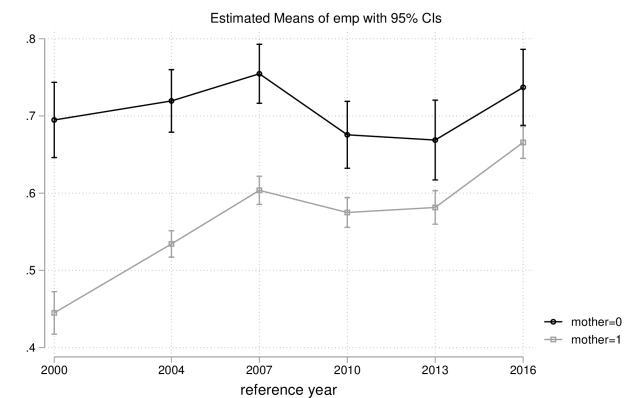
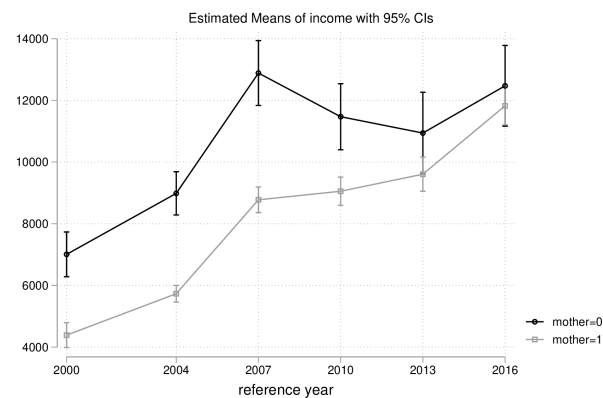
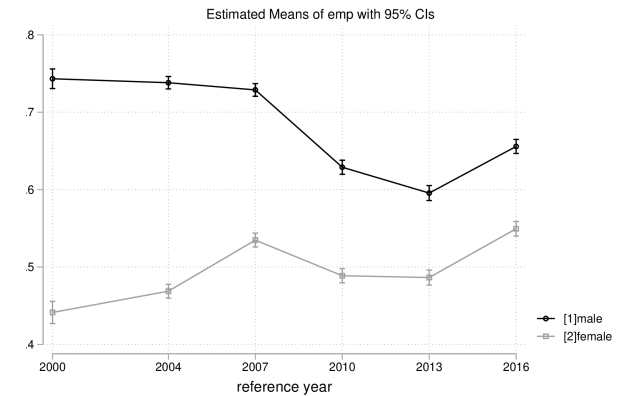
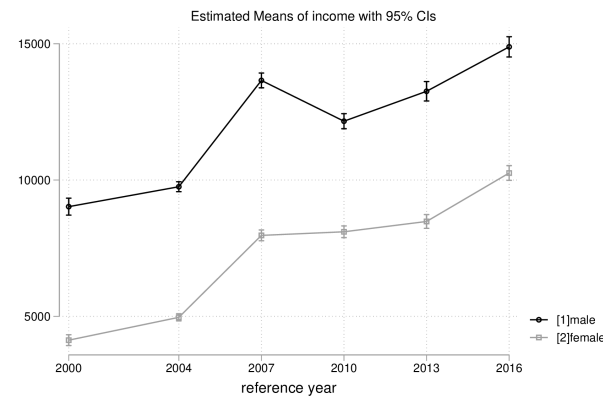
- In **2007** the Spanish government introduced **two weeks of fully paid paternity leave**.
- **Aggregate difference in difference**, comparing mothers whose husband could make use of leave to
 - *mothers who had their last child before the reform*
 - *females with no children*.
- I also study the effects on fathers.
- I use the **Luxembourg Income Study Database (LIS)**, the largest available microdata database collected with non-follow-up surveys.



Gender inequalities in labour and at home

- **Male-breadwinner & female-caregiver** family structure.
- **Gender gap** remains large. Additional **“motherhood” penalization**.
- Family policies introduced to promote the transition to a **dual-earning & dual-carer** family model.
- **Paternity leave** improves children outcomes.
- No unanimous consent on whether **paternity leave** improves the labour outcomes of mothers.

Own elaboration on LIS data – SPAIN (2000-2016)



Method

6 yearly data sets (2000, 2004, 2007, 2010, 2013, 2016) from LIS.

Selected **sample**: *married females aged between 20 and 45*. (16,261 individuals)

$$y_{it} = \alpha + \beta_1 \text{youngchild} + \beta_2 \text{post} + \beta_3 (\text{youngchild} * \text{post}) + \varepsilon$$

$$y_{it} = \alpha + \beta_1 \text{youngchild} + \beta_2 \text{post} + \beta_3 (\text{youngchild} * \text{post}) + \beta_4 \text{age} + \beta_5 \text{edyears} + \varepsilon$$

youngchild is a dummy equal to 1 if the age of youngest child is (0 – 1]

post is a dummy equal to 1 if $t > 2007$

3 Dependent variables: **1)** *income from labour*; **2)** *employment*; **3)** *hours of labour*.

Treatment group: mothers whose husband had the possibility to access paternity leave. That is, mothers who are observed to have a young child, of age 0-1, after 2007.

Control group: non-mothers & mothers not directly affected by the introduction of the leave.

Interaction term: *estimated treatment effect*, the effect of accessing paternity leave, which occurs for mothers who gave birth to their youngest child after 2007 and at maximum one year before being surveyed.

Limitations

- **No specific data:** age of the youngest child is used to identify exposure to the paternity leave policy.
- **Decreasing effect:** fathers might have already benefited from the paternity leave during previous births. One could expect the reform's effects stronger for first-time fathers.
- **The length of the leave:** two weeks is a short period of time in a working year and, all the more so, in a working life.
- **Economic context:** time period coincides with the 2008 global crisis. Prior to the COVID-19 recession of 2020-2021, this was considered the most serious financial crisis since the Great Depression.

Mothers' wages

- The reform effect is always positive.
- Outcomes are significant at 1% level in all regressions, with the exception of the one against non-mothers (5%).
- Reform produced desired outcomes by increasing income from labour for mothers thereby contrasting gender penalizations.
- Having a young child is strongly penalizing. Age and education are also important determinants of wages.

$$\log income_{it} = \alpha + \beta_1 \text{youngchild} + \beta_2 \text{post} + \beta_3 (\text{youngchild} * \text{post}) + \varepsilon$$

	Both		Non-mothers		Pre-reform mothers	
Constant (α)	9036.25 [8777.97-9320.77]	1119.91 [962.95-1286.91]	10097.0 [9604.62-10721.43]	1406.7 [1130.03-1754.60]	8725.46 [8433.78-9136.2]	855.77 [713.37-1022.49]
Youngchild	0.92 [0.89-1.41]	0.91** [0.85-0.98]	0.86*** [0.79-0.94]	0.84*** [0.77-0.91]	0.99 [0.92-1.08]	0.96 [0.89-1.04]
Post	1.15*** [1.09-1.20]	1.01 [0.97-1.05]	1.16*** [1.06-1.26]	1.04 [0.95-1.13]	1.16*** [1.11-1.13]	1.01 [0.96-1.05]
Interaction	1.18*** [1.05-1.32]	1.17*** [1.06-1.30]	1.17** [1.03-1.34]	1.16** [1.02-1.31]	1.17*** [1.04-1.32]	1.16*** [1.05-1.30]
Age		1.02*** [1.02-1.024]		1.02*** [1.02-1.03]		1.03*** [1.02-1.03]
Edyears		1.12*** [1.11-1.12]		1.09*** [1.08-1.11]		1.12*** [1.12-1.13]

Mothers' employment

$$\log \text{ odds } (emp)_{it} = \alpha + \beta_1 \text{ youngchild} + \beta_2 \text{ post} + \beta_3 (\text{youngchild} * \text{post}) + \varepsilon$$

- Exposure to paternity leave **increases the likelihood of being employed.**
- Particularly significant in the **comparison against non-mothers.**
- However, no significant effect on the likelihood of being employed when the comparison group is made up of **mothers with an older child.**
- Overall, reform had its desired effect in **favouring employability among mothers of new-born babies**

	Both		Non-mothers		Pre-reform mothers	
Constant (α)	1.38*** [1.32-1.45]	0.13*** [0.10-0.17]	2.65*** [2.35-2.99]	0.16*** [0.10-0.25]	1.22*** [1.16-1.28]	0.07*** [0.05-0.10]
Youngchild	0.81*** [0.72-0.91]	0.69*** [0.60-0.78]	0.42*** [0.36-0.50]	0.43*** [0.36-0.51]	0.92 [0.82-1.04]	0.83*** [0.72-0.95]
Post	1.17*** [1.09-1.25]	0.99 [0.92-1.06]	0.84* [0.71-1.01]	0.72*** [0.59-0.87]	1.25*** [1.16-1.35]	1.04 [0.96-1.12]
Interaction	1.21** [1.01-1.45]	1.22** [1.01-1.48]	1.67*** [1.31-2.13]	1.65*** [1.27-2.15]	1.13 [0.94-1.35]	1.14 [0.94-1.39]
Age		1.01*** [1.00-1.02]		1.02** [1.00-1.03]		1.02*** [1.02-1.21]
Edyears		1.20*** [1.19-1.21]		1.22*** [1.19-1.24]		1.20*** [1.19-1.21]

Mothers' hours of work

- Division into full-time and part-time workers
- Odds ratios for the interaction are always >1 but **never statistically significant**
- **No unequivocal association between the introduction of the fathers' paid leave and full-time employment.**
- However, mothers whose husband was exposed to paternity leave **are not disadvantaged** in reaching this specific labour outcome.
- Age and years of education do not have a clear positive effect.

$$\log \text{odds} (\text{fulltime})_{it} = \alpha + \beta_1 \text{youngchild} + \beta_2 \text{post} + \beta_3 (\text{youngkid} * \text{post}) + \varepsilon$$

	Both		Non-mothers		Pre-reform mothers	
Constant (α)	3.15*** [2.64-3.38]	4.12*** [2.87-5.92]	5.67*** [4.76-6.75]	9.03*** [4.74-17.21]	2.72*** [2.51-2.94]	1.74*** [1.14-2.67]
Youngchild	0.81** [0.67-0.96]	0.74*** [0.62-0.89]	0.45*** [0.35-0.57]	0.45*** [0.36-0.58]	0.94 [0.79-1.12]	0.96 [0.79-1.15]
Post	0.94 [0.85-1.04]	0.95 [0.86-1.05]	0.94 [0.72-1.22]	0.98 [0.75-1.28]	0.98 [0.88-1.09]	0.96 [0.86-1.08]
Interaction	1.15 [0.89-1.47]	1.15 [0.89-1.48]	1.15 [0.81-1.63]	1.13 [0.80-1.60]	1.11 [0.87-1.43]	1.09 [0.85-1.41]
Age		0.99 [0.98-1.03]		0.99 [0.98-1.02]		1.01 [1.00-1.02]
Edyears		1.02*** [2.87-5.92]		1.00 [0.98-1.02]		1.02** [1.00-1.03]



What about fathers?

- **Theory** predicts a decrease in fathers' labour outcomes following leave.
 - Contrary to what is suggested by theory, but in line with some previous literature, the introduction of the two-weeks paternity leave overall has **no significant effect on the labour outcomes of Spanish fathers**.
 - The **negative impacts** in terms of wages and odds of employment are **small and not significant** (with one exception).
 - **No *fatherhood* penalization**
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Effect on the first child

- By restricting the sample to **mothers with one child**, results should **capture the effect of the policy introduction at the time of the first birth**, that is when parenthood mostly defines individual and family preferences both at home and at work.
 - Results **follow the trends concerning all mothers, but with a stronger effects**.
 - Results suggest stronger impact on improvement of mothers' **wages** and **employment rates**, for all comparison groups except for those mothers who had their only child before the reform.
 - Still no significant **impact on odds of being employed with full-time working hours**.
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Thank you

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