Can an egalitarian reform in the parental leave system reduce the motherhood labor penalty? Some evidence from Spain

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Main research objective

We would like to show empirically how the introduction of egalitarian reforms of parental leave (that give new leaves to fathers) may help reduce gender inequality in the labor market (a reduction in the motherhood penalty).
Policy reform (new leave to fathers) → Fathers’ total duration of childbirth leave → Fathers’ involvement in childcare → Reduction in motherhood labor penalty
Natural experiments:
Literature on natural experiments consisting in the introduction of a new leave for fathers:


Basic empirical result:
“Men tend to respond well to the introduction of well paid and non-transferable leaves”

## Take-up of paternity leave in Spain (13-day paternity leave was introduced in March 2007).

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Total births</strong> (year)</td>
<td>519,779</td>
<td>494,997</td>
<td>486,575</td>
<td>471,999</td>
<td>454,648</td>
<td>425,715</td>
<td>427,595</td>
<td>419,109</td>
</tr>
<tr>
<td><strong>Paternity leaves</strong> (processes)</td>
<td>279,756</td>
<td>273,024</td>
<td>275,637</td>
<td>269,715</td>
<td>245,867</td>
<td>237,988</td>
<td>235,678</td>
<td>238,806</td>
</tr>
<tr>
<td>% paternity leaves/births</td>
<td>53.8%</td>
<td>55.2%</td>
<td>56.6%</td>
<td>57.1%</td>
<td>54.1%</td>
<td>55.9%</td>
<td>55.1%</td>
<td>57.0%</td>
</tr>
<tr>
<td><strong>Maternity leaves</strong> (processes)</td>
<td>359,160</td>
<td>340,512</td>
<td>332,557</td>
<td>324,405</td>
<td>298,732</td>
<td>288,842</td>
<td>281,151</td>
<td>278,389</td>
</tr>
<tr>
<td>% Maternity leaves/births</td>
<td>69.1%</td>
<td>68.8%</td>
<td>68.3%</td>
<td>68.7%</td>
<td>65.7%</td>
<td>67.8%</td>
<td>65.8%</td>
<td>66.4%</td>
</tr>
</tbody>
</table>

Source:
Instituto Nacional de Estadística (Movimiento Natural de la Población)
[http://www.ine.es/jaxi/menu.do?type=pcaxis&path=/t20/e301/&file=inebase](http://www.ine.es/jaxi/menu.do?type=pcaxis&path=/t20/e301/&file=inebase)

Seguridad Social
[http://www.seg-social.es/Internet_1/Estadistica/Est/Otras_Prestaciones_de_la_Seguridad_Social/index.htm](http://www.seg-social.es/Internet_1/Estadistica/Est/Otras_Prestaciones_de_la_Seguridad_Social/index.htm)
Some empirical evidence about this relation:

**ICELAND:** Arnalds, A. A.; Eydal, G. B.; and Gíslason, I. V. (2013): “Equal rights to paid parental leave and caring fathers- the case of Iceland”, *Icelandic Review of Politics and Administration*, 9(2), 323-344
http://dx.doi.org/10.13177/irpa.a.2013.9.2.4


**Sweden:** Haas and Hwang (2007) http://www.tandfonline.com/doi/abs/10.1080/13668800701785346#.UzLHTPkhDUI


What happens after the birth or the baby:

<table>
<thead>
<tr>
<th></th>
<th>Mothers</th>
<th>Fathers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of leave</td>
<td>162.7</td>
<td>16.8</td>
</tr>
<tr>
<td>Joined previous work after leave</td>
<td>84.2%</td>
<td>94.3%</td>
</tr>
<tr>
<td>(When returned to the work...)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Switched from working full-time to part-time work</td>
<td>15.1%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Cut working week a few hours (without switching to work part time)</td>
<td>22.7%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Requested to work with a more flexible schedule</td>
<td>9.4%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Requested a shift change in order to have a shift more compatible with childcare</td>
<td>6.3%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Switched from split to continuous work day</td>
<td>4.8%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Began to use for the first time, or more than before, telecommuting (working from home)</td>
<td>3.1%</td>
<td>2.6%</td>
</tr>
</tbody>
</table>

N 1377 1522

Mothers’ evolving relationship with the labor market for those employed at the time of the birth of their first child. **Spain**: A cohort of children born in 2005 and 2006.

Fathers’ evolving relationship with the labor market for those employed at the time of the birth of their first child. **Spain**: A cohort of children born in 2005 and 2006.

Some literature linking mother participation in labor market and father participation in childcare:


Some literature about motherhood penalty:


Our hypothesized model of the determinants of motherhood labor penalty

We assume that there are two main driving forces that simultaneously determine how housework (especially childcare) is divided between the couple.

- **Economic incentives** (and opportunity cost)
- **Gender norms** (gender roles).

We base our hypothesized model in the **Identity Economics approach** (Akerlof and Kranton 2000, 2010)

Hypothesis 1. The fact that the father is actively involved in the care of his child is negatively related to the work penalty experienced by the mother.

Hypothesis 2. The introduction of egalitarian reforms in the parental leave system (that give new leaves to fathers) help reduce gender inequality in the labor market.

Hypothesis 3. The fact that the father and the mother have egalitarian gender attitudes is negatively related to the labor penalty experienced by the mother.

Hypothesis 4. The organizational and economic restrictions affect the motherhood labor penalty.
Data:
Data:

"Survey on the use of parental leave and its labor consequences", funded by the Spanish Institute of Women

• Survey of fathers and mothers of children between 3 and 8 years old. January-May 2012. Unit of analysis: the couple.

• We distributed 2500 questionnaires to parents through a random sample of primary schools and Kindergartens.

• The questionnaire was divided into three parts: a first part devoted to the household (7 questions); a second part to the mother (39 questions); and a third part dedicated to the father (46 questions).

• A final sample of 1130 households completed the questionnaires.

• Thus from the initial sample we selected a sub-sample of 795 heterosexual dual-earner couples (at the time of the birth).
“Motherhood negatively affected mother’s career”

“In your opinion, being a mother, has impaired or slowed your career advancement?”

%  
Not at all 28,9
To a small extent 10,1
To some degree 29,8
To a large degree 31,1
We asked the mother and the father about who performed **18 childcare activities**. The response options were:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mother mostly</td>
<td>Mother rather more</td>
<td>Same</td>
<td>Father rather more</td>
<td>Father mostly</td>
</tr>
</tbody>
</table>

If the average score is near to **1**, the participation of the fathers in this activity is very low; if the average score is near to **5**, the participation of the fathers in this activity is very high; **3** means equality.
In the day-to-day, between zero and two years of the child, which of the members of the couple was in charge of the following activities?

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Mean</th>
<th>Opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>h) Washing child’s clothes</td>
<td>766</td>
<td>1.640</td>
<td>Non-Playful</td>
</tr>
<tr>
<td>g) Buying child’s clothes</td>
<td>764</td>
<td>1.709</td>
<td>Non-Playful</td>
</tr>
<tr>
<td>b) Cooking child’s food</td>
<td>772</td>
<td>1.740</td>
<td>Non-Playful</td>
</tr>
<tr>
<td>i) Organizing housework and childcare</td>
<td>770</td>
<td>1.839</td>
<td>Non-Playful</td>
</tr>
<tr>
<td>c) Feeding the child</td>
<td>768</td>
<td>1.956</td>
<td>Non-Playful</td>
</tr>
<tr>
<td>o) Taking child to the doctor</td>
<td>770</td>
<td>2.094</td>
<td>Non-Playful</td>
</tr>
<tr>
<td>a) Buying child’s food</td>
<td>772</td>
<td>2.138</td>
<td>Non-Playful</td>
</tr>
<tr>
<td>q) Taking care of the child when he/she becomes ill at school/nursery</td>
<td>762</td>
<td>2.175</td>
<td>Non-Playful</td>
</tr>
<tr>
<td>n) Comforting child when tired or ill</td>
<td>769</td>
<td>2.229</td>
<td>Non-Playful</td>
</tr>
<tr>
<td>d) Changing diapers</td>
<td>767</td>
<td>2.301</td>
<td>Non-Playful</td>
</tr>
<tr>
<td>p) Getting up at night</td>
<td>764</td>
<td>2.328</td>
<td>Non-Playful</td>
</tr>
<tr>
<td>f) Putting child to bed</td>
<td>764</td>
<td>2.323</td>
<td>Non-Playful</td>
</tr>
<tr>
<td>r) Dropping/picking up child at school/ nursery</td>
<td>753</td>
<td>2.427</td>
<td>Non-Playful</td>
</tr>
<tr>
<td>l) Reading books to child</td>
<td>763</td>
<td>2.519</td>
<td>Playful</td>
</tr>
<tr>
<td>e) Bathing child</td>
<td>769</td>
<td>2.573</td>
<td>Non-Playful</td>
</tr>
<tr>
<td>k) Taking child to the park</td>
<td>772</td>
<td>2.661</td>
<td>Playful</td>
</tr>
<tr>
<td>m) Teaching child something new</td>
<td>760</td>
<td>2.736</td>
<td>Playful</td>
</tr>
<tr>
<td>j) Playing with child at home</td>
<td>771</td>
<td>2.844</td>
<td>Playful</td>
</tr>
</tbody>
</table>
The measure is the average score of the 14 non-playful activities. (Cronbach's alpha=0.883).
“Father’s total duration of childbirth leave”

Full sample.

Average total duration of leaves:
Fathers: 14,5 days
Mothers: 144,6 days
“Baby born after introduction paternity leave”

is a dichotomous variable (1=yes; 0=no) indicating that the reference child was born after March 2007 (the date of the introduction of the 13-day paternity leave).
“Egalitarian gender attitudes”

Instrument developed from 9 questions addressed to the father and to the mother.

“To what extent do you agree or disagree with each of these statements?”
Likert scale 0-5, where “0=Strongly disagree” and “5=Strongly agree”.

Example of 3 items:

● “I consider it far more unpleasant to hear a woman who swears and says offensive words rather than to hear a man doing the same” (reverse scoring);
● “A working mother can establish as warm and secure relationship with her children as a mother who does not work”;
● “A man may be as qualified as a woman to care for his baby and connect emotionally with him”

The measure is the average score of these 9 items (Cronbach's alpha= 0.732 for mothers and 0.747 for fathers).
“Working in a family-friendly company”

Instrument developed from 2 questions

“indicate to what degree the company or organization where you worked met the following aspects when your baby was born”.

Likert scale 0-10, where “0=not at all” and “10=totally”.

Two items

- “My company was a family-friendly company in the sense that it facilitated the reconciliation of work and family life of the staff”
- “The managers of my company were aware of the importance of the reconciliation policies”.

The measure is the average score of these 2 items
Cronbach's alpha= 0.916 for the mother and 0.905 for the father).
“Father’s net earnings”

It is the monthly net income of the father. There are 8 categories: from (1) “Fewer than 600 Euros” to (8) “More than 4,000 Euros”.

“Mother’s working week”

It is the number of hours the mother worked per week at the time when the baby was born.

We also used 5 control variables. None of these five variables had a statistically significant effect, and therefore they were not included in the path analysis subsequently developed.
Some descriptive results:
“Father’s total duration of childbirth leave”

Baby born before March 2007.
Average total duration of leaves:
Fathers: 10,5 days
Mothers: 154,6 days
“Father’s total duration of childbirth leave”

Average total duration of leaves:
Fathers: 18.5 days
Mothers: 137.0 days
"Father’s involvement in childcare (14 non-playful activities)". Average scores

- Leave < 20 days: 2.08
- Leave ≥ 20 days: 2.23

$r = 0.126^{***}$

t-test = 2.77
(p = 0.006)
Note: we assume that the father is very involved in child care if the score obtained in the instrument “Father’s involvement in childcare” is equal or greater than its percentile 80.
Note: we assume that the mother works in a family friendly company if the score obtained in the instrument “Mother working in a family friendly company” is equal or greater than its percentile 80.
% Mothers that think that motherhood "to a large degree" negatively affected their careers

Father’s net earnings < 2,500€
Father’s net earnings ≥ 2,500€

r = 0.203***
t-test = 4.23
(p = 0.000)
Path analysis results
Path analysis was conducted with the Amos 22.0 program in the SPSS 22.0 software package.

Good fit to the data (final model):

\[ \chi^2 = 17.981, \text{ df} = 18, p = .457 \]
CMIN/DF = .999,
CFI = 1.000,
RMSEA = .000.
**Path analysis** for the determinants of motherhood labor penalty (final model).

Notes: N = 795; *p < .1; **p < .05; ***p < .01. Standardized coefficients are provided for each path in the model tested.
Conclusions
Conclusions:

• In short, this study provides some empirical evidence that the introduction of egalitarian reforms in the parental leave system (that give new leaves to fathers) may help to reduce gender inequality in the labor market.

• In this paper we have obtained some evidence in favor of the hypotheses that when the father is actively involved in the care of his child the mother tends to experience less work penalty.

According to Kaufman (2013), there are three ways to explain why may a greater paternal involvement promote less motherhood penalty:

1. When men and women share tasks in one domain (e.g., at home), they are more likely to share tasks in another domain (labor market).
2. Men’s greater participation in home life frees women to participate in public life.
3. Men who are more involved with their children are likely to raise girls and boys who have a greater sense of gender equality.

Given the characteristics of our sample our research may have provided evidence that acts through the second way.

• Gender attitudes and working conditions of both parents are also important (direct or indirect) determinants of motherhood penalty.
Policy implications:

• A public policy that aims to promote a significant advance in shared responsibility between mothers and fathers in childcare (and the advance in the elimination of motherhood penalty) needs to progressively equalize paternity leave with maternity leave: “Equal, non-transferable and well-paid parental leaves”.

For the case of Spain: proposal of a progressive evening up of paternity leave with maternity leave, in such a way that, in the end, both mother and father would enjoy 16 weeks of non-transferable (and well paid) leave.

• Advance in reconciliation policies applied by companies and public sector.

• Reconciliation policies must be effectively open to male workers (share responsibility between women and men in the use of reconciliation policies of companies)

Limitations of our research:

• Our data base is cross-sectional → Need to use longitudinal data.

• We use a “subjective perception” indicator of motherhood penalty → better an indicator of change in the earnings of the mother.
Thanks for your attention!