

The Mommy Effect: Do Women Anticipate the Employment Effects of Motherhood?

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Do young women accurately forecast their future labor supply in the longer run?

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Introduction

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- ▶ The gender gap in employment outcomes has recently plateaued in many rich countries, despite the fact that women have increased their investment in human capital over this period.
- ▶ Using an event-study framework, before and after the birth of a first child women's probability of employment declines.
- ▶ Using an event-study framework, before motherhood most women say that work does not inhibit women's ability to be good wives and mothers, after the birth of their first child they become significantly more negative toward female employment.

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- ▶ Women underestimate the costs of motherhood and hence overestimate their labor supply.
- ▶ This under and overestimation holds both in short and long run.

Data sources

- ▶ BHPS(1991-2009)
- ▶ NLSY68(1968-2003)
- ▶ NLSY79(1979-2014)
- ▶ PSID(1968 till now)

Empirical strategy

Modeling a given outcome y_{it} for person i in year t

$$y_{it} = \sum_{\tau=-5}^{\tau=\tau^{max}} \beta_{\tau} \cdot I[\tau = t - e^i] + \sum_a \gamma_a \cdot Age_{it}^a + \gamma_t + \alpha_i + \epsilon_{it}$$

- ▶ We index event time by τ .
- ▶ e^i denotes the calendar year in which person i had their first child.
- ▶ $I[\tau = t - e^i]$ is an indicator for person i in year t having had their first child τ years ago.

How does motherhood affect employment?

Main results

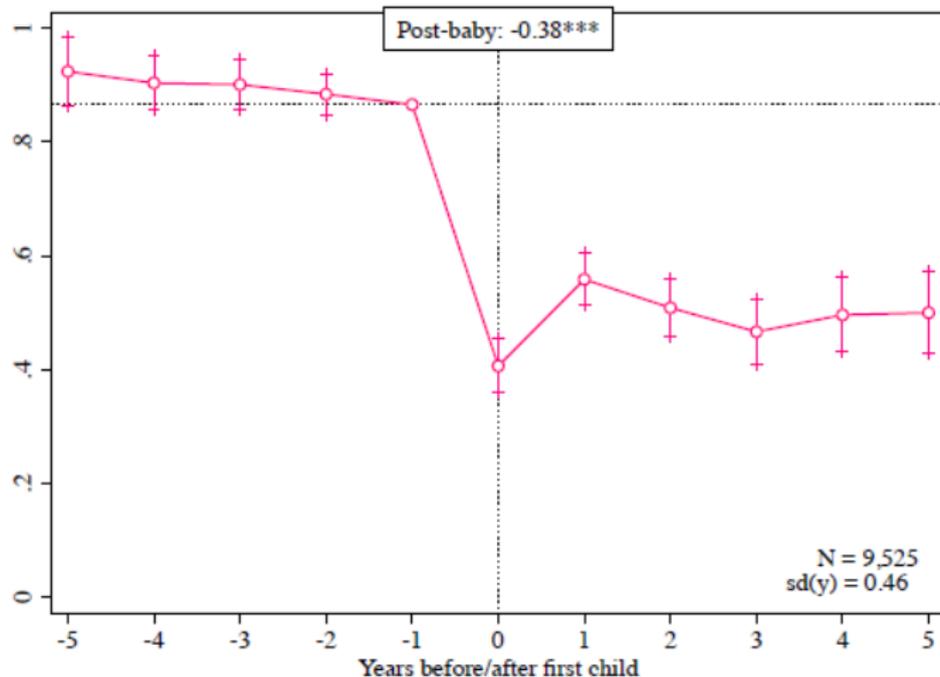
Table 1: Summary statistics for main panel data sources

	BHPS	NLSW 68	NLSY 79	PSID
<i>-Employment</i>				
Working this week	0.70	0.62	0.69	0.68
In work force this week	0.78	0.72	0.73	0.74
Hours worked last week	24.87	21.79	26.03	.
Expected to give up paid work last wave	0.06	.	.	.
Actually gave up paid work this wave	0.09	.	.	.
<i>-Background</i>				
Year of birth	1968.75	1950.79	1961.70	1965.96
Age at first birth	28.95	23.25	24.48	24.40
Total number of children	1.81	2.33	2.27	2.27
Married pre-baby	0.63	0.63	0.60	0.57
Black	.	0.11	0.14	0.16
College graduate	0.26	0.25	0.29	0.38
Planned to be working at 35	.	0.25	0.84	.
Gender-liberal pre-baby	0.62	0.31	0.60	.
Mom worked when resp. was 14	0.65	0.41	0.56	0.62
<i>-Average # of Pre-/Post- Obs. per Person</i>				
Number of employment observations, pre-baby	4.08	5.77	8.02	7.65
Number of employment observations, post-baby	6.63	12.99	16.04	14.49
Number of respondents	681.00	1413.00	2256.00	1025.00
Observations	10,410	26,376	54,175	22,356

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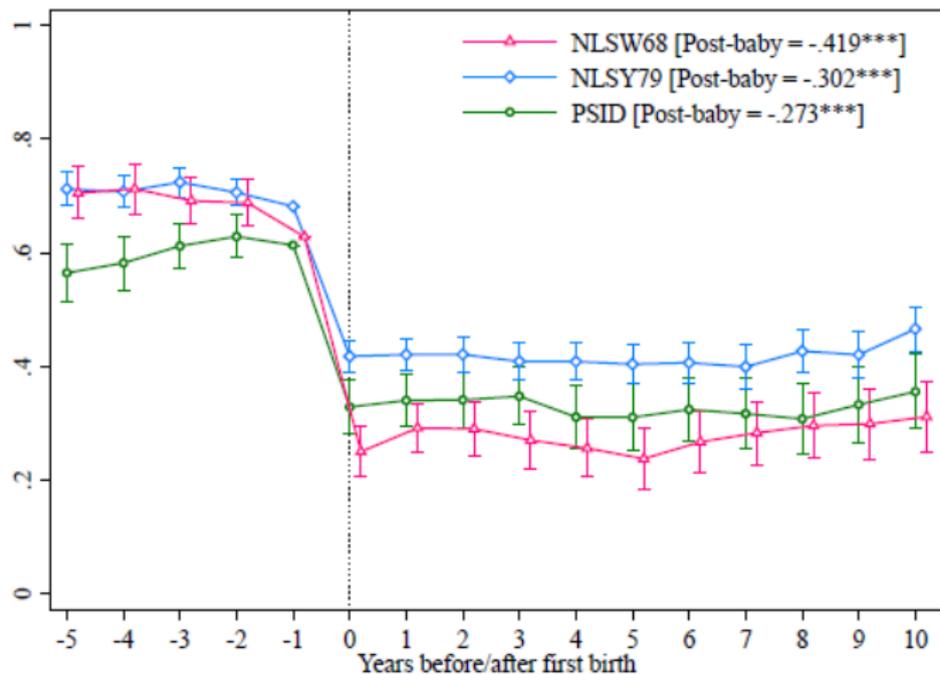
Figure 3: Event-study analysis of how probability of employment changes after motherhood, UK



How does motherhood affect employment?

Main results

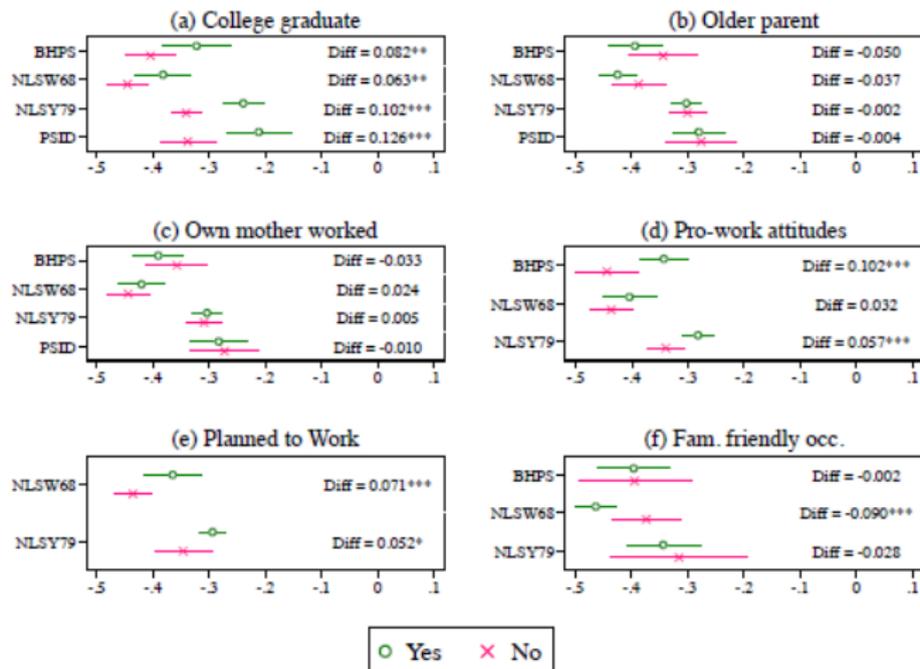
Figure 4: Event-study analysis of how probability of employment changes after motherhood, US



How does motherhood affect employment?

Heterogeneous employment responses to motherhood

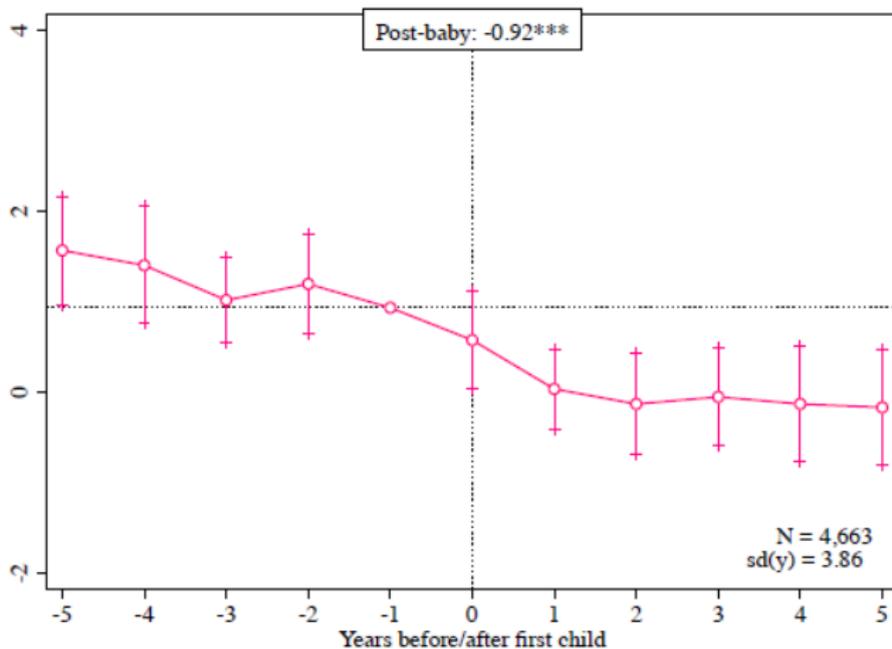
Figure 5: Heterogeneous effects of first birth on current employment, women



Do women anticipate the "mommy effect" in the short-run?

Main results

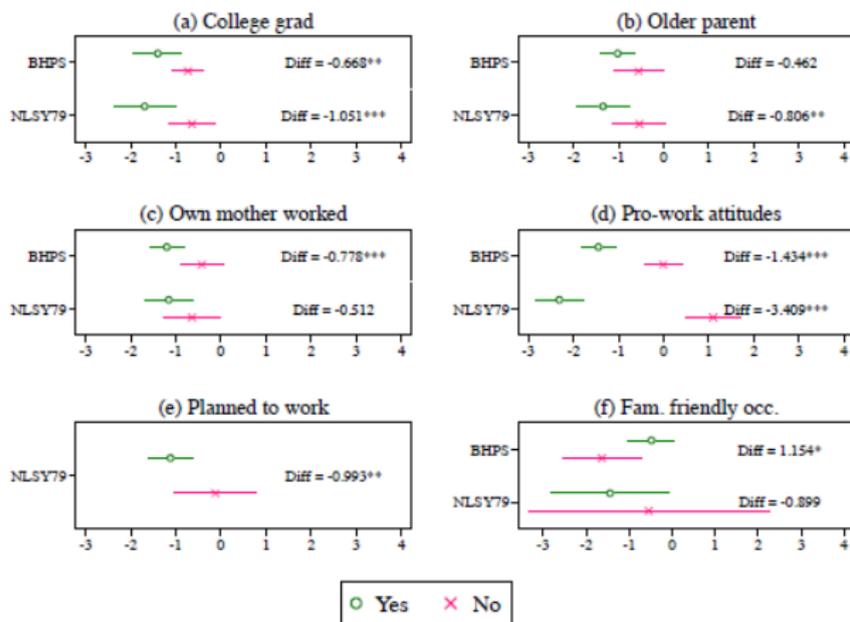
Figure 6: Event-study analysis of how gender-role attitudes change after motherhood (BHPS)



Do women anticipate the "mommy effect" in the short-run?

Heterogeneous effects

Figure 8: Heterogeneous effects of first birth on women's gender-role attitudes



Do women anticipate the "mommy effect" in the short-run?

Evidence from retrospective questions

Table 2: Relationship between college education and probability of reporting that being a parent is harder than expected

	Dependent variable: Parenthood harder than expected				
	Women			Men	
	(1)	(2)	(3)	(4)	(5)
College degree	0.123*** [0.0258]	0.108*** [0.0282]	0.0412*** [0.0149]	0.0195 [0.0459]	-0.00488 [0.0221]
Mean, dep. var.	0.516	0.516	0.521	0.372	0.411
Observations	1,687	1,687	6,183	576	2,539
Controls?	No	Yes	Yes	Yes	Yes
Age of children at home	0-6	0-6	0-17	0-6	0-17

Do young women accurately forecast their future labor supply in the longer run?

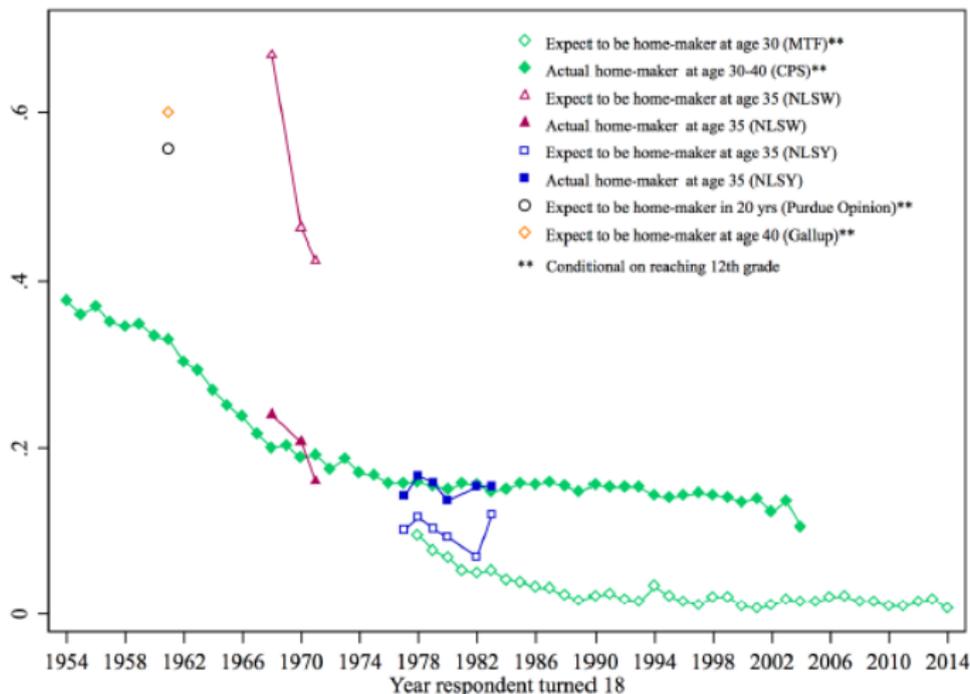
Data sources

- ▶ MTF: Monitoring The Future
- ▶ NLSY68 and NLSY79
- ▶ Purdue
- ▶ Galup

Do young women accurately forecast their future labor supply in the longer run?

Main results

Figure 10: Expectations and realizations of future home-making among U.S. high school seniors



Why do women underestimate the effect of motherhood?

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- ▶ Educated women underestimate the costs of motherhood more than uneducated women.
- ▶ It shows that this result holds whether or not the average cost of motherhood has increased or decreased relative to the previous generation.

Why do women underestimate the effect of motherhood?

Modeling women's education and employment as a function of expected employment costs of motherhood

Assumptions:

- ▶ $u(c, h) = c - \frac{h^{\gamma+1}}{\gamma+1}$, where $\gamma > 0$
- ▶ $\tilde{w} = w + \beta \cdot e$, where w is a base wage
- ▶ Mother's cost = $\delta i + \mu i$
- ▶ $\delta = \{\lambda - \epsilon, \lambda + \epsilon\}$

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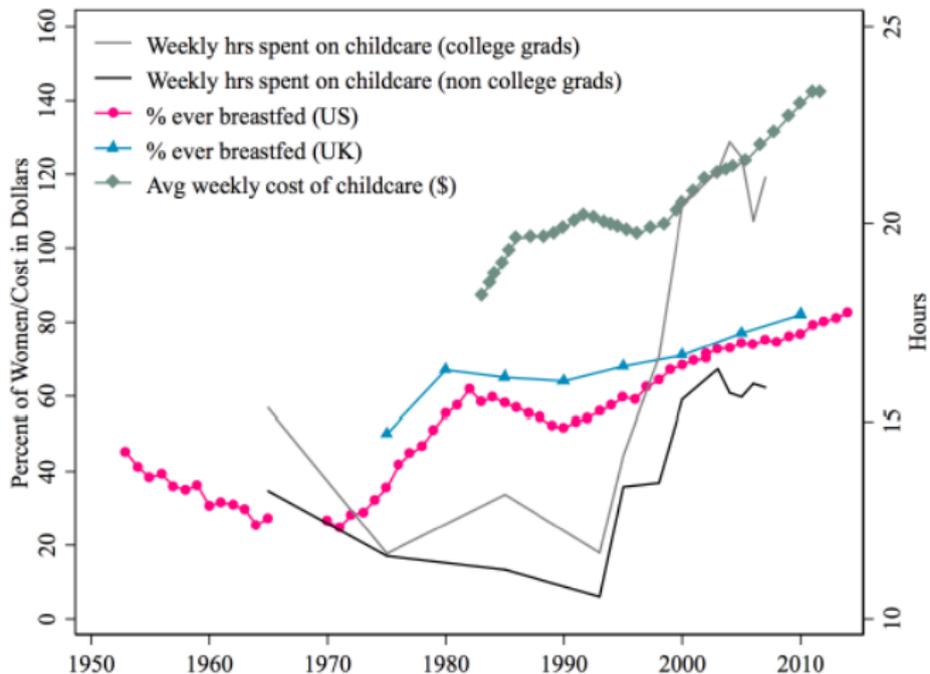
Predictions

- ▶ **Claim 1** Women who choose $e = 1$ will on average work more (post-baby)
- ▶ **Claim 2** Women with $e = 1$ underestimate the costs of motherhood more than women with $e = 0$. That is,
 $\mathbb{E}[\delta|e = 1] < \mathbb{E}[\delta|e = 0]$
- ▶ **Claim 3** $\mathbb{E}[\mu + \delta] < \mathbb{E}[\mu] \iff \lambda < 0$

Why do women underestimate the effect of motherhood?

Empirical Evidence

Figure 11: Various proxies for “employment costs of motherhood”



Conclusion

- ▶ Are women over-investing in education?
- ▶ Why employment costs of motherhood change over time?

Thank you!