Female labour supply and time use
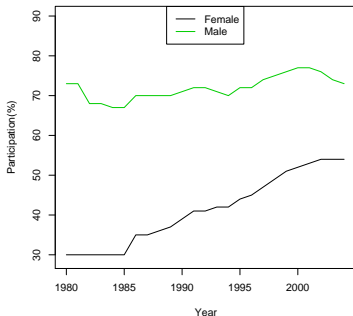
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1. Where does the extra working time come from ?

2. General picture of female time use

3. How does non-parental childcare interact with timeuse ?

- Literature review
- Data (and its limitations)
- Empirical results

Literature review

- Aguiar-Hurst(2006)
- Hamermesh, Pfann(2004)
- Ichino, Galdeano(2006?)
- Bianchi(2000)
- Bryant, Zick(1996)
- Ruhm (2004)
- Folbre, Yoon (2007)

Data (and its limitations)

- TBO in 1980,85,90,95 and 2000. 14453 people aged 12+.
- Only one in a family !
- diary + background information.
- Wealth and income information missing. Education available.
- No "with whom" info. Very little "secondary activity" info.
- . . . but observed in 7 days.
- Therefore no structural model

Data selection

- We only include grown-ups (20-55 yo) living in a couple and having a child($<$18yo) at home.
- Define three groups: working mothers, stayhome mothers and fathers.
- Activities: formal work, household work, personal time, studying, active time with children and passive time with children

Trends of time use

	Working mothers	Stayhome mothers	Fathers
Formal work	19,2 ↑	—	38,5 ↑
Housework	20,4 ↓	27,2 ↓	7,9 ↕
Personal	50,1 ↕	53,5 ↕	47,6 ↕
Act childcare	1,9 ↑	2,7 ↑	1,2 ↕
Pas childcare	4,8 ↑	7,4 ↑	1,6 ↑
Free time	22,4 ↓	27,9 ↕	21,8 ↓
Studying	1,2 ↕	1,2 ↕	1,4 ↕
Nr. of kids	1,9 ↓	2,1 ↕	2,0 ↕
Δ Education	1,5	1,2	1,4
Sample size	1014	1748	1813

- **Dependent vatiable:** Time spent in activity A during the 5 working days
- **Independent variables:** Year dummies, age, age^2, working time, partner's working time, kids <3yo dummy, kids 4-12yo dummy, 2 kids dummy, 3+ kids dummy, education level dummies.
- OLS & Tobit

	Working mothers		Fathers	
Housework	25	↓	18	⤳
Personal	11	⤵	14,5	
Act childcare	2	↑	1,4	↑
Pas childcare	5,4	↕	4,4	↑
Free time	15	⤳	20	⤵
Studying	1,5	↑	2	

Regression results

1. Personal needs
   - Year effects: Every five years an hour less of personal care for working people.
   - Negative effects of many and/or small children (ca 1.5 hour)

2. Housework time
   - Small children lead to less housework
   - More children lead to more housework
   - Education leads to much less housework. No year effects.
   - Men have a positive time trend, negative effect of more children. No effect of education.

3. Free time
   - -1.5h per kid. -5h for small kids. -2h for 4-12yo.
   - Men's free time decreased when their spouses worked in the 80's. Higher education leads to less free time. Negative effect of small children. Negative trend.

Regression results III

Active child care

	g1TOT	g180	g190	g100	g2TOT	g3TOT
Work	$-0{,}0414^*$	$-0{,}0344^*$	$-0{,}0425^*$	$-0{,}0564^*$	0	$-0{,}0419^*$
	(0.00692)	(0.0112)	(0.00994)	(0.0181)	(0)	(0.00336)
Work(p)	$0{,}0238$	$0{,}0299$	$-0{,}00908$	$0{,}0696$	$-0{,}0190$	$-0{,}0234.$
	(0.0215)	(0.0366)	(0.0298)	(0.0567)	(0.0834)	(0.0135)
kid<3	$3{,}72^*$	$3{,}41^*$	$3{,}68^*$	$3{,}56^*$	$3{,}74^*$	$3{,}12^*$
	(0.318)	(0.559)	(0.446)	(0.772)	(0.297)	(0.253)
kid 4-12	$2{,}74^*$	$2{,}37^*$	$3{,}02^*$	$2{,}23^*$	$2{,}77^*$	$2{,}19^*$
	(0.255)	(0.432)	(0.364)	(0.627)	(0.254)	(0.224)
2 kids	$0{,}502^*$	$0{,}464$	$0{,}574^*$	$0{,}493$	$0{,}425^*$	$0{,}492^*$
	(0.187)	(0.316)	(0.265)	(0.451)	(0.166)	(0.148)
3+ kids	$0{,}276$	$0{,}139$	$0{,}239$	$0{,}809$	$0{,}0982$	$0{,}0226$
	(0.240)	(0.42)	(0.33)	(0.589)	(0.201)	(0.179)

By stayhome mothers and men: increases with education

Regression results IV

Passive child care

	g1TOT	g180	g190	g100	g2TOT	g3TOT
Work	$-0{,}120^*$ (0.0139)	$-0{,}119^*$ (0.0216)	$-0{,}119^*$ (0.0211)	$-0{,}129^*$ (0.0333)	0 (0)	$-0{,}0795^*$ (0.00529)
Worp(p)	$0{,}0136$ (0.0428)	$0{,}0151$ (0.0694)	$0{,}00867$ (0.0635)	$0{,}0190$ (0.102)	$0{,}116$ (0.196)	$-0{,}0636^*$ (0.0218)
kid<3	$9{,}86^*$ (0.646)	$7{,}81^*$ (1.07)	$10{,}5^*$ (0.961)	$10{,}6^*$ (1.44)	$11{,}4^*$ (0.699)	$4{,}58^*$ (0.399)
kid 4-12	$5{,}7^*$ (0.528)	$4{,}19^*$ (0.852)	$6{,}02^*$ (0.791)	$7{,}16^*$ (1.21)	$5{,}41^*$ (0.602)	$2{,}28^*$ (0.357)
2 kids	$0{,}998^*$ (0.372)	$0{,}163$ (0.606)	$1{,}73^*$ (0.555)	$0{,}314$ (0.825)	$0{,}854^*$ (0.387)	$0{,}551^*$ (0.235)
3+ kids	$1{,}13^*$ (0.477)	$0{,}439$ (0.81)	$1{,}77^*$ (0.694)	$0{,}202$ (1.08)	$1{,}79^*$ (0.468)	$1{,}16^*$ (0.278)
edu5	$1{,}78^*$ (0.715)	$2{,}78^*$ (1.00)	$0{,}32$ (1.26)	$2{,}63$ (2.82)	$3{,}94^*$ (0.634)	$2{,}30^*$ (0.38)
edu6	$2{,}54^*$ (0.926)	$2{,}96.$ (1.54)	$1{,}83$ (1.49)	$1{,}29$ (3.2)	$7{,}6^*$ (1.67)	$3{,}3^*$ (0.49)

Distribution of parental childcare over week
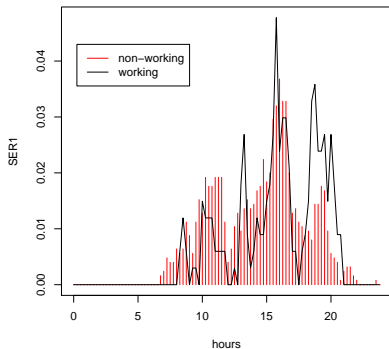
Working day
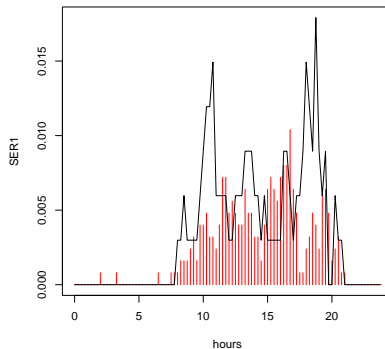
Weekend

Restructuring timeuse - Nonparental childcare

	Work	Hshld work	Personal needs	Free time	Active childcare	Passive childcare
aftern'n	−0,267 (0.189)	0,536* (0.102)	−0,146. (0.073)	0,586* (0.113)	0,284* (0.076)	−0,186* (0.0647)
sex	−5,6* (0.633)	2,31* (0.223)	0,627* (0.230)	1,52* (0.261)	1,00* (0.181)	1,25* (0.183)
childc'e	0,024 (0.299)	−0,033 (0.208)	0,0238 (0.139)	−0,367 (0.238)	−0,207 (0.170)	0,356* (0.136)
age	1,38* (0.541)	0,268* (0.11)	−0,123 (0.119)	−0,211. (0.121)	0,0328 (0.0886)	0,101 (0.09)
age^2	−2,05* (0.846)	−0,376. (0.185)	0,171 (0.203)	0,358. (0.207)	−0,0134 (0.150)	−0,130 (0.152)
fem·chc	3,79* (0.413)	−1,08* (0.246)	−0,775* (0.173)	−0,591* (0.281)	−0,531* (0.199)	−0,577* (0.160)
σ_ϵ	2,21*	1,24*	0,911*	1,31*	0,773*	0,767*
σ_α	2,23*	0,626*	0,829*	0,766*	0,529*	0,574*
% > 0	54 %	57 %	60 %	48 %	31 %	51 %

Conclusions

- Female labour supply is mainly compensated by housework and free time
- . . . but still work has a negative effect on time spent actively with children
- . . . and this negative effect has intensified over time
- Nonparental childcare correlates positively only with formal labour. Other activities are supressed.