

Unveiling the Persistent Gender Time Gap: How Formal Childcare Impacts Paid and Unpaid Work Dynamics in Austrian Families

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- Significant gender differences in the division of paid and unpaid work among parents
(EC 2024; EIGE 2021)
- Family policies (i.e. formal childcare) impact paid and unpaid work time arrangements of parents
(Del Boca 2015, Mahringer and Zulehner 2015, Müller and Wrohlich 2020)
- Evidence of childcare arrangements on parental time use patterns, especially unpaid work is very limited and data availability is rather poor
(Craig and Mullan 2011)

Institutional context in Austria

- Conservative welfare state with traditional family and gender roles
- 51 % of women work part-time
- High gender pay gap (18,4 %)
- 40 % of mothers work part-time due to the lack of adequate childcare facilities (Statistik Austria 2023)
 - Childcare coverage rate of under 3-year-olds: 29 % (Barcelona target: 45 %)
 - Regional disparities: outside of the city of Vienna, only every fifth kindergarten spot is compatible with parental full-time employment
 - Free-of-charge, full-day care is only available in three out of nine federal states

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Does children's time spent in formal childcare impact

1. parents' combined working hours?
2. individual work time of mothers and fathers?
3. the gender time gaps in working hours between parents?

Austrian Time Use Survey 2021/22

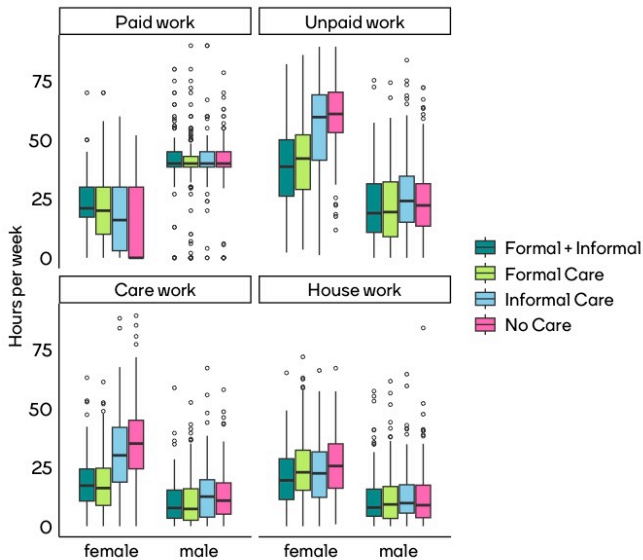
- Different-sex couple households living with children aged 0-10 years (n=671)
- Reference child: child with the fewest hours in childcare

Use of childcare

<i>N</i> = 671	Share of Households
Childcare arrangement	
no childcare usage	27 %
only formal childcare	40 %
only informal childcare	11 %
formal + informal childcare	22 %

Average time spent in childcare: 19 hours per week

Childcare and working hours



Gender time gaps

	<i>Mean (hours)</i>
Total work	5.8
Paid work	-19.7
Unpaid work	25.5
Unpaid carework	12.8
Unpaid housework	12.7

Multivariate regression analyses (OLS)

- Household level
- Individual level
- Gender time gap

Dependent variable:

- Hours of total work
- Hours of paid work
- Hours of unpaid work (care + housework)

$$y_i = \beta_0 + \beta \mathbf{X}_i + \gamma_m \mathbf{Z}_{m,i} + \gamma_f \mathbf{Z}_{f,i} + \epsilon_i \quad (1)$$

y_i : the working hours

\mathbf{X}_i : household-level variables (weekly hours of formal childcare, number of children aged 0-14, infants aged 0-1, Vienna, income quintile)

$\mathbf{Z}_{m,i}$ and $\mathbf{Z}_{f,i}$: individual-level control variables for mother and father (tertiary education, citizenship, age, share of household income)

Regression Results: Household level

Dependent variable: couples' (households') working hours

	Work Total	Paid Work	Unpaid Work	Unpaid Work: carework	Unpaid Work: housework
	(1)	(2)	(3)	(4)	(5)
	- 14 min.	+ 13 min.	- 27 min.		
Childcare Hours (Formal)	-0.218* (0.114)	0.231*** (0.083)	-0.449*** (0.093)	-0.344*** (0.073)	-0.105 (0.075)
Children 0-14	2.534* (1.444)	-1.557 (1.059)	4.091*** (1.187)	1.739* (0.927)	2.351** (0.954)
Infant	13.417*** (3.315)	3.647 (2.431)	9.770*** (2.724)	10.238*** (2.128)	-0.468 (2.190)
Vienna	-0.324 (3.125)	-6.091*** (2.291)	5.767** (2.568)	6.923*** (2.005)	-1.156 (2.064)
Income Quintile 2	2.574 (3.260)	4.922** (2.390)	-2.347 (2.679)	3.092 (2.092)	-5.439** (2.153)
Income Quintile 3	8.458*** (3.187)	14.478*** (2.337)	-6.019** (2.619)	2.026 (2.045)	-8.045*** (2.105)

Regression Results: Mothers

	<i>Dependent variable: Mothers' working hours</i>				
	Work Total	Paid Work	Unpaid Work	Unpaid Work: carework	Unpaid Work: housework
	(1)	(2)	(3)	(4)	(5)
	-10 min.	+ 11min.	- 21 min.		
Childcare Hours (Formal)	-0.160** (0.077)	0.189*** (0.049)	-0.349*** (0.067)	-0.256*** (0.054)	-0.093* (0.052)
Tertiary Education	0.441 (1.721)	0.561 (1.095)	-0.120 (1.508)	3.640*** (1.209)	-3.760*** (1.166)
Citizenship: EU	10.207*** (3.348)	6.797*** (2.130)	3.411 (2.935)	2.411 (2.353)	1.000 (2.268)
Citizenship: Austria	9.892*** (2.536)	5.326*** (1.613)	4.566** (2.222)	4.364** (1.782)	0.202 (1.718)
above 40 parent	-0.610 (1.743)	-0.146 (1.109)	-0.464 (1.528)	-3.732*** (1.225)	3.268*** (1.181)
Share of Household Income	0.101** (0.040)	0.291*** (0.025)	-0.190*** (0.035)	-0.042 (0.028)	-0.148*** (0.027)

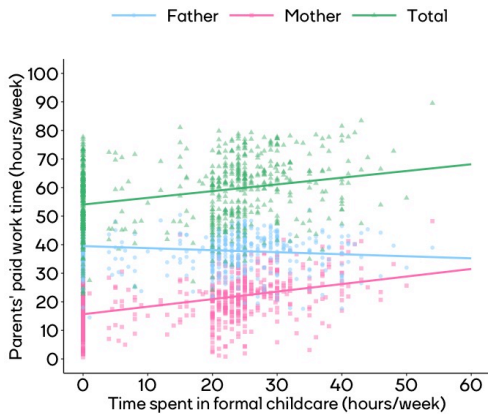
Regression Results: Fathers

	<i>Dependent variable: Fathers' working hours</i>				
	Work Total	Paid Work	Unpaid Work	Unpaid Work: carework	Unpaid Work: housework
	(1)	(2)	(3)	(4)	(5)
			- 7 min.	- 7 min.	
Childcare Hours (Formal)	-0.082 (0.078)	0.026 (0.057)	-0.108* (0.066)	-0.094** (0.039)	-0.015 (0.049)
Tertiary Education	0.041 (1.922)	-1.693 (1.392)	1.734 (1.613)	0.659 (0.966)	1.075 (1.213)
Citizenship: EU	5.190 (3.234)	3.855 (2.341)	1.335 (2.714)	1.758 (1.625)	-0.423 (2.041)
Citizenship: Austria	6.535*** (2.497)	4.385** (1.808)	2.150 (2.096)	0.037 (1.255)	2.112 (1.576)
above 40 parent	-1.838 (1.620)	0.361 (1.173)	-2.199 (1.359)	-2.165*** (0.814)	-0.034 (1.022)
Share of Household Income	0.125*** (0.038)	0.180*** (0.027)	-0.056* (0.032)	-0.004 (0.019)	-0.052** (0.024)

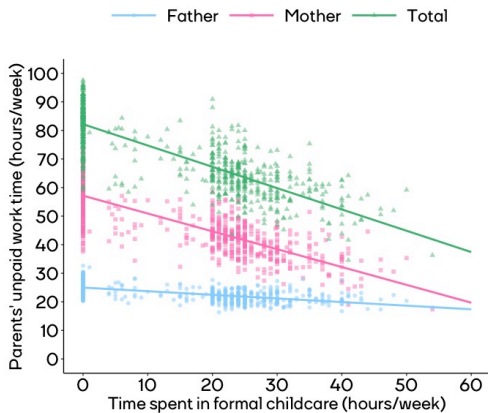
Regression Results: Gender Time Gap

	<i>Dependent variable:</i>				
	Work Total	Paid Work	Unpaid Work	Unpaid Work: carework	Unpaid Work: housework
	(1)	+ 9 min.	- 17 min.	(4)	(5)
Childcare Hours (Formal)	-0.135 (0.106)	0.145** (0.065)	-0.280*** (0.095)	-0.181*** (0.060)	-0.099 (0.070)
Male: above 40 parent	0.912 (2.422)	1.875 (1.483)	-0.963 (2.174)	-0.486 (1.370)	-0.476 (1.595)
Female: above 40 parent	5.196* (2.706)	-0.040 (1.657)	5.235** (2.429)	0.667 (1.531)	4.568** (1.782)
Female: Share of Household Income	0.268*** (0.055)	0.526*** (0.034)	-0.258*** (0.049)	-0.088*** (0.031)	-0.170*** (0.036)
Children 0-14	1.913 (1.343)	-2.312*** (0.823)	4.226*** (1.206)	1.084 (0.760)	3.142*** (0.884)
Infant	5.497* (3.083)	-4.121** (1.889)	9.618*** (2.768)	10.849*** (1.745)	-1.230 (2.030)
Vienna	-1.633 (2.906)	-3.480* (1.780)	1.847 (2.609)	0.208 (1.645)	1.638 (1.914)

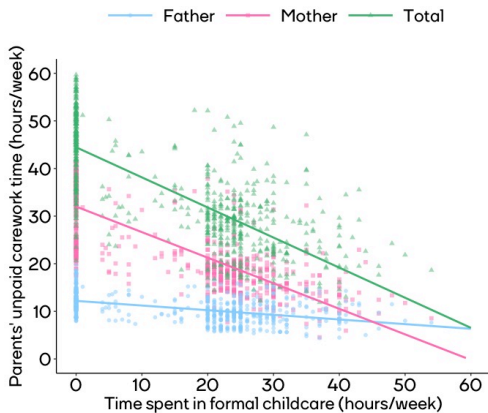
Results: Paid work



Results: Unpaid work



Results: Unpaid care work



Selected additional findings

- Additional children and the presence of infants increase unpaid working time for mothers
- Higher maternal education levels are associated with increased carework and reduced housework
- Public formal childcare has a stronger effect on parental working hours than private childcare
- Quantile regressions show households with larger initial gaps in paid working hours benefit more from increasing formal childcare time

Conclusion

1. Increasing formal childcare hours reduces couples' total working hours
2. The reduction is split into an increase in paid working time, but an even higher decrease in unpaid working hours
3. Changes are mainly driven by mothers reallocating their time resources
4. Fathers hardly adapt their working patterns
5. Formal childcare eases double burden on mothers
6. To reach more gender equality, fathers need to adjust their time allocations as well

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Thank you!

Questions or comments?

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Selected literature

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