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**DOES UNEMPLOYMENT MAKE BETTER FATHERS?
THE EFFECT OF JOB LOSS ON FATHERS' TIME INVESTMENT IN THE
HOUSEHOLD**

**1st Virtual Workshop on Applied Microeconomics,
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Motivation

- Persistent **gender difference in domestic work** in virtually all countries, despite strong increase in female (and maternal) labor force participation and public child care coverage
- **Impact of Covid-19 on gender equality** - potential changes in gender norms due to temporary takeover of primary child care responsibilities by fathers (Alon et al., 2020)
- **Paternity leave take-up** induces shifts in fathers' long-term time investments
 - BUT - selection issue of paternity leave take-up
- Existing evidence on effects of positive and negative **economic shocks on allocation of domestic work** within households (Foster and Stratton, 2018; Voßemer and Heyne, 2019; Fauser, 2019)

This Paper: Contributions

Research Question

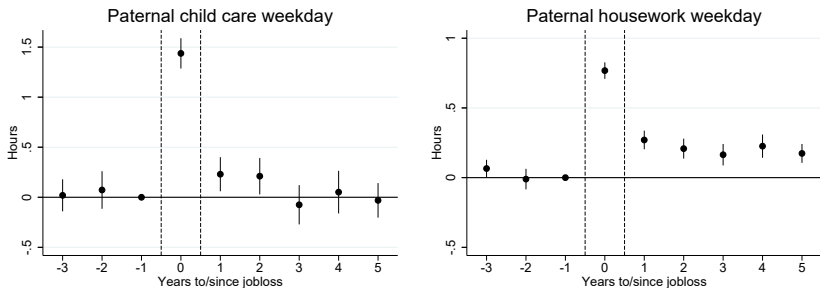
How do negative employment shocks (involuntary unemployment) change paternal time allocated to **child care** and **routine housework** ?

- **Event study approach:** Short- and medium-run effects
- **Partner spillovers:** If paternal time allocation changes, what happens with the partner?
- **Potential Channels:** time availability and bargaining powers (*short run*), changes in gender roles and emotional bonds (*long run*)

Data and Method

- **Data source** - German Socio-Economic Panel (SOEP) 1992-2018
- **Sample** - 9,345 Fathers aged 18-65 (76,200 observations)
 - Living together with partner and at least one underage child at time of job-loss
- **Explanatory variable** - Job loss with reason dismissal and firm closure (*1,327 job losses observed*)
- **Dependent variables** - Self-reported time use during typical weekdays and Sundays for routine housework (*cleaning, washing, cooking*) and child care Descriptives
- **Method** - event study with individual and time fixed effects
- **Control variables** - spousal characteristics (*in same HH, age, LFS*), child characteristics (*age and care for youngest child, number children in HH*), 'co-determined' characteristics (*subjective well-being and health (physical and mental), HH income*) Descriptives

Main Results



Notes: The figure plots coefficient estimates from an interaction of the involuntary job loss with indicators on the time difference to the event. The regressions include individual and year fixed effects and partner controls. The dashed lines indicate the timing of the job loss. Confidence intervals refer to the 95 percentile.

Source: Own calculations based on SOEP (2019).

[Regression results](#)
[Sunday](#)

Heterogeneity: Employment Status

	Estimated treatment effect of job loss	
	Child care Weekday	Housework Weekday
<i>1-2 periods post</i>		
not working	0.957*** (0.097)	0.616*** (0.038)
working	-0.302*** (0.088)	-0.022 (0.034)
<i>3-4 periods post</i>		
not working	0.725*** (0.117)	0.553*** (0.046)
working	-0.476*** (0.099)	-0.028 (0.039)
Number of observations	76,200	76,200

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Source: Own calculations based on SOEP (2019).

Conclusion

- Paternal involuntary job loss increases domestic work on a regular weekday in the short run
 - Child care by 1.4 hours (90%) and
 - Housework by 0.7 hours (100%)
- Effects are largely limited to weekdays
- Positive long term effects are driven by fathers who remain unemployed ...
- ... and have a working partners Partner Interaction
- Mothers react to changed paternal time allocation:
 - Working mothers persistently reduce child care and housework
 - Not working mothers increase time investments parallel to paternal increase

THANK YOU FOR YOUR ATTENTION!



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Comments and Feedback are highly welcome.

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Descriptives

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	Inv. job loss		No inv. job loss	
	Sample mean	s.d.	Sample mean	s.d.
Paternal outcomes				
Weekday Child care	2.29	(3.04)	1.60	(2.18)
Housework	0.94	(1.15)	0.70	(0.84)
Observations	8,205		70,864	
Sunday Child care	4.59	(4.68)	4.26	(4.53)
Housework	0.87	(1.08)	0.79	(0.99)
Observations	4,269		36,409	
Maternal outcomes				
Weekday Child care	6.06	(5.51)	6.22	(5.59)
Housework	3.21	(1.91)	3.02	(1.78)
Observations	7,901		59,362	
Sunday Child care	8.09	(6.12)	8.31	(6.31)
Housework	2.68	(1.84)	2.33	(1.63)
Observations	4,129		30,849	

Notes: The table provides descriptive statistics. Standard deviations are reported in parentheses.

Source: Own calculations based on SOEP (2019).

Descriptives

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	Sample			
	Inv. job loss		No inv. job loss	
	Sample mean	s.d.	Sample mean	s.d.
<i>Household characteristics</i>				
Number of children up to age 6	1.09	(1.31)	0.94	(1.22)
Number of children up to age 18	1.88	(0.96)	1.78	(0.90)
Net household income (month)	2561.57	(1021.66)	3603.28	(1991.89)
Number of observations	8,205		70,864	
<i>Paternal characteristics</i>				
Age	39.26	(8.24)	38.99	(9.70)
Married (D)	0.84	(0.37)	0.80	(0.40)
Vocational degree (D)	0.71	(0.45)	0.64	(0.48)
Academic degree (D)	0.09	(0.29)	0.25	(0.43)
No degree (D)	0.21	(0.41)	0.13	(0.34)
Migration background (D)	0.35	(0.48)	0.26	(0.44)
Subjective wellbeing	6.53	(1.85)	7.35	(1.59)
Physical health	50.69	(9.41)	53.25	(7.88)
Mental health	50.25	(9.40)	51.26	(8.84)
Number of observations	8,205		70,864	

Notes: The table provides descriptive statistics. Standard deviations are reported in parentheses.

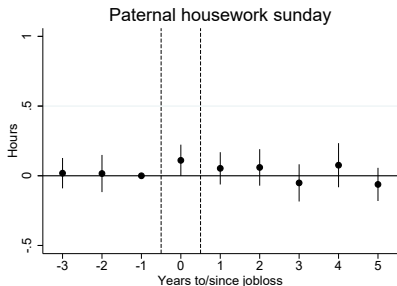
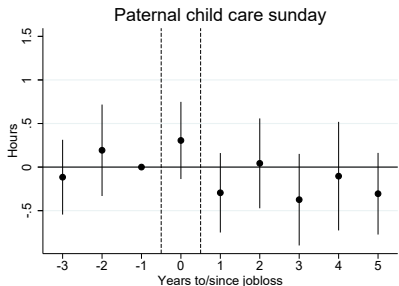
Source: own calculations based on SOEP (2019).

Building the Empirical Model

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<i>Dependent variable</i>	Estimated treatment effect of job loss			
	Ind. and year fixed effects (1)	+ partner controls (2)	+ child controls (3)	+ co-det. controls (4)
<i>Paternal child care weekday</i>				
2 periods pre	0.089 (0.103)	0.109 (0.104)	0.111 (0.104)	0.107 (0.151)
job loss	1.446*** (0.082)	1.457*** (0.083)	1.443*** (0.082)	1.437*** (0.108)
1 to 2 periods post	0.189** (0.082)	0.182** (0.083)	0.199** (0.082)	0.100 (0.108)
3 to 4 periods post	-0.058 (0.092)	-0.079 (0.093)	-0.059 (0.093)	-0.026 (0.122)
Sample mean	1.68	1.68	1.68	1.67
Number of observations	70,665	70,665	70,665	42,146
<i>Paternal child care Sunday</i>				
2 periods pre	0.247 (0.294)	0.270 (0.302)	0.248 (0.298)	-0.105 (0.539)
job loss	0.373 (0.240)	0.413* (0.247)	0.313 (0.244)	0.035 (0.403)
1 to 2 periods post	-0.026 (0.223)	0.044 (0.229)	-0.049 (0.226)	-0.618* (0.358)
3 to 4 periods post	-0.155 (0.249)	-0.029 (0.257)	-0.181 (0.253)	-0.616 (0.389)
Sample mean	4.34	4.34	4.34	4.26
Number of observations	36,153	36,153	36,153	17,654

Main Results - Sunday

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Notes: The figure plots coefficient estimates from an interaction of the involuntary job loss with indicators on the time difference to the event. The regressions include individual and year fixed effects and partner controls. The dashed lines indicate the timing of the job loss. Confidence intervals refer to the 95 percentile.

Source: Own calculations based on SOEP (2019).

[Regression results](#)

Building the Empirical Model cont.

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<i>Dependent variable</i>	(1)	(2)	(3)	(4)
<i>Paternal housework weekday</i>				
2 periods pre	-0.018 (0.040)	-0.011 (0.040)	-0.016 (0.040)	0.018 (0.059)
job loss	0.762*** (0.032)	0.765*** (0.032)	0.764*** (0.032)	0.766*** (0.042)
1 to 2 periods post	0.244*** (0.032)	0.248*** (0.032)	0.247*** (0.032)	0.257*** (0.042)
3 to 4 periods post	0.187*** (0.036)	0.190*** (0.036)	0.190*** (0.036)	0.196*** (0.048)
Sample mean	0.72	0.72	0.72	0.75
Number of observations	70,665	70,665	70,665	42,146
<i>Paternal housework Sunday</i>				
2 periods pre	-0.004 (0.074)	-0.003 (0.074)	-0.008 (0.074)	-0.039 (0.137)
job loss	0.080 (0.060)	0.083 (0.061)	0.082 (0.061)	0.073 (0.102)
1 to 2 periods post	0.042 (0.056)	0.051 (0.056)	0.052 (0.056)	0.043 (0.091)
3 to 4 periods post	-0.023 (0.063)	-0.017 (0.063)	-0.013 (0.063)	0.005 (0.099)
Sample mean	0.80	0.80	0.80	0.83
Number of observations	36,153	36,153	36,153	17,654

Notes: The table reports treatment effect estimates of an involuntary job loss on paternal time allocation. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Source: own calculations based on SOEP (2019).

Partner Interaction: Child Care

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	Estimated treatment effect of job loss			
	Weekday		Sunday	
	Father	Partner	Father	Partner
<i>Job loss</i>				
partner not working	1.541*** (0.095)	0.787*** (0.196)	0.118 (0.279)	0.112 (0.345)
partner working	1.282*** (0.099)	-1.387*** (0.205)	0.434 (0.278)	-0.906*** (0.344)
<i>1-2 periods post</i>				
partner not working	0.148 (0.095)	0.815*** (0.198)	-0.191 (0.259)	0.445 (0.321)
partner working	0.216** (0.094)	-0.819*** (0.196)	-0.148 (0.255)	-0.577* (0.315)
<i>3-4 periods post</i>				
partner not working	-0.251** (0.114)	0.806*** (0.238)	-0.656** (0.312)	-0.288 (0.387)
partner working	0.101 (0.106)	-0.859*** (0.221)	0.146 (0.288)	-0.833** (0.357)
Number of observations	66847	66847	34734	34734

Notes: The table reports treatment effect estimates of an involuntary job loss on paternal time allocation. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Source: own calculations based on SOEP (2019).

Partner Interaction: Housework

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	Estimated treatment effect of job loss			
	Weekday		Sunday	
	Father	Partner	Father	Partner
<i>Job loss</i>				
partner not working	0.559*** (0.036)	0.298*** (0.068)	-0.020 (0.070)	0.159 (0.110)
partner working	1.002*** (0.038)	-0.442*** (0.071)	0.223*** (0.070)	-0.327*** (0.111)
<i>1-2 periods post</i>				
partner not working	0.122*** (0.037)	0.322*** (0.069)	-0.082 (0.065)	0.110 (0.103)
partner working	0.337*** (0.036)	-0.423*** (0.068)	0.133** (0.064)	-0.185* (0.101)
<i>3-4 periods post</i>				
partner not working	0.067 (0.044)	0.273*** (0.082)	-0.044 (0.078)	-0.169 (0.124)
partner working	0.293*** (0.041)	-0.357*** (0.076)	0.021 (0.072)	-0.181 (0.114)
Number of observations	66998	66998	34750	34750

Notes: The table reports treatment effect estimates of an involuntary job loss on paternal time allocation. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Source: own calculations based on SOEP (2019).

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