**When the last child moves out:
Continuity and convergence in spouses' housework time**

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Objective: *To examine how mothers' and fathers' time allocation for housework changes during the transition to postparenthood, i.e. when the last child moves out of their family households.*

Background: *When the last child moves out, parental households are sized back to the situation before parenthood. Mothers and fathers are released from their direct parenting roles and parental time binds. This transition creates a context in which individual and coupled time allocation are likely to be rearranged.*

Methods: *Changes in mothers' and fathers' housework time and mothers' shares of total housework time were estimated using longitudinal fixed effects regression models, using data from the German Socio-economic Panel Study (1985-2019) on 1,004 households experiencing the transition to postparenthood.*

Results: *Mothers' time for housework declined by 11 minutes in the years before and by further 7 minutes per day at the transition to postparenthood, whereas fathers' time declined by 6 minutes in the year after the last child has moved out of the parental household.*

Mothers' share of total housework time remained constant around 72-75 percent around postparenthood. Analyses for different groups and specific tasks revealed no variations in the gendered trajectories of housework time. In general, mothers continued to do the majority of housework despite some slight convergence.

Conclusion: *The transition to postparenthood contributes slightly to the life-course convergence of housework time and thus, similar to all major life-course transitions following the birth of children, tends to reduce housework inequality in couples.*

Key Words: *division of labor, empty nest, family dynamics, gender inequality, life course.*

Studying time allocation in the context and course of parenthood has been one of the most fruitful applications to assess the mechanisms of doing gender in modern societies for decades. Ample research flagged the transition to parenthood as a remarkable societal invariant triggering a traditional division of labor, inducing path-dependent and long-lasting inequalities in housework time between mothers and fathers over the life course (Baxter et al., 2008; Bianchi et al., 2000). Notably absent in research on time allocation in the family is the transition to postparenthood, i.e. the last child's departure from the parental household, an important life-course event for parents which potentially opens a window for re-negotiation of couples' time for and division of housework.

Just like any other life-course transition, such as marriage, parenthood, unemployment, or retirement (Baxter et al., 2008; Leopold & Skopek, 2015; Voßemer & Heyne, 2019), the transition to the postparental period may change the basic foundations of couples' gender inequality in housework, i.e., their relative resources and the contexts of symbolic exchange. When the last child moves out of the parental household, parental households are sized back to the situation before parenthood, releasing mothers and fathers from their direct parenting roles and parental time binds, creating a situation in which individual and coupled time allocation are likely to be rearranged (Bouchard, 2014; Sussman, 1955).

The existing literature almost exclusively dealt with health and well-being issues or the risk of separation and divorce during the transition to the postparenthood. (Bouchard, 2014; Lin et al., 2018; Raup & Myers, 1989). So far, Rexroat & Shehan (1987) and Anxo et al. (2007) provided the only accounts of housework time allocation in different stages of the family life cycle, including women's and men's behavior in the "empty nest". They found that wives in several Western countries spent considerably less time for housework after the youngest child has left the parental household compared to the previous years of childrearing, whereas husbands' time was largely unaffected by family transitions.

In light of this cross-sectional groundwork, the current understanding of the time-dependencies and changes of gendered time use for housework across mothers' and fathers' transitions to the postparental period remains cursory and inconclusive. Cross-sectional studies particularly suffer from their inability to capture unobserved heterogeneity between parents with children living in their household and parents in the postparenthood stage. Hence, it remains unclear if the reported group differences indicate life-cycle effects related to the empty nest transition or if they are driven by other (unobserved) factors such as cohort change (Brüderl & Ludwig, 2015). Yet, questions about continuity or convergence of gendered unpaid work times over the life course and issues of gender equity and couples' division of labor are relevant for contemporary societies, in which mothers and fathers face a prolonged period of time living together without their children in a shared couple household (Bouchard, 2014; Leopold & Skopek, 2015; Raup & Myers, 1989).

The present study addressed this situation of minimal knowledge in three ways. First, it provides the first longitudinal study of how couples adapt their time allocation for housework when their children leave the parental household in a short- and longer-term view, based on extensive panel data from the German Socio-Economic Panel Study (Goebel et al., 2019). Second, it studies how housework allocation varies by spouses' education, which is a major indicator of socioeconomic status or consent to traditional family life. Third, it offers a life-course perspective of changes in housework time, separately for total housework, "female-typed" chores, such as cooking, cleaning, and laundry, "male-typed" chores, such as repairs and caring for the car, and "gender-neutral" chores, such as grocery shopping or other errands, fueling the debate about the process of gender convergence or continuity.

BACKGROUND

Gendered time allocation and the division of housework in couples have long been recognized as dynamic processes that develop between changing resource relations, changing gender

roles, and changing demands for paid and unpaid labor (Artis & Pavalko, 2003; Lam et al., 2012). Recent longitudinal research highlighted two major developments concerning the gender gap in housework by tracking women's and men's life courses over time. First, there has been a slow and steady life-course course and cohort convergence of women's and men's unpaid work times, which was largely driven by considerable reductions of women's housework time combined with rather constant or only slightly increased time budgets of men (Leopold et al., 2018; Skopek & Leopold, 2019). Second, women continue to do much more housework than men and are generally held responsible for this kind of labor. This well-documented concurrence of convergence and continuity is characteristic for contemporary Western societies in general, and Germany – the context of the present study – in particular (Leopold et al., 2018; Pailhé et al., 2021; Sullivan et al., 2018).

Previous life-course research further highlighted that the gender gap in housework has been largest in early midlife, particularly triggered by the transition to parenthood and its path-dependent impact on gender inequality (Baxter et al., 2008). Over the life course, this gap is slightly reduced, until the end of women's and men's employment careers opens a window for re-negotiating everyday roles and practices (Artis & Pavalko, 2003; Lam et al., 2012; Leopold et al., 2018; Leopold & Skopek, 2015). Overall, research has suggested that women's time allocation seems to be more responsive to family transitions than men's (Anxo et al., 2007; Rexroat & Shehan, 1987), whereas men rather respond to employment changes, such as retirement or unemployment (Leopold & Skopek, 2015; Voßemer & Heyne, 2019), and then rather respond in a more fluctuating, less long-lasting way.

From a life-course perspective, the transition to postparenthood, i.e., when the last child has left the parental household, is arguably the major family transition for women and men in mid-adulthood besides transitions of family dissolution. When children depart, the household structure and, thus, the context for negotiations of time allocation change fundamentally, because, above all, the demand for housework decreases, and responsibilities

for housework need to be rearranged between spouses (Artis & Pavalko, 2003; Rexroat & Shehan, 1987).

In theoretical terms, convergence and continuity of gender inequality around life-course transitions have been framed in terms of gender, relative resources, and time availability (Artis & Pavalko, 2003; Lam et al., 2012; Leopold & Skopek, 2015). Supporting the notion of continuity, the gender perspective emphasizes the importance of symbolic exchange for the division of labor in the household. Women and men “do gender” by allocating time to gender-stereotyped activities – i.e., women doing unpaid work, and men doing paid work and avoiding unpaid work – largely independent from relative productivities, resources or time binds on the labor market (Berk, 1985; West & Zimmerman, 1987). According to this view, the transition to postparenthood should not affect mothers’ and fathers’ time for housework as well as their division of labor, because the attachment to prevailing gender roles perpetually reinforces the traditional separate spheres pattern. This should further hold for the division of gender-typed tasks within the broader notion of housework: the gender gap at the expense of mothers should be largest for routine housework and much smaller for errands, whereas repair activities should remain in the hands of fathers (Berk, 1985).

Supporting the notion of convergence, the relative resource and time availability perspectives explain time allocation and the division of labor by gender-neutral bargaining or economic specialization within couples based on relative productivities or time constraints of women and men (Becker, 1991; Rexroat & Shehan, 1987). On the one hand, higher domestic productivity of women, due to path-dependent investments over the life course, would again predict continuity in housework around the transition to postparenthood. On the other hand, changing time binds because of children and changing labor market investments of mothers around this transition should relieve women from the role of the dependent partner in the couple and should reduce men’s leading edge in resources. According to this view, women

should reduce their housework time considerably when children move out, and men should slightly increase their contributions to housework.

The longitudinal approach of the present study is well-suited to assess which of these contrasting expectations is more plausible in the shorter and longer term around the transition to postparenthood. Studying Germany fits well with the existing literature on time allocation in the postparental phase as it was not covered in previous studies (Anxo et al., 2007; Rexroat & Shehan, 1987), adding evidence for a society with an at least moderate separate spheres family model as well as prevailing traditional gender ideologies and gendered behavior in the family.

Beyond these two basic gender and resource mechanisms, the division of housework likely varies by spouses' educational level. From an economic perspective, higher education increases labor market productivity and gains from paid work, which implies less attachment to housework, especially for women and mothers, who are still regarded responsible for the bulk of unpaid work in a traditional regime such as Germany. In contrast, higher education could result in greater participation in housework, especially by men and fathers, as higher education has been found to correlate with a more liberal approach to gender role attitudes, which in the long term should add to the process of gender convergence and reduce gender inequality in housework (Skopek & Leopold, 2019).

METHOD

Data and Sample

The present study was based on data from the German Socio-Economic Panel Study (SOEP, version 36, <https://doi.org/10.5684/soep.v36>; Goebel et al., 2019), one of the world's largest and longest-running panel surveys of households and individuals. The SOEP data were ideally suited to study changes in time allocation around the transition to postparenthood, as yearly

data on the household composition and housework time of partners living in a joint household was available for the period between 1985 and 2019.

The baseline sample of the present study comprised 10,131 heterosexual, German couples, observed in at least two panel waves, and at least once with a child living in their household. Given the small number of couples' transitions into the empty nest stage among migrants, the analyses were restricted to respondents without migration background. The analysis sample was constructed to represent a clearly defined group of couple households, who were at risk of experiencing the transition to postparenthood. For that reason, complex households (e.g., with grandparents or other adult persons) were excluded. Instead, the sampling focused exclusively on couple households, who either lived together with children or on their own after the last child has left the parental household ($n = 9,990$). Because parents' division of household labor has been studied in detail elsewhere, the present study focused on parents with children of at least 16 years of age ($n = 4,250$). In addition, couples with gap years, i.e., temporary non-response, during the transition into the empty nest stage ($n = 4,086$) were dropped, because gap years did not allow an exact identification of the transition to postparenthood. To deal with left-censoring and to ensure an exclusive focus on first-time empty-nest transitions, the analysis sample was further restricted to couple households who were observed living together with a child aged 16 ($n = 2,473$). Without this restriction, the sample would also include re-exits of adult children who already left the parental home for the first time before the couple households entered the survey.

The final sample comprised two sub-groups. First, the event sample included 1,004 couples whose last child moved out of their household and did not return during the observation period. Couples were followed for up to three years after the event of postparenthood to additionally cover the immediate period after the transition. On average, couples in the event sample were observed for ten years, yielding 10,676 observations in the analysis sample. Second, the control sample included 1,466 couples with 8,130 observations,

who were at risk of experiencing the transition to postparenthood, but were right-censored before the (possible) event occurred. Including these cases into the fixed effects panel regression models accounted for potential age effects when estimating the effect of the empty nest transition on time spent for housework (Brüderl & Ludwig, 2015).

Measures

Outcomes. The outcome measures used in the analysis were based on “stylized measures” of time use, routinely collected in large panel surveys to provide longitudinal information on time use. In the SOEP, time use for housework was measured with the annual survey question: “What is a typical weekday like for you? How many hours per normal workday do you spend on the following activities?” The response categories included routine housework (washing, cooking, cleaning), errands (shopping, trips to government agencies, etc.), and repairs on and around the house, car repairs, garden work.

From 1985 until 1990 routine housework and errands were surveyed together as a combined category. An equivalent indicator was constructed for the remaining survey period by combining the hours reported for routine housework and errands. The analysis presented below provides results based on this composite indicator covering the survey period from 1985 until 2019. Moreover, analysis distinguishing housework tasks (routine housework, errands, repairs) were conducted for the survey years between 1991 and 2019. In addition to mother’s and father’s housework hours, the relative contribution of mothers’ housework hours to the couple’s total hours was used as the third outcome variable in this study.

Compared to diary-based estimates of housework time, the stylized measures used in this study may lead to inflated assessments of time use (Kan, 2008). Stylized measures, however, have been shown to adequately reflect relative gender gaps and individual change in time use (Kan & Pudney, 2008). Kan & Pudney (2008) demonstrated that using a stylized instead of a diary-based time-use variable as an outcome measure in regression models leads

to neglectable and non-systematic coefficient biases. Furthermore, Gough & Killewald (2011, p. 1090) noted that fixed effects longitudinal models “absorb” classical measurement error and couples’ reporting bias in housework time, creating confidence that the within estimates capture actual changes.

The transition into postparenthood. The analysis tracked changes in time devoted to housework around the transition to postparenthood. The transition process was identified by utilizing annual information on the household composition and captured by a variable measuring an interval of 6 years around the transition (3 years prior to 3 years after the last child left the parental home). This way, it was possible to depict if housework time was already adjusted before the event or if changes occurred with a certain delay.

Controls. The regressions predicted the changes in absolute or relative housework hours net of age effects by considering the respondent’s age as a time-varying control variable. In addition, the models accounted for both partners’ employment status distinguishing three categories: (1) not employed, (2) part-time employed, (3) full-time employed. The models for the wife’s share of housework time additionally controlled for the couple’s total hours of housework. The educational gradient of a couple’s time allocation was captured by a dummy variable indicating if at least one of the two partners completed tertiary education.

After constructing the final sample (Table 1, Table A1 in the Appendix, and Table S1 in the Supplement), the small set of variables used in the analysis hardly contained missing values. Given the small number of missing values, no imputation of missing data was performed, and the models were estimated applying listwise deletion of incomplete observations. Descriptive information for all variables of the predictions in Figure 1 and the regression models in Table A2 are presented in Table 1, separately for the event and the control sample. Table A1 in the Appendix provides descriptives for the task-specific time use variables used to estimate the predictions in Figure 2, which were derived from the models in

Table A3. Table S1 in the Supplement provides further information on how the housework hours vary around the transition to postparenthood.

Table 1. *Sample Descriptives of The Control and the Event Sample*

	Control Sample					Event Sample				
	M	SD	Min	Max	N	M	SD	Min	Max	N
Age										
Mother	46.35	5.59	22	67	1612	45.42	5.77	26	68	1097
Father	49.18	6.37	26	75	1612	48.16	6.59	30	73	1097
Age at transition										
Father						52.30	6.57	29	78	1007
Mother						55.06	7.37	34	76	1007
Employment status										
Mother										
Not employed	23.20				374	23.43				257
Part-time	49.07				791	39.56				434
Full-time	27.73				447	37.01				406
Father										
Not employed	10.92				176	10.94				120
Part-time	2.98				48	2.55				28
Full-time	86.10				1388	86.51				949
Couple's educational level										
At least one partner with tertiary education	31.45				506	35.90				392
Missing values	0.19				3	0.46				5
Routine housework & errands										
Mother's hours	4.08	2.00	0	12	1609	4.01	2.08	0	12	1094
Father's hours	1.33	1.33	0	12	1612	1.36	1.31	0	10	1097
Couple's total hours	5.40	2.32	0	24	1609	5.37	2.30	0	18	1094
Mother's share	0.76	0.21	0	1	1602	0.75	0.22	0	1	1091

Notes. See Table A1 in the Appendix and Table S1 in the Supplement for more detailed descriptives. If not stated otherwise the statistics are calculated for couples' first observation in the panel. German Socio-economic Panel Study, version 36, release 2019; own calculations.

Analytical Strategy

Fixed effects panel regression models were used to examine how the empty transition affects the allocation of parents' housework time and within-couple shares of housework time (Brüderl & Ludwig, 2015). These models focused exclusively on within-person or within-couple change over time, relating temporal variation in the outcome measures only to temporal variation in the independent variables. Because only characteristics varying over time entered the fixed effects model, all time-constant variables were eliminated from the

equation and time-constant heterogeneity (observed and unobserved) was rendered inconsequential (Brüderl & Ludwig, 2015).

To answer the research questions, a series of fixed effects regression models was estimated, predicting, first, a composite housework measure comprising routine housework and errands for mothers, fathers and mothers' relative shares of housework time for (a) the full sample, (b) couples in which at least one partner holds a tertiary degree, and (c) for couples without a tertiary degree. Second, a more fine-grained set of models differentiated three types of housework tasks, i.e. (a) routine housework, (b) errands, and (c) repairs and gardening. In addition, several sensitivity checks were performed to assess the robustness of the results, most notably for less restrictive samples, or for different subgroups (documented in the Supplement). Yet, none of these checks proved to alter the main conclusions of the study.

RESULTS

Figure 1 (estimated from Table A2 in the Appendix) shows the development of mothers' (red markers) and fathers' (blue markers) hours for housework and errands (left y-axis) and mothers' share of total hours of these chores in couples (green markers, right y-axis) for the whole sample and split by education. Looking at all respondents (left panel of Figure 1), mothers' average housework hours circled around 4 hours (3.83–4.13 hours), and men's hours whirling around 1.43–1.51 hours on regular weekdays in the observation window. This translated into a slightly oscillating mothers' shares of housework between 72-75 percent.

In the observed years before the transition to postparenthood, mothers' housework time was significantly higher than in the year of the event. When the last child left the parental household, there was a small but significant decline in mothers' housework time of about 7 minutes on average compared to the year before the transition (Table A1). In the years after the transition, mothers' time did not differ significantly from the year of the event.

Fathers' housework hours, in contrast, did not change until the year of the transition but declined slightly by about 6 minutes in the years after the event occurred. Concerning the change of mothers' share, it tended to be 1-3 percentage points higher before and after the transition, and thus lower in the year when the last child moved out, but not every yearly measurement point is statistically significant compared to the year of the event.

FIGURE 1. TIME USE OF MOTHERS AND FATHERS FOR ROUTINE HOUSEWORK & ERRANDS, AND MOTHER'S RELATIVE SHARES OF HOUSEWORK TIME AROUND THE TRANSITION TO POSTPARENTHOOD, FOR THE WHOLE SAMPLE AND BY EDUCATION

Notes. Left y-axis: predicted hours of routine housework & errands per weekday (Mo thru Fr); right y-axis: predicted share of mothers' housework time of total housework time in percent. Minutes and shares were calculated from the regression models in Table A2 in the Appendix as margins at the means, which were adjusted by setting all covariates to the sample means. German Socio-economic Panel Study, 1985–2019; own calculations.

Concerning educational differences in the time use trajectories around the transition to postparenthood, Figure 1 (right panel) indicated a notable level difference between mothers. In households with no tertiary degree, mothers spent about 20 percent more time on routine housework and errands (4.11–4.39 hours) compared to mothers in households with at least

one tertiary degree (3.26–3.65 hours). There was no difference between fathers' time in households with different educational levels, ranging around or slightly below 1.5 hours. Thus, mothers' shares of housework were slightly lower for mothers in households with tertiary education than in those without. Regarding the changes around the transition to postparenthood, neither the results in Figure 1 nor in the corresponding Table A2 showed patterns that were distinct from the overall picture of the whole sample, albeit not all coefficients and predictions were similarly statistically significant.

FIGURE 2. TIME USE OF MOTHERS AND FATHERS FOR ROUTINE HOUSEWORK, ERRANDS, AND REPAIRS, AND MOTHER'S RELATIVE SHARES OF THESE CHORES AROUND THE TRANSITION TO POSTPARENTHOOD

Notes. Left y-axis: predicted hours of routine housework, errands, and repairs per weekday (Mo thru Fr); right y-axis: predicted share of mothers' housework time of total housework time in percent. Minutes and shares were calculated from the regression models in Table A3 in the Appendix as margins at the means, which were adjusted by setting all covariates to the sample means. German Socio-economic Panel Study, 1991–2019; own calculations.

Figure 2 (estimated from Table A3 in the Appendix) displays the differences in time between “female-typed” routine housework, “gender-neutral” errands, and “male-typed” repair activities. The development of time use for routine housework reflected the patterns observed in Figure 1. Mothers spent more time on routine housework than fathers, mothers’ time was higher in the years before and did not change after the event, and fathers’ time decreased slightly in the year after the last child had moved out of the parental household.

There was much more alteration in time use for routine housework than for errands and repair activities. Mothers’ time for errands is rather stable in the observation window, circling around 1.22–1.30 hours, and fathers’ generally lower time (0.75–0.84 hours) increased slightly until the year of the event, and then drops back to the initial level before the transition to postparenthood. Repairs were the only activity on which fathers spent more time (about 1.11–1.21 hours) than mothers (just about 0.8 hours). Whereas the transition to postparenthood yielded a comparable decline in mothers’ hours for routine housework, spouses’ time use for errands and repairs was largely unaffected by children’s moving out.

All models used to estimate mothers’ and fathers’ time use for housework and specific bundles of housework activities controlled for employment status because working times were found to be highly relevant for the allocation of unpaid work times, not least according to the time availability approach (Bianchi et al., 2000). As Tables A2, A3 show, within-changes in employment status of both spouses were highly significant predictors of housework hours for mothers and fathers. At the same time, the reported accounts and changes in housework time in Figures 1, 2 were net of possible employment changes, and thus tended to be particularly robust.

CONCLUSION

The division of housework still figures as a powerful cause and consequence of gender inequality in modern societies. Despite long-term changes in spouses’ resources and time use,

traditional patterns of doing gender continue to reproduce at least moderate separate spheres models of family living over women's and men's life courses. This study investigated one major life-course transition that has been explored inconclusively in prior research: the transition to postparenthood, i.e. when the last child moves out of the parental household. Using data from the German Socio-economic Panel Study, 1985–2019, this study provided the first longitudinal investigation of spouses' short- and longer-term changes in housework time before, at, and after this particular transition.

Three findings surfaced in this analysis. First, mothers' and fathers' time use for housework changed only slightly around the transition to postparenthood. In the years before the event, mothers reduced their housework time significantly compared to the year of the actual event by about 15-20 minutes per weekday, whereas men's time declined by less than 10 minutes in the year following the event. These relatively small shifts did not greatly affect the division of housework, which remained rather stable in the observed years, slightly below mothers' share of 75 percent. Therefore, mothers continued to do most housework in couples in this phase of the life course, but at the same time, their time budgets converged slightly with their spouses'. This finding is in line with previous studies of housework time around other family events in later life, especially concerning retirement (Leopold & Skopek, 2015; Rexroat & Shehan, 1987), slightly counteracting the changes around the transition to parenthood, which have been found to be the major inducement of gender inequality in housework in couple households (Baxter et al., 2008; Bianchi et al., 2000).

Second, more detailed analyses for different groups and specific tasks revealed no variations in the gendered trajectories of housework time before, at, and after the transition to postparenthood. Still, notable level differences were found between households with at least one tertiary degree compared to households with less than tertiary education. This connects to the idea that higher education goes hand in hand with a less gendered division of labor in couples, either through higher opportunity costs of unpaid labor, or through higher consent to

liberal gender ideologies and disapproval of the traditional separate spheres model (Bianchi et al., 2000; Skopek & Leopold, 2019). Concerning more specific housework activities, there was only little to no change for errands and repair chores in the observation window. Virtually the whole change was observed for routine housework, i.e., cooking, cleaning, and doing the laundry. The latter activities have traditionally been the most time-consuming, as well as elastic chores with the most potential for change, especially regarding a decline in women's housework time.

Third, mothers' time use trajectories were most responsive to the postparenthood transition, whereas fathers did not directly react to their children's departure from the family household. As suggested in previous research (Anxo et al., 2007; Rexroat & Shehan, 1987), women's behavior seems to be more strongly attached to family life than men's, who seem to rather respond to changes in their employment biographies. This interpretation is fueled by the idea of the persisting relevance of the traditional separate spheres-family model in a rather conservative welfare regime such as Germany. The notion of separate spheres may also explain the lagged adaptation of fathers in the years succeeding the transition to postparenthood, rather as a response to their wives' housework behavior after observing their decline in time for routine chores.

Taking everything into account, the findings of this study support both the continuity and the convergence hypotheses in theoretical and empirical terms: a continuously high gender inequality in housework time, based on the persistence of traditional doing gender and gender identities on the one hand, and a slight gender convergence of unpaid work times around the transition to postparenthood, based on the idea of changing contexts for the negotiation of daily routines in couples on the other.

Going beyond the scope of the present study, three limitations warrant further investigation. First, this study was limited to the German context. Although Germany is a prime example for studying the concurrence of change and stability in gender inequality,

broader conclusions on spouses' housework allocation around the transition to postparenthood should rely on time use studies from other countries as well. Compared to the previous cross-sectional studies (Anxo et al., 2007; Rexroat & Shehan, 1987), the fixed effects longitudinal findings of this study revealed a much smaller gender convergence in housework time. This, again, accentuates the necessity to control for unobserved heterogeneity when assessing life-cycle dependencies of time use or other outcomes (Brüderl & Ludwig, 2015).

Second, the measures of time use were limited to “stylized time use estimates”. Given the advantage that these variables were available longitudinally to study within-changes of mothers, fathers, and couples over the life course, these data are clearly less informative than diary data, which would offer a broad spectrum of more detailed analyses of time use. Thus, this study could not assess changes in demands for housework, or changes in mothers' and fathers' daily rhythms, activity sequences, joint activities, or the pertinence of helping children before they moved out of the parental household, all of which is likely to be of relevance in family households following a major life-course event such as the transition to parenthood.

Third, although the German Socio-economic Panel Study provided sufficient data to investigate the allocation of housework around the transition to postparenthood, larger samples would have been necessary to spell out the analyses in more detail. Although supplementary analyses showed, for example, expected level differences between cohorts, or East and West Germany, these yielded large confidence intervals, mainly because the number of events observed for each group was too small.

Finally, this study followed continuously cohabiting couples only, disregarding mothers and fathers who were on the brink of separation in the wake of children's imminent departure from the parental household. This might be the couples in which the desire for a change in housework participation is most pronounced. Thus, the findings of the present study

may underestimate the actual changes in spouses' housework time to some extent, but provide, at best, a "conservative" estimation of what is happening in later-life families.

In conclusion, the present study – again – reaffirmed the well-known pattern of continuity and convergence in time use. Covering the hitherto under-researched transition to postparenthood longitudinally, the study enhanced the understanding of the life-course dynamics of gender inequality in modern societies through the example of housework behavior. The transition to postparenthood contributes to the life-course convergence of housework time (Leopold et al., 2018), basically as well as all other major life-course transitions following the birth of children tend to reduce housework inequality in couples, yet not to such an extent to call this phase of the family life-cycle a phase of gender equity or even equality.

REFERENCES

- Anxo, D., Flood, L., Mencarini, L., Pailhé, A., Solaz, A., & Tanturri, M. L. (2007). *Time allocation between work and family over the life-cycle: A comparative gender analysis of Italy, France, Sweden and the United States* (No. 3193; IZA Discussion Papers). IZA. <https://hdl.handle.net/10419/34221>
- Artis, J. E., & Pavalko, E. K. (2003). Explaining the decline in women's household labor: Individual change and cohort differences. *Journal of Marriage and Family*, 65(3), 746–761. <https://doi.org/10.1111/j.1741-3737.2003.00746.x>
- Baxter, J., Hewitt, B., & Haynes, M. (2008). Life course transitions and housework: Marriage, parenthood, and time on housework. *Journal of Marriage and Family*, 70(2), 259–272. <https://doi.org/10.1111/j.1741-3737.2008.00479.x>
- Becker, G. S. (1991). *A treatise on the family*. Harvard University Press.
- Berk, S. F. (1985). *The gender factory. The apportionment of work in American households*. Plenum Press.

- Bianchi, S. M., Milkie, M. A., Sayer, L. C., & Robinson, J. P. (2000). Is anyone doing the housework? Trends in the gender division of household labor. *Social Forces*, 79(1), 191–228. <https://doi.org/10.2307/2675569>
- Bouchard, G. (2014). How do parents react when their children leave home? An integrative review. *Journal of Adult Development*, 21(2), 69–79. <https://doi.org/10.1007/s10804-013-9180-8>
- Brüderl, J., & Ludwig, V. (2015). Fixed-effects panel regression. In H. Best & C. Wolf (Eds.), *The SAGE handbook of regression analysis and causal inference* (pp. 327–357). SAGE Reference.
- Goebel, J., Grabka, M. M., Liebig, S., Kroh, M., Richter, D., Schröder, C., & Schupp, J. (2019). The German Socio-Economic Panel (SOEP). *Jahrbücher Für Nationalökonomie Und Statistik*, 239(2), 345–360. <https://doi.org/10.1515/jbnst-2018-0022>
- Gough, M., & Killewald, A. (2011). Unemployment in families: The case of housework. *Journal of Marriage and Family*, 73(5), 1085–1100. <https://doi.org/10.1111/j.1741-3737.2011.00867.x>
- Kan, M. Y. (2008). Measuring housework participation: The gap between “stylised” questionnaire estimates and diary-based estimates. *Social Indicators Research*, 86(3), 381–400. <https://doi.org/10.1007/s11205-007-9184-5>
- Kan, M. Y., & Pudney, S. (2008). Measurement error in stylized and diary data on time use. *Sociological Methodology*, 38(1), 101–132. <https://doi.org/10.1111/j.1467-9531.2008.00197.x>
- Lam, C. B., McHale, S. M., & Crouter, A. C. (2012). The division of household labor: Longitudinal changes and within-couple variation. *Journal of Marriage and Family*, 74(5), 944–952. <https://doi.org/10.1111/j.1741-3737.2012.01007.x>

- Leopold, T., & Skopek, J. (2015). Convergence or continuity? The gender gap in household labor after retirement. *Journal of Marriage and Family*, 77(4), 819–832.
<https://doi.org/10.1111/jomf.12199>
- Leopold, T., Skopek, J., & Schulz, F. (2018). Gender Convergence in Housework Time: A Life Course and Cohort Perspective. *Sociological Science*, 5, 281–303.
<https://doi.org/10.15195/v5.a13>
- Lin, I.-F., Brown, S. L., Wright, M. R., & Hammersmith, A. M. (2018). Antecedents of gray divorce: A life course perspective. *The Journals of Gerontology: Series B*, 73(6), 1022–1031. <https://doi.org/10.1093/geronb/gbw164>
- Pailhé, A., Solaz, A., & Stanfors, M. (2021). The great convergence: Gender and unpaid work in Europe and the United States. *Population and Development Review*, 47(1), 181–217. <https://doi.org/10.1111/padr.12385>
- Raup, J. L., & Myers, J. E. (1989). The empty nest syndrome: Myth or reality? *Journal of Counseling & Development*, 68(2), 180–183. <https://doi.org/10.1002/j.1556-6676.1989.tb01353.x>
- Rexroat, C., & Shehan, C. (1987). The family life cycle and spouses' time in housework. *Journal of Marriage and Family*, 49(4), 737–750. <https://doi.org/10.2307/351968>
- Skopek, J., & Leopold, T. (2019). Explaining Gender Convergence in Housework Time: Evidence from a Cohort-Sequence Design. *Social Forces*, 98(2), 578–621.
<https://doi.org/10.1093/sf/soy119>
- Sullivan, O., Gershuny, J., & Robinson, J. P. (2018). Stalled or uneven gender revolution? A long-term processual framework for understanding why change is slow. *Journal of Family Theory & Review*, 10(1), 263–279. <https://doi.org/10.1111/jftr.12248>
- Sussman, M. B. (1955). Activity patterns of post-parental couples and their relationship to family continuity. *Marriage and Family Living*, 17(4), 338–341.
<https://doi.org/10.2307/346945>

- Voßemer, J., & Heyne, S. (2019). Unemployment and housework in couples: Task-specific differences and dynamics over time. *Journal of Marriage and Family*, 81(5), 1074–1090. <https://doi.org/10.1111/jomf.12602>
- West, C., & Zimmerman, D. H. (1987). Doing gender. *Gender & Society*, 1(2), 125–151. <https://doi.org/10.1177/0891243287001002002>

APPENDIX

Table A1. *Descriptives for Time Use Variables in the Control and the Event Sample*

	Control Sample					Event Sample				
	M	SD	Min	Max	N	M	SD	Min	Max	N
Routine housework & errands										
Full sample										
Mother's hours	4.08	2.00	0	12	1609	4.01	2.08	0	12	1094
Father's hours	1.33	1.33	0	12	1612	1.36	1.31	0	10	1097
Couple's total hours	5.40	2.32	0	24	1609	5.37	2.30	0	18	1094
Mother's share	0.76	0.21	0	1	1602	0.75	0.22	0	1	1091
Sample:										
No tertiary education										
Mother's hours	4.22	2.03	0	12	1100	4.26	2.15	0	12	699
Father's hours	1.38	1.40	0	12	1103	1.39	1.36	0	10	700
Couple's total hours	5.59	2.40	0	24	1100	5.64	2.38	0	18	699
Mother's share	0.76	0.20	0	1	1094	0.76	0.21	0	1	697
Sample:										
With tertiary education										
Mother's hours	3.76	1.88	0	12	506	3.57	1.86	0	10	390
Father's hours	1.22	1.17	0	8	506	1.30	1.21	0	8	392
Couple's total hours	4.97	2.06	0	15	506	4.87	2.04	0	12	390
Mother's share	0.76	0.22	0	1	505	0.74	0.22	0	1	389
Routine housework										
Mother's hours	2.72	1.57	0	10	1463	2.60	1.57	0	10	931
Father's hours	0.68	0.86	0	6	1464	0.67	0.85	0	6	932
Couple's total hours	3.40	1.71	0	14	1463	3.26	1.66	0	11	931
Mother's share	0.81	0.22	0	1	1450	0.80	0.23	0	1	927
Errands										
Mother's hours	1.23	0.70	0	5	1462	1.23	0.74	0	10	931
Father's hours	0.71	0.70	0	6	1464	0.75	0.70	0	5	932
Couple's total hours	1.93	1.00	0	7	1462	1.97	1.00	0	7	931
Mother's share	0.68	0.28	0	1	1404	0.67	0.28	0	1	902
Repairs										
Mother's hours	0.76	0.87	0	8	1463	0.71	0.83	0	10	930
Father's hours	1.00	1.09	0	10	1461	1.07	1.14	0	10	930
Couple's total hours	1.74	1.45	0	10	1460	1.75	1.43	0	8	928
Mother's share	0.43	0.35	0	1	1180	0.40	0.35	0	1	747

Notes. The statistics are calculated for couples' first observation in the panel. The composite measure of routine housework and errands was available for the period 1985–2019. The task-specific time use housework indicators distinguishing routine housework, errands, and repairs are available since 1991. German Socio-economic Panel Study, 1985–2019; own calculations.

Table A2. *Fixed Effects Regression Models of Mothers' and Fathers' Hours for Housework & Errands, and Mothers' Share of Total Housework Time Around the Transition to Postparenthood*

	Whole sample			Sample by education					
				With tertiary education ^a			No tertiary education ^a		
	Hours mother	Hours father	Share mother	Hours mother	Hours father	Share mother	Hours mother	Hours father	Share mother
<i>Time around postparenthood</i>									
Min./-4 years	0.31*** (0.05)	-0.08* (0.04)	0.03*** (0.01)	0.38*** (0.08)	-0.04 (0.06)	0.04*** (0.01)	0.28*** (0.07)	-0.09+ (0.05)	0.03*** (0.01)
-3 years	0.21*** (0.06)	-0.08+ (0.05)	0.02** (0.01)	0.39*** (0.09)	0.04 (0.07)	0.02* (0.01)	0.12 (0.08)	-0.15* (0.06)	0.02* (0.01)
-2 years	0.25*** (0.06)	-0.06 (0.04)	0.03*** (0.01)	0.30*** (0.09)	-0.04 (0.06)	0.03** (0.01)	0.23** (0.08)	-0.06 (0.06)	0.02** (0.01)
-1 year	0.12* (0.06)	-0.00 (0.04)	0.01 (0.01)	0.23** (0.08)	0.02 (0.06)	0.02 (0.01)	0.06 (0.08)	-0.01 (0.06)	0.01 (0.01)
Transition	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
+1 year	0.00 (0.06)	-0.10* (0.05)	0.01 (0.01)	0.01 (0.09)	-0.09 (0.07)	0.01 (0.01)	-0.00 (0.08)	-0.11+ (0.06)	0.00 (0.01)
+2 years	0.05 (0.06)	-0.11* (0.05)	0.01 (0.01)	0.12 (0.09)	-0.13+ (0.07)	0.02+ (0.01)	0.02 (0.08)	-0.11+ (0.06)	0.01 (0.01)
+3 years	0.06 (0.07)	-0.05 (0.05)	0.00 (0.01)	0.04 (0.10)	-0.04 (0.07)	0.00 (0.01)	0.07 (0.09)	-0.06 (0.06)	0.01 (0.01)
<i>Father's employment</i>									
Not employed	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time	0.13+ (0.07)	-0.67*** (0.06)	0.06*** (0.01)	0.12 (0.11)	-0.62*** (0.09)	0.05*** (0.01)	0.14 (0.10)	-0.70*** (0.07)	0.06*** (0.01)
Full-time	0.33*** (0.04)	-1.44*** (0.03)	0.15*** (0.00)	0.44*** (0.07)	-1.52*** (0.05)	0.16*** (0.01)	0.27*** (0.05)	-1.42*** (0.04)	0.14*** (0.01)
<i>Mother's employment</i>									
Not employed	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time	-0.96*** (0.04)	0.17*** (0.03)	-0.06*** (0.00)	-1.23*** (0.07)	0.29*** (0.06)	-0.09*** (0.01)	-0.88*** (0.05)	0.13*** (0.04)	-0.05*** (0.01)
Full-time	-1.60*** (0.05)	0.33*** (0.04)	-0.13*** (0.01)	-1.77*** (0.08)	0.39*** (0.06)	-0.15*** (0.01)	-1.55*** (0.07)	0.33*** (0.05)	-0.12*** (0.01)
<i>Mother's age</i>	-0.03*** (0.00)		-0.00* (0.00)	-0.01+ (0.01)		-0.00+ (0.00)	-0.03*** (0.01)		-0.00 (0.00)
<i>Father's age</i>		-0.00 (0.00)			0.01+ (0.01)			-0.01 (0.00)	
<i>Total housework time</i>			-0.02*** (0.00)			-0.02*** (0.00)			-0.02*** (0.00)
<i>Constant</i>	5.82*** (0.24)	2.59*** (0.19)	0.82*** (0.03)	4.69*** (0.41)	1.97*** (0.32)	0.85*** (0.05)	6.34*** (0.30)	2.79*** (0.24)	0.82*** (0.03)
Number of households	2,472	2,471	2,473	846	845	846	1,636	1,636	1,637
Number of observations	18,780	18,784	18,704	6,305	6,308	6,283	12,443	12,444	12,389

Notes. Predicted hours and shares from these models are plotted in Figure 1. ^a Households with at least one tertiary degree vs. households with no tertiary degree. Unstandardized B-coefficients, standard errors in parentheses, levels of significance: *** p<.001, ** p<.01, * p<.05, + p <.1 (two-tailed). German Socio-economic Panel Study, 1985–2019; own calculations.

Table A3. *Fixed Effects Regression Models of Mother's and Father's Hours for Housework, Errands, and Repairs, and Mother's Share of These Chores Around the Transition to Postparenthood*

	Routine Housework			Errands			Repairs		
	Hours mother	Hours father	Share mother	Hours mother	Hours father	Share mother	Hours mother	Hours father	Share mother
<i>Time around postparenthood</i>									
Min./-4 years	0.23*** (0.04)	-0.05+ (0.03)	0.03*** (0.01)	0.07** (0.03)	-0.07** (0.03)	0.04*** (0.01)	-0.01 (0.03)	-0.05 (0.04)	0.01 (0.01)
-3 years	0.17*** (0.05)	-0.03 (0.03)	0.01+ (0.01)	0.04 (0.03)	-0.06* (0.03)	0.02* (0.01)	0.00 (0.03)	-0.05 (0.04)	-0.00 (0.01)
-2 years	0.18*** (0.05)	-0.03 (0.03)	0.02* (0.01)	0.05+ (0.03)	-0.05+ (0.03)	0.03** (0.01)	0.02 (0.03)	-0.09* (0.04)	0.02 (0.01)
-1 year	0.11* (0.05)	0.00 (0.03)	0.01 (0.01)	0.01 (0.03)	-0.02 (0.03)	0.01 (0.01)	0.00 (0.03)	-0.00 (0.04)	0.00 (0.01)
Transition	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
+1 year	0.02 (0.05)	-0.06+ (0.03)	0.01 (0.01)	-0.02 (0.03)	-0.05+ (0.03)	0.00 (0.01)	-0.02 (0.03)	-0.01 (0.04)	-0.01 (0.01)
+2 years	0.04 (0.05)	-0.03 (0.03)	0.01 (0.01)	0.00 (0.03)	-0.09** (0.03)	0.02 (0.01)	0.01 (0.03)	-0.04 (0.04)	0.00 (0.01)
+3 years	0.05 (0.05)	0.04 (0.03)	-0.00 (0.01)	0.01 (0.03)	-0.08** (0.03)	0.00 (0.01)	0.00 (0.03)	0.02 (0.04)	-0.00 (0.01)
<i>Father's employment</i>									
Not employed	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time	0.17** (0.06)	-0.42*** (0.04)	0.07*** (0.01)	-0.03 (0.04)	-0.27*** (0.04)	0.02+ (0.01)	-0.05 (0.04)	-0.42*** (0.05)	0.03+ (0.02)
Full-time	0.24*** (0.03)	-0.86*** (0.02)	0.15*** (0.01)	0.07*** (0.02)	-0.59*** (0.02)	0.14*** (0.01)	0.03 (0.02)	-0.98*** (0.03)	0.16*** (0.01)
<i>Mother's employment</i>									
Not employed	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time	-0.78*** (0.03)	0.17*** (0.02)	-0.08*** (0.01)	-0.24*** (0.02)	0.01 (0.02)	-0.04*** (0.01)	-0.23*** (0.02)	0.03 (0.03)	-0.05*** (0.01)
Full-time	-1.24*** (0.04)	0.26*** (0.03)	-0.14*** (0.01)	-0.39*** (0.03)	0.07** (0.03)	-0.10*** (0.01)	-0.40*** (0.03)	0.07+ (0.04)	-0.12*** (0.01)
<i>Mother's age</i>									
	-0.03*** (0.00)		-0.00** (0.00)	-0.00 (0.00)		0.00* (0.00)	0.00 (0.00)		0.00** (0.00)
<i>Father's age</i>									
		-0.00 (0.00)			-0.00+ (0.00)			-0.01*** (0.00)	
<i>Total task-specific time ^a</i>									
			-0.03*** (0.00)			-0.08*** (0.00)			0.01***
<i>Constant</i>									
	4.57*** (0.20)	1.39*** (0.14)	0.91*** (0.03)	1.42*** (0.12)	1.46*** (0.12)	0.66*** (0.04)	0.92*** (0.13)	2.57*** (0.18)	0.17** (0.06)
Number of households	2,408	2,407	2,407	2,408	2,407	2,396	2,408	2,407	2,319
Number of observations	17,771	17,782	17,645	17,777	17,767	17,195	17,774	17,751	14,814

Notes. ^a Total time for routine housework in columns 1–3, total time for errands in columns 4–6, and total time for repairs in columns 7–9. Predicted hours and shares from these models are plotted in Figure 2. Unstandardized B-coefficients, standard errors in parentheses, levels of significance: *** p<.001, ** p<.01, * p<.05, + p <.1 (two-tailed). German Socio-economic Panel Study, 1991–2019; own calculations.

SUPPLEMENT

Table S1. *Descriptives for Time Use Variables Around the Transition to Postparenthood*

		Sample by education															
		Whole sample					No tertiary education					With tertiary education					
		M	SD	Min	Max	N	M	SD	Min	Max	N	M	M	SD	Min	Max	N
Mother's hours	-3 years	3.91	2.00	0	12	912	4.15	2.03	0	12	571	4.15	3.49	1.90	0	12	338
	-2 years	3.92	2.00	0	12	950	4.22	2.04	0	12	601	4.22	3.40	1.83	0	12	348
	-1 year	3.76	1.94	0	12	984	4.03	1.97	0	12	626	4.03	3.29	1.79	0	12	357
	transition	3.59	1.84	0	12	1005	3.90	1.90	0	12	643	3.90	3.04	1.58	0	8	362
	+1 year	3.59	1.93	0	12	868	3.88	2.02	0	12	554	3.88	3.09	1.64	0	10	314
	+2 years	3.65	1.81	0	12	761	3.91	1.82	0	12	491	3.91	3.17	1.71	0	9	270
	+3 years	3.64	1.88	0	12	703	3.93	1.88	0	12	452	3.93	3.11	1.77	0	10	251
Father's hours	-3 years	1.45	1.34	0	11	912	1.43	1.40	0	11	571	1.43	1.48	1.24	0	8	338
	-2 years	1.52	1.42	0	12	948	1.58	1.52	0	12	599	1.58	1.41	1.24	0	7	348
	-1 year	1.58	1.45	0	12	985	1.63	1.53	0	12	626	1.63	1.51	1.30	0	10	358
	transition	1.64	1.50	0	12	1006	1.70	1.63	0	12	643	1.70	1.55	1.25	0	9	363
	+1 year	1.58	1.36	0	11	864	1.60	1.44	0	11	551	1.60	1.55	1.19	0	6	313
	+2 years	1.64	1.35	0	9	761	1.68	1.42	0	9	491	1.68	1.56	1.22	0	8	270
	+3 years	1.71	1.44	0	12	703	1.75	1.48	0	9	452	1.75	1.65	1.37	0	12	251
Mother's share	-3 years	0.73	0.21	0	1	909	0.75	0.21	0	1	569	0.75	0.71	0.21	0	1	337
	-2 years	0.73	0.21	0	1	945	0.74	0.21	0	1	597	0.74	0.72	0.22	0	1	347
	-1 year	0.72	0.21	0	1	980	0.73	0.21	0	1	623	0.73	0.70	0.22	0	1	356
	transition	0.70	0.22	0	1	1002	0.71	0.22	0	1	641	0.71	0.67	0.22	0	1	361
	+1 year	0.70	0.22	0	1	859	0.72	0.22	0	1	548	0.72	0.68	0.22	0	1	311
	+2 years	0.70	0.21	0	1	760	0.71	0.21	0	1	490	0.71	0.68	0.21	0	1	270
	+3 years	0.69	0.22	0	1	699	0.71	0.21	0	1	449	0.71	0.66	0.23	0	1	250
Couple's total hours	-3 years	5.35	2.27	0	16	912	5.58	2.31	0	16	571	5.58	4.97	2.14	0	14	338
	-2 years	5.44	2.36	0	20	947	5.80	2.44	0	20	598	5.80	4.82	2.08	0	15	348
	-1 year	5.35	2.40	0	18	984	5.66	2.50	0	18	626	5.66	4.79	2.11	0	14	357
	transition	5.23	2.26	0	16	1004	5.58	2.36	0	16	642	5.58	4.59	1.94	0	12	362
	+1 year	5.17	2.29	0	19	864	5.48	2.42	0	19	551	5.48	4.63	1.93	0	11	313
	+2 years	5.29	2.19	0	14	761	5.59	2.19	0	14	491	5.59	4.74	2.09	1	14	270
	+3 years	5.34	2.33	0	16	701	5.67	2.39	0	16	450	5.67	4.76	2.08	0	13	251

Notes. Time use measured in hours on a normal weekday (Mo thru Fr), German Socio-economic Panel Study, version 36, release 2019; own calculations.

Table S2. *Predicted Hours of Mothers' and Fathers' Hours for Routine Housework & Errands, and Mothers' Share of These Chores Around the Transition of Postparenthood*

Time around postparenthood	Whole sample			Sample by education					
				With tertiary education			No tertiary education		
	Time mother	Time father	Share mother	Time mother	Time father	Share mother	Time mother	Time father	Share mother
<=4 years	4.13 [4.10,4.16]	1.43 [1.41,1.45]	0.75 [0.75,0.76]	3.64 [3.59,3.69]	1.38 [1.34,1.42]	0.74 [0.73,0.74]	4.39 [4.35,4.43]	1.46 [1.43,1.49]	0.76 [0.76,0.76]
-3 years	4.04 [3.95,4.13]	1.43 [1.36,1.49]	0.74 [0.73,0.75]	3.65 [3.53,3.78]	1.47 [1.37,1.56]	0.72 [0.71,0.74]	4.23 [4.11,4.34]	1.40 [1.31,1.49]	0.75 [0.74,0.77]
-2 years	4.08 [3.99,4.16]	1.45 [1.39,1.52]	0.75 [0.74,0.76]	3.56 [3.43,3.69]	1.39 [1.29,1.48]	0.73 [0.71,0.74]	4.34 [4.22,4.45]	1.49 [1.40,1.58]	0.76 [0.75,0.77]
-1 year	3.95 [3.86,4.03]	1.51 [1.44,1.57]	0.73 [0.72,0.74]	3.49 [3.36,3.61]	1.45 [1.35,1.54]	0.71 [0.70,0.73]	4.17 [4.05,4.29]	1.54 [1.45,1.63]	0.74 [0.73,0.75]
Transition	3.83 [3.74,3.92]	1.51 [1.44,1.58]	0.72 [0.71,0.73]	3.26 [3.13,3.39]	1.42 [1.32,1.53]	0.70 [0.68,0.71]	4.11 [3.99,4.23]	1.55 [1.46,1.64]	0.74 [0.72,0.75]
+1 year	3.83 [3.73,3.93]	1.41 [1.33,1.48]	0.73 [0.72,0.74]	3.27 [3.12,3.42]	1.34 [1.23,1.45]	0.71 [0.69,0.73]	4.11 [3.97,4.24]	1.44 [1.34,1.54]	0.74 [0.73,0.75]
+2 years	3.88 [3.77,3.99]	1.40 [1.32,1.48]	0.73 [0.72,0.74]	3.37 [3.21,3.54]	1.30 [1.17,1.42]	0.72 [0.70,0.74]	4.13 [3.99,4.27]	1.45 [1.34,1.55]	0.74 [0.73,0.75]
+3 years	3.89 [3.78,4.01]	1.46 [1.38,1.55]	0.73 [0.71,0.74]	3.30 [3.12,3.47]	1.39 [1.26,1.52]	0.70 [0.68,0.72]	4.18 [4.03,4.33]	1.49 [1.38,1.61]	0.74 [0.73,0.76]
Number of households	2,472	2,471	2,473	846	845	846	1,636	1,636	1,637
Number of observ~s	18,780	18,784	18,704	6,305	6,308	6,283	12,443	12,444	12,389

Notes. Mean time in hours on a normal weekday (Mo thru Fr), 95%-confidence intervals in brackets; all predictions were estimated from the models in Table A2 and are plotted in Figure 1. German Socio-economic Panel Study, 1985–2019; own calculations.

Table S3. *Predicted Hours of Mothers' and Fathers' Hours for Routine Housework, Errands and Repairs, and Mothers' Share of These Chores Around the Transition of Postparenthood*

Time around postparenthood	Routine Housework			Errands			Repairs		
	Time mother	Time father	Share mother	Time mother	Time father	Share mother	Time mother	Time father	Share mother
<=4 years	2.78 [2.75,2.80]	0.68 [0.67,0.70]	0.81 [0.80,0.81]	1.30 [1.28,1.31]	0.77 [0.75,0.78]	0.68 [0.67,0.68]	0.79 [0.78,0.81]	1.15 [1.12,1.17]	0.41 [0.40,0.42]
-3 years	2.72 [2.65,2.79]	0.70 [0.66,0.75]	0.79 [0.78,0.80]	1.26 [1.22,1.31]	0.77 [0.73,0.81]	0.66 [0.65,0.67]	0.81 [0.76,0.85]	1.14 [1.08,1.20]	0.40 [0.38,0.42]
-2 years	2.73 [2.66,2.80]	0.71 [0.66,0.75]	0.79 [0.78,0.80]	1.27 [1.23,1.31]	0.79 [0.75,0.83]	0.66 [0.65,0.68]	0.83 [0.78,0.88]	1.11 [1.05,1.17]	0.42 [0.40,0.44]
-1 year	2.65 [2.58,2.72]	0.74 [0.69,0.78]	0.78 [0.77,0.79]	1.23 [1.19,1.27]	0.82 [0.78,0.86]	0.65 [0.63,0.66]	0.81 [0.76,0.85]	1.19 [1.13,1.25]	0.40 [0.38,0.42]
Transition	2.55 [2.48,2.62]	0.74 [0.69,0.78]	0.78 [0.77,0.79]	1.22 [1.18,1.27]	0.84 [0.79,0.88]	0.64 [0.62,0.65]	0.81 [0.76,0.85]	1.20 [1.14,1.26]	0.40 [0.38,0.42]
+1 year	2.57 [2.49,2.64]	0.68 [0.63,0.73]	0.78 [0.77,0.80]	1.20 [1.16,1.25]	0.79 [0.74,0.84]	0.64 [0.62,0.66]	0.79 [0.74,0.84]	1.18 [1.12,1.25]	0.39 [0.37,0.41]
+2 years	2.58 [2.50,2.67]	0.71 [0.65,0.76]	0.78 [0.77,0.80]	1.23 [1.18,1.28]	0.75 [0.70,0.80]	0.65 [0.63,0.67]	0.81 [0.76,0.87]	1.16 [1.08,1.23]	0.40 [0.38,0.43]
+3 years	2.60 [2.51,2.69]	0.77 [0.71,0.83]	0.77 [0.76,0.79]	1.23 [1.18,1.29]	0.76 [0.70,0.81]	0.64 [0.62,0.66]	0.81 [0.75,0.87]	1.21 [1.14,1.29]	0.40 [0.37,0.42]
Number of households	2,408	2,407	2,407	2,408	2,407	2,396	2,408	2,407	2,319
Number of observ~s	17,771	17,782	17,645	17,777	17,767	17,195	17,774	17,751	14,814

Notes. Mean time in hours on a normal weekday (Mo thru Fr), 95%-confidence intervals in brackets; all predictions were estimated from the models in Table A3 and are plotted in Figure 2. German Socio-economic Panel Study, 1991–2019; own calculations.

FIGURE S1. TIME USE OF MOTHERS AND FATHERS FOR ROUTINE HOUSEWORK & ERRANDS, AND MOTHER'S RELATIVE SHARES OF HOUSEWORK TIME AROUND THE TRANSITION TO POSTPARENTHOOD, FOR THE WHOLE SAMPLE AND BY EDUCATION – **LEAST RESTRICTIVE SAMPLE**

Notes. Left y-axis: predicted hours of routine housework & errands per weekday (Mo thru Fr); right y-axis: predicted share of mothers' housework time of total housework time in percent. Minutes and shares were calculated from the regression models in Table S4 in the Supplement as margins at the means, which were adjusted by setting all covariates to the sample means. German Socio-economic Panel Study, 1985–2019; own calculations.

Table S4. *Fixed Effects Regression Models of Mothers' and Fathers' Hours for Housework & Errands, and Mothers' Share of Total Housework Time Around the Transition to Postparenthood – Least Restrictive Sample*

	Whole sample			Sample by education					
	Hours mother	Hours father	Share mother	With tertiary education ^a			No tertiary education ^a		
				Hours mother	Hours father	Share mother	Hours mother	Hours father	Share mother
<i>Time around postparenthood</i>									
Min./-4 years	0.20*** (0.04)	0.03 (0.03)	0.01* (0.00)	0.32*** (0.07)	-0.02 (0.05)	0.03*** (0.01)	0.17** (0.06)	0.05 (0.04)	0.00 (0.01)
-3 years	0.20*** (0.05)	0.03 (0.04)	0.01 (0.00)	0.32*** (0.07)	0.07 (0.05)	0.02+ (0.01)	0.15* (0.06)	-0.00 (0.05)	0.00 (0.01)
-2 years	0.19*** (0.05)	0.02 (0.03)	0.01* (0.00)	0.20** (0.07)	0.02 (0.05)	0.02* (0.01)	0.18** (0.06)	0.02 (0.05)	0.01 (0.01)
-1 year	0.18*** (0.04)	0.03 (0.03)	0.01+ (0.00)	0.25*** (0.06)	0.01 (0.05)	0.02** (0.01)	0.14* (0.06)	0.04 (0.04)	0.00 (0.01)
Transition	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
+1 year	0.02 (0.05)	-0.02 (0.03)	0.00 (0.00)	0.01 (0.07)	-0.01 (0.05)	0.01 (0.01)	0.02 (0.06)	-0.03 (0.04)	-0.00 (0.01)
+2 years	0.03 (0.05)	-0.04 (0.04)	0.00 (0.00)	0.10 (0.07)	-0.05 (0.05)	0.01 (0.01)	-0.01 (0.06)	-0.03 (0.05)	-0.00 (0.01)
+3 years	0.02 (0.05)	-0.01 (0.04)	-0.00 (0.01)	0.00 (0.07)	0.08 (0.06)	-0.01 (0.01)	0.02 (0.07)	-0.05 (0.05)	0.00 (0.01)
<i>Father's employment</i>									
Not employed	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time	0.14* (0.06)	-0.66*** (0.05)	0.06*** (0.01)	0.14 (0.09)	-0.68*** (0.07)	0.06*** (0.01)	0.16* (0.08)	-0.67*** (0.06)	0.06*** (0.01)
Full-time	0.39*** (0.03)	-1.35*** (0.03)	0.15*** (0.00)	0.50*** (0.06)	-1.42*** (0.04)	0.16*** (0.01)	0.34*** (0.04)	-1.32*** (0.03)	0.14*** (0.00)
<i>Mother's employment</i>									
Not employed	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time	-1.00*** (0.04)	0.18*** (0.03)	-0.07*** (0.00)	-1.22*** (0.06)	0.32*** (0.05)	-0.10*** (0.01)	-0.93*** (0.04)	0.13*** (0.03)	-0.05*** (0.00)
Full-time	-1.68*** (0.04)	0.35*** (0.03)	-0.13*** (0.00)	-1.88*** (0.07)	0.46*** (0.05)	-0.17*** (0.01)	-1.61*** (0.06)	0.31*** (0.04)	-0.12*** (0.01)
<i>Mother's age</i>									
	-0.04*** (0.00)		-0.00*** (0.00)	-0.01* (0.01)		-0.00+ (0.00)	-0.04*** (0.00)		-0.00*** (0.00)
<i>Father's age</i>									
		0.01* (0.00)			0.00 (0.00)			0.01* (0.00)	
<i>Total housework time</i>									
			-0.02*** (0.00)			-0.02*** (0.00)			-0.02*** (0.00)
<i>Constant</i>									
	6.51*** (0.21)	1.94*** (0.16)	0.92*** (0.02)	5.00*** (0.35)	2.09*** (0.28)	0.85*** (0.04)	7.09*** (0.25)	1.88*** (0.20)	0.95*** (0.03)
Number of households	4,082	4,084	4,086	1,330	1,330	1,331	2,750	2,752	2,753
Number of observations	29,842	29,855	29,712	9,686	9,690	9,653	20,044	20,053	19,948

Notes. Predicted hours and shares from these models are plotted in Figure S1. ^a Households with at least one tertiary degree vs. households with no tertiary degree. Unstandardized B-coefficients, standard errors in parentheses, levels of significance: *** p<.001, ** p<.01, * p<.05, + p <.1 (two-tailed). German Socio-economic Panel Study, 1985–2019; own calculations.

Table S5. *Predicted Hours of Mothers' and Fathers' Hours for Routine Housework & Errands, and Mothers' Share of These Chores Around the Transition of Postparenthood – Least Restrictive Sample*

Time around postparenthood	Whole sample			Sample by education					
				With tertiary education			No tertiary education		
	Time mother	Time father	Share mother	Time mother	Time father	Share mother	Time mother	Time father	Share mother
<=-4 years	4.23 [4.20,4.26]	1.48 [1.46,1.50]	0.75 [0.75,0.75]	3.77 [3.72,3.81]	1.43 [1.39,1.47]	0.73 [0.73,0.74]	4.47 [4.43,4.50]	1.50 [1.47,1.52]	0.76 [0.76,0.76]
-3 years	4.23 [4.16,4.30]	1.48 [1.42,1.53]	0.75 [0.74,0.75]	3.77 [3.66,3.87]	1.52 [1.44,1.60]	0.72 [0.71,0.73]	4.45 [4.36,4.55]	1.45 [1.38,1.52]	0.76 [0.75,0.77]
-2 years	4.22 [4.15,4.29]	1.47 [1.42,1.52]	0.75 [0.74,0.76]	3.65 [3.55,3.75]	1.47 [1.39,1.54]	0.72 [0.71,0.73]	4.48 [4.39,4.57]	1.47 [1.41,1.54]	0.76 [0.75,0.77]
-1 year	4.21 [4.14,4.28]	1.48 [1.43,1.53]	0.75 [0.74,0.75]	3.70 [3.60,3.80]	1.46 [1.38,1.53]	0.72 [0.71,0.74]	4.43 [4.34,4.52]	1.49 [1.42,1.56]	0.76 [0.75,0.77]
Transition	4.03 [3.96,4.10]	1.45 [1.40,1.50]	0.74 [0.73,0.75]	3.45 [3.34,3.55]	1.45 [1.37,1.53]	0.70 [0.69,0.72]	4.30 [4.20,4.39]	1.45 [1.38,1.52]	0.76 [0.75,0.76]
+1 year	4.05 [3.97,4.13]	1.43 [1.37,1.48]	0.74 [0.73,0.75]	3.46 [3.35,3.57]	1.44 [1.36,1.53]	0.71 [0.70,0.72]	4.32 [4.22,4.42]	1.42 [1.35,1.50]	0.75 [0.74,0.76]
+2 years	4.06 [3.98,4.15]	1.41 [1.34,1.47]	0.74 [0.73,0.75]	3.55 [3.42,3.67]	1.39 [1.30,1.49]	0.72 [0.70,0.73]	4.29 [4.18,4.40]	1.42 [1.34,1.50]	0.75 [0.74,0.76]
+3 years	4.05 [3.96,4.14]	1.44 [1.37,1.51]	0.74 [0.73,0.75]	3.45 [3.31,3.58]	1.52 [1.42,1.63]	0.69 [0.67,0.71]	4.31 [4.20,4.43]	1.40 [1.32,1.49]	0.76 [0.75,0.77]
Number of households	4,082	4,084	4,086	1,330	1,330	1,331	2,750	2,752	2,753
Number of observ~s	29,842	29,855	29,712	9,686	9,690	9,653	20,044	20,053	19,948

Notes. Mean time in hours on a normal weekday (Mo thru Fr), 95%-confidence intervals in brackets; all predictions were estimated from the models in Table S4 and are plotted in Figure S1. German Socio-economic Panel Study, 1985–2019; own calculations.

FIGURE S2. TIME USE OF MOTHERS AND FATHERS FOR ROUTINE HOUSEWORK, ERRANDS, AND REPAIRS, AND MOTHER'S RELATIVE SHARES OF THESE CHORES AROUND THE TRANSITION TO POSTPARENTHOOD –
LEAST RESTRICTIVE SAMPLE

Notes. Left y-axis: predicted hours of routine housework, errands, and repairs per weekday (Mo thru Fr); right y-axis: predicted share of mothers' housework time of total housework time in percent. Minutes and shares were calculated from the regression models in Table S6 in the Supplement as margins at the means, which were adjusted by setting all covariates to the sample means. German Socio-economic Panel Study, 1991–2019; own calculations.

Table S6. *Fixed Effects Regression Models of Mother's and Father's Hours for Housework, Errands, and Repairs, and Mother's Share of These Chores Around the Transition to Postparenthood – Least Restrictive Sample*

	Routine Housework			Errands			Repairs		
	Hours mother	Hours father	Share mother	Hours mother	Hours father	Share mother	Hours mother	Hours father	Share mother
<i>Time around postparenthood</i>									
Min./-4 years	0.15*** (0.04)	0.03 (0.02)	0.01 (0.01)	0.03 (0.02)	-0.02 (0.02)	0.02* (0.01)	-0.02 (0.02)	-0.07* (0.03)	-0.00 (0.01)
-3 years	0.14*** (0.04)	0.04 (0.03)	0.00 (0.01)	0.02 (0.02)	-0.03 (0.02)	0.01 (0.01)	0.00 (0.03)	-0.04 (0.03)	-0.01 (0.01)
-2 years	0.13*** (0.04)	0.03 (0.02)	0.00 (0.01)	0.03 (0.02)	-0.02 (0.02)	0.02* (0.01)	0.03 (0.03)	-0.03 (0.03)	0.00 (0.01)
-1 year	0.13*** (0.04)	0.02 (0.02)	0.00 (0.01)	0.02 (0.02)	0.00 (0.02)	0.01 (0.01)	0.01 (0.02)	0.02 (0.03)	-0.01 (0.01)
Transition	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
+1 year	0.03 (0.04)	-0.00 (0.02)	-0.00 (0.01)	-0.03 (0.02)	-0.02 (0.02)	-0.00 (0.01)	-0.00 (0.03)	-0.05 (0.03)	-0.00 (0.01)
+2 years	0.03 (0.04)	0.01 (0.03)	-0.00 (0.01)	-0.00 (0.02)	-0.04+ (0.02)	-0.00 (0.01)	0.01 (0.03)	-0.06+ (0.03)	-0.00 (0.01)
+3 years	0.02 (0.04)	0.06* (0.03)	-0.01 (0.01)	-0.02 (0.02)	-0.05* (0.02)	-0.00 (0.01)	-0.00 (0.03)	-0.04 (0.04)	-0.00 (0.01)
<i>Father's employment</i>									
Not employed	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time	0.14** (0.05)	-0.39*** (0.03)	0.07*** (0.01)	0.00 (0.03)	-0.26*** (0.03)	0.04*** (0.01)	-0.01 (0.03)	-0.48*** (0.04)	0.05*** (0.01)
Full-time	0.26*** (0.03)	-0.78*** (0.02)	0.15*** (0.00)	0.11*** (0.02)	-0.56*** (0.02)	0.15*** (0.01)	0.05* (0.02)	-1.05*** (0.02)	0.16*** (0.01)
<i>Mother's employment</i>									
Not employed	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time	-0.78*** (0.03)	0.18*** (0.02)	-0.08*** (0.00)	-0.24*** (0.02)	0.01 (0.02)	-0.04*** (0.01)	-0.23*** (0.02)	0.05+ (0.03)	-0.05*** (0.01)
Full-time	-1.25*** (0.04)	0.27*** (0.02)	-0.14*** (0.01)	-0.41*** (0.02)	0.08*** (0.02)	-0.11*** (0.01)	-0.42*** (0.02)	0.09** (0.03)	-0.12*** (0.01)
<i>Mother's age</i>									
	-0.04*** (0.00)		-0.00*** (0.00)	-0.01** (0.00)		-0.00 (0.00)	-0.01*** (0.00)		0.00+ (0.00)
<i>Father's age</i>									
		0.00+ (0.00)			-0.00 (0.00)			-0.02*** (0.00)	
<i>Total task-specific time ^a</i>									
			-0.03*** (0.00)			-0.07*** (0.00)			0.02*** (0.00)
<i>Constant</i>									
	5.17*** (0.18)	0.93*** (0.12)	1.00*** (0.03)	1.69*** (0.11)	1.26*** (0.11)	0.76*** (0.04)	1.42*** (0.12)	3.28*** (0.16)	0.22*** (0.04)
Number of households	3,848	3,849	3,847	3,848	3,849	3,832	4,082	4,084	3,961
Number of observations	26,903	26,928	26,696	26,916	26,910	25,997	29,866	29,832	25,292

Notes. ^a Total time for routine housework in columns 1–3, total time for errands in columns 4–6, and total time for repairs in columns 7–9. Predicted hours and shares from these models are plotted in Figure S2. Unstandardized B-coefficients, standard errors in parentheses, levels of significance: *** p<.001, ** p<.01, * p<.05, + p <.1 (two-tailed). German Socio-economic Panel Study, 1991–2019; own calculations.

Table S7. *Predicted Hours of Mothers' and Fathers' Hours for Routine Housework, Errands and Repairs, and Mothers' Share of These Chores Around the Transition of Postparenthood – Least Restrictive Sample*

Time around postparenthood	Routine Housework			Errands			Repairs		
	Time mother	Time father	Share mother	Time mother	Time father	Share mother	Time mother	Time father	Share mother
<= -4 years	2.84 [2.82,2.87]	0.72 [0.71,0.74]	0.80 [0.80,0.81]	1.29 [1.27,1.30]	0.81 [0.79,0.82]	0.66 [0.66,0.67]	0.86 [0.84,0.87]	1.29 [1.27,1.31]	0.39 [0.39,0.40]
-3 years	2.83 [2.77,2.89]	0.73 [0.69,0.77]	0.80 [0.79,0.80]	1.28 [1.24,1.31]	0.80 [0.77,0.84]	0.65 [0.64,0.67]	0.88 [0.84,0.92]	1.32 [1.27,1.37]	0.39 [0.37,0.40]
-2 years	2.83 [2.77,2.88]	0.72 [0.68,0.75]	0.80 [0.79,0.81]	1.29 [1.25,1.32]	0.81 [0.78,0.85]	0.66 [0.65,0.67]	0.90 [0.86,0.94]	1.32 [1.27,1.37]	0.40 [0.39,0.41]
-1 year	2.82 [2.77,2.88]	0.71 [0.67,0.75]	0.80 [0.79,0.81]	1.28 [1.25,1.31]	0.83 [0.80,0.87]	0.65 [0.64,0.66]	0.89 [0.85,0.92]	1.38 [1.33,1.43]	0.39 [0.37,0.40]
Transition	2.69 [2.64,2.75]	0.69 [0.66,0.73]	0.79 [0.79,0.80]	1.26 [1.22,1.29]	0.83 [0.80,0.86]	0.64 [0.63,0.65]	0.88 [0.84,0.92]	1.36 [1.31,1.41]	0.40 [0.38,0.41]
+1 year	2.72 [2.66,2.79]	0.69 [0.65,0.73]	0.79 [0.78,0.80]	1.23 [1.19,1.27]	0.81 [0.77,0.84]	0.64 [0.63,0.65]	0.88 [0.83,0.92]	1.31 [1.25,1.36]	0.40 [0.38,0.41]
+2 years	2.73 [2.66,2.80]	0.70 [0.65,0.74]	0.79 [0.78,0.80]	1.25 [1.21,1.29]	0.79 [0.75,0.83]	0.64 [0.63,0.66]	0.89 [0.85,0.94]	1.29 [1.23,1.35]	0.40 [0.38,0.41]
+3 years	2.71 [2.64,2.78]	0.75 [0.70,0.80]	0.79 [0.77,0.80]	1.24 [1.19,1.28]	0.78 [0.73,0.82]	0.64 [0.63,0.66]	0.88 [0.82,0.93]	1.32 [1.26,1.39]	0.40 [0.38,0.41]
Number of households	3,848	3,849	3,847	3,848	3,849	3,832	4,082	4,084	3,961
Number of observ~s	26,903	26,928	26,696	26,916	26,910	25,997	29,866	29,832	25,292

Notes. Mean time in hours on a normal weekday (Mo thru Fr), 95%-confidence intervals in brackets; all predictions were estimated from the models in Table S6 and are plotted in Figure S2. German Socio-economic Panel Study, 1991–2019; own calculations.

FIGURE S3. TIME USE OF MOTHERS AND FATHERS FOR ROUTINE HOUSEWORK & ERRANDS, AND MOTHER'S RELATIVE SHARES OF HOUSEWORK TIME AROUND THE TRANSITION TO POSTPARENTHOOD, BY REGION

Notes. Left y-axis: predicted hours of routine housework & errands per weekday (Mo thru Fr); right y-axis: predicted share of mothers' housework time of total housework time in percent. Minutes and shares were calculated from fixed effects regression models (not shown) as margins at the means, which were adjusted by setting all covariates to the sample means. German Socio-economic Panel Study, 1985–2019; own calculations.

FIGURE S4. TIME USE OF MOTHERS AND FATHERS FOR ROUTINE HOUSEWORK & ERRANDS AROUND THE TRANSITION TO POSTPARENTHOOD, BY WOMEN'S BIRTH COHORTS

Notes. Left y-axis: predicted hours of routine housework & errands per weekday (Mo thru Fr); right y-axis: predicted share of mothers' housework time of total housework time in percent. Minutes and shares were calculated from fixed effects regression models (not shown) as margins at the means, which were adjusted by setting all covariates to the sample means. German Socio-economic Panel Study, 1985–2019; own calculations.

FIGURE S5. TIME USE OF MOTHERS AND FATHERS FOR ROUTINE HOUSEWORK & ERRANDS, AND MOTHER'S RELATIVE SHARES OF HOUSEWORK TIME AROUND THE TRANSITION TO POSTPARENTHOOD, COMPARISON OF PREDICTIONS WITH AND WITHOUT CONTROLLING FOR SPOUSES' EMPLOYMENT STATUS

Notes. Left y-axis: predicted hours of routine housework & errands per weekday (Mo thru Fr); right y-axis: predicted share of mothers' housework time of total housework time in percent. Minutes and shares were calculated from fixed effects regression models in Table S8 in the Supplement as margins at the means, which were adjusted by setting all covariates to the sample means. German Socio-economic Panel Study, 1985–2019; own calculations.

Table S8. *Fixed Effects Regression Models of Mothers' and Fathers' Hours for Housework & Errands, and Mothers' Share of Total Housework Time Around the Transition to Postparenthood – Models With and Without Controlling for Employment Status*

	Hours mother	Hours mother	Hours father	Hours father	Share mother	Share mother
<i>Time around postparenthood</i>						
Min./-4 years	0.31*** (0.05)	0.34*** (0.05)	-0.08* (0.04)	-0.06 (0.04)	0.03*** (0.01)	0.03*** (0.01)
-3 years	0.21*** (0.06)	0.23*** (0.06)	-0.08+ (0.05)	-0.06 (0.05)	0.02** (0.01)	0.02** (0.01)
-2 years	0.25*** (0.06)	0.27*** (0.06)	-0.06 (0.04)	-0.05 (0.05)	0.03*** (0.01)	0.03*** (0.01)
-1 year	0.12* (0.06)	0.14* (0.06)	-0.00 (0.04)	-0.02 (0.05)	0.01 (0.01)	0.01* (0.01)
Transition	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
+1 year	0.00 (0.06)	0.00 (0.06)	-0.10* (0.05)	-0.11* (0.05)	0.01 (0.01)	0.01 (0.01)
+2 years	0.05 (0.06)	0.06 (0.06)	-0.11* (0.05)	-0.09+ (0.05)	0.01 (0.01)	0.01 (0.01)
+3 years	0.06 (0.07)	0.07 (0.07)	-0.05 (0.05)	-0.03 (0.05)	0.00 (0.01)	0.00 (0.01)
<i>Father's employment</i>						
Not employed	Ref.		Ref.		Ref.	
Part-time	0.13+ (0.07)		-0.67*** (0.06)		0.06*** (0.01)	
Full-time	0.33*** (0.04)		-1.44*** (0.03)		0.15*** (0.00)	
<i>Mother's employment</i>						
Not employed	Ref.		Ref.		Ref.	
Part-time	-0.96*** (0.04)		0.17*** (0.03)		-0.06*** (0.00)	
Full-time	-1.60*** (0.05)		0.33*** (0.04)		-0.13*** (0.01)	
<i>Mother's age</i>	-0.03*** (0.00)	-0.02*** (0.00)			-0.00* (0.00)	-0.00*** (0.00)
<i>Father's age</i>			-0.00 (0.00)	0.04*** (0.00)		
<i>Total housework time</i>					-0.02*** (0.00)	-0.02*** (0.00)
<i>Constant</i>	5.82*** (0.24)	4.90*** (0.22)	2.59*** (0.19)	-0.40* (0.18)	0.82*** (0.03)	1.04*** (0.02)
Number of households	2,472	2,472	2,471	2,471	2,473	2,473
Number of observations	18,780	18,782	18,784	18,786	18,704	18,706

Notes. Predicted hours and shares from these models are plotted in Figure S5. Unstandardized B-coefficients, standard errors in parentheses, levels of significance: *** p<.001, ** p<.01, * p<.05, + p<.1 (two-tailed). German Socio-economic Panel Study, 1991–2019; own calculations.

FIGURE S6. TIME USE OF MOTHERS AND FATHERS FOR ROUTINE HOUSEWORK & ERRANDS, AND MOTHER'S RELATIVE SHARES OF HOUSEWORK TIME AROUND THE TRANSITION TO POSTPARENTHOOD, FOR THE WHOLE SAMPLE AND BY EDUCATION

Notes. Left y-axis: predicted hours of routine housework & errands per weekday (Mo thru Fr); right y-axis: predicted share of mothers' housework time of total housework time in percent. Minutes and shares were calculated from the regression models in Table S9 in the Appendix as margins at the means, which were adjusted by setting all covariates to the sample means. German Socio-economic Panel Study, 1985–2019; own calculations.

Table S9. *Fixed Effects Regression Models of Mothers' and Fathers' Hours for Housework & Errands, and Mothers' Share of Total Housework Time Around the Transition to Postparenthood*

	Whole sample			Sample by education					
				With tertiary education ^a			No tertiary education ^a		
	Hours mother	Hours father	Share mother	Hours mother	Hours father	Share mother	Hours mother	Hours father	Share mother
<i>Time around postparenthood</i>									
Min./-4 years	0.30*** (0.05)	-0.08* (0.04)	0.03*** (0.01)	0.36*** (0.08)	-0.04 (0.06)	0.04*** (0.01)	0.28*** (0.07)	-0.09+ (0.05)	0.03*** (0.01)
-3 years	0.21*** (0.06)	-0.08+ (0.05)	0.02** (0.01)	0.38*** (0.09)	0.04 (0.07)	0.02* (0.01)	0.11 (0.08)	-0.15* (0.06)	0.02* (0.01)
-2 years	0.24*** (0.06)	-0.06 (0.04)	0.03*** (0.01)	0.29*** (0.09)	-0.04 (0.06)	0.03** (0.01)	0.22** (0.08)	-0.07 (0.06)	0.02** (0.01)
-1 year	0.12* (0.06)	-0.00 (0.04)	0.01 (0.01)	0.22** (0.08)	0.02 (0.06)	0.02 (0.01)	0.06 (0.08)	-0.02 (0.06)	0.01 (0.01)
Transition	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
+1 year	0.01 (0.06)	-0.10* (0.05)	0.01 (0.01)	0.01 (0.09)	-0.09 (0.07)	0.01 (0.01)	-0.00 (0.08)	-0.11+ (0.06)	0.00 (0.01)
+2 years	0.06 (0.06)	-0.11* (0.05)	0.01+ (0.01)	0.12 (0.09)	-0.13+ (0.07)	0.02+ (0.01)	0.02 (0.08)	-0.10+ (0.06)	0.01 (0.01)
+3 years	0.07 (0.07)	-0.05 (0.05)	0.00 (0.01)	0.05 (0.10)	-0.04 (0.07)	0.00 (0.01)	0.08 (0.09)	-0.06 (0.06)	0.01 (0.01)
<i>Father's employment</i>									
Not employed	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time	0.13+ (0.07)	-0.67*** (0.06)	0.06*** (0.01)	0.13 (0.11)	-0.62*** (0.09)	0.05*** (0.01)	0.15 (0.10)	-0.70*** (0.07)	0.06*** (0.01)
Full-time	0.33*** (0.04)	-1.44*** (0.03)	0.15*** (0.00)	0.45*** (0.07)	-1.52*** (0.05)	0.17*** (0.01)	0.27*** (0.05)	-1.42*** (0.04)	0.14*** (0.01)
<i>Mother's employment</i>									
Not employed	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time	-0.96*** (0.04)	0.17*** (0.03)	-0.06*** (0.00)	-1.23*** (0.07)	0.29*** (0.06)	-0.10*** (0.01)	-0.88*** (0.05)	0.13** (0.04)	-0.05*** (0.01)
Full-time	-1.61*** (0.05)	0.33*** (0.04)	-0.13*** (0.01)	-1.77*** (0.08)	0.39*** (0.06)	-0.15*** (0.01)	-1.56*** (0.07)	0.32*** (0.05)	-0.12*** (0.01)
<i>Mother's age</i>									
	-0.03*** (0.00)		-0.00* (0.00)	-0.02* (0.01)		-0.00* (0.00)	-0.04*** (0.01)		-0.00+ (0.00)
<i>Father's age</i>									
		-0.00 (0.00)			0.01 (0.01)			-0.01+ (0.00)	
<i>Total housework time</i>									
			-0.02*** (0.00)			-0.02*** (0.00)			-0.02*** (0.00)
<i>Survey year < 1991</i>									
	-0.19** (0.06)	-0.05 (0.05)	-0.01 (0.01)	-0.50*** (0.15)	-0.01 (0.11)	-0.03 (0.02)	-0.18* (0.07)	-0.07 (0.05)	-0.01 (0.01)
<i>Constant</i>									
	6.00*** (0.25)	2.64*** (0.20)	0.83*** (0.03)	4.94*** (0.41)	1.97*** (0.32)	0.86*** (0.05)	6.54*** (0.31)	2.88*** (0.24)	0.83*** (0.03)
Number of households	2,472	2,471	2,473	846	845	846	1,636	1,636	1,637
Number of observations	18,780	18,784	18,704	6,305	6,308	6,283	12,443	12,444	12,389

Notes. Predicted hours and shares from these models are plotted in Figure S6. ^a Households with at least one tertiary degree vs. households with no tertiary degree. Unstandardized B-coefficients, standard errors in parentheses, levels of significance: *** p<.001, ** p<.01, * p<.05, + p <.1 (two-tailed). German Socio-economic Panel Study, 1985–2019; own calculations.

Table S10. *Predicted Hours of Mothers' and Fathers' Hours for Routine Housework & Errands, and Mothers' Share of These Chores Around the Transition of Postparenthood*

Time around postparenthood	Whole sample			Sample by education					
				With tertiary education			No tertiary education		
	Time mother	Time father	Share mother	Time mother	Time father	Share mother	Time mother	Time father	Share mother
<= -4 years	4.13 [4.10,4.16]	1.43 [1.41,1.45]	0.75 [0.75,0.76]	3.63 [3.58,3.68]	1.38 [1.34,1.42]	0.74 [0.73,0.74]	4.39 [4.35,4.43]	1.46 [1.43,1.49]	0.76 [0.76,0.76]
-3 years	4.04 [3.95,4.12]	1.43 [1.36,1.49]	0.74 [0.73,0.75]	3.65 [3.52,3.78]	1.47 [1.37,1.56]	0.72 [0.71,0.74]	4.22 [4.10,4.34]	1.40 [1.31,1.49]	0.75 [0.74,0.77]
-2 years	4.07 [3.99,4.16]	1.45 [1.39,1.52]	0.75 [0.74,0.76]	3.56 [3.43,3.69]	1.39 [1.29,1.48]	0.73 [0.71,0.74]	4.33 [4.22,4.45]	1.49 [1.40,1.58]	0.76 [0.74,0.77]
-1 year	3.94 [3.86,4.03]	1.51 [1.44,1.57]	0.73 [0.72,0.74]	3.49 [3.36,3.62]	1.45 [1.35,1.54]	0.71 [0.70,0.73]	4.17 [4.05,4.28]	1.54 [1.45,1.63]	0.74 [0.73,0.75]
Transition	3.83 [3.74,3.92]	1.51 [1.44,1.58]	0.72 [0.71,0.73]	3.27 [3.14,3.40]	1.42 [1.32,1.53]	0.70 [0.68,0.71]	4.11 [3.99,4.23]	1.55 [1.46,1.64]	0.73 [0.72,0.75]
+1 year	3.83 [3.73,3.93]	1.41 [1.33,1.48]	0.73 [0.72,0.74]	3.28 [3.14,3.43]	1.34 [1.23,1.45]	0.71 [0.69,0.73]	4.11 [3.98,4.24]	1.44 [1.34,1.54]	0.74 [0.73,0.75]
+2 years	3.89 [3.78,3.99]	1.40 [1.32,1.48]	0.73 [0.72,0.74]	3.39 [3.23,3.55]	1.30 [1.17,1.42]	0.72 [0.70,0.74]	4.13 [3.99,4.27]	1.45 [1.34,1.55]	0.74 [0.73,0.76]
+3 years	3.90 [3.78,4.01]	1.47 [1.38,1.55]	0.73 [0.71,0.74]	3.32 [3.14,3.49]	1.39 [1.26,1.52]	0.70 [0.68,0.72]	4.19 [4.04,4.34]	1.50 [1.38,1.61]	0.74 [0.73,0.76]
Number of households	ha	2,471	2,473	846	845	846	1,636	1,636	1,637
Number of observ~s	18,780	18,784	18,704	6,305	6,308	6,283	12,443	12,444	12,389

Notes. Mean time in hours on a normal weekday (Mo thru Fr), 95%-confidence intervals in brackets; all predictions were estimated from the models in Table S9 and are plotted in Figure S6. German Socio-economic Panel Study, 1985–2019; own calculations.