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Gender Gaps in Unpaid Domestic and Care Work

Putting the Pandemic in (a Life Course) Perspective

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Research Summary

Why was the research done?

The disproportionate amount of time women spend on unpaid work relative to men is a key driver of gender inequalities in the labour market, with negative implications for women's participation, employment quality, earnings, and retirement wealth. Early studies during the COVID19 pandemic in Australia identified worsening outcomes in gender inequality. However, the impact of COVID19 on gender inequality is not clearcut with mixed results depending on whether the outcome is unpaid domestic or care work. Our aim is to put the pandemic in perspective by observing trends in gender inequality in unpaid work over the short and long-term in Australia.

What were the key findings?

We use the concept of time – historical, biographical and transitional – as a framework for the analyses. Using HILDA data we first assess the impact of historical time, from 2001-2021, and biographical time (age), on gender inequalities in unpaid domestic and care. We then examine the impact of transitional time: the transition to parenthood, experienced as an individual life course event and the record-breaking COVID19 lockdown in Melbourne in the second half of 2020, experienced as an historical event. Our results show wide and continuing gender gaps in time on unpaid work and care. While there is some evidence of a narrowing of the gap over historical time, this is largely because women spend less time on unpaid work in more recent years. Analyses of changes over biographical time reveals large life course differences in time on unpaid work and care with entry to parenthood a major turning point. Finally we show that although COVID19 lockdowns widened the gender gap, this effect has not lasted beyond the pandemic.

What does this mean for policy and practice?

We conclude that parenthood is a far greater producer and exacerbator of gender inequalities in unpaid work and care than COVID19 lockdowns. Policies should focus on ways to mitigate the effects of parenthood on women's time on unpaid work and care and to support men to take a more active and engaged role in these activities. Without change in divisions of unpaid domestic and care work, our capacity to move towards gender equality in public domains is very limited.

Citation

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INTRODUCTION

Considerable attention has been placed on the impact of COVID19 lockdowns on gender inequalities, especially on paid and unpaid work. Globally and within Australia there is evidence that COVID19 exacerbated gender inequality as women left paid employment to take care of family members (Wood, Griffiths and Foley, 2021). Within households, women shouldered the bulk of additional work associated with school lockdowns, the provision of support for children's school work, and caring for sick family members and relatives (Baxter, 2021; Collins et al. 2021; Derndorfer et al. 2021). The aim of our paper is to quantify and interrogate these impacts in Australia and put them in perspective by assessing the extent to which COVID19 exacerbated or created gender inequalities, how the changes varied across different types of unpaid work, whether observed changes brought about by COVID19 are long-lasting, and how the impacts of COVID compare to other life course events.

We draw on elements of the life course approach and in particular the concept of time to frame our analyses. Time is a central component of a life course approach. A notion of time underlies the view that outcomes are driven by the timing, sequencing, ordering, duration and spacing of events (Sanchez-Mira and Bernardi, 2022). A life course approach also highlights the importance of historical time, the context in which lives are lived; biographical time, the unfolding of individual lives from birth to death; and what we call transitional time, the changes experienced over time as a result of life course and historic events (Mortimer and Shanahan, 2003). COVID19 lockdowns in Australia provide a unique external event to assess impacts on gender inequality in unpaid work and to explore insights obtained from different notions of time.

Our paper contributes in a number of ways: First it presents new evidence on the impact of a major historical event, COVID19, to assess whether early suggestions of an intensification of gender inequality in unpaid work and care is apparent in more recent years. Second it develops and examines a key principle of the life course approach, time, to show how different concepts of time help to explain change and stability in gender inequality. Third it provides up-to-date analyses of the gender division of unpaid labour in Australia using high quality, household panel data from the Households, Income and Labour Dynamics in

Australia (HILDA) study. HILDA is currently the primary source in Australia for assessing gender inequality in unpaid work and care over time providing unique insights not possible with other data sources, such as examination of longitudinal changes within individuals.

BACKGROUND

Gender inequality in unpaid work

Considerable evidence shows that the gender division of labour in unpaid care and housework tasks continues with women undertaking most of this work (Baxter, Hewitt & Haynes, 2008; Derndorfer et al. 2021). The most recent data for Australia based on time use diaries collected by the Australian Bureau of Statistics indicates that women spend 4.13 hours per day on unpaid domestic and care work compared to men's 2.14 hours (ABS, 2022). Data from HILDA, using survey questions also find large gender differences. A recent paper using HILDA data for waves 1-19 reports that men spend 6.2 hours per week on routine indoor housework compared to women's 15.6 hours per week. In addition to spending more time on unpaid work, men and women typically do different kinds of domestic and care work. Men tend to do more male-typed outdoor tasks and maintenance jobs while women do more routine, indoor tasks (Stratton, 2023). Men are also more likely to undertake leisure activities with children such as playing with them or taking them to sports, while women are responsible for more of the core primary caregiving activities (Stratton, 2023).

Although there is evidence of gender convergence in men's and women's time on unpaid work and care over time in some countries, the pace and amount of change is slow and uneven (Altintas and Sullivan, 2016; Hagqvist, 2018). Rates of convergence vary with some countries moving more rapidly towards gender equality than others. But overall childcare and housework tasks are still highly gendered. Moreover, there is evidence that life course events, and particularly entry to relationships and parenthood are important triggers leading to more gendered divisions of labour and time use (Baxter et al. 2008; Stratton, 2023). For example, research has shown that women's time on housework increases by about 6 hours per week after the birth of a first child (Baxter et. al. 2008). Baxter (2005) and Stratton (2023) show that pathways into marriage also influence time on housework and

the level of gender specialisation, with cohabiting couples showing less gender specialisation and gender gaps than married couples, although gender inequality widens if they subsequently transition to marriage.

COVID19 Pandemic

The COVID19 pandemic had a profound impact on social and economic life in Australia and around the world. At the height of the pandemic, many governments imposed strict lockdowns, travel restrictions and stay-at-home orders that closed schools and businesses, led to sudden and high levels of unemployment, increased levels of social isolation and mental health concerns and placed major burdens on families to provide education for children and increased care for dependents. Melbourne experienced one of the longest lockdowns with over 100 consecutive days of lockdown in 2020-2021 (Schurer et.al., 2022). While other parts of Australia were also subject to periods of lockdown, none were as long or as strict as Melbourne.

A number of studies analysed the early effects of COVID19 on gender inequality in household work in Australia (Ruppanner et al. 2021; Craig and Churchill, 2020; Baxter, 2020). The results are variable depending on whether the focus was unpaid care or housework. Overall, the research suggests that both men and women increased their time on domestic and care work during COVID19, with men increasing their time more than women, but not enough to eliminate the gender gap. One study reported that men's time on household management and housework increased by 45 minutes per day and women's by one hour per day (Craig and Churchill, 2020). In this case, respondents were asked to estimate time spent on tasks prior to COVID19 and during 2020. Ruppanner and colleagues (2021) also report that men stepped up to do more housework during COVID19 in both Australia and the United States, although the increase in the United States was short-lived. In these early works, change over time was measured over a few months, between May and September 2020.

We also know that time in paid work decreased for both men and women and that lockdowns led to increased time on employed work at home, especially in Melbourne. But there was also divergence across locations and sectors, with frontline workers, such as

medical staff, child care workers and other essential workers experiencing increased hours at work during COVID19 and women disproportionately experiencing job loss due to their concentration in service industries that suffered huge setbacks during COVID19, such as retail and hospitality (Foley and Cooper, 2021).

Overall, early analyses during COVID19 suggested that COVID19 was disruptive with many long-standing work and family patterns turned upside down. What is less clear is the long-term trends? Despite calls from a number of sectors calling for “building back better” and “never let a crisis go to waste” it appears that as the COVID19 emergency dissipates, many of the changes experienced during the COVID19 crisis may have disappeared with routines of work and family largely returning to pre-pandemic patterns (Baxter, et.al., 2021). Our paper examines whether this is the case for time spent in unpaid work.

Life course approach

At its core, a life course approach focuses on the interconnections and cumulative effects of events and transitions earlier in life, or in previous generations, on pathways and outcomes (Elder and Giele, 2009; Mayer, 2009; Alwin, 2012). A life course approach also recognises that individual decisions and choices are influenced by both human agency and social, political, and historical contexts that shape and place boundaries on choices. Human agency is one of the key principles in a life course approach but as many sociologists would argue individuals do not have freedom to make unrestrained choices about life pathways, but are bounded by circumstances, location, resources and institution settings. And a life course approach recognises critical life events, transitions or stages where pathways can change directions or diverge and which play an important part in shaping outcomes later in life. Importantly, transitions such as leaving school, starting a relationship or becoming a parent can have diverging consequences for pathways if the event is experienced out of sequence with other major life events, or at an age or in circumstances considered inappropriate by the mainstream (McLanahan, 2004). The timing, ordering and sequencing of events are important for ensuring that life events line up with societal expectations and institutional frameworks.

Time

Time is central to the life course perspective and is often understood as linear and unidirectional with everyone moving at a uniform pace through time and events. But this fails to capture the complexities of time as a social concept. First from an individual perspective, time is a subjective experience, experienced by individuals in different ways dependent on context and circumstances. Sanchez-Mira and Bernardi (2021) for example have argued that time is relative and may be experienced as multidirectional with the remembered past and anticipated future influencing actions, *telescopic* with individuals acting on the basis of differing time horizons and *elastic* where individuals experience time at different tempos and paces and distorted in various ways through subjective perceptions. Second, time can also be understood from a societal perspective, as means of framing and explaining social change. Here time can be understood in historical terms from one historical period to another, or as biographical within an individual's life time. To this we also add transitional to measure the time before and after an event, including both individual events such as before and after becoming a parent, and historical events such as before and after COVID19.

In this paper we focus on time from a societal perspective. We begin by examining the impacts of historical time. We ask: How has time on unpaid labour changed for men and women in Australia over the past 20 years? Second, we assess the impact of two transitional events on time on unpaid work – the historical event of COVID19, focusing on the Melbourne COVID19 lockdown in the latter half of 2020; and the transition to parenthood. Third, we bring the historical and transitional dimensions together and examine whether the impact of the transition to parenthood on the gendered division of labour changed over the past 20 years. Fourth we switch our temporal focus to biographical time, and ask: How does the gendered division of unpaid labour evolve with age?

METHODS

Data and sample

We analysed data from Australia's household-based longitudinal study, the Household, Income and Labour Dynamics in Australia (HILDA) Survey. The HILDA Survey has collected information from the same respondents annually since 2001, with the addition of a top-up

sample in 2011 (Summerfield et al. 2016). At the time of writing, the most recently available data are from Wave 21 (2021). For our analyses, we use data from all 21 waves. The HILDA Survey's complex, probabilistic sampling design means respondents are largely representative of the Australian population aged 15 years and older (Summerfield et al. 2016). In addition, we used the population weights available with the dataset to ensure our results are as generalisable as possible. Data are collected in The HILDA Survey through a combination of a face-to-face interviews and a self-completion questionnaire, which all participants aged 15 years and older are invited to complete. Data on our outcomes of interest (time spent on unpaid care and domestic labour) are collected via the self-completed questionnaire. Therefore, the population for our study is Australian residents aged 15 years and over between the years 2001 and 2021. Our analytic sample varied across models and is described when we report the results for each model.

Measures

Our main independent variable of interest is gender (male, female)¹. In each set of analyses, we examine the interaction between gender and a different measure of time: survey year (2001 to 2021: historical time), age (15 to 103 years: biographical time), years from birth of first child (-2 to 10 years: transitional time, life course event), and before versus during Melbourne's longest lockdown (July-October 2021: transitional time, historic event). Our two outcomes are self-reported hours spent in a typical week doing (1) unpaid care work (time spent caring for one's own children, other children, or a frail/disabled relative combined), and (2) unpaid domestic labour (time spent on housework, household errands, and outdoor tasks combined). When the following variables are not the independent variables of interest in a model, they are included as covariates: age (cubic), year, state of residence, and basic family composition (single or couple, with or without children). We keep covariates to a minimum in our models to capture the raw gender gap without

¹ The HILDA Survey does not ask participants about their gender identity, and all participants are classified either male or female based on the household grid completed by one person on behalf of the household.

controlling for potential mechanisms underlying this gap (e.g., hours spent in paid work, income, gender role attitudes etc.).

Statistical analyses

We estimate a series of models to explore gender gaps in unpaid care and domestic labour through different temporal lenses. For all dimensions of time except “transitional time: historic event”, we estimate pooled OLS regression models. We choose pooled OLS regression over panel regression models for the following reasons: first, because fixed effects panel regression models cannot estimate coefficients for time-invariant variables such as gender²; and second, because random-effects panel regression models cannot be estimated using population weights (whereas pooled regression models can). For “transitional time: historic event” time, we estimate a difference-in-differences model. Following the approach taken by Schurer et al (2023), we compare the outcomes of individuals in Melbourne before and during the 2021 lockdown to those of individuals in Sydney over the same period of time.

RESULTS

Historical time

To test whether gender gaps have changed over historic time, we regressed unpaid care and unpaid domestic labour on gender, year, and their interaction. We treated year as a discrete rather than continuous variable and chose 2020 as the reference year given its potential exceptionality due to COVID19. Our results showed that, in 2020, women spent approximately 5 hours more than men each week in unpaid care work (main effect of gender), controlling for age, state of residence, and family composition ($b=4.76, p<.001, N = 302,284$ obs.). The results for the interactive terms showed that the gender gap in unpaid care work was not significantly different in 2020 compared to the previous twenty years, with the sole exception of 2001 when the gap was approximately one hour smaller ($b = -.99, p<.05$). Compared to 2020, the gender gap in unpaid care work was also slightly smaller in 2021 ($b = -.68, p < .05$). Our findings show that despite the disruptions caused by COVID19,

² One way around this is to estimate separate fixed-effects models for men and women (i.e., stratify by gender). We follow this approach to check the robustness of our findings (results available upon request).

the nationwide gender gap in unpaid care work was not significantly different in 2020 to what it had been in the previous 18 years. (Graph not shown but available on request).

Given that most unpaid care is performed by parents caring for their children, we re-estimated this model using the subsample of people living in a couple with dependent children. In 2020, partnered mothers spent approximately 9 hours more per week than partnered fathers in unpaid care work ($b = 9.33, p < .001, N = 88,637$ obs.), controlling for age and state of residence. This gender gap was not significantly different to the previous year (2019: $b = .18, p = .77$) or the following year (2020: $b = -.47, p = .52$). However, the gender gap was significantly smaller in 2020 than it had been in a number of earlier years, including 2010, 2012, 2016 and 2017, by a magnitude of 1-2 hours. The marginal effects of gender on unpaid care work among couples with children for the years 2001 to 2021 are displayed in Figure 1.

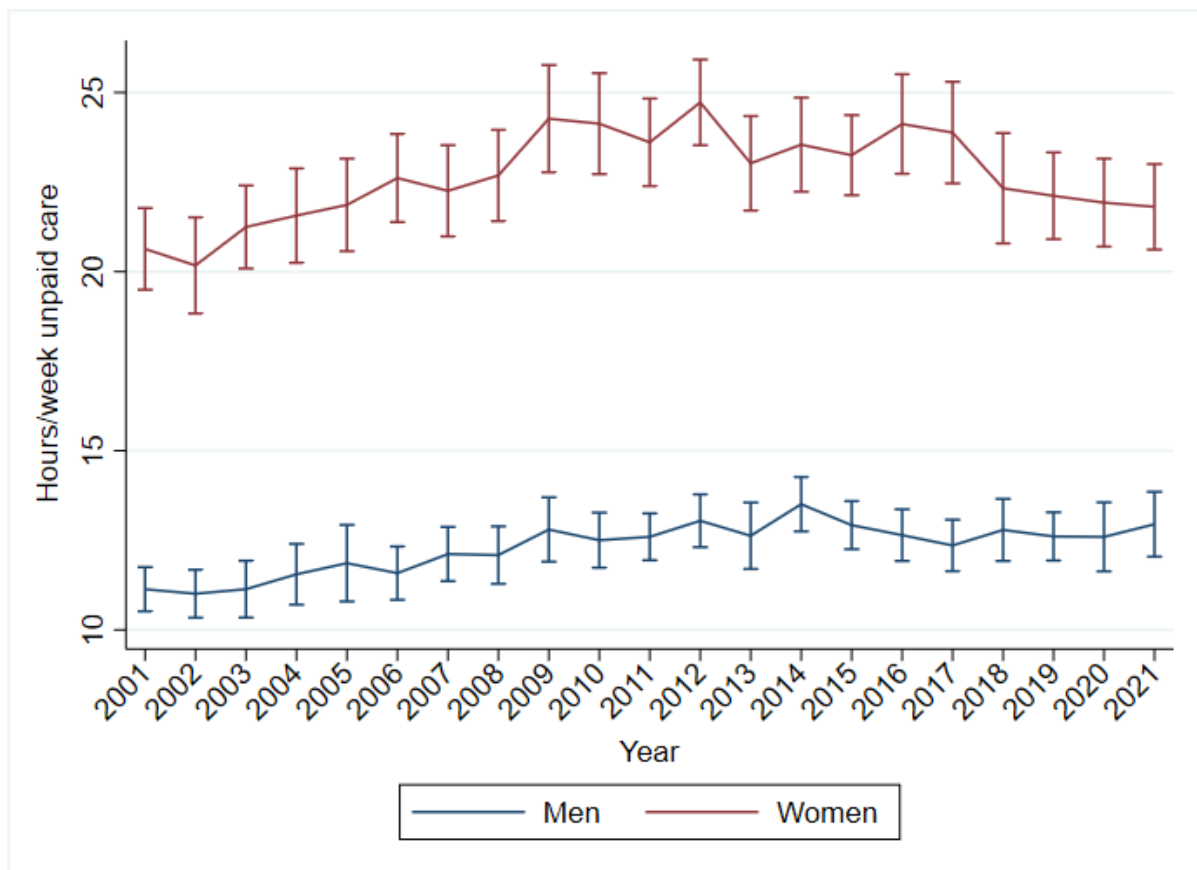


Figure 1. Time spent on unpaid care per week for Australian men and women living in a couple with children 2001-2021

We followed a similar analytic strategy to test the gender gap in unpaid domestic labour over historical time. In 2020, women spent approximately 6 hours more per week than men in unpaid domestic labour (main effect of gender), controlling for age, state of residence, and family composition ($b = 5.67, p < .001, N = 302,284$ obs.). The results for the interactive terms show that the gender gap in unpaid domestic labour was not significantly different in 2020 compared to the previous year (2019: $b = -.10, p = .77$) or the following year (2021: $b = -.04, p = .91$). However, it was significantly smaller than in every other year before that, with coefficients ranging in magnitude from .82 in 2018 to 4.94 in 2002 and indicating a general narrowing of the gender gap over time. The marginal effects of gender on unpaid domestic labour for the years 2001 to 2021 are displayed in Figure 2 and demonstrate that the narrowing of the gender gap over the past twenty years can be overwhelmingly attributed to a decrease in the amount of time spent by women on domestic labour rather than any increase by men.

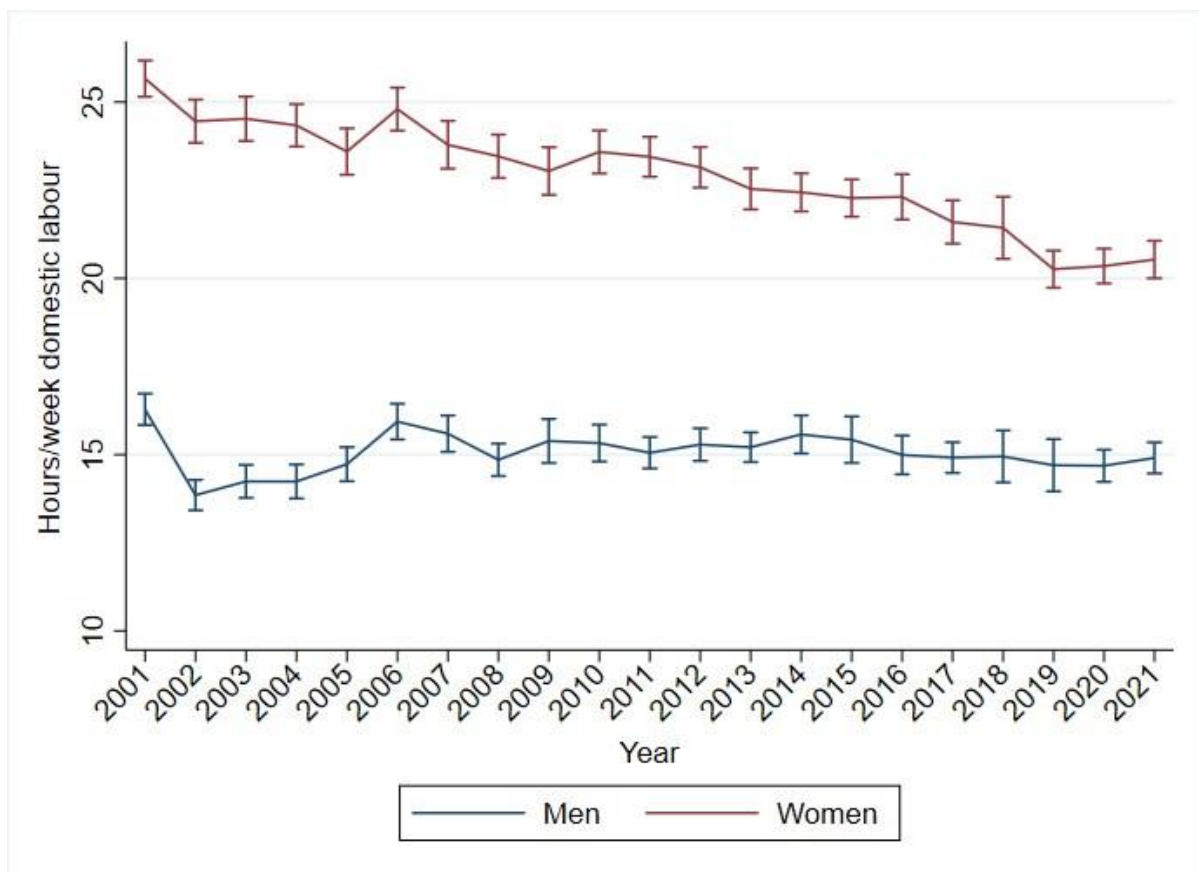


Figure 2. Time spent on unpaid domestic labour per week for Australian men and women 2001-2021

When we re-estimate this model using only couples living with dependent children we find that in 2020, women from this subsample spent approximately 9 hours more per week than men in unpaid domestic labour ($b = 8.8, p < .001, N = 88,637$ obs.), controlling for age and state of residence (graph not shown but available on request). This gender gap was not significantly different to the previous year (2019: $b = -.90, p = .22$) or the following year (2020: $b = -.28, p = .66$). However, as seen in the full sample, the gender gap for couples with children was significantly smaller in 2020 than it had been in every year before 2019, with coefficients ranging in magnitude from 2.24 in 2014 to 8.92 in 2002. Once again, the overall trend shows a narrowing of the gender gap over time driven by partnered mothers' decreased time on domestic labour as opposed to partnered fathers' increased time.

Biographical time

Next, we turned our attention to biographical time. To test whether gender gaps change with age, we regressed unpaid care and domestic labour on gender, age, and their interaction, pooling data from the years 2001 to 2021 ($N = 302,284$ obs.). Controlling for survey year, state of residence and family composition, we found a cubic relationship between age and time spent in unpaid care that varied significantly between men and women. For women, time spent in unpaid care increased from age 15, peaked around 35 years, and slowly declined thereafter. For men, time in unpaid care decreased from age 15, remained consistently low between the ages of 30 and 55, and increased slightly thereafter. As such, the gender gap in unpaid care was at its widest at the ages when couples are most likely to have young children (roughly 30-40 years). The marginal effects of gender on unpaid care for Australian men and women aged 15 to 80 years are displayed in Figure 3.

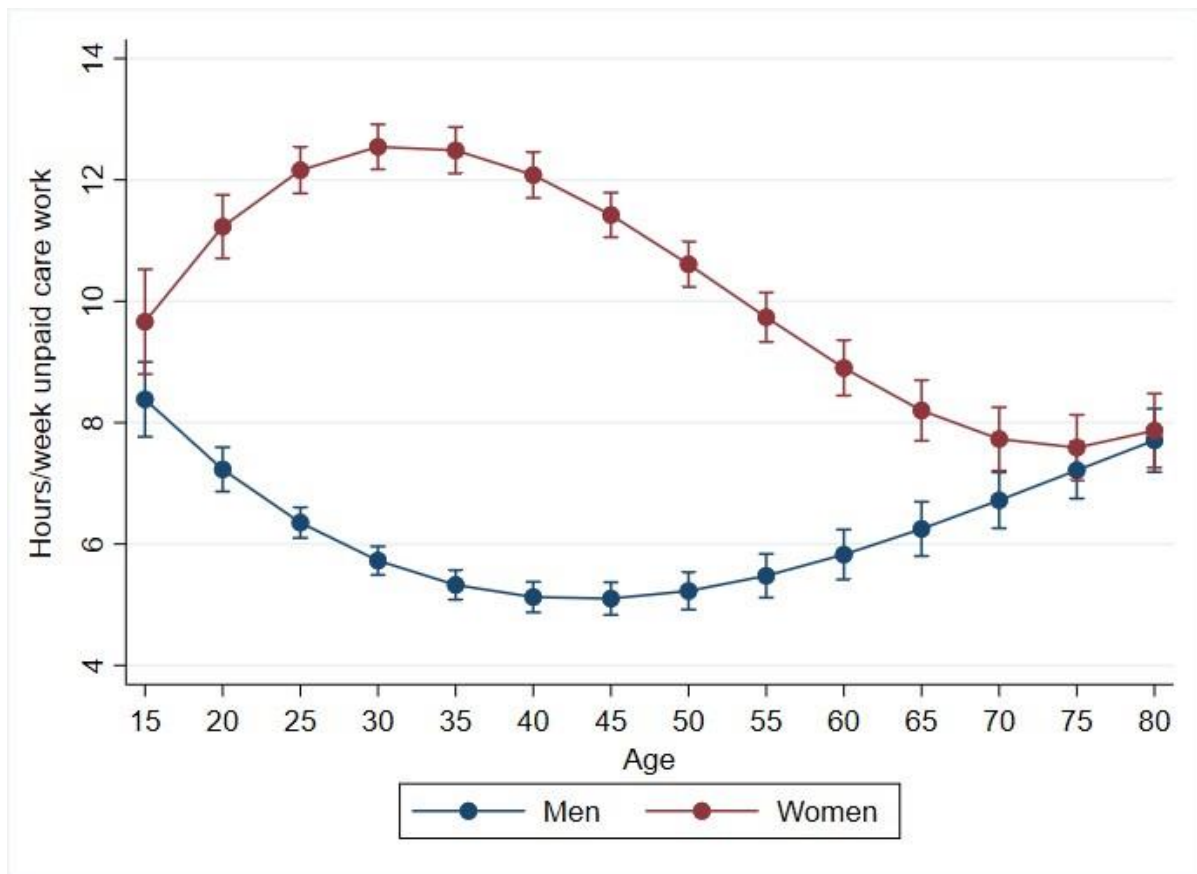


Figure 3. Time spent on unpaid care per week for Australian men and women ages 15 to 80 (data from 2001-2021 pooled)

When looking at domestic labour, we again found a cubic relationship with age that varied significantly between men and women. The amount of time men spent in domestic labour was fairly constant between ages 15 and 40, before increasing steadily with age thereafter. In contrast, the amount of time women spent on domestic labour increased steadily from age 15 before plateauing around the age of 60 and then declining slightly around the age of 80. In contrast to care, the gender gap in domestic labour remained more consistent with age. The marginal effects of gender on unpaid domestic labour for Australian men and women aged 15 to 80 years are displayed in Figure 4.

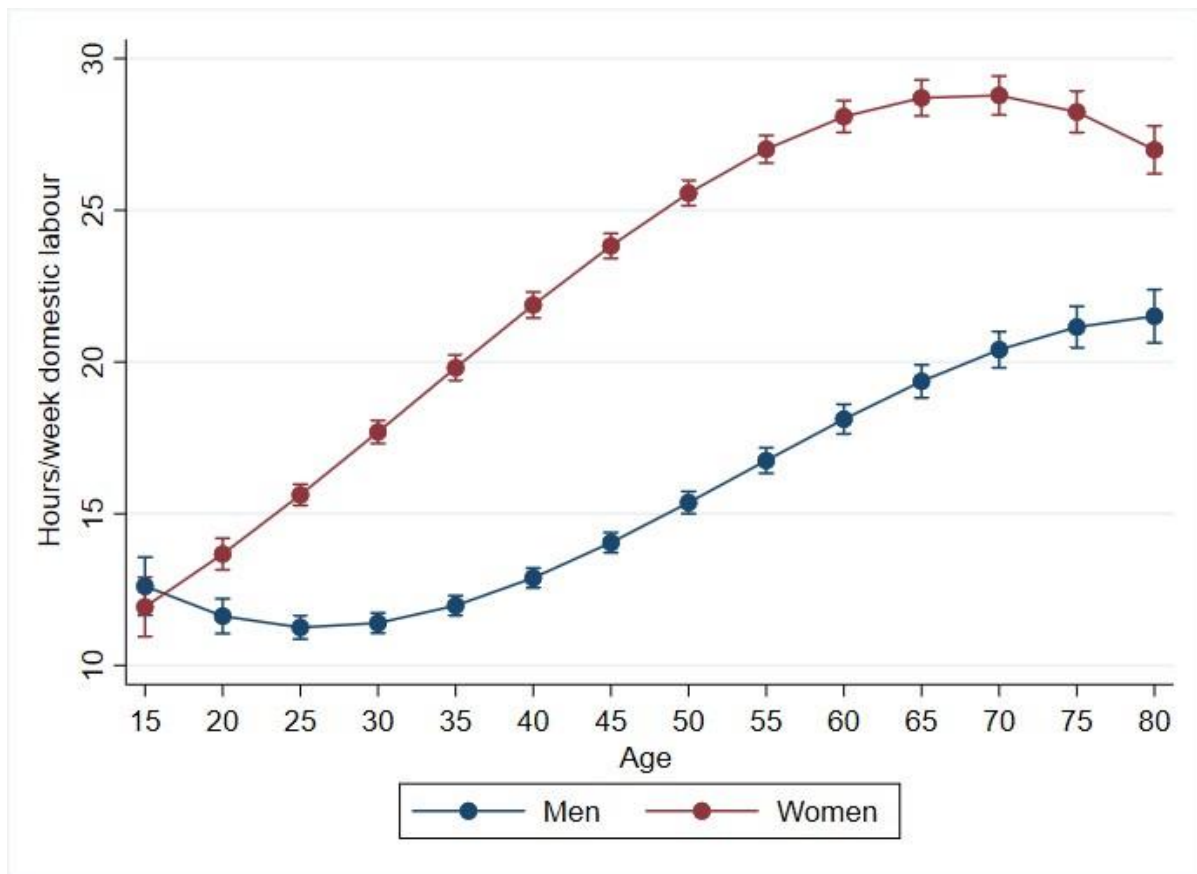


Figure 4. Time spent on unpaid domestic labour per week for Australian men and women ages 15 to 80 (data from 2001-2021 pooled)

Transitional time: life course event (transition to parenthood)

We examined how gender gaps in unpaid care and domestic labour are influenced by a key life course event: the transition to parenthood. These models were estimated using data on individuals who experienced the transition to parenthood through birth or adoption during the observation period 2001-2021 ($N = 26,424$ observations from 2,935 individuals). Results are displayed visually in Figure 5. They show that, in the year before becoming a parent, women did not spend significantly more time than men on unpaid care ($b = .61, p = .08$). In the year of the transition to parenthood, the amount of time men spent on unpaid care increased by 6.1 hours/week on average, compared to an increase of 37.5 hours/week for women. Five years after the birth/adoption of their first child, men were spending approximately 6.7 more hours/week on unpaid care compared to the year before their child was born/adopted. In contrast, women were spending approximately 22 more hours/week

compared to the year pre-parenthood. Ten years after the transition to parenthood, the gender gap in time spent on unpaid care remained significant, with women spending approximately 13 more hours/week than men doing this work.

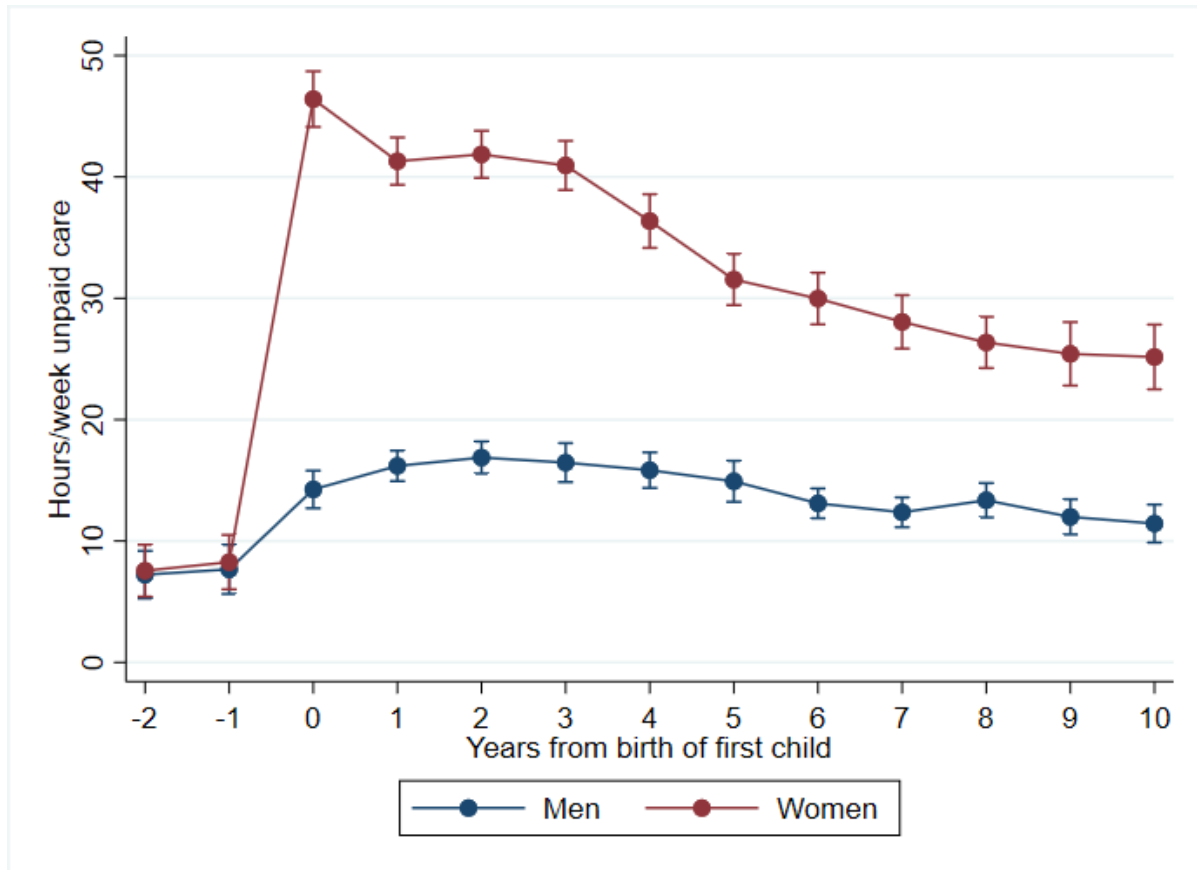


Figure 5. Time spent on unpaid care among Australian men and women across the transition to parenthood (data from pooled 2001-2021)

We then tested whether the effects of this transition varied according to the year in which the transition was made. As such, we introduced a three-way interaction between gender, transitional time, and historical time into our model. Overall, the results suggest that the gendered impact of the transition to parenthood on care time has changed little over the past twenty years. In particular, the amount of time men spend on unpaid care remains stubbornly low compared to women. The three-way interaction was only significant four years after the birth of the first child, with the gender gap smaller at this time for the parents of children born in more recent years compared to parents of children born 20 years ago. These findings are visualised in Figure 6.

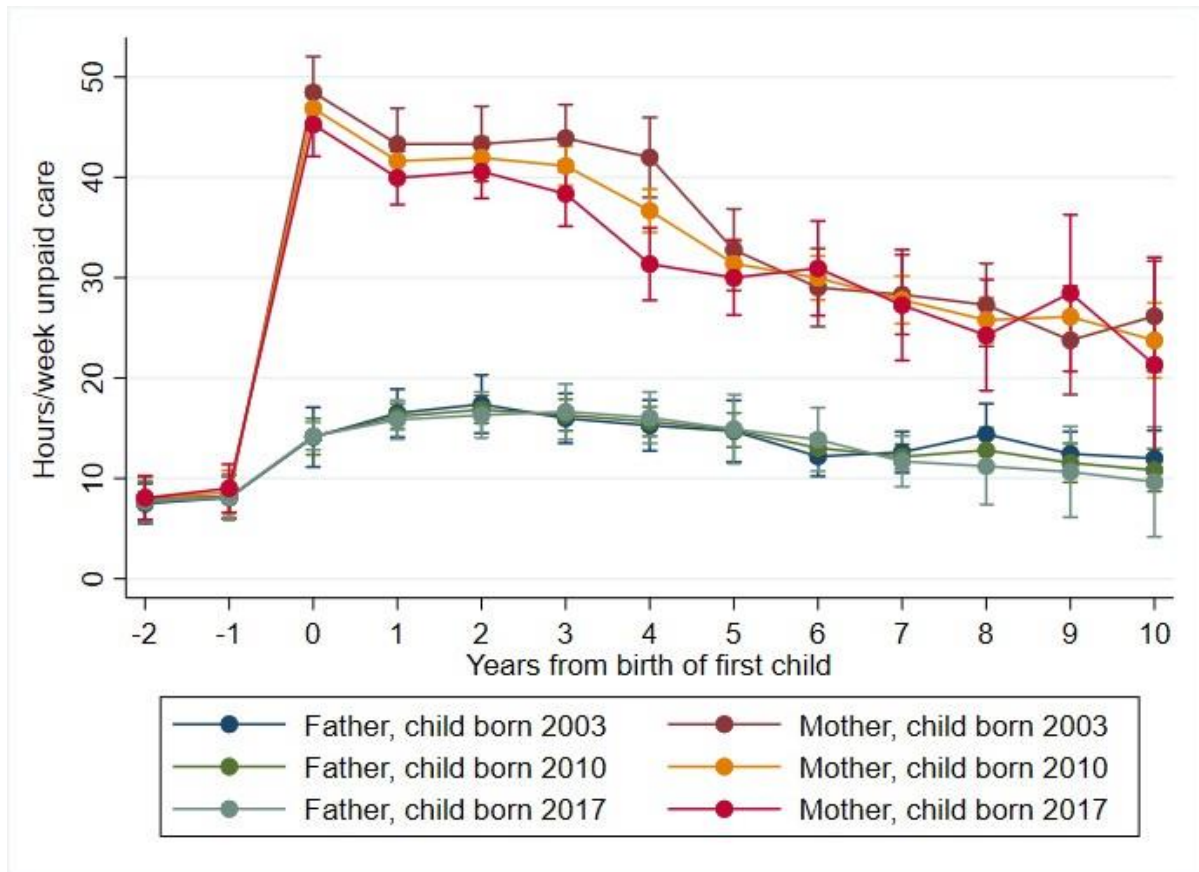


Figure 6. Time spent on unpaid care among Australian men and women across the transition to parenthood: parents of children born 2003, 2010, and 2017

We followed the same two-step analytic approach just described for the outcome time spent on unpaid domestic labour. Results of the first model are displayed visually in Figure 7. They show that, in the year before becoming a parent, women were spending two more hours each week on domestic labour than men ($b = 2.21, p < .001$). In the year of the transition to parenthood, the amount of time men spent on domestic labour did not change significantly ($b = -.46, p = .67$), while for women it increased by approximately 6.5 hours ($p < .001$). Five years after the birth/adoption of their first child, this gender gap in time spent on domestic labour had increased to around 8 hours. Ten years after the transition to parenthood, this gap persisted.

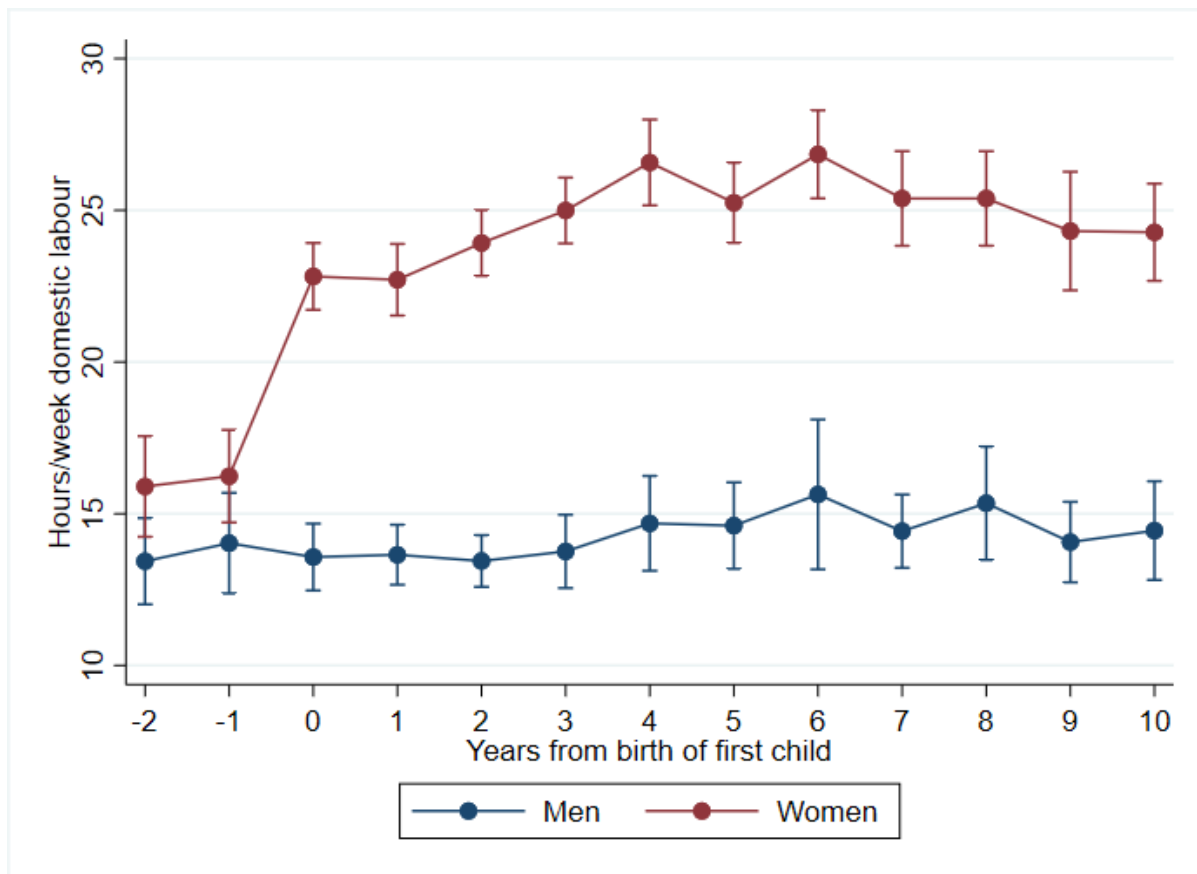


Figure 7. Time spent on unpaid domestic labour among Australian men and women across the transition to parenthood (data from pooled 2001-2021)

We then tested whether the impacts of the transition to parenthood on domestic labour varied according to the year in which the transition was made. In contrast to results for care time, we found that the gendered impact of parenthood on domestic labour has reduced steadily over the past twenty years. For men, historical time (i.e., year of child’s birth) had no significant relationship with the amount of time they spent on domestic labour across the transition to parenthood. In contrast, women who transitioned to motherhood in more recent years performed significantly less domestic labour than women who transitioned to motherhood in earlier years of the HILDA survey. As such, the narrowing of the gender gap in domestic labour across the transition to parenthood in more recent historical time can be attributed to a reduction in the time women spent on these tasks rather than an increase in the time men spent. These findings are visualised in Figure 8.

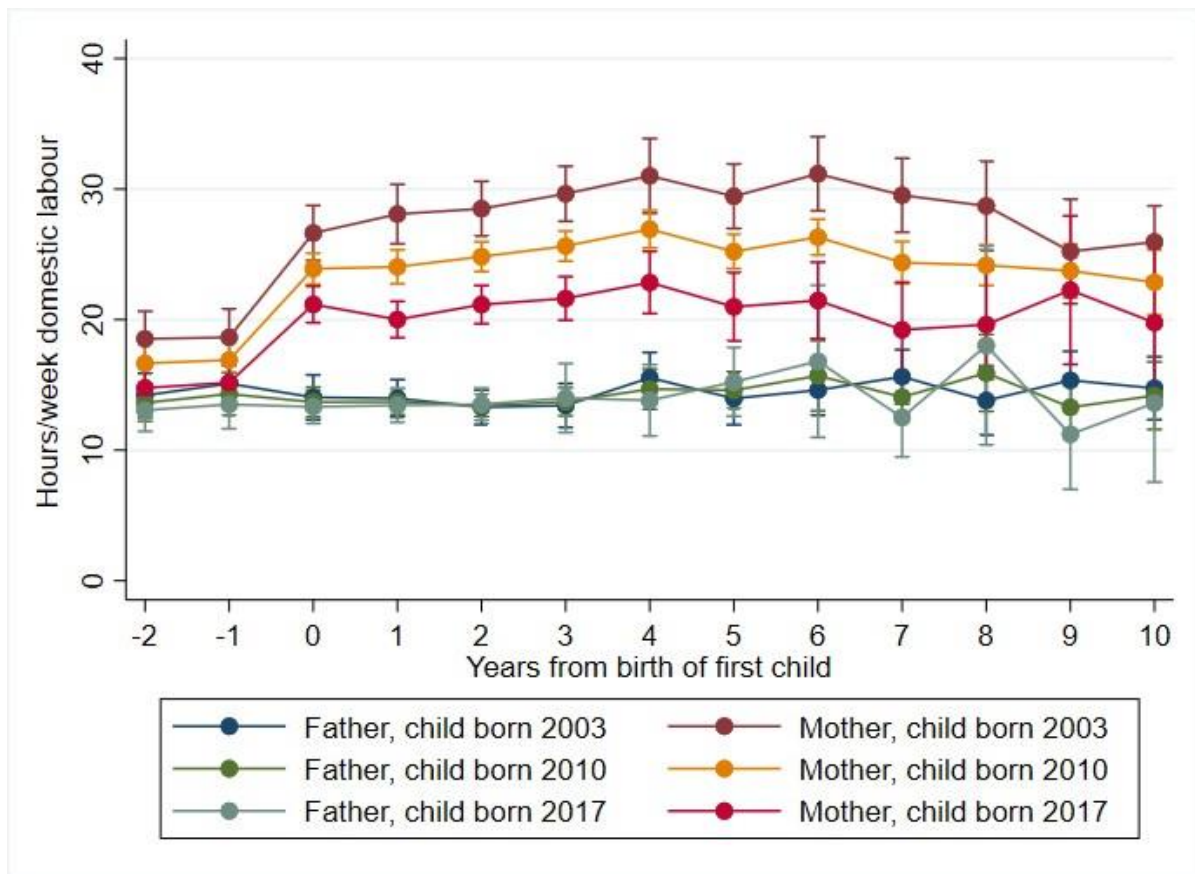


Figure 8. Time spent on unpaid domestic labour among Australian men and women across the transition to parenthood: parents of children born 2003, 2010, and 2017

Transitional time: historic event (COVID19 lockdown)

To examine the impact of COVID19 lockdowns on the gender gap in unpaid care and domestic labour, we conducted difference-in-differences (DiD) analyses. For these analyses, the ‘treatment’ was Melbourne’s longest COVID19 lockdown, which came into effect between the 2nd (a few suburbs) and the 9th (all suburbs) of July 2020. Stay-at-home orders were finally lifted for all on October 28, 2020, making this lockdown of more than 100 days one of the longest anywhere in the world throughout the pandemic. Following the broad approach taken by Schurer et al (2022), we compared the outcomes of people living in Melbourne in the 9 years before (2011-2019) versus during this lockdown to the outcomes of people living in Sydney (the most comparable Australian city) over the same period of time. In the 2020 HILDA survey, 93% of participants living in Melbourne were surveyed during the lockdown, and an additional 3.4% were interviewed in November (a time of

potential spill over effects). Anyone interviewed outside this window was dropped from the analytic sample for these models. We estimated DiD models stratified by gender using the full analytic sample, and for the subsample of men and women living in a couple with children. We found a significant treatment effect from the lockdown on men’s unpaid care work in the order of one hour a week ($b = 1.06, p < .01, N = 30,795$ obs.). For women, the treatment effect was larger at two hours of care work per work ($b = 2.20, p < .01, N = 33,521$). Among the subsample of men and women living in a couple with children, the average treatment effects of lockdown were larger at 2.36 hours per week for men ($p < .01, N = 9,794$), and 6.40 hours per week for women ($p < .01, N = 9,937$). As such, the gender gap in unpaid care work widened as a result of the Melbourne lockdown, especially for men and women living in a couple with children. These results are displayed visually in Figure 9 below.

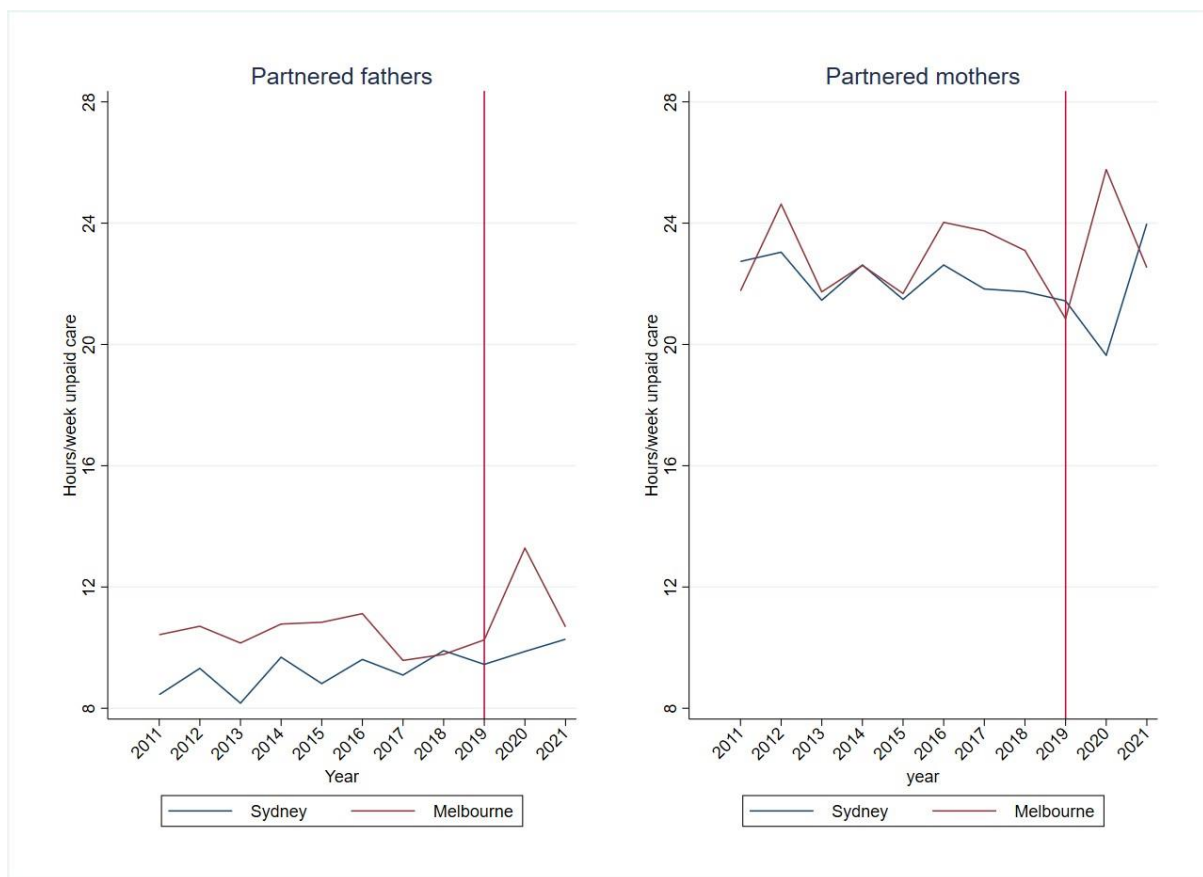


Figure 9. Average treatment effect of lockdown on unpaid care work for partnered mothers and fathers

We then repeated these analyses for time spent on domestic labour. In contrast to our findings for unpaid care, we found a significant treatment effect of lockdown on men’s unpaid domestic labour in the order of almost three hours ($b = 2.88, p < .01$), which was larger than that found for women ($b = 1.85, p < .01$). These findings are visualised in Figure 10.

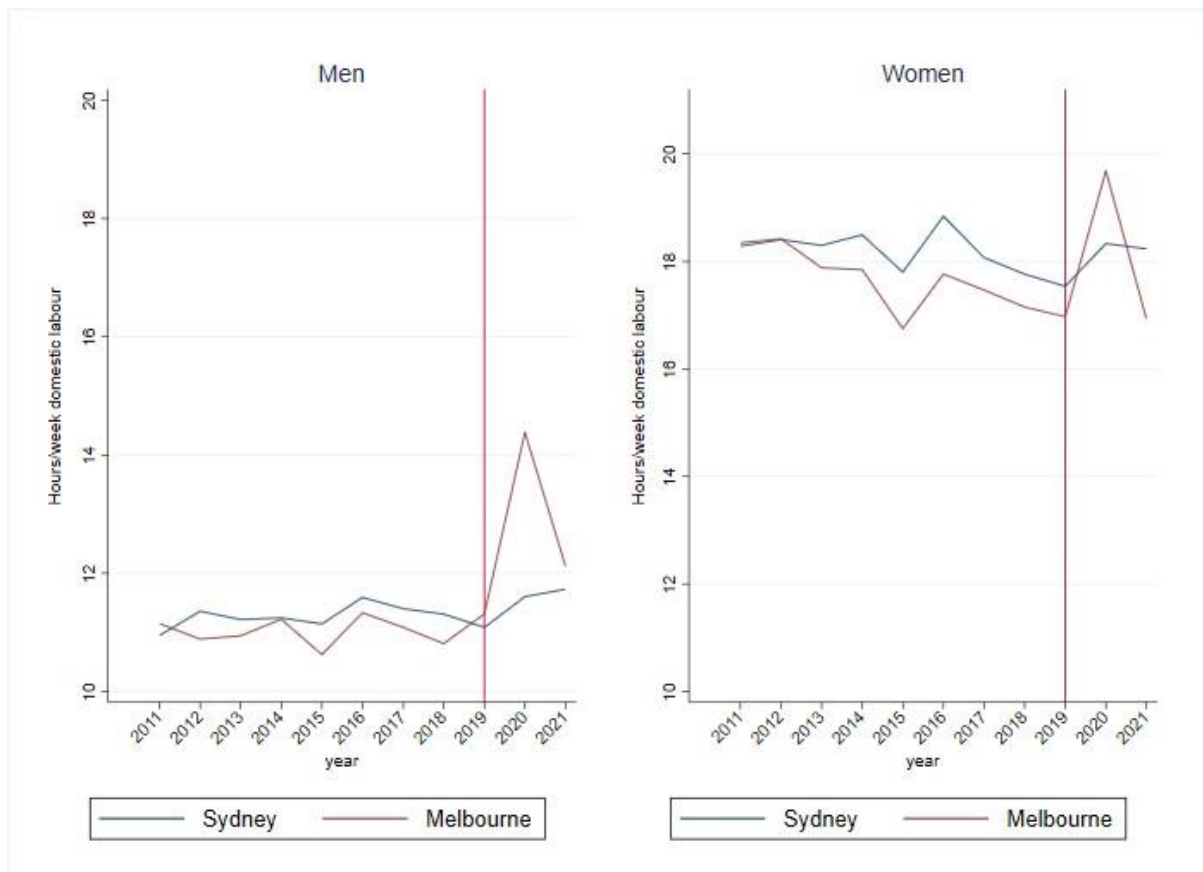


Figure 10. Average treatment effect of lockdown on unpaid domestic labour for men and women

Among the subsample of couples with children, both men and women experienced significant treatment effects in the order of approximately three hours (men’s $b = 2.81, p < .01$; women’s $b = 3.19, p < .05$). As seen in Figures 9 and 10, the effects of lockdown on time spent in unpaid care and domestic labour did not last beyond the period of lockdown.

SUMMARY AND CONCLUSIONS

Our paper examines the effect of COVID19 on gender gaps in unpaid domestic and care work. Extending studies undertaken during COVID19, we examine whether early observations of a widening of gender gaps during the pandemic are evident in more recent years. We frame our analyses with a life course approach analysing different notions of time – historical, biographical and transitional to assess change over time. For transitional time we assess both the individual life course event of becoming a parent and the historical transition event of the experience of a COVID19 lockdown. We use data from 21 waves of HILDA and estimate pooled OLS regression models and a difference-in-differences model to assess the outcomes of individuals in Melbourne before and during the 2021 lockdown compared to individuals in Sydney over the same time period.

Consistent with previous studies we find a wide gender gap in time on care work. In 2020 women spent approximately 5 hours more per week on unpaid care work compared to men and the gap was 9 hours more per week when the sample was restricted to couples with dependent children. Our findings on historical trends differ a little depending on the type of work and the sample under consideration. Overall, there is some evidence of a narrowing of the gender gap but only because women are spending less time on domestic work compared to previous years. Men's time devoted to domestic and care work has not changed over this historical period.

Similar gender gaps are evident for time spent on domestic work with women devoting 6 more hours per week to these tasks compared to men, and 9 additional hours if they are partnered and have dependent children. But here we observe a gradual decline in the gender gap over time with women reducing their hours on domestic work from about 25 hours per week in 2001 to about 20 hours per week in 2021. There was no change in men's time on domestic work over historical time. Similar patterns are evident for partnered men and women with dependent children. The narrowing of the gender gap over time therefore is once again driven by women's reduced time on domestic labour.

Examination of trends over biographical time also show strong evidence of gender gaps and here we observe interesting variations over the life course. Notably, the gender gap in

unpaid care is widest at the peak child caring years when men and women are aged approximately 30-40 years. Women's time on unpaid care declines quite strongly from about the age of 40 while men's time increases after this age. In contrast the gender gap in time on domestic labour is fairly constant over the life course, diverging sharply from the age of 15 when women increase their hours while men's hours remain pretty constant till about age 40. Interestingly the gender gap in care work disappears by age 80 but not for domestic work, although it is smaller than at other ages.

The transition to parenthood is a major life course event triggering the emergence of a gender gap in time on care work. Upon becoming a parent women's time on unpaid care increases by over 37 hours per week compared to men's increase of just over 6 hours per week. These gaps remain with women spending approximately 22 hours more per week compared to the year prior to parenthood 5 years after the birth, and 13 more hours per week 10 years after the birth. Men's hours remain at around an extra 6 hours per week compared to pre-parenthood. Similar results are evident for time on domestic labour due to parenthood but here we see no change in men's hours compared to pre-parenthood and an increase of almost 7 hours for women. This gap remains 10 years afterward.

While the effect of parenthood on gender gaps in domestic and care work in Australia have been shown before, we extend our analyses to examine whether there is evidence that the impact of parenthood on gender inequality in unpaid work is declining over time. We find virtually no evidence of such a trend for unpaid care work, but we do find a smaller impact of the transition to parenthood on women's time on domestic work in more recent years. It may be that time spent on domestic work is more discretionary than time on care work. And as before, the trend is being driven by changes in women's not men's time.

Finally, we examined the historical event of COVID19 and the effect of a sustained period of lockdown on gender gap in time on unpaid work and care. Consistent with studies conducted during the early periods of COVID19, we find that the gender gap in unpaid care work widened as a result of the Melbourne lockdown, especially for men and women living in a couple with children and especially in relation to unpaid care. We extend previous studies however, and show that the larger gender gaps created during COVID19 did not last

beyond the lockdown. As work and life returned to pre-COVID routines, so did the gender gap in unpaid work and care.

Our findings suggest that, overall, parenthood is a far greater producer and exacerbator of gender inequalities in unpaid work than COVID19 lockdowns. Further, while the impacts of lockdown are fleeting, the unequal impacts of parenthood on women and men persist for years. Despite small improvements over the past 20 years, the division of unpaid labour continues to be strongly gendered and clearly patterned by life course stage, life course events and family type.

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