Working from home and work-family conflict revisited: Longitudinal evidence from Australia pre- and post-pandemic

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Objective: This paper investigates the association between working from home (WFH) and both work-to-family (WTFC) and family-to-work conflict (FTWC), and whether these associations changed following the COVID-19 pandemic.

Background: The COVID-19 pandemic saw a marked increase in the incidence of WFH in many countries, which many argue has been beneficial for families. Convincing evidence in support of this hypothesis, however, is scarce.

Method: Panel data from 19 waves of the Household, Income and Labour Dynamics in Australia (HILDA) Survey (covering the period 2001 to 2021) are used to estimate fixed-effects regression models of both FTWC and WTFC where the explanatory variable of interest is the share of usual weekly work hours worked from home. The sample is restricted to working parents aged between 18 and 64 years (9,859 persons; 54,893 observations).

Results: For both genders the level of WTFC declines with the proportion of time worked from home. By contrast, the association between WFH and FTWC differs between mothers and fathers, with FTWC higher for fathers but lower for mothers when working mostly from home. These associations mostly did not change during the pandemic.

Conclusion: The study suggests that WFH is particularly beneficial for mothers' reconciliation of work and family life but has ambivalent effects for fathers. This in turn may mean mothers will make greater use of WFH arrangements than fathers post pandemic.

The COVID-19 pandemic and the associated social distancing policies saw a marked increase in the incidence of working from home (WFH). Barrero, Bloom and David (2023), for example, report on survey data showing that in mid-2023, full days worked at home accounted for about 28% of paid workdays among American workers aged 20 to 64, a fourfold increase on the comparable rate in 2019. Similarly large increases have been documented in many other countries (Aksoy, Barrero, Bloom, Davis, Dolls, & Zarate, 2022). Such dramatic changes have seen an upsurge of interest in WFH, with many arguing that WFH brings many benefits to workers, including more time and greater flexibility and freedom to better balance work and nonwork commitments (e.g., Aksoy et al., 2022; Choudhury, 2020; Kahn, 2022). Despite such perceptions, it is not clear from past research that WFH necessarily assists workers achieve a better fit between work and private commitments. And even if we accept that WFH has been beneficial for work-life balance, it remains an open question whether such benefits will persist in a world where WFH has become much more pervasive.

Against this background, this paper investigates the effects of WFH on work-family conflict (WFC), which arises when demands from the work and family roles are incompatible with each other (Greenhaus & Beutell, 1985). WFC is thus bi-directional in that the demands of the work role can impede performance in the family role (work-to-family conflict, WTFC) and family demands can impede performance in the work role (family-to-work conflict, FTWC),

The study contributes to the literature in at least five ways. First, we assess the effect of WFH on WFC using longitudinal data from the Household, Income and Labour Dynamics in Australia (HLDA) Survey, a household panel study that commenced in 2001 with a nationally representative sample of members of private households in Australia. The use of data from a nationally representative probability sample is important, with previous research

dominated by non-representative samples making it difficult to generalize findings to the wider employed population. Also important is the longitudinal nature of the data, which allows estimation of panel data models that account for unobserved worker characteristics that may be related to both the extent of WFH and WFC. To the best of our knowledge, only one study has looked into the link between WFH and WFC using longitudinal data, also from the HILDA Survey (Laß & Wooden 2023).

Second, we estimate associations with measures of both WTFC and FTWC. So far, the empirical literature on the topic (including Laß & Wooden, 2023) has mostly focused on WTFC. In fact, we could not locate a single study using longitudinal methods of analysis that looked into the link between WFH and FTWC. Focusing on both dimensions is important, however, given WFH may have differential effects on these types of conflict. WFH may attenuate the conflict in one direction but aggravate the conflict in the other. An overall assessment of whether WFH is good or bad for the fit between work and family must therefore consider both dimensions.

Third, we exploit a more refined measure of WFH than most previous studies, which have typically utilized crude binary measures of whether workers do or do not do any work from home.

Fourth, we are the first to investigate whether the relationships between WFH and WTFC and FTWC were affected by the pandemic. This is potentially an important shortcoming given the possibility that WFH under pandemic conditions, and especially when in lockdown, may have been experienced very differently by workers than during non-pandemic times.

Finally, we explore the moderating role of gender in these relationships.

THEORETICAL CONSIDERATIONS

Linking Working from Home and Work-to-Family Conflict

WFH provides a number of benefits that may reduce the level of WTFC experienced by workers (for a more detailed discussion, see, e.g., Gajendran & Harrison, 2007; Golden, Veiga, & Simsek, 2006; Laß & Wooden, 2023). In particular, this work mode may save commuting time (Melo & de Abreu e Silva, 2017; Laß & Wooden, 2023) and/or yield a more flexible work schedule (Crosbie & Moore, 2004; Hill, Hawkins, & Miller, 1996; Wöhrmann & Ebner, 2021), which can be used to accommodate family demands during the work day. It may also reduce interruptions from co-workers and thus lower work-related strain (Wöhrmann & Ebner, 2021).

However, there are also drawbacks connected to WFH. The lack of physical boundaries between the work and the family spheres may result in an expansion of working hours, eating into the family time and thus aggravating WTFC. WFH has indeed been shown to be associated with long working hours and overtime (Abendroth & Reimann, 2018; Dockery & Bawa, 2014; Peters & van der Lippe, 2007), and work during so-called unsocial times, such as evenings, nights, and weekends (Laß & Wooden, 2023).

There are thus arguments for both positive and negative effects of WFH on WTFC. Nevertheless, we follow others (Gajendran & Harrison, 2007; Golden et al., 2006; Laß & Wooden, 2023) and expect the benefits, e.g. in terms of saved commuting time and schedule flexibility, to outweigh any potential extension of working time. This leads us to our first hypothesis:

H1: An increase in the share of time worked from home will be associated with less work-to-family conflict.

Linking Working from Home and Family-to-Work Conflict

Arguments relating to the effects of WFH on FTWC are also ambiguous. On the one hand, family demands may be more easily attended to when WFH, thus reducing the interference of family with work. For example, in order to attend to a family emergency, such as taking care of a sick child, or overseeing home maintenance or repair works, on-site workers need to stop work altogether and leave the workplace, whereas home workers can (to a certain extent) attend to these tasks simultaneously.

On the other hand, family demands may actually increase when WFH, and so use up a greater amount of the individual's time and energy. For example, it has been argued that WFH makes workers more likely to take on additional home projects, or become more involved in caring for children and others than they would do if working on-site. Teleworkers are also perceived as more available by others and will thus suffer more pressures, expectations and interruptions from their family (Golden et al. 2006). Additionally, actual housework demands, such as cooking and cleaning, may increase when spending the whole day at home (Feng & Savani, 2020). And indeed, individuals WFH have been shown to spend significantly more time on unpaid work than on-site workers (Powell & Craig, 2015).

Overall, however, we argue, in line with Golden et al. (2006), that the increase in family duties and interruptions should result in higher interference of family demands with work demands. We thus put forward the following hypothesis:

H2: An increase in the share of time worked from home will be associated with an increase in family-to-work conflict.

The Moderating Role of Gender

Across the industrialized world, women are the designated primary carers and spend considerably more time on housework and childcare than men (OECD, 2021). As a consequence of their primary responsibility for family work, women should benefit more strongly than men from WFH in terms of fitting their work demands with their family

demands, and hence the accompanying reduction in WTFC. Evidence shows that mothers usually emphasize the accommodation of family demands as a particular benefit of WFH, whereas fathers tend to emphasize work-related benefits of this work mode (Ammons & Markham, 2004; Hilbrecht, Shaw, Johnson, & Andry, 2008, 2013; Sullivan & Smithson, 2007).

However, the possibility that family demands may increase further when WFH may also particularly apply to women. Qualitative studies suggest that family members often expect female teleworkers to assume more of the family tasks or spend more time with family members when working at home, and they are likely to be interrupted by family, neighbors or friends while working (Ammons & Markham, 2004; Hilbrecht et al., 2008, 2013; Mann & Holdsworth, 2003). Furthermore, the gap in unpaid work between workers working regularly from home and those working on-site is much larger for women than men (Powell & Craig, 2015).

H3: The negative association between WFH and WTFC is stronger for mothers than fathers.

H4: The positive association between WFH and FTWC is stronger for mothers than fathers.

The Moderating Role of the COVID-19 Pandemic

We expect the benefits of WFH to differ between "normal" pre-COVID times and the COVID-19 period. Prior to the COVID-19 pandemic, working whole days from home was not an option that was available to most Australian workers, but those that had this option were doing so voluntarily. This all changed with the arrival of the COVID-19 virus in early 2020. In March 2020 governments in Australia began introducing new laws designed to curtail population movements, which were also supported by advice for residents to stay at home as much as possible (see Stobart & Duckett, 2022). Importantly, while going to work was a valid reason for leaving home, workers were being instructed to work from home

wherever possible. For much of Australia, however, these stay-at-home requirements were relatively short lived and largely confined to April and May of 2020. This was not the case, however, for residents of the two most populous states, Victoria and New South Wales (as well as the Australian Capital Territory). Residents of Victoria were subjected to a series of a government-imposed lockdowns, including two prolonged lockdowns in July to October 2020 and then August to October 2021, while New South Wales residents were the subject of stay-at-home orders commencing from late June 2021 that would vary in intensity over the following months but would not be fully lifted until October (and even then only for the double vaccinated). Furthermore, these orders were very restrictive, including for example strict limits about how far you could travel when leaving the home for legitimate reasons and evening curfews, and were legally enforceable, with persons detected breaching requirements subject to financial penalties.

The key point here is that during lockdowns, workers whose jobs could be done from home were required to do so, which will include many workers who would in normal circumstances not elect to do so. This could include workers who are strongly dependent on interactions with co-workers, persons who in live in households where frequent interruptions from others when WFH might be expected, or those that do not have an adequate workspace at home.

Not only the freedom of workplace choice, but also the context in which workers performed their work from home differed during lockdowns. In particular, access to formal childcare and schools was greatly restricted during lockdown. Many parents thus had to undertake work while simultaneously attending to the needs of their children for extended periods.

This brings us to the following hypotheses:

H5: The negative association between the share of time worked from home and WTFC will be weaker during the COVID-19 period.

H6: The positive association between the share of time worked from home and FTWC will be stronger during the COVID-19 period.

Previous Research

A number of meta-analytic studies have been conducted that summarize the results of research into the relationship between telework (work performed in locations away from the primary workplace using information and communication technology) and flexplace use (i.e., flexibility in where work is performed), on the one hand, and survey-based measures of WFC on the other (e.g., Allen, French, Dumani, & Shockley, 2013; Beckel, Kunz, Prasad, Funch, & Kaldahl, 2023; Gajendran & Harrison, 2007). These meta-analyses point to an emerging consensus: Telework is associated with significantly lower levels of WTFC but not lower levels of FTWC. This conclusion, however, may be measurement dependent, with Beckel et al. (2023) reporting that the significant negative association with WTFC is restricted to studies using a dichotomous measure of WFH, which typically involve simply distinguishing those who work any hours at home from those that never work from home. This is problematic given working from home often involves additional work (overtime) undertaken outside of the standard contracted hours (Yang, Kelly, Kubzansky, & Berkman, 2020), and thus means a reduction in the time available for non-work activities.

It is also not obvious that these meta-analyses are very helpful in summarizing previous research findings. These are at least two problems. First, the metric of interest is the simple correlation coefficient, meaning that the relationship between WFH and WFHC is assumed to be univariate. The impact of control variables on the estimated association between WFH and WFC are thus ignored. Second, though possibly partly a function of the reliance on

correlation coefficients, the criteria used to select studies for inclusion in these meta-analyses results in some notable studies being excluded. Beckel et al. (2023), for example, include 29 studies in their meta-analysis, almost all of which employ either small convenience samples or samples drawn from a single employer. Critically, not one study employing a probability sample drawn from a national population was included. This is a major weakness given the obvious potential for selection bias that arises when focusing on studies of workers from single firms.

We argue that any review of the literature should assign most weight to studies using national probability samples of employed persons. We have identified just seven studies that have analyzed the relationship between a measure of WFH and measures of WFC using such a sample (Felstead & Henseke, 2017; Kim, Henly, Golden, & Lambert, 2020; Laß & Wooden, 2023; Voydanoff, 2005a, 2005b; Yang et al., 2023; Yucel & Chung, 2023), and in contrast to the conclusion suggested by meta-analyses, only one reports evidence of a negative relationship between WFH and WFC. Voydanoff (2005a, 2005b) uses data from the 1997 and 2002 rounds of the US National Study of the Changing Workforce and reports statistically insignificant relationships with a simple binary variable identifying persons who spend any time working at home as part of their work week (though this may reflect the inclusion of mediating variables that are correlated with both WFH and WFC). Felstead and Henseke (2017) use pooled data from three rounds of the UK Skills and Employment Survey and report that the extent of spillover from work to home is actually significantly greater among those that work at least partly from home. Using German data (from the German Family Panel Survey), Yucel and Chung (2023) also report a positive association between a simple binary measure of WFH and WFC, but only for FTWC and only among women. Yang et al. (2023) also report positive associations using data from Germany (from the German Linked Personnel Panel) but in this case significant associations were reported with both

WFTC and FTWC. More importantly, they distinguish between WFH that only occurs within normal contractual hours (replacement WFH) and that which involves at least some work outside these hours (extension WFH), and find that positive associations are entirely restricted to the extension WFH group. Similarly, Kim et al. (2020), who use pooled data from multiple rounds of the US General Social Survey, find that WTFC is higher among persons who worked from home (and the association did not vary much with the frequency of WFH), and the magnitude of this effect is largest for those who work from home primarily to catch up on their work.

Laß and Wooden (2023), who utilize data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey, is the only study among this group that reports a significant negative relationship between WFH and WTFC. It is also unique among this group in restricting its sample to working parents, utilizing a continuous measure of WFH, and estimating models that exploit the panel nature of their data. Nevertheless, none of these features explain why this study reaches different conclusions to the other studies employing population-wide samples.

Overall, the empirical evidence based on population-wide samples, and especially longitudinal data, is thin, and more research is needed, particularly using non-binary measures of WFH and investigating both directions of conflict.

DATA AND METHODS

Sample

We use data from 19 waves of the HILDA Survey (covering the period 2001 to 2021), a longitudinal study following members of a nationally representative sample of Australian households on an annual basis since 2001 (https://melbourneinstitute.unimelb.edu.au/hilda; also see Watson & Wooden, 2021). Among other topics, the HILDA Survey provides

comprehensive information on individuals' employment situations as well as subjective indicators of WTFC and FTWC. Our sample is restricted to workers who: (i) are aged between 18 and 64 years; (ii) have parenting responsibilities for children aged 17 or less; (iii) are living with their children; and (iv) provided information on both WFH and their levels of WTFC or FTWC. Given information on WTFC and FTWC was not collected in 2018 and 2020, we exclude these waves from the analysis. Our final sample consists of 4,860 fathers (contributing 28,308 observations) and 4,999 mothers (contributing 26,585 observations).

Measures

Dependent Variables

WTFC represents the average value of four items taken from Marshall and Barnett (1993), reflecting how much workers' job demands interfere with their parenting and family role:

- "Because of the requirements of my job, I miss out on home or family activities that I would prefer to participate in."
- "Because of the requirements of my job, my family time is less enjoyable and more pressured."
- "Working leaves me with too little time or energy to be the kind of parent I want to be."
- "Working causes me to miss out on some of the rewarding aspects of being a parent."

FTWC represents the average value of another four items taken from Marshall and Barnett (1993), reflecting how much workers' parenting and family demands interfere with their work role:

- "Because of my family responsibilities, I have to turn down work activities or opportunities that I would prefer to take on."
- "Because of my family responsibilities, the time I spend working is less enjoyable and more pressured."

- "I worry about what goes on with my children while I'm at work."
- "Thinking about the children interferes with my performance at work."

All items were measured on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The Cronbach's alphas for the two composite measures are 0.84 (WTFC) and 0.64 (FTWC). The value of 0.64 for the FTWC scale is relatively low, but is similar to that reported in other recent studies using other FTWC scales (e.g., Yang et al., 2023; Yucel & Chung, 2023).

Key Predictor Variables

WFH is measured in several ways. First, and following most previous research, we use a binary measure indicating whether workers do any of the usual working hours in their main job at or from their home. Second, and following Laß and Wooden (2023), we use information on the number of hours worked from home each week and the total number of weekly working hours to create a measure of the share of total working time worked from home. For workers with multiple jobs, these measures relate to the main job only.

Control Variables

All models include a range of socio-demographic, family and work-related characteristics that may confound the relationship between WFH and WFC. The socio-demographic characteristics are age (in quadratic form), highest educational level, presence of a work-limiting health condition, remoteness, and whether a full-time student. The family context is accounted for by inclusion of the age of the youngest child, number of children, whether living with a partner, and whether living with others (besides partner and children). Additionally, the models account for period effects through the inclusion of survey year dummies. Finally, the included work-related characteristics are the number of working hours in the main job, employment type, whether has multiple jobs, whether employed in the public sector, whether has supervisory responsibilities, occupation, and firm size.

Summary statistics for all variables (except survey year), differentiated by gender and whether works from home, are provided in Appendix Table A1. This shows that WTFC levels are higher in all groups than FTWC levels. Furthermore, on this descriptive level, there are no differences in WTFC or FWTC levels between those working on-site only and those who work at least some hours each week from home. Interestingly, a somewhat larger share of fathers than mothers work from home, but mothers on average do so to a considerably larger extent.

Moderators

Two important moderator variables are the respondent's gender and time period. In order to account for gender-specific patterns in the utilization of WFH arrangements, we run all models separately by gender and additionally test for the statistical significance of gender differences using interaction models. To determine whether estimates may have changed over time, and more specifically during the COVID-19 pandemic, we run interaction models that test whether the association between WFH and WTFC/FTWC changed in 2021 compared to the period immediately preceding the pandemic (2015-2019).

Estimation Strategy

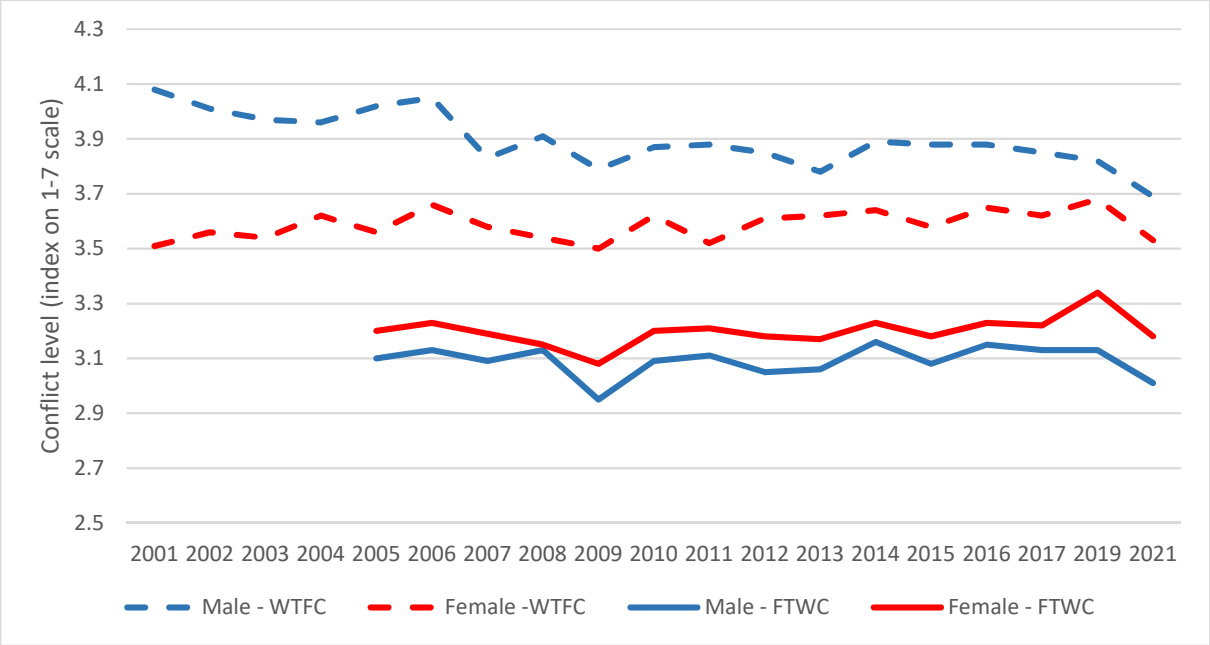
We estimate fixed-effects regression models where either WTFC or FTWC is the outcome variable and a measure of WFH is the key explanatory variable of interest. The unit of analysis is individuals and thus the fixed effects are person-specific intercept terms. The incorporation of these person-specific fixed effects enables us to eliminate any potential confounding effects from unobserved person characteristics that are time invariant.

RESULTS

Figure 1 shows that over the 2001-2021 period, men exhibited higher levels of WTFC than women, averaging about 3.9 points on the 1 to 7 scale, compared to women who average

about 3.6 points. For both genders, levels of FTWC were lower than those of WTFC. Women however, experienced slightly higher levels of FTWC than men (about 3.2 vs. 3.1). Interestingly, between 2019 and 2021 we observe a drop in the levels of both WTFC and FTWC for both genders.

FIGURE 1. TRENDS IN WTFC AND FTWC BY GENDER, 2001-2021



Note: Data weighted using cross-sectional person weights.

Table 1 presents results from fixed-effects regressions of WTFC on different measures of WFH (and our set of socio-demographic and job characteristics). Model 1 shows that doing any work from home was significantly and negatively associated with WTFC for women. More precisely, the model suggests that mothers experienced a 0.072 point decrease in WTFC on the 7-point scale when they did any of their usual hours from home compared to when they did not work from home at all. By contrast, for men there was no association between this general measure of WFH and WTFC. A formal test revealed that this gender difference in coefficients was statistically significant.

Table 1. *WFH and WTFC – Results from fixed-effects regression*

	Women				Men			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
	Any work from home (main)	Share worked from home	Share worked from home (Interaction)	Share worked from home (Interaction) Mothers with children <=12 years	Any work from home (main)	Share worked from home	Share worked from home (Interaction)	Share worked from home (Interaction) Fathers with children <=12 years
Works from home (yes versus no)	-0.072***				-0.009			
Share of time worked from home (ref. = 0%)								
Less than 20%		-0.049*				0.021		
20-39%		-0.021				-0.039		
40%-59%		-0.095*				-0.104**		
60-79%		-0.180***				-0.226**		
80% and more		-0.204***				-0.149***		
Share of time worked from home (linear)			-0.002***	-0.003**			-0.002***	-0.002***
Period: 2021			-0.079*	-0.089			-0.075**	-0.109**
Share WFH x 2021			0.001	0.002*			-0.000	0.001
N (observations)	26585	26541	26541	20309	28308	28279	28279	23236

Note: All models control for a range of socio-demographic and job characteristics. Models 1 and 2 additionally control for survey year.

*** $p < .01$, ** $p < .05$, * $p < .10$.

Repeating this analysis with a categorical variable measuring the proportion of usual paid weekly work hours that are worked from home (Model 2) shows that WFH was mostly not associated with reduced WTFC when the share of hours worked from home was relatively low. Higher shares of time worked at home (at least 40%), however, were associated with significantly lower levels of WTFC for both genders. For example, WFH at least 80% of usual working hours was associated with a decrease of 0.204 points on the WTFC scale for mothers, and with a 0.149 point decrease for fathers. These findings therefore provide support for our hypothesis that a higher share of time worked from home comes with lower WTFC (H1).

Overall, these associations were relatively similar for both genders: A formal test for gender differences showed that only the coefficients for working less than 20% of hours from home differed significantly between mothers and fathers (and only at the 10% level). This finding thus lends only limited support to H3, which stated that the negative association between WFH and WTFC should be stronger for mothers than for fathers.

For Model 3, we interacted the share of hours worked from home with the time period in order to see whether the relationship changed during the pandemic. For reasons of parsimony and readability, we used the linear measure of the share of hours worked from home for this model. The estimates from Model 2 suggested that the association between the share worked from home and WTFC indeed followed a roughly linear path. The interaction model showed that the association did not differ significantly between the pandemic year 2021 and the preceding period so that we cannot confirm H5. However, when limiting the analysis to parents with relatively high family demands (i.e., those with children aged 12 or younger) (Model 4), the positive interaction effect for mothers became stronger (0.002) and statistically significant (albeit only at the 10% level). Appendix Figure A1 illustrates the estimated WTFC levels resulting from this model. It shows that the negative association between the share of hours worked from home and WTFC among mothers has vanished almost entirely during the

COVID period. Further analyses, distinguishing between Australian States that were affected by lockdowns in 2021 (ACT, NSW, VIC) and other States, suggested that this pattern was largely similar between these two groups (see Figure A2).

Moving on to FTWC, Model 1 in Table 2 shows that working some hours from home was associated with significantly increased FTWC for men, whereas there was no significant association for women. This difference in coefficients was again statistically significant. Furthermore, when distinguishing between different shares of time worked from home (Model 2), we see that women working at least 80% of their working hours from home experienced slightly lower FTWC. By contrast, men in this category experienced the highest level of FTWC. A formal test revealed that the coefficients for the categories '20-39%' and '80% or more' differed significantly between the genders, confirming that men experience significantly higher levels of FTWC even at a given extent of WFH. These results thus only partly confirm our expectation that a higher share of time worked from home is associated with higher FTWC (H2), as this applies to men only. Correspondingly, our findings are contrary to H4 where we had expected the positive association between the share of time worked from home and FTWC to be stronger for mothers.

Table 2: *WFH and FTWC – Results from fixed-effects regression*

	Women				Men			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
	Any work from home (main)	Share worked from home	Share worked from home (Interaction)	Share worked from home (Interaction)	Any work from home (main)	Share worked from home	Share worked from home (Interaction)	Share worked from home (Interaction)
				Mothers with children <=12 years				Fathers with children <=12 years
Works from home (yes versus no)	-0.030				0.044**			
Share of time worked from home (ref. = 0%)								
Less than 20%		-0.016				0.033*		
20-39%		-0.004				0.071**		
40%-59%		-0.055				0.003		
60-79%		-0.073				0.028		
80% and more		-0.090**				0.120***		
Share of time worked from home (linear)			-0.001**	-0.001**			0.001***	-0.001***
Period: 2021			-0.070*	-0.086**			-0.101*	-0.104***
Share WFH x 2021			0.001*	0.002**			-0.001	-0.001
N (observations)	21572	21538	21538	16400	22600	22576	22576	18478

Note: All models control for a range of socio-demographic and job characteristics. Models 1 and 2 additionally control for survey year.

*** $p < .01$, ** $p < .05$, * $p < .10$.

Model 3 revealed a weakly significant (at the 10% level), positive interaction between WFH and the year 2021 for mothers. This provides some modest support for H6, which predicted higher FTWC for WFH during pandemic than at previous times. Furthermore, when limiting the analysis to parents with children aged 12 years or younger in Model 4, the positive interaction effect for mothers again became stronger (0.002; $p<0.05$). This indicates that whereas pre-COVID, working a larger share of time from home was associated with a reduction in FTWC for mothers, during COVID it was in fact associated with an increase. Figure A3 illustrates these relationships. Further analyses, distinguishing between states that were affected by lockdowns in 2021 and other states, suggested that the increase in FTWC for mothers WFH was largely driven by lockdown states (even though we cannot detect significant differences due to lack of statistical power) (for the estimated patterns, see Figure A4).

Discussion

Against the backdrop of the rising prevalence of working at home arrangements, this paper used 19 waves of panel data from the HILDA Survey to investigate the effect of this work mode on the fit between work and family life. It went beyond previous research by analyzing both directions of conflict (i.e., WTFC and FTWC) by means of longitudinal methods of analysis and nationally representative data. Furthermore, the study has explicitly tested for gender differences in these relationships. Finally, in light of drastically changing working and living conditions during the pandemic, the study has investigated whether the effect of WFH on WTFC and FTWC changed with the COVID-19 period. Three key findings emerged:

First, WFH affects the two directions of WFC in very different ways. On the one hand, we found this work mode to be linked to decreased WTFC for both genders, supporting findings from a previous study using the same dataset (Laß & Wooden, 2023). On the other hand, the

implications for FTWC were far less beneficial. In fact, we found fathers to experience significantly higher levels of FTWC the more they work from home. For mothers, there was some conflict-reducing effect, but it was smaller than for WTFC and only visible when working a very high share of time from home.

Second, and related to this, we found important and potentially surprising gender differences in the link between WFH and FTWC. Theory and previous literature suggested that family demands should increase when WFH, and especially for women with caring responsibilities. We therefore expected WFH to be more strongly associated with increased FTWC for mothers. However, we found the opposite. A potential explanation may lie in the different levels of importance mothers and fathers attach to specific spheres of life. HILDA Survey data from the year 2001 shows that one's work and employment situation is significantly more important to fathers than mothers, whereas one's family is significantly more important to mothers. Thus despite the fact that fathers are actually being less interrupted and confronted with less family demands than mothers when WFH, it is possible that fathers have a much lower tolerance for family-related interruptions and interference with their work. The result is also in line with evidence from the pandemic showing that men were more likely than women to look forward to going back to the office after the end of COVID restrictions, missing a work environment free of distractions (Mattey, Hilberath, Sibilio, Aurora, & Ruiz, 2020).

Third, and again possibly surprising, our study provided little evidence that the general relationships between WFH and the fit between the work and family spheres changed during the pandemic. This is despite WFH becoming more widespread and partly even mandated, and schools and childcare facilities closing for extended periods in parts of Australia. However, when we limited our focus to those individuals who were most affected by school and childcare closures (namely women with children under the age of 12), we did find some

indication that the effects of WFH on the fit between work and family have become less beneficial over the course of the pandemic. This finding is in line with studies showing that it was women who shouldered most of the extra unpaid work during the lockdowns (Craig & Churchill, 2021).

We acknowledge that our study has limitations. First, we do not have information on how the hours worked from home are spread across the working week, which would have allowed us to differentiate full work days at home from work brought home after the work day in the office. Second, we cannot rule out that some of our findings are affected by reverse causation; that is, that some workers with high work or family demands may select into WFH. If so, conflict-reducing effects of WFH may be understated and conflict-enhancing effects overstated. Third, it would be desirable to analyze the moderating effect of the COVID-19 period separately for states affected by prolonged lockdowns and other states. However, limited sample size did not allow us to make statements about differences between states with any statistical precision.

Overall, our study suggests that a judgment regarding the question of whether WFH is beneficial or detrimental for the fit between work and family life depends on the specific outcome considered. While reducing the interfering effect work demands may have on family life, it can lead to more interference of family demands with work life. Nevertheless, in general our results point mostly to net beneficial effects on WFC from WFH, but which are much larger for mothers than fathers. As has been discussed elsewhere (Laß, Vera-Toscano, & Wooden, 2023), the gender difference in the attractiveness of WFH may lead more women to select into this work arrangement, with potential repercussions for gender equality. WFH may allow more mothers to be employed or to work longer hours than they would otherwise. However, to the extent that work done from home is less recognized and rewarded as work

done in the office, mothers who opt for WFH may experience career penalties. On top of that, they may find themselves burdened by an even higher share of the unpaid workload.

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APPENDIX

Table A1. *Sample characteristics by gender and workplace (% unless stated otherwise)*

	Mothers		Fathers	
	Onsite only	Home	Onsite only	Home
WTFC (mean)	3.55	3.62	3.93	3.93
FTWC (mean)	3.17	3.18	3.05	3.02
Share of time worked from home				
1-19%	1.00	0.00	1.00	0.00
20-39%	0.00	0.38	0.00	0.61
40-59%	0.00	0.25	0.00	0.19
60-79%	0.00	0.09	0.00	0.06
80-100%	0.00	0.04	0.00	0.03
Share of time worked from home (mean)	0.00	41.15	0.00	25.49
Age (mean years)	39.60	40.95	40.17	42.58
Educational level				
High (bachelor or higher)	0.31	0.55	0.25	0.44
Medium (year 12, cert III / IV, diploma)	0.48	0.34	0.57	0.46
Low (year 11 and below)	0.21	0.10	0.18	0.10
Full-time student	0.02	0.01	0.01	0.01
Age of youngest resident child				
0 to 3 years	0.27	0.29	0.41	0.35
4 to 7 years	0.22	0.22	0.20	0.21
8 to 12 years	0.27	0.27	0.22	0.25
13 to 17 years	0.24	0.22	0.17	0.19
Number of own resident children				
One child	0.40	0.36	0.35	0.32
Two children	0.43	0.45	0.43	0.46
Three or more children	0.18	0.19	0.22	0.22
Work-limiting health condition	0.07	0.07	0.06	0.07
Partner in household	0.81	0.87	0.98	0.98
Other people in the household	0.06	0.04	0.05	0.03
Origin				
Australia— non-Indigenous	0.78	0.79	0.77	0.77
Australia— Indigenous	0.02	0.01	0.02	0.01
Overseas— main English-speaking country	0.08	0.10	0.10	0.12
Overseas— other country	0.12	0.10	0.12	0.10
Remoteness Area				
Major Cities	0.64	0.68	0.65	0.70
Inner Regional	0.24	0.22	0.23	0.19
Outer Regional, (Very) Remote	0.12	0.10	0.11	0.11
Working hours (main job) (mean)	27.06	32.08	43.32	47.31
Employment type				
Permanent contract	0.63	0.52	0.73	0.51
Fixed-term contract	0.08	0.09	0.07	0.06
Casual contract	0.23	0.08	0.07	0.01
Temporary agency work	0.02	0.01	0.02	0.01
Self-employed	0.04	0.31	0.11	0.41
Multiple job holder	0.10	0.09	0.07	0.07

	Mothers		Fathers	
	Onsite only	Home	Onsite only	Home
Public sector	0.32	0.30	0.22	0.16
Supervisory responsibilities	0.42	0.46	0.58	0.63
Occupation				
Managers	0.07	0.19	0.16	0.33
Professionals	0.25	0.47	0.18	0.35
Technician and trades workers	0.04	0.03	0.24	0.15
Community and personal services workers	0.19	0.08	0.07	0.03
Clerical and administrative workers	0.26	0.17	0.08	0.04
Sales workers	0.09	0.04	0.03	0.04
Machinery operators and drivers	0.01	0.00	0.14	0.03
Laborers	0.08	0.02	0.09	0.04
Firm size				
Less than 20 employees	0.22	0.40	0.26	0.46
20-99 employees	0.14	0.11	0.15	0.11
100-499 employees	0.10	0.08	0.12	0.10
500 and more employees	0.47	0.38	0.44	0.32
Missing firm size	0.07	0.03	0.04	0.01
N (observations)	18537	8048	19022	9286

FIGURE A1. ASSOCIATION BETWEEN THE SHARE OF TIME WORKED FROM HOME AND WTFC BY PERIOD – WOMEN WITH CHILDREN AGED 12 YEARS OR YOUNGER

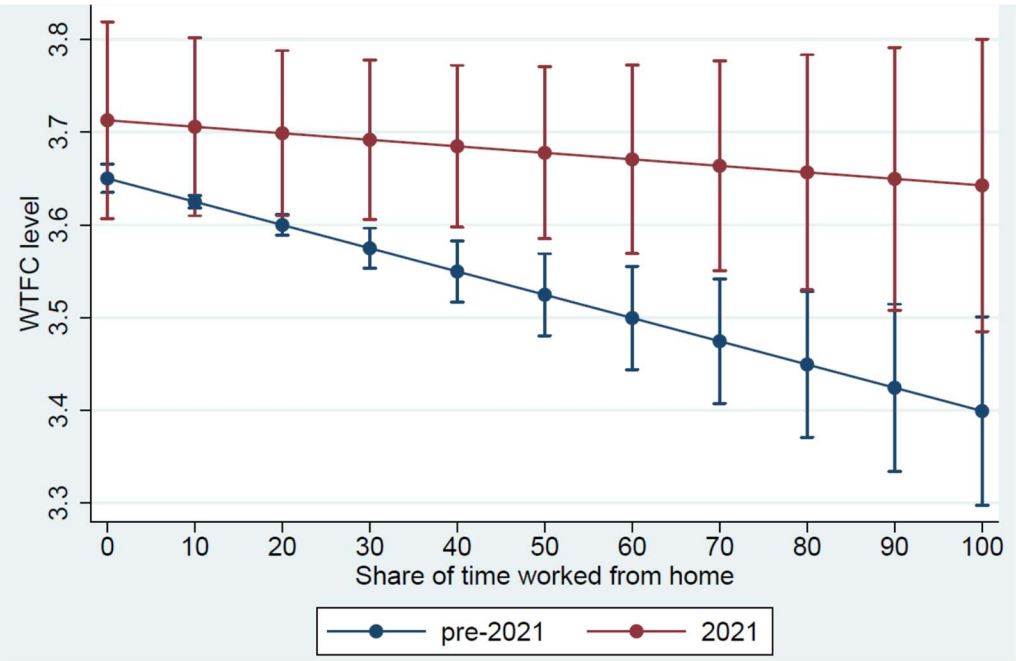

FIGURE A2. ASSOCIATION BETWEEN THE SHARE OF TIME WORKED FROM HOME AND WTFC BY PERIOD AND WHETHER LIVING IN A LOCKDOWN STATE – WOMEN WITH CHILDREN AGED 12 YEARS OR YOUNGER

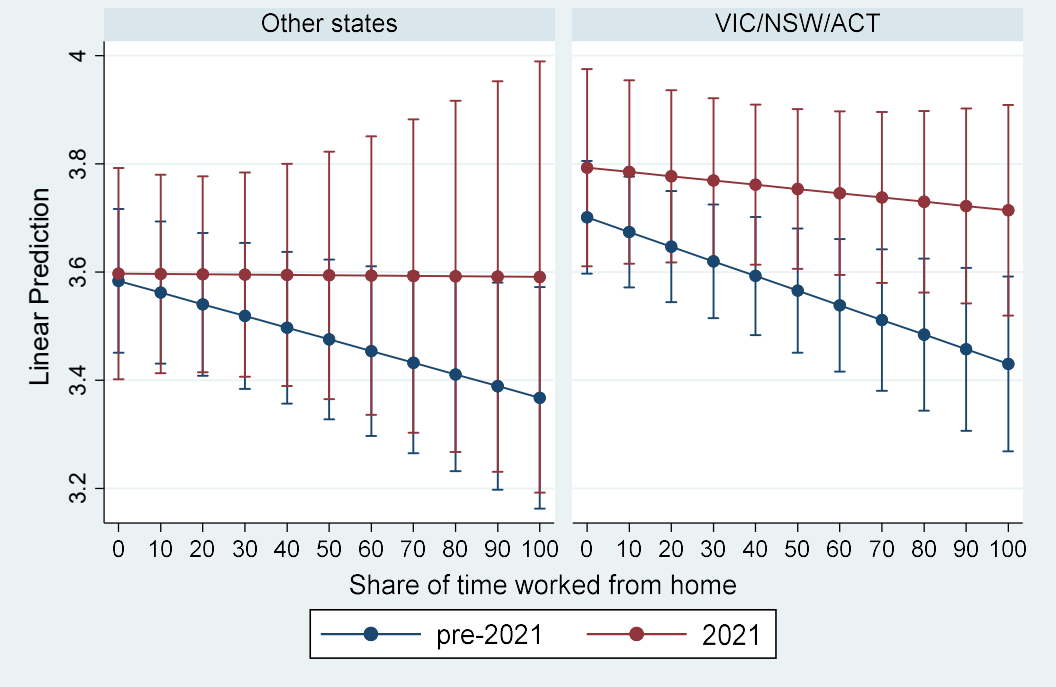

FIGURE A3: ASSOCIATION BETWEEN THE SHARE OF TIME WORKED FROM HOME AND FTWC BY PERIOD – WOMEN WITH CHILDREN AGED 12 YEARS OR YOUNGER

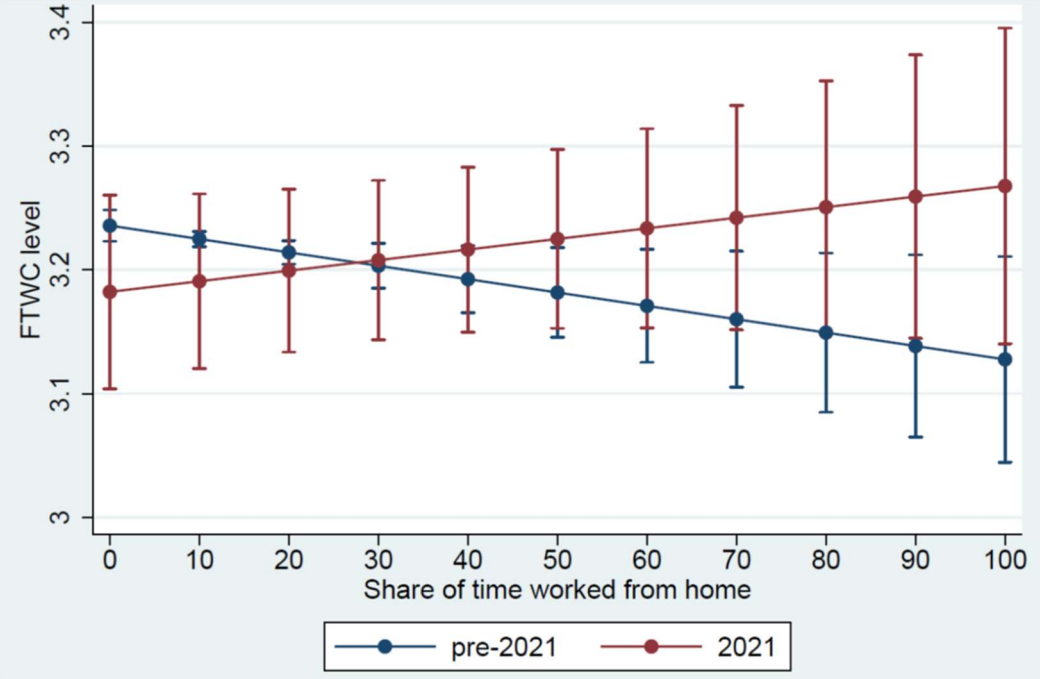

FIGURE A4: ASSOCIATION BETWEEN THE SHARE OF TIME WORKED FROM HOME AND FTWC BY PERIOD AND WHETHER LIVING IN LOCKDOWN STATES – WOMEN WITH CHILDREN AGED 12 YEARS OR YOUNGER