

## Article

# Working from Home and the Division of Childcare and Housework among Dual-Earner Parents during the Pandemic in the UK

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**Abstract:** This paper examines whether the expansion of working from home led to a more equal division of domestic work during the pandemic. We use unique data of dual-earner heterosexual couples gathered during the first lockdown in the UK when workers were required to work from home by law. Results reveal that mothers were likely to be carrying out a larger share of domestic work both before and during the lockdown. When fathers worked from home, compared to those going into work, a more equitable division was found for cleaning and routine childcare. Furthermore, homeworking fathers were up to 3.5 times more likely to report that they increased the time they spent on childcare during the lockdown compared to before. However, we also found evidence of homeworking mothers having increased their time spent on domestic work, and doing a larger share of routine childcare, compared to mothers going into work. Overall, the study shows that when working from home is normalised through law and practice, it may better enable men to engage more in domestic work, which can in turn better support women's labour market participation. However, without significant changes to our work cultures and gender norms, homeworking still has the potential to enable or maintain a traditional division of labour, further exacerbating gender inequality patterns both at home and in the labour market.

**Keywords:** COVID-19 pandemic; working from home; division of housework; childcare; gender inequality



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## 1. Introduction

With the sudden rise of homeworking during the pandemic [1,2], many scholars ask whether the expansion of homeworking can encourage a more equitable division of domestic tasks among heterosexual couples, and increase men's involvement in housework and childcare [3–7]. In fact, one key goal of the expansion of flexible working rights was to enable more gender egalitarian outcomes both at home and in the labour market [8]. Some scholars argue that there is a danger of further traditionalisation of gender roles through the expansion of flexible working [9]. This is because while women increase their time spent on housework and childcare when working flexibly [10,11], men rarely do [12,13] and end up working longer overtime instead [14–16], which can exacerbate gender inequality patterns in the labour market. Of the different types of flexible working arrangements (FWAs), working from home (in this paper working from home and homeworking is used synonymously) seems to be more problematic compared to flexitime [12,13,17,18]. This is because working from home allows more boundary blurring between work and non-work lives, and more permeability between the two spheres [19].

One reason why men do not use the flexibility and permeability in their work to engage more in domestic work is because of the dual stigma they can potentially face [20].

Workers using FWAs for family purposes may face a ‘flexibility stigma’ [21]. This is when employers and co-workers believe that flexible workers (including those who work from home) are less productive and less committed to the workplace compared to those who do not work flexibly (work in the office). Due to such beliefs, flexible workers can consequently experience negative career outcomes [22–25]. Scholars argue that men using FWAs for care purposes further face a ‘femininity stigma’ [20] because such practices also go against the masculine breadwinner image that is prevalent in our societies. However, these associations are not inevitable. The context in which FWAs are used can drastically shift how they impact gender equality outcomes [13,17,26,27].

The COVID-19 pandemic and the lockdown that followed provide us with a unique real-life quasi-experimental setting to test how the changes in contexts can shift the gendered outcomes of homeworking. In the UK, as a part of the lockdown measures to contain the virus, working from home was enforced by the government and subsequently employers. This led to a surge in homeworking, with up to half of the total workforce working from home during the first lockdown [1]. Workers working from home were less likely to be singled out and penalised, and negative connotations towards homeworking reduced drastically [28–30]. In this paper, we use unique data gathered during the peak of the first lockdown in the UK to explore the association between homeworking and the division of domestic work among dual-earner heterosexual couples with children. We focus on homeworking in this paper, as evidence shows that it can be more problematic with regard to the potential traditionalization of gendered division of labour compared to other types of FWAs. What is more, homeworking has expanded significantly during the pandemic and this pattern is likely to remain even as the pandemic winds down, leaving many to ask how such rise in homeworking will relate to gender relations in the future [3,4,31]. More specifically, we examine how father’s homeworking relates to the increased involvement in routine and non-routine housework and childcare during the pandemic, and how it relates to the division of housework and childcare. We look at both measures as previous studies [5,6,32] have shown that even when fathers have increased their time spent on childcare and housework during the pandemic, this did not necessarily lead to an equal division, as mothers have equally increased their time.

Results of this paper show that the increased prevalence and normalisation of homeworking may have enabled fathers to use homeworking to engage more in childcare and housework and carry out a more equal share. However, we still see evidence of the gendered outcomes of homeworking. Homeworking mothers also increased their time spent on housework and childcare, and carried out a larger share during the lockdown. We also find evidence that only when both parents were working from home, fathers engaged more in/carried out more of an equal share of home-schooling than when fathers were at home on their own. The paper contributes to the on-going debates around homeworking by evidencing that although the expansion and normalisation of homeworking helps, that alone is insufficient in addressing issues around the unequal division of domestic work, enhancing women’s labour market participation, and improving gender equality at work [33]. Through this, the results of this paper provide implications for better understanding the potential gender inequality patterns in the post-pandemic labour markets.

### 1.1. Definition and Determinants of Division of Housework

Housework is defined as the work needed to maintain a household, and can be distinguished into different activities [34]. Routine housework entails work that needs to be done on a day-to-day basis—such as cooking, washing dishes, cleaning, laundry [35]. Non-routine housework includes house repairs, garden work, and paying bills. There is a relative flexibility in terms of when these tasks need to be done and they are more discretionary [34]. Childcare can also be distinguished into routine versus non-routine care [36,37]. Routine childcare entails the physical aspects of generally looking after children, such as feeding, cleaning, regular bedtime activities. Non-routine childcare includes enrichment activities, such as, reading to, educating, and playing with children.

Mothers usually carry out and are expected to carry out more housework and childcare, especially routine/physical housework and childcare. On the other hand, fathers do less and mostly carry out non-routine housework and childcare [37–41]. Needing to carry out routine housework and childcare can act as a greater hinderance to one's labour market participation as it represents a larger part of domestic work, with less flexibility about when it can be done. Thus, only when fathers take on more routine care and housework activities, can mothers be relieved of some of the pressures arising from balancing family and work [34,38]. Finally, one particular element of non-routine childcare that is important to examine during the lockdown period was home-schooling. As schools shut, parents had to home-school their children, with many parents spending two or more hours on these activities per day [42] adding extra childcare demands onto parents [43].

Several theories help explain how couples divide domestic work [44]. Time availability theory argues that the division of housework is rationally distributed depending on the amount of available time each member of the household has outside of their paid work. Relative resources theory argues that the division of housework is determined by the relative resources each partner brings to the relationship—i.e., those with higher education/income/wealth do less housework compared to those with lower education/income/wealth [45]. The 'doing gender' [46] perspective argues that it is the socially expected gender roles that determine the way couples divide domestic work. Namely, women do more domestic work because they are seen to be responsible for these tasks, while men focus on bread-winning because that is what is expected of them [39]. Thus, even when women earn more money, or work longer hours, they still end up carrying out more domestic work than their male partners [45,47].

### 1.2. Homeworking and the Division of Housework and Childcare

In this paper, of the various FWAs, we focus specifically on homeworking. Workers' control over when and where they work can shape the amount of domestic work they carry out [37,48] by providing workers more control over the physical or temporal boundaries between their work and home domains [19,49]. Working from home allows for the blending of work and home demands, where work and housework/childcare can be done at the same time [32,50]. Working from home can also help workers save commuting time, which can be spent on doing more domestic work and/or paid work [51]. Studies prior to the pandemic have shown that homeworking is associated with higher levels of engagement in domestic work for women, yet not for men [10,11,13]. Instead, men have been shown to increase their paid working (overtime) hours when working from home [12,14]. This can be partly explained through the border theory, which argues that the flexibility and permeability in the work-family boundary will result in the expansion of the sphere that the individual identifies with or expected to identify more with [19].

The UK has a rather traditional division of labour with women in heterosexual couples carrying out a larger bulk (68%) of housework and care, in comparison to other countries [52]. This is echoed in the social norms in the UK, where men are expected to be the breadwinner and women are expected to be largely responsible for housework and childcare [53]. This explains why mothers use and are expected to use homeworking arrangements to meet family demands, while such expectations do not exist for fathers [11]. Homeworking does not change the gender normative assumptions or the power dynamics around who should carry out domestic work. However, it can remove some work-related restrictions that might have prevented mothers from carrying out both paid and domestic work [11,54,55]. Similarly, gender norms may also prevent men from using homeworking arrangements to assume more childcare responsibilities and housework. Studies have shown that there is negative stigma surrounding homeworking which pressures workers to work harder and longer to compensate against such perceptions [25,56,57]. Although both women and men may feel the same level of pressure to work longer when working from home, women, especially mothers, may lack the capacity to extend their working hours further due to their commitments at home [16]. As men are still considered the main breadwinners of the family

in heterosexual relationships, they may feel more pressured to ensure to (over-)compensate for any negative stigma coming from homeworking to maintain the financial security of the household. Moreover, men's prior bargaining power within the household (as breadwinners) can explain why men tend to keep stricter boundaries between work and family or expand their work spheres when boundaries are blurred [11]. This results in men working longer paid working hours rather than engaging more in domestic work when working from home [12,13,15], although some scholars [55,58] refute this. In this sense, homeworking enables couples to enact a more contemporary form of traditional gender roles (see also, [59]), enabling mothers to work while maintaining their central roles in housework and childcare, and maintaining men's central roles as breadwinners [9,11,17,18]. However, the context during the COVID-19 lockdown may have altered this relationship, which is what we examine next.

### *1.3. Homeworking and COVID-19 in the UK*

Compared to the rest of Europe, the UK generally has more workers working flexibly. For example, according to the 2015 European Working Conditions Survey, 30% of workers in the UK have access to flexible schedules (flexitime + working time autonomy), and 17% have worked from home on a regular basis (several times a month in the past 12 months). This is much higher compared to the EU 28 average of 25% and 12%, respectively, [17]. This may be owed to the fact that the UK introduced the right to request flexible working, including working from home, in 2003. Although this right was originally for parents of young and disabled children, it was extended to cover all workers by 2014.

However, despite the expansion of flexible working rights in the legislation, there has not been a large increase in the number of workers working from home in the UK over the past two decades [60]. One reason for this can be due to the prevalence of flexibility stigma in the UK. According to the 2018 Eurobarometer Survey, 29% of respondents in the UK said, "flexible working is badly perceived by colleagues", which was higher than the European average, 26% [17]. This prevalence of flexibility stigma is not surprising given the long-hours, ideal worker culture in the UK [61,62]. In such cultures, an 'ideal' or productive worker is considered to be someone who does not have any other responsibilities outside of work and prioritises work above all else [63,64]. Here, workers are expected to work long hours in the office to signal their motivation and commitment to the workplace, and are remunerated on that basis. Flexibility stigma is more prevalent in such cultures since flexible working, especially for care purposes, makes workers deviate away from this 'ideal' worker image [21,65].

The UK had one of the highest numbers of positive COVID-19 cases (10 million -based on 21 October 2021 data) and deaths (over 144 thousand) amongst the large, industrialised countries [66]. The UK government announced its first full-scale lockdown measure on 23 March 2020, requiring workers to work from home and the public was instructed to stay at home except for essential travel for food and medical issues. All non-essential retail shops and hospitality outlets (e.g., pubs, restaurants) were shut during this period. Although on 11 May 2020 the Prime Minister announced that those who cannot work from home (e.g., factory workers) can go into work, others were expected to work from home. Schools and other childcare facilities were closed from 20 March 2020, apart from childcare for key workers, such as those working in the health and social care sectors, retail and transport, and essential government workers. From 1 June 2020, schools were reopened but limited to three year groups: Reception, Year 1 and Year 6, and with limited capacity. Nurseries and other childcare facilities for preschool children were allowed to open from this time.

We expect several contextual factors to have changed the gendered outcomes of homeworking, especially changing the behaviours of fathers. First and foremost, working from home was a government enforced decision. During the first lockdown, employers had no other choice but to let workers work from home due to legal restrictions. Thus, although half of the total workforce was working from home during the first lockdown, in professional and managerial occupations, the number was close to two-thirds [1]. When

homeworking becomes more widespread, and more regulated as it was in this case, it is less likely to be stigmatised and more likely to result in better outcomes for workers' work–life balance [23,27,67]. This is because in such cases, homeworkers are less likely to be singled out, and workers are more likely to be themselves or in close contact with someone who works from home. What is more, many managers experienced positive (performance) outcomes during the lockdown. In fact, we saw a significant reduction in the flexibility stigma and increase in positive perception towards homeworking from both managers and workers during the pandemic [29,30,68].

Flexibility stigma may influence father's decision in using homeworking for care purposes more than that of mothers. As the main breadwinner, fathers are more likely to fear the negative career consequence coming from such stigmatised ideas [22,69–71]. Therefore, we can expect that the normalisation of homeworking and the decline in flexibility stigma may have especially enabled homeworking fathers to engage more in childcare and housework, compared to pre-pandemic times. This may especially be the case as formal childcare facilities were closed during the lockdown period resulting in a steep increase in both childcare and housework demands for parents. In these scenarios, fathers may have had no other choice but to engage in domestic work especially in dual-earner families. In fact, surveys show that during the pandemic, more parents, including fathers, have reported having discussions with managers around the increased care demands they were facing [30,72]. Working from home exclusively during the lockdown also meant that workers had more time available for them by cutting out commuting times. Due to the gender gap in commuting times, with fathers' commuting times much longer than that of mothers [73], it is likely that fathers saved more time by not having to commute. In sum, these changes may have enabled homeworking fathers to be more engaged in housework and childcare. However, as gender and work norms have not significantly altered during the pandemic, and as there were more childcare and housework to be carried out in general, we can also expect that parents' homeworking patterns may not have altered the division of domestic work significantly.

In sum, we come to the following hypotheses.

**Hypothesis 1 (H1):** Mothers are likely to carry out the bulk of the housework and childcare activities in heterosexual coupled relationships with children, both before and during the COVID-19 lockdown.

**Hypothesis 2 (H2):** In households where fathers were working from home during the COVID-19 lockdown, the division of housework and childcare is likely to be more equal/fathers are likely to do a larger share of housework and childcare compared to households where fathers were going into work.

**Hypothesis 3 (H3):** In households where fathers were working from home during the COVID-19 lockdown, they are likely to have increased the amount of time spent on housework and childcare compared to pre-pandemic times.

## 2. Materials and Methods

### 2.1. Data

During the first lockdown in the UK (between May and June 2020), we collected a dataset aimed to capture the paid and unpaid working practices of dual-earning heterosexual co-habiting parents in paid employment with children under 18. We focus on this population because the nature of flexible working and the question of division of domestic work is significantly different for this group compared to others—such as those with stay-at-home partners. We first gathered our data using an online survey panel (Prolific academic) to gain access to 560 respondents, which was the maximum number of respondents in this panel who met our selection criteria. To supplement this, we collected additional 324 cases through social media channels such as Twitter, Facebook, and targeted

partner organisations that distributed the survey through their internal links/ mailing lists. Due to the nature of the research question and sample sizes, we were unable to examine same sex couples or couples where one or more partners does not identify as either male or female. Limiting the sample to heterosexual co-habiting parents of children under 18, where both partners were in employment before the pandemic with no missing data for key variables resulted in a total of 692 cases. Since the data includes detailed information about the respondents and their partners, alongside information about the household—such as the division of housework, childcare and income between the couple, we are able to look at how 692 couples divided domestic work during the first lockdown period.

Given the lack of knowledge we have about dual-earner co-resident parent population in the UK, we cannot guarantee the representativeness of this data set. Examining some of the key demographics of the data (see Appendix A, Table A1), our respondents are slightly higher educated than the general population (55% of men and 66% of women in our sample have tertiary education compared to 45% of men and 49% of women of the general population aged between 25–64). Accordingly, our sample has a higher average household income (median/mode household income is between £50,000 to £60,000) compared to median household income in the UK (of £30,000). However, these discrepancies could also be explained by the fact that we only examine dual-earning couples who generally have higher household incomes. Further indicators such as the number of hours worked by male (13% worked part time before the pandemic) and female partners (50% worked part-time before the pandemic), as well as the number of children (1.7 on average) and others are representative of UK households. We have more female respondents (76%) than male respondents. The main reason for this is because we did not restrict the respondent's gender when we were recruiting participants. This was largely due to the fact that we wanted to maximise the number of cases that met our criteria (dual earning employed cohabiting couples with children), and only few did. What is more, in our convenient sample of respondents drawn from social media, and selection of partner organisations, more women responded to our request. We use gender as a control variable to take into account the different perceptions men and women have of how housework and childcare is divided [74].

## 2.2. Dependent Variables

The dependent variable used for this paper is the division of housework and childcare between couples, and the additional involvement of fathers in housework and childcare during the lockdown compared to before. In the survey, we asked participants how they are/have been dividing housework and childcare tasks with their partners before and since the lockdown (see also for studies using similar approaches, [75,76]). Based on the literature, we distinguished between six categories of housework/childcare, namely, two routine housework including “cooking”, “house cleaning/laundry”, one non-routine housework, namely, “DIY (home, garden, car) maintenance, transport”. We also include routine childcare noted in the survey as “generally looking after child(ren)”, and two non-routine childcare activities, including “playing or entertaining child(ren)”, and particularly of interest during the pandemic, “educating your child(ren)/supporting with homework (including home learning)”. Respondents could answer “I do (did) it all”, “I do (did) more of it”, “we share(d) it equally”, “my partner does (did) more of it”, and “my partner does(did) it all”. From this, we derived a variable indicating the division of housework—where the values indicate (1) male partner does all of it, (2) male partner does more of it, (3) shared equally, (4) female partner does more of it, and (5) female partner does all of it, derived for each of the six areas. The “total amount” variable refers to the mean of the six categories considered. We also asked respondents “SINCE the Coronavirus lockdown, has your time on the following tasks changed?”. The same was asked about their partners' time, distinguished between the six different areas. Due to the skewness of the distribution, we recoded this 5-scale response category dichotomously: 1 indicates that the respondent (or their spouse) is spending more time on the task than before the lockdown, 0 indicates

that the respondent (or their spouse) is spending less time or the same amount of time. As a robustness check, we also examined it as a continuous variable (see Appendix B, Table A2).

### 2.3. Independent Variables

Our key independent variable is whether the respondent and their partner has worked from home during the lockdown. Given our theoretical set up, we distinguish between (i) those who have worked (almost) exclusively at home, from (ii) those who were mostly going into work during this period, and (iii) those who were not working during the period of the data collection due to furlough, leave or for other reasons albeit still being employed. This is done by using two dummy variables indicating that the female or male partner is “working from home sc (since COVID-19 outbreak)” and “not working sc”, where the reference group is “going into work sc”. Although not at the focus of our paper, we also examine the use of flexitime by the respondent and their partner to see how this relates to the division of housework and childcare, as flexitime and working from home are two distinct yet widely used FWAs in the UK and across the world [17,62]. This is captured by the variable “female/male working flexitime sc”, with those who did not use flexitime as the reference group.

### 2.4. Control Variables

In addition, based on previous studies on the division of housework and childcare (e.g., [36,38,77]), we include the following control variables. We include actual working hours since the COVID-19 lockdown. This is an ordinal variable yet treated as a continuous variable where 1 refers to “less than 15 h”, 2 “15–23 h”, 3 “24–29 h”, 4 “30–34 h”, 5 “35–39 h”, 6 “40–44 h”, 7 “45–49 h”, 8 “50 h or more” and 0 “not working”. The relative income between the couples since the COVID-19 lockdown is included coded as 1 being “female earns all”, 2 “female earns much more”, 3 “female earns somewhat more”, 4 “both earn about the same”, 5 “male earns somewhat more”, 6 “male earns much more” and 7 “male earns all”. Education of both partners are included as dummy variables “high education” indicating the person’s education level being tertiary or above—namely, Undergraduate degree (or equivalent) or above. Here, the reference category is those with upper secondary level of education or below. Gender role attitude is constructed as a mean of six variables based on previous studies (e.g., [78]), including questions such as “preschool children suffer when mothers work”, “man’s job is to earn money while women’s job is to look after home and family”, “both husband and wife should contribute to the household income”, “if a husband and a wife both work full-time, they should share household tasks equally”, “women and men should share equally in the raising of their children”, and “men are just as suited to take care of children as women.” Each variable is constructed on a 1–5 scale, with higher numbers indicating more egalitarian attitudes towards gender roles. The Cronbach alpha is 0.69 entailing internal consistency. Number of children refers to the total number of children that lives with the respondent (and their partner) that is under 18. We also include the age of the youngest child in age categories—namely having at least one child under the age of 5, or at least one child between the ages 5–11. Here, the reference group are those whose youngest child is over 11 (under 18). We include the ethnicity of the respondent—namely anyone who identify as non-white as defined as “ethnic minority” with white as the reference group. Finally, we include information on whether there are other adult(s) living in the household, with the reference group being not having any other adults other than the couple living in the household.

### 2.5. Models

We first examine how working from home is associated with the division of housework and childcare during the COVID-19 lockdown, having controlled for several factors. We explore the six categories separately as in our theoretical framework we argue that the division of routine versus non-routine tasks are substantively different not only in terms of how it is usually divided among couples, but also its impact on gender equality outcomes—

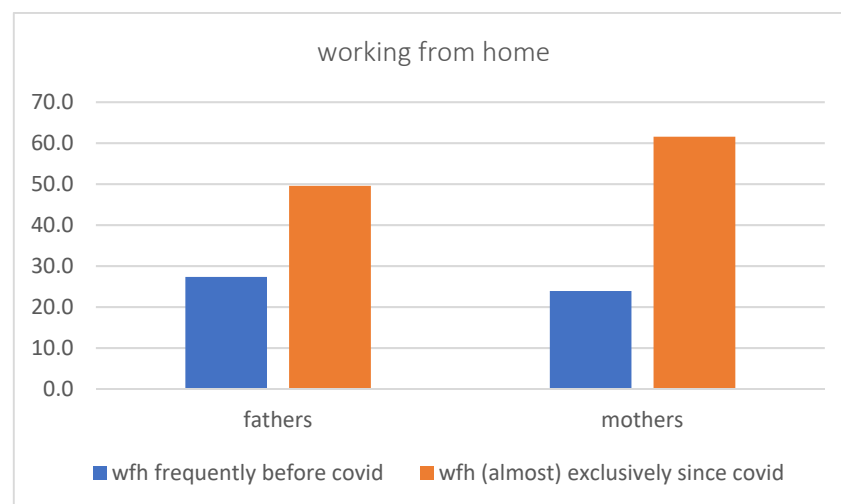
such as women's employment capacity. Through this we are able to empirically examine the hypotheses 1 and 2 presented in the previous section. We focus specifically on the impact of fathers' working from home in changing the dynamics in the division of household labour between the partners. Next, we examine the association between working from home and increased time spent on housework and childcare among fathers during the lockdown compared to before. This set of models are used to examine hypothesis 3 of this study. This is examined in two ways—by looking at how fathers felt about their own time increase, and how mothers felt about fathers' time.

Multivariate regressions are used in this paper, as it allows us to examine the impact of working from home on the division of household labour, and on father's increase in the involvement in housework/childcare whilst controlling for a number of different factors that may influence these associations. Linear regression analyses are used when examining the division of housework carried out by couples (H1&2), as the dependent variable used is an ordinal variable which we use in a linear continuous term for simplicity. Logistic regression analyses are carried out when examining father's (additional) involvement in housework and childcare during the pandemic compared to pre-pandemic times (H3), as our dependent variable is dichotomous. We used STATA 15.1 to run all models.

### 3. Results

#### 3.1. Descriptive

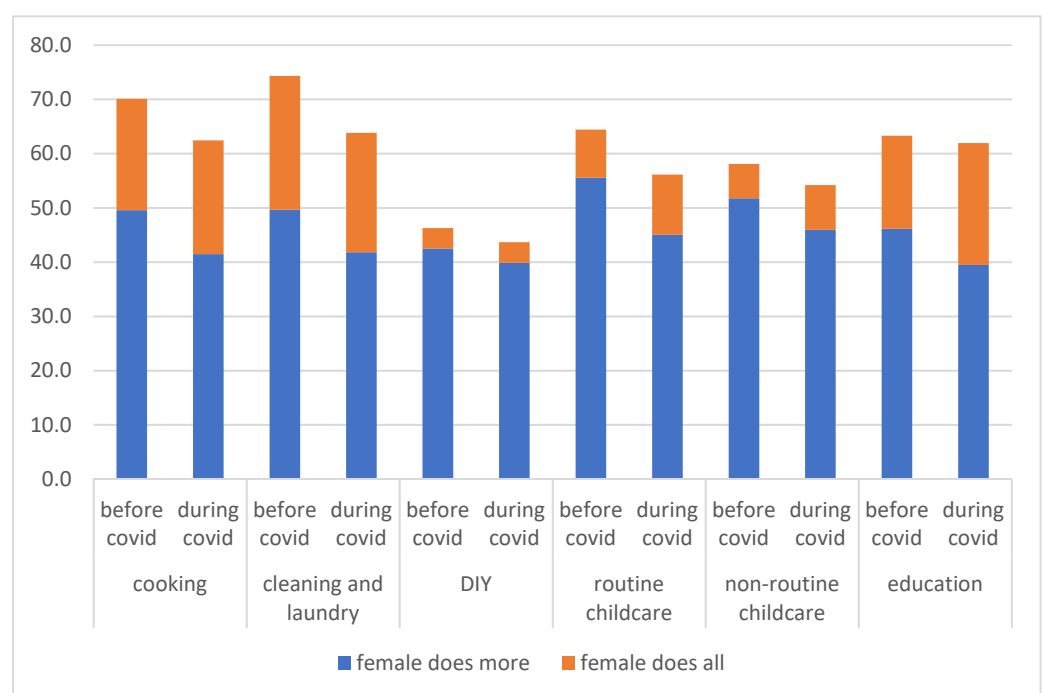
As Figure 1 shows, 50% of the fathers in our survey worked from home (almost) exclusively during the lockdown, while only 27% worked from home regularly (once a week or more) before. Only 24% of mothers worked from home regularly before the lockdown, but this number almost tripled to 62% during the lockdown. These proportions are slightly higher than official statistics (e.g., [1]), where it was noted approximately half of all workers were working from home during the pandemic. This again indicates our survey may be skewed slightly towards higher-skilled office workers who were more likely to have worked from home both before and during the pandemic.



**Figure 1.** Men and Women working from home before and during the COVID-19 lockdown in percentages. WHF frequently refers to working from home at least once a week; WFH (almost) exclusively refers to working from home at least 3 days a week.

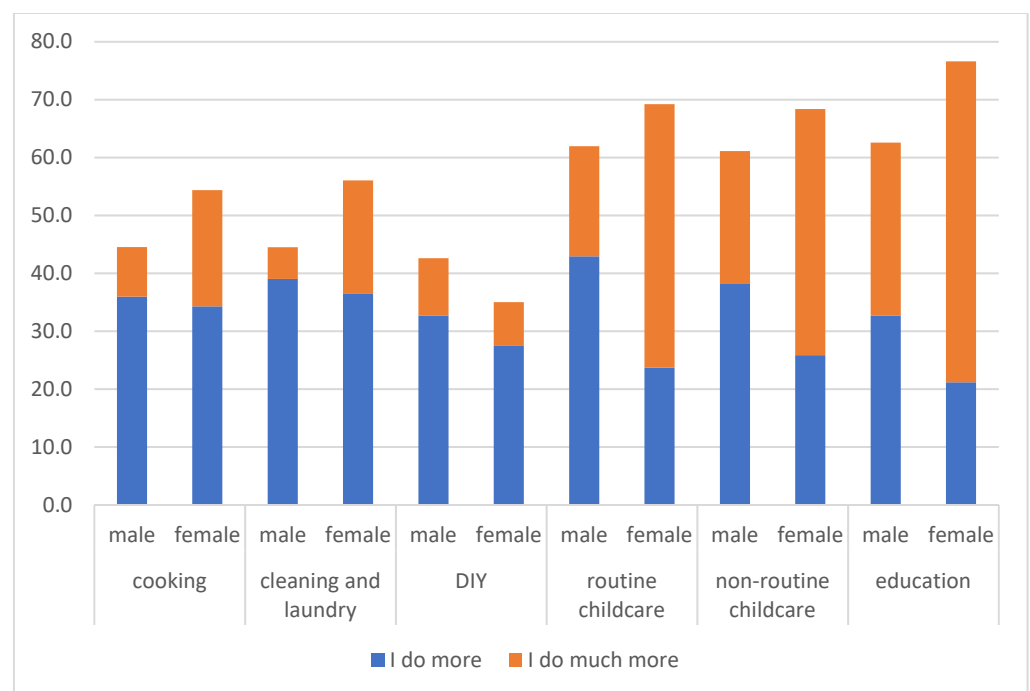
As we can see in Figure 2, mothers generally carried out more and often all of the domestic work examined in our survey both before and during the lockdown. The exception to this is DIY (here including household repair and gardening), which is considered a more masculine or gender-neutral task [34]. In all six categories, we see a general decline in the proportion of respondents who responded that the female partner was mainly carrying out the tasks. For example, while 70% of respondents said that mothers did more/all of the

cooking before the lockdown, 62% said this was the case during the lockdown. Similarly, 74% said mothers were doing more/all of the cleaning and laundry before the lockdown, while only 64% of respondents said this was the case during the lockdown. Just over half of respondents said that mothers were doing more/all of the routine (generally looking after children) and non-routine (playing entertaining) childcare during the lockdown (56% and 54% respectively), a reduction from 64% and 58% before the lockdown respectively. This change is not as clear in the case of education/home-schooling. 62% of respondents said mothers were largely responsible for home-schooling/educating children during the lockdown, a similar rate to 63% before the lockdown. The data revealed a slight increase in the number of respondents who said that women are solely responsible for home-schooling during the lockdown (22% compared to 17% before the lockdown). This mirrors results from larger-scale studies in the UK which shows that home-schooling during the lockdown was largely considered a mother's responsibility [42].



**Figure 2.** The division of housework and childcare among couples before and during the COVID-19 lockdown.

The amount of housework and childcare parents carried out increased significantly during the lockdown. Thus, despite many respondents feeling that housework and childcare were shared more equally during the lockdown, this does not mean that women did less than before. As Figure 3 shows, a large proportion of mothers report spending 'more' or 'much more' time on housework and childcare during the lockdown compared to before. This was especially the case for childcare, namely, routine childcare and home-schooling/education activities, as more than 2/3 of the women in our survey report having spent (much) more time on these tasks during the lockdown. However, we also see a considerable number of fathers who report spending more time on housework and childcare during the lockdown. This was especially true for childcare, where more than 60% of the fathers in our survey responded that they do more or much more routine, non-routine childcare and home-schooling/educational activities than they did before the lockdown.



**Figure 3.** The proportion of participants noting that they do more or much more housework and childcare during the COVID-19 lockdown compared to before by gender.

### 3.2. Multivariate Analysis

#### 3.2.1. Division of Housework and Childcare during the Lockdown

Table 1 presents the multivariate analysis results examining how homeworking is associated with the division of housework and childcare among dual-earner heterosexual couples during the first lockdown. Except for non-routine housework, on average (examining the constant, which are above 3, meaning equally shared), women were more likely to be the ones responsible for housework and childcare, even when controlling for other relevant factors. This is especially when we look at women's responses, as we see a significant positive coefficient ( $b$ ) for female (0.5 or above for all models).

Compared to households where fathers were going into work, homeworking fathers were dividing housework and childcare tasks more equally with their female partners. This association was statistically significant for routine childcare ( $b = -0.191, p < 0.01$ ), and cleaning and laundry ( $b = -0.176, p < 0.05$ ). Although not at the traditional significance level of  $p < 0.05$ , we see some signs of this for home-schooling ( $b = -0.148, p = 0.093$ ). When mothers worked from home, compared to households where they went into work, mothers were also more likely to be doing more if not all of the routine childcare ( $b = 0.169, p < 0.05$ ) but were significantly less likely to be responsible for non-routine housework—namely DIY, gardening ( $b = -0.253, p < 0.05$ ). Again, although it does not meet the significance level of 0.05, mothers' working from home was also associated with mothers doing more cleaning and laundry ( $b = 0.149, p = 0.094$ ) and home-schooling ( $b = 0.161, p = 0.091$ ).

**Table 1.** Model explaining the division of housework and childcare during the COVID-19 lockdown for heterosexual dual earning couples with children under 18.

|                                   | Cooking           | Cleaning/<br>Laundry | Non-Routine<br>Housework | Routine<br>Childcare | Non-Routine<br>Childcare | Education          | Total Amount      |
|-----------------------------------|-------------------|----------------------|--------------------------|----------------------|--------------------------|--------------------|-------------------|
|                                   | Model 1           | Model 2              | Model 3                  | Model 4              | Model 5                  | Model 6            | Model 7           |
| (Ref: Male) Female                | 0.891 *** (0.092) | 0.746 *** (0.079)    | 1.299 *** (0.106)        | 0.622 *** (0.069)    | 0.584 *** (0.068)        | 0.758 *** (0.086)  | 0.813 *** (0.480) |
| (Ref: Female going into work)     |                   |                      |                          |                      |                          |                    |                   |
| Female working from home sc       | 0.092 (0.104)     | 0.149 + (0.089)      | −0.254 * (0.119)         | 0.169 * (0.078)      | 0.123 (0.077)            | 0.161 + (0.095)    | 0.071 (0.054)     |
| Female not working sc             | 0.211 (0.150)     | 0.099 (0.128)        | −0.0001 (0.171)          | 0.203 + (0.113)      | 0.078 (0.111)            | 0.140 (0.137)      | 0.122 (0.078)     |
| (Ref: Male going into work)       |                   |                      |                          |                      |                          |                    |                   |
| Male working from home sc         | −0.051 (0.096)    | −0.176 * (0.081)     | 0.097 (0.109)            | −0.191 ** (0.071)    | −0.091 (0.071)           | −0.148 + (0.088)   | −0.088 + (0.050)  |
| Male not working sc               | −0.609 ** (0.177) | 0.035 (0.151)        | 0.059 (0.201)            | −0.065 (0.133)       | −0.035 (0.130)           | 0.062 (0.163)      | −0.093 (0.092)    |
| (Ref: Female not using flexitime) |                   |                      |                          |                      |                          |                    |                   |
| Female working flexitime sc       | −0.041 (0.095)    | 0.135 + (0.081)      | 0.127 (0.108)            | −0.041 (0.071)       | −0.016 (0.070)           | 0.020 (0.087)      | 0.030 (0.049)     |
| (Ref: Male not using flexitime)   |                   |                      |                          |                      |                          |                    |                   |
| Male working flexitime sc         | −0.243 ** (0.089) | −0.050 (0.076)       | −0.027 (0.102)           | −0.150* (0.067)      | −0.188 ** (0.066)        | −0.143 + (0.082)   | −0.137 ** (0.046) |
| Controls                          |                   |                      |                          |                      |                          |                    |                   |
| Female working hours sc           | −0.023 (0.023)    | −0.058 ** (0.020)    | 0.007 (0.027)            | −0.024 (0.017)       | −0.031 + (0.017)         | −0.057 ** (0.021)  | −0.030 * (0.012)  |
| Male working hours sc             | 0.028 (0.025)     | 0.088 *** (0.021)    | 0.022 (0.028)            | 0.086 *** (0.019)    | 0.063 ** (0.018)         | 0.098 *** (0.023)  | 0.063 *** (0.013) |
| Partner relative income sc        | 0.021 (0.030)     | 0.029 (0.026)        | 0.004 (0.034)            | 0.011 (0.023)        | −0.001 (0.022)           | −0.006 (0.028)     | 0.010 (0.016)     |
| Male high education               | 0.044 (0.086)     | −0.084 (0.074)       | 0.130 (0.098)            | −0.114 + (0.065)     | −0.070 (0.064)           | −0.277 *** (0.079) | −0.058 (0.045)    |
| Female high education             | −0.097 (0.088)    | −0.013 (0.075)       | −0.084 (0.100)           | −0.040 (0.065)       | −0.014 (0.065)           | 0.039 (0.080)      | −0.054 (0.045)    |
| Gender role attitude              | −0.199 ** (0.072) | −0.095 (0.062)       | 0.128 (0.082)            | −0.012 (0.054)       | −0.057 (0.053)           | −0.067 (0.066)     | −0.050 (0.037)    |
| Number of children                | −0.060 (0.062)    | −0.079 (0.053)       | 0.110 (0.071)            | −0.074 (0.047)       | −0.052 (0.046)           | −0.432 (0.057)     | −0.035 (0.032)    |
| Child under 5                     | 0.071 (0.082)     | 0.015 (0.070)        | −0.152 (0.094)           | 0.143 * (0.062)      | 0.127 * (0.061)          | 0.037 (0.074)      | 0.038 (0.043)     |
| Child 5–11                        | 0.062 (0.089)     | −0.043 (0.076)       | 0.013 (0.102)            | 0.147 * (0.067)      | 0.117 + (0.066)          | 0.136 + (0.080)    | 0.072 (0.046)     |
| Female ethnic minority            | 0.256 (0.182)     | 0.197 (0.155)        | −0.278 (0.211)           | −0.052 (0.136)       | −0.043 (0.134)           | −0.033 (0.168)     | 0.018 (0.095)     |
| Male ethnic minority              | 0.083 (0.182)     | −0.196 (0.155)       | 0.242 (0.208)            | 0.039 (0.135)        | 0.066 (0.133)            | −0.040 (0.163)     | 0.027 (0.094)     |
| Other adults at home              | 0.101 (0.162)     | −0.196 (0.155)       | −0.044 (0.185)           | −0.036 (0.122)       | 0.048 (0.124)            | −0.135 (0.146)     | −0.010 (0.084)    |
| <b>Constant</b>                   | 3.937 *** (0.395) | 3.449 *** (0.337)    | 1.263 ** (0.449)         | 3.004 *** (0.296)    | 3.323 *** (0.291)        | 3.377 *** (0.362)  | 3.066 *** (0.205) |
| <b>N</b>                          | 624               | 623                  | 620                      | 620                  | 617                      | 570                | 624               |
| <b>R<sup>2</sup></b>              | 20.6%             | 23.6%                | 24.4%                    | 25.8%                | 21.0%                    | 26.0%              | 43.1%             |

Note. (5 = female partner does all, 4 = female partner does more, 3 = equally shared, 2 = male partner does more, 1 = male partner does all). Standard Errors in parentheses. “sc” stands for “since COVID-19 lockdown”. \*\*\* =  $p < 0.001$ , \*\* =  $p < 0.01$ , \* =  $p < 0.05$ , † =  $p < 0.1$ .

In sum, our results show that in households where mothers were going into work and fathers are working from home, there was a general tendency for a more equal division of housework. However, mothers working from home resulted in women taking on a larger role in domestic work, especially routine childcare, compared to those who were going into the office. Taken together, this meant that there may be no significant difference in the division of housework/childcare among couples who were both working from home compared to couples where both went into work. To test whether or not there is an added effect when both parents work from home together, we have added an interaction term (father work from home\*mother work from home) in the model (full estimates can be provided upon request). The interaction term was significant in the case of home-schooling ( $b = -0.381$ ,  $p < 0.01$ ), entailing that it is especially when both parents work from home we see a more equitable division of home-schooling children, rather than when fathers are at home on their own. However, this was not the case with regard to the other types of housework and childcare.

### 3.2.2. Increased Engagement in Childcare/Housework during the Lockdown

In the previous section, we found that when fathers worked from home, they were more likely to do carry out an equal share of the housework and childcare, yet when mothers worked from home some of this effect may have been cancelled out. The difference, however, lies in how much time couples spent carrying out domestic work, especially childcare. Looking at fathers' own perception of their time (Table 2), we can see a clear pattern. Compared to those who were going into work, homeworking fathers were about three and a half times more likely to say that they are spending more or much more time on routine childcare (odds ratio = 3.466,  $p < 0.05$ ) and home-schooling (odds ratio = 3.613,  $p < 0.05$ ) during the lockdown. Homeworking dads were also more likely to say that they are spending more time on some routine housework such as, cooking (odds ratio = 2.369,  $p = 0.089$ ) and non-routine childcare (odds ratio = 2.737,  $p = 0.062$ ). Although these associations were only significant at the 10% level, the effect sizes were large. However, compared to men who were going into work, fathers working from home were less likely to say they are spending more time on non-routine housework—i.e., DIY (odds ratio = 0.389,  $p = 0.061$ ), albeit only significant at the 10% level. The low significance levels may be due to the smaller sample sizes for these models. Mothers' homeworking did not influence fathers' perception of whether or not they spent more time on housework and childcare.

Homeworking fathers' increased time spent on childcare can also be observed in our mother's data (Appendix B, Tables A3 and A4). In households where fathers were working from home, mothers were twice as likely to say their partners are spending more time on routine childcare compared to before the lockdown. Having said that, no clear patterns are observed for other types of housework and childcare tasks. The interaction term (available upon request) showed that it was especially when both parents were working from home, did mothers feel that fathers were engaging more in the home-schooling activities. This confirms what was found in our previous models exploring the division of home-schooling. This could be, on one hand, mothers being able to see the time fathers put into these activities, but on the other hand, that mothers may have been able to better organise home-schooling [79] to ensure that fathers are also taking part in home-schooling children when they both work from home. Again, mothers working from home did not impact women's own perception of father's increased engagement in housework and childcare with the exception of non-routine childcare—playing, entertaining children. When mothers were working from home, they noted that fathers were doing more non-routine childcare.

**Table 2.** Model explaining the changes in the amount of housework and childcare men carried out during the COVID-19 lockdown compared to before the lockdown for heterosexual dual earning couples with children under 18 (male respondents’ perception of their own time)—dichotomous (more or much more).

|                                          | Cooking                    | Cleaning/<br>Laundry      | Non-Routine<br>Housework  | Routine<br>Childcare         | Non-Routine<br>Childcare  | Education                   |
|------------------------------------------|----------------------------|---------------------------|---------------------------|------------------------------|---------------------------|-----------------------------|
|                                          | Model 1                    | Model 2                   | Model 3                   | Model 4                      | Model 5                   | Model 6                     |
| (Ref: Females goes into work sc)         |                            |                           |                           |                              |                           |                             |
| Female working from home sc              | 0.705<br>(0.262, 1.902)    | 0.749<br>(0.281, 1.995)   | 1.093<br>(0.422, 2.833)   | 0.492<br>(0.162, 1.496)      | 0.819<br>(0.274, 2.448)   | 0.947<br>(0.258, 3.478)     |
| Female not working sc                    | 2.082<br>(0.480, 9.028)    | 1.271<br>(0.292, 5.533)   | 0.689<br>(0.157, 3.029)   | 1.093<br>(0.237, 5.043)      | 2.118<br>(0.449, 9.993)   | 0.308<br>(0.049, 1.940)     |
| (Ref: Males goes into work sc)           |                            |                           |                           |                              |                           |                             |
| Male working from home sc                | 2.369 +<br>(0.876, 6.404)  | 1.851<br>(0.689, 4.974)   | 0.389 +<br>(0.145, 1.045) | 3.466 *<br>(1.180, 10.183)   | 2.737 +<br>(0.952, 7.869) | 3.613 *<br>(1.045, 12.488)  |
| Male not working sc                      | 5.432<br>(0.592, 49.802)   | 3.962<br>(0.422, 37.232)  | 0.446<br>(0.050, 3.999)   | 12.873 *<br>(1.114, 148.786) | 4.234<br>(0.396, 45.309)  | 0.660<br>(0.038, 11.552)    |
| (Ref: Female does not work flexitime sc) |                            |                           |                           |                              |                           |                             |
| Female working flexitime sc              | 1162<br>(0.482, 2.804)     | 0.829<br>(0.347, 1.979)   | 1.166<br>(0.497, 2.735)   | 3.453 *<br>(1.268, 9.405)    | 3.018 *<br>(1.119, 8.140) | 3.721*<br>(1.236, 11.205)   |
| (Ref: Male does not work flexitime sc)   |                            |                           |                           |                              |                           |                             |
| Male working flexitime sc                | 2.434 +<br>(0.954, 6.209)  | 1.913<br>(0.750, 4.876)   | 2.738*<br>(1.050, 7.138)  | 1.963<br>(0.753, 5.118)      | 1.845<br>(0.698, 4.878)   | 0.949<br>(0.304, 2.960)     |
| Controls                                 |                            |                           |                           |                              |                           |                             |
| Female working hours sc                  | 1.277 +<br>(0.993, 1.642)  | 1.269 +<br>(0.993, 1.623) | 0.967<br>(0.758, 1.234)   | 1.211<br>(0.919, 1.595)      | 1.151<br>(0.879, 1.512)   | 0.976<br>(0.704, 1.352)     |
| Male working hours sc                    | 0.914<br>(0.723, 1.156)    | 0.849<br>(0.668, 1.080)   | 0.972<br>(0.767, 1.230)   | 1.050<br>(0.804, 1.371)      | 1.113<br>(0.852, 1.454)   | 0.864<br>(0.633, 1.177)     |
| Partner relative income sc               | 1.323<br>(0.928, 1.887)    | 1.414 +<br>(0.983, 2.033) | 0.915<br>(0.640, 1.307)   | 1.010<br>(0.682, 1.497)      | 0.858<br>(0.573, 1.286)   | 0.848<br>(0.517, 1.393)     |
| Male high education                      | 0.709<br>(0.262, 1.920)    | 0.870<br>(0.323, 2.348)   | 0.445<br>(0.165, 1.199)   | 0.357 +<br>(0.118, 1.081)    | 0.335 +<br>(0.109, 1.030) | 0.670<br>(0.195, 2.298)     |
| Female high education                    | 1.362<br>(0.547, 3.391)    | 0.971<br>(0.391, 2.411)   | 1.866<br>(0.749, 4.649)   | 3.074 *<br>(1.154, 8.186)    | 2.714 *<br>(1.010, 7.292) | 1.750<br>(0.536, 5.717)     |
| Gender role attitude                     | 1.751<br>(0.832, 3.686)    | 1.479<br>(0.701, 3.119)   | 1.017<br>(0.483, 2.141)   | 1.175<br>(0.518, 2.663)      | 1.335<br>(0.587, 3.037)   | 2.909 *<br>(1.065, 7.947)   |
| Number of children                       | 1.767 +<br>(0.923, 3.383)  | 1.462<br>(0.763, 2.799)   | 0.799<br>(0.408, 1.564)   | 2.060 +<br>(0.997, 4.255)    | 2.640 *<br>(1.244, 5.600) | 4.963 **<br>(1.900, 12.969) |
| Child under 5                            | 1.346<br>(0.588, 3.083)    | 2.296 +<br>(0.983, 5.365) | 0.929<br>(0.411, 2.100)   | 1.190<br>(0.463, 3.061)      | 1.304<br>(0.500, 3.400)   | 0.218 *<br>(0.068, 0.701)   |
| Child 5–11                               | 0.542<br>(0.211, 1.389)    | 1.689<br>(0.661, 4.318)   | 1.088<br>(0.423, 2.797)   | 0.646<br>(0.232, 1.802)      | 0.716<br>(0.248, 2.062)   | 0.890<br>(0.278, 2.848)     |
| Female ethnic minority                   | 0.570<br>(0.115, 2.833)    | 1.042<br>(0.214, 5.068)   | 0.327<br>(0.056, 1.890)   | 0.149 *<br>(0.025, 0.879)    | 0.234<br>(0.039, 1.405)   | 0.554<br>(0.055, 5.564)     |
| Male ethnic minority                     | 1.529<br>(0.308, 7.594)    | 0.960<br>(0.178, 4.345)   | 1.777<br>(0.327, 9.655)   | 3.191<br>(0.494, 20.610)     | 4.742<br>(0.667, 33.718)  | 2.218<br>(0.211, 23.286)    |
| Other adults at home                     | 0.832<br>(0.156, 4.444)    | 2.063<br>(0.410, 10.380)  | 1.369<br>(0.275, 6.802)   | 0.105 *<br>(0.016, 0.703)    | 0.125 *<br>(0.018, 0.848) | 0.343<br>(0.046, 2.544)     |
| Constant                                 | 0.002 **<br>(0.000, 0.155) | 0.004 *<br>(0.000, 0.322) | 2.604<br>(0.038, 180.380) | 0.032<br>(0.000, 3.518)      | 0.021<br>(0.000, 2.413)   | 0.007<br>(0.000, 2.684)     |
| N                                        | 150                        | 150                       | 148                       | 149                          | 148                       | 133                         |
| Pseudo R <sup>2</sup>                    | 9.7%                       | 9.7%                      | 8.8%                      | 19.1%                        | 19.4%                     | 32.0%                       |

Note. 1 = I do more or much more, 0 = about the same or I do less/much less. Odds Ratio provided, and the 95% confidence interval in the parentheses. “sc” stands for “since COVID-19 lockdown”. Odds Ratio is provided. \*\* =  $p < 0.01$ , \* =  $p < 0.05$ , + =  $p < 0.1$ .

### 3.2.3. Flexitime and Working Hours

Although it is not the focus of this paper, we also explored how flexitime influenced parental division of housework and childcare during the lockdown, as well as how much (more) housework and childcare men carried out during the lockdown period compared to pre-pandemic times. Firstly, 51% of fathers used flexitime during the lockdown, which is a slight increase from 45% before. 59% of mothers used flexitime during the lockdown—an increase from 45% before the lockdown. When fathers used flexitime during the lockdown, couples were more likely to have shared the household/childcare tasks equally (Table 1).

Similar to what was found for working from home, the association was statistically significant for cooking ( $b = -0.243, p < 0.01$ ), routine ( $b = -0.150, p < 0.05$ ) and non-routine childcare ( $b = -0.188, p < 0.01$ ). Some effect was found for home-schooling although not meeting the traditional significance level cut-off ( $b = -0.143, p < 0.1$ ).

What is more, fathers working flexitime were about three times more likely to say that they have spent more time carrying out non-routine housework (odds ratio = 2.738,  $p < 0.05$ ) compared to before the lockdown (Table 2). Although not significant at the 0.05 level, we find some evidence of this for time spent on cooking (odds ratio = 2.434,  $p < 0.10$ ). Interestingly, when mothers were working flexitime, fathers were more likely to say that fathers spent more time doing routine (odds ratio = 3.453,  $p < 0.05$ ) and non-routine childcare (odds ratio = 3.018,  $p < 0.05$ ), and home-schooling children (odds ratio = 3.721,  $p < 0.05$ ) compared to before the lockdown (Table 2). Previous literature has shown that flexitime, unlike working from home, may enable a more egalitarian division of labour [12,18,80] by enabling parents to expand parenting-time whilst maintaining maximum amount of household working hours and household income [81]. The evidence we see here also suggests that mothers' flexitime use may have enabled parents to adapt to the demands of the lockdown by using shift schedules to better divide parenting tasks.

Finally, we explore the impact parental working hours have on the division of housework and childcare (Table 1). As we expected, based on the time availability thesis, when men worked longer hours, they were less likely to equally share housework and childcare tasks with their female partners. When women worked longer hours, couples were more likely to share household and childcare tasks equally. Working hours of partners did not matter when it came to cooking and non-routine housework. What is more, the female partners' working hours mattered less compared to the male partner's working hours. This indicates that above and beyond hours of work, women do a certain share/level of housework and childcare largely conforming to gender norms, which confirms other previous studies [40]. We also examine how working hours influenced the likelihood of fathers doing a larger share during the lockdown compared to before. We find that when mothers were working longer hours, men were likely to say they did more routine housework—namely cooking, cleaning and laundry—compared to pre-pandemic time. However, this association was only significant at the 0.10 level.

#### 4. Discussion and Conclusions

Previous studies have argued that homeworking can exacerbate rather than alleviate the existing gender inequality structures in the division of labour among heterosexual couples, and consequently increase the gender inequality patterns in the labour market [9]. It is because while women do more housework and childcare when working from home, men do not, and rather increase their working hours [11,14,18]. Using data gathered during the first lockdown in the UK, this study examined whether the changed context of homeworking during the pandemic altered these associations. More specifically, we wanted to see whether or not fathers' homeworking resulted in more engagement of fathers in domestic tasks and a more equitable division of housework and childcare during the first lockdown period. We expected such changes as homeworking was enforced by the government, widespread, and stigmatised views against homeworking were significantly reduced during this period. We expected that this may have enabled fathers to use homeworking practices for care purposes without fearing the stigmatised views from managers and co-workers, and without worrying about any potential negative career consequences.

We found evidence to show that when fathers worked from home during the lockdown, couples were more likely to divide housework and childcare more equally, similar to what was found in other studies across the world [4–6,55]. For example, homeworking fathers, compared to fathers going into the office/workplace, were more likely to have increased their time in, and more likely to be equally sharing routine childcare (that is generally looking after children), and cleaning/laundry. This was mirrored by the responses from the mothers in our survey, who noted that homeworking fathers were

doing more routine childcare during the lockdown. These domestic tasks are those that have increased significantly during the lockdown periods due to school and childcare facilities closures [32,42]. What is more, these activities were those that fathers generally did not take part in pre-pandemic times [40,41], yet are crucial in ensuring women's labour market participation [36,38]. Thus, the result of the study provides us with the evidence of how the normalisation and potentially stronger state regulation of homeworking can potentially result in a more egalitarian gender role division in the future post-pandemic labour markets, by enabling fathers' greater engagement in housework and childcare, which then enables better labour market participation for mothers.

However, we also found that homeworking mothers were more likely to have spent more time on housework and childcare during the lockdown periods, and consequently were also more likely to have carried out a larger share of domestic work. Thus, when both parents worked from home, which many dual-earner couples did (about 35% of our sample), although fathers took on more than before the pandemic, there was not a significant shift in the division of domestic tasks. The exception to this was home-schooling. Only when both parents worked from home, were fathers more likely to equally share home-schooling of children. Thus, even during the lockdown, we cannot completely rule out the argument that homeworking can lead to, or in this case maintain, the traditional division of labour among heterosexual couples [9,11–13]. Having said that, homeworking allowed parents to address the increased childcare demands during the lockdown period enabling both parents to be involved. This was preferable to the scenario where the whole load landed solely on mothers, which could have had, and in many cases had, severe consequences for their mental and physical well-being [82] and career/labour market outcomes [83,84].

There are some limitations to this study. Firstly, due to our sampling procedures, we cannot guarantee that the data represents all dual-earning couples in the UK, with somewhat overrepresentation of white-collar workers. However, given that we do account for many controls in our model (e.g., education), our analysis does provide us with a good indication of the impact homeworking had on dual-earning heterosexual coupled families in the UK. What is more, we were unable to survey both couples and match the data to gain insights into the true dynamics within the household. It is known that there are discrepancies between heterosexual couples' perception of the amount of domestic work each partner carries out but how it is distributed [39,74]. This combined with the fact that we have more women in our sample may mean that there may be an underestimation of not only the share of housework and childcare men took on (division skewed more towards the perception that women are doing more), but also on how much more they did during the pandemic compared to pre-pandemic times. In this regard, despite having controlled for gender of the respondent in the analysis, our estimation of men's share, and amount of domestic work carried out may be underestimated. Related to this, our findings on homeworking fathers doing more and a larger share may also be influenced by the fact that homeworking father's engagement in domestic work was more visible to mothers, especially for mothers who were also working from home. However, as we have shown, the influence of homeworking fathers doing more and a larger share was not limited to those where both couples were working from home, indicating that there is an association above and beyond this. There is also an issue of self-selection, of where fathers who wanted to be more involved in childcare were the ones who intentionally chose to work from home, see also [55]. However, as our data was collected during a period where workers had limited choice in whether or not to work from home, this is less likely to be the case. Finally, our survey asked individuals to provide retrospective data of their situation (3 months) prior to the lockdown, which may not be entirely accurate. However, the survey was designed to ask respondents broad measures of the division and levels of housework and childcare during the lockdown compared to before, with a specified time frame. Studies have shown that in such cases, response bias issues may be minimal [85]. To overcome these limitations, a survey capturing the perceptions of both parents separately exploring their working patterns and the division of housework across time longitudinally would be useful.

Regardless of these limitations, this paper has provided some key contributions for policy and theory, especially with regard to looking forward at the prospects of gender equality post-pandemic. Theoretically, this study provides us with the evidence of the importance of examining the normalisation of, potential regulation of flexible working [27,86], and (the removal of) flexibility stigma [21] when examining homeworking and other flexible working arrangements in how they relate to worker's work-family integration, gender equality, and well-being. In more practical terms, the study shows us that the normalisation (and state regulation) of homeworking—and with it the removal of stigma—helped fathers to use homeworking practices to engage more in housework and childcare, see also [55,58]. This was especially visible for routine housework and childcare, which are crucial in supporting women's (increased) participation in the labour market. However, the paper also shows that the normalisation of homeworking alone may not be enough to encourage a more equal division of housework and childcare, evidencing again how the use and outcomes of homeworking and other flexible working arrangements are bounded by social norms and structures—e.g., work and gender norms [17]. Largely due to the gender norms that assume that domestic work is a woman's responsibility, homeworking mothers also spent more time on housework and childcare and did a larger share of these tasks compared to those who went into work. In policy terms, this result, on one hand, shows the importance of ensuring that both parents can work from home post-pandemic if we are to aim to achieve gender parity in the labour markets. If only mothers were to use homeworking, especially for care purposes, the gender gap in the division of domestic work is likely to widen with mothers carrying out more housework and childcare than before. What is more, if homeworking was largely attributed as arrangements for mothers (or other workers with care demands), stigmatised views around homeworking is likely to increase and accordingly homeworkers are likely to experience negative career outcomes and pay penalties [22–24,87]. This will result in increasing rather than decreasing the gender inequality patterns within the labour market. If the expansion of homeworking is to result in a more equitable division of domestic work, and subsequently reduce the gender inequality patterns at work, we need to further encourage the disruption of gender norms around whose role it is to care. Policies such as ear-marked well-paid paternity leaves, where fathers are encouraged to take leave without mothers, can help to change these views [88]. Making fathers the main carer of children in the early days of a child life can shift the ideas around whose role it is to care, not only in the first years of a child's life but also in the later years [89,90]. Similarly, campaigns to promote fathers' homeworking for care purposes, especially with role models from senior management, can help remove flexibility stigma and help both men and women to use homeworking to better engage in domestic work [23,91]. Campaigns to spread the productivity outcomes of homeworking patterns can also help to shift ideas around flexibility stigma, as will ensuring stronger rights against discrimination against flexible workers.

The COVID-19 pandemic has brought about many changes in the world of work, including changing the context of home working, normalising it with large scale home and hybrid-working likely to continue into the future [92]. Increased use of homeworking can help tackle gender inequality at work, by enabling women, especially mothers, better access to work [54,55]. However, as this paper shows, the expansion of homeworking can also result in exacerbating gender inequality in the post-pandemic world of work, without a serious reflection and changes to our work cultures and gender norms [17]. The pandemic has provided us with a great opportunity to address gender inequality patterns both at home and in the labour market. This paper provides us with the evidence of how best to ensure that this opportunity is not lost.

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**Institutional Review Board Statement:** The ethical approval for the data collected for this project was obtained from the SRC Ethics Panel of the University of Kent.

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** The data used for this paper is not currently available to the public. However, after an embargo period of when the main results of the papers have been published, it will be made available freely to download via the UK Data Service. <https://ukdataservice.ac.uk/>.

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## Appendix A. Descriptive Table

**Table A1.** Descriptive tables for all independent variables (sc = since COVID, bc = before COVID).

| Variable                                                                 | Obs | Mean  | Std.Dev. | Min.  | Max |
|--------------------------------------------------------------------------|-----|-------|----------|-------|-----|
| Female                                                                   | 692 | 0.763 | 0.426    | 0     | 1   |
| Female (almost exclusively) working from home sc                         | 692 | 0.616 | 0.487    | 0     | 1   |
| Male (almost exclusively) working from home sc                           | 692 | 0.496 | 0.500    | 0     | 1   |
| Female working flexitime sc                                              | 663 | 0.588 | 0.493    | 0     | 1   |
| Male working flexitime sc                                                | 668 | 0.506 | 0.500    | 0     | 1   |
| Female not working sc                                                    | 692 | 0.156 | 0.363    | 0     | 1   |
| Male not working sc                                                      | 692 | 0.158 | 0.365    | 0     | 1   |
| Female working hours sc                                                  | 669 | 3.327 | 2.287    | 0     | 8   |
| Male working hours sc                                                    | 677 | 4.208 | 2.415    | 0     | 8   |
| Partners relative income sc<br>(female earns all =1, male earns all = 7) | 692 | 4.506 | 1.489    | 1     | 7   |
| Male high education (tertiary or above)                                  | 692 | 0.549 | 0.498    | 0     | 1   |
| Female high education (tertiary or above)                                | 692 | 0.656 | 0.475    | 0     | 1   |
| Gender role attitude                                                     | 692 | 4.231 | 0.525    | 2.333 | 5   |
| Number of children (under 18)                                            | 692 | 1.744 | 0.667    | 1     | 3   |
| Child under 5                                                            | 692 | 0.510 | 0.500    | 0     | 1   |
| Child 5–11                                                               | 692 | 0.551 | 0.498    | 0     | 1   |
| Child 12–17                                                              | 692 | 0.298 | 0.458    | 0     | 1   |
| Female ethnic minority                                                   | 692 | 0.069 | 0.254    | 0     | 1   |
| Male ethnic minority                                                     | 692 | 0.065 | 0.248    | 0     | 1   |
| Other adults at home                                                     | 692 | 0.059 | 0.236    | 0     | 1   |

## Appendix B. Full Tables

**Table A2.** Model explaining the changes in the amount of housework and childcare men carried out during the COVID-19 lockdown compared to before the lockdown for heterosexual dual earning couples with children under 18 (male respondents' perception of their own time)—continuous.

|                                          | Cooking          | Cleaning /Laundry | Non-Routine Housework | Routine Childcare | Non-Routine Childcare | Education        |
|------------------------------------------|------------------|-------------------|-----------------------|-------------------|-----------------------|------------------|
|                                          | Model 1          | Model 2           | Model 3               | Model 4           | Model 5               | Model 6          |
| (Ref: Female goes into work sc)          |                  |                   |                       |                   |                       |                  |
| <b>Female working from home sc</b>       | −0.074 (0.187)   | −0.092 (0.180)    | −0.017 (0.197)        | −0.099 (0.188)    | 0.009 (0.197)         | −0.044 (0.218)   |
| <b>Female not working sc</b>             | 0.386 (0.279)    | 0.212 (0.269)     | −0.060 (0.296)        | −0.007 (0.280)    | 0.215 (0.295)         | −0.065 (0.325)   |
| (Ref: Male goes into work sc)            |                  |                   |                       |                   |                       |                  |
| <b>Male working from home sc</b>         | 0.442 * (0.186)  | 0.442* (0.179)    | −0.222 (0.196)        | 0.440 * (0.190)   | 0.380 † (0.198)       | 0.453 * (0.221)  |
| <b>Male not working sc</b>               | 0.730 † (0.413)  | 0.641 (0.397)     | −0.162 (0.435)        | 0.378 (0.421)     | 0.040 (0.441)         | −0.600 (0.497)   |
| (Ref: Female does not work flexitime sc) |                  |                   |                       |                   |                       |                  |
| <b>Female working flexitime sc</b>       | 0.083 (0.168)    | −0.022 (0.162)    | −0.042 (0.177)        | 0.262 (0.169)     | 0.291 (0.177)         | 0.413 * (0.195)  |
| (Ref: Male does not work flexitime sc)   |                  |                   |                       |                   |                       |                  |
| <b>Male working flexitime sc</b>         | 0.341 † (0.176)  | 0.216 (0.169)     | 0.438 * (0.185)       | 0.092 (0.177)     | 0.114 (0.186)         | −0.074 (0.208)   |
| <b>Controls</b>                          |                  |                   |                       |                   |                       |                  |
| Female working hours sc                  | 0.108 * (0.047)  | 0.090 * (0.045)   | 0.011 (0.051)         | 0.067 (0.047)     | 0.068 (0.049)         | 0.059 (0.055)    |
| Male working hours sc                    | −0.020 (0.045)   | −0.046 (0.043)    | −0.036 (0.048)        | −0.030 (0.046)    | −0.026 (0.049)        | −0.100 † (0.053) |
| Partner relative income sc               | 0.086 (0.068)    | 0.088 (0.066)     | 0.002 (0.072)         | −0.067 (0.069)    | −0.090 (0.072)        | −0.051 (0.082)   |
| Male high education                      | −0.367 † (0.188) | −0.206 (0.181)    | −0.275 (0.198)        | −0.417 * (0.189)  | −0.280 (0.197)        | −0.119 (0.209)   |
| Female high education                    | 0.066 (0.174)    | 0.047 (0.167)     | 0.242 (0.183)         | 0.252 (0.174)     | 0.169 (0.183)         | 0.039 (0.202)    |
| Gender role attitude                     | 0.234 (0.142)    | 0.129 (0.137)     | 0.075 (0.150)         | 0.172 (0.143)     | 0.121 (0.151)         | 0.511 ** (0.164) |
| Number of children                       | 0.170 (0.126)    | 0.156 (0.121)     | −0.097 (0.133)        | 0.270 * (0.126)   | 0.356 ** (0.133)      | 0.429 ** (0.148) |
| Child under 5                            | 0.147 (0.159)    | 0.207 (0.153)     | −0.079 (0.167)        | 0.145 (0.161)     | −0.013 (0.170)        | −0.384 * (0.181) |
| Child 5–11                               | −0.136 (0.180)   | 0.115 (0.173)     | 0.122 (0.190)         | −0.264 (0.181)    | −0.382 * (0.192)      | −0.203 (0.203)   |
| Female ethnic minority                   | −0.017 (0.314)   | −0.174 (0.302)    | −0.246 (0.347)        | −0.374 (0.314)    | −0.091 (0.328)        | 0.081 (0.371)    |
| Male ethnic minority                     | 0.119 (0.316)    | 0.020 (0.304)     | 0.155 (0.341)         | 0.073 (0.316)     | 0.054 (0.331)         | 0.088 (0.364)    |
| Other adults at home                     | −0.001 (0.316)   | 0.265 (0.304)     | 0.446 (0.332)         | −0.646 * (0.317)  | −0.621 † (0.332)      | −0.417 (0.367)   |
| <b>Constant</b>                          | 1.036 (0.811)    | 1.560 * (0.779)   | 3.369 *** (0.860)     | 2.665 ** (0.812)  | 2.867 ** (0.854)      | 1.585 (0.995)    |
| <b>N</b>                                 | 150              | 150               | 148                   | 149               | 148                   | 133              |
| <b>R<sup>2</sup></b>                     | 16.1%            | 14.7%             | 11.2%                 | 23.8%             | 21.8%                 | 32.8%            |

Note. 1 = I do much less, 2 = I do less, 3 = about the same, 4 = I do more, 5 = I do much more. Standard Errors in parentheses. "sc" stands for "since COVID-19 lockdown". \*\*\* =  $p < 0.001$ , \*\* =  $p < 0.01$ , \* =  $p < 0.05$ , † =  $p < 0.1$ .

**Table A3.** Model explaining the changes in the amount of housework and childcare men carried out during the COVID-19 lockdown compared to before the lockdown for heterosexual dual earning couples with children under 18 (female respondents' perception of their partners' time)—continuous.

|                                    | Cooking         | Cleaning /Laundry | Non-Routine Housework | Routine Childcare | Non-Routine Childcare | Education        |
|------------------------------------|-----------------|-------------------|-----------------------|-------------------|-----------------------|------------------|
|                                    | Model 1         | Model 2           | Model 3               | Model 4           | Model 5               | Model 6          |
| (Ref: Females goes into work sc)   |                 |                   |                       |                   |                       |                  |
| <b>Female working from home sc</b> | 0.044 (0.119)   | 0.092 (0.104)     | −0.004 (0.113)        | 0.042 (0.118)     | 0.230 * (0.111)       | 0.131 (0.124)    |
| <b>Female not working sc</b>       | −0.096 (0.169)  | −0.130 (0.147)    | −0.046 (0.160)        | −0.489 (0.167)    | −0.212 (0.157)        | −0.265 (0.175)   |
| (Ref: Males goes into work sc)     |                 |                   |                       |                   |                       |                  |
| <b>Male working from home sc</b>   | 0.205 † (0.105) | 0.162 † (0.091)   | 0.087 (0.100)         | 0.182 (0.104)     | 0.108 (0.098)         | 0.060 (0.111))   |
| <b>Male not working sc</b>         | 0.286 (0.191)   | 0.472 ** (0.166)  | 0.463 * (0.180)       | 0.369 (0.189)     | 0.437 * (0.177)       | 0.023 (0.200)    |
| (Ref: Females goes into work sc)   |                 |                   |                       |                   |                       |                  |
| <b>Female working flexitime sc</b> | −0.018 (0.108)  | −0.030 (0.094)    | 0.026 (0.103)         | −0.149 (0.107)    | −0.081 (0.100)        | −0.085 (0.114)   |
| (Ref: Males goes into work sc)     |                 |                   |                       |                   |                       |                  |
| <b>Male working flexitime sc</b>   | 0.075 (0.098)   | 0.108 (0.086)     | 0.084 (0.093)         | 0.0387 (0.097)    | 0.405 *** (0.091)     | 0.342 ** (0.103) |
| <b>Controls</b>                    |                 |                   |                       |                   |                       |                  |
| Female working hours sc            | 0.012 (0.026)   | −0.005 (0.022)    | −0.003 (0.024)        | 0.042 (0.025)     | 0.033 (0.024)         | 0.059 * (0.027)  |

Table A3. Cont.

|                            | Cooking                  | Cleaning<br>/Laundry     | Non-Routine<br>Housework | Routine<br>Childcare | Non-Routine<br>Childcare | Education                |
|----------------------------|--------------------------|--------------------------|--------------------------|----------------------|--------------------------|--------------------------|
|                            | Model 1                  | Model 2                  | Model 3                  | Model 4              | Model 5                  | Model 6                  |
| Male working hours sc      | −0.080 ** (0.028)        | −0.036 (0.024)           | −0.021 (0.027)           | −0.091 (0.028)       | −0.079 ** (0.026)        | −0.090 ** (0.030)        |
| Partner relative income sc | 0.101 ** (0.032)         | 0.079 ** (0.028)         | 0.010 (0.031)            | 0.104 (0.032)        | 0.100 ** (0.030)         | 0.096 ** (0.034)         |
| Male high education        | −0.147 (0.092)           | −0.010 (0.080)           | −0.198 * (0.088)         | 0.014 (0.094)        | −0.035 (0.086)           | 0.156 (0.097)            |
| Female high education      | 0.155 (0.096)            | 0.140 † (0.083)          | 0.279 ** (0.090)         | 0.224 (0.094)        | 0.315 *** (0.089)        | 0.201 * (0.099)          |
| Gender role attitude       | 0.012 (0.079)            | 0.012 (0.069)            | 0.106 (0.076)            | −0.007 (0.078)       | 0.026 (0.073)            | −0.056 (0.083)           |
| Number of children         | 0.054 (0.067)            | 0.118 * (0.058)          | 0.100 (0.064)            | 0.053 (0.066)        | −0.004 (0.062)           | 0.064 (0.070)            |
| Child under 5              | −0.072 (0.091)           | −0.060 (0.079)           | 0.058 (0.086)            | 0.231 (0.089)        | 0.225 ** (0.084)         | 0.140 (0.094)            |
| Child 5–11                 | −0.091 (0.097)           | −0.068 (0.084)           | −0.043 (0.092)           | 0.061 (0.095)        | 0.152 † (0.090)          | 0.229 * (0.100)          |
| Female ethnic minority     | 0.034 (0.213)            | −0.003 (0.184)           | −0.120 (0.120)           | −0.230 (0.207)       | −0.173 (0.195)           | −0.339 (0.220)           |
| Male ethnic minority       | −0.156 (0.210)           | 0.058 (0.182)            | 0.017 (0.197)            | −0.241 (0.205)       | −0.233 (0.192)           | −0.240 (0.213)           |
| Other adults at home       | −0.223 (0.183)           | −0.046 (0.159)           | 0.051 (0.169)            | −0.241 (0.178)       | −0.212 (0.171)           | 0.0003 (0.184)           |
| <b>Constant</b>            | <b>2.729 *** (0.435)</b> | <b>2.446 *** (0.378)</b> | <b>2.573 *** (0.412)</b> | <b>2.836 (0.429)</b> | <b>2.550 *** (0.404)</b> | <b>2.743 *** (0.450)</b> |
| <b>N</b>                   | <b>472</b>               | <b>470</b>               | <b>471</b>               | <b>471</b>           | <b>470</b>               | <b>441</b>               |
| <b>R<sup>2</sup></b>       | <b>9.7%</b>              | <b>10.7%</b>             | <b>9.5%</b>              | <b>22.5%</b>         | <b>23.9%</b>             | <b>19.2%</b>             |

Note. 1 = He does much less, 2 = He does less, 3 = about the same, 4 = He does more, 5 = He does much more. Standard Errors in parentheses. “sc” stands for “since COVID-19 lockdown”. \*\*\* =  $p < 0.001$ , \*\* =  $p < 0.01$ , \* =  $p < 0.05$ , † =  $p < 0.1$ .

Table A4. Model explaining the changes in the amount of housework and childcare men carried out during the COVID-19 lockdown compared to before the lockdown for heterosexual dual earning couples with children under 18 (female respondents’ perception of their partners’ time)—dichotomous (more or much more).

|                                    | Cooking                     | Cleaning/<br>Laundry        | Non-Routine<br>Housework   | Routine<br>Childcare        | Non-Routine<br>Childcare    | Education                  |
|------------------------------------|-----------------------------|-----------------------------|----------------------------|-----------------------------|-----------------------------|----------------------------|
|                                    | Model 1                     | Model 2                     | Model 3                    | Model 4                     | Model 5                     | Model 6                    |
| (Ref: Females goes into work sc)   |                             |                             |                            |                             |                             |                            |
| <b>Female working from home sc</b> | 1.004<br>(0.526, 1.915)     | 1.163<br>(0.600, 2.252)     | 0.900<br>(0.500, 1.621)    | 1.142<br>(0.600, 2.173)     | 1.923 *<br>(1.013, 3.648)   | 1.289<br>(0.690, 2.409)    |
| <b>Female not working sc</b>       | 1.008<br>(0.408, 2.489)     | 0.511<br>(0.196, 1.329)     | 0.806<br>(0.350, 1.855)    | 0.249 **<br>(0.099, 0.625)  | 0.607<br>(0.247, 1.493)     | 0.620<br>(0.252, 1.522)    |
| (Ref: Males goes into work sc)     |                             |                             |                            |                             |                             |                            |
| <b>Male working from home sc</b>   | 1.617<br>(0.911, 2.871)     | 1.591<br>(0.872, 2.901)     | 1.077<br>(0.642, 1.806)    | 1.927 *<br>(1.119, 3.318)   | 1.476<br>(0.854, 2.553)     | 1.163<br>(0.668, 2.026)    |
| <b>Male not working sc</b>         | 1.231<br>(0.458, 3.310)     | 4.016 **<br>(1.430, 11.283) | 3.267 *<br>(1.285, 8.307)  | 4.378 **<br>(1.547, 12.391) | 4.040 **<br>(1.414, 11.540) | 1.348<br>(0.494, 3.675)    |
| (Ref: Females goes into work sc)   |                             |                             |                            |                             |                             |                            |
| <b>Female working flexitime sc</b> | 0.771<br>(0.442, 1.345)     | 0.739<br>(0.420, 1.298)     | 1.031<br>(0.606, 1.754)    | 0.845<br>(0.475, 1.501)     | 0.846<br>(0.473, 1.513)     | 0.828<br>(0.472, 1.453)    |
| (Ref: Males goes into work sc)     |                             |                             |                            |                             |                             |                            |
| <b>Male working flexitime sc</b>   | 1.340<br>(0.778, 2.309)     | 1.583<br>(0.895, 2.800)     | 1.378<br>(0.844, 2.249)    | 3.073 ***<br>(1.841, 5.129) | 3.225 ***<br>(1.929, 5.391) | 2.519 **<br>(1.494, 4.248) |
| <b>Controls</b>                    |                             |                             |                            |                             |                             |                            |
| Female working hours sc            | 1.137 †<br>(0.993, 1.302)   | 1.050<br>(0.918, 1.201)     | 1.008<br>(0.890, 1.141)    | 1.038<br>(0.904, 1.188)     | 1.058<br>(0.922, 1.213)     | 1.119 †<br>(0.980, 1.277)  |
| Male working hours sc              | 0.747 ***<br>(0.641, 0.870) | 0.888<br>(0.760, 1.037)     | 0.923<br>(0.804, 1.058)    | 0.840 *<br>(0.719, 0.980)   | 0.840 *<br>(0.720, 0.980)   | 0.797 **<br>(0.683, 0.930) |
| Partner relative income sc         | 1.307 **<br>(1.095, 1.561)  | 1.243 *<br>(1.039, 1.487)   | 1.102<br>(0.939, 1.293)    | 1.291 **<br>(1.082, 1.541)  | 1.328 **<br>(1.111, 1.587)  | 1.216 *<br>(1.022, 1.446)  |
| Male high education                | 0.693<br>(0.423, 1.136)     | 1.109<br>(0.670, 1.836)     | 0.578 *<br>(0.366, 0.913)  | 0.871<br>(0.531, 1.430)     | 0.638 †<br>(0.386, 1.057)   | 1.383<br>(0.856, 2.233)    |
| Female high education              | 2.051 **<br>(1.205, 3.492)  | 1.647 †<br>(0.963, 2.815)   | 2.216 **<br>(1.363, 3.600) | 2.201 **<br>(1.322, 3.666)  | 2.933 ***<br>(1.762, 4.882) | 1.835 *<br>(1.119, 3.009)  |
| Gender role attitude               | 1.125<br>(0.733, 1.727)     | 1.199<br>(0.773, 1.860)     | 1.094<br>(0.737, 1.624)    | 0.822<br>(0.535, 1.263)     | 0.946<br>(0.617, 1.452)     | 0.850<br>(0.561, 1.286)    |
| Number of children                 | 1.396 †<br>(0.978, 1.991)   | 1.432 †<br>(0.998, 2.056)   | 1.149<br>(0.822, 1.605)    | 1.224<br>(0.857, 1.750)     | 1.072<br>(0.751, 1.531)     | 1.088<br>(0.767, 1.543)    |

Table A4. Cont.

|                        | Cooking                   | Cleaning/<br>Laundry       | Non-Routine<br>Housework | Routine<br>Childcare       | Non-Routine<br>Childcare   | Education                  |
|------------------------|---------------------------|----------------------------|--------------------------|----------------------------|----------------------------|----------------------------|
|                        | Model 1                   | Model 2                    | Model 3                  | Model 4                    | Model 5                    | Model 6                    |
| Child under 5          | 0.839<br>(0.519, 1.357)   | 0.866<br>(0.528, 1.418)    | 1.126<br>(0.723, 1.756)  | 2.068 **<br>(1.266, 3.378) | 2.145 **<br>(1.314, 3.503) | 1.744 *<br>(1.081, 2.814)  |
| Child 5–11             | 0.862<br>(0.513, 1.447)   | 0.726<br>(0.430, 1.227)    | 0.861<br>(0.534, 1.389)  | 1.643 †<br>(0.974, 2.769)  | 1.987 *<br>(1.178, 3.351)  | 2.342 **<br>(1.406, 3.900) |
| Female ethnic minority | 0.970<br>(0.308, 3.049)   | 0.649<br>(0.199, 2.116)    | 0.712<br>(0.248, 2.045)  | 0.613<br>(0.211, 1.777)    | 0.600<br>(0.204, 1.769)    | 0.417<br>(0.136, 1.278)    |
| Male ethnic minority   | 0.465<br>(0.137, 1.575)   | 1.278<br>(0.425, 3.844)    | 0.821<br>(0.286, 2.350)  | 0.359 †<br>(0.120, 1.071)  | 0.374 †<br>(0.123, 1.142)  | 0.526<br>(0.177, 1.561)    |
| Other adults at home   | 0.452<br>(0.153, 1.341)   | 1.001<br>(0.366, 2.738)    | 1.067<br>(0.436, 2.610)  | 0.252 *<br>(0.088, 0.726)  | 0.413 †<br>(0.152, 1.124)  | 0.936<br>(0.357, 2.456)    |
| Constant               | 0.063 *<br>(0.006, 0.678) | 0.024 **<br>(0.002, 0.272) | 0.181<br>(0.021, 1.600)  | 0.198<br>(0.019, 2.078)    | 0.076 *<br>(0.007, 0.808)  | 0.156<br>(0.017, 1.470)    |
| N                      | 472                       | 470                        | 471                      | 471                        | 470                        | 441                        |
| Pseudo R <sup>2</sup>  | 9.8%                      | 9.5%                       | 7.3%                     | 20.5%                      | 19.5%                      | 14.3%                      |

Note. 1 = He does more or much more, 0 = He does about the same or less/much less. Odds Ratio provided, and the 95% confidence interval in the parentheses. “sc” stands for “since COVID-19 lockdown”. \*\*\* =  $p < 0.001$ , \*\* =  $p < 0.01$ , \* =  $p < 0.05$ , † =  $p < 0.1$ .

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