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Working Paper



HUMAN CAPITAL AND  
ECONOMIC OPPORTUNITY  
GLOBAL WORKING GROUP

The University of Chicago  
1126 E. 59th Street Box 107  
Chicago IL 60637

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# Family Life in Lockdown

23 June 2020

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## Abstract

The lockdown imposed following the COVID-19 pandemic of spring 2020 dramatically changed the daily lives and routines of millions of people worldwide. We analyse how such changes contributed to gender inequality within the household using a novel survey of Italian, British, and American families in lockdown. A high percentage report disruptions in the patterns of family life, manifesting in new work patterns, chore allocations, and household tensions. Though men have taken an increased share of childcare and grocery shopping duties, reallocations are not nearly as stark as disruptions to work patterns might suggest, and families having to reallocate duties report greater tensions. Our results paint a picture of tightened constraints budging up against stable and gendered patterns of intra-household cooperation. While the long-run consequences of the COVID-19 lockdown on family life cannot be assessed at this stage, we point towards the likely opportunities and challenges.

**Keywords:** lockdown, care, housework, tensions

*Kitchen life is based on a musical rhythm, on a concatenation of movements, like dance steps, and when I speak of rapid gestures, it's a female hand I think of, not my own clumsy sluggish movements, that's for sure, always getting in the way of everybody else's work. At least that's what I've been told my life long by parents, friends -male and female- superiors, underlings and even my daughter these days. They've been conspiring together to demoralise me, I know; they think that if they go on telling me I'm hopeless they'll convince me there's an element of truth to the story. But I hang back on the sidelines, waiting for an opportunity to make myself useful, to redeem myself. Now the plates are all caged up in their little carriage, round faces astonished to find themselves standing upright, curved backs waiting for the storm about to break over them down there at the bottom of the tunnel where they will be sent off in exile until the cycle of cloudbursts, waterspouts and steam jet is over. This is the moment for me to go into action.* Italo Calvino, *La Poubelle Agree in The Road to San Giovanni*, pp58/59

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## Introduction

Frantically trying to limit the spread of the COVID-19 pandemic, governments worldwide imposed severe lockdown policies that suddenly changed the daily lives of their citizens. These lockdown policies require citizens to cooperate with each other at multiple levels: on the one hand they need to cooperate with government in respecting lockdown measures themselves, and on the other they have to cooperate more within their households as the usual divisions between work, home, and school become blurred. It is important to understand how such cooperation has occurred as this has likely impacted households differently, depending on what happened to the health and livelihoods of household members and on the presence of children who need care and schoolwork help. Whilst the overwhelming evidence on the immediate *health* consequences of COVID-19 suggests for example that men have fared much worse than women, the emerging evidence on labour markets indicates that the impact has been stronger on sectors with high female employment shares and that women are more likely to be working in jobs that can be done from home and more likely to lose their jobs than men (Adam-Prass et al. 2020 for the UK, the USA, and Germany; Alon, et al. 2020 for the USA, Hupkau and Petrongolo 2020 in the UK).

Documenting the extent to which family members have also changed the work they do inside the household in response to lockdown is an important matter in both the short and long run as this may dampen or amplify the effects of school closures on both children and their parents, women's chances of returning to work, as well as mental health and family outcomes as domestic tensions can affect family stability (Ruppanner et al., 2018).

### 1. What has changed?

We have conducted a study of family life in lockdown aimed at understanding how daily routine has been modified, how the division of labour within the household has changed, and how personal wellbeing, family tension, beliefs and aspirations, risk attitudes, and the willingness to cooperate within and outside of the household have been during lockdown. We have run a survey with a total of 3,157 adults (18-83) and 235 children (4-18) in the USA, the UK and Italy over the period 11-19 April, when our respondents had been in lockdown for between 5-6 weeks in Italy, 2-3 in UK, and 1-4 in the USA depending on the respondent's state. These countries are the three OECD countries worst affected by COVID-19 in both reported COVID-19 deaths per capita,<sup>4</sup> excess mortality over the pandemic<sup>5</sup> and, according to recent OECD projections<sup>6</sup> in economic terms too.

The participants in the US (949 adults and 42 children) and UK (1,001 adults and 52 children) were recruited using an online survey collection tool<sup>7</sup> which stratifies samples across age, sex, and ethnicity. The participants in Italy (1,207 adults and 141 children) were recruited primarily through social media and thus cannot be expected to constitute as representative a sample

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<sup>4</sup> <https://coronavirUSA.jhu.edu/map.html>

<sup>5</sup> <https://www.economist.com/graphic-detail/2020/04/16/tracking-covid-19-excess-deaths-across-countries>

<sup>6</sup> <http://www.oecd.org/economic-outlook/june-2020/>

<sup>7</sup> <https://www.prolific.co/>

as those of the US and UK. Of the 3,157 adult respondents, 2,526 indicated that they were cohabiting with either their partner or another adult during the quarantine period (1,034 in Italy, 800 in the UK and 692 in the US). This is the subset for which, when division of labour responses were provided, we measured and summarized the re-allocation of household tasks. Of these 2,526 cohabiting respondents, 893 indicated that they were also living with their children during the quarantine period (468 in Italy, 220 in the UK and 205 in the US).

The impact of the virus was sizable. We find that 17% of respondents in Italy, 11% of respondents in UK, and 10% of respondents in the USA have been directly affected by COVID-19 either because they have been tested for it or know someone who has had it. 15% of respondents in Italy, 20% of respondents in UK, and 17% of respondents in the USA have lost their job or have been furloughed. On a psychological level, respondents showed high levels of anxiety<sup>8</sup> (55% of respondents in Italy, 48% in the UK, and 43% in the USA reported to be anxious yesterday) and low levels of happiness<sup>9</sup> (13% of respondents in Italy and 24% in the UK and in the USA reported not being happy). Respondents have clearly felt isolated, and most reported that one of the first things they would like to do once lockdown ends is to visit family and friends (78% of respondents in Italy, 77% of respondents in UK, and 64% of respondents in USA). 20% of respondents in Italy, 41% of respondents in UK, and 47% of respondents in USA reported that one of the first things they would like to do once lockdown ends is to go shopping.

Even while struggling with the personal and social toll imposed by the pandemic, individuals sustained high levels of cooperation. In terms of cooperation with lockdown measures, most people have adopted the recommended protective measures like washing hands (80% of respondents in Italy, 91% of respondents in UK, and 90% of respondents in USA), avoiding shaking hands (88% of respondents in Italy and 90% of respondents in UK and USA), keeping a safe distance from others (91% of respondents in Italy and 96% of respondents in UK and USA), and avoiding crowded places (83% of respondents in Italy, 92% of respondents in UK, and 91% of respondents in USA). Mask-wearing habits varied greatly by country, 84% of respondents in Italy, 13% of respondents in UK, and 58% of respondents in USA reporting that they wear a mask in public, reflecting the lack of a general consensus amongst governments and intergovernmental organizations on mask effectiveness. A majority of respondents also took more restrictive lockdown measures like limiting supermarket visits as much as possible (87% of respondents in Italy, 88% of respondents in UK, and 89% of respondents in USA), refraining from visiting friends (82% of respondents in Italy, 94% of respondents in UK, and 82% of respondents in USA), refraining from visiting relatives (82% of respondents in Italy, 92% of respondents in UK, and 72% of respondents in USA), and staying home except in case of emergency (78% of respondents in Italy, 47% of respondents in UK, and 41% of respondents in USA).

To measure cooperation within the couple, respondents have taken part in an incentivised Prisoners Dilemma game (Fehr et al. 2002). 69% of respondents in Italy, 71% of respondents in the UK, and 75% of respondents in the USA are willing to cooperate with strangers who

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<sup>8</sup> Reporting 5 or more on a scale from 0 (“not at all”) to 10 (“completely”) to the question “How anxious did you feel yesterday?”

<sup>9</sup> Reporting less than 5 on a scale from 0 (“not at all”) to 10 (“completely”) to the question “How happy did you feel yesterday?”

respect social distancing measures, whilst 21% of respondents in Italy, 14% of respondents in UK, and 20% of respondents in USA would cooperate also with strangers who do not respect measures. These results indicate a strong willingness to cooperate, but only with those who are deemed responsible and trustworthy.

In terms of household work, sharing of most duties has increased, but so has the burden on women. The proportion of *shared* childcare has increased dramatically (17 percentage points in Italy, 8 percent in the UK and 11 percent in the USA sample) and there have been increases of between 2 and 11 percentage points on average in sharing most other tasks (cleaning, cooking and gardening), with the exception of grocery shopping which has instead become a more specialised task (down 16 percentage points in Italy, 12 percent in the UK and 9 percent in the USA sample) and is now done largely by men. Overall, the burden on women has increased, which is problematic as there are significant reductions in lifetime earnings associated with performing these activities (Chu et al, 2020; Grossman, 2019; Folbre, 2017).

When comparing reporting of household tasks, interesting gender discrepancies arise. There are gender differences in both reporting increasing responsibility for tasks (on average men report larger increases, driven by grocery shopping, childcare and cleaning) and in the amount of increases in partner's tasks, with men reporting they do to a small extent more than what women say their partners do in both the UK and USA sample.

Marked gender differences were also present when looking at tension over the division of household tasks and general wellbeing. Tensions in the household have been reported in all countries, with women reporting higher household tensions than men. Some household tension<sup>10</sup> was reported by 28% of men and 43% of women amongst respondents in Italy, 28% of men and 37% of women amongst respondents in UK, and 32% of both men and women amongst respondents in USA. Child respondents reported more frequent household tensions than adults, with 67% of children from the Italy sample and 64% of children from the UK and USA samples reporting significant household tension. In line with national surveys of wellbeing over the same period, most respondents reported higher anxiety and lower instantaneous wellbeing relative to overall life satisfaction and sense of leading a worthwhile life, with women reporting consistently higher anxiety than men and a lower wellbeing than men in both Italy and the UK, while the averages are closer for women and men in the USA sample. Average life satisfaction was 5% lower amongst women than amongst men in the Italy sample, 1% lower in the UK sample, and less than 1% lower in the USA sample. Instantaneous anxiety, on average, was 19% higher among women than among men in the Italy sample, and 12% higher among women relative to men in the UK and USA sample.<sup>11</sup> Children with above-average assessments of their school, their teachers, how hard they work, and how well they perform consistently report higher well-being and instantaneous well-

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<sup>10</sup> Reporting 3 or more on a scale from 0 ("no tension at all") to 10 ("a lot of tension") to the question "Are you experiencing tensions over the division of work to do in the household at the moment?"

<sup>11</sup> This is calculated by computing simple averages of the 1-10 scale responses for the well-being variables from each group and then the percent increase/decrease in this average going from the male group to the female group in each country.

being than children with below-average assessments, as do those that report using social media less than an hour both during quarantine and before.

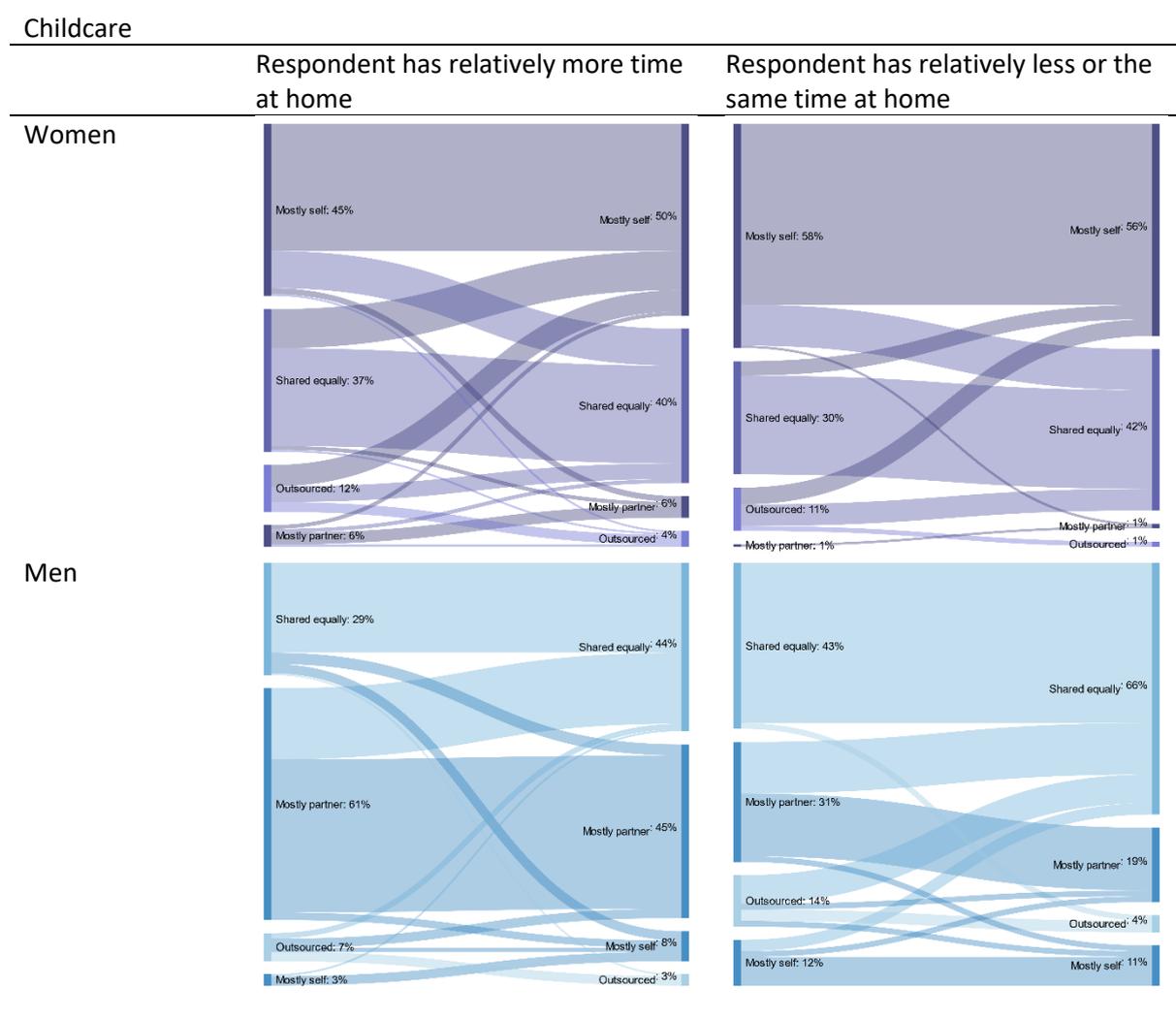
To understand the reallocation of tasks within the household, and the ensuing tension, it is important to firstly understand the time constraints faced by the couple. To establish the potential for taking on more household work, we consider one's own and the partner's work status. We analyse the "shift in comparative advantage towards home production" that has occurred when the respondent goes from working outside the home to not, partner held constant, or their partner moves from working outside the home to not, self-status held constant. We focus on the perspective of people who have seen an increase in home time relative to their partners.<sup>12</sup> As expected, a those who lost their job report doing more now, while those who are still working report doing the same or less. The opposite of this is true for those whose partners lost jobs. Job loss is more associated with a deviation from the status quo than with those that maintained the status quo in terms of division of labour.

The Sankey diagrams shown in Figure 1 report changes in childcare and grocery shopping from before the lockdown (left-hand side of the graph) to during the lockdown (right-hand side of the graph) for women and men respectively. The figures are split according to those who now have more time at home (left panel) and those whose partner has now relatively more time at home (right panel).

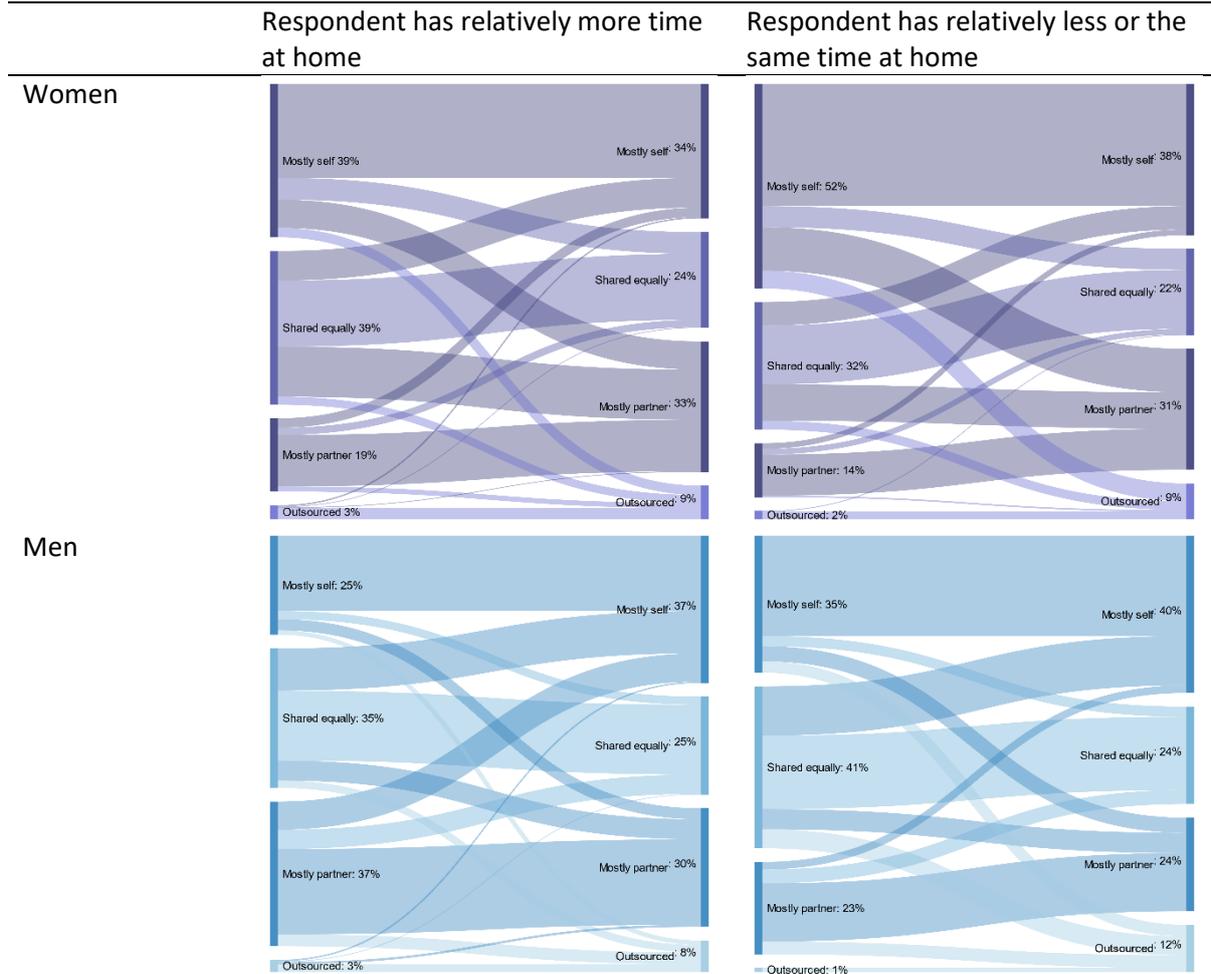
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<sup>12</sup> That is, if the respondent has lost the job while the partner did not, we keep their answer; if the opposite occurs, we swap the answers and look at the perspective of the respondent's partner.

**Figure 1: Changes in division of childcare and grocery shopping from before to during the lockdown, split by time availability**



Groceries



*Notes:* The above Sankey diagrams report changes in childcare and grocery shopping allocation from before the lockdown (left-hand side of each diagram) to during the lockdown (right-hand side of each diagram) for women and men respectively. The figures are split according to whether the respondent has more time (left-hand side panel) or less time (right-hand side panel) at home during lockdown than before relative to their partner. If no such relative time balance shift occurs, that household is not included in the above charts. Source: online survey in Italy, UK, USA. For childcare, N = 375 (women) and 297 (men). For grocery shopping, N = 1,106 (women) and 897 (men).

For childcare, we see that both men and women who have seen a shift in comparative advantage towards home production take on more of this responsibility themselves compared to before. This same pattern, though slightly less pronounced, holds true across most other household work (see Supplementary Figure 1). However, when we look at grocery shopping, men are taking on more of it when they are called upon, while women in the position to do more actually do less. This shift to men doing the shopping occurs across all households, including the ones where we would predict otherwise based on available time, suggests that other factors that are usually at play in these decisions, such as risk perceptions, the unskilled nature of the task, and gender norms pertaining the role of men as hunters or connectors between the domestic and public sphere, outweigh the importance of time availability. The three countries are characterised by different gender norms that are known

to be related to a range of family, economic, and educational outcomes (Guiso et al, 2008; Seguino, 2007; Ingelhart and Norris, 2003). The USA and UK are both ranked 15<sup>th</sup> in the Gender Development Index of the United Nations Development Programme,<sup>13</sup> and the labour force gender participation gap is smallest in the UK (10.6 percentage points in 2018 according to the OECD,<sup>14</sup> followed by the USA with 12% and Italy with 18.3%). However, the last WEF report on gender equality<sup>15</sup> indicates that the representation of women on company boards is highest in Italy at 34% (this was mandatory for listed companies since 2012), followed by the UK at 27.2% and the USA at 21.7%, and politics is also somewhat different with 30% of women MPs the UK, 19.1% in the USA, and 31% in Italy.

To investigate the role of these factors, we consider tensions reported specifically on the division of household labour, quarrels before and during lockdown, and the language used to discuss issues and report how women and men react differently in the three countries.

## 2. Family cooperation and tensions

The Sankey diagrams in Figure 2 represent how the allocation of childcare has changed from before to during the lockdown, for Italy, the UK and the USA respectively, with flows coloured by the level of household tension reported by respondents specifically related to the allocations of household tasks. Darker lines indicate higher levels of reported tension, and are useful to capture the effect of changes in allocations in lockdown. Considering for example childcare, across all samples those who share childcare are more likely to report the lowest levels of tension in the household, alongside those who report their partner is mostly doing it and, only in the USA sample, those that outsource it. However, there are important subsets of sharing respondents that also report high levels of tensions and they vary by country. Respondents in Italy that report the highest tension are those who either continue to be solely responsible for childcare or those who have seen a reallocation of childcare to themselves from shared and outsourced provision. This is different to the UK case, where the highest tensions are reported by respondents who are now sharing more of the childcare than before lockdown, regardless of whether they were previously solely responsible or their partner was. The USA sample is somewhat in between with highest tensions reported by both those who have seen an increase in their load and those who share and were previously solely responsible.

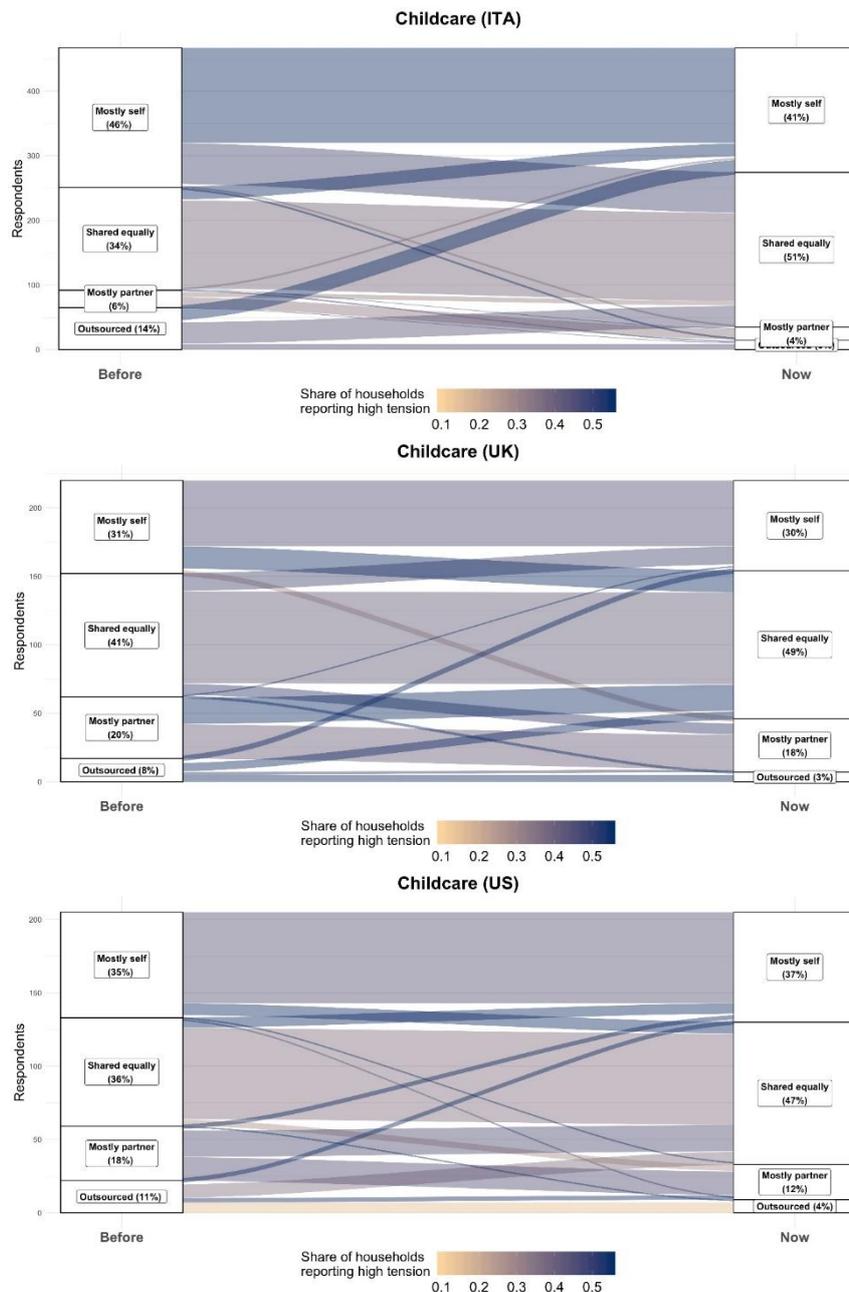
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<sup>13</sup> <http://hdr.undp.org/en/content/table-4-gender-development-index>

<sup>14</sup> <https://stats.oecd.org/index.aspx?queryid=54751>

<sup>15</sup> [http://www3.weforum.org/docs/WEF\\_GGGR\\_2020.pdf](http://www3.weforum.org/docs/WEF_GGGR_2020.pdf)

**Figure 2: Changes in division of childcare from before to during the lockdown, coloured by share of household reporting high tension**

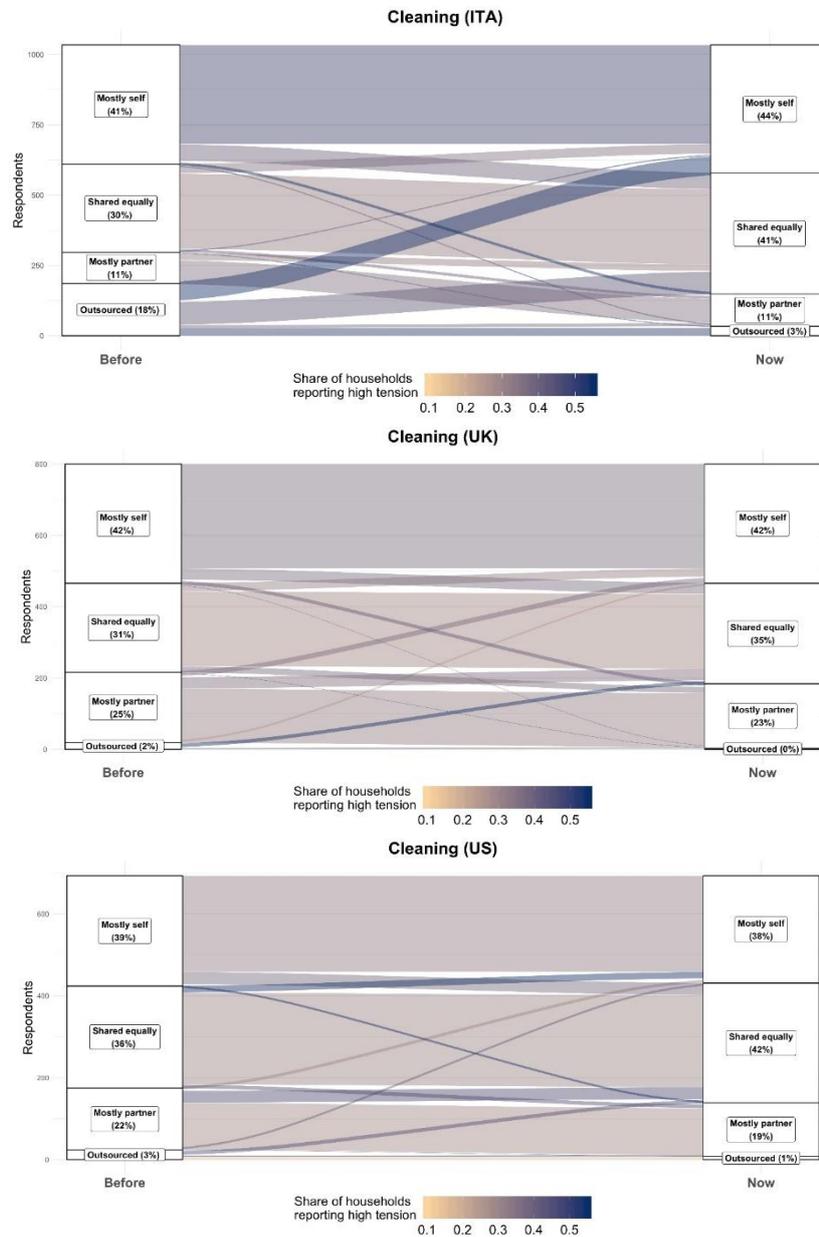


*Notes:* The above Sankey diagrams report changes in childcare allocation from before the lockdown (left-hand side of each diagram) to during the lockdown (right-hand side of each diagram) for each of the countries surveyed. Diagram flows are coloured by the share of respondents reporting high household tensions specifically related to the allocations of household tasks. Darker lines correspond to subsets with higher reported household tensions, and are useful in capturing the effect of task reallocation in lockdown. Source: online survey in Italy, UK, USA. N = 893.

When considering other household activities, it is still the case that respondents reporting the lowest tensions are those who report sharing of the tasks, and there is evidence again of tension caused by deviations from the status quo, and not just those that increase one's own load but also those that go from self to partner. This is clearly illustrated by diagrams

illustrating changes in the allocation of cleaning in Figure 3 (see Supplementary Figure 2-4 for the other tasks).

**Figure 3: Changes in division of cleaning from before to during the lockdown, coloured by share of household reporting high tension**



*Notes:* The above Sankey diagrams report changes in cleaning allocation from before the lockdown (left-hand side of each diagram) to during the lockdown (right-hand side of each diagram) for each of the countries surveyed. Diagram flows are coloured by the share of respondents reporting high household tensions specifically related to the allocations of household tasks. Darker lines correspond to subsets with higher reported household tensions, and are useful in capturing the effect of task reallocation in lockdown. Source: online survey in Italy, UK, USA. N = 2,527.

We have analysed reported quarrelling with partner and how it has changed from before quarantine and tensions reported specifically over the division of labour between partners.

We find that those couples who have had to alter the division of labour quarrel more than before at a higher rate than those who have maintained their division, and this is reflected in their wellbeing: life satisfaction is negatively associated with both childcare increases and changes in childcare division. Gardening, conversely, is positively associated with life satisfaction. Tensions (see tables in appendix) are stronger for women and for younger respondents, and are related to having children and to changes in sharing cleaning and grocery duties, to risk seeking behaviours, and cooperation. For each of the wellbeing measures used by the Office of National Statistics in the UK (life satisfaction, worthwhile life, wellbeing and anxiety), the direction of the relation to tensions is as we expect, as is the relative strength of the associations with instantaneous wellbeing.

These results are important as tensions can impact family stability: there have been widespread press reports of a rise in divorce filings in Wuhan<sup>16</sup> and the literature suggests disasters alter family dynamics: Cohan and Cole (2002 and 2009) have documented increases in divorces in New York after 9/11 and that in the year following Hurricane Hugo in 1989 marriage, birth, and divorce rates increased in the 24 counties of South Carolina declared disaster areas compared with the 22 other counties in the state. In our sample, 21 of 2,607 respondents with partners declared they want a divorce when quarantine ends. Our survey instrument was not designed to investigate domestic violence and the nature of our sample and its collection mode would have probably excluded families where this would be more prevalent, but it is important to note that lockdown has been linked to domestic violence (Peterman et al 2020), and although Beland et al (2020) have found no evidence that employment status and work arrangements are related to higher self-reported levels of family stress and violence, the inability to meet financial obligations and maintaining social ties significantly increase reported family stress and domestic violence.

### **3. Talking through it**

Communication difficulties play a vital role in marriage unhappiness and communications related issues are cited much more often as causes for divorce than external issues, including economic ones (Thompson, 2008). When it comes to the language used to address these tensions, there are markedly different styles by gender and by country (though gender differences appear to be consistent). In all three countries when they address disagreement (about half the sample prefers to say nothing) women are talking about their expectations, dissatisfaction and anger more than men. Men's preferred strategy is to say nothing, and when they do, they do so to signal there is not a big problem and no routine has been established because it may not be seen as needed. This pattern might be a reflection of the gendered expectations in terms of role divisions and further reinforce them in that household work and the related communication is seen as the female domain and not a space for males to engage in conversations. The 'proper' workplace and not household is the place for men to communicate. Also, women are expected to express emotions and hence are more likely to open up about their frustrations as opposed to men who are expected to be more restrained (Lakoff, 1975; Tannen, 1990). The word clouds below show the language used by female and male respondents in each country.

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<sup>16</sup> <https://www.globaltimes.cn/content/1181829.shtml>





## Conclusion

Our study finds a dramatic increase in the proportion of shared childcare across Italy, UK and USA and increases in the sharing of most other tasks with the exception of grocery shopping which has instead become a more specialised task and is now done largely by men. In all three countries we have surveyed a higher proportion of respondents who are doing more now have lost their jobs than respondents who are doing the same or less. The opposite is true for those whose partners lost jobs, thus job loss is more associated with a deviation from the status quo in terms of division of labour.

The increase in childcare, cleaning and the specialisation pattern we find, with women doing more of everything and men doing more shopping is corroborated by a range of studies carried out during the crisis. In the USA, Carlson et al. (2020) find that both parents report devoting more time to housework, with substantial increases in the sharing of both childcare (from 50% to 60%) and household tasks (from 38% to 53%). Such increased in sharing, however, are slightly disproportionate: in childcare, mothers do more of the homework supervision and fathers more of the play; in household tasks, fathers have especially increased time devoted to grocery shopping. Parents also disagree on how much fathers actually do: 42% of fathers report an increase in housework time (25% of mothers say their partners did), 45% reported more time in the care of young children overall (34% of mothers say their partners did), and 43% reported more total care of older children (20% of mothers say their partners did). Sevilla and Smith (2020) show that UK families with young children have been doing the equivalent of a working week in childcare, with women doing the greater share and a reduction in the gender childcare gap, with men’s increases very sensitive on their employment (whether they work from home or have been furloughed or lost their job). In Spain, Farré and González (2020) show increases in women’s loads and a similar pattern of men specialising at grocery shopping, possibly they argue because it is an out of household relatively easy task and perceived as carrying more risk.

We must also caution that while our UK and US samples are representative on a few sociodemographic variables (age, ethnicity, gender), we have obviously surveyed a segment

of the population with stable access to the internet, as well as time to complete the survey. We are therefore unlikely to have sampled those families with the greatest tensions or sharpest time constraints. More work must be done to assess the needs of the most vulnerable families, especially since their wellbeing and health are most at risk from the COVID-19 crisis.

As with much of the COVID-19 crisis, it is early days to speculate on the durability of these changes, although some hope that more sharing of childcare and household work might be the silver lining on the cloud of adverse occupational effects that women are set to face: Alon et al (2020) and Hupkau and Petrongolo (2020) speculate that a change of work and gender norms may be used in by this shock similar to that experienced with paternity leave introductions. However these increases in sharing are not documented across all households, but rather by respondents who also report low tensions, and we might therefore be seeing a very partial silver lining with women in some households experiencing multiple in- and out-of-household shocks.

A more pessimistic view might focus on the fact that, even when a pandemic is forcing men to participate in the house work, many still do so by exercising their freedom to choose the more pleasant tasks, and deciding how to contribute through gender-tinted lenses. The disaster literature suggests alternative scenarios for the short and the long run in terms of changes in the division of labour: Peek and Fothergill (2008) relay how the gendered division of labour may be even more pronounced in disasters, with women cast as nurturers and men as protectors, but also cite studies conducted on hurricane Andrew in the 1990s that found that, while gender roles were suspended and readapted during the crisis, they then reverted to previous arrangements (Alway et al., 1998) largely due to external constraints related to labour market forces and availability of childcare.

A feature of the current crisis is that most of the work that is still happening and all of the childcare have moved into homes, so the demands to be available on call for work and for family, typically experienced more acutely by working mothers, are currently being at the very least witnessed if not shared by working fathers. Time will tell whether this will be sufficient to generate the changes in workplace and household cultures necessary to create more balanced allocations of both paid and unpaid work (Goldin, 2014; Folbre, 2017; Grossbard, 2019), but the differences in tensions between types of households suggest this will not be a smooth or an evenly distributed outcome across household types.

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## Appendix

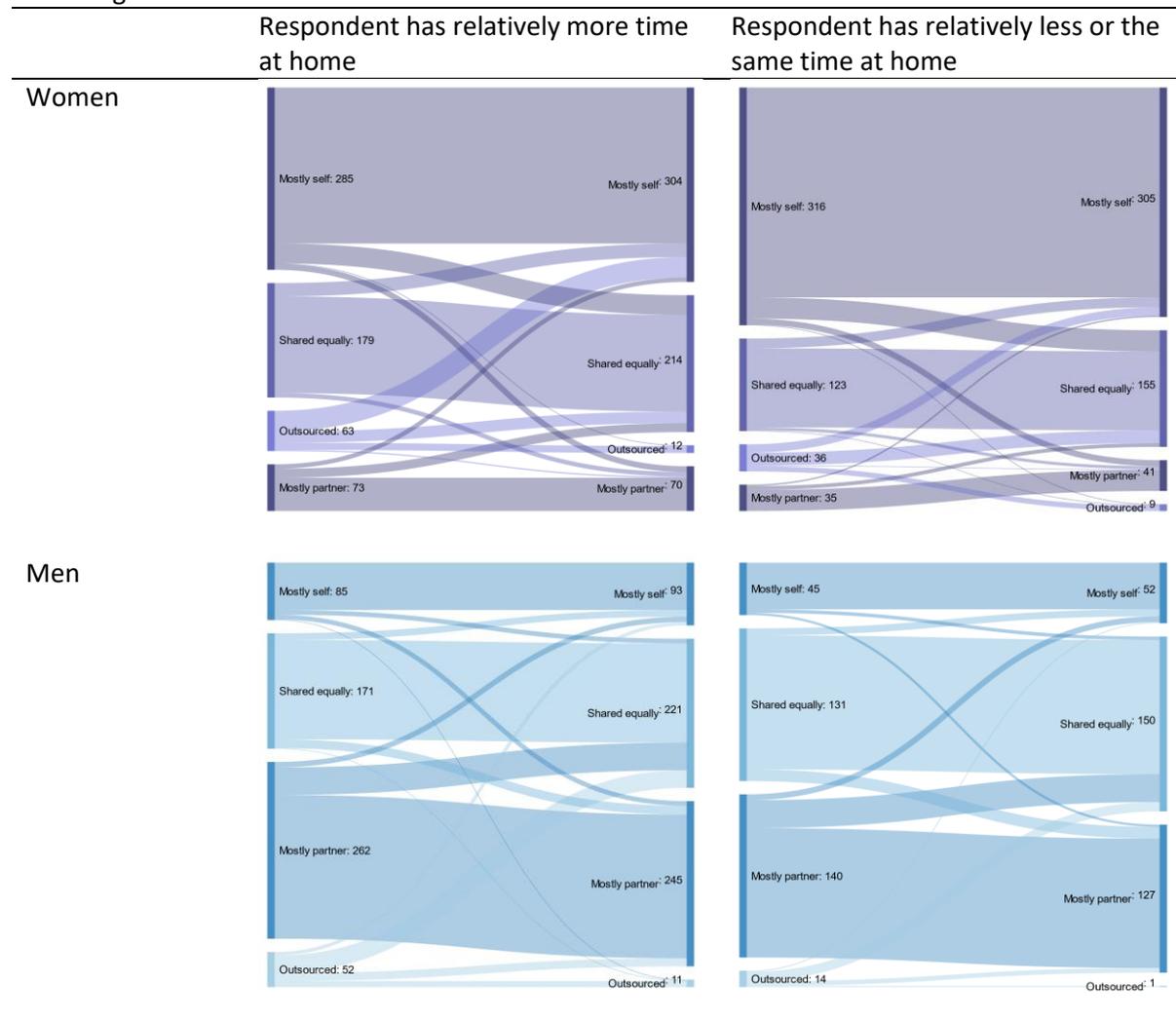
**Supplementary Table 1: Regression with predictors of household tensions**

	(1)
	Tensions
	b/se
Changed division: grocery	0.237* (0.11)
Changed division: clean	0.389** (0.15)
Age	-0.013** (0.00)
Self-employed or freelance	-0.346* (0.16)
Children present	1.061*** (0.11)
Risk-seeking	0.568*** (0.17)
Life satisfaction	-0.079* (0.03)
Life worthwhile	-0.065* (0.03)
Happy	-0.108** (0.03)
Anxious	0.133*** (0.02)
Wants to gift partner	-0.455* (0.18)
Survey FE	Yes
R <sup>2</sup>	0.176
N	2112

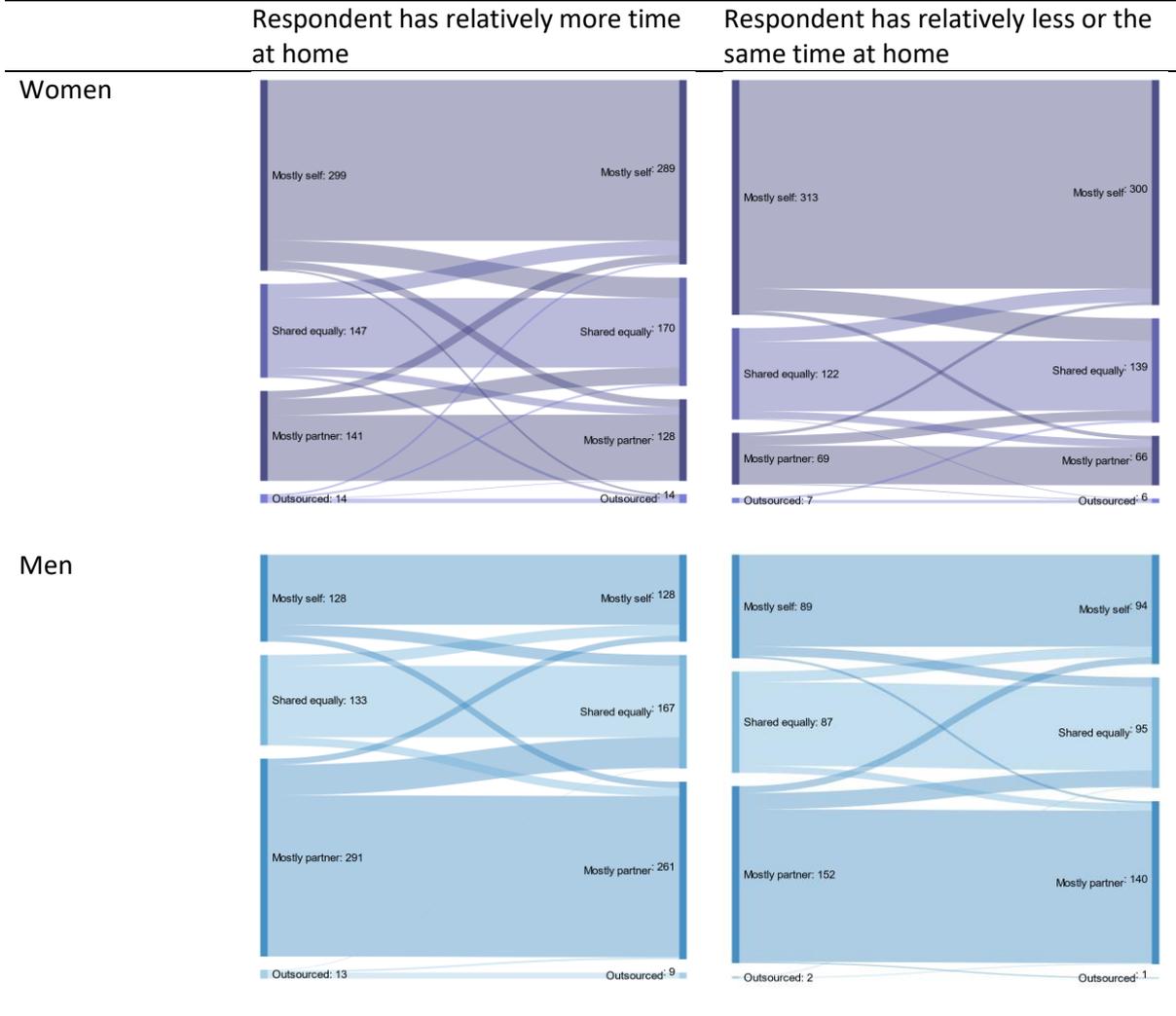
*Notes:* The dependent variable, household tensions, were reported on a scale of 1-10 and are specifically related to the allocations of household tasks. Well-being variables (life satisfaction, life worthwhile, happy, anxious) were also reported on a scale of 1-10. Survey country fixed effects are included. Additional controls: changed divisions in cooking & gardening, job status, partner job status, cooperate with partner in Prisoner's Dilemma, frequency of talking to family/friends. . Source: online survey in Italy, UK, USA.

**Supplementary Figure 1: Sankey diagrams for the reallocation of cleaning, cooking, laundry and gardening from before to during the lockdown.**

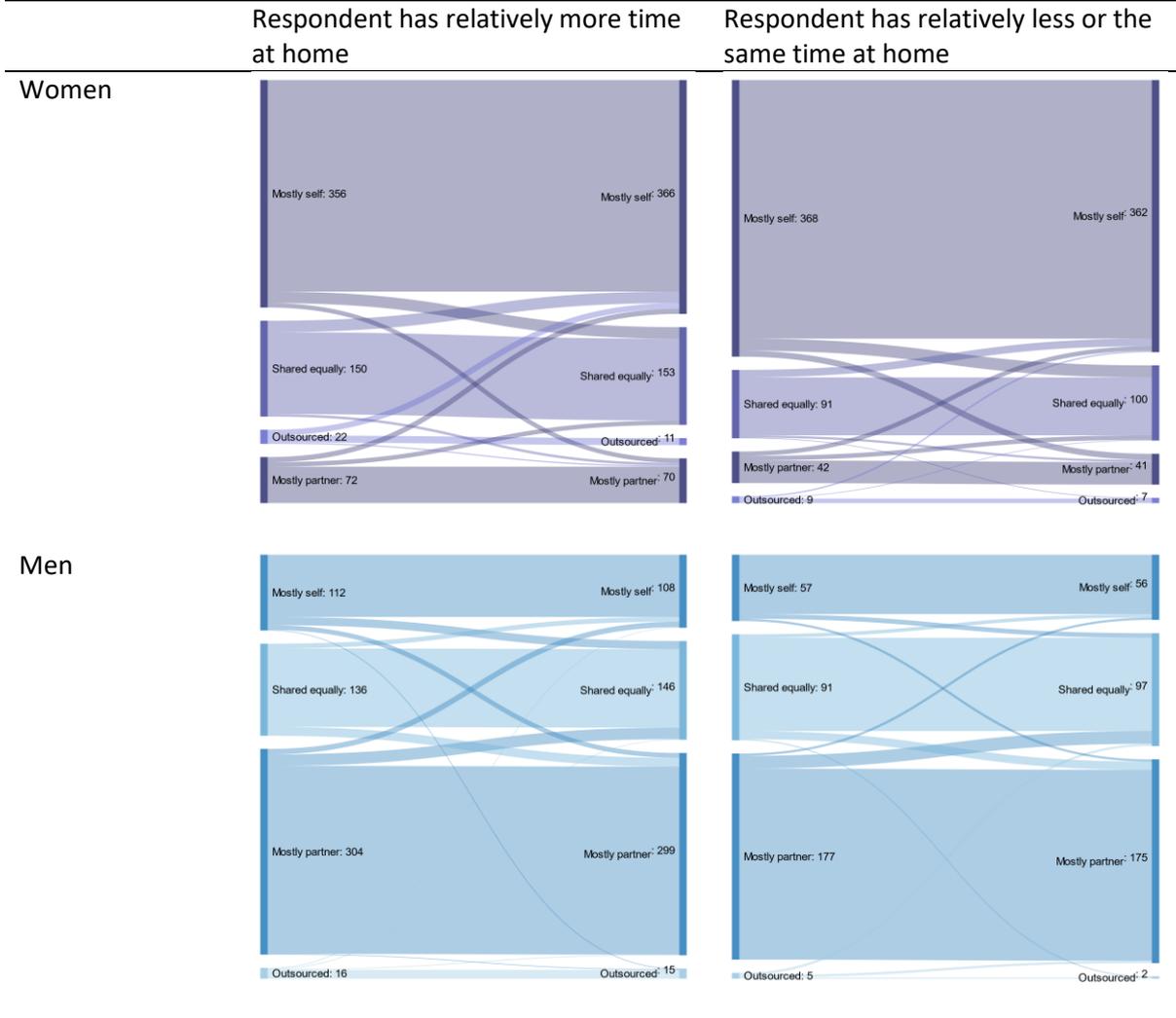
**Cleaning**



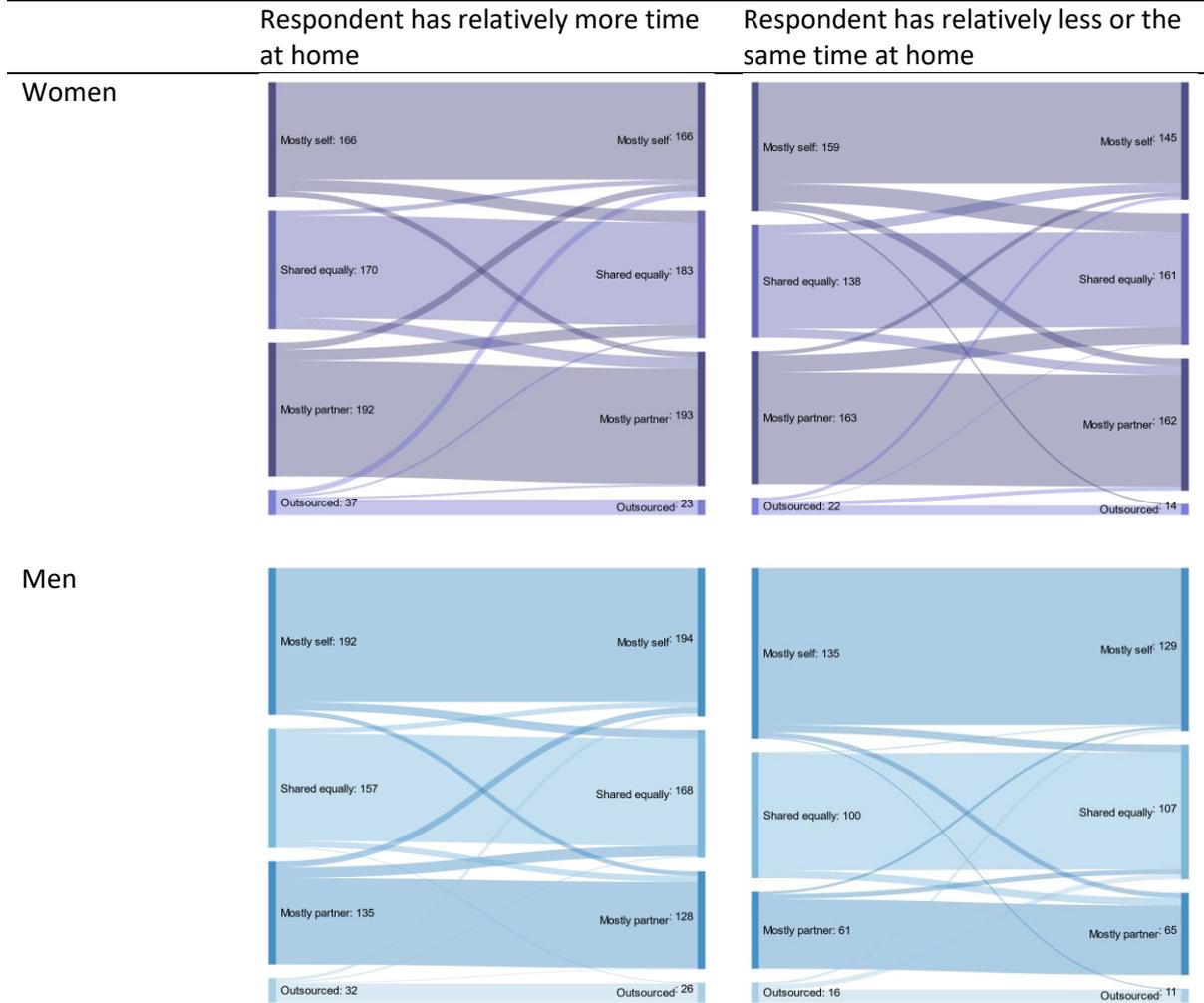
Cooking



Laundry

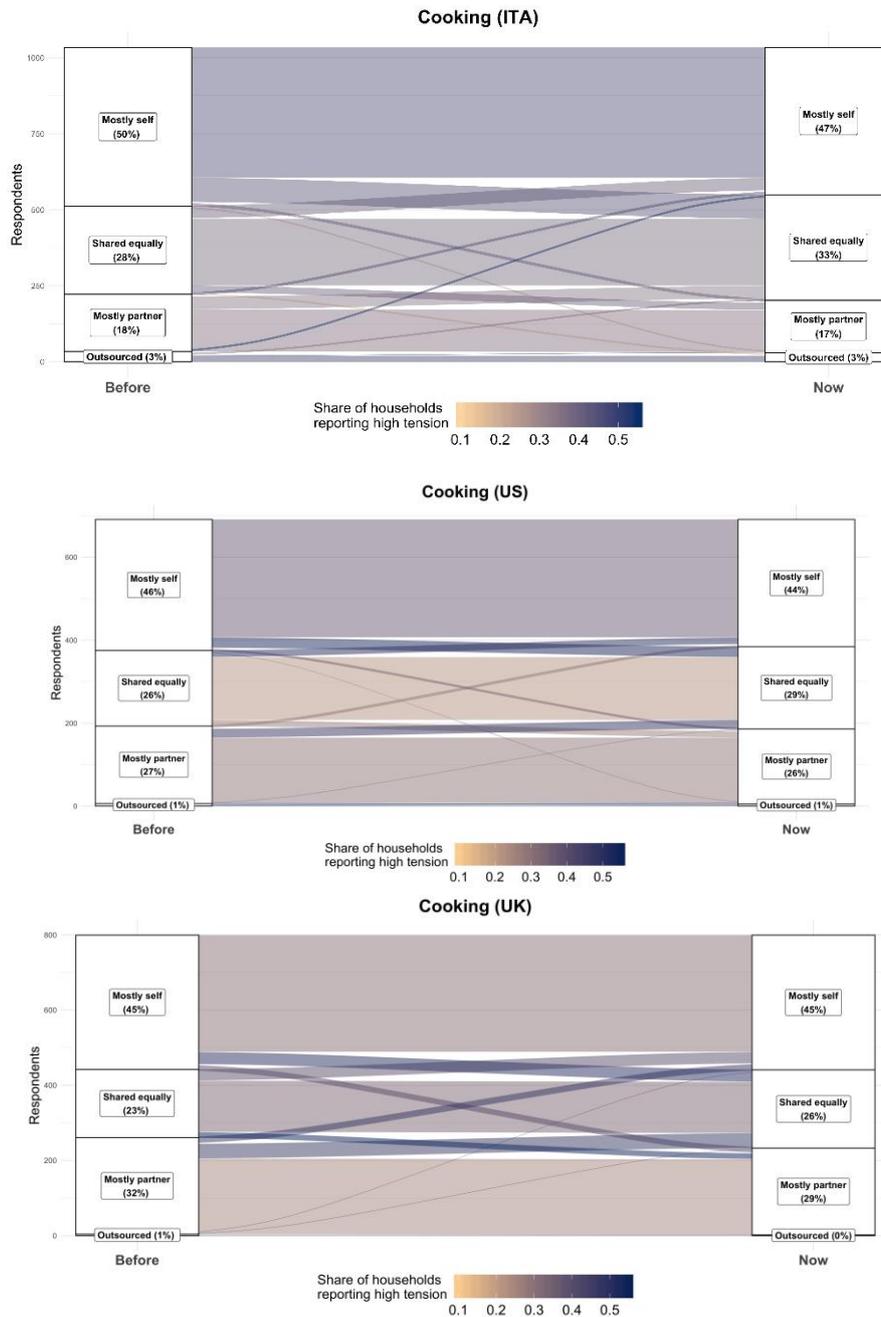


## Gardening



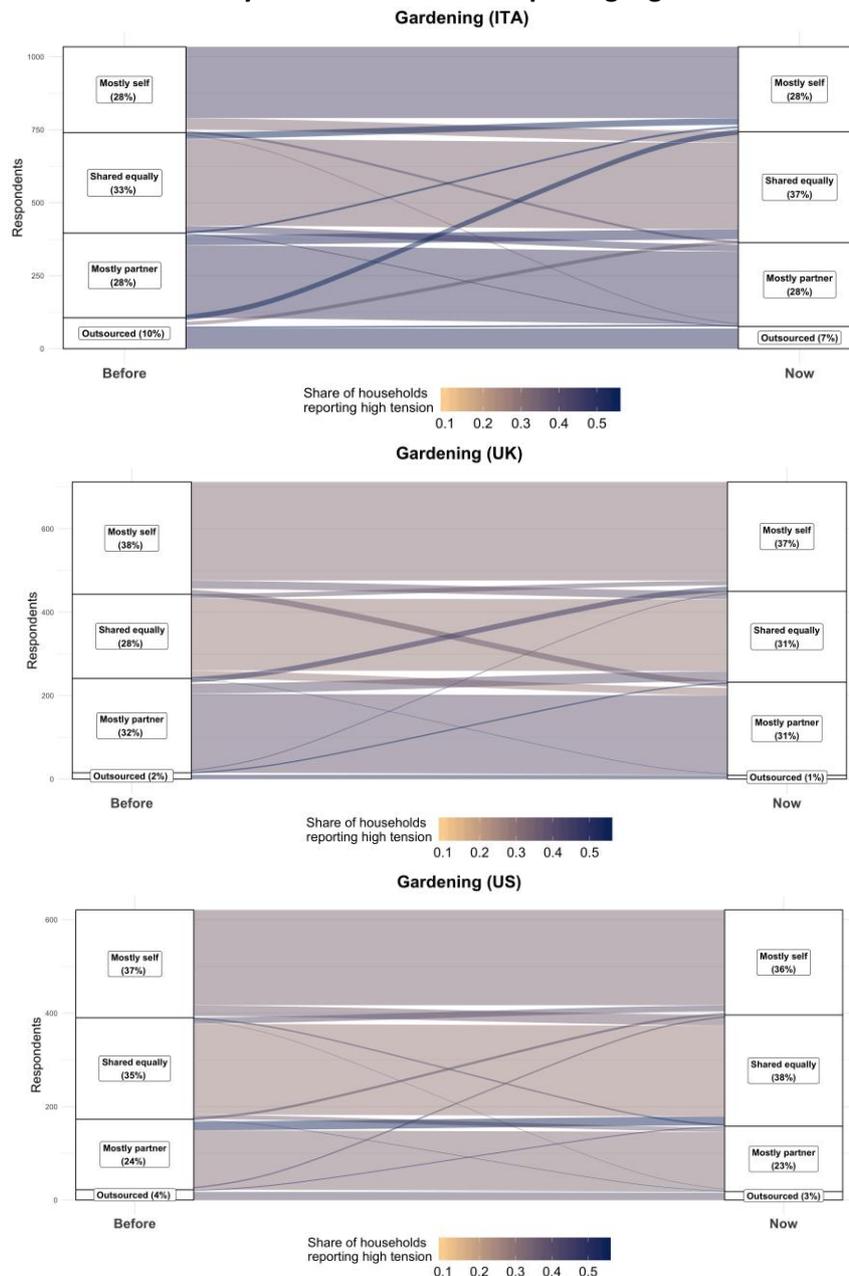
*Notes:* The above Sankey diagrams report changes in cleaning, cooking, laundry, and gardening allocation from before the lockdown (left-hand side of each diagram) to during the lockdown (right-hand side of each diagram) for women and men respectively. The figures are split according to whether the respondent has more (left-hand side panel) or less time (right-hand side panel) at home during lockdown than before relative to their partner. If no such relative time balance shift occurs, that household is not included in the above charts. Source: online survey in Italy, UK, USA. For cleaning, N = 1,110 (women) and 900 (men). For cooking, N = 1,112 (women) and 895 (men). For laundry, N = 1,110 (women) and 898 (men). For gardening, N = 1,047 (women) and 828 (men).

**Supplementary Figure 2: Changes in division of cooking from before to during the lockdown, coloured by share of household reporting high tension**



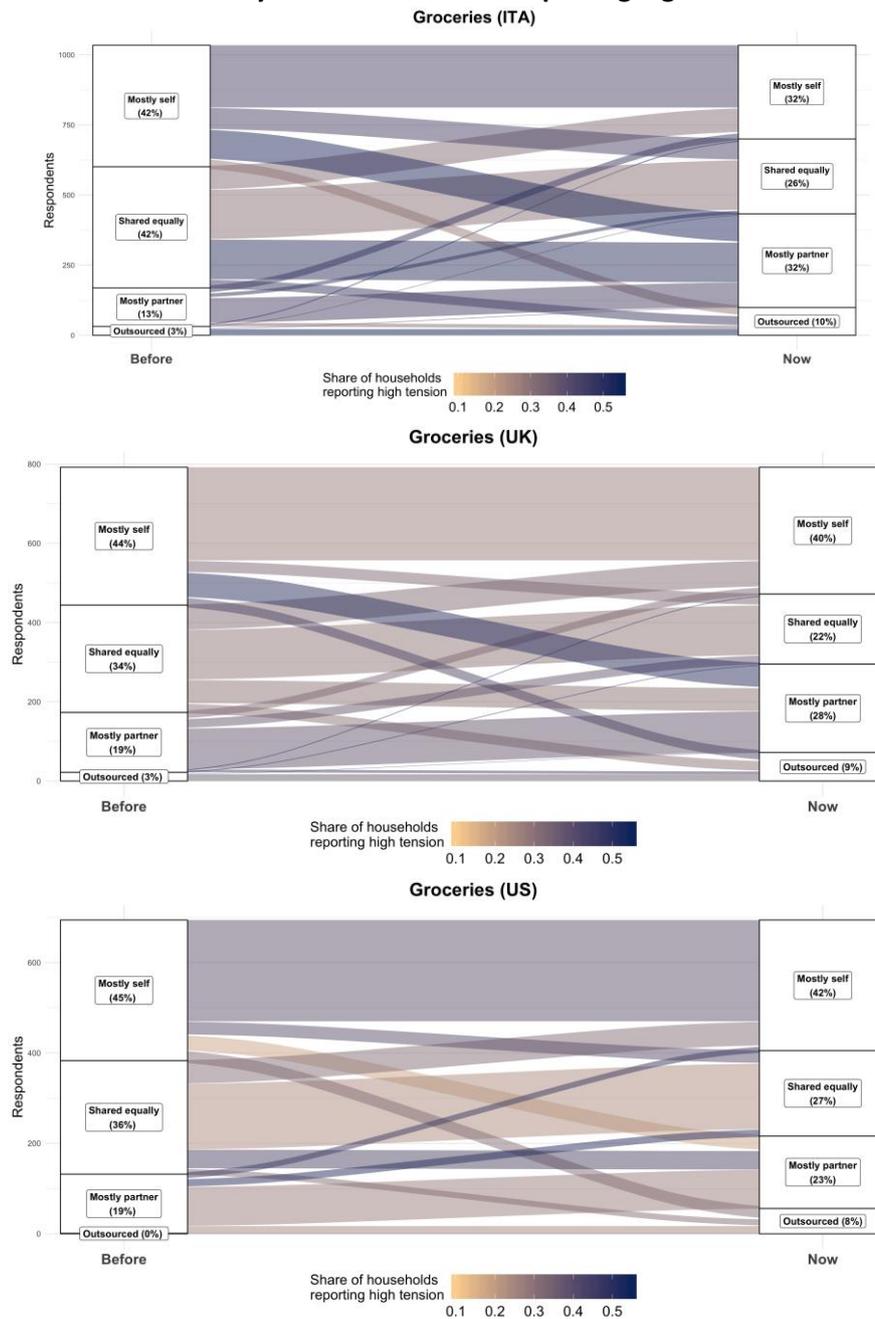
*Notes:* The above Sankey diagrams report changes in cooking allocation from before the lockdown (left-hand side of each diagram) to during the lockdown (right-hand side of each diagram) for each of the countries surveyed. Diagram flows are coloured by the share of respondents reporting high household tensions specifically related to the allocations of household tasks. Darker lines correspond to subsets with higher reported household tensions, and are useful in capturing the effect of task reallocation in lockdown. . Source: online survey in Italy, UK, USA. N = 2,524.

**Supplementary Figure 3: Changes in division of gardening from before to during the lockdown, coloured by share of household reporting high tension**



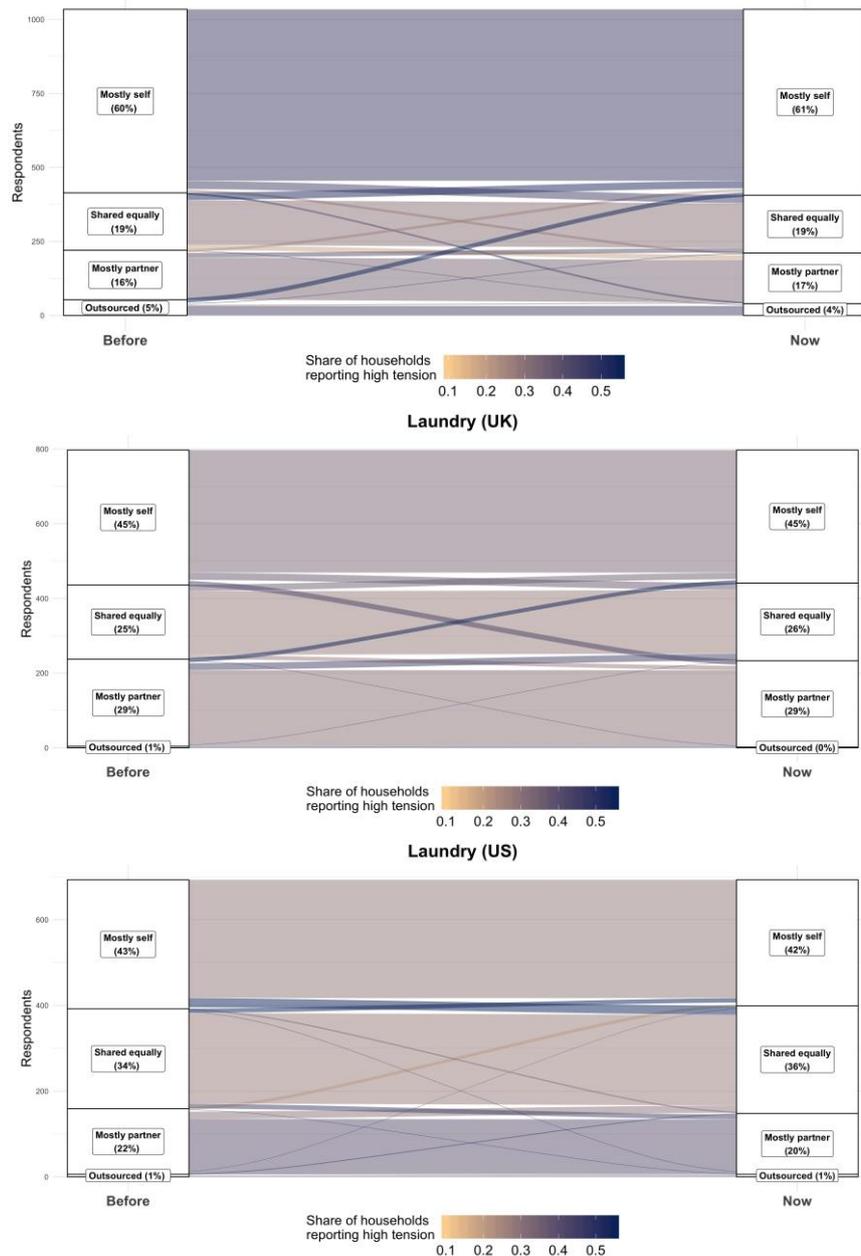
*Notes:* The above Sankey diagrams report changes in gardening allocation from before the lockdown (left-hand side of each diagram) to during the lockdown (right-hand side of each diagram) for each of the countries surveyed. Diagram flows are coloured by the share of respondents reporting high household tensions specifically related to the allocations of household tasks. Darker lines correspond to subsets with higher reported household tensions, and are useful in capturing the effect of task reallocation in lockdown. Source: online survey in Italy, UK, USA. N = 2,367.

**Supplementary Figure 4: Changes in division of groceries from before to during the lockdown, coloured by share of household reporting high tension**



*Notes:* The above Sankey diagrams report changes in grocery shopping allocation from before the lockdown (left-hand side of each diagram) to during the lockdown (right-hand side of each diagram) for each of the countries surveyed. Diagram flows are coloured by the share of respondents reporting high household tensions specifically related to the allocations of household tasks. Darker lines correspond to subsets with higher reported household tensions, and are useful in capturing the effect of task reallocation in lockdown. Source: online survey in Italy, UK, USA. N = 2,520.

**Supplementary Figure 5: Changes in division of laundry from before to during the lockdown, coloured by share of household reporting high tension**



*Notes:* The above Sankey diagrams report changes in laundry allocation from before the lockdown (left-hand side of each diagram) to during the lockdown (right-hand side of each diagram) for each of the countries surveyed. Diagram flows are coloured by the share of respondents reporting high household tensions specifically related to the allocations of household tasks. Darker lines correspond to subsets with higher reported household tensions, and are useful in capturing the effect of task reallocation in lockdown. Source: online survey in Italy, UK, USA. N = 2,524.