



Government  
Equalities Office



THE  
BEHAVIOURAL  
INSIGHTS  
TEAM

# Impact of changes in flexible working during lockdown on gender equality in the workplace

## Research report

May 2021

Leonie Nicks, Filip Gesiarz, Tiina Likki, Zac  
Baynham-Herd, Johannes Lohmann – The  
Behavioural Insights Team

---

# Contents

Acknowledgements	3
<b>Executive Summary</b>	<b>5</b>
<b>Introduction</b>	<b>8</b>
<b>Research aims and questions</b>	<b>13</b>
<b>Methodology</b>	<b>16</b>
Sample	16
<b>Results</b>	<b>20</b>
Trial results	20
1. Working patterns and care: changes across time and relationships between factors	21
2. Changes in gender equality outcomes	28
3. Changes in work norms and work design factors	32
4. Predictors of sustained flexible working	36
<b>Discussion and conclusion</b>	<b>39</b>
Discussion	39
Conclusion	47

---

## Acknowledgements

We wish to acknowledge the roles that the following individuals had in this project:

- Natalia Shakhina at the Behavioural Insights Team (BIT) for writing up the research into this report.
- Laura Giurge at the London Business School for supporting the design of the survey.
- James Lawrence, Chloe Chambrud, Daniel Gibbons, Ariella Kristal and Hannah Burd at BIT for their quality assurance input.



# **Executive summary**

---

# Executive Summary

In response to COVID-19, the UK government introduced social distancing measures in March 2020, which required many organisations to rapidly transition to full remote working. At the same time, school closures greatly increased the care burden on families. Then in October 2020, a tiered lockdown system was introduced, placing different levels of restrictions on different parts of the country.

We carried out a longitudinal survey with UK employees (n = 4,426) to explore changes in flexible working (remote working and hours), unpaid care work (childcare, adult care and housework), career and wellbeing outcomes, and their relationship with gender equality in the workplace. The first survey, administered in May 2020, asked about both before March ('before lockdown') and the previous week in May ('early lockdown'), while the second survey asked about the previous week in October 2020 ('tiered lockdown'). The sample only included people who were in paid employment during both early and tiered lockdown (and not on furlough) in order to capture experiences of flexible working and make recommendations relevant to organisations.

**The existing 7-hour gender care gap slightly increased to 9 hours per week in early lockdown and then decreased to 5 hours by tiered lockdown.** The overall decrease in the gender care gap was due to working mothers reducing their care work, while non-parents' and fathers' care work returned to pre-lockdown levels. Working mothers still carried out 10 more hours of care per week than working fathers in tiered lockdown.

## Location-based flexibility improved

**Remote working increased dramatically and remained high in tiered lockdown**, when 57% were still working remotely to some extent. The small gender gap before lockdown in favour of men did not change. Among men and women working in the same industries, the gender gap reversed, with women more likely to work remotely, but women were less likely to work in industries with access to remote work.

**Remote working became more normalised.** Stigma (the attitude that flexible workers are less committed to their career) towards remote workers fell by 10% by tiered lockdown from before lockdown, and the perceived proportion of colleagues working remotely increased by 53%.

**Appetite for continued remote work is high with no difference by gender.** The vast majority (83%) of those with access to remote work wanted to work remotely to some extent after restrictions lift with an average preference for 3.2 remote days per week. Preferences varied greatly by industry, which makes it important for individual employers to explore the preferences of their own employees. There was no gender difference in the preferred level of remote work after the pandemic.

**Remote work facilitated care similarly for men and women.** Increases in remote working were associated with increases in care to a similar extent for men and women. Meanwhile, among those whose contracted hours decreased, women increased care work to a greater extent than men.

---

## Time-based flexibility worsened

**While contracted hours did not change overall, overtime increased and a gender gap in overtime emerged.** Contracted hours decreased in early lockdown, but recovered by tiered lockdown. Overtime also decreased in early lockdown, but by tiered lockdown it had increased beyond pre-lockdown levels by 32%. A 1-hour gender gap in overtime emerged in early lockdown and was maintained in tiered lockdown (around 28%) with men working more overtime. The increased proportion of working time spent in overtime suggests work became more unpredictable.

**Increased overtime was accompanied by decreased control over contracted hours and workload.** Increased overtime was associated with increased work-life conflict and at the same time the sample experienced a 9% decrease in control over work hours and 2% decrease in control over workload. Together, these findings suggest that employees were working longer hours than before and felt less control over how much they work.

**Remote work may be negatively related to part-time working.** Sustained remote working in tiered lockdown was predicted by lower organisational uptake in part-time work, while a sustained reduction in hours was predicted by lower control over remote work. This may mean that, if there is lower access to one form of flexibility, employees may lean on another form.

## Sustaining the positive gains in remote working

**Employees sustained working remotely into tiered lockdown in workplaces where it was more normalised.** Factors predictive of sustained remote working in tiered lockdown included greater control over remote work, less stigma towards remote workers and a higher proportion of colleagues working remotely.

**Organisations should facilitate social connection without losing the benefits from increased employee independence.** As remote work increased, feelings of autonomy and feeling valued and competent at work both increased. However, feeling connected to colleagues decreased by 5%, suggesting that this should be a key area of focus for organisations.

Remote working was a critical tool for supporting care work during COVID-19 and has become much more normalised. There is considerable appetite for remote working to continue after restrictions are fully lifted, which is equally shared by men and women. However, remote working could negatively affect gender equality in two ways. First, the shared appetite for remote working by gender could become unequal. In a hybrid-remote world, if senior staff are more likely to work onsite, this could turn onsite working into a (stronger) symbol of career commitment, putting women and those who use remote work for care at a disadvantage. Second, remote working could become a tool for overwork, which is disproportionately rewarded in the labour market in terms of pay and progression. Time-based flexibility, especially part-time work, is necessary for many to manage care work. If remote working leads to increased overtime, this would worsen gender equality in the longer term as those with caring responsibilities are less likely to be able to work excess hours. The huge increase in remote working brought about by the COVID-19 pandemic demonstrated that previously immovable barriers can crumble overnight. This raises the question: what are the next seemingly impossible barriers to break at work?

The background features three overlapping light blue circles of varying sizes and positions. One circle is centered in the upper half, another is centered in the lower half, and a third is positioned to the right, overlapping the other two. The word "Introduction" is written in a bold, dark blue font on the left side of the page, overlapping the circles.

# Introduction

---

# Introduction

In late March 2020, many organisations had to rapidly transition to full remote working in order to meet the requirements of the UK government social distancing measures in response to COVID-19 (referred to in this report as ‘lockdown’). Subsequent school closures greatly increased the care burden on families impacting flexible working patterns for many working parents. By October, schools had reopened and some people started returning to their offices. In our research, we focused on two aspects of flexible working patterns: remote working and work hours,<sup>1</sup> since these were most directly impacted by lockdown.

There are numerous ways in which lockdown could disproportionately affect women in the workplace, both in terms of uptake of flexible working to accommodate care work and the role of flexible working and care work in other outcomes. Since women carry out the majority of unpaid care work,<sup>2</sup> which includes childcare, housework and dependent adult care, any change in the care burden is likely to exacerbate existing care inequalities. In dual-earner households, at a time of uncertainty and job insecurity, higher earners (more often men)<sup>3</sup> are less likely to reduce their hours. Evidence suggests that men may increase the number of hours they work when working remotely and women may take on more care work.<sup>4</sup> As a result, we expected that in the short term, women could experience poorer career outcomes and greater work-life conflict than men with increased remote working due to the inequality in care work.

The lockdown period could lead to long-term negative consequences for women’s career outcomes. In the UK, a large share of the gender pay gap is explained by the disproportionate uptake of part-time working among women.<sup>5</sup> Analysis shows that for the majority of people who move into part-time work, their progression does not just slow down, it stops entirely.<sup>6</sup> Indeed, length of experience in paid work, particularly full-time work and overtime, are disproportionately rewarded in terms of pay and progression.<sup>7</sup> This is supported by qualitative research that finds that limited career progression is seen as necessary in order to have access to flexible working.<sup>8</sup> If

---

<sup>1</sup> Part-time working has a strong evidence-based link with gender equality, but we measured this in terms of changes in contracted hours. This was a) a more sensitive way of capturing changes and b) part-time vs. full-time is a binary variable that assumes a set threshold of hours that may not apply to everyone in the sample.

<sup>2</sup> [ONS \(2016\). Women shoulder the responsibility of ‘unpaid work’](#)

<sup>3</sup> Craig, L., & Churchill, B. (2020). Dual-earner parent couples’ work and care during COVID-19. *Gender, Work & Organization*.

<sup>4</sup> Chung, H., & Van der Lippe, T. (2018). Flexible Working, Work–Life Balance, and Gender Equality: Introduction. *Social Indicators Research*.

<sup>5</sup> Olsen, W., Gash, V., Sook, K. and Zhang, M. (2018). The gender pay gap in the UK: evidence from the UKHLS (DFE-RR804). London, UK: Department for Education, Government Equalities Office.

<sup>6</sup> Costa Dias, M., Joyce, R., & Parodi, F. (2018). Wage progression and the gender wage gap: the causal impact of hours of work. *Institute for Fiscal Studies (IFS), Briefing Note no. BN223*.

<sup>7</sup> Blundell, R., Costa Dias, M., Meghir, C., & Shaw, J. (2016). Female labor supply, human capital, and welfare reform. *Econometrica*, 84(5), 1705-1753.

Cha, Y., & Weeden, K. A. (2014). Overwork and the slow convergence in the gender gap in wages. *American Sociological Review*, 79(3), 457-484.

Costa Dias, M., Joyce, R., & Parodi, F. (2018). Wage progression and the gender wage gap: the causal impact of hours of work. Institute for Fiscal Studies (IFS), Briefing Note no. BN223 .

<sup>8</sup> Nicks, L., Burd, H., & Barnes, J. (2019). [Flexible Working Qualitative Analysis - Organisations’ experiences of flexible working arrangements](#).



---

women reduce their hours to cope with the increased care workload due to restrictions, this could potentially have a long-term negative impact.

In other ways, however, the lockdown period might have a positive effect on workplace gender equality. Flexible working is critical for providing access to the workplace for those with caring responsibilities.<sup>9</sup> However, the implementation of flexible working can lead to poorer gender equality outcomes in organisations with weaker flexible working norms.<sup>10</sup> Flexible working norms include the perceived uptake of flexible working within the organisation, flexibility stigma<sup>11</sup> (where people who work flexibly are seen as less committed) and ideal worker norms<sup>12</sup> (where excessive hours and constant availability are common and disproportionately rewarded). The huge increase in the prevalence of remote working should shift norms around remote working. Organisations have had to overcome barriers to the implementation of remote working by developing the necessary infrastructure and rapidly reconfiguring many roles to suit remote working. In the long-term, if the majority of employees shift to remote work, and adopt new remote working habits, this might reduce such penalties for those who need to work remotely.

However, we also expected that the impact of increased remote working on career outcomes and gender equality would depend on an organisation's existing norms around long working hours. Research from large metropolitan areas around the world found that the average workday length increased after lockdowns were introduced and people started predominantly working from home.<sup>13</sup> We predicted that increased overtime (additional hours worked beyond contracted hours per week) would only lead to positive career outcomes in organisations with poorer flexible working norms and that these positive effects would be experienced more by men than women.

*Box 1: Timeline of social-distancing measures in the UK<sup>14</sup>*

23 March – First national UK lockdown, non-essential businesses and schools closed and people must stay at home except for very limited purposes.

**17-29 May - First survey**

15 June – Non-essential shops reopen in England, except for restaurants, pubs, beauty salons, entertainment venues and other leisure facilities.

4 July – Social distancing restrictions eased in England and pubs, cinemas and restaurants reopen.

---

<sup>9</sup> Chung, H., & Van der Lippe, T. (2018). Flexible working, work–life balance, and gender equality: Introduction. *Social Indicators Research*, 1-17.

<sup>10</sup> Cech, E. A., & Blair-Loy, M. (2014). Consequences of Flexibility Stigma Among Academic Scientists and Engineers. *Work and Occupations*, 41(1), 86–110.

<sup>11</sup> Chung, H. (2018). Gender, Flexibility Stigma and the Perceived Negative Consequences of Flexible Working in the UK. *Social Indicators Research*, 1–25.

<sup>12</sup> Van der Lippe, T., & Lippényi, Z. (2018). Beyond Formal Access: Organizational Context, Working From Home, and Work–Family Conflict of Men and Women in European Workplaces. *Social Indicators Research*.

<sup>13</sup> DeFilippis, E., Impink, S. M., Singell, M., Polzer, J. T., & Sadun, R. (2020). Collaborating during coronavirus: The impact of COVID-19 on the nature of work (No. w27612). *National Bureau of Economic Research*.

<sup>14</sup> [The Health Foundation. \(2020\). COVID-19 policy tracker: A timeline of national policy and health system responses to COVID-19 in England](#)

[ONS. \(2020\). A “new normal”? How people spent their time after the March 2020 coronavirus lockdown](#)

---

13 July – Beauty salons, tattoo shops and hairdressers reopen.

17 July – Prime Minister (PM) announces a further easing of the lockdown. This includes that from 1 August the government will not be telling people to the work-from-home and will give employers more discretion to decide on this.

1 September – The majority of schools in England, Wales and Northern reopen.

22 September – PM announces that workers need to work from home if possible.

12 October – A new three-tier system of local alert levels introduced in England. The severity of restrictions in each area depends on its local alert level.

### **8-23 October - Second survey**

#### *Post-survey events*

5 November - A four-week second national lockdown starts in England, people 'must stay at home' with certain exceptions, schools remain open.

6 January - Third national lockdown starts in England, all primary and secondary schools close.

There are several work design factors identified in the literature that are important for work to lead to success in terms of employee wellbeing and performance. Firstly, an employee's control over their flexible working pattern is essential for positive outcomes.<sup>15</sup> Secondly, self-determination theory predicts that employee autonomy<sup>16</sup> (having control over how one works), competence<sup>17,18</sup> (feeling valued and effective at work) and relatedness<sup>19,20</sup> (feeling connected to colleagues and a sense of belonging in the organisation) are positively correlated with employee motivation, performance and wellbeing.<sup>21</sup> These concepts become even more important in the context of flexible working. We predicted that these work design factors would make the experience of flexible working more positive in terms of reduced work-life conflict, and that they would predict sustained uptake of flexible working after lockdown.

Genuine flexibility is characterised by employees having control over when and where they work and as already highlighted, control is integral to the benefits of flexible working. However, for the purposes of this report, we measure changes in flexible working arrangements (e.g. remote work

---

<sup>15</sup> Joyce, K., Pabayo, R., Critchley, J. A., & Bambra, C. (2010). Flexible working conditions and their effects on employee health and wellbeing. *Cochrane database of systematic reviews*, (2).

<sup>16</sup> Grant, A. M. (2008). Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. *Journal of applied psychology*, 93(1), 48.

<sup>17</sup> Goldin, C. (2014). A grand gender convergence: Its last chapter. *American Economic Review*, 104(4), 1091–1119.

<sup>18</sup> Grant, A. M. (2008). The significance of task significance: Job performance effects, relational mechanisms, and boundary conditions. *Journal of applied psychology*, 93(1), 108.

<sup>19</sup> Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of applied psychology*, 91(6), 1321.

<sup>20</sup> Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance, and normative commitment to the organization. *Journal of Occupational Psychology*, 63, 1 – 18.

<sup>21</sup> Honig, D. (2021). Supportive management practice and intrinsic motivation go together in the public service. *Proceedings of the National Academy of Sciences of the United States of America*, 118(13).

---

or hours) separately from control over that arrangement in order to capture relationships to do with the arrangement itself.

Numerous other studies have also explored the impact of COVID-19 on working patterns and other outcomes, such as care.<sup>22</sup> This research contributes to these studies by representing a wide range of employees both in terms of parental and relationship statuses and from a wide range of industries. It is focused on the UK working population in order to best capture experiences of flexible working and help inform organisational policy. It also measures short-term career outcomes and examines direct and indirect effects as well as changes in flexible work norms and work design factors according to self-determination theory. In addition, it is longitudinal, following employees from beyond early lockdown in May to later lockdown in October.

This research was part of a Government Equalities Office (GEO) funded three-year collaboration between The Behavioural Insights Team (BIT) and GEO: the Gender and Behavioural Insights (GABI) programme. The aim of the GABI programme is to generate evidence for what works to improve gender equality in the workplace.

The rest of this report is structured as follows:

- **Section 2: Research aims and methodology**, including samples in each of the surveys; the imputation technique used; measures collected in the surveys and an overview of exploratory non-causal mediation and regression models used.
- **Section 3: Results**, including changes across time and relationships between variables quantitative and qualitative measures.
- **Section 4: Discussion** of key findings from these results and research limitations and outlines the conclusion.

---

<sup>22</sup> [Oreffice, S., & Quintana-Domeque, C. \(2020\). Gender inequality in COVID-19 times: Evidence from UK Prolific participants.](#)

[Chung, H., Seo, H., Forbes, S., & Birkett, H., \(2020\). Working from home during the COVID-19 lockdown: Changing preferences and the future of work.](#)

[Institute for Fiscal Studies \(2020\). How are mothers and fathers balancing work and family under lockdown?](#)



# **Research aims and trial methodology**

---

## Research aims and questions

The research aims to measure changes in flexible working uptake and understand the extent to which different factors influence whether flexible working leads to positive or negative career outcomes by gender. We limited the scope to those who remained employed and were not furloughed or became unemployed. We measured changes from before lockdown, early (May) lockdown and tiered lockdown (October). To do this, we developed and conducted two online surveys in May and October 2020.

Items used in the survey for each measure were taken from validated scales in the wider literature (Table 1). Details for how we cleaned the data are in Appendix B. All appendices are in the supplemental file available from the reporting landing page. A shortened version of the survey is available in Appendix C.

Our research addresses the following questions (see definitions of variables in Table 1).

- 1) How did working patterns and care change across time? What were the relationships between these factors?
- 2) How did gender equality outcomes change? How were changes in gender equality outcomes associated with changes in working patterns and care?
- 3) How did flexible work norms and work design factors change across time?
- 4) What factors predicted sustained changes in flexible working (remote working and reduced hours) in tiered lockdown?

**Table 1: Variables used in the analysis**

Variable	Definition
<b>Working patterns and care</b>	
Percentage remote work	The proportion of working days an individual performs remotely.
Contracted hours	Number of hours an individual is contracted to work per week.
Care work	Number of hours spent carrying out unpaid childcare, housework and dependent adult care work per week.
Overtime	Additional hours worked beyond contracted hours per week.
<b>Gender equality outcomes</b>	
Self-rated performance	Self-rated performance asks individuals to evaluate their performance in terms of the quality of their work (distinguished from quantity in order not to confound with hours worked). <sup>23</sup>
Work-life conflict	The subjective experience of how manageable the competing demands from work and family or personal life are, adapted from the work-to-family and family-to work conflict scales. <sup>24</sup>
<b>Flexible work norms</b>	
Flexibility stigma and perceived pressure to respond quickly outside of hours	Stigma towards flexible workers was measured by asking respondents whether remote or part-time workers are less committed to their career. <sup>25</sup> A separate item about whether respondents feel pressured to make themselves available to colleagues outside of working hours formed a unitary construct with stigma through Principal Component Analysis. <sup>26</sup> This item is sometimes analysed in combination with the stigma items and sometimes not, as appropriate.

<sup>23</sup> Sherman, E. L. (2020). Discretionary Remote Working Helps Mothers Without Harming Non-mothers: Evidence from a Field Experiment. *Management Science*, 66(3), 1351-1374.

<sup>24</sup> Adapted from Work-to-Family and Family-to-Work conflict scales in Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and validation of work–family conflict and family–work conflict scales. *Journal of applied psychology*, 81(4), 400.

<sup>25</sup> Adapted from Cech, E. A., & Blair-Loy, M. (2014). Consequences of flexibility stigma among academic scientists and engineers. *Work and Occupations*, 41(1), 86-110.

<sup>26</sup> Described as a combination of working long hours and being available to your employer all the time by Chung, H., & Van der Lippe, T. (2018). Flexible working, work–life balance, and gender equality: Introduction. *Social Indicators Research*, 1-17.

Perceived organisational uptake of flexible working	Perceived organisational uptake of flexible working was measured by asking respondents what proportion of their colleagues (e.g. vast majority, majority, etc.) worked remotely or part-time, and what proportion consistently worked excessive overtime.
<b>Work design factors</b>	
Work design index	<p>Factors driven by the organisation that can influence the impact of the success of flexible working derived from the three key elements of self-determination theory (autonomy,<sup>27</sup> competence,<sup>28</sup> relatedness<sup>29</sup>) and the additional critical role identified in the literature of control over working patterns.<sup>30</sup> The index was made up of items relating to:</p> <ul style="list-style-type: none"> <li>Control over remote work</li> <li>Control over contracted hours</li> <li>Control over workload (combination of control over how many hours one works and at what time one works)</li> <li>Autonomy over working style and manager trust to work independently</li> <li>Competence in terms of social worth (how much respondents feel their contributions are valued by their team and manager)</li> <li>Relatedness in terms of social support and belonging</li> </ul>

<sup>27</sup> Adapted from Grant, A. M. (2008). Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. *Journal of applied psychology*, 93(1), 48.

<sup>28</sup> Grant, A. M. (2008). Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. *Journal of applied psychology*, 93(1), 48.

<sup>29</sup> Adapted from Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of applied psychology*, 91(6), 1321 and Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of occupational psychology*, 63(1), 1-18.

<sup>30</sup> Joyce, K., Pabayo, R., Critchley, J. A., & Bambra, C. (2010). Flexible working conditions and their effects on employee health and wellbeing. *Cochrane Database of Systematic Reviews*.

# Methodology

## Design

We conducted a longitudinal exploratory survey study with two waves five months apart: during early lockdown (May 2020) and in tiered lockdown (October 2020). Neither survey was administered during national school holidays. For our pre-registration see: <https://osf.io/spqwd>.<sup>31</sup>

## Sample

### First survey

The first online survey was administered between 17 and 29 of May 2020. The UK sample was recruited through an online panel aggregator (n=4,426 after exclusions described in Appendix B)<sup>32</sup>.

On the 7 May 2020 we carried out a soft run of the survey with 22 respondents to identify any questions open to misinterpretation and ensure that the survey worked as expected. We created additional questions and edited some existing questions as a result.

Employees in the sample worked in a wide variety of industries and the sample was representative of the UK population in terms of age, gender and ethnicity. People with dependent children (referred to in this report as 'parents'), higher education and in full-time roles were oversampled. A comparison of the sample with the wider population (Table A1), and a full list of the industries represented (Table A2) are available in Appendix A.

Since we wanted to understand experiences of flexible working within wider organisational culture, we restricted the sample to people who:

- Were working during lockdown at the time of taking the survey (not on furlough, unemployed, or not in work for other reasons)
- Were not self-employed
- Did not take leave from work in the week prior to completing the survey ('during lockdown' questions referred to the previous week to increase accuracy)
- Did not work in industries that faced majority job losses in April 2020: Arts, entertainment and recreation, air transport, construction, accommodation and food services, retail (excluding grocery and food) and wholesale.<sup>33</sup>

---

<sup>31</sup> While we followed the same analytical approach as our preregistration, some of the ways in which the indices were defined changed due to findings from Principal Component Analysis. For further details see Appendix B.

<sup>32</sup> All appendices are in the supplemental file available from the reporting landing page.

<sup>33</sup> Selected based on industries where more than 50% of staff worked in a business that had stopped trading or were laid off. [ONS \(2020\) Coronavirus and the economic impacts on the UK: 23 April 2020](#)



---

We also restricted the sample to those who identified as a man or a woman as the research would be underpowered to understand experiences of minority genders with confidence.

It is important to note that by excluding those not in work or on furlough during lockdown, the results only represent outcomes for men and women who retained employment during lockdown. This is because the study is concerned with the impact of changes in flexible working on those in work.

### **Second survey**

For the second online survey, we re-contacted participants that took part in our first survey. The survey was administered during tiered lockdown between 8 and 23 of October 2020 (n=2,004).

Those who responded to the second survey were significantly more likely to be men, older, in part-time employment and have dependent children (referred to in this report as 'parents') than those who did not. A comparison of the sample with the wider employed population (Table A1) and a full list of the industries represented (Table A2) are available in Appendix A.

We excluded 24 people from the analysis, based on a report of no income (19), and no contracted hours (5). These exclusions left a total of 1,980 people in the sample. We additionally excluded 94 outliers from the analysis of hourly income but included them in all other analyses.

### **Imputation**

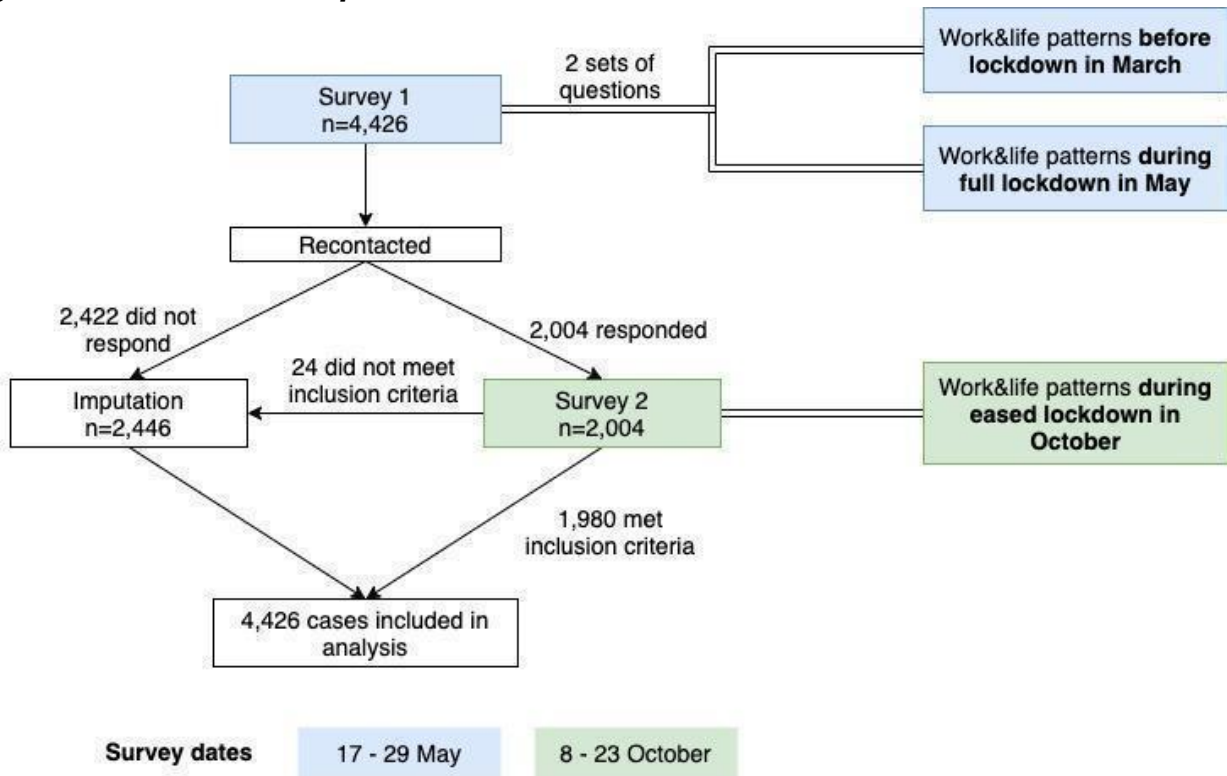
The sample that responded to the second survey differed in many aspects from those that did not. To mitigate this, we imputed the responses of those who did not respond to the second survey based on their known characteristics from the first survey.

More specifically, we used Multiple Imputation as implemented in the MICE package in R to impute all dependent variables. We do not know to what extent the data that is missing is missing at random or missing not at random. In either case, however, the multiple imputation method is best practice due to a lack of viable methods to deal with missing data when the missingness results from non-random and unobserved factors. If the data are missing not at random, our results could be biased in a direction that is hard to predict without having more information about the process leading to missing data.

As predictors for the imputation we used age, education, before lockdown household income, number of children, ethnicity, gender and a number of variables from early lockdown. These comprised industry, relationship status, contracted hours, organisational support for career development, percentage remote work, self-rated performance, care work, overtime hours, career development behaviour and work-life conflict.

The imputation resulted in 4,426 valid cases (2,446 of which were imputed). Figure 1 illustrates the data collection process.

**Figure 1: Data collection process**



We conducted a series of exploratory non-causal regression models to better understand the relationships between gender, flexible working, self-rated performance and work-life conflict. Details on the analytical strategy are provided in Appendix D.



# Results

# Results

## Trial results

In this section, we present our findings on changes over three time points (1) before lockdown, (2) during early lockdown (May) and then (3) tiered lockdown (October). Additional results are in Appendix F. All appendices are in the supplemental file available from the reporting landing page.

<b>Working patterns and care: changes across time and relationships between factors</b>	<ul style="list-style-type: none"><li>1.1 Remote working</li><li>1.2 Contracted hours</li><li>1.3 Care work</li><li>1.4 Overtime</li></ul>
<b>Changes in gender equality outcomes</b>	<ul style="list-style-type: none"><li>2.1 Self-rated performance</li><li>2.2 Work-life conflict</li></ul>
<b>Changes in work norms and work design factors</b>	<ul style="list-style-type: none"><li>3.1 Changes in flexibility stigma</li><li>3.2 Changes in perceived organisational uptake of flexible working</li><li>3.3 Changes in perceptions around working outside of hours</li><li>3.4 Changes in work design factors</li></ul>
<b>Predictors of sustained flexible working</b>	<ul style="list-style-type: none"><li>4.1 Factors predictive of sustained remote work in tiered lockdown</li><li>4.2 Factors predictive of sustained reduced contracted hours in tiered lockdown</li></ul>

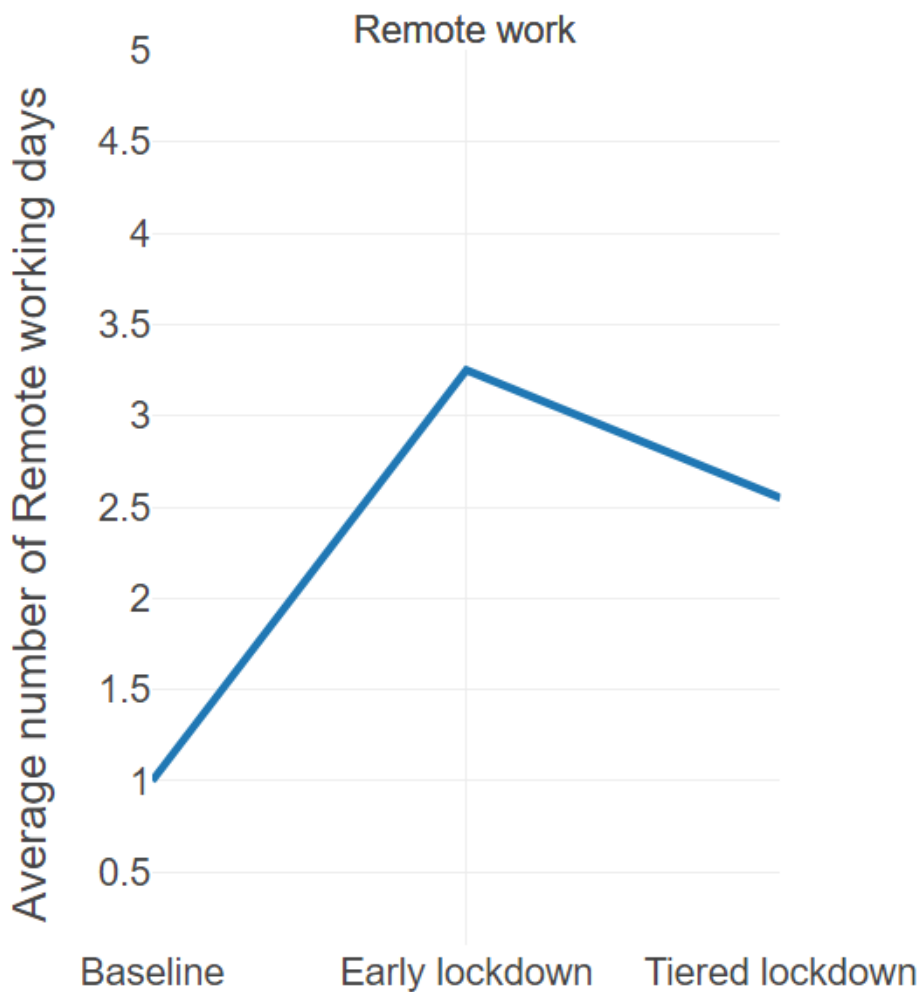
---

# 1. Working patterns and care: changes across time and relationships between factors

This section summarises changes in working patterns and care across time. Full tables with separate results by gender, parental status and differences calculated between each set of observed periods are available in Appendix E.

## 1.1 Remote working

**Figure 2: Raw changes in remote working days<sup>34</sup>**



**Overall:** Remote working greatly increased from before lockdown (20% of work performed remotely on average) to early lockdown (65%), decreasing by the time the UK entered into tiered

---

<sup>34</sup> Part-time responses were adjusted to a 5-day week. Adjustments were made as follows (Remote days / Contracted days) \* 5 where 0 = 0, More than 0 and less than 2 = 1, More than or equal to 2 and less than 3 = 2, More than or equal to 3 and less than 4 = 3, More than or equal to 4 and less than 5 = 4 and More than or equal to 5 = 5

lockdown (51%). The overall increase was driven by an increase in the proportion of people working fully remotely from 13% in early March to 44% in October (Table 3).

**Gender gap:** The small remote working gender gap previously in favour of men (3 percentage points; 'pp') closed in early lockdown, but by tiered lockdown the gender gap widened again, resulting overall in an unchanged gender gap. Controlling for industry alone, the gender gap in remote working reversed, with women working more remotely within industries than men. Controlling for all other factors, the gender gap increased from no gap before lockdown to women working more remotely in early lockdown through to tiered lockdown, resulting in a small but non-significant gap in favour of women. Fathers worked remotely 9pp more than mothers in tiered lockdown, whereas non-parent men and women worked remotely to a similar extent.

**Table 2: Average percentage of remote work**

	Before lockdown (March 2020)	Early lockdown (May 2020)	Tiered lockdown (Oct 2020)	Difference Oct - March
Overall sample	20%	65%	51%	31pp**
Gender gap	3pp**	-1pp	5pp**	2pp
Gender gap with controls	2pp	-4pp**	-3pp	-4pp**

A positive gender gap indicates higher for men and a negative gender gap indicates higher for women. The statistical significance of the gender gap is based on pairwise tests, not controlling for other factors. 'With controls' indicates the gender gap accounting for control variables.<sup>35</sup> Significance is indicated by \*  $p < 0.05$  and \*\*  $p < 0.01$ .

**Table 3: Proportion of people working fully, partially and not at all remotely, before, in early and tiered lockdown**

Remote working	Before lockdown (March 2020)	Early lockdown (May 2020)	Tiered lockdown (October 2020)
No remote working	67%	31%	43%
Partially remote	20%	10%	13%
Fully remote	13%	59%	44%

<sup>35</sup> Controls include: age, education, household income (before lockdown), number of children, industry, ethnicity, gender and a combined variable of relationship status and partner's employment status.

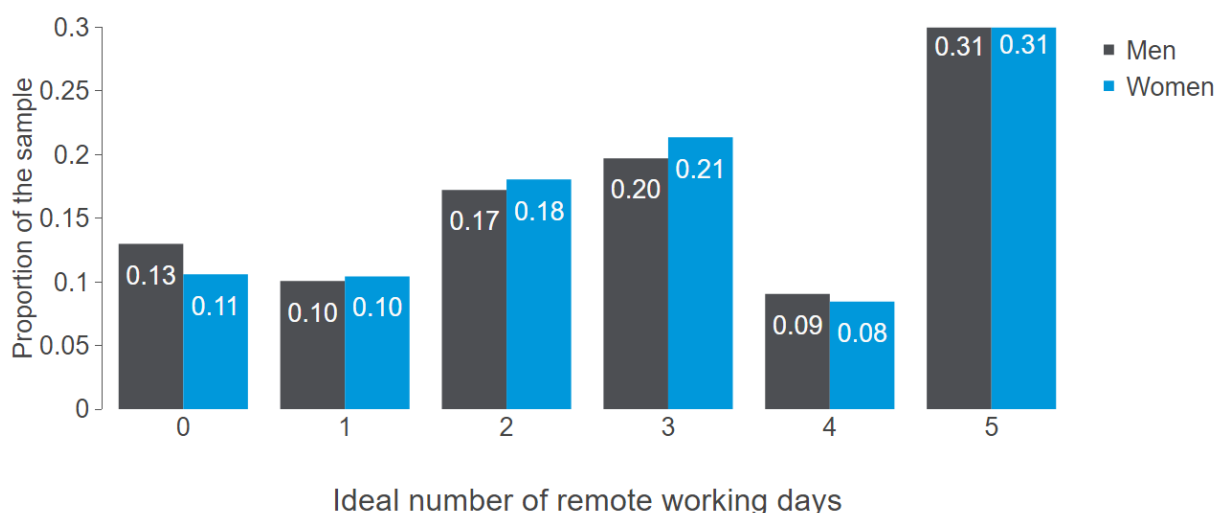
**Table 4: Access to remote working by gender**

Access to remote working	Men	Women	Overall
Access	68.0%	65.1%	66.5%
No access	32.0%	33.9%	33.5%

Women had less access to remote work than men (-0.04,  $p < 0.01$ ), however, this difference disappeared when controlling for industry alone, and also when controlling for all covariates.

In the second survey (October 2020), we asked respondents with access to remote work in their role how many days they would like to work from home if there were no COVID-19 government measures and COVID-19 no longer posed a risk. There was no significant gender difference in preferences for the number of remote working days per week.

**Figure 3: Remote working preferences<sup>36</sup>**

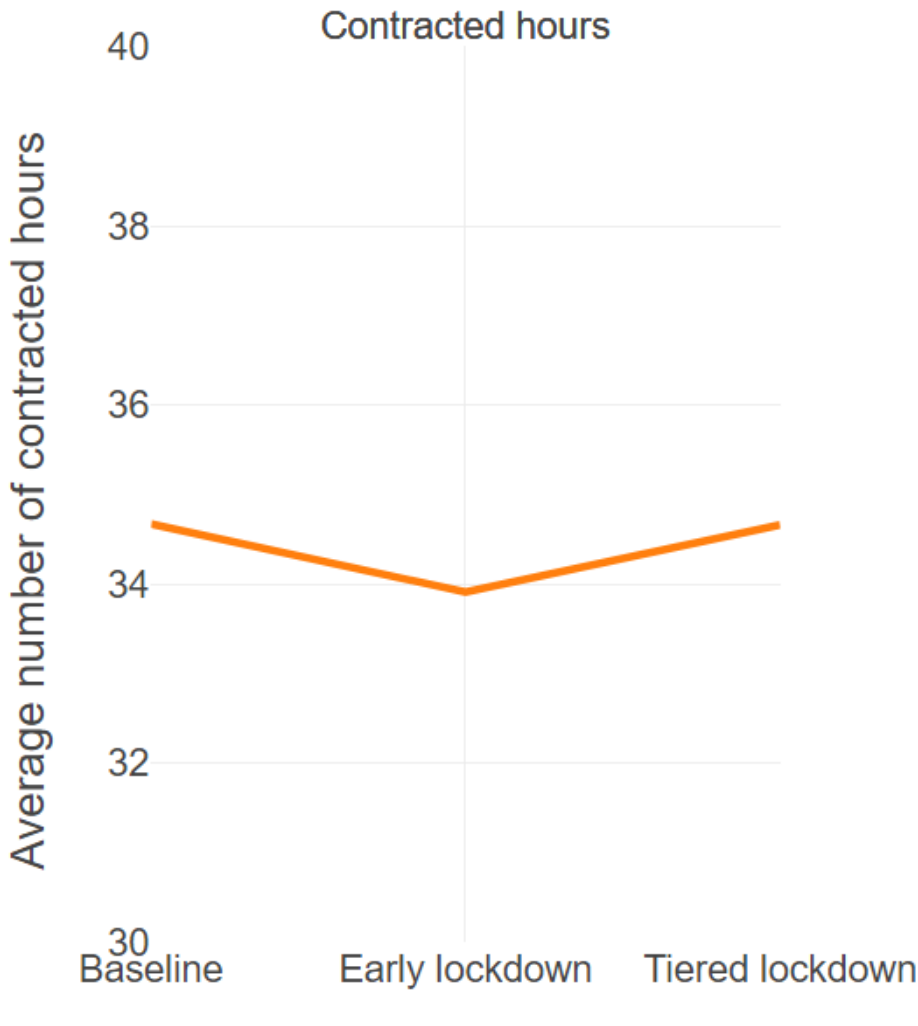


The average number of ideal remote working days was 3.2 (adjusting for part-time work).

<sup>36</sup> Part-time responses were adjusted to a 5-day week as per Figure 2.

## 1.2 Contracted hours

Figure 4: Raw changes in contracted hours



**Overall:** The average number of contracted hours per week slightly reduced from before (34.67) to early lockdown (33.91) and then increased in tiered lockdown (34.66), resulting overall in no change (Table 5).

**Gender gap:** Before lockdown, men worked more contracted hours than women (3.81 additional hours per week). This gap increased during early lockdown (4.15), and then decreased by tiered lockdown, resulting overall in an unchanged gender gap. Mothers' contracted hours increased from before lockdown to tiered lockdown (0.46), while non-parent women's contracted hours decreased by a similar amount (-0.42), resulting in no change for women overall. Contracted hours of fathers and non-parent men did not change from before lockdown to tiered lockdown.



**Table 5: Average contracted hours per week**

	Before lockdown (March 2020)	Early lockdown (May 2020)	Tiered lockdown (Oct 2020)	Difference Oct - March
Overall sample	34.67	33.91	34.66	-0.01
Gender gap	3.81**	4.15**	3.75**	-0.06
Gender gap with controls	3.35**	3.42**	3.60**	-0.02

Changes in percentage remote working were not associated with changes in contracted hours into early lockdown as per Table 6. Controlling for industry alone, increased contracted hours were associated with decreased remote working into tiered lockdown. Overall, there was no relationship.

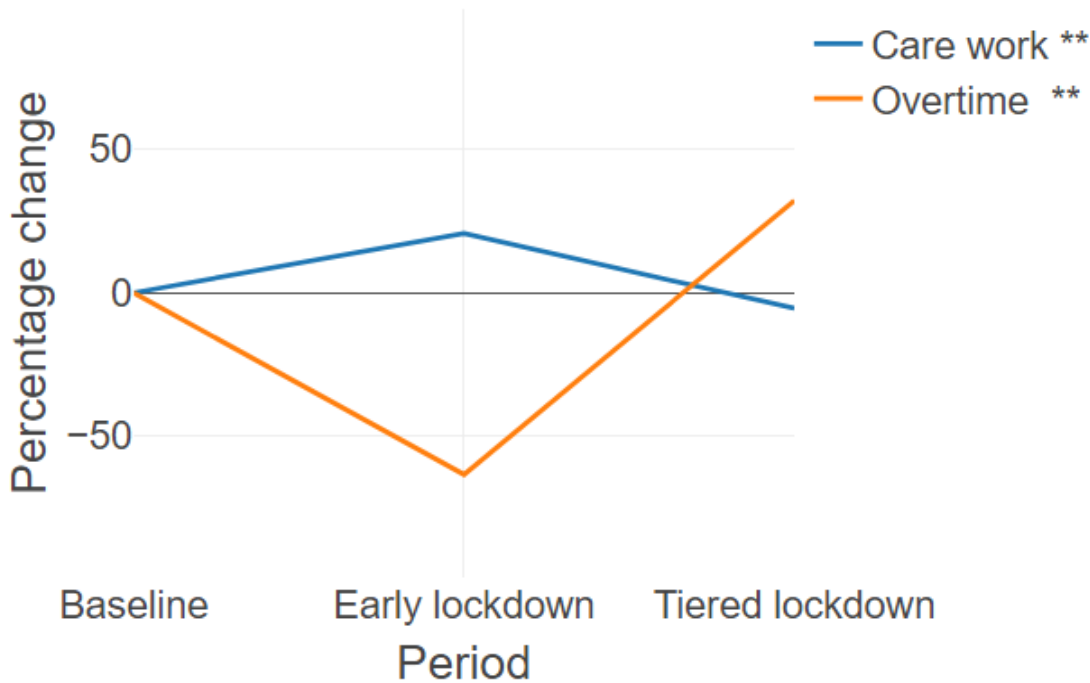
**Table 6: Relationship between changes in percentage remote work and contracted hours**

Relationships between remote work and contracted hours	Before to early lockdown March - May	Early to tiered lockdown May - October	Before to tiered lockdown March - October
No controls	0.17	-0.37	-0.18
All controls	0.32	-0.57**	-0.19
Only controlling for industry	0.32	-0.64**	-0.28

*Note: these are non-standardised beta values and so do not indicate the size of the correlation.*

### 1.3 Care work

**Figure 5: Raw changes in care work and overtime**



**Overall:** Time spent on care work increased from before (17.16 hours per week) to early lockdown (20.70) and then decreased in tiered lockdown (16.23), resulting overall in a decrease from before to tiered lockdown.

**Gender gap:** Before lockdown, women spent far more time on care (6.96 hours more per week), and the gender care gap increased during early lockdown (9.37), but it decreased by tiered lockdown, resulting overall in a decreased gender gap (4.59). During early lockdown mothers carried out 41.22 hours of care work on average, compared with 21.03 hours among fathers. The decrease in the gender care gap was driven by mothers doing less care work (-3.71), while non-parent women and men’s care work stayed the same. By tiered lockdown, mothers carried out 28.81 hours of care work compared with 18.31 hours by fathers.

**Table 7: Average care work hours per week**

	Before lockdown (March 2020)	Early lockdown (May 2020)	Tiered lockdown (Oct 2020)	Difference Oct - March
Overall sample	17.16	20.70	16.23	-0.92**
Gender gap	-6.96**	-9.37**	-4.59**	2.37**

Gender gap with controls	-5.69**	-7.36**	-3.57**	2.43**
--------------------------	---------	---------	---------	--------

A positive gender gap indicates higher for men and a negative gender gap indicates higher for women.

The relationship between **remote working** and **care work** changed over the course of lockdown. In early lockdown, increased remote working was strongly associated with increased care. By tiered lockdown, care work decreased to a much greater extent than remote working. Overall, increased remote working was associated with increased care work.

In early lockdown, women increased their **care work** to a greater extent than men with decreased **contracted hours**. As care work decreased, this relationship was no longer significant by tiered lockdown. Overall, women increased their care work to a greater extent than men with decreased contracted hours.

#### 1.4 Overtime

**Overall:** Overtime hours decreased from before (2.12 hours per week) to early lockdown (0.78) and then increased in tiered lockdown (2.80), resulting overall in an increase from before to tiered lockdown.

**Gender gap:** There was no gender gap in overtime hours before lockdown. Overtime hours decreased more for women than for men, leading to a gender gap in early lockdown, which remained in tiered lockdown. When controlling for other factors, men worked consistently more overtime than women at all time points.

**Table 8: Average overtime hours per week**

	Before lockdown (March 2020)	Early lockdown (May 2020)	Tiered lockdown (Oct 2020)	Difference Oct - March
Overall sample	2.12	0.78	2.80	0.68**
Gender gap	0.42	0.96**	0.91**	0.49
Gender gap with controls	0.72**	0.67**	1.88**	0.28

The relationship between **overtime** and **remote working** changed over the course of lockdown. There was no relationship between changes in remote working and overtime in early lockdown. By tiered lockdown, overtime was higher among those working more remotely and men increased overtime with increased remote working to a greater extent than women. Overall, there was no relationship between changes in overtime and remote working.

The relationship between **overtime** and **contracted hours** changed over the course of lockdown. In early lockdown, overtime decreased less for those who decreased their contracted hours. By tiered lockdown, overtime increased more for those who increased their contracted hours. Overall, overtime increased more for those who decreased or did not change their contracted hours.

## 2. Changes in gender equality outcomes

In this section, we highlight changes in self-rated performance and work-life conflict, and discuss how these are associated with changes in working patterns and care.

**Figure 6: Raw changes in self-rated performance and work-life conflict**



### 2.1 Self-rated performance

**Overall:** Self-rated performance decreased from before lockdown (3.88 on a 7-point Likert scale) to early lockdown (3.77) and then slightly increased by tiered lockdown (3.83), resulting overall in a decrease from before lockdown to tiered lockdown.

**Gender gap:** Before lockdown, women’s self-rated performance was higher than men’s (0.09 on a 7-point Likert scale), but women’s self-rated performance decreased to a greater extent than

men's, closing the gap in early lockdown (-0.05). The gap remained closed, resulting in an overall decrease in the gender gap by tiered lockdown (-0.01).

**Table 9: Average values for self-rated performance (7-point Likert scale)**

	Before lockdown (March 2020)	Early lockdown (May 2020)	Tiered lockdown (Oct 2020)	Difference Oct - March
Overall sample	3.88	3.77	3.83	-0.05**
Gender gap	-0.09**	-0.05	-0.01	0.08**
Gender gap with controls	-0.10**	-0.08**	-0.04	0.06*

**Relationships (illustrated in Figure 7):**

We also looked at gender-dependent relationships between changes in flexible working patterns and care work and changes in self-rated performance. The exact relationships are presented in Appendix F.

Working patterns and self-rated performance

- Changes in **remote work** and **contracted hours** were not directly associated with changes in **self-rated performance**.

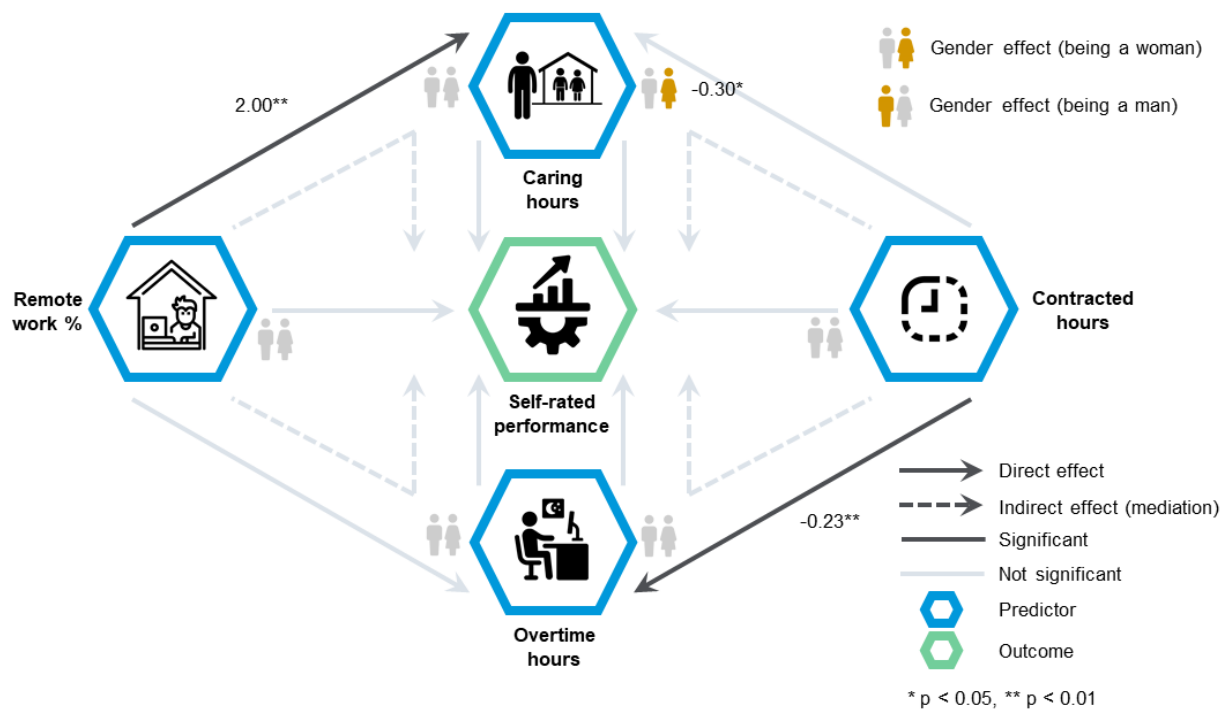
Care work and self-rated performance

- Changes in **care work** had a negative relationship with **self-rated performance** from before to early lockdown. Increased care was associated with decreased self-rated performance in early lockdown. This relationship did not exist by tiered lockdown or overall.
- **Remote work** had an indirect relationship with **self-rated performance** through **care work** from before to early lockdown. Since remote work was associated with increased care, it was this increase in care that drove an indirect negative relationship with self-rated performance for both men and women in early lockdown. This relationship did not exist by tiered lockdown or overall.
- **Contracted hours** had an indirect relationship with **self-rated performance** through **care work** in early lockdown for women, but not men. As women increased their care work with decreased hours to a greater extent than men, this had an indirect negative relationship with their self-rated performance. This relationship did not exist by tiered lockdown or overall.

Overtime and self-rated performance

- Changes in **overtime** had a positive relationship with **self-rated performance** in early lockdown: decreased overtime was associated with decreased self-rated performance. This relationship did not exist by tiered lockdown or overall.
- **Contracted hours** had an indirect relationship with **self-rated performance** through **overtime** in early lockdown: the smaller decrease in overtime associated with decreased contracted hours buffered a reduction in self-rated performance. This relationship did not exist by tiered lockdown or overall.

**Figure 7: Overview of the relationships between changes in predictors and self-rated performance from before to tiered lockdown**



## 2.2 Work-life conflict

**Overall:** Work-life conflict decreased from before (3.46 on a 7-point Likert scale) to early lockdown (3.11) and then increased slightly in tiered lockdown (3.16), resulting overall in a decrease from before lockdown to tiered lockdown.

**Gender gap:** There was no gender gap in work-life conflict, but a gender gap emerged in tiered lockdown with women experiencing greater work-life conflict than men (0.09). If controlling for other factors, there was no gender gap and this was the case at all time points.

For most groups the decrease in work-life conflict was retained into tiered lockdown, apart from non-parent women who were the only group to experience an increase, but this was from a lower baseline. This meant that non-parent men and women had similar levels of work-life conflict in tiered lockdown, fathers had a higher level than non-parents and mothers had the highest levels of conflict.

**Table 10: Average values for work-life conflict (7-point Likert scale)**

	Before lockdown (March 2020)	Early lockdown (May 2020)	Tiered lockdown (Oct 2020)	Difference Oct - March
Overall sample	3.46	3.11	3.16	-0.31**
Gender gap	0.00	-0.03	-0.09*	-0.09
Gender gap with controls	-0.02	-0.05	-0.01	-0.04

**Relationships (illustrated in Figure 8):**

Working patterns and work-life conflict

- Overall, increased **remote work** was associated with increased **work-life conflict**, while there was no relationship between time points.
- The relationship between **contracted hours** and **work-life conflict** changed over the course of lockdown. Into early lockdown, there was no direct relationship with changes in work-life conflict. By tiered lockdown, work-life conflict increased as contracted hours increased. Overall, there was no relationship as contracted hours did not change while work-life conflict decreased.

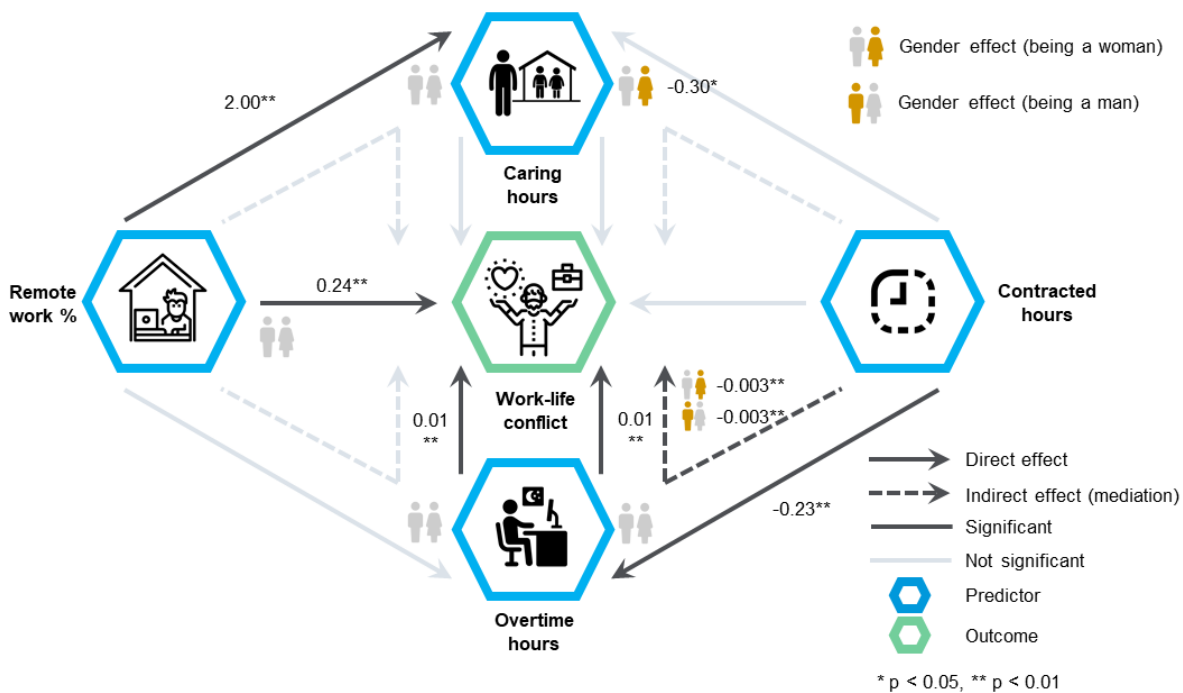
Care work and work-life conflict

- As **care work** greatly increased in early lockdown it was associated with increased **work-life conflict**. Decreased care work in tiered lockdown was associated with a smaller increase in work-life conflict. Overall, there was no direct relationship between changes in care work and work-life conflict although both decreased from before to tiered lockdown.
- **Remote work** had an indirect relationship with changes in **work-life conflict** through **care work** between time points. Had increased remote work not been associated with increased care work in early lockdown, work-life conflict would have been lower. Similarly, in tiered lockdown, decreased care work was associated with remote work, indirectly reducing work-life conflict.
- **Contracted hours** also had an indirect relationship with **work-life conflict** through **care work** for women, but not men, in early lockdown. As women increased care work to a greater extent than men with decreased contracted hours, their work-life conflict did not reduce to the same extent in early lockdown. There were no indirect relationships at other time points.

Overtime and work-life conflict

- Changes in **overtime** had a positive relationship with changes in **work-life conflict** at all time points: decreased overtime with decreased work-life conflict in early lockdown, and increased overtime with increased work-life conflict in tiered lockdown. Overall, increased overtime was associated with increased work-life conflict.
- **Remote work** had an indirect relationship with changes in **work-life conflict** through **overtime** for men but not women in tiered lockdown: men increased overtime with remote work to a greater extent in tiered lockdown than women and this was indirectly related to an increase in men's work-life conflict. There were no indirect relationships overall or at other time points.
- **Contracted hours** had an indirect relationship with **work-life conflict** through **overtime** for both men and women at all time points: where changes in contracted hours were associated with an increase in overtime, this was indirectly associated with increased work-life conflict; and with a decrease in overtime, decreased work-life conflict.

**Figure 8: Overview of the relationships between changes in predictors and work-life conflict from before to tiered lockdown**

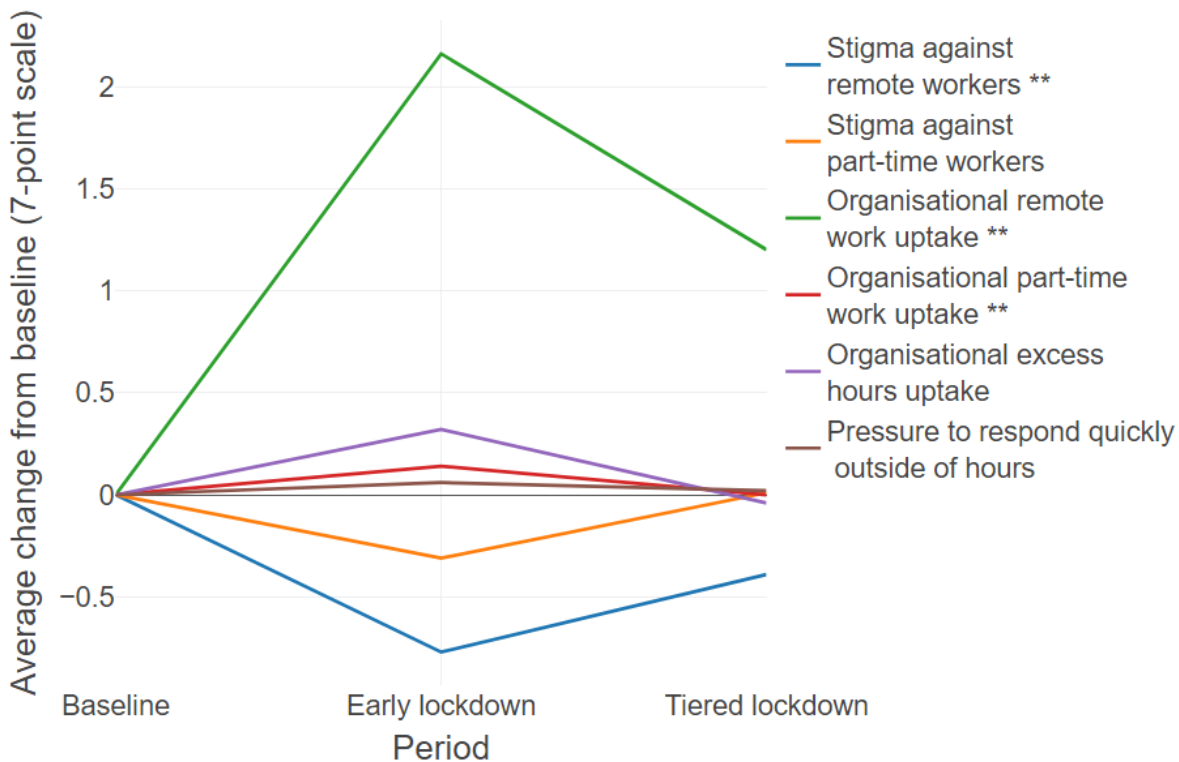


### 3. Changes in work norms and work design factors

In this section, we present how work norms and work design factors changed across time. Attitudes were measured on a 7-point Likert scale with participants presented with response options from 'Strongly disagree' to 'Strongly agree' (see survey text in Appendix C).



**Figure 9: Raw changes in work norms**



### 3.1 Changes in flexibility stigma

- Flexibility stigma (the belief that flexible workers are less committed to their job) towards remote workers decreased from before (3.82 on a 7-point Likert scale) to early lockdown (3.05) and then slightly increased in tiered lockdown (3.43), resulting in an **overall 10% decrease**.
- Stigma towards part-time workers decreased from before (3.82 on a 7-point Likert scale) to early lockdown (3.51) and then increased in tiered lockdown (3.83), resulting overall in no change. When controlling for other factors, stigma towards part-time workers **decreased by 2% overall**.

### 3.2 Changes in perceived organisational uptake of flexible working

- Perceptions about the proportion of colleagues working remotely in participants' organisations increased from before (2.25 on a 7-point Likert scale) to early lockdown (4.41) and then decreased in tiered lockdown (3.45), resulting in an **overall 53% increase**.
- Perceived proportion of colleagues working part-time increased from before (2.74 on a 7-point Likert scale) to early lockdown (2.88) and then slightly decreased in tiered lockdown (2.80), resulting in an **overall 2% increase**.

### 3.3 Changes in perceptions around working outside of hours

- Perceptions about how widespread regularly working beyond contracted hours is in participants' organisations increased from before (4.37 on a 7-point Likert scale) to early lockdown (4.69) and then decreased in tiered lockdown (4.33), resulting in no change

overall. When controlling for industry, perceived organisational uptake of excess hours **decreased by 5% overall**.

- Feeling that colleagues expect a quick response outside of hours increased from before (3.76 on a 7-point Likert scale) to early lockdown (3.82) and then slightly decreased in tiered lockdown (3.78) resulting in no change overall. When controlling for industry, perceived pressure to respond quickly out of hours **increased by 14% overall**.

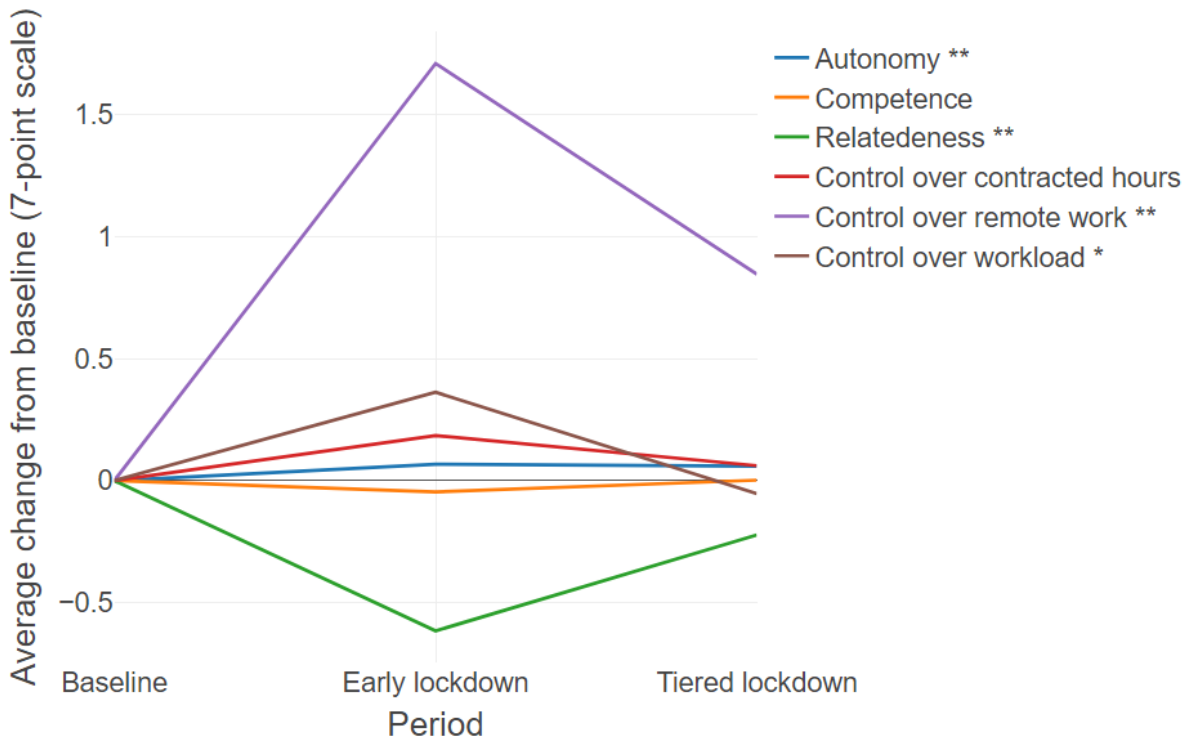
**Table 11: Average values for flexibility stigma and perceived uptake of flexible working**

Outcome	Measure	Before lockdown (March 2020)	Early lockdown (May 2020)	Tiered lockdown (Oct 2020)	Difference Oct - March
Flexibility stigma (7-point Likert scale)	Towards remote workers	3.82	3.05	3.43	<b>-0.39**</b>
	With controls	4.13	3.34	3.86	<b>-0.25**</b>
	Towards part-time workers	3.82	3.51	3.83	0.00
	With controls	4.22	3.92	4.12	<b>-0.08**</b>
Perceived organisational uptake of flexible working (7-point Likert scale)	Remote work uptake	2.25	4.41	3.45	<b>1.20**</b>
	With controls	2.53	4.70	4.57	<b>2.03**</b>
	Part-time work uptake	2.74	2.88	2.80	<b>0.06**</b>
	With controls	2.55	2.79	2.99	<b>0.46**</b>
Working outside of hours (7-point Likert scale)	Organisational uptake of excess hours	4.37	4.69	4.33	-0.04
	With controls	4.97	4.93	4.54	<b>-0.44**</b>
	Perceived pressure to respond quickly outside of hours	3.76	3.82	3.78	0.02
	With controls	3.74	3.79	4.21	<b>0.50**</b>

The statistical significance of changes is based on pairwise tests. Significance is indicated by \*  $p < 0.05$  and \*\*  $p < 0.01$ .

### 3.4 Changes in work design factors

Figure 10: Raw changes in work design factors



- **Perceived control over remote work** increased from before (2.84 on a 7-point Likert scale) to early lockdown (4.55) and then decreased in tiered lockdown (3.75), resulting in an **overall 32% increase**.
- **Perceived control over contracted hours** increased from before (3.19 on a 7-point Likert scale) to early lockdown (3.38) and then decreased in tiered lockdown (3.24), resulting overall in no change. However, when controlling for industry, perceived control over contracted hours **decreased by 9%** from before to tiered lockdown.
- **Perceived control over workload** increased from before (3.93 on a 7-point Likert scale) to early lockdown (4.29) and then decreased in tiered lockdown (3.87), resulting in an **overall 2% decrease**.
- **Autonomy** (ability to decide how to carry out work and having a manager that trusts one to work independently) increased from before (5.40 on a 7-point Likert scale) to early lockdown (5.47) and remained unchanged in tiered lockdown (5.47), resulting in an **overall 1% increase**.
- **Competence** (how much one feels their contributions are valued by their team or manager) decreased from before (5.31 on a 7-point Likert scale) to early lockdown (5.27) and then increased in tiered lockdown (5.32), resulting overall in no change from before to tiered lockdown. When controlling for industry, competence **increased by 4%** from before to tiered lockdown.

- **Relatedness** (how much one interacts with colleagues and feels a sense of belonging at work) decreased from before (5.22 on a 7-point Likert scale) to early lockdown (4.60) and then increased in tiered lockdown (4.95), resulting in an **overall 5% decrease**.

**Table 12: Average values for work design factors**

Measure	Before lockdown (March 2020)	Early lockdown (May 2020)	Tiered lockdown (Oct 2020)	Difference Oct - March
Control over remote work	2.84	4.55	3.75	<b>0.92**</b>
With controls	3.56	4.91	4.41	<b>0.85**</b>
Control over contracted hours	3.19	3.38	3.24	0.05
With controls	3.61	3.92	3.14	<b>-0.46**</b>
Control over workload	3.93	4.29	3.87	<b>-0.06*</b>
With controls	4.45	4.46	3.79	<b>-0.67**</b>
Autonomy	5.40	5.47	5.47	<b>0.07**</b>
With controls	5.21	5.10	5.25	<b>0.03**</b>
Competence	5.31	5.27	5.32	0.01
With controls	5.19	5.00	5.21	<b>0.03**</b>
Relatedness	5.22	4.60	4.95	<b>-0.27**</b>
With controls	5.00	4.66	4.84	<b>-0.18**</b>

*'With controls' indicates the coefficient extracted from a regression model accounting for control variables. Significant results are in bold. \*  $p < 0.05$ , \*\*  $p < 0.01$ .*

## 4. Predictors of sustained flexible working

In this section, we outline which variables were predictive of flexible working retention.

### 4.1 Factors predictive of sustained remote work in tiered lockdown

We explored how flexible working retention was associated with the following factors: gender, household income, parental status, ethnicity, relationship status, age, industry as well as a number of work design factors and work norms.

Looking only at the sub-group of the sample who started or increased their remote working in early lockdown (56%), we looked at which factors predicted retaining or increasing their remote work in tiered lockdown (Table F2 in Appendix F). The following factors were predictive of sustained remote working:

- Not being a parent (0.30\*)

- 
- Lower organisational stigma towards remote workers (0.14<sup>\*\*</sup>)
  - Higher control over remote work (0.12<sup>\*\*</sup>)
  - Higher organisational remote work uptake (0.12<sup>\*\*</sup>)
  - Higher household income (0.09<sup>\*</sup>)

The following factors were positively associated with remote working from early to tiered lockdown (Table F4 in Appendix F):

- Higher control over remote work (0.28<sup>\*\*</sup>)
- Not being a parent (0.21<sup>\*\*</sup>)
- Higher organisational remote work uptake (0.17<sup>\*\*</sup>)
- Lower organisational uptake of working in excess of contracted hours (0.07<sup>\*\*</sup>)
- Lower organisational stigma towards remote workers (0.05<sup>\*</sup>)
- Lower organisational uptake of part-time work (0.05<sup>\*</sup>)

#### **4.2 Factors predictive of sustained reduced contracted hours in tiered lockdown**

Looking only at the sub-group of the sample who reduced their contracted hours in early lockdown (11%), we looked at which factors predicted retaining reduced hours or decreasing further in tiered lockdown (Table F5 in Appendix F). The following factor was predictive of sustained reduced hours:

- Lower control over remote work (0.19<sup>\*</sup>)

There were no predictive factors associated with retaining or increasing contracted hours from early to tiered lockdown (Table F7 in Appendix F).



# **Discussion and conclusion**

---

# Discussion and conclusion

## Discussion

This research explored changes in flexible working, unpaid care work, workplace outcomes and work-life conflict by gender across different stages of lockdown among the UK working population: from before the lockdown in March to early lockdown in May and tiered lockdown in October 2020. While many changes partially reverted by tiered lockdown from the dramatic changes in early lockdown, most were sustained to some extent in the longer term.

### Care and work-life conflict

**The existing 7-hour gender care gap slightly increased to 9 hours in early lockdown and then decreased to 5 hours by tiered lockdown.** The overall decrease in the gender care gap was driven by mothers reducing their unpaid care work, which includes childcare, housework and adult care. At all time points, mothers carried out a far greater share of care work than fathers and this was exacerbated in early lockdown. Even though fathers increased their care work from before lockdown (an extra 3.5 hours per week on average), working mothers spent an alarmingly high 41 hours per week on care work during early lockdown, almost twice as much as fathers (21 hours) despite only working 5 fewer hours. This led to an increase in the gender care gap between parents from 15 hours to 20 hours per week. This contradicts other research with dual-earner parents that found a decrease in the gender care gap in early lockdown, most likely because of differences in the samples (this sample included single parents, non-parents and parents where only one is earning an income).<sup>37</sup> In our sample, the initial increase in the gender care gap reversed in tiered lockdown and decreased to around 5 hours overall or 10 hours between parents, but the decrease was driven by working mothers decreasing their care work rather than fathers increasing theirs. This may have been due to mothers with the highest volumes of care work leaving the workforce rather than an actual decrease in the care load. Non-parents did not experience much change in their levels of care work throughout lockdown and no change from baseline. ONS data suggest that the gap in time spent on unpaid childcare and household work widened by September and early October compared to 2014/2015, which is likely due to our sample excluding women not in paid work.<sup>38</sup> Nevertheless, studies consistently find that women carried out a far greater share of the care work during all stages of lockdown.<sup>39</sup>

**Overall, work-life conflict decreased, but a gender gap emerged.** While both women and men had similar levels of work-life conflict before lockdown, men experienced a greater decrease in work-life conflict, creating a small gap between them. This appears to be driven mainly by a

---

<sup>37</sup> Chung, H., Birkett, H., Forbes, S., & Seo, H. (2021). Covid-19, Flexible Working, and Implications for Gender Equality in the United Kingdom. *Gender & Society*, 08912432211001304.

<sup>38</sup> [ONS. \(2020\). A "new normal"? How people spent their time after the March 2020 coronavirus lockdown](#)

<sup>39</sup> [Oreffice, S., & Quintana-Domeque, C. \(2020\). Gender inequality in COVID-19 times: Evidence from UK Prolific participants.](#)

difference emerging between mothers and fathers. We know that mothers spent more time on care work than fathers and other multi-country research finds that to the extent that women spent more time on housework during COVID-19 they reported lower subjective wellbeing.<sup>40</sup> However, in our sample, mothers were the only group whose care work decreased from before lockdown to tiered lockdown, for the rest it stayed the same. It is likely that there were other aspects to work-life conflict that we did not measure that may have contributed to a smaller decrease in work-life conflict for mothers, who still carried out the greatest volume of care work, such as guilt, exhaustion and difficulty managing boundaries between work and home. However, it is worth remembering that work-life conflict still decreased overall, which may have been because many other aspects of 'life', such as social obligations or travel, decreased for everyone, but perhaps also some aspects of 'work' became less difficult, such as not having to wear formal clothing or reduced in-person stressful interactions. As expected, mothers experienced the highest work-life conflict at all time points.

### **Remote working**

**Remote working increased dramatically during early lockdown and remained significantly higher in tiered lockdown.** Before lockdown, only 13% of our sample worked fully remotely, while by tiered lockdown just under half (44%) were working fully remotely. This is in line with ONS data that shows that working from home greatly increased from before lockdown and remained high in October 2020.<sup>41</sup> However, ONS data suggest that a smaller percentage of the overall UK employed population worked fully remotely (29%) and a higher proportion were not working remotely at all (58%) in mid-October than our sample.<sup>42</sup> This likely reflects differences in our sample as we excluded the self-employed and industries that were largely shut down in May.

**The small gender gap in remote working did not change overall, with men working more remotely than women.** When only controlling for industry, the gender gap in remote work reversed with women doing more work remotely than men by tiered lockdown. This suggests that within the same industries, women were more likely to work remotely than men by tiered lockdown. At the same time women were less likely to work in industries with access to remote working, so the raw gender gap is explained by gender differences in industry. For example, industries with below average access to remote work made up of predominantly women included medical and healthcare, primary/secondary education, or residential care and social work. Meanwhile male-dominated industries with above average access to remote work included government and public administration, finance and insurance, and information services and data processing.

**Remote working became more normalised.** Stigma towards remote workers decreased by 10%. At the same time, the perceived proportion of colleagues working remotely increased by

---

<sup>40</sup> Giurge, L. M., Whillans, A. V., & Yemiscigil, A. (2021). A multicountry perspective on gender differences in time use during COVID-19. *Proceedings of the National Academy of Sciences of the United States of America*, 118(12).

<sup>41</sup> [ONS. \(2020\). A "new normal"? How people spent their time after the March 2020 coronavirus lockdown](#)

<sup>42</sup> [ONS \(2021\) Coronavirus and the social impacts on Great Britain: 26 March 2021](#)



---

53%, which is especially important as women experience a greater reduction in work-life conflict as more colleagues work from home than men.<sup>43</sup> These findings suggest that externally driven behaviour changes and the perception of the behaviours of others can influence attitude change. Stigma towards remote workers dropped more dramatically in early lockdown and increased slightly by tiered lockdown suggesting that attitudes follow behaviour. This also suggests that these changes may be fragile and as restrictions lift, workers may need reassurance that they can continue to work remotely beyond the pandemic, supported by observing that increased remote working is the new norm, including and especially among senior leadership. This is important as there is a strong appetite for greater flexible working when all restrictions are lifted.

**Appetite for remote working is high, but organisations can do more to support its sustainability.** Surprisingly, perceived control over remote work was higher in early lockdown and remained above baseline in tiered lockdown despite its mandatory enforcement. This suggests that, on average, increased remote working is in line with employee preferences. The average number of ideal remote working days for after the pandemic was 2.7 days, nearly a day greater than US-based research,<sup>44</sup> which may reflect UK differences or that we only measured preferences among those with access to remote work. It is worth noting that the variation behind the average was great as the vast majority (84%) of our sample with access to remote working in their role wanted to work remotely to some extent after the pandemic and over a quarter (28%) wanted to work fully remotely. Perceptions of autonomy and feeling valued increased, which may be due to increased control over remote working. However, feelings of relatedness in terms of interacting with colleagues and having a sense of belonging was still 5% lower than before lockdown in tiered lockdown. This is a key area that organisations need to pay attention to in order to better support their employees.

**Employees sustained remote working into tiered lockdown in workplaces where it was more normalised.** Factors that predicted sustained remote working into tiered lockdown included greater control over working remotely, lower stigma towards remote workers and a higher perceived proportion of colleagues working remotely. These reflect the importance of organisational cultures that normalise remote working and facilitate employee choice over remote work. It is worth noting that in our sample we found that among those with access to remote work, the more people with access to remote work in an industry, the higher the number of ideal remote days. This suggests that the broader culture and operational challenges in an industry play an important role in preferences for remote working. Behind these averages, there was great variation between industries, so employers should note that their own organisation may look quite different to the UK average. At the same time, parents were less likely to continue working remotely in tiered lockdown from early lockdown. Even though parents started with higher rates of remote working, by tiered lockdown they were working remotely at lower rates than non-parents, with mothers working remotely the least. It is not clear whether this was because parents occupy

---

<sup>43</sup> Van der Lippe, T., & Lippényi, Z. (2018). Beyond Formal Access: Organizational Context, Working From Home, and Work–Family Conflict of Men and Women in European Workplaces. *Social Indicators Research*, 151(2), 383–402.

<sup>44</sup> Barrero, J. M., Bloom, N., & Davis, S. J. (2020). Why Working From Home Will Stick. *SSRN Electronic Journal*.

different kinds of jobs (within industries) to non-parents or if they chose to work less remotely. The latter would not be surprising given the high number of interruptions during paid work hours reported by parents, particularly mothers, in early lockdown.<sup>45</sup> It is likely that parents would benefit most from a combination of remote and onsite working and, indeed, a majority of parents with access to remote work (55%) would like to work in a combination of onsite and from home. In addition, greater household income was (weakly) associated with sustained remote working. This is in line with research from Italy which finds a link between higher paid occupations and remote working.<sup>46</sup> Furthermore, experience of working from home may be better for those with higher incomes as they are more likely to have adequate workspaces.

**Remote work facilitated more time spent on care to the same extent for men and women.** In early lockdown, increases in remote working were associated with increases in care to a similar extent for men and women. This relationship was also observed for the overall period from before to tiered lockdown, although care work decreased to a much greater extent than remote working in tiered lockdown. Through increased care, increased remote working in early lockdown was indirectly associated with decreased self-rated performance and increased work-life conflict. These findings demonstrate the importance of accounting for changes in care work at home when assessing the impact of remote working on productivity, especially when limited childcare options are available. However, overall, increased remote working had a direct relationship with increased work-life conflict from before to tiered lockdown that was not mediated by care. Further subgroup analysis found that this was driven by parents, as there was no relationship for non-parents. As noted before, parents are likely to need a combination of remote and home to manage different kinds of responsibilities from both work and home throughout the week.

## Hours

**Contracted hours stayed at pre-lockdown levels, while overtime increased.** Contracted hours among those who remained in employment decreased in early lockdown, but recovered to the same levels as before. At the same time, overtime decreased greatly in early lockdown, but increased to greater levels than before lockdown by tiered lockdown. This increase in overtime while contracted hours did not change suggests that work potentially became more precarious and unpredictable. This may have been an unintended consequence of the furlough scheme, which in its early form required individuals to have all their hours furloughed or none, likely shifting some of their hours onto colleagues still in work. It is also possible that wider instability and uncertainty in the labour market may be driving these findings.

**Women had fewer contracted hours before lockdown, and this gender gap did not change among those in employment.** Women were contracted to work just under four hours less than men on average per week and this did not change. Women's hours originally reduced more than

---

<sup>45</sup> [Institute for Fiscal Studies \(2020\). How are mothers and fathers balancing work and family under lockdown?](#)

<sup>46</sup> Bonacini, L., Gallo, G., & Scicchitano, S. (2021). Working from home and income inequality: risks of a 'new normal' with COVID-19. *Journal of population economics*, 34(1), 303-360.

[Daniel, D., Nicolas, N., Ozden, C., Rijkers, B., Viollaz, M., & Winkler, H. \(2020\). Who on earth can work from home?. The World Bank](#)

---

men's but then recovered to pre-lockdown levels in the same way as men's hours. Interestingly, mothers experienced the opposite change in hours to non-parent women. Mothers started with the lowest number of hours and experienced an increase in contracted hours from before to tiered lockdown, while non-parent women experienced a similar sized decrease. It may be that non-parent women were more likely to work in roles that experienced a greater reduction in operations. One report suggests that women were more likely to work in shutdown sectors although it does not provide a breakdown by parental status.<sup>47</sup> Mothers' early reduction in hours was most likely affected by the changing availability of childcare as schools were closed in May. However, their hours recovered and increased slightly by tiered lockdown, and it is not clear why this may be. We speculate that it may be that economic uncertainty meant mothers took on more hours as their hours were the lowest to begin with or mothers with the greatest care burden were working fewer hours and left the workforce and so increased the in-work average. At the same time, men's average contracted hours were very similar, whether they were fathers or not, at all three time points.

**A gender gap in overtime emerged.** A gender gap in overtime emerged by tiered lockdown as fathers increased their overtime to the greatest extent, although if controlling for industry men worked more overtime before lockdown too. It is important to note that our sample excluded people who left employment or were on furlough. Women are less likely to be in paid work than men generally<sup>48</sup> and this was true during lockdown.<sup>49</sup> According to HMRC data, a higher number of women in the UK were on furlough than men throughout the period March to October 2020.<sup>50</sup> It is not clear if women were more likely to lose employment due to the pandemic than men in the UK.<sup>51</sup>

**Among those whose contracted hours decreased, women increased their care work to a greater extent than men.** While increased remote working was associated with similar increases in care work for men and women, women were more likely to repurpose lost hours of work for care. This associated increase in care work was indirectly related to decreased self-rated performance and decreased work-life conflict for women but not men into early lockdown. Women make up the majority of part-time workers and the stigma attached is gendered, putting men off from working part-time for the purposes of care work likely because of this motherhood

---

<sup>47</sup> [Institute for Fiscal Studies \(2020\) Sector shutdowns during the coronavirus crisis: which workers are most exposed.](#)

<sup>48</sup> [ONS: Employment and Employee types](#)

<sup>49</sup> [ONS \(2020\) Employment in the UK: November 2020](#)

<sup>50</sup> [HMRC \(2020\) Coronavirus Job Retention Scheme statistics: December 2020](#)

<sup>51</sup> According to the Institute for Fiscal Studies, women were about one third more likely to work in shutdown sectors and mothers were more likely than fathers to have lost or quit or been furloughed since the start of the lockdown. HMRC data suggests that women overall were more likely to be furloughed. However, ONS data suggest that men had higher redundancy rates than women and saw a higher increase in unemployment than women in Q2-Q3 2020 compared to the previous year.

[HMRC \(2020\) Coronavirus Job Retention Scheme statistics: October 2020](#)

[Institute for Fiscal Studies \(2020\) How are mothers and fathers balancing work and family under lockdown?.](#)

[Institute for Fiscal Studies \(2020\) Sector shutdowns during the coronavirus crisis: which workers are most exposed.](#)

[ONS: People not in work – unemployment;](#) [ONS: People not in work – redundancies](#)

association.<sup>52</sup> Meanwhile, remote working, particularly during the pandemic, does not have the same gendered image (yet), which may explain these differences.

**Part-time working was perceived as slightly more normalised.** Surprisingly, the perceived proportion of colleagues working part-time increased by 2% and this was accompanied with a small 2% decrease in stigma towards part-time workers. At the same time, we did not see a change in contracted hours overall in our sample, so this could either be inaccurate perceptions or suggest that those in our sample were less likely to see their hours change than wider colleagues (for example, if they had been on furlough in early lockdown). Either way, it suggests that part-time work was perceived to be slightly more normalised. At the same time, the perceived proportion of colleagues regularly working beyond their contracted hours decreased slightly by 5%. This also contrasts with our finding that overtime increased in the sample. Both findings could suggest the visibility of excessive working may have decreased while visibility of part-time working increased, even if there were no actual changes.

**Increased overtime was accompanied by decreased control over contracted hours and workload.** Both control over contracted hours and workload increased in early lockdown, when overtime saw a large decrease. However, as overtime increased beyond pre-lockdown levels, perceptions of control over hours decreased by 9%. Meanwhile, control over workload slightly decreased by 2% and this was accompanied by a 14% increase in feeling pressured to respond quickly outside of hours. This is supported by US-based evidence that measured the length of the workday among knowledge workers and found that the workday increased by nearly an hour, along with a greater volume of emails.<sup>53</sup> These findings align with the idea that work became more unpredictable.

**Changes in overtime were consistently associated with changes in work-life conflict.** As overtime decreased in early lockdown, work-life conflict decreased, and as it increased in tiered lockdown, work-life conflict increased. Meanwhile, there was a strong relationship between care work and work-life conflict in early lockdown when the volume of care work saw a steep increase. However, overall there was no relationship; although both care work and work-life conflict decreased. One possibility is that subjective work-life conflict depends more heavily on the expectations we have for our time, even if care work and overtime both reduce leisure time. Overtime is likely a greater violation of our expectations for our personal time than care work. This could explain the stronger direct relationship that overtime has with the experience of work-life conflict than care work.

### **Relationship between remote working and hours**

**Remote work and part-time working appear to be negatively related.** From early to tiered lockdown, increased contracted hours were associated with decreased remote working. However,

---

<sup>52</sup> Rudman, L. A., & Mescher, K. (2013). Penalizing men who request a family leave: Is flexibility stigma a femininity stigma? *Journal of Social Issues*, 69(2), 322-340.

<sup>53</sup> DeFilippis, E., Impink, S. M., Singell, M., Polzer, J. T., & Sadun, R. (2020, July 7). Collaborating during coronavirus: The impact of COVID-19 on the nature of work. *National Bureau of Economic Research*.

---

this may have been due to work that could not be performed remotely becoming available again. Also in this time period, increased remote work was associated with increased overtime and more so for men than women. Overall, these changes seemed to revert back to baseline, such that from before lockdown to tiered lockdown, there were no significant relationships between changes in remote working and contracted hours or overtime, suggesting that these were particular to the transitions between lockdowns. More interestingly, sustained remote working was predicted by a lower organisational uptake in part-time work and sustained reduced hours were predicted by lower control over remote work. These suggest that to some extent one form of flexibility could be compensating for the other in that lower access to one form of flexibility could mean employees lean on another. While we cannot be sure from this study, the potential for remote work to lead to reduced time-based flexibility is of concern for long-term gender equality since care work will typically require some level of reduction in working time. If remote working leads to longer working days, we could quickly see remote work become gendered in the opposite direction to part-time work. This is supported by other research that finds that if flexible working is used for care it is more likely to result in negative career outcomes than if it is used for productivity.<sup>54</sup> Further research should monitor for this potential negative impact of remote working on gender equality.

### **Research limitations**

When we began this project, we had hoped to examine the impact of nationwide enforced changes due to COVID-19 on behaviours and attitudes towards remote and part-time work when life returned to “normal.” Unfortunately, the pandemic lasted longer than initially anticipated and though we could not compare before-during-after, we could compare before lockdown attitudes and behaviours to the first lockdown attitudes and behaviours to those in tiered lockdown. Future research will need to see to what extent these changes persist when the world does return to “normal.” There are four other limitations to our research that we discuss in this section.

First, despite controlling for the type of industry that a person is working in, we could not control for their seniority or job type, which may explain some of the gender differences in our results.

Second, various characteristics of the sample make it likely that it is not fully representative of the overall working UK population. The sample only included those who remained in work during lockdown, were not self-employed and did not work in shutdown industries. In addition, people who complete online surveys are more likely to be comfortable with technology and so are possibly more likely to work from home. Therefore, some results may reflect the fact that those in our sample will have had greater access to remote working. However, it is worthwhile noting that before lockdown two-thirds (66.7%) of the sample did not work remotely at all. During early lockdown a sizable portion (30.8%) did not, but this is still 12 percentage points lower than the broader UK working population.<sup>55</sup>

---

<sup>54</sup> Leslie, L. M., Manchester, C. F., Park, T. Y., & Mehng, S. A. (2012). Flexible work practices: a source of career premiums or penalties? *Academy of Management Journal*, 55(6), 1407-1428.

<sup>55</sup> [ONS \(2020\) Coronavirus and the social impacts on Great Britain: 23 October 2020](#)

It is also possible that there are other differences in our sample compared with the wider working population in other unobserved characteristics. For instance, during lockdown, parents (13.6%) were nearly twice as likely to be furloughed than those without children (7.2%).<sup>56</sup> This raises the possibility that the parents in our sample (who were still in work) may be different to those who were no longer in work. As our results relate specifically to those still in work during lockdown, they may not necessarily be representative of the total working age population. Nonetheless, as the majority of the employed population stayed in work during lockdown, these results are still relevant to the majority of the working population.

Third, we imputed missing data from those who were in the first survey but did not respond to the second survey. We cannot know to what extent the data were missing at random or not at random (i.e. characteristics that we did not measure may have made someone more or less likely to respond to the second survey), so the findings could be biased in a way that is difficult to predict without knowing what led to missing data. However, if characteristics that we did measure, such as gender, meant an individual was more or less likely to respond to the second survey, the imputation method we chose accounted for this.

Finally, this study relies on retrospective self-reported data about the time before lockdown, which at the time of the survey was three months in the past. It is possible that our results are affected by memory biases. We took precautions in the design of the survey to reduce the influence of these biases, for example, by asking about before lockdown first, asking specifically about the previous week during lockdown and ensuring that emotive questions, such as work-life conflict, came first.

---

<sup>56</sup> [ONS \(2020\) Personal and economic well-being in Great Britain: June 2020](#)

---

## Conclusion

Lockdown has served as a 'habit disrupter' forcing organisations to quickly find remote working solutions and develop new ways of working. While some of these new habits may stick, this depends on how robustly remote working is embedded into working culture and whether the organisation has the right work design factors in place to enable successful flexible working.

**Location-based flexibility improved.** Levels of remote working dramatically increased with the majority not working remotely at all (67%) before lockdown to the majority working remotely to some extent in tiered lockdown (57%). Attitudes closely followed the enforced increase in remote working as stigma towards remote workers reduced by 10%. Remote working became more normalised as the perceived proportion of colleagues working remotely increased by 53%. Employees largely welcomed the increase in remote working as perceived control over remote work increased by 32% despite it being externally imposed, and this was supported by the finding that the vast majority (84%) of employees with access to remote working would like to continue to work remotely to some extent. However, it is worth noting that a significant proportion of the workforce does not have access to remote working, including 34% of our sample, and women were slightly more likely to work in industries that do not have access to remote work.

**Time-based flexibility worsened.** While contracted hours dipped in early lockdown, by tiered lockdown they had recovered. At the same time, overtime had increased by 32% above pre-lockdown levels in tiered lockdown. This suggests that working hours became more unpredictable and, indeed, perceived control over contracted hours decreased by 9% in tiered lockdown from before lockdown. Similarly, perceived control over workload decreased by 2% and feeling pressured to respond quickly outside of hours increased by 14% in tiered lockdown from before lockdown. These findings together suggest that employees were working longer hours than before and felt less control over how much they work. Given this, it was surprising that stigma towards part-time workers slightly decreased by 2% and perceived uptake of part-time working slightly increased by 2%, and the perceived uptake of regularly working beyond contracted hours decreased by 5%. These could be due to the changing visibility of those working longer hours (possible decrease) and those working in part-time arrangements (possible increase).

**Sustaining the positive gains in remote working.** Factors that predicted whether employees continued to work remotely in tiered lockdown included greater control over remote work, lower stigma towards remote workers and a higher proportion of colleagues working remotely. In other words, workplaces where remote working was more normalised. Workers experienced a small 1% increase in autonomy and 4% increase in competence (feeling valued) by tiered lockdown from before lockdown, most likely because of the increase in remote working. These are both important factors for employee motivation and wellbeing.<sup>57,58</sup> At the same time, relatedness (interacting with

---

<sup>57</sup> Honig, D. (2021). Supportive management practice and intrinsic motivation go together in the public service. *Proceedings of the National Academy of Sciences*, 118(13).

<sup>58</sup> Ryan, R. (2009). Self determination theory and well being. *Social Psychology*, 84(822), 848.

colleagues and a sense of belonging) decreased by 5%. Improving social connection without losing the benefits of independence represents an important challenge for organisations in embedding remote working into work culture sustainably.

Remote working is an important facilitator for care work and it does not yet have the same gendered image that part-time working does, making it a genuinely accessible tool for both working mothers and fathers. However, its relationship with time-based flexibility is as yet unclear. This research suggests that lower access to one form of flexibility may force employees to lean more heavily on another. It is unclear whether remote working will challenge or reinforce long hours working culture. Organisations must be vigilant to remote working becoming a new tool for overwork in order to avoid longer term negative impacts on gender equality. At the same time, if a seniority divide emerges where senior leaders are more likely to work onsite, this could unravel the progress made in reducing stigma towards remote workers, and while senior leaders are more likely to be men could lead to remote working becoming gendered in the same way as part-time working. The natural experiment in remote working brought about by the COVID-19 pandemic demonstrated that previously immovable barriers can crumble overnight. This raises the question: what are the next seemingly impossible barriers to break at work?





© Crown copyright 2019

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit [nationalarchives.gov.uk/doc/open-government-licence/version/3](https://nationalarchives.gov.uk/doc/open-government-licence/version/3)

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.