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## Working from home and mental health: Giving employees a choice does make a difference

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**Abstract:** Previous studies on working from home (WFH) and employee well-being have produced extremely conflicting results. We hypothesize that giving workers a choice over whether to use WFH plays a crucial role in the consequences for well-being. This perspective has a series of testable implications for empirical work. Using panel data from the United Kingdom, our fixed effects estimates show that not only the actual use, but also the pure availability of WFH is associated with improved job-related and overall mental health. Not controlling for the pure availability of WFH implies that the positive influence of the actual use of WFH is underestimated in the regressions. However, we find a positive association between the use of WFH and overall mental health only for the years before and after the pandemic. The association was negative during the COVID-19 crisis where WFH was largely enforced. Finally, gender moderates the influence of WFH on mental health. For women, both the actual use and the pure availability of WFH are positively associated job-related and overall mental health. For men, we find a more mixed pattern where either only the pure availability or only the actual use has an influence on mental health. This indicates that men are more likely to over- or underrate the consequences of WFH than women.

**Keywords:** Remote Work, Freedom of Choice, Pandemic, Mental Well-Being, Gender.

**JEL:** I10, I31, J16, J22, M50.

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## **1. Introduction**

While WFH has been rising for years even before the pandemic, the COVID-19 crisis undoubtedly triggered a large and lasting shift to this type of flexible work arrangement (Aksoy et al. 2022, Barrero et al. 2021, 2023, Bartik et al. 2024, Felstead 2022, OECD 2020). Many employees do not want to return to the office 5 days a week. Against this background, one may expect that WFH contributes to the well-being of employees. However, studies examining the influence of WFH on employee well-being paradoxically obtain very mixed results. The results of these studies range from WFH improving well-being to having no significant influence or even a negative one (Agnolotto 2024, Bellmann and Hübler 2021, Bilgrami 2023, Botha et al. 2023, Denzer and Grunau 2024, Felstead and Reuschke 2020, Gueguen and Senik 2023, Hoque and Bacon 2022, Kröll and Nüesch 2019, Laß et al. 2024, Oakman et al. 2020, Platts et al. 2022, Senik et al. 2024, Song and Gao 2020, Wielgoszewska et al. 2024, Wöhrmann and Ebner 2021, Yang et al. 2023). This gives rise to the question as to how the conflicting findings of these studies can be reconciled.

We argue that giving employees a choice plays a crucial role in the association between WFH and well-being. From a theoretical viewpoint, there are at least three reasons as to why a positive association should be more likely if employers offer WFH and employees decide whether or not to use it. First, preferences for WFH are heterogeneous across employees. For some employees, WFH helps improve work-life balance by integrating work and family. For other employees, it entails increased stress as it blurs the boundaries between work and private life. If employees have a choice, those who benefit from WFH will choose to use it whereas those who would be just stressed by WFH will not

choose to use it. Second, from a psychological viewpoint, freedom of choice has an intrinsic value. The need for self-determination and autonomy is an important motivation in human behaviour. Giving employees a choice over whether to use WFH contributes to more self-determination at work and, hence, improves their well-being. Third, employer signalling can play a role. By giving employees a choice, the employer signals that she cares about their well-being and is willing to provide support. This signal positively influences the stress mindset of employees as it is an important ingredient to a more caring work climate characterized by procedural fairness.

This theoretical perspective has a series of important implications for empirical analyses. While previous studies have overwhelmingly examined the link between WFH and well-being either before or during the pandemic, our theoretical considerations suggest to systematically compare the years during the pandemic with the years before and also after the pandemic. During the COVID-19 crisis, governments across the world announced comprehensive lockdowns which eliminated choice and led to an unprecedented rise in forced WFH. This suggests that a positive link between WFH and well-being is less likely during than before or after the pandemic.

Moreover, previous studies have compared employees using WFH with those not using WFH. However, the reference group of employees not using WFH comprises two different types of employees – those who have the opportunity of WFH without using it and those for whom WFH is not available. Our theoretical considerations imply that the pure availability of WFH, even if it is not used, can have a positive influence on well-being. It signals a caring work climate, increases employees' sense of self-determination and gives them confidence that they have flexibility when it is needed. Thus, employees using WFH

and employees having the option of WFH without using it should be compared to those for whom WFH is not available. Just comparing employees using WFH with those who do not use it can lead to the underestimation of a positive association between WFH and well-being. Such comparison is based on a heterogeneous reference group that also contains employees who may have a higher well-being due to the pure availability of WFH.

Finally, distinguishing between the use and the pure availability of WFH yields insights into whether this type of flexible work arrangement meets employees' expectations. WFH can be seen as an experience good. Employees possess only incomplete information about it unless they use it. Thus, at issue is whether they have rational expectations or over- or underrate WFH with respect to their well-being. To the extent employees have rational expectations, the pure availability and the use of WFH will influence worker wellbeing in a similar direction (with the use having a stronger influence than the pure availability). However, if unmet expectations play a role, there can be, at least partially, sharp differences. On the one hand, employees may expect that WFH contributes to work life balance even though it makes balancing work and private life more difficult. In this case, we would observe that the pure availability, but not the actual use of WFH has a positive influence on well-being. On the other hand, employees who have a choice may experiment with WFH and find out that it contributes to work life balance even though they initially did not expect such effect. In that case, we would observe that the actual use, but not the pure availability of WFH has an influence on well-being.

Our empirical analysis examines the link between WFH and mental health problems. Mental health is a crucial component of well-being. Mental ill health has a devastating effect on people's lives. Mental ill health not only presents an enormous burden

on individuals suffering from it, but also negatively affects family, society and economy (Bencsik et al. 2023, Centre for Mental Health 2024, Johnston et al. 2013, Layard 2017, Moscone et al. 2007). We use *Understanding Society*, a large and representative household panel survey for the United Kingdom, to analyze the influence of WFH on job-related and overall mental health problems.

Our fixed effects estimations show that both the actual use and the pure availability of WFH are associated with improved job-related and overall mental health. If the pure availability of WFH is not controlled for, the regressions tend to underestimate the positive influence of WFH use on mental health. However, a positive influence of the use of WFH on overall mental health can only be found for the years before and after the pandemic, but not during the Covid-19 period where WFH was largely enforced. For that period, WFH was particularly associated with impaired overall mental health.

Moreover, our analysis provides evidence that gender plays a moderating role in the link between WFH and mental health. The use of WFH has a positive influence on both job-related and overall mental health for women while it only has a positive influence on job-related health for men. This finding conforms to the notion that women are still more responsible for family and household even when they work. Thus, WFH plays a particular role for women in reconciling work and non-work demands.

Particularly interestingly, for women, both the use and the pure availability of WFH have a clear positive influence on their job-related and their overall mental health. The pattern is much more mixed for men. For men, the pure availability, but not the actual use of WFH is positively associated with overall mental health. By contrast, the actual use, but not the pure availability has a positive influence on their job-related mental health.

Interpreting the findings in light of our theoretical considerations, men do not appear to accurately assess the consequences when deciding about the use of WFH. They overrate the positive consequences for overall mental well-being and underrate the positive consequences for job-related well-being.

The rest of the paper is organized as follows. Section 2 provides the theoretical background discussion. Section 3 introduces the dataset and the variables used. Section 4 presents the empirical analysis. Section 5 concludes.

## **2. Background Discussion**

From a theoretical viewpoint, the influence of WFH on employee well-being is ambiguous (Laß et al. 2024, Wöhrmann and Ebner 2021). On the one hand, WFH may contribute to higher well-being as it saves time spent commuting, helps avoid disturbances and interruptions at work, and makes it easier to combine work commitments and non-work activities. On the other hand, WFH may blur the boundaries between work and private life as employees face more difficulties to turn off work and continue working during evenings, nights or weekends. WFH may contribute to feelings of loneliness and isolation since employees receive less social support from supervisors and co-workers. WFH employees may suffer from a flexibility stigma damaging their career advancement prospects.

Having a choice over whether to use WFH can make an important difference for employee well-being. The various advantages and disadvantages of WFH are very likely to differ between employees. If employers offer the opportunity of WFH and employees decide whether or not to use it, a positive impact on well-being should be more likely. Employees who benefit from WFH will choose to use this flexible work arrangement whereas employees who face serious disadvantages will not choose to use it. Put somewhat

differently, the job demands-resources model suggests that WFH involves both demands entailing strain and resources supporting the fulfilment of basic needs (Bakker and Demerouti 2017, Eurofound 2020, Sardeshmukh et al. 2012). Giving employees a choice enables them to use WFH when the resources dominate the demands.

Moreover, as emphasized by Armatya Sen's (1987, 1988, 1995) capability theory, freedom of choice has an intrinsic value. This matches psychological research showing that the need for self-determination and autonomy is an important motivation in human behavior (Deci and Ryan 2012, Gagne and Deci 2005). Thus, freedom of choice contributes to happiness (Hojman and Miranda 2018, Steckermeier 2021, Verme 2009). This suggests that WFH will particularly lead to greater well-being when its use is based on employees' free choice.

Finally, employer signaling can play a role (Huettermann and Bruch 2019). By giving employees a choice, the employer signals that she cares about their well-being and is willing to provide support. This signal influences the stress mindset of workers as it is an important ingredient to a more caring work climate. In a similar vein, giving employees a choice can contribute to employees' well-being through fostering their perceptions of procedural justice at work (Benz et al. 2004, Dolan et al. 2007, Green 2021, Vermunt and Steensma 2016).

Our theoretical considerations have a series of testable implications for empirical work. Previous studies have overwhelmingly examined the link between WFH and well-being either before the pandemic or during the pandemic. These studies do not provide a systematic comparison of the years before, during and after the COVID-19 crisis. However, our theoretical considerations suggest that such systematic comparison is required.

Governments across the world announced comprehensive lockdowns which eliminated choice and led to an unprecedented rise in forced WFH. This suggests that a positive link between WFH and mental health is less likely during than before or after the pandemic. This is summarized by our first hypothesis.

*Hypothesis 1: The influence of WFH on mental health is less likely to be positive or even negative during the COVID-19 crisis whereas it is more likely to be positive in the years before and after the crisis.*

Furthermore, previous studies have compared employees using WFH with employees not using WFH. However, the reference group of employees without WFH comprises two different types of workers – workers who have the opportunity of WFH without using it and workers who do not have an opportunity to use WFH. Our theoretical considerations imply that even the pure availability of WFH can have a positive influence on the well-being of employees. It signals a caring work climate, contributes to greater self-determination at work and strengthens employees' confidence that they have flexibility when they need it. Thus, workers using WFH and workers having the option of WFH without using it should be compared with those workers for whom WFH is not available. This brings us to our second hypothesis.

*Hypothesis 2: The pure availability of WFH has a positive influence on mental health.*

Of course, at issue is whether employees accurately anticipate the consequences of WFH when choosing this flexible work arrangement. To the extent employees have rational expectations, we should observe that the pure availability and the actual use influence well-

being in a similar direction. If WFH has a positive influence on well-being, the anticipation of this positive influence should already have a positive impact. However, the possible consequences of WFH appear to be complex so it can be difficult to precisely assess them *ex ante*. Thus, WFH to some degree may be an experience good (Nelson 1970, Shapiro 1983). Employees possess only incomplete information about it unless they use it. This implies that they may over- or underrate the influence of WFH on their well-being. If employees are too optimistic, they expect that WFH contributes to work life balance even though it makes balancing work and private life more difficult. In this case, we would observe that the pure availability, but not the actual use of WFH has a positive influence on well-being. If employees are initially not aware of the benefits, we will observe that the actual use, but not the pure availability of WFH has an influence on well-being. Employees who have a choice may experiment with WFH and find out that it contributes to work life balance even though they initially did not expect such effect. Taking these considerations into account, we can state our third hypothesis.

*Hypothesis 3: If employees underrate (overrate) a positive influence of WFH, only the actual use (pure availability without use) plays a strong role on mental health.*

We recognize that gender is likely to moderate the link between WFH and well-being. While gender roles have changed to some degree during the last decades in many advanced countries, asymmetries in these roles are still prevalent (Artz et al. 2022, Baktash et al. 2025a, 2025b, Bertrand et al. 2015, Bredtmann 2014, Chadi and Jirjahn 2024, Ferrant et al. 2014, Folke and Rickne 2020, Jirjahn and Le 2024, McMunn et al. 2020, Scott and Clery 2013). The asymmetries are due to the traditional breadwinner model. According to this

model, women nurture their families while men are the heads of their households by providing financial resources and making important family decisions. This implies that women remain disproportionately responsible for family even when they work. WFH may help women to reconcile work and family contributing to increased well-being. For men, WFH may imply that they have to take on more family responsibilities. This can challenge their gender identity (Akerlof and Kranton 2000) or negatively affect their career prospects. This brings us to our fourth hypothesis.

*Hypothesis 4: WFH has a stronger positive influence on the mental health of women than on the mental health of men.*

### **3. Data and Variables**

#### *3.1 Dataset*

Our empirical analysis uses data from *Understanding Society*, a large and representative household panel survey for the United Kingdom funded by the Economic and Social Research Council (Buck and McFall 2012). The survey provides information on each member of the household.

While each wave of *Understanding Society* covers two years, the waves overlap in such a way that households are surveyed annually. For example, the first wave of the data was collected between January 2009 and December 2011. The collection of the second wave of the data started in January 2010 with those households interviewed in the first month of the first wave and concluded in December 2012 with the households interviewed in the last month of the first wave.

*Understanding Society* contains a core of questions asked in each wave. Different “special” topic questions only appear in specific waves. While variables on standard mental health are available in every wave, information on both WFH and job-related mental health is only available in the waves 2, 4, 6, 8, 10, 12 and 14. We pool these waves for our analysis and focus on employees aged 16–64 years. This reflects the typical working age population in the United Kingdom. Our analysis covers the years 2010 to 2024.

We recognize that some occupations may not be amendable to WFH. Including such jobs in the analysis may entail a common support problem. To take this issue into account, we exclude for each wave of our dataset occupations where no or only one employee reported the pure availability or the use of WFH.

The data from *Understanding Society* have also been used by Agnoletto (2024) and Gueguen and Senik (2023) to examine the link between WFH and mental health. Agnoletto considers the pre-pandemic period while Gueguen and Senik focus on the COVID-19 period. Our study captures both periods and additionally also covers the years after the pandemic. This allows analyzing whether the influence of WFH on mental health differs across periods. Moreover, our study is unique in that it distinguishes between the use and the pure availability of WFH to provide a more nuanced view of their mental health consequences for men and women.

### *3.2 Variables*

Table 1 provides the definitions and descriptive statistics of the dependent variables. We use two variables for job-related mental health issues and a variable for overall mental health problems that captures an employee’s whole situation including their private life. The variables for job-related anxiety and job-related depression build from three items,

respectively. The items are measured on a five-point Likert scale ranging from 1 to 5. For each of the two variables, the items are summed up so the variables range from 3 (the least anxious/depressed) to 15 (the most anxious/depressed).

Overall mental health problems are assessed through twelve items in the General Health Questionnaire (GHQ). The GHQ is a self-administered screening test aimed at detecting mental disorders that require clinical attention among respondents in community and on-psychiatric clinical settings (Rienzo 2024). The items in the GHQ cover loss of confidence, social dysfunction, anxiety and depression. These items are measured on a four-point Likert scale. The twelve items are summed up so the variable for overall mental health problems ranges from 0 (the least distressed) to 36 (the most distressed).

Table 2 shows the definitions and descriptive statistics of the key explanatory variables. Our theoretical background discussion suggests that not only the use, but also the pure availability of WFH can have an influence on mental health. Thus, we include two WFH dummies in the regressions. The first one is equal to 1 if the employee uses WFH on a regular basis. The second one is equal to 1 if WFH is available but not used by the employee. The reference group consists of employees for whom WFH is not available. Moreover, our background discussion implies that the Covid-19 played a particular role in WFH and mental health. To take this into account, we include a dummy equal to 1 if the employee was interviewed during the pandemic. We also include a dummy for the post-pandemic period. The reference group of the two variables covers the years before the pandemic.

The dataset allows including a rich set of control variables. Appendix Table A1 presents the definitions and descriptive statistics of the controls. Job-related characteristics

are controlled for by variables for occupation, holding a managerial position, receiving variable pay, firm size, industry and the private sector. We also include controls for education, work experience, commuting time, part-time work, job sharing, term-time work and flextime. The employee's socio-demographic characteristics are captured by variables for age, marital status and the number of children. Furthermore, we include region dummies and wave dummies.

As gender is a time-invariant variable we cannot include it in our initial fixed effects regressions with the combined sample of men and women. However, we will use it as a split variable in the subsequent steps of the analysis to provide separate estimates for men and women.

## **4. Results**

### *4.1 Initial Estimates*

We use fixed effects regressions to account for unobserved time-invariant factors. Table 3 provides the initial estimates for our key variables with the combined sample of men and women. Controls are included but suppressed to save space (see Appendix Table A2 for the full results). The regressions in Panel A show that both the use and the pure availability of WFH play a role in mental health. The use of WFH is significantly associated with lower overall mental health problems, lower job-related depression and lower job-related anxiety. The pure availability of WFH is a significantly negative covariate of overall mental health problems and job-related depression. These results on the pure availability of WFH provide support for our second hypothesis. Giving employees an option already improves their mental well-being even if they do not choose the option.

Previous studies have simply compared employees using and not using WFH. To examine the consequences of such comparison, the regressions in Panel B do not include the variable for the pure availability of WFH. This yields a smaller estimated magnitude of the coefficient on WFH use in all of the three regressions. The estimated magnitude drops by about 10 percent in the regression for job-related anxiety and by about 20 percent in the regression for job-related depression. In the regression for overall mental health problems, the estimated magnitude even drops by almost 50 percent and the coefficient loses statistical significance. Thus, the positive consequences of the use of WFH for mental well-being are underestimated if the pure availability of WFH is not controlled for. The reason behind this finding is that the reference group is now heterogeneous. In contrast to the regressions in Panel A, the reference group not only consists of employees for whom WFH is not available. It also contains employees who have the option of WFH without using it. As a consequence, employees using WFH are compared to a reference group that on average has a higher mental well-being than the reference group used for the estimates in Panel A.

Turning to the role of the COVID-crisis, the pandemic dummy takes a significantly positive coefficient in the regression for overall mental health problems. This suggests that the COVID-crisis negatively affected people's mental well-being. However, at issue is whether the pandemic *per se* or the lockdowns initiated by the British government during that time contributed to increased overall mental health issues. The full pattern of influences may remain obscured until the interaction of the pandemic dummy with the WFH dummies has been taken into account.

#### *4.2 WFH during, before and after the Pandemic*

Our background discussion suggests that the influence of WFH on mental health during the COVID-19 crisis should differ from the influence before and after the crisis. Thus, in the next step, we include interactions of the WFH variables with the dummy for the pandemic period. We also include interactions with the post-pandemic period to examine whether the pandemic had a long-lasting influence on the subsequent years.

Table 4 shows the results. The variable for the use of WFH continues to take significantly negative coefficients in the regressions for overall mental health problems and job-related anxiety and depression. In a similar vein, the variable for the pure availability of WFH continues to emerge as a significantly negative covariate of overall mental health problems and job-related depression. The interactions of WFH with the post-pandemic dummy are all insignificant suggesting that the link between WFH and mental health does not differ between the pre- and post-pandemic period.

Most importantly, the interaction of the variable for WFH use and the variable for the pandemic period takes a significantly positive coefficient in the regression for overall mental health problems. This implies that the influence of WFH during the pandemic period differs from the one during the pre- and post-pandemic period. For the pre- and post-pandemic period, the use of WFH is associated with lower mental health problems. For the pandemic period the magnitudes of the coefficients imply that the use of WFH is associated with increased mental health problems ( $-0.245 + 0.452 = 0.207$ ). The difference in the influences is statistically significant at the 1-percent level ( $F = 7.72$ ). The results provide support for our first hypothesis. During the pandemic, WFH was to a large extent enforced so employees had no choice of whether or not to use it.

Interestingly, the coefficient on the pandemic dummy is no longer statistically significant when taking the interaction with WFH into account. This suggests that the lockdowns during the COVID-crisis and not the pandemic *per se* contributed to lower overall mental health.

#### *4.3 The Moderating Role of Gender*

Finally, our background discussion emphasizes asymmetric gender roles implying that gender may play a moderating role in the link between WFH and mental health. Thus, in what follows, we analyze this link separately for men and women. As men and women sharply differ in their propensity for part-time work (Francis-Devine et al. 2025), we combine the separate regressions for men and women with a split by full-time and part-time employees.

Tables A2 and A3 show the estimates for men and women who work part-time. The estimates provide no clear pattern and are overwhelmingly insignificant. One reason for these findings may be that part-time employees are concentrated in low-paid peripheral jobs (Heywood et al. 2011, Meulders and Plasman 1993). In these jobs, WFH may not play an important role in the well-being of employees. By contrast, the results for full-time employees provide a much more striking and interesting pattern.

Table 5 presents the results for full-time employed women. The variable for the use of WFH takes a significantly negative coefficient in the regressions for overall mental health problems, job-related depression and job-related anxiety. The pure availability of WFH emerges as a significantly negative covariate of overall mental health problems and job-related depressions. This pattern so far mirrors the results with the combined sample of men and women. A new finding is that the interaction of the use of WFH with the

pandemic dummy now not only takes a significantly positive coefficient in the regression for overall mental health problems, but also in the regression for job-related depression. Thus, for full-time employed women, the link between the use of WFH and mental health not only changed for overall, but also for job-related mental health during the pandemic. The results imply that the use of WFH is associated with lower overall mental health problems and job-related depression in the pre- and the post-pandemic period while is linked to worsened overall mental issues ( $-0.592 + 0.903 = 0.311$ ) and worsened job-related depression ( $-0.297 + 0.364 = 0.067$ ) during the pandemic period. The negative influence is statistically significant at the 1-percent level ( $F = 14.23$  in the regression for overall mental health problems and  $F = 12.81$  in the regression for job-related depression). Altogether, considering full-time employed women, we find even stronger evidence for our first hypothesis and can confirm a role of the pure availability of WFH supporting our second hypothesis.

Table 6 shows the results for full-time employed men. In the estimation for overall health problems, the coefficient on the variable for using WFH is insignificant while the interaction with the dummy for the pandemic takes a significantly positive coefficient. Thus, conforming to our first hypothesis, we also find for full-time employed men a negative impact of using WFH on overall mental health during the pandemic. However, the estimates provide no evidence of a link between using WFH and overall mental health during the pre- or the post-pandemic period. Interestingly, even though using WFH does not appear to improve overall mental health, the pure availability of WFH is significantly associated with lower overall mental health problems. This can be interpreted against the background of our third hypothesis. Full-time employed men appear to overrate WFH with

respect to their overall well-being so only the pure availability, but not the actual use has an influence. For example, they may not accurately anticipate that they have to take on additional family responsibilities when working from home. By contrast, the pure availability of WFH does emerge with a significant coefficient in the regressions for job-related mental health while the use of WFH is significantly associated with lower job-related anxiety and depression. Thus, even though full-time employed men overrate WFH with respect to their overall well-being (including their private life), they tend to underrate it with respect to their job-related well-being.

Comparing the results for full-time employed men and women, we find support for our fourth hypothesis. The use of WFH is significantly associated with lower overall and job-related mental health problems for women whereas it is only significantly associated with lower job-related mental health problems for men. Asymmetric gender roles imply that women are disproportionately responsible for family and household when they work. WFH appears to help reconcile work with the disproportionate responsibilities.

Finally, our results show that the pure availability and the actual use of WFH to a larger extent influence the mental well-being of full-time employed women in a similar way. This indicates that women more accurately anticipate the positive consequences of WFH for work and private life. By contrast, our estimates suggest that full-time employed men tend to underrate positive consequences for job-related well-being and overrate positive consequences for their overall well-being including the private life. Thus, our third hypothesis to a larger extent holds for men.

## 5. Conclusions

Employees show a tremendous interest in WFH and the number of studies examining the consequences of WFH for employees' well-being is rapidly growing. However, the results so far are very mixed and there appears to be no consensus when it comes to assessing the influence of WFH on well-being. Our approach brings a new twist to that research. We emphasize that giving workers a choice does make a difference for the consequences of WFH. Using representative panel data from the United Kingdom we demonstrate that this approach provides a very useful theoretical framework guiding the empirical analysis. Focusing on job-related and overall mental health, our study shows the link between WFH and employee well-being in a much more differentiated light and helps explain the mixed findings of previous research.

Our study yields four key insights. First, having a choice *per se* improves well-being. Thus, not only the actual use, but already the pure availability of WFH is associated with lower job-related and overall mental health problems. This also has a crucial methodological implication. Not controlling for the pure availability in the regressions implies that the positive impact of WFH on employees' well-being is underestimated.

Second, it is important to systematically compare the years during the COVID-19 crisis with the years before and after the crisis. Our estimates show a positive influence of WFH on overall mental health for the years before and after the COVID-19 crisis while they reveal a negative influence for the years during the crisis. This pattern of findings underscores the importance of choice. The lockdowns announced by the British government during the crisis resulted in an unprecedented increase in forced WFH that largely eliminated choice.

Third, separate analyses for full-time employed men and women show that WFH plays a larger role in the mental well-being of women than in the mental well-being of men. The use of WFH is associated with lower job-related and overall mental health problems for women while it is only associated with lower job-related mental health problems for men. An explanation for this finding is that there still exist asymmetric gender roles in society. Women remain disproportionately responsible for the household even when they work. Thus, WFH is particularly important for women in reconciling work and non-work commitments. For men, WFH appears to primarily provide relief from job-related demands and stressors.

Fourth, having a choice over whether or not to use WFH does not mean that employees always make the right choice. WFH is an experience good, i.e., employees may possess only incomplete information about the advantages and disadvantages of WFH until they use it. Our results indicate that this particularly holds for men. For men, we find that only the actual use, but not the pure availability of WFH is associated with improved job-related health. By contrast, only the pure availability, but not the actual use of WFH is associated with overall mental health. On the one hand, men might *a priori* be too pessimistic that WFH could harm their career so only the actual use reveals that such pessimism is not justified. On the other, men might *a priori* be too optimistic with respect to the demands of increased family responsibilities so only the actual use of WFH reveals that the demands are higher than expected. Examining these possible explanations in more detail stands as important future research.

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**Table 1:** Definitions and Descriptive Statistics of the Dependent Variables

<i>Variable</i>	<i>Definition</i>	<i>Mean (Std. dev.)</i>	<i>N</i>
Overall mental health problems	Score of overall mental health problems constructed from adding up twelve GHQ items capturing how the interviewee has been feeling during the last weeks. The survey asks: Have you recently (1) been able to concentrate on what you are doing, (2) lost much sleep over worry, (3), felt that you were playing a useful part in things, (4) felt capable of making decisions about things, (5) felt constantly under strain, (6) felt you could not overcome your difficulties, (7) been able to enjoy your normal day-to-day activities, (8) been able to face up to problems, (9) been feeling unhappy or depressed, (10) been losing confidence in yourself, (11) been thinking of yourself as a worthless person, (12) been feeling reasonably happy, all things considered? Interviewees respond to each question on a four-point Likert scale. For items (2), (5), (6), (9), (10) and (11) the scale ranges from 0 “not at all” to 3 “much more than usual”. For items (1), (3), (4), (7), (8) and (12) the scale ranges from 0 “better than usual” to 3 “much less than usual”.	11.02 (5.189)	101,768
Job-related anxiety	Score of anxiety at work constructed from adding up three items measured on a five-point Likert scale ranging from 1 “never” to 5 “all of the time.” The survey asks: Thinking of the past few weeks, how much of the time has your job made you feel (1) tense, (2) uneasy, (3) worried?	6.135 (2.639)	106,693
Job-related depression	Score of depression at work constructed from adding up three items measured on a five-point Likert scale ranging from 1 “never” to 5 “all of the time.” The survey asks: Thinking of the past few weeks, how much of the time has your job made you feel (1) depressed, (2) gloomy, (3) miserable?	4.839 (2.550)	106,689

**Table 2:** Definitions and Descriptive Statistics of the Key Explanatory Variables

<i>Variable</i>	<i>Definition</i>	<i>Mean (Std. dev.)</i>
WFH used	Dummy equals 1 if WFH is available and the employee uses it on a regular basis.	0.091 (0.288)
WFH available	Dummy equals 1 if working from home is available, but the employee does not use it.	0.093 (0.291)
Pandemic	Dummy equals 1 if the employee is interviewed during the pandemic (March 2020 to July 2021).	0.079 (0.269)
Post-pandemic	Dummy equals 1 if the employee is interviewed after the pandemic (August 2021 to the year 2024).	0.144 (0.351)

N = 106,932. The reference group of the WFH dummies consists of observations from employees for whom WFH is not available. The reference group of the pandemic and the post-pandemic period consists of observations from employees during the pre-pandemic years (January 2010 to February 2020).

**Table 3: Initial Estimates**

	(1)	(2)	(3)
<i>Variables</i>	<i>Job-related anxiety</i>	<i>Job-related depression</i>	<i>Overall mental health problems</i>
<b>Panel A</b>			
WFH used	-0.111**	-0.204**	-0.152*
	(0.036)	(0.034)	(0.071)
WFH available	-0.031	-0.119**	-0.212**
	(0.031)	(0.031)	(0.063)
Pandemic	0.106	0.021	0.411**
	(0.080)	(0.080)	(0.155)
Post-pandemic	-0.120	0.013	-0.455*
	(0.095)	(0.097)	(0.183)
Within R-squared	0.022	0.018	0.018
Number of observations	106,693	106,689	101,768
Number of employees	38,706	38,706	37,168
<b>Panel B</b>			
WFH used	-0.100**	-0.163**	-0.078
	(0.034)	(0.032)	(0.068)
WFH available	---	---	---
Pandemic	0.105	0.019	0.408**
	(0.080)	(0.080)	(0.155)
Post-pandemic	-0.121	0.010	-0.460*
	(0.095)	(0.097)	(0.183)
Within R-squared	0.022	0.018	0.017
Number of observations	106,693	106,689	101,768
Number of employees	38,706	38,706	37,168

Method: Fixed effects. Standard errors in parentheses are clustered at the employee level. \* Statistically significant at the 5% level; \*\* at the 1% level. Control variables are included but suppressed to save space.

**Table 4:** Interaction of WFH with the Pandemic and Post-Pandemic Dummies

	(1)	(2)	(3)
<i>Variables</i>	<i>Job-related anxiety</i>	<i>Job-related depression</i>	<i>Overall mental health problems</i>
WFH used	-0.135**	-0.202**	-0.245**
	(0.042)	(0.040)	(0.085)
WFH available	-0.033	-0.132**	-0.270**
	(0.034)	(0.033)	(0.070)
Pandemic	0.102	0.007	0.308
	(0.082)	(0.082)	(0.158)
Post-pandemic	-0.136	0.016	-0.475*
	(0.096)	(0.099)	(0.186)
WFH used x pandemic	0.008	0.059	0.452**
	(0.078)	(0.077)	(0.163)
WFH used x post-pandemic	0.093	-0.046	0.073
	(0.069)	(0.071)	(0.143)
WFH available x pandemic	0.044	0.041	0.382
	(0.102)	(0.102)	(0.210)
WFH available x post-pandemic	-0.009	0.074	0.185
	(0.084)	(0.086)	(0.165)
Within R-squared	0.021	0.017	0.017
Number of observations	106,693	106,689	101,768
Number of employees	38,706	38,706	37,168

Method: Fixed effects. Standard errors in parentheses are clustered at the employee level. \* Statistically significant at the 5% level; \*\* at the 1% level. Control variables are included but suppressed to save space.

**Table 5: Only Women; Full-Time**

	(1)	(2)	(3)
<i>Variables</i>	<i>Job-related anxiety</i>	<i>Job-related depression</i>	<i>Overall mental health problems</i>
WFH used	-0.220**	-0.297**	-0.592**
	(0.079)	(0.073)	(0.161)
WFH available	-0.099	-0.181**	-0.329**
	(0.060)	(0.057)	(0.124)
Pandemic	0.026	0.090	0.419
	(0.146)	(0.152)	(0.280)
Post-pandemic	-0.025	0.172	-0.585
	(0.173)	(0.181)	(0.330)
WFH used x pandemic	0.249	0.364**	0.903**
	(0.144)	(0.141)	(0.296)
WFH used x post-pandemic	0.008	-0.172	0.121
	(0.128)	(0.129)	(0.255)
WFH available x pandemic	0.143	-0.002	0.409
	(0.183)	(0.178)	(0.375)
WFH available x post-pandemic	0.059	0.258	0.535
	(0.141)	(0.145)	(0.289)
Within R-squared	0.020	0.021	0.021
Number of observations	38,317	38,315	36,563
Number of employees	16,168	16,169	15,543

Method: Fixed effects. Standard errors in parentheses are clustered at the employee level. \* Statistically significant at the 5% level; \*\* at the 1% level. Control variables are included but suppressed to save space.

**Table 6: Only Men; Full-Time**

	(1)	(2)	(3)
<i>Variables</i>	<i>Job-related anxiety</i>	<i>Job-related depression</i>	<i>Overall mental health problems</i>
WFH used	-0.163**	-0.130*	-0.156
	(0.060)	(0.058)	(0.121)
WFH available	-0.019	-0.075	-0.350**
	(0.048)	(0.049)	(0.099)
Pandemic	0.123	-0.007	0.112
	(0.126)	(0.124)	(0.240)
Post-pandemic	-0.120	0.001	-0.404
	(0.149)	(0.152)	(0.286)
WFH used x pandemic	0.028	-0.032	0.477*
	(0.109)	(0.112)	(0.223)
WFH used x post-pandemic	0.143	-0.034	0.090
	(0.099)	(0.105)	(0.203)
WFH available x pandemic	0.143	0.130	0.289
	(0.146)	(0.148)	(0.285)
WFH available x post-pandemic	-0.027	0.032	0.143
	(0.123)	(0.133)	(0.229)
Within R-squared	0.015	0.019	0.022
Number of observations	41,120	41,118	39,160
Number of employees	15,571	15,570	14,931

Method: Fixed effects. Standard errors in parentheses are clustered at the employee level. \* Statistically significant at the 5% level; \*\* at the 1% level. Control variables are included but suppressed to save space.

## Appendix

**Table A1:** Definitions and Descriptive Statistics of Control Variables

<i>Variable</i>	<i>Definition</i>	<i>Mean (Std. dev.)</i>
Firm size 25–199	Dummy equals 1 if the employee works in a firm with 25–199 employees.	0.365 (0.481)
Firm size 200–999	Dummy equals 1 if the employee works in a firm with 200–999 employees.	0.174 (0.379)
Firm size $\geq$ 1000	Dummy equals 1 if the employee works in a firm with 1000 or more employees.	0.155 (0.362)
Part-time	Dummy equals 1 if the employee works part-time.	0.256 (0.436)
Term time	Dummy equals 1 if the employee works term-time.	0.059 (0.235)
Job sharing	Dummy equals 1 if the employee uses job sharing.	0.012 (0.110)
Flex-time	Dummy equals 1 if the employee has flexible work hours.	0.123 (0.328)
Manager	Dummy equals 1 if the employee has managerial duties.	0.248 (0.432)
Foreman/supervisor	Dummy equals 1 if the employee is a foreman or supervisor.	0.134 (0.341)
Private	Dummy equals 1 if the employee works in a private company.	0.612 (0.487)
Individual performance pay	Dummy equals 1 if the employee receives individual performance pay.	0.164 (0.370)
Collective performance pay	Dummy equals 1 if the employee receives collective performance pay.	0.263 (0.440)
Commuting time	The minutes spent travelling to work.	23.93 (23.407)
Work experience	The employee's work experience in years.	18.913 (3.207)
Intermediate education	Dummy equals 1 if the employee has an intermediate education level.	0.363 (0.481)
Higher education	Dummy equals 1 if the employee has a higher education level.	0.367 (0.482)
Age	The employee's age in years.	41.84 (12.424)
Married	Dummy equals 1 if the employee is married.	0.550 (0.497)
1 Child	Dummy equals 1 if the employee has one child.	0.104 (0.305)
2 Children	Dummy equals 1 if the employee has two children.	0.088 (0.283)
3 or more children	Dummy equals 1 if the employee has three or more children.	0.022 (0.147)
Male	Dummy equals 1 if the employee is a man.	0.429

		(0.495)
Wave dummies	Seven wave dummies are included.	---
Region dummies	Twelve dummies for government region are included.	---
Industry dummies	Eighteen dummies for one-digit industries are included.	---
Occupation dummies	Nine dummies for one-digit occupations are included.	---

N = 106,932. The reference group of the firm size dummies consists of firms with less than 25 employees. The reference group of managers and supervisors consists of nonmanagerial employees. The reference group of the education dummies consists of employees with a low education level. The reference group of the variables for the number of children consist of employees who do not have children.

**Table A2:** Full Results for Panel A in Table 3

	(1)	(2)	(3)
<i>Variables</i>	<i>Job-related anxiety</i>	<i>Job-related depression</i>	<i>Overall mental health problems</i>
WFH used	-0.111**	-0.204**	-0.152*
	(0.036)	(0.034)	(0.071)
WFH available	-0.031	-0.119**	-0.212**
	(0.031)	(0.031)	(0.063)
Pandemic	0.106	0.021	0.411**
	(0.080)	(0.080)	(0.155)
Post-pandemic	-0.120	0.013	-0.455*
	(0.095)	(0.097)	(0.183)
Firm size 25–199	0.014	0.037	-0.027
	(0.036)	(0.036)	(0.069)
Firm size 200–999	0.055	0.078*	0.030
	(0.046)	(0.047)	(0.089)
Firm size $\geq$ 1000	0.092*	0.126**	0.127
	(0.053)	(0.052)	(0.103)
Part-time	-0.267***	-0.142***	0.148***
	(0.029)	(0.029)	(0.057)
Term time	-0.041	-0.061	-0.177*
	(0.047)	(0.045)	(0.093)
Job sharing	0.036	0.037	-0.166
	(0.085)	(0.079)	(0.157)
Flex-time	-0.061**	-0.116***	-0.055
	(0.031)	(0.031)	(0.063)
Manager	0.503***	0.271***	0.227***
	(0.040)	(0.039)	(0.077)
Foreman/supervisor	0.375***	0.231***	0.228***
	(0.037)	(0.037)	(0.071)
Private	0.046	0.100***	-0.010
	(0.036)	(0.037)	(0.073)
Individual performance pay	0.077***	0.072**	0.038
	(0.028)	(0.028)	(0.056)
Collective performance pay	0.064***	0.007	-0.062
	(0.025)	(0.025)	(0.048)
Commuting time	0.003***	0.002***	0.003**
	(0.001)	(0.001)	(0.001)
Work experience	-0.328	0.433	1.007
	(0.821)	(0.895)	(1.502)
Intermediate education	-0.128	0.169	-0.299
	(0.178)	(0.191)	(0.357)
Higher education	-0.388	-0.136	-1.405**
	(0.304)	(0.317)	(0.602)
Age	0.098***	0.018	0.096
	(0.036)	(0.037)	(0.080)

Married	-0.086**	-0.039	-0.044
	(0.040)	(0.041)	(0.084)
1 Child	-0.117***	-0.108**	0.022
	(0.042)	(0.042)	(0.085)
2 Children	-0.118**	-0.090	-0.054
	(0.055)	(0.055)	(0.109)
3 or more children	-0.089	-0.087	0.045
	(0.097)	(0.097)	(0.195)
Wave dummies	Included	Included	Included
Region dummies	Included	Included	Included
Industry dummies	Included	Included	Included
Occupation dummies	Included	Included	Included
Within R-squared	0.0222	0.018	0.018
Number of observations	106,693	106,689	101,768
Number of employees	38,706	38,706	37,168

Method: Fixed effects. Standard errors in parentheses are clustered at the employee level. \* Statistically significant at the 5% level; \*\* at the 1% level. Control variables are included but suppressed to save space.

**Table A3: Only Women; Part-Time**

	(1)	(2)	(3)
<i>Variables</i>	<i>Job-related anxiety</i>	<i>Job-related depression</i>	<i>Overall mental health problems</i>
WFH used	-0.069	-0.271*	-0.266
	(0.122)	(0.112)	(0.249)
WFH available	0.048	-0.031	-0.082
	(0.104)	(0.095)	(0.211)
Pandemic	0.309	0.145	0.303
	(0.194)	(0.186)	(0.435)
Post-pandemic	-0.064	0.116	-0.553
	(0.226)	(0.220)	(0.490)
WFH used x pandemic	-0.171	-0.078	0.544
	(0.219)	(0.211)	(0.512)
WFH used x post-pandemic	0.308	0.295	0.449
	(0.192)	(0.186)	(0.419)
WFH available x pandemic	-0.360	-0.015	0.908
	(0.309)	(0.326)	(0.705)
WFH available x post-pandemic	-0.164	-0.166	-0.618
	(0.234)	(0.222)	(0.499)
Within R-squared	0.027	0.028	0.029
Number of observations	22,541	22,541	21,657
Number of employees	11,317	11,318	10,883

Method: Fixed effects. Standard errors in parentheses are clustered at the employee level. \* Statistically significant at the 5% level. Control variables are included but suppressed to save space.

**Table A4: Only Men; Part-Time**

	(1)	(2)	(3)
<i>Variables</i>	<i>Job-related anxiety</i>	<i>Job-related depression</i>	<i>Overall mental health problems</i>
WFH used	0.676*	0.537	0.684
	(0.320)	(0.280)	(0.617)
WFH available	0.143	-0.127	0.701
	(0.269)	(0.246)	(0.593)
Pandemic	0.033	-0.090	0.146
	(0.526)	(0.463)	(0.849)
Post-pandemic	-0.684	-0.547	0.025
	(0.592)	(0.553)	(1.074)
WFH used x pandemic	-0.434	-0.082	-1.022
	(0.417)	(0.399)	(1.112)
WFH used x post-pandemic	-0.956	-0.829*	-2.065*
	(0.506)	(0.412)	(0.960)
WFH available x pandemic	-0.009	-0.495	-0.970
	(0.665)	(0.609)	(1.493)
WFH available x post-pandemic	1.159	1.099*	-0.931
	(0.658)	(0.552)	(1.695)
Within R-squared	0.027	0.028	0.029
Number of observations	4,715	4,715	4,388
Number of employees	3,306	3,306	3,081

Method: Fixed effects. Standard errors in parentheses are clustered at the employee level. \* Statistically significant at the 5% level. Control variables are included but suppressed to save space.