

# MAKING HOMEWORKING WORK: PREFERENCES AND EXPERIENCES OF FULL-TIME WORKERS DURING COVID-19

**Diane Pelly<sup>a</sup>, Liam Delaney<sup>b</sup> and Orla Doyle<sup>c d</sup>**

## EXECUTIVE SUMMARY

The COVID-19 pandemic has forced a large section of the global labour force who were working in centralised locations to suddenly switch to homeworking. This report uses primary longitudinal data from two surveys of 808 full-time workers in the UK which were conducted before (Nov 2019-Feb 2020) and during (May-June 2020) the period of COVID-19 restrictions in order to examine the impact of COVID-19 and homeworking on workers' homeworking preferences and on their self-rated levels of stress, well-being and productivity.

Just under three-quarters of the workers in our sample who are still engaged in paid work are now working from home full-time, compared to 3% of workers prior to COVID-19. The lack of a commute is the most cited benefit of homeworking (72% of respondents), while missing socialising with co-workers is the most cited disadvantage (56%). While 84% of current homeworkers wish to continue working from home, 58% favour a 'hybrid' homeworking option over full-time homeworking. Just under half of all workers report diminished productivity due to COVID-19, with workers who have poor self-rated mental health or low self-control particularly badly affected. The effects of homeworking during COVID-19 on the productivity of homeworkers is mixed, with 39% of homeworkers reporting producing less work when homeworking and 35% reporting producing more work. While there is variation around preferences for homeworking supports, the most frequently requested support (55% of current homeworkers) is a better physical work set-up at home.

COVID-19 has had a relatively minor effect on average work-related affective well-being or job satisfaction across the entire sample. This may reflect the nature of the sample which is comprised of workers in full-time employment prior to COVID-19, who report relatively low levels of physical exposure to COVID-19. Alternatively, workers may have already adjusted to the 'new normal'. There is, however, evidence of heterogeneity. Homeworkers have experienced a significant increase in job satisfaction during COVID-19 and report significantly higher job satisfaction than non-homeworkers, in particular homeworkers who are non-parents, single, who have poor self-rated mental health or who score highly on Big-5 neuroticism.

Our results have important implications for public bodies and organisations seeking to utilise homeworking longer term. They reveal considerably heterogeneity around homeworking preferences and experiences and highlight the need to capture workers' real-life experiences of homeworking to ensure that labour deployment plans and

homeworking supports maximise worker well-being, while preserving productivity and profitability.

**Keywords:** COVID-19; Well-being; Remote Working; Homeworking; Productivity

## 1. INTRODUCTION

This paper examines the well-being, preferences and productivity of a sample of 808 UK workers before and during COVID-19, a period in which a large portion of the UK labour force were forced to suddenly switch to working from home.

The concept of salaried and contract employees working out of their homes, or ‘homeworking’, is not new (Wheatley, 2020 p.7). There is a large literature on the benefits of homeworking. For organisations, the key driver has traditionally been the potential for substantial cost savings in terms of office rental, investment in physical infrastructure, ongoing maintenance and cleaning costs etc. Increasingly however, homeworking is being considered as a tool to attract and retain staff and to improve job satisfaction (Doyle & Reeves, 2001); well-being (Felstead and Henseke, 2017); staff turnover rates (Stavrou & Kilaniotis, 2010); absenteeism; self-rated productivity (YouGov, 2015) and performance (Possenriede & Plantenga, 2014; Gajendran, Harrison & Delaney-Klinger, 2015).

The potential benefits for employees are discussed in the job quality literature, which focuses on the association between homeworking, “working time quality” and worker-wellbeing (Connell and Burgess, 2016). Wheatley (2020) summarises this literature which attributes the benefits of homeworking to the ability to live in less expensive and ‘greener’ locations (Shields and Wheatley Price, 2005); the elimination of the daily commute (Moos and Skaburskis, 2007); increased control over working routines (Tietze et al, 2009) and higher job quality. Homeworking also has the potential to generate positive externalities for society in the form of reduced ‘dead’ commuting time, congestion, pollution and stress (Peters et al, 2004) and reduced healthcare costs through improvements in work-life balance and worker health (Brough et al, 2008). Homeworking has been earmarked by the European Human Rights Commission (EHRC, 2009) as a means to reduce societal inequality by enabling vulnerable categories of workers such as single mothers and people with disabilities to access and to remain in the workforce (Green, 2017), thereby deepening the labour pool in tight markets, reducing the long-term ‘scarring’ effect of involuntary periods of unemployment and narrowing the gender pay gap (Pyper, 2018). Flexible working<sup>1</sup> has also been cited as a means of reducing child poverty and ensuring that societally important but largely unpaid caring roles are not sacrificed (HOC, 2016; Sullivan and Smithson, 2007).

Homeworking has also been considered by national and EU-level policy makers. In July 2018, the European Parliament approved flexible working rules which are currently under negotiation with the European Council and Commission. This policy will allow working parents with children under the age of ten to adjust their working patterns, to include

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<sup>1</sup> Includes part-time work; flexible start / finish times; working term-times only; job-sharing and homeworking

remote working where feasible. In the UK, the Work-Life Balance Campaign led to the legislative 'Right to Request Flexible Working' (Section 47 of the Employment Act, 2002). This Act was introduced in 2003 and further extended in 2014 to include all employees with 26 weeks continuous service, entitling them to request a change in the terms and conditions of their employment relating to hours, times or location of work. Applications can only be refused on grounds defined in the legislation, for example the inability to meet customer demand. In December 2019, the Irish Government launched a public consultation on flexible working as part of the Future Jobs Ireland initiative.

Despite these supply-side initiatives aimed at increasing access to homeworking, the number of workers primarily working from home in the UK prior to COVID-19 was relatively low, increasing from 1.2m in 2005 to just 1.7m in 2017 (ONS). The lack of homeworking uptake led to the formation in 2018 of a CIPD / UK Government Flexible Working Taskforce which was tasked with increasing flexible working (including homeworking) across the UK economy. While availability of homeworking options remains a structural barrier (YouGov, 2015), particularly in countries like Ireland where supportive legislation has yet to be introduced, the possibility that homeworking may not necessarily appeal to every worker is often ignored by policy makers. For example, Eurobarometer (Kantar Public, 2018) 2014 data revealed that 21% of the 59% of UK employees who had access to flexible working options had never used them and that only 20% of UK workers would opt for homeworking if it was possible. Our data supports this lack of uptake, with just 49% of the 40% of workers who had access to homeworking prior to COVID-19 electing to avail of it.

There are many potential reasons why workers may be reluctant to embrace homeworking. Wheatley (2020) discusses the 'blurring' of work and home boundaries (Wiklund, 2020); a potentially longer working day, resulting in less leisure time and / or increased unpaid overtime (Natti et al, 2011); reduced access to training; increased work-stress due to excessive monitoring of performance (Wight and Raley, 2009); and social isolation and invasion of privacy (Tietze, 2009). Employees may be unaware of flexible working policies (Still & Strang, 2003) or of their right to request them. Even if they are aware of a policy, they may discount it as 'window-dressing' (Kelly & Moen, 2007) or perceive it to be unavailable to them (CIPD, 2019). Employees may believe that flexible working could jeopardise their earnings potential by signalling to management that they are not fully committed (Galinsky, Bond & Hill, 2004) due to the long-established association between perceived commitment, long working hours and physical workplace presence (Wheatley, 2017). In the US, 40% of employees surveyed by Golden, Sweet & Chung (2018) feared that requesting flexible working would damage their career prospects. Alternatively, low take-up rates may reflect a lack of access to IT and training resources. Previous research also indicates that personality may influence homeworking preferences. Gainey & Clenney (2006) report a significant positive correlation between the Big-5 personality trait of "openness" and positive attitudes towards remote working.

Even if workers do prefer homeworking however, that does not necessarily guarantee that it will enhance their well-being or that they will be as productive. Empirical evidence on the impact of homeworking is mixed. While numerous studies support a positive

relationship between homeworking and both self-rated productivity (Gajendaran & Harrison, 2007) and supervisor-rated performance (Gajendaran et al, 2015), more recent surveys confirm that a considerable proportion of the workforce (21% in the case of the YouGov survey, 2020 and 28.2% in the case of Baert et al, 2020) report being less productive when working from home.

In relation to well-being, previous studies have noted the difficulties associated with ascertaining the overall 'net' impact of homeworking on workers' well-being and emotions (e.g. Mann, Varey & Button, 2000), a process which is further complicated by COVID-19. Recently published studies on the impact of COVID-19 on emotional well-being show that it is associated with anxiety, stress, depression and disturbed sleep (Rajkumar, 2020) and reduced levels of life satisfaction particularly amongst women (CSO, 2020) and young people (Eurofound, 2020). While there is considerable evidence that homeworking is significantly associated with increased levels of job satisfaction under 'normal' circumstances (Fonner & Roloff, 2010; Gajendaran & Harrison, 2007), more recent surveys have identified that women are more likely to struggle to work from home when children are present (CSO, 2020).

COVID-19 provides a unique opportunity to understand why homeworking has not gained more traction. It also allows us to study whether enforced homeworking has changed workers' attitudes and perceptions towards it and whether certain types of workers are more likely to thrive in a homeworking environment. An unforeseen exogenous shock, COVID-19, has afforded thousands of workers who have never previously worked from home, the opportunity to sample a new way of working. This paper exploits this natural experiment by using data from two surveys conducted immediately before and during the pandemic, in which 808 full-time workers in the UK were asked to extensively detail their experiences of homeworking during the period of COVID-19 restrictions. The data was collected during November-February 2019/2019 and May-June 2020, a period in which the UK was largely still in 'lockdown' and workers who were able to do so were encouraged to work from home.

This paper is divided into several sections. Section 2 outlines the design and methodology of our study and provides details of homeworking prevalence and sample characteristics before and during COVID-19. Section 3 investigates the impact of COVID-19 and homeworking on workers' work-related stress levels, job satisfaction and emotional well-being. Section 4 examines preferences around homeworking. It relates preferences for specific features of homeworking to personal characteristics and looks at heterogeneity in preferences for supports aimed at improving the homeworking experience. Section 5 investigates the impact of COVID-19 and homeworking on working hours and on workers' self-rated productivity and performance. Finally, Section 6 summarises the findings, discusses their implications for employers and employees and highlights potential future research directions.

## 2. METHODOLOGY

This section outlines the methodology of the surveys used in this study and provides details of the sample characteristics in comparison to the broader population. We also provide information on the standard demographic and work-related variables that were collected. In line with an extensive organisational psychology literature, we gathered data on personal characteristics relevant to adaptation to changes in work environments and suitability for homeworking, in particular personality (standard Big-Five measure), mental and physical health, self-rated ability and performance, and a commonly used measure of trait self-control.

### 2.1 Study Design

This paper forms part of a larger study, the purpose of which is to investigate associations between worker well-being measures and labour market outcomes. The data is derived from two separate surveys which were designed specifically for this study. Both surveys use the same sample of respondents. The sample was sourced through Prolific Academic, a specialist academic research survey-panel provider. The first survey, “*Worker Well-being*”, investigated the determinants of worker well-being and the associations between worker-wellbeing measures and economic outcomes. It was completed by 994 full-time British workers between 25/11/2019 and 11/2/2020. The second, follow-up, survey, “*COVID-19 and Worker Well-being*”, was completed by 808 members of the original sample (response rate of 81%) between 7/5/2020 and 25/6/2020. The purpose of the second survey was to examine homeworking preferences and to assess the impact of COVID-19-induced homeworking on workers’ self-rated levels of stress, job satisfaction, well-being and productivity.

### 2.2 Covariates and Outcome Measures

Both surveys include standard demographic (*age, gender, ethnicity, nationality, parental status, relationship status, income, education, type of house, residential area*) and work-related (*organisation size; industry; sector; employment contract; salary; other financial benefits; tenure; seniority; working hours*) questions. In addition, both surveys contain standard measures of life/homelife/job satisfaction,<sup>2</sup> as well as a more comprehensive measure of *job satisfaction* (*JDI*, Stanton et al, 2002) which assesses satisfaction with different facets of working life such as supervision. Both surveys also include measures of *global and episodic affect* (emotions), namely the *IWP Multi-Affect Indicator* (Warr & Parker, 2010) which measures the frequency with which 16 different emotions were experienced while working during the previous month and the *Day Reconstruction Method* (Kahneman et al, 2004) which measures the extent to which the same 16 emotions were experienced during three ‘episodes’ the previous day. In addition, both surveys measure *affective commitment* (Meyer & Allen, 1984), the extent to which an employee feels emotionally attached to her organisation. Finally, the surveys contain questions relating to personal characteristics which have been linked with worker well-being or homeworking preferences in previous research, including *personality* (*Big-5 Inventory-10*, Rammstedt & John, 2007); trait *self-control* (*BSCS*, Tangney, Baumeister &

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<sup>2</sup>0 to 10 scale where 0=“Completely dissatisfied” and 10=“Completely Satisfied”

Boone, 2004); self-rated *mental and physical health*<sup>3</sup>; work-related stress levels<sup>4</sup>, exercise levels and *sleep* quality. A full list of the covariates and measures is provided in Appendix 1.

### 2.3 Sample Characteristics

By design the sample is not representative. Pre-screening criteria were used to identify a specific segment of the labour force, full-time workers who are between 18 and 65 years old, engaged in full-time paid employment in organisations with 5 or more workers, for at least 21 hours per week. Shift-, part-time workers and the self-employed are excluded from the sample due to evidence that they may experience different health (Reutrakul & Knutson, 2015), productivity (Folkard & Tucker, 2003) and lower job quality (Wheatley, 2020) patterns.

The key descriptive characteristics of the sample are set out in Table 1A in the Appendix. Women are over-represented at 68% of the sample, as are white respondents (92%), couples (76%) and non-single occupancy households (88%). 50% of the sample are parents and 42% of the sample have at least one child who is of primary school age (< 13 years of age). While the mean figures for net monthly disposable income (£2,000-£3,000) and age (37.5 years) are close to the UK national averages of £2,490 and 40 years respectively, the sample has a higher average level of education than the UK average worker, with 41% of the sample holding an undergraduate degree and 19% holding a postgraduate degree. The sample also contains a higher proportion of workers with a self-declared mental health condition (27%) compared to the UK average<sup>5</sup>. 96% of the sample are on permanent contracts and only 22% of the sample are members of a trade union. The majority have been working in their organisation for over 5 years (51%) and work for large companies (62%) and in the private sector (56%). Just under 10% of the sample are employed in the healthcare sector, with the remaining workers being split across a wide range of industries including education (13%), professional services (9%), admin and support (8%) and retail (8%). The average net salary earned per month is between £1,000-£2,000 (62%) and the average contractual weekly hourly obligation is 37 hours. The work-related characteristics of the sample are set out in Table 2A in the Appendix.

While our sample is non-representative<sup>6</sup> of the UK population as a whole, Wheatley's (2020) study using 40,000 respondents in the British Understanding Society dataset suggests that it is reasonably representative of the labour force segment of interest here, namely the homeworking sub-population. Wheatley's results reveal that the average UK homeworker is more likely to be middle-aged, highly educated, living with dependent children and on a permanent contract.

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<sup>3</sup> 1 to 5 scale where 1= "Very bad" and 5= "Very Good"

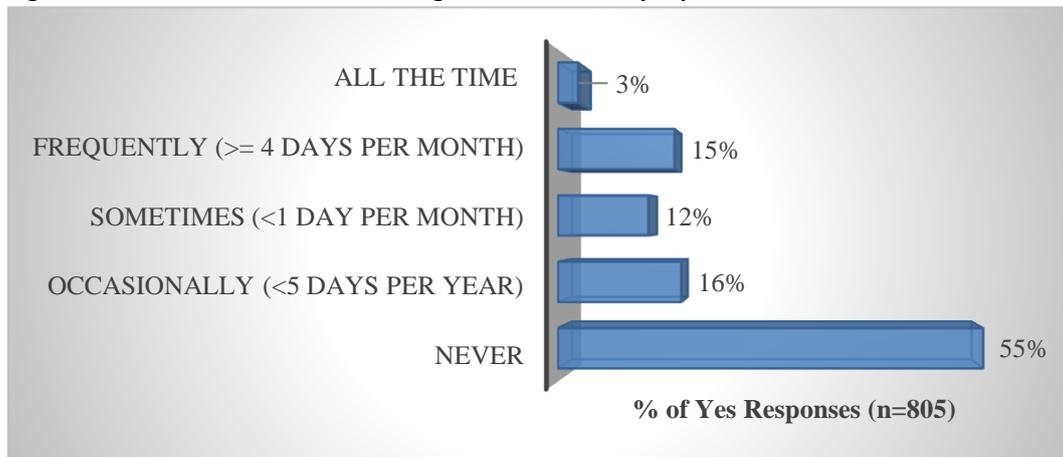
<sup>4</sup> 1 to 5 scale where 1 = "Not at all stressed" and 5 = "Extremely Stressed"

<sup>5</sup> Stansfeld et al (2016) estimate that 19.8% of full-time female workers and 10.9% of full-time male workers have a common mental health condition

<sup>6</sup> Our sample may however be more representative of the sub-segment of UK workers who participate in surveys. 42% of the 3,974 UK workers in Adams-Prassl et al's (2020) representative survey hold an undergraduate degree; 58% of their sample are married or co-habiting (v 62% of our sample) and the mean number of children u-18 is 0.69 (versus 0.79 in our sample)

## 2.4 Prevalence of homeworking in the sample before and after COVID-19

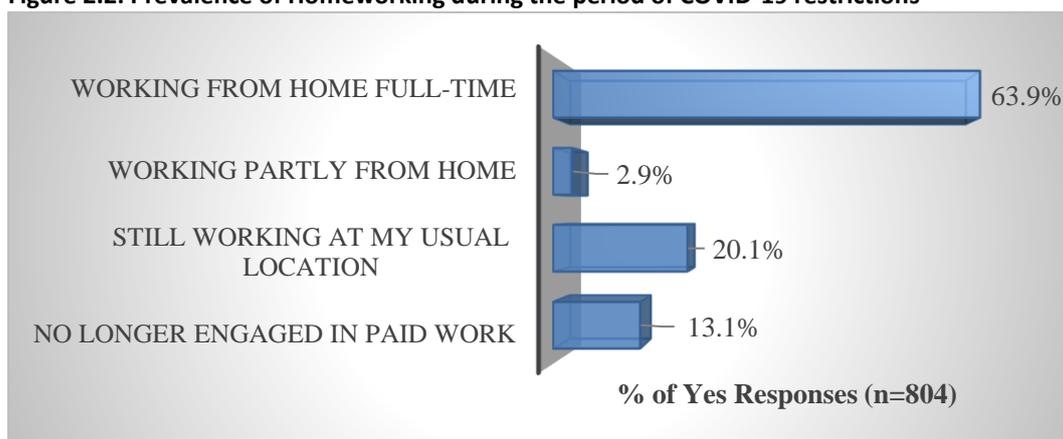
**Figure 2.1: Prevalence of Homeworking in the entire sample prior to COVID-19**



Prior to COVID-19, just **2.6%** of the sample were based fully at home for work. This incidence of full-time homeworking is broadly in line with the 2.8% figure obtained by Wheatley (2020) using the Understanding Society dataset. Prior to COVID-19, 14.5% of our sample worked from home *frequently* (at least 4 days per month). 12% worked from home *sometimes* (less than 1 day per month but more than 4 days per year) and 16.3% worked from home *occasionally* (less than 4 days per year). 55% of participants reported *never* having previously worked from home. 65% of the sample worked in offices, 6% worked in a medical setting and the remaining 29% worked in schools, retail premises, factories and construction sites.

Two months post the onset of COVID-19, a dramatic shift to homeworking occurred. **Figure 2.2.** sets out the prevalence of homeworking during COVID-19.

**Figure 2.2: Prevalence of Homeworking during the period of COVID-19 restrictions**



13.1% of the 804 workers who responded were no longer engaged in paid work due to having commenced maternity or sick leave (0.7%); been furloughed or placed on temporary leave (11.1%) or been made unemployed (1.5%). Of the 699 respondents who were still working at the time of the survey, 73.5% were working fully from home, an

increase of 71 percentage points over the pre-COVID-19 figure. 3.3% were working partially from home and just 23.2% were continuing to work from their usual location. Workers who earn high salaries (more than UK £3,000 net per month) are significantly more likely to be working from home during COVID-19 than workers on lower salaries (88.4% v 75.0%;  $p=.006$ ), a finding which is supported by other recent research (e.g. Adams-Prassl et al, 2020). More senior workers are also significantly more likely to be working from home ( $p=.007$ ).

### 3. WORKER WELL-BEING BEFORE AND DURING COVID-19

While substantial well-being reductions have been documented in the broader population due to the pandemic (Banks and Xu, 2020), existing research has indicated that such reductions were smaller among full-time employees (Spurk & Straub, 2020; Adams-Prassl, 2020). However, other work has also pointed to aspects of the switch to homeworking that were challenging from a well-being perspective, for example working while managing childcare responsibilities (CSO, 2020).

This section examines the work-related well-being of 808 full-time UK workers during the period of COVID-19 restrictions. We discuss changes in patterns of work-related stress during COVID-19. We also explore heterogeneity in job satisfaction levels and feelings experienced at work during COVID-19. We relate these differences to demographic and personal characteristics, including parental status, mental and physical self-rated health and personality.

In both surveys workers were asked to rate their current level of work-related stress on a scale from 1 (“*not at all stressed*”) to 5 (“*extremely stressed*”). The mean work-stress reported in the COVID-19 survey is 3.05, equivalent to “*moderately stressed*”, accounting for 35.3% of total responses. 5.8% of workers rate themselves as being “*extremely stressed*”; 29.3% as “*stressed*” and the remaining 29.5% do not consider themselves to be suffering from high levels of work stress, assigning themselves a rating of either 1 (6.5%) or 2 (23.1%). These figures have remained relatively stable pre- and during the period of COVID-19 restrictions.

Female workers are more likely to report feeling stressed or extremely stressed by work during COVID-19 than male workers, regardless of whether they are working from home (37.3% v 34.1%) or not (37.5% v 29.6%). However, these differences are not significant. No significant age effects are found. Workers who are worried about the impact of COVID-19 on their ability to pay their bills are significantly more likely to report high levels of work stress ( $p=.045$ ).

In terms of work-related characteristics, as was the case prior to COVID-19, workers who are more senior, earn more than £3,000 net per month and who have been employed by their organisation for 10 years or more are significantly more likely to report high levels of work stress ( $p<.001$ ;  $p=.014$ ;  $p=.045$ ). Interestingly, while workers employed in the public sector were significantly more likely to report high levels of work stress prior to COVID-19 (41.0% v 32.8%;  $p=.020$ ), this pattern has been reversed during COVID-19, with workers in the private sector now significantly more likely to report high work stress levels (39.2% v 30.0%;  $p=.008$ ). There is almost no difference between the average work stress

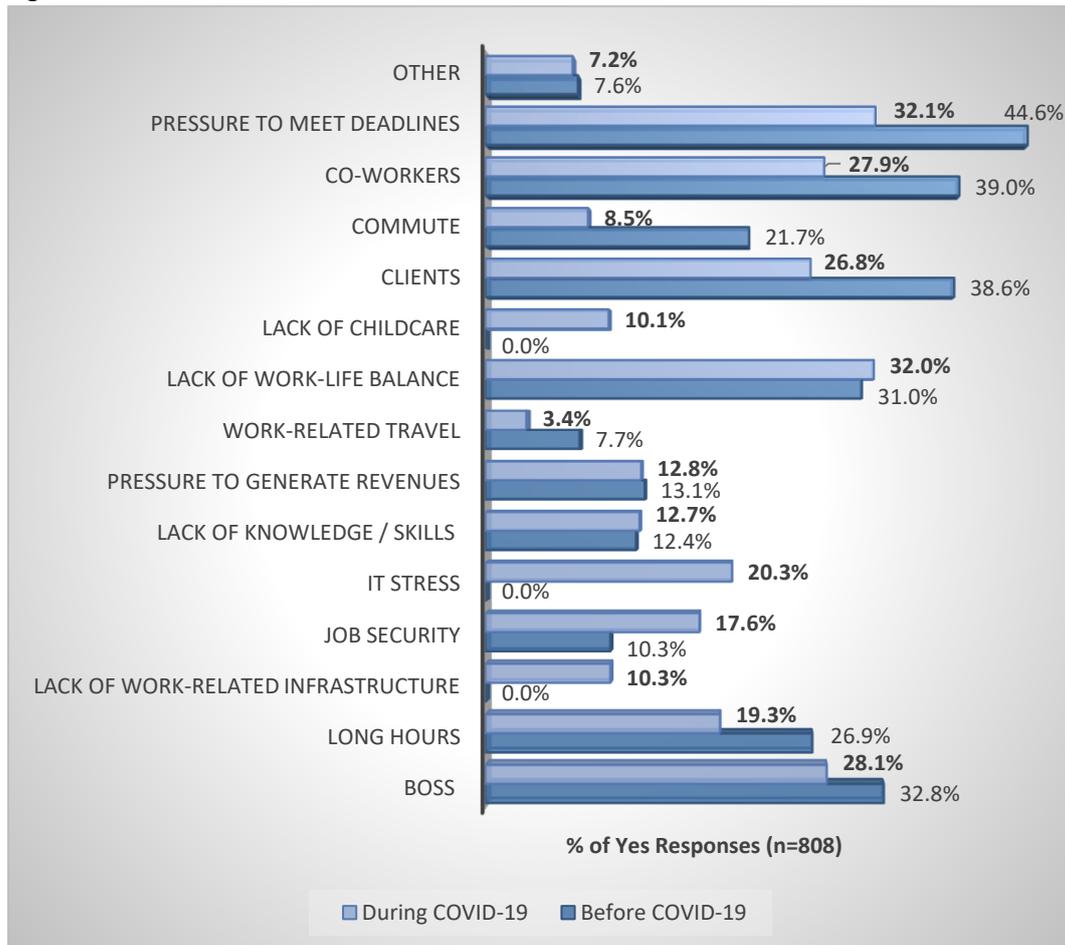
of homeworkers and non-homeworkers during COVID-19 (3.09 v 3.04). While current homeworkers who have previous experience of homeworking prior to COVID-19 are less likely to report high levels of work-related stress, this difference is not significant (35.6% v 37.1%;  $p=.728$ ).

Respondents in both surveys were asked to detail the main *sources* of work-related stress. While overall stress levels may not have changed, COVID-19 has triggered a ‘re-ordering’ of the issues which workers identify as being particularly stressful. **Figure 3** below sets out the main sources of work-related stress identified in both surveys.

In the pre-COVID-19 survey, “*meeting deadlines*” was the number one source of stress for workers, with 44.6% of respondents citing it. While it still ranks highly, the proportion of workers mentioning it (32.1%) has fallen by twelve percentage points. Personnel-related stress is also less of an issue than before COVID-19. While *bosses* remain a key stressor, fewer workers mention *co-workers* and *clients* than prior to COVID-19. This reduction is more pronounced when the sample is restricted to current homeworkers. This may reflect the fact that workers are having fewer interactions with co-workers and clients or are able to avoid problematic people when homeworking. Not surprisingly, stress associated with *commute* and *work-related travel* has fallen dramatically while the prevalence of *job security related stress* has increased from 10.3% to 17.6%. Interestingly, the percentage of people who are stressed about achieving a good *work-life balance* remains virtually unchanged, at 26.9% of the sample, suggesting that for some workers maintaining a clear separation between work and life when homeworking may be an issue.

When the sample is restricted to those workers who are working from home during COVID-19, personnel-related stress becomes even less of an issue. Just 22.5% of homeworkers cite co-workers as a source of stress, compared to 29% of non-homeworkers. The same pattern is found for stress related to supervisors (homeworkers: 25.8% v non-homeworkers: 32.7%) and clients (homeworkers: 22.5% v 28.9%). Homeworkers are less stressed about long hours (14.3% v 25.9%) and achieving work-life balance (27.8% v 30.2%). However, they are considerably *more* stressed about job security (14.9% v 9.8%), meeting deadlines (32.6% v 20.3%), lack of knowledge and skills (13.6% v 8.0%), IT issues (20.8% v 12.9%), lack of work-related infrastructure (10.4% v 7.4%) and childcare (10.8% v 5.6%) than workers who are not working from home during COVID-19.

**Figure 3.1: Sources of Work-Related Stress<sup>7</sup>**



### 3.2 Job Satisfaction

Across the sample, workers’ average overall satisfaction with their jobs has increased marginally to 5.94, compared to the pre-COVID-19 level of 5.87. While the increase is small and statistically non-significant, it is nonetheless noteworthy given the dramatic and unforeseen change in working circumstances which workers have been faced with during this period. It is worth noting that workers’ average satisfaction levels across *all* six facets of work satisfaction (job in general; the work itself; pay; promotion opportunities; people and supervision) are marginally higher than pre-COVID-19, although none of these differences are significant. Workers who are homeworking during COVID-19 are significantly more satisfied with their jobs than workers who have continued to work from their pre-COVID location, with a mean overall job satisfaction score of 6.2, compared with 5.6 for non-homeworkers ( $p=.005$ ). They are also more likely to be highly satisfied<sup>8</sup> with

<sup>7</sup> Note: Three of the potential responses, IT stress, lack of work-related infrastructure and lack of childcare were not included in the original survey

<sup>8</sup> Score of 7 or more where 0= Completely Dissatisfied with my job and 10 = Completely Satisfied with my job

all six facets of job satisfaction, although these differences are only significant for people ( $p < .001$ ); pay ( $p < .001$ ) and supervision ( $p < .001$ ).

Workers who have previous experience of homeworking prior to COVID-19 are significantly *more* likely to be *highly satisfied* with their jobs (53.0% v 45.7;  $p = .038$ ) and significantly *less* likely to be *highly dissatisfied* with their jobs<sup>9</sup> (20.0% v 28.8%;  $p = .004$ ) during COVID-19 than workers who lack previous homeworking experience. Current homeworkers who also worked from home in some capacity prior to COVID-19, are significantly more likely than current homeworkers who lack any homeworking experience to report high satisfaction levels with their jobs in general (73.0% v 61.8%;  $p = .006$ ), as well as with their pay levels ( $p < .001$ ), promotion opportunities ( $p = .010$ ), supervision ( $p = .552$ ) and the nature of their work ( $p = .103$ ) using the widely used Job Descriptive Index (JDI) job satisfaction measure. This may reflect the fact that previous homeworkers have had a longer period to adapt to homeworking. Alternatively, it may be the case that workers who had the option to work from home prior to COVID-19 and who voluntarily elected to do so are more likely to be satisfied with their jobs than workers who are currently homeworking on an involuntary basis.

While overall levels of job satisfaction have remained relatively stable, there is evidence of some interesting shifts in the relationship between demographics, personal characteristics and high levels of job satisfaction during COVID-19. When the sample is restricted to those 77% of workers who are working from home during COVID-19, there is evidence of some very limited age and gender effects. Homeworkers in the 25 to 34 age group are the only age category who experience a significant change in job satisfaction during COVID-19 (+0.6;  $p = .002$ ). Female homeworkers report on average higher levels of satisfaction with their jobs in general during COVID-19 than male homeworkers (18.4 v 17.9). While female homeworkers report higher overall job satisfaction than before COVID-19, the effect is not significant ( $p = .225$ ). Using the more comprehensive JDI measure of job satisfaction however, female homeworkers are significantly more satisfied with their jobs in general during COVID-19 compared to the period prior to COVID-19 (+1.5;  $p = .007$ ). They are also significantly more satisfied with their pay (+2.3;  $p < .001$ ); promotion opportunities (+0.9;  $p = .054$ ); supervision (+1.5;  $p = .001$ ) and people at work (+1.7;  $p < .001$ ) while homeworking during COVID-19. These effects are more pronounced for female homeworkers who have previous homeworking experience. For example, satisfaction with the job in general of female homeworkers who have previously worked from home has increased by 1.94 units ( $p = .006$ ) during COVID-19, compared to a non-significant increase of just 0.7 units for female homeworkers who were forced to switch to homeworking due to COVID-19. Job satisfaction for male homeworkers has also increased during COVID-19 however, albeit to a marginally lesser extent than for females (+1.4;  $p = .09$ ).

Parents who are homeworking during COVID-19 report a marginally significant 0.5 unit ( $p = .073$ ) increase in overall job satisfaction compared to their pre-COVID-19 levels. In particular, satisfaction levels with people encountered on the job has increased significantly by 1.2 units ( $p = .008$ ), as has satisfaction with supervision received (+1;  $p = .06$ ).

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<sup>9</sup> Score of 3 or less where 0= Completely Dissatisfied and 10=Completely Satisfied

Interestingly, single parents who are currently homeworking have experienced a significantly larger increase in job satisfaction (+1.5;  $p=.01$ ) during COVID-19 than non-single parents, with single parents who have previous homeworking experience experiencing the largest increase in job satisfaction (+1.8;  $p=.021$ ). However, whereas prior to COVID-19 parents were significantly more likely to report high levels of job satisfaction ( $p=.043$ ) and significantly less likely to report low levels of job satisfaction ( $p<.001$ ) than non-parents, these differences have been eroded by COVID-19, to the extent that there is now very little difference between the job satisfaction of parents and non-parents (6.17 v 6.22). This may reflect the current difficulties of combining homeworking with childcare or home-schooling. In fact, non-parents have benefitted from homeworking to a far greater extent than parents in terms of increased job satisfaction. Their average satisfaction levels with their jobs in general has increased by 2.5 units during COVID-19, a statistically significant difference ( $p<.001$ ).

Similarly, while current homeworkers who were single prior to COVID-19 were significantly *more* likely than workers in a relationship to report high levels of job dissatisfaction (30.0% v 20.7%;  $p= .022$ ), this difference has been almost eliminated by COVID-19, with just 20% of single current homeworkers reporting high levels of job dissatisfaction compared to 19.6% of homeworkers in a relationship. The mean overall job satisfaction of single workers has significantly increased during COVID-19 (+0.53;  $p=.039$ ). Single homeworkers are also marginally significantly more likely to report high levels of job satisfaction during COVID-19 than homeworkers who are in a relationship (67.7% v 51.6%;  $p=.08$ ). This may reflect the fact that single homeworkers have more space or a quieter environment in which to work in given they are significantly less likely to share their homes with children (30.0% v 60.8%;  $p<.001$ ).

In terms of health, the strength of the association between *exercising* on five or more days per week and the likelihood of reporting high levels of job satisfaction has strengthened during COVID-19 and is now significant ( $p<.001$ ) across the entire sample. While the average job satisfaction of workers who are homeworking during COVID-19 and who reported low levels of self-rated mental health prior to COVID-19 remains lower than that of workers with higher mental health ratings (5.6 v 6.0), the gap has narrowed considerably during COVID-19 from the pre-COVID-19 differential of -1.6 units (4.4 v 6.0). Workers with low self-rated mental health prior to COVID-19 have experienced a significant increase in average job satisfaction levels during COVID-19 (+1.77;  $p<.001$ ). While this effect holds for current homeworkers with low self-rated mental health scores who have previous homeworking experience and those who do not, the effect on job satisfaction is largest for workers with low levels of self-rated mental health prior to COVID-19 who have switched to homeworking for the first time during the period of COVID-19 restrictions (+2.75;  $p<.001$ ). Similarly, current homeworkers who reported having a mental health condition prior to COVID-19<sup>10</sup> report significantly higher levels of job satisfaction during COVID-19 than prior to COVID-19 (+1.8;  $p<.001$ ). While they are still marginally significantly more likely than workers with no mental health condition to

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<sup>10</sup> Respondents in Survey 1 were asked to confirm whether they had a chronic mental health condition and to specify same

report high job dissatisfaction during COVID-19 (29.4% v 22.9%;  $p=.057$ ), this inter-group difference has shrunk significantly from its pre-COVID-19 level of 34.1% v 19.8% ( $p<.001$ ). Once again, the effect is larger for workers with a mental health condition who have made the switch to homeworking during COVID-19 than for workers with a mental health condition who have previous homeworking experience (+1.0;  $p=.022$ ). These results would suggest that homeworking may be beneficial for workers who may be more prone to mental health issues.

In relation to personality, there is evidence of a significant *increase* in the overall job satisfaction during COVID-19 of current homeworkers who register *low* scores on the Big-5 extraversion measure<sup>11</sup> (+0.62;  $p=.009$ ). Using the more comprehensive JDI measure of job satisfaction, workers with *low* extraversion scores are significantly more satisfied with their job in general ( $p=.002$ ); pay ( $p<.001$ ); promotion opportunities ( $p=.002$ ); the work itself ( $p=.034$ ); supervision ( $p=.034$ ) and the people they encounter at work ( $p<.001$ ) than they were prior to the outbreak of COVID-19. Conversely, overall work satisfaction for current homeworkers who score highly on Big-5 extraversion has *decreased* during COVID-19, albeit non-significantly ( $p=.482$ ). Satisfaction with the six facets of the JDI job satisfaction measure has remained broadly stable with high extraversion scores during COVID-19, with the exception of pay, where satisfaction levels have *increased* significantly ( $p=.003$ ). These results suggest a positive association between homeworking and lower levels of extraversion as measured using the Big-5 scale.

Prior to COVID-19, current homeworkers who score highly on the neuroticism scale, were significantly less likely to report high levels of overall job satisfaction than workers with low neuroticism scores (65.0% v 42.8%;  $p<.001$ ). This difference has been eroded during the period of COVID-19 restrictions, with workers who score highly on neuroticism being equally likely to report high levels of job satisfaction. Similarly, while workers who score highly on neuroticism are still more likely to report low levels of job satisfaction, the difference is no longer significant. Workers scoring highly on Big-5 neuroticism report significant increases across all six JDI facets of job satisfaction as compared to their pre-COVID-19 figures. In particular, satisfaction with the people encountered on the job has increased by 2.8 units (from 11.6 pre-COVID-19 to 14.5 during-COVID-19;  $p<.001$ ). Neuroticism is associated with nervousness and anxiety and it has also been shown to predict depression (Schmitz, Kugler & Rollnik, 2003). Workers scoring more highly on neuroticism may therefore feel more positive about their job when allowed to work from home, a familiar and safe environment. Working from home may also enable them to avoid potentially stressful triggers, such as face-face interactions with customers or co-workers.

Finally, workers across the entire sample who are happy with the way that their respective organisations have handled the COVID-19 crisis, are significantly more likely to report higher levels of job satisfaction ( $p<.001$ ). Current homeworkers who rate their organisation's handling of COVID-19 highly, report significantly higher overall job satisfaction levels during COVID-19 compared to the pre-COVID-19 period (+0.7;  $p<.001$ ). These results may be linked to earlier research (Allen & Shockley, 2009) which highlights

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<sup>11</sup> Score of 2 or less on a scale of 1 to 5 where 5=Highly extravert

the positive association between employees feeling supported by their organisations and successful homeworking (Allen & Shockley, 2009). While 11.2% of the sample believe their organisations are doing a “poor” or “very poor” job of handling COVID-19, 70.5% of the sample rate their organisation’s handling of the pandemic as “good” or “excellent”. As was the case prior to COVID-19, organisations’ emphasis on worker well-being remains significantly positively associated with high job satisfaction, with 74% of workers who believe that their organisations place a strong emphasis on worker well-being, reporting overall job satisfaction scores of 7 or higher (out of 10).

### 3.3 Feelings at Work

Previous research has shown that work-related “affective well-being”, namely the extent to which workers experience positive or negative feelings at work, effects overall life and job satisfaction – a finding which is also supported by our results. Research also shows that the level of “activation” (arousal) associated with different emotions has important implications for worker well-being. For example, high activated positive feelings such as “excited” or “inspired” have been shown to have stronger associations with feeling engaged at work than low activated positive emotions such as “calm” (Warr, Bindl, Parker, & Inceoglu, 2014).

Both surveys employ the same measure of affective well-being, the Warr & Parker IWP Multi-Affect Indicator (2010). The IWP asks workers to use a six-item scale<sup>12</sup> to record how often they had experienced eight positive emotions (enthusiastic, excited, inspired, joyful, calm, relaxed, at ease and laid-back) and eight negative emotions (anxious, nervous, tense, worried, dejected, despondent, depressed, hopeless) during the previous month, while working. Average levels of work-related positive affect (positive emotions) and negative affect (negative emotions) were then calculated using the averages for each emotion.

As was the case prior to COVID-19, current homeworkers who reported poor self-rated mental health prior to COVID-19, are more likely to experience negative feelings at work more often than workers with higher self-rated mental health scores (14.3% v 8.2%), however the differential between the two groups has narrowed by 18 percentage points during COVID-19 and is no longer significant ( $p=.113$ ). This is the case for all of the negative emotions examined in this study. The results reveal that while there is still a gap between the extent to which workers who have a self-declared mental health condition and those who do not have a condition experience negative and positive emotions at work, this gap has diminished during COVID-19. For example, while 12.5% of workers with a mental health condition report feeling anxious at work “a lot” or “all of the time”, compared to 8.4% of workers with no such condition ( $p=.031$ ), the comparable figures for the pre-COVID-19 period are 15.9% v 4.0% ( $p<.001$ ). Conversely, current homeworkers who reported low self-rated mental health scores prior to COVID-19 are *more likely* to frequently experience positive emotions at work during COVID-19 than workers with higher self-rated mental health scores ( $p=.288$ ). The opposite result was found in the

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<sup>12</sup> 0 = “Never” and 6 = “Always”. Note: The original scale, which runs from 1 to 7, was recoded to 0-6 to match the DRM measure of positive and negative affect

survey conducted prior to COVID-19, with workers who had poor self-rated mental health being significantly *less* likely to experience positive emotions at work (4.8% v 25%;  $p < .001$ ).

Several other personal characteristics are found to significantly influence overall affective well-being levels during COVID-19. Workers who feel that people cannot generally be *trusted*, are significantly *more* likely to report experiencing negative emotions while at work with higher frequency than respondents who report trusting people in general (16.3% v 9.5%;  $p = .004$ ). While further research is required to investigate this finding, it is feasible that workers with high levels of trust may be happier as they have more faith in their organisation's or government's ability to cope with the pandemic. Workers with low levels of *trait self-control* are also significantly more likely to experience high levels of negative affect while working during COVID-19 than workers with higher self-control scores (26.8% v 11.1%;  $p < .001$ ). Workers who exercise on 5 days or more during COVID-19 are significantly less likely to experience frequent negative emotions at work (9.2% v 14.8;  $p = .028$ ) and to experience frequent positive emotions (28.9% v 22.6%;  $p = .055$ ). *Sleep quality* is also significantly associated with emotional well-being, with significantly more workers who report sleeping well the night before reporting experiencing positive emotions at work during the previous month on a frequent basis than workers who slept poorly (43.8% v 21.0%;  $p < .001$ ).

Personality is also a significant factor. When the sample is restricted to current homeworkers, workers who score highly on Big-5 extraversion are less likely to experience frequent positive emotions and more likely to experience frequent negative emotions while homeworking during COVID-19 than workers with low extraversion scores, although these differences are not significant. Average overall positive affect during COVID-19 is lower for homeworkers who score highly on extraversion (2.4 v 2.6) and is significantly *lower* than the pre-COVID-19 level for this group (2.4 v 2.8;  $p = .006$ ). The effect is larger for current homeworkers with high extraversion scores who had never worked from home prior to COVID-19 (-0.48;  $p = .03$ ) than for homeworkers who score highly on Big-5 extraversion and who have previous homeworking experience (-0.34;  $p = .07$ ). This may suggest that workers who score highly on extraversion and who are working from home during COVID-19 miss certain aspects of their previous (non-home) working environment.

The key findings from Section 3 are summarised below

- COVID-19 has resulted in a re-ordering of sources of work-related stress. Pressure to meet deadlines remains the number one stressor for both homeworkers and non-homeworkers during COVID-19. Supervisors, clients and co-workers are cited more frequently as stressors by non-homeworkers than homeworkers
- Homeworkers have experienced an increase in job satisfaction during COVID-19. Workers who are combining homeworking with some time spent working from their pre-COVID-19 place of work report the highest levels of job satisfaction during COVID-19, followed by full-time homeworkers and finally, non-homeworkers

- Homeworkers who are non-parents, single, in the 25-34 age category or who have poor self-rated mental health and workers who report low extraversion and high neuroticism scores have experienced significant increases in job satisfaction during COVID-19
- Homeworkers who score highly on Big-5 extraversion measure are less satisfied with their jobs and experience positive feelings at work less frequently during COVID-19
- Workers who sleep well and exercise frequently are happier at work during COVID-19
- Workers with low levels of self-rated trust or trait self-control and workers with poor self-rated mental health are unhappier at work during COVID-19 than workers with high trust and self-control and good mental health

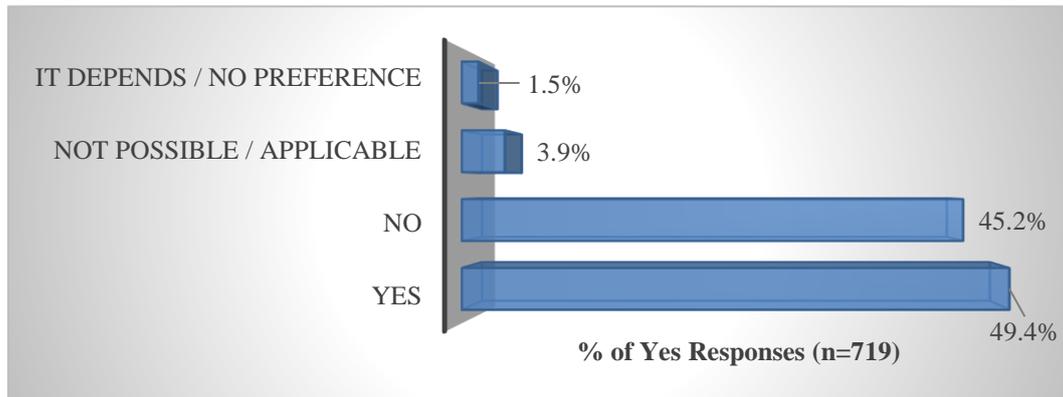
#### **4. WORKER PREFERENCES FOR HOMEWORKING DURING COVID-19 RESTRICTIONS**

Research shows that working from home does not necessarily hold universal appeal. From our original Worker Well-being survey we know that, directly prior to COVID-19, 39.8% of the sample worked for organisations who offered their employees the option of homeworking but that only 48.9% of those 319 workers were regular users of the homeworking option. This section examines overall preferences for homeworking. We relate these to a wide range of demographic and personal characteristics. We also examine aspects of homeworking that were experienced by workers as being pleasant or aversive and discuss how preferences for specific supports to improve homeworking vary by previous homeworking experience, parental status and education level.

##### **4.1 Overall Preferences for Homeworking**

When asked whether they *generally* preferred working from home to working from their usual location, 49.4% of respondents report a clear preference for homeworking, albeit not necessarily on a full-time basis. 45.2% prefer working in their usual location. 1.5% of workers have no preference either way and for 3.9% of workers homeworking is not feasible. When the sample is restricted to workers who are currently working from home, the proportion of workers who say that they generally prefer homeworking to their usual location rises to 57%.

**Figure 4.1: General preferences for homeworking**



Contrary to prior research (e.g. Gainey & Clenney, 2006), neither being in a relationship or being a parent are significantly associated with a preference for homeworking. Workers in the 18-24 age group exhibit the weakest preference for homeworking, with 61% of this category preferring working in their usual location to homeworking, compared with 42% of 45-54 year olds. However, differences between age groups are not significant overall. Similar to Gainey & Clenney (2006), we find no evidence of a gender effect. We also find a weak non-significant positive correlation between extraversion and preferences for homeworking.

Workers with one-way *commutes* of over one hour are significantly more likely to prefer homeworking than workers with shorter commutes (66.7% v 33.3%) and this difference is statistically significant ( $p < .001$ ). Workers' usual work location also has a significant influence on preferences, with 57% of previous office workers preferring homeworking and 71% of teachers preferring their usual working location ( $p < .001$ ). The *extent* of previous homeworking experience strengthens the preference for homeworking. 74% of workers who worked frequently or all the time from home prior to COVID-19 prefer homeworking, compared with 61% of workers with more limited previous homeworking experience ( $p < .001$ ). This suggests that homeworking is an 'acquired taste' which increases in line with exposure. Alternatively, it may reflect the tendency of workers who prefer homeworking to select it as often as possible.

*Work-related attitudes* are also significantly associated with homeworking preferences. A significantly larger proportion of workers with generally high *job satisfaction*<sup>13</sup> (52.5% v 40.8%;  $p = .004$ ), high *work satisfaction*<sup>14</sup> (53.6% v 44.7%;  $p = .020$ ), high *people satisfaction*<sup>15</sup> (54.1% v 35.9%;  $p < .001$ ) or high *supervision satisfaction*<sup>16</sup> (52.6% v 43.1%;  $p = .014$ ) prefer working in their usual location to working from home. Workers with a higher level of *affective commitment*<sup>17</sup> to their organisation are also significantly more likely to prefer working in their usual location than workers who are less emotionally attached to their organisations (57.3% v 45.4%;  $p = .006$ ). In summary, homeworking

<sup>13</sup> JDI job in general score of 18 or above

<sup>14</sup> JDI work satisfaction score of 14 or above

<sup>15</sup> JDI people satisfaction score of 14 or above

<sup>16</sup> JDI supervision satisfaction score of 14 or above

<sup>17</sup> Score of 4 or above on Meyer and Allen Affective Commitment scale

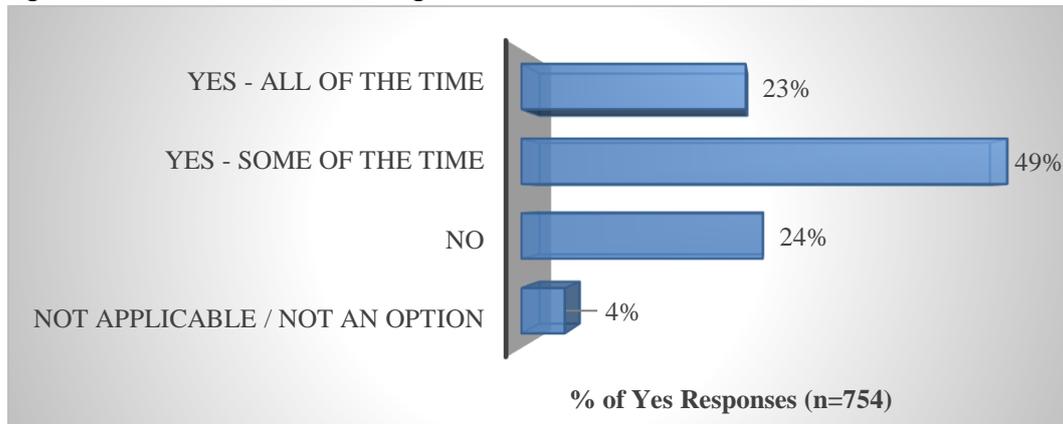
appears to hold greater appeal for workers who are generally not entirely satisfied with, or committed to, their current job.

#### 4.1.1. Preferences for homeworking after COVID-19

We extract preferences for homeworking under ‘normal’ circumstances by asking respondents “would you like to continue to work from home after COVID-19?”. The results are set out in **Figure 4.2** below. The results reveal a stronger preference to work from home post-COVID-19 than other recent surveys e.g. CSO (2020); Baerts et al (2020), with 72% of the sample wanting to work from home in some capacity after COVID-19. Only 23% of this group would, however, like to homework “all of the time”. The majority (49%) would instead prefer to homework “some of the time”. Just 24% of the sample would prefer to return to their usual work location after COVID-19.

When the sample is restricted to workers who are currently working from home, the proportion of workers who would like to continue working from home after COVID-19 rises to 84%. Only 25% of those currently working from home, however, wish to continue doing so on a full-time basis. The majority would prefer a ‘hybrid’ option where they spend some time at home and some time working in a centralised location. Workers for whom homeworking is not an option are excluded from the following discussion.

**Figure 4.2: Preferences for continuing to work from home after COVID-19**



In terms of personal characteristics, there is a significant age effect, with workers between 45 and 54 years of age significantly *more* likely to wish to continue homeworking after COVID-19 than other age groups (92.3% v 82.1%;  $p=.010$ ) and workers in the 35-44 age category significantly *less* likely to wish to continue homeworking in any capacity than other age groups (77.7% v 86.7%;  $p=.010$ ). There is no evidence of a significant gender effect, although men are marginally more likely to express a preference for continuing homeworking (72.1% v 70.8%). Workers’ *education* level is significantly associated with preferences for continuing homeworking, with 79.0% of respondents who have a university education wanting to continue homeworking after COVID-19, compared with 59.5% of non-university graduates ( $p<.001$ ). *Parents* are significantly less likely to want to continue homeworking than non-parents (66.5% v 75.8;  $p=.005$ ), although this may reflect the current difficulties for some parents of trying to combine childcare with homeworking, particularly if the other parent is employed in a ‘critical sector’, which have been

previously documented (e.g. CSO, 2020). The majority of parents (66%) *would* however like to continue homeworking after COVID-19. Previous homeworkers express a significantly stronger preference ( $p<.001$ ) for continuing to work from home.

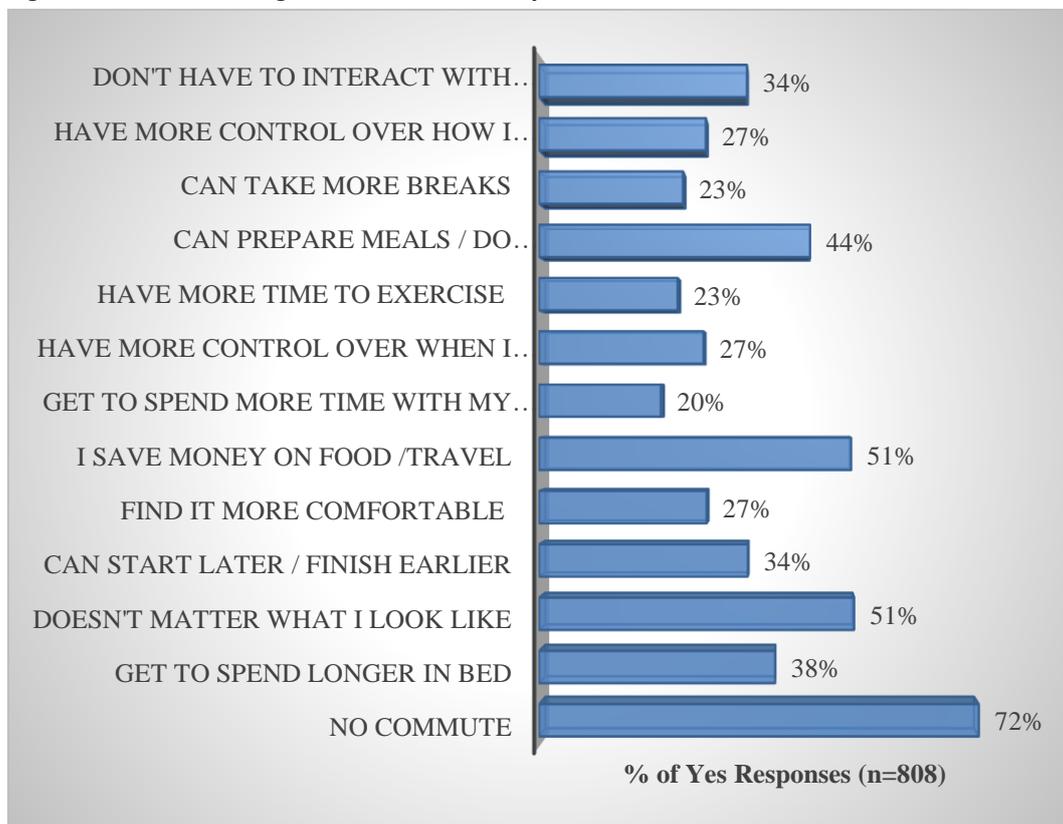
#### 4.2 Preferences for particular features of homeworking

To identify the factors underpinning homeworking preferences, respondents were asked what they liked *most* and *least* about working from home. There is evidence of considerable variation in preferences around the perceived benefits of homeworking between groups, in particular between workers who have previous experience of homeworking and workers who do not and between parents and non-parents.

##### 4.2.1. Aspects of homeworking most liked by workers

The features which respondents like most about homeworking are depicted in **Figure 4.3**.

**Figure 4.3: Homeworking features most liked by workers**



The single most frequently cited benefit is having “*no commute*”. This response was selected by 72% of the sample, with workers who have previous homeworking experience significantly more likely to list this as a benefit than workers who had never worked from home prior to COVID-19 (84% v 61%;  $p<.001$ ). In fact, previous homeworkers are significantly more likely to select *all* of the responses listed in Figure 6 as aspects that they like about homeworking, with the exception of “*get to spend more time with my kids*” and “*not having to interact with anyone if I don’t want to*”. This raises the possibility of

confirmation bias, in that workers who had already chosen to homework prior to COVID-19 may be trying to convince themselves or the researchers that they made the right choice.

*Parental status* is significantly associated with preferences for specific homeworking features. Non-parents are significantly more likely to select “*it doesn’t matter what I look like / I can wear what I want*” (57.0% v 44.9%;  $p=.001$ ), “*more time in bed*” (46.7% v 29.6%;  $p<.001$ ) and “*more physically comfortable environment*” (31.4% v 23.6%;  $p=.026$ ) as benefits of homeworking than non-parents. Parents, on the other hand, are more likely to select “*get to spend more time with my kids*” ( $p<.001$ ) than non-parents, although interestingly, 60% of the respondents who are parents report that spending more time with their children is *not* a feature of homeworking which they particularly like. This may however reflect the current exceptional circumstances, namely having to work from home without childcare. Parents are also *less* likely to select “*having more time to exercise*” (16.0% v 28.9%;  $p<.001$ ), “*can take more breaks*” (19.0% v 27.9%;  $p=.007$ ), “*can prep meals or do housework between tasks*” (39.6% v 49.2%;  $p=.027$ ) or “*not having to interact with anyone if I don’t want to*” (26.8% v 40.9%;  $p<.001$ ) as key homeworking benefits than non-parents.

The results highlight once again the importance of worker’s attitudes towards social interactions and the people they work with in shaping homeworking preferences. 34% of workers mention “*I don’t have to interact with anyone if I don’t want to,*” as an aspect that they *most* like about homeworking. Workers with low levels of self-rated mental health are significantly more likely to select this than workers with higher mental-health ratings (58.7% v 31.2%;  $p<.001$ ). They are also more likely to list “*It doesn’t matter what I look like*” as a homeworking benefit ( $p=.019$ ).

#### 4.2.2. Aspects of homeworking least liked by workers

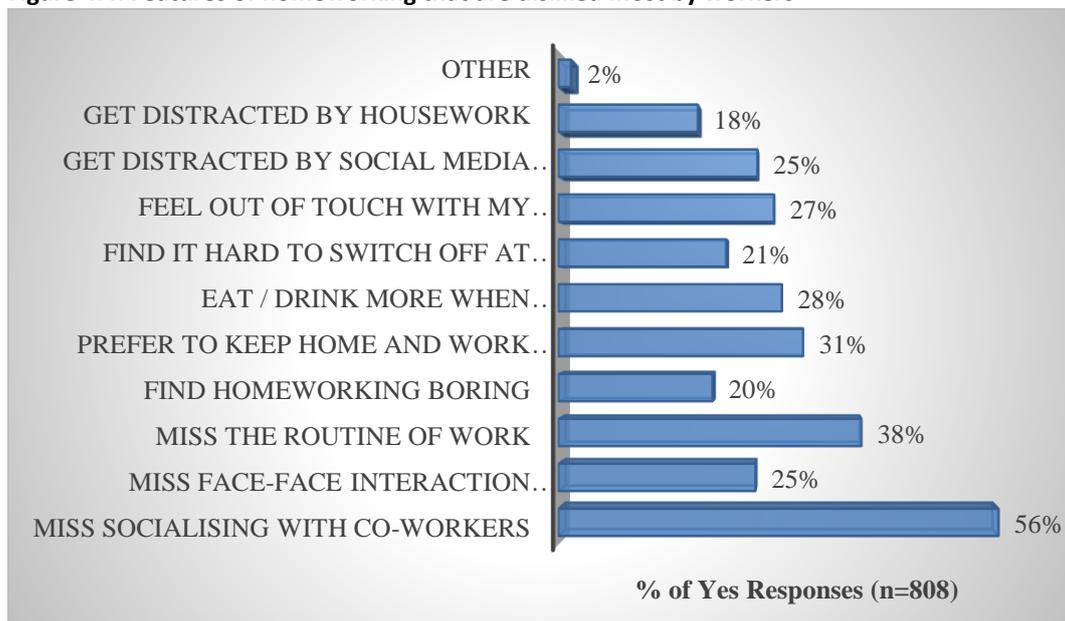
Participants were also asked what they *liked least* about working from home. The responses are illustrated in **Figure 4.4** below.

The most frequent response, selected by 56% of the sample, is “*I miss socialising with my colleagues*”. Workers who have a high degree of satisfaction with the people they encounter at work (58.2% v 55.5%;  $p=.016$ ) and with the supervision they receive (63.6% v 46.6%;  $p<.001$ ) are significantly more likely to select this response than workers who are dissatisfied with these aspects of working life. Workers with low levels of self-rated mental health are also more likely to select this response (63.9% v 40.0%;  $p<.001$ ). The importance of social relationships also underpins the selection by 27% of workers of “*feeling out of touch with their colleagues*” and missing “*face to face interaction with clients / customers*” (25%), reflecting the fact that the workplace is not just a physical location but also a psychosocial environment.

The second most frequent response is “*I miss the routine of work / find it harder to structure my day*” (38%). Non-parents were significantly more likely to select this response than parents (43.7% v 34.1%;  $p=.011$ ). They were also significantly more likely than parents to find homeworking boring ( $p=.002$ ) and to dislike the fact that it makes it harder for them to keep work and homelife separate ( $p=.015$ ) or to switch off at the end

of the working day ( $p=.001$ ). Interestingly, while a greater proportion of workers with low trait self-control scores select this response as compared to workers with high self-control scores (44.3% v 37.7%;  $p=.427$ ), the association is not significant. Workers with low levels of self-control are, however, significantly more likely to select the following responses: “I eat / drink more” (39.2% v 26.9%;  $p=.039$ ); “I find it boring” (32.0% v 17.9%;  $p=.004$ ); “I get too distracted by social media and TV” (52.6% v 22.5%;  $p<.001$ ) and “I get too distracted by housework” (35.0% v 15.3%;  $p<.001$ ). Getting distracted by social media/TV (46.7% v 23.1%;  $p<.001$ ) is also more of an issue for people with low levels of self-rated mental health than for people with better mental health ratings and for non-parents than parents (29.4% v 21.-%;  $p=.014$ ).

**Figure 4.4: Features of homeworking that are disliked most by workers**



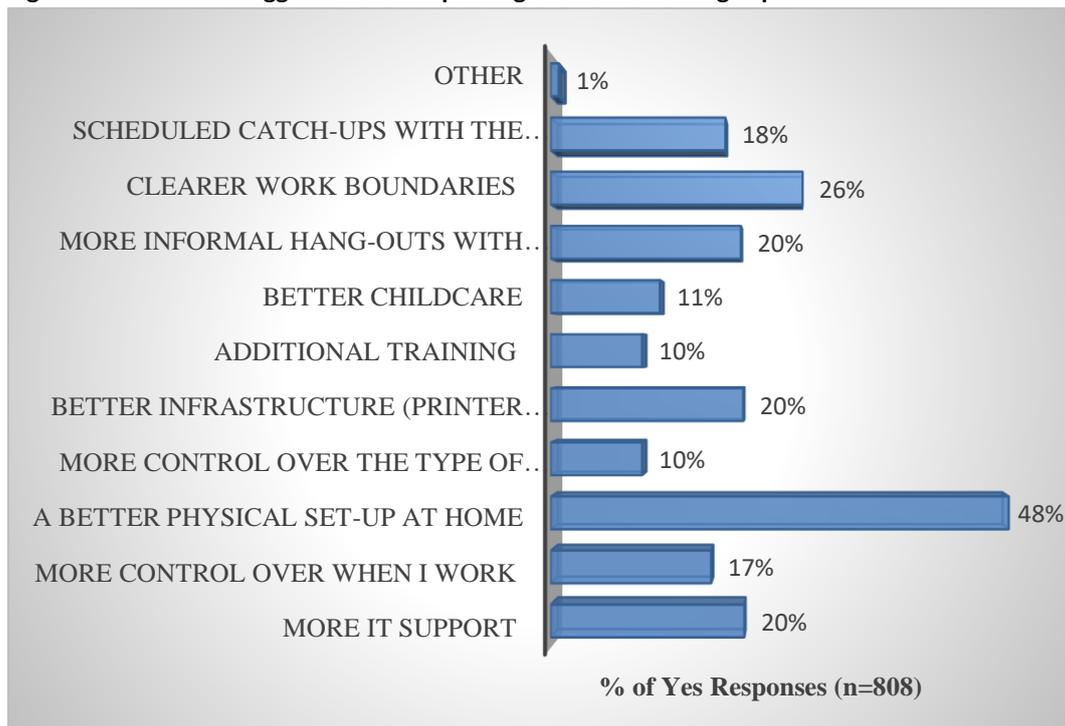
### 4.3 Preferences for supports to enhance the homeworking experience

To identify tools which employers may be able to deploy in order to make homeworking more appealing, respondents were asked “What do you think would improve your working from home experience?”. The results are set out in **Figure 4.5** below.

The most frequent response, cited by 48% of respondents, was “a better set-up at home (desk; dedicated work-space etc.)”. This may reflect the sudden imposition of homeworking, leaving many workers inadequately prepared. Previous homeworkers are significantly more likely to select this option ( $p=.002$ ) suggesting that they may have learned from previous experience that the lack of a dedicated workspace is not conducive to effective homeworking. Previous homeworkers also place significantly more value on “more informal hang-out sessions with co-workers” (26.2% v 14.4%;  $p<.001$ ), suggesting that they may have already learned in the homeworking ‘adaptation phase’ that regular communication is an important component of making homeworking work for them. Previous homeworkers are also twice as likely to cite “better childcare” ( $p=.016$ ), although this is still only an issue for 14.6% of them.

In terms of personal characteristics, there is no evidence of gender or age effects. Education does however play a significant role in shaping preferences for supports. University graduates are significantly more likely to select the following homeworking supports: “*more control over when I work*” (19.7% v 12.5%;  $p=.013$ ); “*a better set-up at home*” (52.3% v 41.3%;  $p=.005$ ); “*additional training*” (11.7% v 6.4%;  $p=.020$ ); “*better IT infrastructure*” (22.4% v 15.0%;  $p=.027$ ); “*more informal hangouts with colleagues*” (23.8% v 14.0%;  $p=.001$ ) and “*clearer work boundaries*” (30.3% v 20.4%;  $p=.004$ ) than workers without a university education.

**Figure 4.5: Workers’ suggestions for improving the homeworking experience**



Once again, there are significant differences between parents and non-parents. Non-parents are significantly more likely to mention “*clearer work boundaries (i.e. no emails after a certain hour etc.)*” ( $p<.001$ ); “*more informal hang-outs with co-workers*” ( $p=.001$ ) and “*scheduled catch-up sessions with the boss*” ( $p=.049$ ) when asked what would improve their homeworking experience. Interestingly, while parents are significantly more likely to select “*better childcare*” (22.6% v 0%;  $p<.001$ ), 77.4% of the parents in the sample do not believe that better childcare would improve their homeworking experience. Workers with low trait self-control are significantly more likely than workers with high self-control to request “*clearer work boundaries*” (37.1% v 24.7%;  $p=.033$ ), suggesting that they may require additional support to maintain a clear separation between work and homelife.

## 5. SELF-REPORTED WORK HOURS AND PRODUCTIVITY DURING COVID-19 RESTRICTIONS

This section examines the extent to which employees reported changes in their working hours, productivity and performance patterns due to the changes imposed by COVID-19 and enforced homeworking. Once again, we relate these outcomes to personal and work-related characteristics including self-rated competence, ability, mental health and trait self-control.

### 5.1 The impact of COVID-19 on Work Hours and Household Income

The average number of hours that workers report usually working has fallen from its pre-COVID level of 41.3 hours to the current level of 40.0 hours per week. Respondents were asked whether COVID-19 had impacted *the hours that they were engaged in paid work*. While 44.5% of workers responded in the affirmative, the impact of COVID-19 in terms of job losses or furloughs (temporary leave) is substantially less than that experienced in the UK economy as a whole. This may reflect the nature of the sample in that 96% of the workers in this sample have permanent contracts and 31% are employed in the ‘essential’ Health (9.7%), Education (12.7%) and Professional Services (8.9%) sectors. Just 1.5% of the sample have been made *unemployed* due to COVID-19. Food and publishing sector employees are the worst affected, accounting for 33% of job losses each. Male workers are significantly more likely to have lost their job during COVID-19 (2.7% v 0.9%;  $p=.051$ ). A further 10.2% of respondents have been *furloughed* (placed on temporary leave).

22.1% of the sample report working *fewer hours* due to COVID-19, although for a small proportion of the sample, the reduction is ‘voluntary’, in that they have chosen to work fewer hours due to childcare issues, increased caring responsibilities etc. Workers in the 18-24 age groups are most likely to report reduced hours due to COVID-19 (33% v 21%;  $p=.098$ ). 9.6% of the sample experienced an *increase* in working hours due to COVID-19, with employees in the Education and Health sectors accounting for 18% of those responses each. The majority, 55.4%, have however experienced *no change at all* in working hours due to COVID-19.

Over one third of the sample (37%) report being financially worse-off as a household due to COVID-19. 12% of respondents report being financially better-off, with the majority (51%) experiencing no change in income. These results are similar to other recent findings in relation to the impact of COVID-19 on income (e.g. RIWI, 2020 cited in Bell & Blanchflower, 2020<sup>18</sup>).

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<sup>18</sup> In an unpublished online survey carried out in April 2020, RIWI found that 39% of UK respondents were financially worse off due to COVID-19. 6% were better off and 57% had experienced no change

## 5.2 The impact of COVID-19 on Self-Rated Performance

The results indicate that COVID-19 has had a substantive *negative* effect on self-rated performance and productivity.

### 5.2.1 Overall self-rated performance at work

Respondents were asked to rate their *overall performance at work* over the previous month using a 0-10 scale, where 0 is the worst job performance anyone could have at their job and 10 is the performance of a top worker. The mean performance score fell from 7.5 to 6.9, a reduction of six percentage points. It is unlikely that this decline can be attributed solely to changes in perceived ability given that 44.2% of the sample rate their current work ability as high<sup>19</sup> and there is no significant difference between workers who were recently promoted and the rest of the sample. Nor is the decline in self-rated performance purely related to enforced homeworking as there is no significant difference between the self-rated performance of workers who have previous experience of working from home and workers who have no such experience, although a slightly higher proportion of previous frequent homeworkers rate their performance as high. Instead, it seems that there may be a pure “COVID effect” on productivity, which may be more psychological than physical given this sample’s relatively low physical exposure to the virus.

### 5.2.2 Impact of COVID-19 on self-rated productivity

Respondents were asked to assess the impact of COVID-19 on their productivity. 45.2% of the sample reported that they felt “*less productive at work than usual due to COVID-19*”. 43.0% did *not* feel less productive and 11.8% were not sure. Interestingly, workers who are homeworking are significantly more likely to report being less productive at work than usual due to COVID-19 than workers who are not homeworking (48.9% v 28.6%;  $p < .001$ ). While current homeworkers with previous homeworking experience are less likely to report feeling less productive due to COVID-19 (47.4% v 51.2%), this difference is nonsignificant ( $p = .393$ ).

Workers with low levels of self-rated *mental health*<sup>20</sup> are significantly *more* likely to report that their productivity has been negatively affected by COVID-19 (70.0% v 42.7%;  $p < .001$ ), as are workers with *low trait self-control scores*<sup>21</sup> (59.5% v 43.3%;  $p = .004$ ). 51.5% of workers who report low life satisfaction feel less productive, compared with 41.4% of respondents with high life satisfaction ( $p = .006$ ). Low job satisfaction<sup>22</sup> is also significantly positively associated with feeling less productive (52.8% v 37.4%;  $p < .001$ ). General mood is also important, with significantly fewer ‘happy’ workers i.e. workers with high general<sup>23</sup>

<sup>19</sup> Score of at least 8 where 0 = lowest work ability ever and 10 = “lifetime best ability”

<sup>20</sup> Score of “Very Bad” or “Bad” level on the self-rated mental health scale used in Survey 2

<sup>21</sup> Score of below 35 on the Brief Self Control Scale (Tangney et al, 2004)

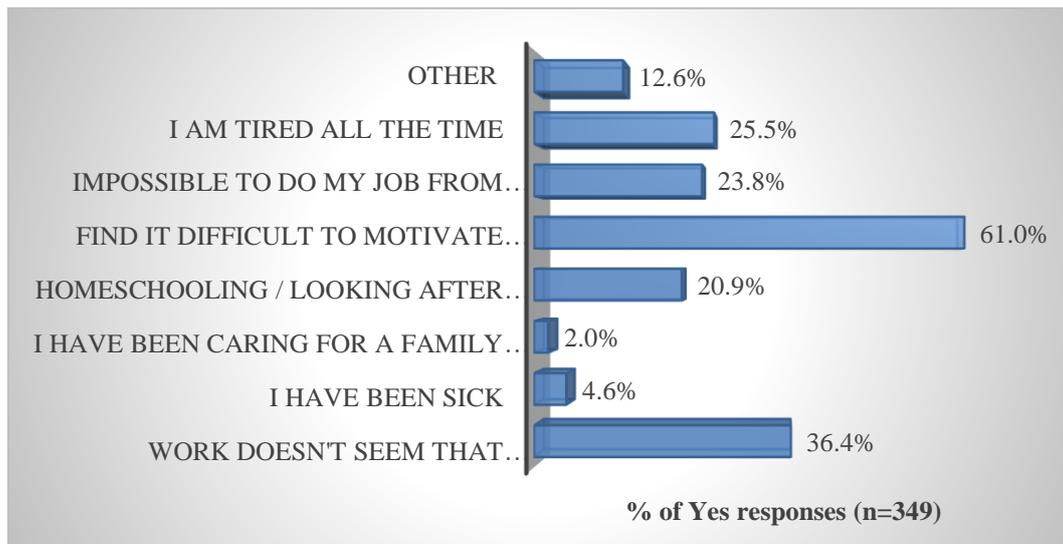
<sup>22</sup> Score of below 7 on a scale where 0 = Completely Dissatisfied and 10 = Completely Satisfied

<sup>23</sup> Score of 3.5 or higher out of 6 on the IWP MultiAffect Indicator which assesses the extent to which feelings were experienced at work during the previous month, where 0 = feeling not experienced at all and 6 = feeling experienced ??

or episodic<sup>24</sup> levels of positive affect, reporting feeling less productive due to COVID-19 than unhappier workers ( $p<.001$ ). Workers who self-rate their overall performance the previous month as high<sup>25</sup> are significantly *less* likely to report feeling less productive due to COVID-19 (33.1% v 73.6%;  $p<.001$ ), as are respondents who report high current work ability (22.2% v 63.1%;  $p<.001$ ).

Workers who reported feeling less productive due to COVID-19 were asked to expand on what they felt might be driving this deterioration. The results are set out in **Figure 9** below.

**Figure 5.1. Reasons cited by workers for reduced productivity due to COVID-19**



For those workers who believe that their productivity has been adversely effected by COVID-19, psychological factors play an important role, with 61% of those workers reporting that they find it “*difficult to get motivated*” and 36% admitting that “*work doesn’t seem all that important right now*”. These two responses are significantly more likely to come from workers with low levels of self-rated mental health ( $p<.001$ ). Workers with low trait self-control scores are also significantly more likely than workers with high self-control scores to struggle with motivation (41.2% v 22.3%;  $p=.002$ ), exhaustion ( $p<.001$ ) and to place a lower priority on work ( $p=.023$ ). Non-parents who report lower levels of productivity due to COVID-19 are significantly *more* likely to attribute their reduction in productivity to a lack of motivation (32.7% v 20.3%;  $p<.001$ ) than parents ( $p<.001$ ). Workers scoring more highly on neuroticism are also more likely to feel that work just does not seem all that important during COVID-19 ( $p=.039$ ).

A further 25% report feeling “*tired all the time*”, with workers who have low levels of self-rated mental health ( $p<.001$ ) and stressed workers significantly more likely to fall into this group than workers who are not overly stressed about work (14.6% v 8.9%;  $p=.022$ ).

<sup>24</sup> Score of 3.5 or higher out of 6 on Day Reconstruction Method positive affect which assesses the extent to which positive feelings were experienced the previous day, where 0=feeling not experienced at all and 6=feeling experienced ??

<sup>25</sup> Score of 7 or above on 0-10 scale where 10=“the best performance possible”

### 5.3 The impact of homeworking on Self-Rated Productivity

Previous research has identified that homeworking has a *positive* effect on worker productivity. For example, YouGov (2015) found that 30% of workers believed they were more productive when they worked from home, with just 17% reporting reduced efficiency. Our survey contained questions aimed at isolating the impact of homeworking on productivity from that of COVID-19. Workers were asked to assess the extent to which homeworking effected both the *quantity* of work they were completing as well as the *quality* of that work. The effect of homeworking on both the quantity and quality of work produced is found to be positive overall.

#### 5.3.1 Quality of Work undertaken

26.1% of the sample believe they produce *higher* quality when homeworking. 21.3%, believe their work is of *lower* quality and 52.6% feel that homeworking *makes no difference to the quality of their work*. When the sample is restricted to workers who are currently working from home, the proportion of workers who claim that they produce work of the same or higher quality when homeworking increases to 80.0%. 23.0% of current homeworkers believe that they produce work of lower quality when working from home. While workers with *previous homeworking experience* are marginally more likely to report producing higher quality work when homeworking than workers who have never worked from home (27.0% v 25.3%;  $p=.606$ ), the association only becomes significant when the previous homeworkers category is restricted to *frequent* previous homeworkers ( $p=.024$ ). This suggests that homeworking performance improves with practice.

While workers who report high levels of current *work ability* and overall *performance* are also significantly more likely to report producing *higher* quality work when homeworking ( $p=.003$ ;  $p=.002$ ), the relationship between *education* and quality of work produced when homeworking is not significant. Work quality and sleep quality are also linked, with workers who reported having had a higher quality *sleep* the previous night<sup>26</sup> significantly more likely to report producing higher quality work when homeworking than workers who slept poorly ( $p=.002$ ). While further investigation is required, it is possible that certain categories of workers who homework may have higher quality sleep.

Workers' satisfaction levels in relation to the *supervision* which they receive at work is significantly associated with the quality of work produced when homeworking ( $p=.001$ ). 32.4% of workers who are generally dissatisfied<sup>27</sup> with their supervision report producing higher quality work when homeworking, compared with 21.4% of workers who report higher levels of satisfaction. This suggests that workers with less positive relationships with their supervisor may thrive in a homeworking environment, where supervision may be less frequent or direct. Satisfaction with *people encountered on the job* is also significantly associated with work quality ( $p<.001$ ), with 35.4% of workers with low levels of people satisfaction<sup>28</sup> stating that they produce higher quality work when homeworking, as compared to 21.9% of workers with high people satisfaction. This suggests that

<sup>26</sup> Score of 9 or higher on a scale of 1-10 where 0 = "No sleep at all" and 10 = "Best sleep ever"

<sup>27</sup> Score of 14 or above on a scale of 0 to 18 on the 'supervision' facet of the JDI

<sup>28</sup> Score of less than 14 on the 'people' facet of the JDI scale

homeworking may better suit workers who do not place a high value on day-to-day interactions with people at work.

### 5.3.2 Quantity of Work undertaken

38.8% of workers feel that they get *less* done when homeworking. 33.2% feel that they get *more* work done and the remaining 28% believe that working from home makes *no* difference to the amount of work completed. When the sample is restricted to workers who are currently homeworking, the percentage of workers who report producing the same quantity or more of work when working from home increases to 61.4%. This is in line with the results found by Baert et al (2020) in which 70.8% of Flemish workers report that homeworking had either had no impact or has improved their efficiency in performing tasks. 38.6% of current homeworkers report getting less work done when homeworking. Workers with frequent previous homeworking experience are significantly less likely to report this (27.4% v 41.4%;  $p=.003$ ).

In terms of personal characteristics, workers with low levels of self-rated mental health are significantly less likely to get *less* work done when homeworking than workers with high levels of self-rated mental health (43.7% v 62.9%;  $p=.003$ ). There is no evidence of any significant associations between the quantity of work produced and any of the other personal or work-related characteristics covariates included in the surveys, with the exception of *sleep quality*. 44.8% of workers who report sleeping well the previous night also report getting more work done when homeworking, as compared to 31.1% of workers who slept less well ( $p<.001$ ).

Satisfaction with people encountered on the job is significantly associated with the quantity of work produced when homeworking. A significantly lower proportion of workers with high levels of *people satisfaction* report producing more work when homeworking compared with workers who have low levels of people satisfaction (28.9% v 42.7%;  $p<.001$ ), providing further support for the idea that homeworking may be a more productive environment for workers who derive little satisfaction from interacting with co-workers or boss or who find face-to-face interactions distracting, annoying or stressful.

## 6. DISCUSSION

This section discusses the main results, examines the implications of our findings for employers, public bodies and employees and highlights potential future research directions.

COVID-19 related declines in overall satisfaction levels (CSO, 2020; Eurofound, 2020) and associations with anxiety, depression and stress (Rajkumar, 2020; Daly & Robinson, 2020) have been widely documented. One of the more unexpected findings of this study is that the average affective well-being have remained relatively stable despite COVID-19. While there is evidence of COVID-19-related increases in feelings of anxiety, worry and nervousness, these are more than offset by corresponding reductions in feelings of tension and depression.

Interpreting this finding will require further analysis. Job security may provide a possible explanation given that 96% of this sample have permanent contracts and just 11.6% have

been temporarily or permanently laid-off due to COVID-19, a figure which is lower than that of the UK population as a whole. In their representative survey of almost 4,000 UK workers in March, Adams-Prassl et al (2020) found that just 4% of permanent, salaried workers reported losing their jobs due to COVID-19, compared with 28% of temporary workers. When asked what worried them most about COVID-19, “*my job*” was ranked in just fourth place (33.8%), behind “*a family member will get sick*” (78.9%) , “*eating or drinking more than usual*” (37.7%) and “*paying bills*” (34.2%) and just above “*won’t be able to go on holidays*” (32.1%).

Another potential explanation is that this sample is relatively untouched physically by COVID-19, with only 12 respondents living in households containing someone who had already had COVID-19 or who was symptomatic. A further possible explanation is that well-being levels fell initially during the early period of COVID-19 restrictions, before returning to baseline levels, and that our follow-up survey failed to capture it. If this is the case, then the relative stability of affective well-being may be the result of a psychological adaptation process. It is possible that respondents had exited the initial ‘panic phase’ of COVID-19 by the time our second survey was conducted and had already adapted to the ‘new normal’. In a representative survey of 7,135 American adults, Daly and Robinson (2020) observe a similar pattern of psychological adaptation in the population, including those with pre-existing mental health conditions, a finding which they attribute to population level resilience.

The results suggest that for certain segments of the population, COVID-19 has had little impact on average well-being despite significant changes in circumstances. Our findings show that COVID-19 has, however, not affected all groups of workers equally. Workers with high levels of self-rated physical and mental health; who sleep better; who are parents or in a relationship; who are not overly stressed by work or worried about Covid-19; who have high trait self-control and who perceive themselves to be high performers are significantly more likely to be highly satisfied with life in a COVID-19 world. Conversely, workers who score highly on Big-5 measures of extraversion, conscientiousness or agreeableness or who were highly satisfied with their jobs and highly committed to their organisations prior to COVID-19 are significantly more likely to have experienced a decline in emotional well-being during COVID-19. In summary, workers who were doing well at work and who were satisfied with their jobs prior to the pandemic are more likely to have been adversely impacted emotionally by COVID-19.

While the average level of job satisfaction across the entire sample has marginally increased during COVID-19, workers who are homeworking during COVID-19 report significantly higher levels of job satisfaction than workers who have continued to work from their pre-COVID-19 locations. There is also evidence of considerable heterogeneity. While current homeworkers who are parents and who are in a relationship still report higher mean job satisfaction levels, the gap between the two groups has diminished during COVID-19, with single and non-parent homeworkers enjoying significant job satisfaction gains during the period of COVID-19 restrictions. Similarly, while homeworkers who reported having poor self-rated mental health or a mental health issue prior to COVID-19, or who scored highly on the Big-5 neuroticism measure, still report

lower job satisfaction levels during COVID-19 than workers with good mental health or low neuroticism scores, the differences between the two groups have once again diminished during COVID-19 and are no longer significant due to significant improvements in the job satisfaction levels of homeworkers with poor self-rated mental health and high Big-5 neuroticism scores.

COVID-19 has also had a direct impact on workers' hours and on their self-rated levels of productivity, an effect which once again differs significantly groups. In line with other recent research (e.g. Adams-Prassl et al, 2020), young workers (18-24 years old) are the most affected by COVID-19 in terms of reduced hours. Workers who are stressed or who have low self-rated mental health scores, and workers who have low trait self-control scores, are significantly more likely to report experiencing reduced productivity due to COVID-19.

COVID-19 has forced large sections of the labour force who have never previously worked from home to experience it for the first time. For many of these workers homeworking is likely to constitute the 'new normal' for the immediate future given that social distancing measures will preclude entire workforces from returning simultaneously to their usual work location. Whether or not organisations for whom homeworking is a realistic option will choose to embrace it in the longer term and if so, to what extent, remains an open question. Prior to deploying homeworking on a large scale, organisations will need to assess the likely productivity and well-being implications for their particular work forces.

### **6.1 Implications for Employees**

Our results confirm that homeworking is not for everyone. For many industries and jobs homeworking is simply not feasible (Dingel & Neiman, 2020). Furthermore, not every worker likes homeworking, nor wants to continue it, once COVID-19 restrictions have been eased. Less than half of the sample express a clear preference for homeworking, although this rises to 57% when the sample is restricted to workers who are currently homeworking. There is also considerable variation between groups. Workers with long commutes and workers with previous homeworking experience are significantly more likely to prefer homeworking. Workers in the 18-24 age category are the only age group in which the majority express a preference for *not* homeworking. There is also considerable variation in preferences for continuing homeworking after COVID-19. Workers between 45 and 54 years of age, university graduates and workers who report generally lower levels of satisfaction with their co-workers and supervisors are significantly more likely to want to continue homeworking. Parents and workers between 35 and 44 years of age, are on the other hand, significantly more likely to want to return to their usual place of work after COVID-19. Nonetheless, the results reveal a clear overall preference for homeworking to be continued after COVID-19, with 84% of current homeworkers wanting to continue it. The majority of current homeworkers (58%) would however prefer a 'blended' homeworking option, where workers combine homeworking with time spent in their main work location, over full-time homeworking.

Our results also show that not every worker will thrive in a homeworking environment. 39% of current homeworkers report getting *less* work done when they work from home

and 20% report producing work of *lower* quality. The workers most likely to fall into these categories are workers with low self-rated mental health scores; workers with limited experience of homeworking; workers with lower levels of self-rated ability and performance and workers who have strong social relationships with their co-workers and supervisors. A recurring theme in our results is that workers who are deeply socially embedded in their workplaces and who rate themselves as high performers are less likely to benefit from homeworking than workers who have a more ‘problematic’ working relationship with their organisation.

## 6.2 Implications for Organisations and Employer Bodies

The variation in preferences around particular features of homeworking should serve as a guide to organisations considering implementing homeworking in the longer-term. In particular, homeworking should not be viewed as a ‘one size fits all’ solution. Employers seeking to ‘sell’ homeworking internally will need to take differences in preferences and personality types into account in order to anticipate and allay fears and worries around homeworking and / or to allocate limited office space to those who are most likely to thrive in a centralised environment. One way to do this is to ask employees for direct feedback on their homeworking experiences during COVID-19 and /or employ existing knowledge around the demographics, personal characteristics and personalities of their workers where appropriate.

The high degree of variation in preferences for homeworking supports also highlights the need for organisations to canvas their employees’ requirements and / or rigorously test the effectiveness of a range of homeworking supports prior to wasting scarce resources on solutions which may not be needed or valued e.g. additional training. On a positive note, many of the contextual barriers to homeworking mentioned by workers, such as “*a better physical set up at home*” and “*better IT infrastructure*”, should be relatively easy to address through financial and IT support packages. For example, Google recently announced that every worker would be able to expense up to \$1,000 of equipment and furniture to facilitate homeworking.

Employers also need to recognise that homeworking is not necessarily an either / or solution. Our results reveal a clear preference on the part of workers for ‘blended’ homeworking options which would allow them to access the benefits of homeworking, while reducing the risk of them becoming isolated or cut-off from their co-workers and supervisors.

The psychological barriers to homeworking identified in this study, such as low levels of motivation, heightened sense of isolation and the blurring of work and life boundaries present more of a challenge to organisations, not least because they tend to disproportionately effect more psychologically vulnerable workers such as those with poor mental health. However, our findings reveal that there are several ways that employees may be able to help mitigate these feelings. Exercising on five or more days per week is found to significantly increase job satisfaction. As are lower stress levels and better sleep. In fact, workers who report higher levels of sleep quality are significantly more likely to want to continue homeworking *and* to perform better while doing so. This

raises the possibility of organisations who are serious about implementing homeworking longer term to proactively work with their employees to design, implement and test targeted well-being intervention programmes (e.g. sleep coaching) that seek to improve the homeworking experience for all.

### **6.3 Limitations of the study**

The fact that this study employs a non-representative sample could be interpreted as a limitation of this study. This is however largely by design. The purpose of the study is to investigate how homeworking effects a sub-segment of the UK labour force for whom homeworking may be more feasible, namely full-time, highly qualified workers on permanent contracts (Wheatley, 2020). It could also be argued that the results of this study lack generalisability and may be specific to the UK labour force. Yet many of the findings and patterns uncovered by this study are replicated in studies using other populations, such as the CSO Social Impact of COVID-19 survey which used a nationally representative Irish sample.

### **6.4 Future Research**

Our findings suggest that personality may play a significant role in shaping workers' preferences around homeworking and how well they adapt to it. Future research by the authors will examine this question in greater detail, as well as the links between other well-being measures and homeworking preferences and productivity. Future research could also investigate the relationship between homeworking and sleep quality for different sub-segments of the labour force and test the effectiveness of homeworking supports using an RCT design.

## **7. CONCLUSION**

Engaging in whole-scale remote working post-COVID-19 will not be feasible for every organisation nor for every employee. For those companies for whom it is a realistic option however, the ability to roll-out homeworking across their organisations will largely depend on the extent to which employees engage with and adapt to homeworking so that productivity and profitability is not compromised. If working from home is to become a realistic labour deployment option for companies in the longer term, employers need to ensure that their employees do not feel that they are engaging in this practice purely as a cost-saving exercise. Organisations need to embrace this unique opportunity to learn from their employees' experiences during COVID-19 and to work with them to deliver a solution that suits both parties. Organisations have the rare potential to create a win-win situation for all stakeholders by using homeworking as a positive intervention tool aimed at improving job quality, worker wellbeing and ultimately, productivity and profitability. Their ability to achieve this will ultimately determine whether homeworking on a mass-scale is here to stay.

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### Appendix 1: List of Survey Covariates and Measures referred to in the paper

Variable	Question in abbreviated form	Answer Scale
Overall Life Satisfaction	<i>Overall, how satisfied are you with your life, all things considered?</i>	0-10 scale; 0= "Completely Dissatisfied"; 10 = "Completely Satisfied"
Home Life Satisfaction	<i>Overall, how satisfied are you with your life at home?</i>	0-10 scale; 0= "Completely Dissatisfied"; 10 = "Completely Satisfied"
Overall Job Satisfaction	<i>Overall, how satisfied are you with your job?</i>	0-10 scale; 0= "Completely Dissatisfied"; 10 = "Completely Satisfied"
Self-Rated Mental Health	<i>In general, how would you rate your physical health overall?</i>	"Very Bad" "Bad" "Moderate" "Good" "Very Good"
Self-Rated Physical Health	<i>How would you rate your general mental health overall?</i>	"Very Bad" "Bad" "Moderate" "Good" "Very Good"
Presence of a Mental Health Condition	<i>Do you have any long-term MENTAL health difficulties e.g. depression, anxiety etc? If yes, please specify in the comment box</i>	2 options: "Yes" or "No". Option to comment further
Presence of a Physical Health Condition	<i>Do you have a long-term PHYSICAL health condition, difficulty or disability e.g. Chronic pain, arthritis, migraines, sinusitis etc? If yes, please specify in the comment box</i>	2 options: "Yes" or "No". Option to comment further
Weekly Exercise Levels	<i>Physical activity is any activity that increases your heart rate and makes you feel a little out of breath e.g. fast walking, running, cycling, dancing etc. BEFORE COVID-19, on how many days a week were you physically active for at least 30 minutes on average?</i>	0 days – Never; 1 day; 2 days; 3 days; 4 days; 5 days; 6 days; Everyday
Sleep Quality	<i>How would you rate the quality of the sleep you got last night?</i>	1 = "I didn't sleep at all"; 10 = "I had the best sleep ever"
COVID-19 related worry	<i>On a scale of 1-5 how worried or anxious are you about the Covid19 situation?</i>	1= "I am not at all worried or anxious"; 5= "I am extremely worried or anxious"
Personality	<i>Big-5 10 How well do the following statements describe your personality? Please select the box which best describes your opinion in relation to each statement. "I see myself as someone who is [generally reserved]"</i>	5 options: "Strongly Disagree"; "Disagree A Little"; "Neither Agree nor Disagree"; "Agree a Little"; "Agree Strongly"

Variable	Question in abbreviated form	Answer Scale
Trait Self-Control	<b>Brief Self-Control Scale (BCSC)</b> (Tangney et al, ??) – 13 questions e.g. “ <i>I am good at resisting temptation</i> ”	1-5 scale; 1=“Not at all”; 5 = “Very Much”
Trust	Single binary choice question: “ <i>Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people?</i> ”	“Most people can be trusted”; “You can’t be too careful”
Work-related Stress	Single choice question: “ <i>How stressful do you find your job?</i> ”	1 = “Not at all stressful”; 5 = “Extremely stressful”
Sources of work stress	<i>What aspects of working life do you find particularly stressful right now? Please select those aspects of working life that stress you out the most</i>	15 options e.g. “clients”, including “Other” with room to elaborate
Priority placed on worker well-being in workers’ organisations	Single choice question: “ <i>On a scale of 0 to 10 how would you rate the importance placed on worker wellbeing by your organisation?</i> ”	0-10 scale; 0 = “Not a priority at all” 10 = “Top priority”
Organisations’ handling of COVID-19	Single choice question “ <i>How would you rate your organisation’s handling of the Covid19 crisis to date?</i> ”	5 options: “Very Poor”; “Poor” ;“Neither good nor bad”; “Good”; “Excellent”
Self-Rated Performance	<b>WHO HPQ scale (Kessler et al, 2003)</b> “ <i>On a scale of 0 to 10 where 0 is the worst job performance anyone could have at your job and 10 is the performance of a top worker, how would you rate YOUR performance over the past MONTH?</i> ”	0-10 scale: 0 = Worst Performance 10 = Top Performance
Self-Rated Current Work Ability	Single choice question: “ <i>How would you rate your current work ability when you compare it with your lifetime best?</i> ”	0= “I am completely unable to work at the moment”; 10 = “current work ability is at my lifetime best”
Impact of COVID-19 on productivity	Single choice question: “ <i>Do you feel that you are currently LESS productive at work than usual due to Covid19?</i> ”	3 options: “Yes”; “No”; “Not Sure”
Global Affect (Feelings experienced at work)	<b>IWP Multi-Affect Indicator (Parker &amp; Warr, 2010);</b> “ <i>For the PAST MONTH, please indicate approximately how often you have felt the following while you were working in your job?</i> ”. Excited; Inspired; Joyful; Enthusiastic; Calm; Relaxed; At Ease; Laidback; Hopeless; Despondent; Depressed; Dejected; Tense; Nervous; Anxious; Worried	7-point Likert scale: 0= “Never (0% of the time”); 4= “About half of the time” (41% to 60%); 7 = “Always” (100% of the time”)

Variable	Question in abbreviated form	Answer Scale
<p>Episodic Affect (Feelings experienced over 3 episodes the previous day)</p>	<p><b>Day Reconstruction Method (DRM) – Kahneman et al, 2004.</b> <i>Please rate how well each of the following statements describes how you were feeling during this episode. A rating of 0 means that you did not experience that feeling at all. A rating of 6 means that this feeling was a very important part of the experience. Please tick the number between 0 and 6 that best describes how you felt.</i></p>	<p>0-6 scale; 0 = “Not at all”; 6 = “Very much”</p>
<p>Multi-dimensional Job Satisfaction</p>	<p><b>Job Descriptive Index (JDI) – Stanton et al, 1999.</b> <b>Respondents are asked the extent to which</b> 6-8 adjectives relating to each of the following dimensions of job satisfaction: satisfaction with the job in general; pay; supervision; promotion opportunities; people encountered at work; the work itself; accurately describes it. Sample question: <i>“Think of the kind of supervision you get from your boss or manager on your job. How well does each of the following words or phrases describe it? “Annoying”</i></p>	<p>3 options for each question: “for each word or phrase tick ‘Yes’ if it describes the type of supervision you get; ‘No’ if it does describe the type of supervision you get or ‘?’ if you cannot decide”</p>

**Table 1A: Demographics and Personal Characteristics of the Sample**

VARIABLE	MEAN	SE	N
<b>Gender</b>			804
Female	67.6%	.016	
Male	32.1%	.016	
Other / Non-Binary	0.2%	.001	
<b>Citizenship</b>			798
British	93.7%	.008	
Northern Irish	2.2%	.005	
Irish	1.1%	.003	
Other	2.9%	.005	
<b>Ethnicity</b>			804
White	92.0%	.009	
Asian	3.1%	.006	
Black	2.2%	.005	
Other	2.6%	.005	
<b>Relationship Status</b>			802
Single / Divorced / Widowed	24.4%	.015	
In a relationship / Married	75.6%	.015	
<b>Education</b>			807
No Formal Education / Lower Secondary	7.4%	.009	
Higher Secondary	14.2%	.012	
Cert / Diploma	7.2%	.009	
Technical / Vocational	11.9%	.011	
University: Undergraduate	40.5%	.017	
University: Postgraduate	18.7%	.013	
<b>Age</b>	37.5	.345 (sd)	807
<b>Parental Status</b>			797
Parent	50.1%	.017	
Non-Parent	49.9%	.017	
<b>Living on their own</b>			805
Yes	12.3%	.011	
No	87.7%	.011	
<b>Living in a house than contains children</b>			808
Yes	55.2%		
No	44.8%	.017	
<b>Income (monthly, net)</b>			796
<£1,000	2.8%	.005	
£1,000-£2,000	29.1%	.015	
£2,000-£3,000	31.5%	.016	
£3,000-£4,000	30.6%	.016	
£4,000-£5,000	9.3%	.009	
>£5,000	1.9%	.004	
<b>Self-Rated Physical Health (1 = "Very Bad" – 5 = "Very Good")</b>	"Good" (50.5%)	.017	801
<b>Self-Rated Mental Health (1 = "Very Bad" – 5 = "Very Good")</b>	"Good" (52.4%)	.018	801
<b>Presence of a chronic Physical Health condition</b>			802
Yes	25.3%	.224	
No	74.7%	.715	

VARIABLE	MEAN	SE	N
Presence of a chronic <b>Mental Health condition</b>			795
Yes	26.9%	.015	
No	74.3%	.015	

**Table 2A: Work-related Characteristics of the Sample**

VARIABLE	MEAN	SE	N
<b>Weekly Contractual Hours</b>	37.1	5.69 (sd)	804
<b>Average Weekly hours usually worked (including overtime)</b>	40.1	8.28 (sd)	802
<b>Hours worked the previous week (including overtime)</b>	31.0	19.65 (sd)	801
<b>Contract Type</b>			803
<i>Permanent Contract</i>	95.6%	.007	
<i>Temporary / Fixed Term Contract</i>	3.6%	.006	
<i>Other</i>	.75%	.003	
<b>Seniority (0 = "Most Junior" – 5 = "Most Senior")</b>	2.31	1.22 (sd)	803
<b>Tenure</b>			803
<i>&lt; 12 months</i>	10.0%	.010	
<i>1-2 years</i>	11.1%	.011	
<i>2-5 Years</i>	28.4%	.015	
<i>5-10 years</i>	22.7%	.014	
<i>&gt;10 years</i>	27.8%	.015	
<b>Salary (monthly, net)</b>			800
<i>&lt;£1,000</i>	1.9%	.004	
<i>£1,000-£2,000</i>	61.7%	.017	
<i>£2,000-£3,000</i>	25.0%	.015	
<i>£3,000-£4,000</i>	7.1%	.009	
<i>&gt; £4,000</i>	4.2%	.007	
<b>Sector</b>			791
<i>Private Company</i>	54.4%	.017	
<i>Central / Local Government</i>	10.2%	.010	
<i>Other Public Sector</i>	24.3%	.015	
<i>Family Business</i>	1.6%	.004	
<i>State owned Enterprise</i>	7.3%	.009	
<i>Other</i>	1.2%	.012	
<b>Industry</b>			787
<i>Admin and Support Services</i>	8.5%	.009	
<i>Agriculture / Forestry / Fishing</i>	0.6%	.002	
<i>Arts / Entertainment / Recreation</i>	1.4%	.004	
<i>Construction</i>	4.4%	.007	
<i>Education</i>	12.7%	.011	
<i>Finance and Insurance</i>	8.3%	.009	
<i>Food (Catering and Restaurants)</i>	3.6%	.006	
<i>Healthcare</i>	9.7%	.010	

VARIABLE	MEAN	SE	N
<i>Manufacturing</i>	7.4%	.009	
<i>Other</i>	10.3%	.010	
<i>Other Services</i>	2.2%	.005	
<i>Professional Services</i>	8.9%	.002	
<i>Publishing / Media</i>	2.0%	.005	
<i>Real Estate and Property Rentals</i>	0.9%	.003	
<i>Retail</i>	8.5%	.009	
<i>Social Services</i>	2.7%	.005	
<i>Tourism</i>	2.0%	.005	
<i>Transportation</i>	2.7%	.005	
<i>Utilities</i>	1.8%	.004	
<i>Wholesale and Warehousing</i>	1.5%	.004	
<b>Organisation Size</b>			<b>788</b>
<i>Micro (&lt; 10 employees)</i>	18.6%	.013	
<i>Small (&lt; 50 employees)</i>	0.8%	.003	
<i>Medium (&lt; 250 employees)</i>	18.3%	.013	
<i>Large (&gt; 250 employees)</i>	61.5%	.017	
<i>Other / Don't Know</i>	0.8%	.003	
<b>In Receipt of Other Financial Benefits</b>			<b>808</b>
<i>No</i>	18.3%	.013	
<i>Yes</i>	81.7%	.013	

<sup>a</sup> School of Economics & Geary Institute for Public Policy, University College Dublin, Dublin 4, Ireland.

Corresponding author email: [diane.pelly@ucdconnect.ie](mailto:diane.pelly@ucdconnect.ie)

<sup>b</sup> London School of Economics & Geary Institute for Public Policy, University College Dublin

<sup>c</sup> School of Economics & Geary Institute for Public Policy, University College Dublin

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