

ISSN 2632-9611

SHORTER WORKING WEEK  
AND WORKERS' WELL-  
BEING AND MENTAL HEALTH

Daiga Kamerāde,  
Ursula Balderson,  
Brendan Burchell, Senhu Wang  
and Adam Coutts

WP 522  
September 2020

# **SHORTER WORKING WEEK AND WORKERS' WELL-BEING AND MENTAL HEALTH**

Centre for Business Research, University of Cambridge  
Working Paper No. 522

Daiga Kamerāde  
University of Salford  
[d.kamerade-hanta@salford.ac.uk](mailto:d.kamerade-hanta@salford.ac.uk)

Ursula Balderson  
University of Cambridge  
[slub2@cam.ac.uk](mailto:slub2@cam.ac.uk)

Brendan Burchell  
University of Cambridge  
[bb101@cam.ac.uk](mailto:bb101@cam.ac.uk)

Senhu Wang  
University of Cambridge  
[sw768@cam.ac.uk](mailto:sw768@cam.ac.uk)

Adam Coutts  
University of Cambridge  
[apc31@cam.ac.uk](mailto:apc31@cam.ac.uk)

September 2020

## **Abstract**

In this working paper we discuss the implication of working shorter hours for workers' well-being and mental health, drawing on the findings from the 'Employment Dosage Project'. Using longitudinal data, we found that even one day a week generates significant mental health and well-being benefits for previously unemployed or economically inactive individuals. There is no single optimum number of working hours at which well-being and mental health are at their highest. What matters most for mental health once individuals are employed is not the number of hours worked, but job quality especially intrinsically meaningful work, lower intensity work and favourable social environment. We also found that unemployed women derive similar mental health benefits from participating in active labour market policies (ALMPs) as in employment. Unemployed men also benefit from ALMPs but obtain significantly more health benefits from formal employment. Moreover, during interviews with 40 people who chose to work considerably less than full-time (but not mainly for child care), we found that decisions to work shorter hours were influenced by both negative work experiences pushing people away from work and positive experiences outside work pulling people towards other activities. These people use their time out of work in a way that boosts productivity and promotes social cohesion, including voluntary work, exercise, caring for friends and relatives and rest and recovery. The desire for more freedom and autonomy was a key framing device in explanations and justifications of short hours working. These findings provide important and timely empirical evidence for future of work planning, shorter working week policies and beyond. We conclude by discussing the implication of the findings for the debates about the future of work, public health, climate change and gender equality.

**Keywords:** shorter working hours, four day working week, mental health, part-time work, future of work, well-being

**JEL Codes:** J100, J21, J22, J6, J8, O35, Z13, Z18

## **Acknowledgments**

The studies summarized in this paper were part of the project ‘The Employment Dosage: How much Work is needed for Health and Wellbeing?’ supported by a research grant from the Cambridge Political Economy Society Trust. We thank everybody who help us throughout the project. A German language version of the paper is forthcoming in: Müller, M., Reiff, C. Arbeitszeit: *Rahmenbedingungen - Ambivalenzen – Perspektiven* (‘Working time: Frameworks – Ambivalences-Perspectives).

Further information about the Centre for Business Research can be found at [www.cbr.cam.ac.uk](http://www.cbr.cam.ac.uk)

## 1. Introduction

What is the minimum number of working hours that somebody must work for their mental health and well-being to be significantly better than they were when they were unemployed? And is there the optimum amount of paid work at which an employee's mental health and well-being are at their highest levels? What matters most – the number of hours one works or the quality of their job? The answers to these questions are crucial as many countries in the world, including Austria and the UK, are heading towards a steep increase in the long-term unemployment levels, fuelled by ongoing COVID-19 pandemic and recent advances in artificial intelligence and automation. A shorter standard working week is one of the possible solutions to address these two challenges. In this chapter we discuss the implication of working shorter hours for workers' well-being and mental health, drawing on the findings from the 'Employment Dosage Project' (Burchell, Coutts, et al., 2020) and our ongoing research (Burchell, Wang, et al., 2020).

During the first half of 2020, the world of work in many countries, including Austria and the UK, has changed dramatically. The closure of workplaces and implementation of other COVID-19 containment measures, combined with the rapid deterioration of economic conditions, led to massive losses in working hours and jobs and increased inequalities (Beck et al., 2020). At the time of writing, the risk of new infections and a second wave remains. Continuing and new lockdowns over the coming months would lead to further decline of economic activity and labour markets, thereby jeopardizing labour market recovery. According to the ILO (2020), there was a 14 per cent drop-in global working hours during the second quarter of 2020, equivalent to the loss of 400 million full-time jobs. Some of the working hour losses are due to shorter working hours and 'being employed but not working' (e.g. where workers are put on temporary leave), some due to people being pushed into unemployment and inactivity. In Austria, the number of the registered unemployed rose to record levels in March and April. In May unemployment was still 50% higher than in the previous year (Böheim & Leoni, 2020). In the UK the negative impact of COVID-19 pandemic manifested through falling vacancy numbers, and actual hours worked, slowing earnings growth (ONS, 2020b) and raising the number of out-of-work benefit claimants. The average number of actual hours worked per week fell to a record low of 26.6 hours in March to May 2020 (ONS, 2020a). ILO (2020), predicts that even in the case of the optimistic scenario - a fast recovery - global working hours are unlikely to return to the pre-crisis level by the end of 2020, leading to steep increases in short hour working and unemployment.

The COVID-19 pandemic is also likely to accelerate the technological developments such as the use of Artificial Intelligence and automatization at workplaces to reduce demands for human labour and face-to-face interactions. Unlike previous technological developments, current ones are affecting many industries simultaneously and potentially replacing skills, such as decision making, thought to be uniquely human (Brynjolfsson & McAfee, 2014). This could cause significant job loss and mass unemployment (Mokyr et al., 2015). Studies suggest that anything between 9% and 47% of jobs in developed countries are at risk of automation (Arntz et al., 2016; Frey & Osborne, 2017). The assessments of how likely this scenario and what a government policy response should look like differ, but even most sceptical thinkers (e.g. McGaughey, 2018) are suggesting that contingency plans would be prudent.

Both COVID-19 pandemic and technological progress are two significant factors that could lead to high levels of long-term unemployment and working shorter hours. Mass redundancy, high long-term unemployment levels and underemployment (e.g. that is not having as much work as one wants) are public health and social welfare concerns. Unemployment is associated with many negative individual and societal consequences, contributing to poverty and social inequality, and to a decline in mental, physical health and well-being of the unemployed people and their families (Catalano et al., 2011; WhatWorksWellbeing, 2017; Wood & Burchell, 2018). Underemployment is related to poorer well-being, especially for women (Kamerāde & Richardson, 2018). High unemployment increases government welfare and health expenditures (Coutts et al., 2014). Numerous studies and meta-analyses have linked unemployment to negative health and well-being outcomes such as psychological distress, anxiety, happiness and life satisfaction (e.g. McKee-Ryan et al., 2005; Paul & Moser, 2009), as in current paid-work focused society paid work not only provides financial means but also several psychological benefits that are crucial for mental health, e.g. structured time (routine), social contacts; shared goals; variety; enforced activity; and identity(e.g.Fryer, 1986; Jahoda, 1981, 1982; Warr, 1987).

One of the solutions for mass unemployment is a shorter standard working week (Kamerāde et al., 2019) – reducing the length of the standard working week for all employees and redistributing the resulting surplus work to those who have no job. Reducing the standard working time to a four-day week, albeit for better quality of life purposes, have also been discussed in media, think tanks and trialled in some workplaces (e.g. BBC, 2017; 2018 ; Booth, 2019 ; New Economic Foundation, 2010 ; Stronge & Harper, 2019).

However, so far neither academic researchers nor policymakers have considered what is the least amount of paid work that will on average, provide health and well-being levels characteristic of employees rather than the unemployed? How much paid employment is needed to get some or all the mental health and well-being benefits? And what is the optimum amount of paid work at which an employee's mental health and well-being are at their highest levels? The answers to these questions, based on empirical evidence are vital for evidence-based decision making. For most other health and well-being outcomes a desirable or recommended dose is clearly indicated – for instance, medics suggest that adults need 8.5 to 10 micrograms of vitamin D a day (NHS, 2017). Other relevant questions are - what matters more quantity or quality of jobs and what can we learn from people who already are working shorter working week for purposes other than childcare?

We provide some answers to these questions by discussing the implication of working shorter hours for workers' well-being and mental health, drawing on the findings from our 'Employment Dosage Project' and ongoing research. Firstly, we discuss the minimum and optimum number of working hours needed to generate the psychological benefits of employment. Secondly, we compare the levels of mental health of people who were working reduced hours, were furloughed or unemployed during the COVID-19 pandemic. Thirdly, using data from European countries, we examine what matters most for mental health once individuals are employed - job quantity (that is the number of working hours) or job quality. Then we discuss what we have learned about motivations and lives of people who have chosen to work considerably less than full-time (but not mainly for childcare). Finally, we discuss the policy and practice implications of our findings.

## **2. Minimum and optimum number of working hours<sup>1</sup>**

Current debates on shorter working week (e.g. BBC, 2017; 2018 ; Booth, 2019 ; New Economic Foundation, 2010 ; Stronge & Harper, 2019) have focused largely on a four day working week. However, maybe a shorter standard working week does not need to be four days a week and might as well be just three, two or even one day? Or maybe a four-day working is not good for workers' mental health at all? To understand how long a shorter standard working week should be, it is crucial to understand what is the minimum number of working hours that somebody must work for their mental health and well-being to be significantly better than they were when they were unemployed. And is there the optimum amount of paid work at which an employee's mental health and well-being are at their highest levels? These are the questions that we thought to answer in our the Employment Dosage research project (Burchell, Coutts, et al., 2020).

Using data from a high quality nationally representative survey that followed the UK workers working hour patterns and their lives over nine years, we found that even a small number of working hours (between one and eight hours a week) generates significant mental health and well-being benefits for previously unemployed or economically inactive individuals (Kamerāde et al., 2019). For most previously unemployed or inactive men and women the minimum number of working hours required to psychologically benefit from paid work is one to eight working hours a week. There are some variations in the results between genders but the similarities between the previously inactive and unemployed, men and women are far more pronounced. There are a few exceptions, most likely related to the complexities of the UK in-work benefit system and how working more than 16 working hours can affect access to other benefits. For previously inactive men the first boost in their mental health score appears only at working over 32 hours. For previously unemployed and inactive men there is a first boost in their life satisfaction at working up to 16 hours, then there is no significant difference until they start working 24+ hours. Another exception are previously unemployed women who experience a significant raise in their mental health score and life satisfaction only when working over 20hrs and unemployed and inactive women for whom the only working hours category that makes a significant difference in their life satisfaction is 20-24 hrs. A possible explanation for these variations is that people on income support lose access to the benefit if they work more than 16 hours a week unless they have children in which case they gain access to other benefits. This may explain why there is a dip at working 16 hrs for men but not women as women are more likely to care for children (Dinh et al., 2017). For those on a low hourly wage, especially men, working 16 -20 hour a week can be problematic as the wages earned are less than benefits previously received, therefore we see some variations in the effects of working hours on mental health and wellbeing around working 16 hours a week.

In contrast to our expectations, we found that there is no single optimum number of working hours at which well-being and mental health are at their highest - for most groups of workers there is little variation in wellbeing between the lowest (1 to 8 hours) through to the highest (44 to 48 hours) category of working hours (Kamerāde et al., 2019). This study found no-evidence that the current full-time standard of working 36 to 40 hours a week is the optimal for mental health and well-being, when job characteristics, such as hourly pay, occupational group and contract permanency are controlled. The results suggest that working full-time is slightly better for mental health than working  $>8 \& \leq 16$  hours (for men) and  $>40 \& \leq 44$  hours (for women and their life satisfaction too), possibly because of the difficulties of combining longer working hours with child care (Dinh et al., 2017). However, full-



time work is not the optimum category as it was not significantly different from any other working hours' category in terms of mental health and wellbeing.

We did not find that hourly income made a difference to the effects of working hours on mental health and wellbeing, possibly because we controlled for the household income that could offset the negative effect of low working hours and low income.

In this study (Kamerāde et al., 2019) we examined only the effects of transition between unemployment/inactivity and employment. Some active labour market policies (ALMPs) aimed at helping the unemployed to move into paid work (e.g. job search assistance, training and workplace subsidies) that locate the individuals between the unemployment and employment might also have some beneficial mental health effects. In our other study, based on the same high quality nationally representative longitudinal dataset (Wang et al., 2020), we found that unemployed women derive similar mental health benefits from ALMPs as in employment. Unemployed men also benefit from ALMPs but obtain significantly more health benefits from formal employment. Such benefits for men are particularly pronounced in full-time, permanent, and upper-middle occupational status jobs. The programmes that deliver skills training have larger mental health benefits than employment assistance (e.g. workplace subsidies, counselling) ALMPs (Wang et al., 2020). Evidence also suggest it is not only re-employment orientated activities that can improve mental health of unemployed people, other activities, such as voluntary work, can be beneficial for mental health and well-being during unemployment too (Kamerāde & Bennett, 2018), even if they do not improve one's chances of getting a new job (Kamerāde & Ellis Paine, 2014).

Overall, the findings are clear: the significant difference in mental health and well-being is between those with paid work and those with none; the variability between those with different number of hours of work is non-significant; and very little of paid work is needed to acquire mental health benefits of paid employment.

### **3. Reduced working hours and mental health during COVID-19 pandemic<sup>2</sup>**

To avoid mass redundancies and unemployment due to labour market shock generated by COVID-19 pandemic, many countries in the world introduced some emergency labour market measures involving reduced working hours and furlough (being employed but not working).

In Austria, a government - funded short-time work scheme ('COVID-19 short-time work') was the main labour market stabilization program with a projected budget of

up to €12 billion and one third of the employees involved in the scheme. Through this scheme employees' wages were paid by the state with a replacement rate that varies between 80% and 95% (depending on the wage level); and firms' social security contributions for their employees were refunded in full. The average working time over the period had to be between 10% and 90% of the regular working time, which allowed for shorter periods of 0% working time (Böheim & Leoni, 2020; Schnetzer et al., 2020). In comparison, in March the UK government introduced the Coronavirus Job Retention Scheme (CJRS) (i.e. furlough) through which employers could claim for 80% of their employee's wages plus any employer's national insurance and pension contributions. Initially an employee could not undertake any work during their furlough leave. From the start of August 2020, the scheme was changed, allowing furloughed workers to work part-time and will close at the end of October 2020. The CJRS was an extraordinary investment and by August 2020 had covered the wages of 9.6 million employees working for 1.14 million employers and cost almost £34bn (HMRC, 2020).

In our recent study (Burchell, Wang, et al., 2020) we used an early opportunity to examine how far these changes in employment status, work hours and involvement in furlough job retention scheme are related to the likelihood of having mental health problems, measured by 12-item General Health Questionnaire (Goldberg & Williams, 1988). Our findings confirm that in the UK losing paid work during the pandemic is significantly related to poorer mental health, even after controlling for the household income and other factors. In contrast having some paid work and/or some continued connection to a job, such as working reduced hours or being furloughed, is better for mental health than not having any paid work. Those who remain part-time employed before and during the COVID-19, those who are involved in furlough job retention scheme or transition from full-time to part-time employment are all found to have similar levels of mental health as those who continued to work full-time (Burchell, Wang, et al., 2020).

Both short working hours and furlough job retention schemes can thus be seen to be effective protective factors against worsening mental health. However, the key issue is now how to move beyond the furlough scheme. As we suggest in our paper, (Burchell, Wang, et al., 2020), a v-shaped bounce back is not on the horizon and many sectors will at most move into partial activity. So, the need to avoid a huge further leap in unemployment is just as vital with all the risk to mental health that that would entail. These findings point to the need to move towards sharing work around more equitably, including introducing a shorter working week for all (except in those sectors under extreme pressure) in order to minimize the risk to mental health and well-being if those on furlough are now pushed into unemployment.

#### **4. Quantity and quality of work and mental health and well-being<sup>3</sup>**

Both studies discussed above had two limitations. First, they considered only a very small number of job quality measures because in the datasets we used people were not asked much about their job quality. While shorter working hours have some mental health and well-being effects, it is important to remember that it is not only quantity, that is, the number of working hours, but also quality of work that might matter for workers' well-being and mental health. Secondly, they both were based on the UK data thus raising the question to what extent the results would apply to other European countries, for example, Austria. To address these limitations and to examine what matters most for workers' mental health job quantity or job quality we used data from European Working Conditions Survey 2015.

We found that in general, once a person is in employment, there is no significant difference between full-time and other working hour categories in terms of mental health; and there is no also optimum number of working hours at which employees' mental health is at its highest. These findings from 35 countries (including Austria) is in line with our study in the UK on job quantity and mental health in the UK discussed in previous section (Kamerāde et al., 2019). We also found that for employed men and women job quality plays a much more important role than job quantity in their mental health. In our study most job quality indexes were highly significant. Among job quality indexes, meaningful work index, social environment index and work intensity index had the largest effects on mental health compared with other job quality indexes for men and women. In other words, doing meaningful and useful work, having a positive relationship with colleagues and low work intensity (e.g. no tight deadlines, acceptable work pace, low levels of hiding one's emotions at the workplace) are particularly important for employees' mental health. The exception from this pattern were non-significant earnings (i.e. hourly pay) and physical environment (e.g. exposure to noise and other physical risks at workplace) indexes for men and skills and discretion (i.e. learning and training opportunities at work) index for women.

Our study also found that the importance of job quality generally remains similar across different working hour categories for employed men and women. This suggests that employed men and women could obtain mental health benefits from good job characteristics to a similar degree in micro, part-time and full-time jobs. Consistent with previous research on health effects of long working time (Bannai & Tamakoshi, 2014), we find that working more than 40 hours per week has significantly larger negative effects on mental health compared to full-time work; however, for both men and women. these effects are largely explained by job quality.

These findings emphasize the importance of considering both job quantity and quality when discussing the future models of organising work in society.

## **5. Why people already work reduced working hours<sup>4</sup>**

In the UK, 85% of the overall part-time public sector workforce and 70% of the private sector part-time workforce said that they did not want full-time work (ONS, 2019). Examining their experiences can shed some light into motivations and lived lives of workers who work reduced hours. We conducted 40 interviews with people in the UK and Ireland who had actively reduced or limited their time in paid employment (Balderson et al., 2020). We excluded people who had reduced their working hours primarily due to childcare responsibilities or ill-health as well as underemployed people who were looking to increase their hours of work. Instead we spoke with people who were relatively satisfied with their hours of work. Many of our interviewees had complex work biographies and had experimented with different work patterns and careers before reaching their current situation. We spoke to people who had worked a short hour contract for most of their working lives as well as people who had taken a decision to do less paid work more recently.

We uncovered how the negative aspects of employment (push factors) and the desire to spend time in more varied and enjoyable ways (pull factors) interact to produce decisions to enact working time reductions. The push factors include excessive workloads and difficult or tedious tasks which can result in stress and mental exhaustion. For people working non-standard schedules their lack of control over hours can make it difficult to enjoy the free time that is available. The pull factors we have identified include traumatic experiences such as illness or the early death of a loved one which can lead to an increased awareness of the salience of time. Also important was the desire to develop skills and subjectivities unrelated to worktime identities. An overarching theme in the interviews was the idea that fulltime work leads to a loss of autonomy and a reduction in hours is a route to greater freedom. These motivations are contrasted with understandings of working time reductions present in the empirical and predominantly quantitative literature which highlight the structural constraints that often force women into part-time work because of childcare responsibilities.

An exploration of the motivations of short hours workers is important given increasing concern that long hours of work exacerbate multiple social, economic, and environmental problems. We suggest that a deeper understanding of why individuals want to work less could help facilitate ‘priming’ campaigns aimed at increasing demand for working time reduction more generally.

## 6. Conclusions and implications

We began this chapter by asking a series of questions that are important for the shorter working week debate in the context of both COVID-19 pandemic and accelerated automatization of jobs. Here we summarize our key findings and discuss their policy implications.

Firstly, we found that even one day a week generates significant mental health and well-being benefits for previously unemployed or economically inactive individuals. There is no single optimum number of working hours at which well-being and mental health are at their highest - for most groups of workers there was little variation in wellbeing between the lowest (1-8 h) through to the highest (44-48 h) category of hours per week. Secondly, this is true even during the COVID-19 pandemic, as becoming unemployed is significantly related to poorer mental health; in contrast, workers who remained part-time employed before and during the COVID-19, those who are involved in furlough job retention scheme or transition from full-time to part-time employment all have similar levels of mental health as those who continued to work full-time. Thirdly, data from European countries, show that what matters most for mental health once individuals are employed is not the number of hours worked, but job quality especially intrinsically meaningful work, lower intensity work and favourable social environment. Crucially, job quality remains an important predictor of workers' mental health even when working very short hours. Finally, decisions to work shorter hours were influenced by both negative work experiences pushing people away from work and positive experiences outside work pulling people towards other activities. These people use their time out of work in a way that boosts productivity and promotes social cohesion, including voluntary work, exercise, caring for friends and relatives and rest and recovery. The desire for more freedom and autonomy was a key framing device in explanations and justifications of short hours working.

*Implications future of work, public health, climate change and gender equality.*

The findings from our projects provide evidence on current policy and media debates about whether a standard shorter working week is possible and desirable. They suggest that the 'normal' full-time working week could be shortened without a detrimental effect on the workers' mental health and well-being. In health and well-being terms this seems to be a much better option for individuals as the well-being of working-age part-time workers is close to or better than the well-being of full-time workers, both of whom have far fewer symptoms of anxiety and depression than the unemployed or economically inactive. Not only would such redistribution

reduce unemployment and associated public health costs, it could increase productivity, reduce CO2 emissions from commuting, production and consumption and improve work-life balance.

The policy challenge would be to find ways to reduce and distribute working hours so that the beneficial effects of paid work are retained for most workers and current inequalities are not increased. Widespread, or universal reduced hour working has distinctly gendered implications as part time work is currently associated with lower quality jobs and severely limited upward career mobility and pension accumulation (Smith et al., 2013). In the context where everybody works shorter working week, these inequalities in job quality should reduce or disappear.

The redistribution could involve working five shorter days or reducing the length of a 'normal' working week. Other, more creative solutions could be to dramatically increase annual holidays from a few weeks to a few months, perhaps allowing several two-month breaks each year. It is an empirical question as to which of these (or other) working patterns would be most effective at retaining high levels of productivity and well-being and whilst an important avenue for further enquiries are beyond the scope of this paper.

One important objection to these policy implications is that for many in the labour market their income is directly linked to their hours of work, and a reduction in hours of paid work would push them below the poverty line. To avoid increasing the risk of poverty and social inequality, the policy proposal emerging from our findings would be to reduce the working hours for everyone, not just for some selected groups, that is to introduce a shorter standard working week. Over time developed countries have become more productive due to better technology, a more highly educated workforce and more efficient organisation of work, this productivity growth averages about 2.5% per annum, over the long term which means that a country doubles its output per hour worked every 28 years (Gordon, 2010). In the last few decades most of this 'bonus' has been taken through an increase in spending power and concentration of wealth among the capital owners (Stiglitz, 2019), but if it were to be taken in reduced hours of work, the median working week could see a reduction to a four day week in just nine years, and continue with steady progress to a halving of working time in the year 2047, with no loss of spending power.

Our results also suggest that job quality remains a significant factor on predicting workers' mental health, even when working hours are reduced. For example, increasing work intensity to squeeze five days' work into a shorter working week may actually have a negative net effect on mental health if the reduction in working time has an equal and opposite effect to increase the intensity of work. It is also possible that compressing work in that way could have other negative effects on the quality of work, for instance leading to a harsher social environment where there is less time devoted to treating employees with dignity and making them feel listened to and their voices respected. There is also evidence that work intensity can negatively impact the physical working environment; workers under time pressure tend to take short-cuts such as not putting on protective clothing or not taking the time to lift heavy loads correctly (Burchell, 2009). Thus, without taking this broader picture of job quality, attempts to shorten the working week might lead to a deterioration, not an improvement, in the mental health of employees. Our results suggest that current shorter working week policies require to pay more attention to importance of job quality - if reductions in hours of work are associated with reductions in job quality, the many benefits for individuals, families, communities and the environment of reducing working time will be more difficult to achieve. This is particularly important considering that part-time jobs have traditionally been seen as non-standard, atypical or poor-quality jobs, with lower hourly pay, poor training opportunities and worse promotion prospects than equivalent full-time jobs (Burchell, 2012) and associated with lower well-being and mental health (Kamerāde & Richardson, 2018). Therefore all of the social partners – employers, government and employee representatives need to prioritize the quality of part-time jobs (including four-days a week jobs and reduced-hours full time jobs) if society is to reap the advantages of shorter working time whilst retaining the benefits of good working life for employees.

According to our findings, three job quality dimensions that are particularly significant for any theoretical model of a shorter working week in European societies are doing meaningful and useful work, quality of social environment, job intensity. These three job quality dimensions so far have received very little attention in shorter working week debates. Therefore, any shorter working week models should focus on these three job quality dimensions in particular. For example, one of the strands of shorter working week debate is coming from a business perspective (Barnes, 2020) and arguing that, with good management, employees can perform the same volume of work in four days as five – thus trading longer hours for higher work intensity. However, with attention to job quality it might not be the case in future where shorter working week is more common, as for example, Burchell (2012) has suggested that countries with higher prevalence of part-time work (e.g. the

Netherlands) tend also to have higher quality part-time jobs; in contrast, those countries where part-time work is rare (e.g. Greece).

Our findings also have more immediate implications for addressing ongoing labour market crisis created by COVID-19 pandemic. The government supported COVID-19 employment support schemes seems to have been a big success, not only in preventing widespread poverty but also in preventing the drop in mental health that we observed for those who were unfortunate to lose their jobs in the first few months of 2020 (Burchell, Wang, et al., 2020). Given the extremely high rates of redundancies that have occurred in countries that have not introduced furlough or short time working schemes, it is one way in which the UK and Austria has dealt better with the crisis (Muller & Shulten, 2020) than, for instance, the US. According to Rubery (2020b), to considerably reduce the risk of high unemployment and maximise job retention we need to use work sharing (or short-time work) across the whole workforce. That is to introduce a shorter standard working week. This policy of work sharing could have two benefits: it would enable a smoother and less risky transition out of furlough, and it could also set enable changing the gender division of labour across both paid and unpaid work. These dual benefits need to be recognised and promoted, perhaps through the aim to move to a maximum 30 hours of wage work per week. To sustain work sharing across all groups, minimum hourly pay would need to rise, but this could have the positive consequences of improving pay for care staff and boosting women's relative pay in many households, in line with a more equal sharing. A shorter standard working week could be a healthy legacy of COVID-19.

Of course, mental health is not the only outcome that is important, and other implications of working time reductions need to be considered too. While a drop in earnings may be unacceptable to many households on low and average earnings, the costs of subsidising those households during the recovery period are a lot lower than the cost of complete furloughing. By sharing the work around more equitably, the extreme outcome of unemployment for some should be minimised (Rubery, 2020a). We note the striking gender differences in the impact of the virus (Burchell, Wang, et al., 2020). We have not yet drilled down to determine the reasons for this, but this finding is entirely compatible with the numerous reports of increased domestic load for women due to home schooling, shopping for essentials and caring for children and vulnerable adults during the lockdown. There are many other claims being made for the benefits of a reduction in working time including a more equal balance of domestic and paid work between men and women as an important step in reducing gender inequality. National reductions in working time could also increase leisure



time and quality of life, increased productivity per hour, reduced burnout and lower harmful environmental impacts (Coote & Franklin, 2013).

To conclude, this paper opens an evidence-based debate about how paid work could be organized in the future. The idea of a shorter standard working week might sound radical but both academic and policy debates are too often limited to what seems possible in the current context, current society, rather than by what is necessary to move towards a society more conducive to human flourishing. The issue of working hours is central to determining what kind of society we can hope for and as our research shows – important for people’s mental health and well-being.

## Notes

1. To answer the question ‘What is the minimum and optimum number of working hours?’ we used data from a nationally representative survey of 71,113 people aged between 18 and 65 (60 for women, 65 for men) living in the UK. These individuals were surveyed annually between 2009 and 2018 (University of Essex, ISER, NatCen Social Research, & Kantar Public, 2018) and were asked not only about their employment status, working hours but also about their mental and physical health, household composition and income. (For more details on this study please see Kamerāde et al, 2019).

2. To examine how mental health of people working reduced working hours during COVID-19 pandemic compared to mental health of the unemployed, full-time and furloughed workers, we used data from the Understanding Society - a nationally representative survey of people aged between 18 and 65 (60 for women, 65 for men) living in the UK and surveyed in April (n=7,149) and May 2020 (n=6,216). (For more details on this study please see Burchell et al, 2020).

3. To examine what matters most for workers’ mental health and well-being - quantity or quality of work – we used data from the European Working Conditions Survey 2015 from a nationally representative sample of 24,482 employees in 35 countries, including Austria and the UK. At the time of writing, this study has not been published yet and is available on request from the authors.

4. This study is based on the in-depth interviews with 40 people working reduced working hours in the UK and Ireland. For more details see Balderson et al., 2020.

## References

- Arntz, M., Gregory, T., & Zierahn, U. (2016). *The risk of automation for jobs in OECD countries (1815-199X)*. (OECD Social, Employment and Migration Working Papers, Issue. <https://doi.org/10.1787/5jlz9h56dvq7-en>).
- Balderson, U., Burchell, B., Kamerāde, D., & Wang, S., Coutts, A. (2020). An exploration of the multiple motivations for spending less time at work *Time and Society*(Forthcoming).
- Bannai, A., & Tamakoshi, A. (2014). The association between long working hours and health: a systematic review of epidemiological evidence. *Scandinavian journal of work, environment & health*, 5-18.
- Barnes, A. (2020). *The 4 Day Week : How the Flexible Work Revolution Can Increase Productivity, Profitability and wellbeing, and Create a Sustainable Future*. Piatkus.
- BBC. (2017). *What really happened when Swedes tried six-hour days?* Retrieved 13.11 from <https://www.bbc.co.uk/news/business-38843341>
- BBC. (2018). *Unions call for four-day working week*. BBC. Retrieved 13.11. from <https://www.bbc.co.uk/news/business-45463868>
- Beck, V., Fuertes, V., Kamerāde, D., Lyonette, C., & Warren, T. (2020). Working Lives. In M. Parker (Ed.), *Life After Covid-19. The Other Side of Crisis* (pp. 53-62). Bristol University Press.
- Böheim, R., & Leoni, T. (2020). *IZA COVID-19 Crisis Response Monitoring Austria (June 2020)*. IZA Institute of Labour Economics. Retrieved 03.07 from [https://www.iza.org/wc/files/downloads/iza\\_crisismonitor\\_countryreport\\_at\\_202006.pdf](https://www.iza.org/wc/files/downloads/iza_crisismonitor_countryreport_at_202006.pdf)

- Booth, R. (2019). *Wellcome Trust could become first big employer to launch four-day week*. Retrieved 08/02 from <https://www.theguardian.com/money/2019/jan/18/tgi-thursday-major-uk-employer-mulls-four-day-week>
- Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. WW Norton & Company.
- Burchell, B. (2009, November 1, 2009). Flexicurity as a moderator of the relationship between job insecurity and psychological well-being. *Cambridge Journal of Regions, Economy and Society*, 2(3), 365-378. <https://doi.org/10.1093/cjres/rsp021>
- Burchell, B. (2012). Quality of work: The case of part-time work in Italy. . In T. Addabbo & G. Solinas (Eds.), *Non-Standard Employment and Quality of Work: The Case of Italy*. Physica-Verlag HD.
- Burchell, B., Coutts, A., & Kamerāde, D. (2020). *Employment Dosage Project*. University of Cambridge. Retrieved 01/05 from <https://www.cbr.cam.ac.uk/research/research-projects/the-employment-dosage-how-much-work-is-needed-for-health-and-wellbeing/>
- Burchell, B., Wang, S., Kamerāde, D., Bessa, I., & Rubery, J. (2020). *Cut hours, not people: no work, furlough, short hours and mental health during the COVID019 pandemic in the UK*. [https://www.cbr.cam.ac.uk/fileadmin/user\\_upload/centre-for-business-research/downloads/working-papers/wp521.pdf](https://www.cbr.cam.ac.uk/fileadmin/user_upload/centre-for-business-research/downloads/working-papers/wp521.pdf)
- Catalano, R., Goldman-Mellor, S., Saxton, K., Margerison-Zilko, C., Subbaraman, M., LeWinn, K., & Anderson, E. (2011). The health effects of economic decline. *Annual Review of Public Health*, 32.
- Coote, A., & Franklin, J. (Eds.). (2013). *Time on Our Side: Why we all need a shorter working week*. NEF.

- Coutts, A. P., Stuckler, D., & Cann, D. J. (2014). The health and wellbeing effects of active labor market programs. In C. L. Cooper (Ed.), *Introduction to Wellbeing: A Complete Reference Guide* (Vol. 6, pp. 1-18). Willey and Sons.
- Dinh, H., Strazdins, L., & Welsh, J. (2017). Hour-glass ceilings: Work-hour thresholds, gendered health inequities. *Social Science & Medicine*, *176*, 42-51.
- Frey, C. B., & Osborne, M. A. (2017). The future of employment: how susceptible are jobs to computerisation? *Technological forecasting and social change*, *114*, 254-280.
- Fryer, D. (1986). Employment deprivation and personal agency during unemployment: A critical discussion of Jahoda's explanation of the psychological effects of unemployment. *Social Behaviour*, *1*(1), 3-23.
- Goldberg, D., & Williams, P. (1988). *A user's guide to the General Health Questionnaire*. NFER-Nelson.
- Gordon, R. J. (2010). *Revisiting US productivity growth over the past century with a view of the future*. National Bureau of Economic Research.
- HMRC. (2020). *HMRC coronavirus (COVID-19) statistics*. Retrieved 05.08 from <https://www.gov.uk/government/collections/hmrc-coronavirus-covid-19-statistics>
- ILO. (2020). *ILO Monitor: COVID-19 and the world of work. Fifth edition Updated estimates and analysis*. [https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/briefingnote/wcms\\_749399.pdf](https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/briefingnote/wcms_749399.pdf)
- Jahoda, M. (1981). Work, employment, and unemployment: values, theories, and approaches in social research. *American Psychologist*, *36*(2), 184-191.
- Jahoda, M. (1982). *Employment and Unemployment: A Social-Psychological Analysis*. Cambridge University Press.

- Kamerāde, D., & Bennett, M. R. (2018). Rewarding work: cross-national differences in benefits, volunteering during unemployment, well-being and mental health. *Work, Employment and Society*, 32(1), 38-56. <https://doi.org/https://doi.org/10.1177/0950017016686030>
- Kamerāde, D., & Ellis Paine, A. (2014). Volunteering and employability: implications for policy and practice. *Voluntary Sector Review*, 5(2), 259-273. <http://www.ingentaconnect.com/content/tpp/vsr/2014/00000005/00000002/art00008> <http://dx.doi.org/10.1332/204080514X14013593888736>
- Kamerāde, D., & Richardson, H. (2018). Gender segregation, underemployment and subjective well-being in the UK labour market. *Human Relations*, 71(2), 285-309. <https://doi.org/https://doi.org/10.1177/0018726717713829>
- Kamerāde, D., Wang, S., Burchell, B., Balderson, S. U., & Coutts, A. (2019). A shorter working week for everyone: How much paid work is needed for mental health and well-being? *Social Science & Medicine*, Online first. <https://doi.org/https://doi.org/10.1016/j.socscimed.2019.06.006>
- McGaughey, E. (2018). Will Robots Automate Your Job Away? Full Employment, Basic Income, and Economic Democracy. *Centre for Business Research, University of Cambridge, Working Paper*(496).
- McKee-Ryan, F., Song, Z., Wanberg, C. R., & Kinicki, A. J. (2005). Psychological and physical well-being during unemployment: a meta-analytic study. *Journal of Applied Psychology*, 90(1), 53.
- Mokyr, J., Vickers, C., & Ziebarth, N. L. (2015). The history of technological anxiety and the future of economic growth: Is this time different? *Journal of Economic Perspectives*, 29(3), 31-50.

- Muller, T., & Shulten, T. (2020). *Ensuring fair short-time work - a European overview*. ETUI Policy Brief: European Economic, Employment and Social Policy No 7/2020. <https://www.etui.org/publications/policy-briefs/european-economic-employment-and-social-policy/ensuring-fair-short-time-work-a-european-overview#:~:text=Ensuring%20fair%20short-time%20work%20-%20a%20European%20overview.,short-time%20work%20for%20avoiding%20unemployment%20and%20supporting%20>
- New Economic Foundation. (2010). *21 hours: the case for a shorter working week*. Retrieved 13.11. from <https://neweconomics.org/2010/02/21-hours>
- ONS. (2019). *Working flexibly in the public sector* Retrieved 01/08 from <https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/publicspending/articles/workingflexiblyinthepublicsector/2019-09-20>
- ONS. (2020a). *Coronavirus (COVID-19) roundup (04th August 2020)*. Retrieved 04/08 from <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/coronaviruscovid19roundup/2020-03-26>
- ONS. (2020b). *Early insights of how the coronavirus (COVID-19) pandemic impacted the labour market: July 2020* Retrieved 01/08 from <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/earlyinsightsofhowthecoronaviruscovid19pandemicimpactedthelabourmarket/july2020>
- Paul, K. I., & Moser, K. (2009). Unemployment impairs mental health: meta-analyses. *Journal of Vocational Behavior*, 74(3), 264-282. <https://doi.org/http://dx.doi.org/10.1016/j.jvb.2009.01.001>
- Rubery, J. (2020a). Afterword: final word and the path forward – is the myth of austerity giving way to the myth of the robots taking the jobs?’ In D. Baines & I. Cunningham (Eds.), *Working in the context of Austerity: Challenges and Struggles*. Bristol University Press.

- Rubery, J. (2020b, 04.08). Sharing the load: How work sharing can reduce unemployment, improve gender equality, and benefit mental health. <http://blog.policy.manchester.ac.uk/health/2020/08/sharing-the-load-how-work-sharing-can-reduce-unemployment-improve-gender-equality-and-benefit-mental-health/>
- Schnitzer, M., Tamesberger, D., & Theurl, S. (2020). *Mitigating mass layoffs in the COVID-19 crisis: Austrian short-time work as international role model*. Retrieved 10.04 from <https://voxeu.org/article/mitigating-mass-layoffs-covid-19-crisis-austrian-short-time-model>
- Smith, M. A., Piasna, A., Burchell, B., Rubery, J., Rafferty, A., Rose, G., & Carter, L. (2013). *Women, men and working conditions in Europe*. Publications Office of the European Union.
- Stiglitz, J. (2019). *People, Power and Profits: Progressive Capitalism for an Age of Discontent*. Penguin.
- Stronge, W., & Harper, A. (Eds.). (2019). *Shorter Working Week: A radical and Pragmatic Proposal*. Autonomy. <http://autonomy.work/wp-content/uploads/2019/01/Shorter-working-week-final.pdf>.
- Wang, S., Coutts, A., Burchell, B., Kamerāde, D., & Balderson, U. (2020). Can Active Labour Market Programmes emulate the mental health benefits of regular paid employment? Longitudinal evidence from the United Kingdom. *Work, Employment and Society, (Forthcoming)*.
- Warr, P. (1987). *Work, unemployment, and mental health*. Oxford University Press.
- WhatWorksWellbeing. (2017). *Briefing: Unemployment,(re) employment and wellbeing*. What Works Wellbeing.
- Wood, A. J., & Burchell, B. (2018). Unemployment and Well-being. In A. Lewis (Ed.), *The Cambridge Handbook of Psychology and Economic Behaviour* (pp. 234-259). Cambridge University Press.



