

Depletion and Subjective Well-Being: Lessons from the UK Coronavirus Lockdown

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Abstract

Many countries around the world instituted a 'Lockdown' in response to the novel Coronavirus Covid 19, during March and April 2020. We know a great deal about the unequal health effects of the virus but it is important also to understand how the measures to tackle the virus have affected different groups in society. This is particularly important for policy makers as further national or local lockdowns are now being instituted to tackle subsequent waves of infection, and in the event that similar restrictive measures are required to tackle future pandemics. We undertake analysis on a recently released representative survey using a core Subjective Well Being measure and decompose results to identify factors which predict variation in self-reported changes Subjective Well Being during the Coronavirus lockdown in the UK. Our analysis suggests that women and young people have seen the most negative effects on their Subjective Well-Being. It appears that women's role in the household and in caring professions has acted as a 'shock absorber' for the wider economy, but in doing so has 'depleted' their Subjective Well-Being. Some older age groups who might have initially been expected to have negative effects have seen very small improvements in their Subjective Well-Being. We also find that 'furloughed' and 'key workers' have been protected economically and emotionally by the government's economic support measures in the crisis. We conclude that in the medium to long-term policy attention will need to be given to ensuring that women and younger people do not also pay the longer-term costs of any economic fallout from the crisis, that furloughed workers can maintain their jobs and do not merely see redundancies delayed, and that key workers are rewarded for their role in supporting the economy in good times and bad. While the data and commentary are focused on the UK context, similar effects may be present in other countries, and international policy coordination efforts may want to focus on identifying and supporting those who have been affected by virus containment measures, now and in future pandemics.

Policy Recommendations

- Monitor the ongoing evolution of the legacy effects of the Coronavirus crisis on different demographic groups.
- Recognise 'depletion' effects of women's role in coping with socio-economic shocks and tailor policy responses to reducing these in short-term crisis situations. More explicit guidance on home schooling, recognition of domestic and caring work demands of crisis conditions in the design of crisis responses such as job retention schemes.
- Take advantage of the current moment where men have increased child care responsibilities to try to lock this in over the longer term. This might include fiscal or employment policies.
- Monitor the economic position of workers who were protected from job losses by job retention schemes. One effect of these schemes may be to delay rather than avoid job losses. In the event that this is the case, job retention scheme recipients may be targeted for retraining programmes designed to promote rapid re-employment.
- Key workers in many countries are low paid and the crisis has revealed a disjuncture between economic and social value and the role of these inequities in reducing social resilience. Like the gender effects of coping and the ethnicity effects of the virus itself – this suggests the need for Economic Justice Commissions to remedy these problems.

Introduction

The Coronavirus Crisis has hit the UK hard. At the time of writing, the Office for National Statistics reported the total number of deaths where COVID-19 was mentioned on the Death Certificate as being more than 45,000 up to the 29 May ([Office for National Statistics, 2020a](#)), and counts of 'excess deaths' suggest that the actual impact on the death rate may be much higher still (correspondent, 2020). As the virus took hold, the UK government instituted a 'lockdown' of the economy and society which evolved in stages but commenced from Monday 16 March when the Prime Minister urged all who could to work from home, to Wednesday 18 March when the government announced school closures to Friday 20 March when social venues (such as pubs, restaurants and gyms) were ordered to close to Monday 23rd March when people were mandated to

remain at home except for one form of exercise per day, with legal penalties for breaking the rules. The lifting of the lockdown started from 13 May, and from 1 June some very limited school reopening started to occur, though as of mid-June the extraordinary crisis measures have still not been fully removed, many workers remain at home working or on paid leave, and most school children are still not back to school.

In an attempt to offset the economic and employment effects of the lockdown the government instituted a Coronavirus Job Retention Scheme (CJRS) (popularly known as the 'furlough' scheme). The CJRS covers 80% of employees' usual salaries up to a maximum of £2,500 per month. The scheme has been extensively taken up by employers to cushion the economic shock; with more

than 8.7m jobs furloughed at an expected total cost of around £60bn ([Office for Budget Responsibility, 2020](#)). Even with this and a similar self-employment relief scheme in place, unemployment has increased markedly with almost three million people making new claims for Universal Credit since the 1 March, and the claimant count seeing the biggest monthly rise for over a quarter of a century. The OECD projects that the UK economy will be one of the most negatively affected in the world, with an 11.5% reduction in GDP ([OECD, 2020](#)).

As deaths and new infections begin to abate and the economy starts to 're-open' attention now turns to the longer-term effects of the crisis. In this paper we chart the immediate effect of the lockdown on the immediate Subjective Well Being (SWB) of different groups in society, including different groups of workers. The data provides an insight into how the crisis has affected different groups so far and how policies have protected the subjective as well as economic wellbeing of key groups. We add to other immediate analysis of lockdown effects ([Etheridge & Spantiq, 2020](#); [Understanding Society, 2020](#); [Women's Budget Group et al., 2020](#)). However, we also place the findings from this data in a slightly longer contextual frame, locating the Coronavirus crisis and the lockdown in extant trends such as gender and racial inequality, the reproduction of inter-generational inequality, austerity and Brexit.

Our contribution is therefore both empirical – adding immediate incremental knowledge to what we already know about Coronavirus and lockdown effects – and analytical; placing this in an understanding of the evolution of UK political economy. We conclude with a discussion of how policy might respond to the data and results in the emergent

return to a 'new normal'. This discussion will be of use to policy makers internationally who might learn lessons from this lockdown period in preparation for any future lockdowns, whether in response to any 'second peak' in the current novel Coronavirus outbreak or future pandemics.

Context

At least seven significant, discrete but mutually overlapping contextual features are important to note in understanding the current and likely SWB effects of the Coronavirus crisis in the UK:

1. Existing patterns of Gender Inequality – like many other countries, the UK has significant gender inequalities which are an important component of the economy and society. Women have lower employment rates, face pay gaps in similar job roles to men, are negatively affected in the labour market by career breaks for childcare, continue to undertake more unpaid work to men in the household ([Women's Budget Group, 2020](#)) and are under-represented in positions of power ([Fawcett Society, 2020](#)). They are also more likely to be undertaking unpaid care work outside of their own home for friends and other dependent relatives. Feminist economists ([Elson, 1998](#)) have repeatedly highlighted the way that the formal economy rests on unpaid domestic work, value production and reciprocity in households and communities. In economic crises, Feminists have argued that these informal economic institutions act as 'shock absorbers' for the formal economy, stepping in to provide care, support and provisioning. In the process women may experience 'depletion' ([Elias & Rai, 2019](#); [Rai & Goldblatt, B., 2020](#); [Rai et al., 2014](#)) of their coping resources. While employment rates, pay gaps and time use have seen positive changes over recent

years, the remaining inequalities are still significant.

2. Existing racial inequalities – Again, like other countries, the UK has substantial racial inequalities. Again, these are manifest in employment and pay rates and also in terms of educational attainment, property and asset acquisition and in experiences of health, criminal justice and other aspects of state institutions ([Lamy, 2017](#)). It is though important to note that racial inequalities are complex and varied; some minority ethnic groups do better in some of these domains and there are important intersections between gender, class and race which mean that different groups have very different experiences ([Hills et al., 2015](#)). For example, simple analysis of the Annual Population Survey shows that the employment rate is lower among Pakistani and Bangladeshi adults than it is among Indians, and Pakistani and Bangladeshi women, in particular, have lower employment rates. Significant variations are experienced across different ethnicities, genders, age groups and classes and economic and policy domains.

3. The reproduction of patterns of inequality over the medium-term – Socio-economic inequality rose markedly in the UK in the 1980s and then stabilised from the mid-1990s onwards. Patterns in socio-economic inequality are somewhat related to gender inequality – with more women working and reduced wage gaps, inequalities between households have been accentuated because of the effects of assortative mating. Both trends though have contributed to significant inter-generational inequalities. While these were offset for some time by structural change in the nature of the labour market (e.g. growth in higher-skilled and professional occupation) this appears now to have halted and there are

concerns that future patterns of labour market change may reduce upward inter-generational social mobility (Bukodi & Goldthorpe, 2018; [Dodsley et al., 2019](#)), meaning that existing inequalities are ‘compounded’ ([Nunn & Tepe-Belfrage, 2019](#)). In addition, it is acknowledged that children and young people who experience ‘Adverse Childhood Experiences’ ([Bellis, M. A. et al., 2018](#); [Hughes et al., 2017](#)) have significant negative impacts on long-term outcomes in terms of educational attainment.

4. Ten years of austerity and public spending patterns – it is widely acknowledged that the significant retrenchment in public spending and ongoing constrained budgets have led to the deterioration or withdrawal of many services, especially mental health, family support and extra-educational services such as youth support programmes and Sure Start/Children’s Centres which had been a flagship policy in reducing child poverty. Austerity is important in shaping the context for the Coronavirus crisis in that it reduced the capacity of health services ([Benaton et al., 2020](#)) – the widely publicised lack of ventilators and Personal Protective Equipment for example and the lack of capacity in the largely privatised social care system. Austerity has also impacted most upon low paid workers in the public sector – many of whom are women, and disproportionately from BAME backgrounds – and vulnerable service users who tend to be at either end of the age spectrum, and again women and ethnic minorities are disproportionately affected ([Alston, 2018](#)). This context has also contributed to increased health inequalities ([Marmot et al., 2020](#)) and wider socio-economic inequalities (e.g. crowded housing) which might have affected susceptibility of some groups to Coronavirus infection.

5. Productivity challenges – The UK economy continues to be afflicted by polarisation with some high productivity and high-value sectors and others marked by low pay and productivity. A failure to upskill the workforce and encourage high productivity growth has made the UK economy vulnerable to future competitive challenges in ways that accentuate the inter-generational inequality problem and austerity has hampered institutional strategies to tackle the problem ([Nunn, 2016](#)). Certainly, growth in the post-2010 period has been anaemic and undermined the international competitiveness of the UK economy, at the same time as virtually non-existent pay growth has undermined household resilience and led to significant insecurities in the labour market. It is important to understand that whilst the underlying Covid-19 induced economic recession has weakened all business and industry sectors, the magnitude of these effects has been very different. For example, internationally traded sectors have been particularly impacted due to travel restrictions, whilst sectors such as retailing and hospitality that are low margin and which rely on consumer demand and human interaction have been hugely affected due to the physical restrictions on business activity. Further, there is an additional problem in low skill – low margin industry sectors which do not typically have large cash piles to act as a buffer to manage liquidity problems from reduced trading activities. It is these sectors where low skilled precarious employment dominates.

6. Brexit – in the months and years immediately preceding the outbreak of the Coronavirus epidemic British politics, and concerns about the prospects of the British economy had been dominated by the process of withdrawing from the

European Union. While this still hasn't happened, the government is in the final stages of negotiating the future relationship with the EU and most economists ([Nabarro & Schulz, 2019](#)) anticipated that this – especially a 'hard Brexit' on World Trade Organisation terms in January 2021 – will create a substantial negative shock to the UK economy. The economic evidence suggests that there has been a general postponement of new investment activity in the UK economy that is directly caused by the lack of movement towards a Brexit trade deal and this has created a high degree of economic uncertainty which has diverted investment capital towards precautionary saving.

7. A New Politics of Inequality – Analysis of public opinion – for instance the British Social Attitudes Survey data – shows that concerns about poverty and inequality and support for public spending to counter them rose during the period of austerity and remain high by historical standards. Younger people are concerned about their long-term futures ([Nunn & Tepe-Belfrage, 2019](#); [Social Mobility Commission, 2020](#)). There is also substantial agreement that the political economy patterns mapped out in this section have changed electoral alignments (at least temporarily) and may have been important in shaping the Brexit referendum result. Given that the effects of Coronavirus are likely to be unequally distributed both in the short and medium term, they are likely to play into the new popular politics of inequality in possibly unpredictable ways. At the time of writing there were widespread and large-scale public protests about racial inequality throughout the UK, for example.

The short-term impact of Coronavirus is already accentuating many of these longer-term trends and previous research suggests that pandemic effects are

related to pre-existing inequalities ([Davies, S. E. & Bennett, 2016](#); [Wenham et al., 2020](#)). For example, those taking up the CJRS have been disproportionately low paid ([Johnson, 2020](#); [Office for Budget Responsibility, 2020](#)). Death rates appear to have been higher among some BAME groups, men and people suffering underlying health conditions which are themselves related to inequality. Recent research also suggests that the economic impacts have been felt most by low paid families and lone parents ([Understanding Society, 2020](#)) and that women have been most negatively affected by redundancies and school closures ([Hupkau & Petrongolo, 2020](#)). Research also shows that women - and in particular BAME women ([Women's Budget Group, 2020](#)) – have been negatively affected in terms of anxiety. Finally, younger people and women are most negatively affected in terms of their mental health ([Banks, J. & Xu, 2020](#)).

This paper contributes to this emerging literature. We examine the impact of Coronavirus response measures on SWB. This is significant in and of itself. But these effects may give an indication of the longer-term legacy effects that this crisis may present. Legacy effects of crises can have significant economic and societal impacts. For example, for the UK the legacy effect of the recessions of the late 1980s and early 1990s was in 'scarred' male workers, many of whom never recovered a similar economic status. The longer-term fallout of the 2008 Financial Crisis appears to have been sluggish pay growth and greater economic insecurity at the bottom of the pay distribution and affecting younger people in particular.

Methods and Data

In this research, we use the recently released first wave of data from the special Covid-19 Understanding Society ([University of Essex Institute for Social and Economic Research, 2020](#)) survey data to better understand the effects of the crisis on Subjective Well-Being among men and women of different ethnicities and ages, and workers who have maintained working at home, furloughed workers and the new category of 'key workers' (a group of occupational roles designated as essential by the government during the lockdown period, and therefore exempt from the order to stay at home). Understanding Society is the current name for the British Household Panel Survey – the largest panel survey in the world with more than 40,000 households in it. The survey includes annual sweeps and runs back to 1991 when the BHPS started. It became Understanding Society in 2009. During the Coronavirus period, the study is undertaking monthly sweeps with households in the current panel, beginning in April 2020. The data we report here is from the first sweep, which became available on the 29th May 2020. While the full sample is representative of the UK population, the response was a little under half of the full Understanding Society sample. As such, we apply complex weighting provided by the Understanding Society team to take account of the stratified and clustered sample design.

Our analysis uses a multivariate regression model to isolate key factors associated with SWB to avoid misrepresentation of raw statistics, which fail to adjust for other characteristics of particular types of individuals and workers. Our dependent measures are derived from the General Health

Questionnaire (GHQ 12) module in the survey.

Our approach is an exploratory one. We look at the association of a range of factors with changes in Subjective Well-Being among the population, testing this in multiple ways. We start with a robust multivariate regression model to explore the relationship between a range of independent variables (respondent sex, ethnicity, age, employment status, in receipt of support from the CJRS, being born in the UK, health status in relation to COVID-19, having children and region of residence in the UK) and our dependent variables. Our approach in comparing a range of independent variables is novel because we can confirm and add further detail ([Etheridge & Spantig, 2020](#); [Hupkau & Petrongolo, 2020](#); [Understanding Society, 2020](#); [Women's Budget Group et al., 2020](#)) to other findings produced already (this data is less than two weeks old) from this and other similar data.

The dependent variables are constructed in several ways. First, we take a measure of SWB which sums all 12 responses on the GHQ scale. Then we take one element of that scale – the General Happiness question. On both these measures, a higher score indicates a more negative change in SWB. Finally, when exploring the data in further depth, beyond the predictive correlation between independent and dependent variables, we use a mean score of the twelve questions. This is significant because in the coding of answer options a score of less than 2 indicates an improvement in Subjective Well-Being, a score of 2 indicates no change and a score of more than 2 indicates a negative change. In this way, we identify where Subjective Well-Being has improved, stayed the same and deteriorated, as identified by each respondent to the survey

themselves. Use of these 'change' variables in a cross-sectional way avoids the pitfalls of point in time influences on how people respond to highly subjective questions. All change attribution comes directly from respondents and is not inferred in measurement, comparison or analysis.

We used multiple tests to identify significant correlations between independent and dependent variables: OLS regression, OLS regression with robust standard errors and Oprobit and Tobit regression. The rationale for multiple tests was to increase confidence in the results; correlation identified as significant across all tests is more likely to be a real effect than one identified in a single test only. This multi-test approach is one aspect of the original contribution we offer.

After identifying predictive correlations, we explore the relationships further with simpler analysis to identify further detail and dynamics. For example, we look at variables such as time-use to add explanatory detail to gender differences in Subjective Well-Being and financial anxiety to explore findings for different groups of workers.

Summary of key findings

In summary, our key findings (see also **Error! Reference source not found.**) are:

- **Females** report that their SWB has been more negatively affected than men, possibly reflecting their role in the household.
- **Age** – there is a clear and negative relationship between a persons' age and their SWB which suggests that some concerns regarding the effect of lockdown on older people may be somewhat unfounded in

general; though that doesn't mean that specific groups may not be negatively affected.

- **Time spent doing housework, childcare and home schooling and additional caring** work all predicted negative change in SWB.
- The SWB of **furloughed workers** has fared significantly better than that of all other workers which

suggests that the CJRS scheme has been doubly effective (economically and emotionally) in protecting those workers eligible.

- **Key workers** also report better SWB effects than others which suggests that they have benefited from being able to continue working and possibly from their newfound social status.

Table 1: Summary results from Regression Analysis

	SWB oprobit	SWB OLS	SWB OLS Robust SE	SWB tobit
Pre-Covid Hourly Pay				
Waged Employee				
Self-Employed		-ve**		-ve**
Both				
Year of Birth	-ve**	-ve**	-ve**	-ve**
Sex: Female	-ve**	-ve**	-ve**	-ve**
Ethnicity				
Born in UK				
COVID testing: Not tested				
COVID testing: Positive			-ve**	
COVID testing: Negative			-ve**	
COVID testing: Waiting				
COVID testing: inconclusive				
Children in House			+ve**	
Furloughed worker	+ve**	+ve**	+ve**	+ve**
Key Worker	+ve**	+ve**	+ve**	+ve**
Single Adult	+ve**	+ve**	+ve**	+ve**
Time Spent on housework	-ve**	-ve**	-ve**	-ve**
Time Spent on Childcare				

Change in Caring Responsibilities – more to the same people	-ve**		-ve**	
Change in Caring Responsibilities – care to new people				
Government Office Region				
Nation of the UK				

** = P<0.05

It is also important to note that we tested for some factors associated with SWB that did not highlight significant predictive correlation in our models. Of note, these included testing for COVID-19 and ethnicity. The null finding for ethnicity is in contrast to other research that finds that ethnicity is an important factor in explaining the variation in SWB, especially alongside sex ([Women's Budget Group et al., 2020](#)). We are not able to speculate on why this may be, although we incorporate many key variables (e.g. pay and working hours) that are highly correlated with differences in ethnicity by jobs and employment and note that we used complex regression to identify correlations. In the raw statistics, there is a slightly greater negative change in SWB identified with being non-white, but it is not statistically significant in the regression models. We recognise that recoding in this way (white and non-white) is far from ideal and does not allow for more granular analysis, but sample sizes using more detailed breakdowns prevented further analysis. It may be that the statistical significance of the relationship between ethnicity and SWB is affected by the complex nature of the sample and weightings. We have not been able to explore this here, and it is an important limitation. We suggest that further research should focus on this question.

Findings in further detail

Women, Well-Being and Domestic Work

Other research has found that women ([Banks, J. & Xu, 2020](#); [Etheridge & Spantig, 2020](#)) and BAME women ([Women's Budget Group et al., 2020](#)) have had particularly negatively affected by lockdown in terms of their Subjective Well-Being. We can confirm some of these findings. Women reported significantly more negative effects on their Subjective Wellbeing. This was confirmed in all six of our regression tests. They were also larger for aggregate Subjective Well-Being than the single measure of general happiness.

These may be partly related to their role as a 'shock-absorber' for the crisis. For example, women reported that on average they spent roughly 50% more time than men on unpaid housework. While time-use surveys always suggest that women do more domestic work than men ([Office for National Statistics, 2020b](#)), the data also suggested that women spent far more time (60% or 11 hours a week plus *more*) on childcare and home-schooling than men (see **Error! Reference source not found.**), an activity that will have increased rapidly after the lockdown was enacted and schools were shut. These differences remain even though other research ([Andrew et al., 2020](#)) suggests that men appear to have rapidly increased the time

they spend on childcare in the lockdown and that may be sustained in the longer-term. Women were also more likely to be providing care to family and friends outside of the household and to be providing both more care to people they

were already helping, and to be providing help to new or different people.

Table 2: Mean Time Spent on Domestic Work, Men and Women

	Men	Women
Housework	10.4941 (Unw Count: 5053)	14.9630 (Unw Count: 7294)
Childcare or Home Schooling	18.7070 (Unw Count: 1032)	30.2770 (Unw Count: 1758)

This is reinforced when added into our regression models. Time spent on housework, time spent on childcare and increases in the volume of care provided all suggest negative impacts on Subjective-Well-Being across all four of our regression models.

Age Groups

While older people may be more at risk from Coronavirus medically, our data suggests some counter-intuitive findings in relation to SWB. Our data shows that age is negatively correlated with changing SWB during the lockdown period, with change turning from negative to positive after age 60, potentially reflecting the prominence of time pressure and economic influences on SWB for younger age groups. While people who are in the shielding category report more negative changes in their SWB, they have broadly the same pattern by age – with older people who are shielding reporting better change in SWB, turning positive in their 80s, perhaps reflecting a smaller change in daily life among some older people who are shielding.

Different Groups of Workers and Subjective Well-Being

The effect of the economic crisis caused by Coronavirus is substantial with over a quarter of businesses having closed for at least some time during the recession and 95% reporting a substantial change in turnover ([Office of National Statistics, 2020](#)). These effects have been significant economically with low paid workers being most negatively affected by changes in hours and pay ([Understanding Society, 2020](#)). But what about the Subjective Well-Being of different groups of workers?

Our data suggest, that furloughed workers had a less negative change in their SWB than did those who were not furloughed, and that this was positively correlated across two of our four regression tests for aggregate Subjective Well-Being and one of the two tests of general happiness. Looking at the raw weighted statistics, men who were furloughed on average reported a significant positive change in their SWB, contributing to the overall change. Key

Workers have had the least negative change in their SWB across all four of our regression tests on aggregate SWB.

Table 3: Change in aggregate mean Subjective Well-Being among furloughed workers by sex

	Change in Aggregate Mean SWB	Unweighted count
Furloughed Men	1.9291	556
Furloughed Women	2.1492	726
Non-Furloughed Men	1.9633	2118
Non-Furloughed Women	2.1285	3191

Self-employed people reported more negative effects across all four of our regression tests but not on either of the single measures of general happiness. This may be because of the effect of the economic interruption on their subjective financial security now and in the future. Self-employed workers reported a higher financial insecurity score both now and in the future than employees. Interestingly, however, the effect of self-employment on SWB was somewhat mitigated where respondents were both employed and self-employed. This group had significantly less negative changes in their general happiness.

Discussion and conclusions

Data on SWB suggests that some key groups have done better than might have been expected during the lockdown period in the UK. It is highly likely that the findings have wider applicability in other countries for a variety of reasons: the virus itself has had a major affect in many countries in terms of deaths, infection rates and impacts on domestic health systems. It is also widely expected that the economic effects of the crisis will bring severe recessions to many

countries. Further, in handling the crisis many countries have initiated 'lockdowns', closed schools and workplaces and used tax-subsidised job retention schemes. Our core findings look at the combined effects of these common experiences in one country – in as much as these contextual factors are similar, we might expect similar results in other countries also. This is especially the case given that much of what we highlight depends on extant gender inequality, which is a structural feature of the international system and therefore found in most countries. In this sense, our single case study is of interest to policy makers in most countries affected by the Coronavirus and where they have implemented a lockdown such as most of West and East Europe, South Korea, Singapore, Thailand, Russia, Dubai, China, India, Iran, South Africa, Australia and New Zealand. More limited measures have been taken in many Latin American Countries.

Women and households with children had already experienced negative effects from ten years of austerity, especially the withdrawal of family support services. While other countries may not have this

specific context, in most countries there are significant gender pay gaps and inequalities in time use between men and women, meaning that the findings are relevant to many different policy contexts. Our analysis suggests that women have acted as a ‘shock absorber’ in the crisis and their negative change in SWB can be conceptualised as ‘depletion through social reproduction’. Rai and colleagues ([Rai et al., 2014](#)) define this “ a specific kind of harm: it accrues at the level at which the resource outflows exceed resource inflows in carrying out social reproductive work over a threshold of sustainability”. Our findings that women have been negatively affected more than men, that caring responsibilities are a predictor of negative Subjective Well-Being changes and that women are carrying a far higher burden of domestic work during lockdown than men, all indicate an early warning signal for this kind of depletion. While feminists highlight the way that depletion is particularly felt by women, they also acknowledge the wider effects on the household and family, including children and other care-dependents. The immediate effects on women are significant in themselves, especially if they continue to experience these negative effects in future data releases. However, given what we know about Adverse Childhood Experiences there may be longer-term effects on children also if the immediate impact of the lockdown has cumulative repercussions passed through the pathway of negative parental SWB. Public policy attentiveness to these leading indicators and addressing them will be important to avoid inter-generational problems from accruing. This will be particularly important in the event of a second or further lockdowns and in responses to any future pandemics.

When contextualising our results with wider research, there are some other grounds for limited optimism and again policy makers may want to respond to this opportunistically. While we conducted cross-sectional analysis for the reasons identified above and find that gender differences in time spent on domestic work and childcare remain large, significant and impactful, longitudinal time use research suggests that men have also substantially increased their engagement with childcare in the UK and in many other countries, particularly the US. Wider research suggests that once this occurs that it may persist over time and this holds true in several different national contexts ([Alon et al., 2020](#); [Farré & González, 2019](#); [Omidakhsh et al., 2020](#); [Patnaik, 2019](#); [Tamm, 2019](#)). Economic policy makers are fond of reminding us not to ‘waste a good crisis’ and some high profile economists have identified Coronavirus recovery stimulus policies as an important opportunity to ‘build back better’ in relation to carbon emissions, air quality and climate change ([Hepburn et al., 2020](#)). As Andrew *et al.* (2020) suggest, perhaps now is also a good time to target reform of flexible work regulations, parental leave, maternity pay, gender pay gaps and so on to encourage families to divide childcare responsibilities more equitably? Our analysis suggests that doing so would not only address gender inequalities but would also enhance societal and household resilience to further similar shocks, helping to share and reduce depletion effects.

Our data also suggests that younger adults have experienced more negative SWB effects than have older people, so far. This is despite well-founded concerns about the impact of social isolation on SWB for older people, especially those shielded because of the enhanced risks

associated with Coronavirus and co-morbidities. Our results do not suggest that policy makers should take their eye of older age groups, or those 'shielded'. In the 'easing' of the lockdown it is likely that these groups will experience sustained reductions in their social activities until a cure or vaccine is developed, even if other groups re-engage socially. We interpret our results as suggesting the need for ongoing scrutiny of the SWB of these groups. However, we do think that the data suggests that younger age groups, especially families with children require supportive measures. Again because of the effects of childcare and home schooling and the potential that educational provision is negatively impacted for some time to come, there may be cause to explore how support measures can help alleviate the depleting impact of these activities, especially if disruption lasts into the autumn, or further lockdowns are required. Again, policy planning for managing future pandemics should also engage with these findings.

The discussion above suggests that specific groups of workers, especially furloughed and key workers have been protected economically and in terms of SWB, so far. In terms of furloughed workers though there are grounds for watchfulness. Given the lower than average pay of furloughed workers, it is reasonable to worry that the job retention schemes may delay rather than offset the risk of redundancies for at least some of them. Moreover, there is also a risk of longer-term negative effects such as continued slow pay growth and reduced hours. The context we sketch at the outset of ten years of slow pay growth, productivity and competitiveness challenges and the looming economic effects of Brexit (including the negative impact of the crisis on EU trade talks) all suggest that these impacts would be

considerable and add to an already difficult circumstance. We again suggest vigilance among policy makers for this group of workers as a minimum. If future lockdowns are necessary and the time-limited job retention schemes were to be reimplemented there may be scope for combining this with mandatory work-related training and encouraging employers to consider how they might use the interruption and workforce training to improve their productivity with a view to offsetting the risk of delayed redundancies. While the Brexit context is specific, the need for watchfulness over the medium- to long-term effects of the crisis on workers who have been protected in the immediate period is again likely to be relevant in many other countries.

In the case of the new category of key workers, the crisis has demonstrably highlighted a misalignment between pay rewards and those economic roles including but not limited to caring roles, that are socially necessary. Key workers kept the country going despite (or in many cases because) of their economic vulnerability while also exposing themselves and their families to greater risk of infection, and despite disproportionate numbers of people in some of these roles being from ethnic minorities, for whom the risk of infection also carried more severe potential consequences. The high profile 'Clap for Carers' events demonstrated widespread public support for this group. Like furloughed workers, these already low paid these workers may experience slower pay growth in the future. The current crisis and public response suggest an appetite for greater pay equality for key workers. Data from the British Social Attitudes Survey has consistently suggested high levels of public concern with inequality in the UK, as part of a new politics of inequality.

This may be strengthened in the wake of the Coronavirus crisis and Brexit. Government policies will need to respond to this political pressure. We suggest the establishment of a Commission to look at how economic justice can be pursued for these essential roles which helped society cope in the face of lockdown.

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Table 4: Regression Models Outputs

	Subjective Well-Being (oprobit)				Subjective Well-Being (ols)				Subjective Well-Being (ols robust se)				Subjective Well-Being (tobit)			
	Coeff	S.E	z stat	P>z	Coeff	S.E	t stat	P>t	Coeff	S.E	t stat	P>t	Coeff	S.E	t stat	P>t
Pre-Covid Hourly Pay	0.000	0.001	-0.190	0.847	0.001	0.002	0.560	0.572	0.000	0.002	-0.280	0.782	0.001	0.003	0.400	0.691
Waged Employee																
Self-Employed	-0.075	0.043	-1.750	0.080	-0.265	0.129	-2.050	0.040	-0.184	0.096	-1.930	0.054	-0.381	0.183	-2.080	0.037
Both	0.034	0.075	0.450	0.649	0.071	0.225	0.320	0.751	-0.042	0.161	-0.260	0.794	0.206	0.321	0.640	0.522
Year of Birth	-0.012	0.001	11.480	0.000	-0.034	0.003	10.810	0.000	-0.029	0.002	11.790	0.000	-0.054	0.004	12.210	0.000
Female	-0.405	0.027	15.190	0.000	-1.079	0.080	13.410	0.000	-0.847	0.061	13.910	0.000	-1.493	0.114	13.120	0.000
White	0.066	0.051	1.300	0.195	0.241	0.155	1.550	0.120	-0.070	0.098	-0.710	0.475	0.108	0.219	0.490	0.621
Born in UK	-0.095	0.054	-1.750	0.081	-0.249	0.165	-1.510	0.131	0.053	0.107	0.490	0.622	-0.266	0.234	-1.140	0.254
Covid testing: Not tested																
Positive test	-0.517	0.303	-1.710	0.088	-1.368	0.956	-1.430	0.153	-1.205	0.603	-2.000	0.046	-1.895	1.303	-1.450	0.146
Negative test	-0.201	0.130	-1.550	0.122	-0.519	0.398	-1.300	0.192	-1.044	0.303	-3.450	0.001	-0.817	0.557	-1.470	0.143
Waiting results	-0.634	0.584	-1.090	0.278	-1.002	1.858	-0.540	0.590	-2.120	1.553	-1.360	0.172	-2.060	2.505	-0.820	0.411
Inconclusive	0.013	0.254	0.050	0.958	0.509	0.787	0.650	0.517	-0.184	0.653	-0.280	0.778	0.368	1.092	0.340	0.736
Kids in House	0.047	0.032	1.470	0.142	0.125	0.096	1.300	0.195	0.190	0.069	2.730	0.006	0.178	0.136	1.310	0.191
Gov Office Region: North East																
North West	0.100	0.073	1.370	0.169	0.241	0.221	1.090	0.274	0.124	0.180	0.690	0.491	0.333	0.311	1.070	0.284
Yorks & Humber	0.015	0.076	0.200	0.844	-0.004	0.231	-0.020	0.986	0.159	0.183	0.870	0.385	0.093	0.325	0.290	0.775
East Midlands	0.060	0.077	0.780	0.434	-0.030	0.233	-0.130	0.898	0.231	0.186	1.240	0.215	0.201	0.329	0.610	0.542
West Midlands	-0.062	0.075	-0.830	0.407	-0.391	0.229	-1.710	0.087	-0.077	0.185	-0.410	0.679	-0.384	0.321	-1.200	0.232
East of England	0.052	0.074	0.700	0.482	0.051	0.224	0.230	0.822	0.054	0.180	0.300	0.763	0.168	0.316	0.530	0.596
London	-0.025	0.074	-0.340	0.735	-0.246	0.224	-1.100	0.272	-0.136	0.181	-0.750	0.453	-0.318	0.315	-1.010	0.314

South East	0.054	0.070	0.770	0.441	0.082	0.214	0.380	0.702	0.141	0.173	0.810	0.415	0.208	0.301	0.690	0.491
South West	-0.030	0.074	-0.400	0.686	-0.246	0.226	-1.090	0.276	-0.047	0.180	-0.260	0.797	-0.161	0.318	-0.500	0.614
Wales	-0.079	0.086	-0.920	0.359	-0.406	0.263	-1.550	0.122	-0.060	0.196	-0.310	0.759	-0.267	0.370	-0.720	0.470
Scotland	0.001	0.077	0.020	0.986	-0.127	0.233	-0.540	0.587	-0.009	0.183	-0.050	0.960	0.067	0.328	0.210	0.837
Northern Ireland	0.099	0.102	0.970	0.332	0.110	0.307	0.360	0.721	0.152	0.205	0.740	0.461	0.615	0.437	1.410	0.159
Furloughed worker	0.117	0.035	3.320	0.001	0.266	0.107	2.490	0.013	0.255	0.083	3.090	0.002	0.367	0.151	2.430	0.015
Key Worker	0.109	0.028	3.850	0.000	0.218	0.086	2.530	0.011	0.161	0.063	2.560	0.011	0.346	0.122	2.840	0.004
Single adult	0.127	0.031	4.160	0.000	0.464	0.093	4.970	0.000	0.309	0.071	4.380	0.000	0.702	0.131	5.360	0.000
Time spent on housework	-0.008	0.001	-5.760	0.000	-0.028	0.004	-6.390	0.000	-0.015	0.003	-4.670	0.000	-0.037	0.006	-5.850	0.000
Time spent on childcare	-0.003	0.001	-4.580	0.000	-0.011	0.002	-5.130	0.000	-0.009	0.002	-5.350	0.000	-0.014	0.003	-4.630	0.000
Caring responsibilities	0.006	0.031	0.200	0.841	0.022	0.095	0.230	0.819	-0.115	0.071	-1.620	0.106	0.003	0.134	0.030	0.979
Change in caring responsibilities: more help	-0.084	0.035	-2.400	0.017	-0.175	0.106	-1.650	0.099	-0.145	0.078	-1.860	0.064	-0.299	0.149	-2.000	0.045
Change in caring responsibilities: new help	-0.021	0.035	-0.600	0.546	-0.055	0.105	-0.520	0.605	-0.103	0.077	-1.340	0.182	-0.037	0.148	-0.250	0.803
Cut points																
	-															
	26.199	2.068														
	-															
	25.885	2.067														
	-															
	25.670	2.067														
	-															
	25.496	2.067														
	-															
	25.347	2.067														
	-															
	25.198	2.067														
	-															
	25.038	2.067														

	-														
	24.839	2.067													
	-														
	24.658	2.066													
	-														
	24.430	2.066													
	-														
	24.133	2.066													
	-														
	23.598	2.065													
N obs	6,958				6,958				8,882				6,958		
Pseudo R2 / R2	0.02				0.08								0.019		
LR Chi2 (31) / F (31)	641.7 2				20.12				20.97				611.8 0		

Bold results are significant at $P < 0.05$.