





Fare differently, feel differently: mental well-being of UK-born and foreign-born working men during the COVID-19 pandemic

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ABSTRACT

Despite numerous studies that have demonstrated widening social inequalities during the COVID-19 pandemic, we do not yet see research on whether the surge in social inequalities would also have unequal consequences for people's subjective experience. By linking the countrywide Understanding Society COVID-19 longitudinal survey with the latest wave of the main-stage survey, we examine whether and how the psychological costs of economic lockdowns are unevenly distributed between UK-born and foreign-born working men. Findings provide direct evidence for a widening gap in mental well-being resulting from the widening socioeconomic gap between immigrant and native-born working men, during COVID-19 lockdowns. Employment disruption does not necessarily hurt mental well-being of the native-born, as long as their income is protected. For immigrants, however, work hour reduction is generally accompanied by psychological costs, with greater mental suffering among immigrant men who experience work hour reduction without income protection – particularly in the extreme scenario of reduction to no work hours.

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1. Introduction

The emergence of the COVID-19 pandemic has led to a substantial upheaval of all aspects of people's lives over the globe. Starting from March 2020, a wide range of countries have declared 'lockdowns' as the main coping strategy to restrict the spread of the virus. This approach has put unprecedented pressure on the economy, even when implemented successfully. In key instances where lockdowns have been implemented at a late stage and/or abandoned too early, the economic

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consequences are proving even more severe. Among the countries that have not coped with the pandemic especially well, we see some prominent instances of wealthy democracies – the United States and the United Kingdom, in particular, where pre-existing socioeconomic inequalities have become even more striking than before.

These sharp increases in inequality have direct consequences for the well-being of the population. To date, much of the discussion about outcomes of pandemic-related inequality has focused on objective measures, such as numbers of confirmed cases and deaths, access to healthcare and medical treatment, unemployment/poverty (Bureau of Labour Statistics 2020; Power *et al.* 2020). Studies have shown that chances of physical as well as economic survival are not evenly distributed across class, racial and ethnic groups, as well as residential areas and regions (Allas *et al.* 2020; Gross *et al.* 2020). However, less attention has been paid to inequality consequences in connection with subjective experience (one contribution is Davillas and Jones 2020).

Taking the United Kingdom as an example, this paper examines the impact of rising labour market inequality during the pandemic on mental well-being among the working population. According to a McKinsey report (Allas *et al.* 2020), around 7.6 million jobs in the UK, amounting to 24 per cent of the workforce, are at risk because of COVID-19-related lockdowns. The lockdown impact is unevenly distributed, with the most vulnerable groups at the highest risk. With all the cogent insights focusing on how vulnerable groups are losing ground on objective measures during the pandemic, it remains unclear to what extent vulnerable people feel differently from their economically secure counterparts. This study, therefore, takes a particular focus on divergent patterns between immigrants and the native-born, as a preliminary attempt to explore whether, and if so, to what extent vulnerable population groups mentally suffer more from adverse changes in labour market conditions.

As mental well-being is one specific aspect of subjective well-being (SWB), we follow the analytical strategy adopted by a recent investigation about the detrimental effect of unemployment on SWB (Shen and Kogan 2020) to focus on the male subpopulation. Since men's labour market participation is a more common phenomenon than women's across societies, and impacts of work-related changes are more substantial on men's than women's mental state, we argue that a focus on working men better illustrates a potential gap of mental well-being resulting from adverse labour market conditions between native-born and immigrant population groups.

2. Subjective consequences of adverse changes in employment

There is a research-based consensus that the consequences of faring poorly in labour market competitions (e.g. being unemployed) are psychological as well as economic (see a review by McKee-Ryan *et al.* 2005). The most straightforward reason is that income reduction caused by adverse changes in employment hinders one's access to sufficient food, shelter, heat, and ability to pay bills, and such worsening socio-economic conditions negatively impact individual SWB (McKee-Ryan *et al.* 2005). A perhaps even more important reason lies in the sense of 'deprivation', referring to the loss of basic functions that everyone needs to form self-identity as a social being, such as time structure, social contact, collective purpose, status, and activity (Jahoda 1982). Those functions are predominantly provided through employment in modern societies, so that adverse changes in employment deprive the person of self-identity in a broader social setting beyond one's household, causing a SWB decline (see a review by Paul and Moser 2009). One mechanism for this effect is driven by a decrease in self-esteem due to unemployment (Goldsmith *et al.* 1997).

Recent studies have found that those who are vulnerable to adverse changes in the labour market are also more likely to feel more strongly about those changes. Drawing data from the German Socio-Economic Panel Study (1990–2014), Leopold *et al.* (2017) show that unemployment hurts the life satisfaction of immigrant men more than that of their native-born counterparts. Using empirical evidence from the UK, Shen and Kogan's (2020) study echoes this finding and further points out that the reasons might be related to immigrants' economic expectations prior to immigration, lack of social support after immigration, and vulnerable legal status that is often contingent on their employment status in the host society. While more research is needed to evaluate specific explanations, what seems evident is that unemployment causes a larger decline in mental well-being for immigrant men than their native-born counterparts. Following existing studies, we, therefore, hypothesize that *lockdown-related adverse changes in work situations have a larger negative impact on mental well-being of immigrant working men than that of their native-born counterparts, other covariates being equal.*

3. Data, measurements and method

We analyse high-quality data from Understanding Society – the UK Household Longitudinal Survey (UKHLS; University of Essex 2020).

The survey team has moved very quickly to conduct additional survey rounds starting in April 2020, making it possible to gauge the impacts of the pandemic as it evolves. The main survey draws from a nationally-representative sample of the UK population, starting with approximately 40,000 households in Wave 1 (2009–2011). The data are well suited for exploring experiences of immigrants and minority groups, because the sample contains substantial ‘boosts’ of respondents in those categories (thus overcoming the limitations on sample sizes that would hold if they were selected through a ‘proportional’ measure). Separate from the main survey waves, the COVID19 survey is conducted on a monthly basis, starting in April, 2020, with focuses on experiences related to the COVID-19 pandemic. We use the two waves (April and May 2020) that have become available following the launch of this study. These data are collected via web-based questionnaires, in contrast to the face-to-face mode used for the main survey.

In order to test our hypothesis, we select male respondents who reported being either employed or self-employed or both in January/February 2020. We match those respondents to their records in the latest wave of the main-stage survey (Wave 9) and keep only those respondents who were working in Wave 9 as well. With this selection, we can be confident that SWB changes from Wave 9 to April/May 2020 are not connected to changes in employment status that took place prior to the start of the pandemic. This sample restriction results in an effective sample size of 3778, of which 3337 are UK-born and 441 are foreign-born. For the pre-COVID-19 wave (Wave 9), there are 3676 respondents, including 3255 UK-born and 421 foreign-born. For the COVID-19 survey, in the April wave there are 3505 available respondents (3105 UK-born, 400 foreign-born), and in the May wave, there are 2882 available respondents (2598 UK-born, 284 foreign-born). The sample sizes for foreign-born respondents taken as a whole are relatively limited, impeding analysis in a finer grain (e.g. with disaggregation to different origin regions).

The dependent variable, mental well-being, is given as a summary measure of GHQ (General Health Questionnaire) scores, a widely-used scale that functions as a primary screen for psychiatric disorders, derived from twelve standard questions about one’s recent experience of ability to concentrate, loss of sleep, playing a useful role, ability to make decisions, feeling under strain, problems overcoming difficulties, enjoyment of day-to-day activities, ability to face problems, feeling unhappy/depressed, losing confidence, sense of worthlessness, and general happiness. Each question is asked on a four-point scale and the

derived single measure, given in Likert form, ranges from 0 to 36, with higher scores indicating more distress or poorer mental well-being (Li and Wang 2020). This single measure is highly reliable, as the twelve questions used in GHQ have a high level of internal consistency with Cronbach's Alpha above 0.9 in each wave as well as across all waves. An alternative option would have been life satisfaction. However, this question was not posed in the April survey. Moreover, unlike life satisfaction which is not generally subject to short-term variations, GHQ is an effective measure of emotional/mental distress in a short term and is thus likely to capture relevant subjective experiences arising during the pandemic.

Our focal independent variable is employment disruption measured by changes in work hours. We identify four categories of respondents, by taking a difference between their current work hours in the corresponding COVID-19 wave and their (baseline) work hours in January/February 2020.¹ Those whose work hours do not change or increase are grouped into 'no hour reduction'. For those whose work hours are reduced in April and/or May, they are divided based on reasons they reported for work hour reduction.

The group 'reduced hours with income protection' consists of respondents whose work hours are reduced but whose income is substantially protected by one or more of the following schemes: the government 'furlough' scheme, the equivalent scheme for self-employed people, use of paid leave, self-isolation or sick leave with company sick pay, and self-isolation or sick leave with statutory sick pay.² In particular, the 'furlough' scheme provides money to employers to support 80 per cent of a worker's salary up to £2500 per month.³ Self-employed workers have also been offered some equivalent (but more limited) support.

The group 'reduced hours without income protection' includes those whose work hours are reduced but who do not benefit from any specific income protection schemes offered by the government or the employer.

¹There is an assumption about stable work hours between Wave 9 and January/February 2020, if one's employment status does not change. Although, admittedly, exceptions do exist, we consider that the existence of those exceptions does not bias our model estimations. This is first because they are in very small number, and second, more importantly, also because there is no evidence to show that those exceptions are unevenly distributed between native-born and immigrant working men.

²This group also includes respondents who reported reduced work hours without income reduction, e.g. hours were reduced because working from home saved time on commute.

³Some employers have gone beyond those funds, paying their employees their full salaries.

Following the existing literature about unemployment (Paul and Moser 2009), we distinguish those who were working in January/February 2020 but were completely out of work in April/May from workers who have experienced partial reductions of work hours.⁴ We term this group ‘not working’ as one’s employment relationship may not be officially ended. Although this group could potentially include respondents who have voluntarily left their jobs after the lockdown started, this scenario would be very rare during the sharp downturn of the labour market environment.

The categorization above reflects the very limited nature of the UK’s benefits system. Unlike some welfare states where unemployment benefits cover a significant portion of people’s previous income while they look for new jobs, the UK has no specific unemployment benefits per se. There is a mix of ‘universal credit’ and ‘jobseeker’s allowance’, intended to meet a bare minimum of subsistence needs, with strict eligibility conditions pertaining to other household members’ income and savings (Dwyer and Wright 2014). Even those who are eligible have struggled in recent months to gain access to these benefits, with widespread errors, IT failures, and delays (Buchanan 2020). The only effective sustained protection of income for most workers in the current circumstances is the furlough scheme. In fact, one key reason the furlough scheme was created is precisely the inadequacy of the regular benefits system.

As [Figure 1](#) presents, lockdown-related work hour changes are unevenly distributed between native-born and immigrant working men. In April, the proportion of immigrant men who have completely lost their work hours is almost triple times as high as that of their native-born counterparts. In May, while the percentage of immigrant men who were not working has dropped from 7.5% to 3.6%, their risk of having non-protected work hour reduction has increased drastically – about 12% (=34.02%–22.37%) higher than that of native-born workers. It is thus clear that immigrant men bear greater costs of the economic lockdowns by experiencing higher risks of being out of work (in April) and having work hours reduced without income protection (in May).

⁴We refrain from further distinguishing this group between ‘with’ and ‘without income protection’, because (1) the sample size of this group is very small, particularly for the immigrant subgroup (see [Table A1](#) in the [Appendix](#)) and (2) income loss is not the main reason for one’s worsening mental state, particularly among immigrants (Shen and Kogan 2020).

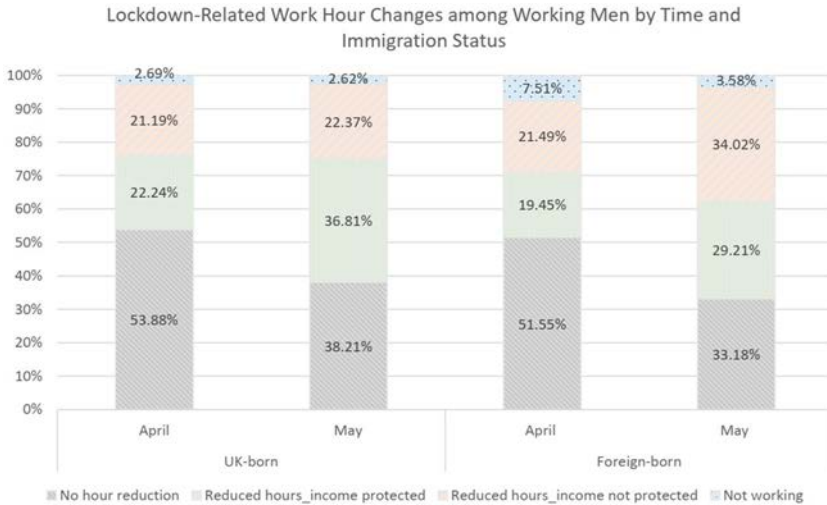


Figure 1. Lockdown-related hour changes among working men by time and immigration status.

To discern the effect of employment disruption on GHQ, we exploit the panel design of the data via fixed-effects (FE) modelling, which constructs estimates only from within-person changes over time. The main virtue of this approach is to ensure that estimates are not biased by unobservable, time-constant confounders, so that the possibility of omitted-variable bias is substantially mitigated (Brüderl and Ludwig 2015). We control for time-varying confounders, for which people's statuses are very likely to change due to home-isolation, quarantine, and/or economic lockdowns, or simply due to time change. Those include: time period (wave), having COVID-19-like symptoms, having at least one long-term health condition, and household composition (living with a partner, having children (age<16) in the household, and having elderly people (age 70+⁵) in the household). Descriptive statistics are present in the [Appendix](#). The model specification is as follows:

$$y_{it} = \beta_0 + \beta_1 x_{1it} + \dots + \beta_k x_{kit} + \epsilon_{it}$$

where i refers to individuals $1, \dots, n$; t refers to waves 1, 2, and 3; x_{1it} through x_{kit} refers to all predictors used in the model; the β vector are

⁵The relevant measurement in the longitudinal wave (Wave 9) is slightly different from those in the COVID-19 surveys, by asking 'pensionable age' (65+) rather than 70+. However, this inconsistency makes little differences in our analyses, particularly because this variable has no significant effect on SWB, as shown in the following results section.

coefficients with β_0 indicating the constant, and ϵ is the error term unique for each individual-wave observation.

4. Results

Figure 2 offers visual representation of the correlation between GHQ scores and work hour changes during the pandemic for men who were working in January/February 2020. Prior to the pandemic (Wave 9), immigrant working men have lower GHQ scores – namely, better mental well-being – relative to UK-born working men (9.9 vs. 10.5, $p=0.021$). In April and May, we see increases in GHQ scores across the board, with immigrants' GHQ scores now on par with or even higher than their native-born counterparts. With the baseline SWB levels prior to the pandemic taken into account, it is clear that immigrant working men bear higher psychosocial costs for work hour reduction.

We turn now to investigate whether the observed correlation between employment disruption and GHQ is causal by adopting FE modelling. Table 1 shows the effect of change in work situations on GHQ, with the emphasis on how the relationship between GHQ score and work hour reduction interacts with immigration status. Other covariates being equal: compared to native-born men having expected work hours (or more), native-born men experiencing reduced hours with income protection enjoy a better mental well-being state with the distress level reducing by 0.38 points, while those having reduced hours without

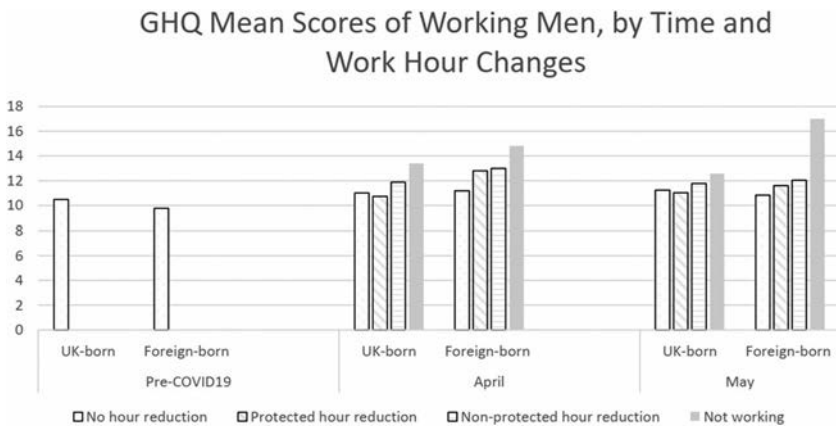


Figure 2. GHQ mean scores by time and work hour changes, UK-born vs. foreign-born working men.

Table 1. Fixed-effect estimations of lockdown-related changes in work hours on GHQ scores by immigration status among working men.

Hours change (ref. No hour reduction)	
Reduced hours_income protected	-0.38* (0.17)
Reduced hours_income not protected	0.50** (0.19)
Not working	1.70*** (0.47)
Reduced hours_income protected*immigrants	1.66*** (0.47)
Reduced hours_income not protected*immigrants	1.05* (0.48)
Not working*immigrants	2.21* (0.97)
April	0.62*** (0.12)
May	0.86*** (0.13)
Having COVID19-like symptoms	0.50* (0.21)
Having at least one long-term health condition	0.22* (0.09)
Living with a partner	0.02 (0.28)
Children <16 in the household	0.33 (0.24)
Elderly in the household	0.08 (0.25)
Constant	10.17*** (0.24)
Observations	10,063
R-squared	0.04
Number of respondents	3778

Source: Understanding Society (UKHLS Wave 9 and COVID19 Waves 1–2).

Standard errors in parentheses *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

income protection experience an increase in distress by 0.50 points and those out of work entirely experience an increase of 1.70 points. Immigrants fare significantly less well, as work hour reduction hurts the mental well-being of immigrant working men more than that of their native-born counterparts, whether income is protected or not. Compared to native-born men having no work hour reduction, immigrant men experiencing reduced hours with income protection experience an increase in GHQ score of 1.28 (=1.66–0.38) points. Immigrant men having reduced hours without protection of income experience an increase in GHQ score of 1.55 (=0.50 + 1.05) points, and the GHQ score of those completely out of work increases the most, by 3.91 (=1.70 + 2.21) points.

In summary, employment disruption in the circumstances of the pandemic does not necessarily hurt SWB of the native-born, as long as their

income is protected. For immigrants, however, work hour reduction is always accompanied with psychological costs, with the costs being higher when income is not protected than protected, and the highest when immigrant workers are completely out of work.

5. Conclusions and discussion

Despite the many studies that have confirmed widening social inequalities during the COVID-19 pandemic, we have not yet seen an investigation focusing on whether or not the surge in social inequalities would also have subjective consequences. By linking the countrywide Understanding Society COVID-19 longitudinal survey with the latest wave of the main-stage survey, we examined whether and how the psychological costs of economic lockdowns are unevenly distributed between UK-born and foreign-born working men. Findings first confirm the argument from the existing literature that vulnerable population groups – immigrants in the context of this study – bear higher economic costs for COVID-19-related lockdowns, as they are more likely than their native-born counterparts to lose work hours without any financial compensation, and even worse, to lose work hours completely. More importantly, second, our analyses have provided direct evidence for an increasing gap of mental well-being resulting from the widening socioeconomic gap between immigrant and native-born working men, during COVID-19 lockdowns. All interaction terms of employment disruption and immigration status are significantly positive, which indicate higher GHQ scores among immigrant men than their native-born counterparts across all scenarios of employment disruption. In particular, the increase in GHQ for ‘reduced hours without income protection’ among immigrant men is about three times as high as the corresponding increase among native-born men (1.55 vs. 0.50), and the increase corresponding to ‘not working’ among immigrant men is more than twice the magnitude for native-born men (3.91 vs. 1.70). These findings strongly support that immigrant men’s mental well-being suffers more than that of native-born men from economic lockdowns during the pandemic, with those who are the most disadvantaged bearing the highest mental costs, i.e. those losing work hours without income protection and even worse, losing work hours completely.⁶

⁶According to APS (Annual Population Survey) estimations, about 17% of men, aged 16 to 84 (the age range covered by the sample of male workers in our longitudinal data) are foreign born, with a confidence interval of [16%, 18%], and this proportion remains stable from 2016 to 2018 (with only

We emphasize that in this study we have examined changes in the subjective respect using GHQ, a measure sensitive to short-term changes in one's mental state. In addition to those speculations mentioned before our hypothesis, it is possible that the short-term mental state magnifies any objective changes, so that vulnerable groups feel even worse than their objective statuses indicate. As the COVID-19 pandemic becomes a long-lasting situation, it will be necessary to examine subjective well-being in a relatively long term, as, for example, indicated by life satisfaction, because changing trends for long-term and short-term mental state may differ. In contrast with immigrants' better mental well-being than their native-born counterparts' prior to the pandemic reported here, immigrants' lower level of life satisfaction is commonly noted by existing studies (Bartram 2011; Safi 2010). Thus, future research is needed to clarify whether immigrants' life satisfaction would further decline as the pandemic develops or remain at a stable level as they become accustomed into the 'new normality'. This will also help discerning reasons that contribute to the gap of mental well-being between immigrant and native-born workers.

Nevertheless, our study has shown clear evidence that immigrants bear higher psychological costs for COVID-19 related lockdowns, in addition to the increase in GHQ scores across the board. As a deep recession is anticipated to last in the UK even after the pandemic, economic and psychological gaps may increase yet more with further deterioration of disadvantaged groups' already vulnerable statuses.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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negligible changes). In our sample, by contrast, 12% of men in the same age range are foreign born. As shown in Table A1, this lower percentage of the subsample of immigrant men is mainly because of a big drop in the number of immigrant respondents in the second wave of the COVID-19 survey in May. Considering those undergoing life challenges are more likely to drop out of the survey, we think it is reasonable to assume that those dropped immigrants are likely to be the most disadvantaged. Thus, the under-representative immigrant sample used in our analysis does not change our argument at all. If anything, the GHQ gap between native-born and foreign-born working men might be even larger than that presented in our analysis. Moreover, although APS estimations show a stable composition between native-born and foreign-born working men in the UK from 2016 to 2018, work-related immigration to the UK has been declining since 2016 (Office for National Statistics 2020), and its impact on the population composition might have started to become visible only recently. This might also contribute to a lower percentage of immigrant working men in our longitudinal data spanning from 2017 through 2020.

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Appendix. Table A1. Descriptive statistics of all used variables.

	All N=10,063 100%		UK- born N=8958 89.02%		Foreign- born N=1105 10.98%	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
GHQ scores	10.99	5.12	10.98	5.06	11.13	5.60
COVID19-like symptoms	0.09	0.29	0.09	0.29	0.09	0.29
At least one health condition	0.35	0.48	0.35	0.48	0.36	0.48
Living with a partner	0.82	0.39	0.81	0.39	0.83	0.38
Children <16 in the household	0.37	0.48	0.36	0.48	0.48	0.50
Elderly in the household	0.08	0.26	0.08	0.27	0.07	0.26
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Work hour changes						
No hour reduction	6752	67.10	6009	67.08	743	67.24
Reduced hours w/h income protection	1658	16.48	1511	16.87	147	13.30
Reduced hours w/o income protection	1447	14.38	1275	14.23	172	15.57
Not working	206	2.05	163	1.82	43	3.89
Wave						
UKHLS wave 9	3676	36.53	3255	36.34	421	38.1
COVID19_April	3505	34.83	3105	34.66	400	36.2
COVID19_May	2882	28.64	2598	29	284	25.7

Source: Understanding Society (UKHLS Wave 9 and COVID19 Waves 1-2); authors' calculation.