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Inequality and the COVID-19 Crisis in the United Kingdom

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Abstract

We review the effects of the COVID-19 pandemic on inequalities in education, the labor market, household living standards, mental health, and wealth in the United Kingdom. The pandemic has pushed up inequalities on several dimensions. School closures, in particular, disrupted the learning of poorer children, leading to lower attainment. Mental health worsened for those groups (women and younger adults) who had poorer mental health pre-pandemic. Lockdowns and social distancing particularly reduced the ability of younger, lower-earning, and less educated people to work. However, job-support programs combined with the expanded welfare system meant that, if anything, disposable income inequality fell. Rising house prices have benefited people around the middle of the wealth distribution. In the longer term, lower work experience for the less educated and missed schooling could push up some inequalities. Increased rates of working from home seem likely to persist, which may increase some inequalities and decrease others.

1. INTRODUCTION

Far from pushing inequality down the agenda, the COVID-19 pandemic shone a spotlight on inequalities in education, income, work, health, savings, and wealth. It also opened up new gaps along dimensions that were previously less significant, such as the ability to work from home and digital access.

Policy interventions to counteract the changes caused by the pandemic and associated lockdowns have been remarkably powerful. Examining the evolution of the Gini coefficient of income during the pandemic across a range of developed economies, Almeida et al. (2020) find that without the policy interventions, this measure of disposable income inequality would have risen significantly—by more than 3 percentage points (ppt) in the European Union (EU), for example. After accounting for the various income support schemes put in place, what we actually see is a small fall in disposable income inequality as measured by the Gini (1 ppt in the EU).

However, many policies have been temporary, and many of them have papered over cracks that would have been immediately visible (e.g., falling household incomes) without preventing likely long-term damage (e.g., a loss of human capital arising from time away from education or paid work). Moreover, disposable income is a narrow metric to use to assess the impact of something on economic inequalities, not least for a phenomenon with impacts as wide-ranging as a pandemic. Besides its direct health implications, this crisis was a profound shock to virtually all aspects of social and economic life.

In this article we review the implications of the pandemic for inequalities. We focus on the case of the United Kingdom (UK) and draw parallels to what has happened in other countries where information is available. We place emphasis on interpreting currently available data and measurements through a forward-looking lens, building a bridge between what we have seen so far and what we might expect the implications to be for future inequalities. The UK has a particularly wide range of rich data available for this purpose, simultaneously spanning many of the domains of life across which the pandemic had its impacts. These include longitudinal household survey data collected prior to, and several times during, the pandemic, gathering information on economic, health, and family circumstances; real-time financial transactions data; bespoke real-time surveys about the impacts on schooling, home learning, and educational progress; and high-quality, real-time job vacancies data.

Given the rich data available, we make a point of reviewing the impacts of the pandemic on a wide range of inequalities considered over the life cycle—specifically, in terms of education, the labor market, material living standards, mental health, and household wealth—to build a comprehensive picture of the likely short- and long-term effects of the pandemic.

Figure 1 shows the timing of the main pandemic waves and of national lockdowns in the UK up to May 2021. The qualitative pattern here is typical of many developed countries, with large waves in spring 2020 and the winter of 2020/2021, though the UK was hit harder than many developed economies in both time periods, as the more transmissible Alpha variant originated in South East England. National lockdowns, of which the UK had three in total, followed a similar timing. After approving vaccines made by Pfizer/BioNTech and AstraZeneca in December 2020, the UK had a relatively swift rollout of the COVID-19 vaccines. With relatively high levels of vaccination, particularly among older people, the third wave of cases (driven by the Delta variant) that occurred through summer and autumn 2021 led to relatively few deaths. Considerable uncertainty remains about what will happen next, not least given the emergence of the Omicron variant and the possibility of new variants and of a waning efficacy of vaccination.

The UK is a country with relatively high levels of income inequality for a developed economy, but it headed into the pandemic with underlying disparities that will be familiar to readers from many countries. Educational outcomes varied significantly by socioeconomic background, with

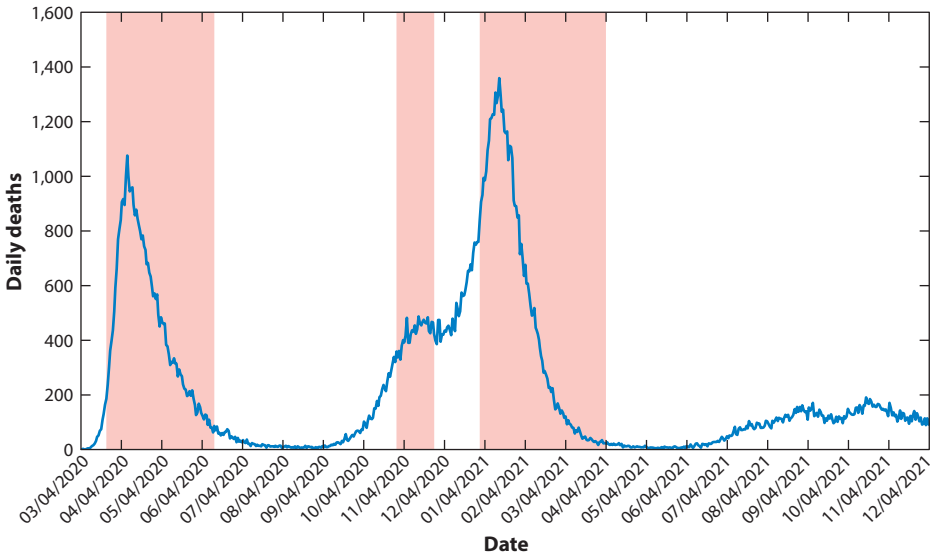

Figure 1

Deaths per day from COVID-19 in the UK, March 2020 to December 2021. Lockdowns, corresponding to the shaded areas, are based on the dates of national restrictions in England. The first and third lockdowns were lifted particularly gradually; the end date of these lockdowns is therefore the date of reopening of nonessential retail. Figure adapted from **https://coronavirus.data.gov.uk/details/deaths** (contains public sector information licensed under the Open Government Licence v3.0).

fewer paths to well-paid jobs for those without university education (see Blundell et al. 2022). The broad trend over the previous few decades had been toward increased earnings inequality (offset with higher in-work transfers from the government), and wage progression over the lifecycle for those with little formal education was typically low (Belfield et al. 2017). A large fraction of poorer households had low savings and/or high debt, and health vulnerabilities correlated strongly with economic inequalities (Blundell et al. 2020).

To provide further framework for what follows, it is helpful to set out the key ways in which the economic effects of the pandemic were similar to, and different from, a more typical recession. The specificities of the pandemic broadly belong to two categories. First, the pandemic caused huge sectoral changes in economic activity, due to the contraction of output in sectors that rely on social contact. Second, the pandemic was distinctive because there were simultaneous disruptions to virtually all aspects of life, including education, health and health care, and social interaction. These other disruptions all have the potential to produce persistent economic effects of their own.

In the UK, the COVID-19 pandemic does not look especially remarkable compared to past recessions with respect to its immediate impacts on the employment rate (which fell from 61.7% of the adult population at the end of 2019 to 60% in spring 2021) or on median household incomes [which are actually projected to have risen by 1.5% in 2019–2020 and 2020–2021 according to Handscomb et al. (2021)]. This is remarkable, given the 22% contraction in GDP between 2019Q4 and 2020Q2.

These details do differ in important ways from country to country. For example, employment declines were much more severe in the United States (US), which is consistent with its use of expanded unemployment insurance rather than the furlough or short-time work arrangements used in the UK and much of Europe, which emphasize the retention of existing employer-employee

matches. However, the broad picture of surprisingly robust incomes, in the face of such a momentous economic shock, is very representative of the international experience (see Stantcheva 2021).

These remarkable facts are reconciled by the huge amount of state intervention. This has papered over the cracks but left the public finances in an unusually precarious position, with a public sector deficit of 15% of GDP in the UK in 2020–2021 and public sector net debt reaching 98% of national income in 2021–2022 (Off. Budget Responsib. 2021). This public debt will need to be financed in future, which is the first of many reasons that the long-term effects of this pandemic are likely to be far from normal, despite the superficial appearance of normality given by contemporaneous measures of household living standards.

The profound immediate impacts of the COVID-19 pandemic on the UK's labor market becomes much clearer once we look at measures of actual hours worked, which fell by 18% between February and May 2020, much more commensurate with the measured drops in national income. This is typical of many countries, because hours of work were not held afloat by furlough schemes or short-time work schemes in the same way as employment or income. This unprecedented impact matters enormously. We care about demand-induced reductions in hours of work even if they are not associated with contemporaneous reductions in household income, because experience in paid work brings human capital development and earnings progression. Relative to a counterfactual of the labor market continuing to look like it did in 2019, the pandemic had, by mid-2021, caused a reduction of 2.7 million person-years of full-time work and a further 1.5 million of part-time work. That is equivalent to 14% of the workforce stopping working for a year. For those with lower educational attainment [i.e., those having a General Certificate of Secondary Education (GCSE), which is awarded in a national exam taken at age 16, or less], the figure is even higher, reaching 24%, with two-thirds of the effect coming from reduced full-time work.

The human capital effects are likely to extend significantly beyond the simple loss of experience in paid work, due to other unusual features of the COVID-19 pandemic. The number of apprenticeships fell substantially; this is another, even more direct, illustration of the general theme here, i.e., that although significant state intervention has often stopped employment ties from being severed (or prevented the immediate cliff edge in incomes resulting from job loss, as in the US), this is not the same as providing the economic activity that underlies much human capital development and career progression.

Perhaps the most extraordinary feature of all, when it comes to human capital, was the simultaneous disruption to the education system. Here, comparisons to normal recessions are of course entirely unnecessary. There is widespread evidence of lower school attainment, with reading test scores in the UK in the autumn of 2020 showing a learning loss equivalent to around 2 months of progress, even before the closures of schools in early 2021 (Dep. Educ. 2021), which was larger for those from more disadvantaged backgrounds.

Two other unusual features of the COVID-19 pandemic, with potentially profound longer-term implications, arise from the premium that the pandemic placed on the ability to do work without social contact: These are the sector specificity of the shock and the huge rise in remote working. Both of these create the potential for significant structural changes in the longer term—something that poses challenges for certain groups of workers, and which policy makers have often failed to manage effectively. A common theme is the changed premium on certain technologies, with e-commerce and digital industries actually booming. Wage inequalities are likely to rise if the premium on skilled use of technology increases. It would increase the value of designing a skill and education policy that can maximize opportunities to attain those skills.

In the shorter term, the mere fact of sectorally imbalanced labor market disruption creates the possibility of large-scale skill mismatches, whereby available jobs and available skill sets do not align well at a local level. Mismatch is always a concern when emerging from a recession (see

Sahin et al. 2014, Patterson et al. 2016), but perhaps unusually so this time around, given the highly uneven level of disruption experienced across different lines of work. We present early evidence from vacancy data in the UK suggesting there are already signs of significant skill mismatch in the economy as it emerges from the pandemic. Viewed through a lifecycle lens, structural change is typically most difficult for those who have already acquired human capital that becomes obsolete, particularly those late in their careers for whom new investments may be less worthwhile. Indeed, possibly for this reason, we show in this article that re-employment probabilities for older workers made redundant have been particularly low in this pandemic.

Finally, for some obvious and some not so obvious reasons, the health effects of the past year are likely to be far more significant than any normal economic contraction. In addition to the widespread mental health impacts of the pandemic, which particularly affected young women, the immediate impacts of COVID-19 itself have clearly been unequally spread, with well-documented inequalities in cases and deaths between more and less affluent areas and different racial groups. The fact that COVID-19 affected already disadvantaged groups more than others is not unique to the UK (see, for example, Case & Deaton 2021 for the protective effect of university education in the US). The longer-term effects of COVID-19 infection on morbidity and mortality remain highly uncertain, but it is possible that they will be significant, given the disease's ability to infect multiple vital organs, including the brain, and to cause long-lasting pathologies, which are not limited to those suffering severe symptoms during the period of infection (Douaud et al. 2021). Given the numbers of the infected, any long-term health effects could have nontrivial implications for future productivity, health and well-being, and health care systems.

In the rest of the article we step through different key elements of the pandemic's impacts, examining inequalities in education, the labor market, material living standards, mental health, and household wealth. We conclude with a discussion of what we have learnt about the pandemic's longer-term legacy.

2. EDUCATION

One of the most distinctive features of the pandemic crisis was the sudden and extended closure of schools and child care providers, which resulted in a shift of most, if not all, education and care responsibilities to parents and families. School disruptions were widespread across the world, though to different extents in different countries.[1] In the UK there were two major periods of school shutdown: The first, during the spring 2020, lasted for 10 weeks, and the second, during the start of 2021, lasted for another 9 weeks. Other periods saw schools open intermittently, sometimes only for selected groups of children and for shorter daily hours, and attendance was incomplete, in part due to isolation as a result of the test-and-trace program.

The extent of the disruption is summarized in **Figure 2**. Attendance was very low during the entire second half of the 2019–2020 school year, never exceeding 20%, even when schools re-opened; it then recovered in the school year 2020–2021, hovering between 80% and 90% while schools were opened but falling back to around 20% during the second period of school closures. Relative to the counterfactual of the pre-pandemic attendance rate at 95% (see Dep. Educ. 2021), these figures imply that an average of 20 additional in-person school weeks per pupil, or about half of a school year, were lost between March 2020 and July 2021 due to the pandemic.

Although some learning that would otherwise take place in school was delivered remotely or by parents during school closures, it is unlikely that it could compensate for the entirety of the

[1]Readers may consult the page titled "Education: from disruption to recovery" on the UNESCO website (at **https://en.unesco.org/covid19/educationresponse**).

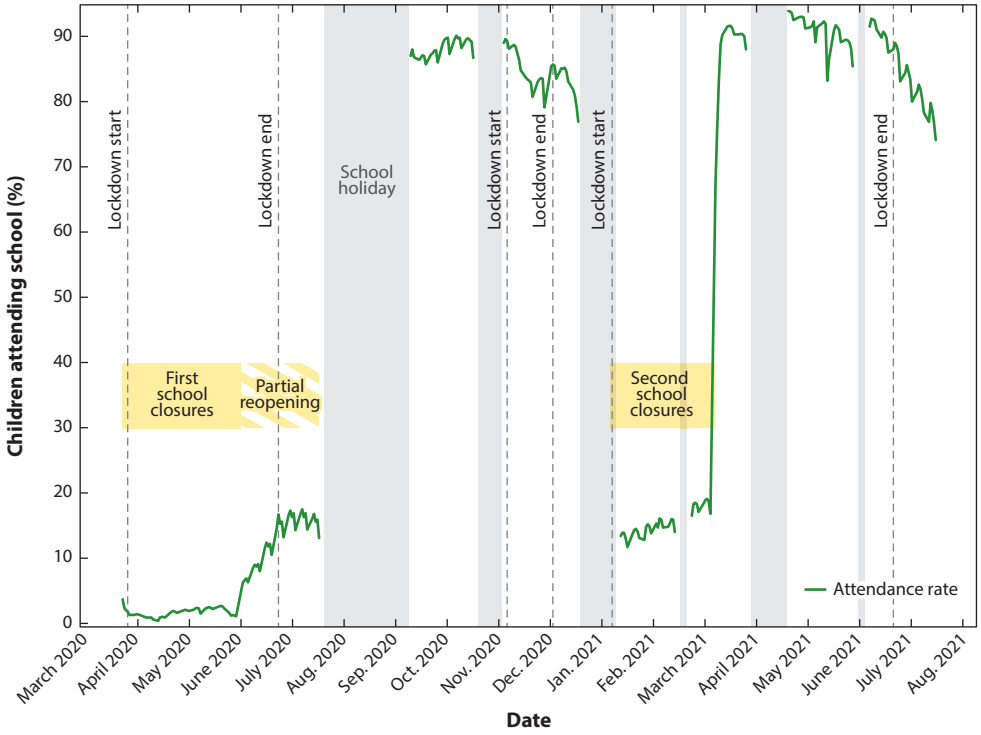

Figure 2

Proportion of school pupils attending school during the pandemic crisis. Figure adapted with permission from Cattan et al. (2021).

lost time in school. Studies so far have documented that the disruption in school life significantly affected the education experiences and attainment of children, and more so for the most economically disadvantaged among them, who already achieved less on average than their better-off peers. School closures removed key equalizing education inputs such as broadly standardized curriculums and similar learning environments. These have been replaced with very heterogeneous home environments and mixed home-learning support provided by schools. In this section, we document how the pandemic crisis affected, and affected differently, the learning experiences and education attainment of school-age children.

2.1. Inequalities in Learning Experiences at Home During School Closures

Various studies in many countries have reported a large drop in the amount of time that children spent doing schoolwork and learning activities during the extended periods of school closures. For instance, Huber & Helm (2020) show that, early in the pandemic, only about 30% of the students in Switzerland, Austria, and Germany engaged in schoolwork for a similar number of hours as during normal times. In contrast, about 20% of children reduced their time doing schoolwork to 9 or fewer hours per week.

To quantify the extent to which the education experiences of school-age children in England were disrupted during the pandemic, Andrew et al. (2020a,b) and Cattan et al. (2021) combined time-use data collected online for children and parents living in England during the two periods of school closures, in spring 2020 and winter 2021, with data from the latest survey of time use

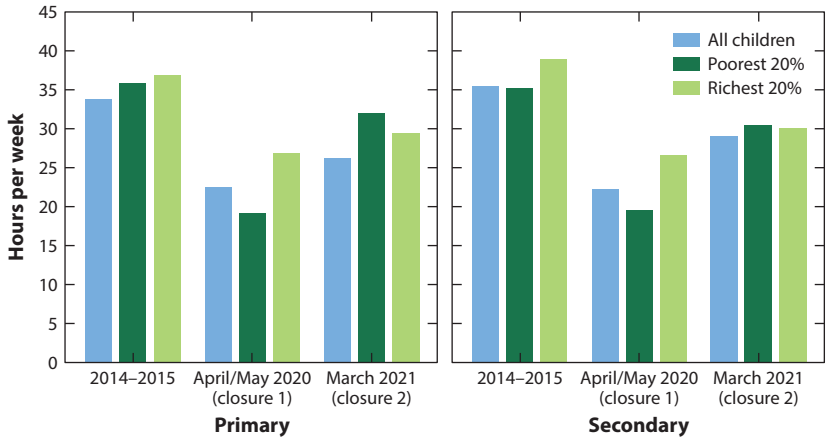

Figure 3

Average weekly learning time among children, before and during the school closures. The chart shows the average number of weekly hours that children spend on learning activities on a school week, based on reported weekly hours on each activity. Activities include classes (online or in person), schoolwork, tutoring, and other education activities. Poorest and richest 20% are defined based on pre-tax family earnings. Data from Institute for Fiscal Studies–Institute of Education Survey (since 2020) and UK Time Use Survey (2014–15).

for the UK, from 2014 to 2015. The first closure, which arrived unexpectedly and caught schools and families unprepared, saw more than one-third of the regular learning hours being wiped off on average; this amounted to 12 to 13 fewer learning hours per week than normal (**Figure 3**). The experiences from the first lockdown helped improve home learning during the second, but learning time remained low as compared to pre-pandemic levels: Weekly learning time was down by 8 and 6 weekly hours for primary and secondary school children, respectively.

Learning time did not fall uniformly across socioeconomic groups, and again differences were sharper early in the pandemic. **Figure 3** shows learning time for children in the bottom and the top fifth of the distribution of family pretax earnings. During the first lockdown, learning time fell by 7 to 8 weekly hours more among primary and secondary school children from the most disadvantaged backgrounds compared to children from the better-off families. By the second closure, however, this gap had closed completely. Other studies found similar patterns. For instance, Bayrakdar & Guveli (2020) found that children who received free school meals (a government welfare benefit provided to low-income families),[2] children from lower-educated and single-parent families, and children with Pakistani or Bangladeshi backgrounds (who have historically been more socioeconomically disadvantaged than white children or those from Indian backgrounds) devoted significantly less time to schoolwork at home. A recent report (Sharp et al. 2021) also found that learning losses have been more significant among pupils of schools with the highest proportion of student on free school meals: 51% of teachers in schools in the top quintile by this measure (i.e., the most deprived schools) report that children in their classes were 4 or more months behind at the end of the 2019–2020 school year, while the comparable number is 15% for school in the bottom quintile (i.e., the least deprived schools).

[2]The free school meals program is a benefit that funds free meals for school-age children during school days. In January 2020, about 18% of school-age children were on free school meals.

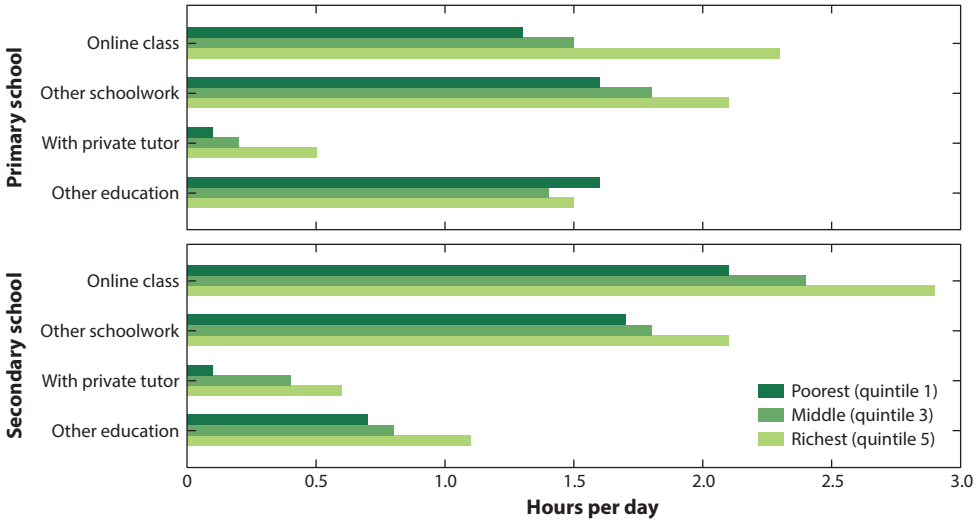

Figure 4

Children's daily learning time during the first lockdown and gaps in educational activities by family income. The chart shows the number of hours per school day, based on reported weekly hours on each activity. Figure adapted with permission from Andrew et al. (2020a), using Institute for Fiscal Studies–Institute of Education Survey data.

The socioeconomic gaps in learning time that opened during the first lockdown have been compounded by gaps in the activities that children did during this time and in the learning setting they found at home. For instance, Cattan et al. (2021) documented inequalities in the composition of learning time, showing that the better-off fifth of pupils spent around 47% of their learning time during the first lockdown on interactive activities, such as online classes with their teachers and paid tutors, compared to just 40% for the poorest fifth. Because these interactive activities are expected to be among the most productive in supporting home learning, differences in learning time use may contribute to increasing learning gaps along the socioeconomic divide.

Figure 4 shows evidence of large socioeconomic gaps in how children spent their learning time. Among children of secondary school age, those from the top fifth of family income spent 80 daily minutes more in online classes and private tutoring compared to those from the bottom fifth; the difference is slightly larger for primary school children, at 85 daily minutes. Differences in time spent on passive learning activities are less pronounced but further reinforce asymmetries in learning.[3] These findings are consistent with findings for other countries; for example, Chetty et al. (2020) show that the fall in the proportion of mathematics lessons completed has been much larger for poorer pupils than higher-income pupils.

2.2. Inequalities in Learning Experiences When Schools Reopened

Some of the socioeconomic gaps in learning that characterized the period of school closures were still visible after schools reopened. In England, children were back in school during the autumn of 2020, but self-isolation of teachers and pupils often disrupted the normal delivery of classroom

[3]Elliot Major et al. (2020) also show that nearly three-quarters (74%) of privately educated school pupils benefited from full school days during the first school closure, in contrast with only 2 in 5 pupils in state schools (38%).

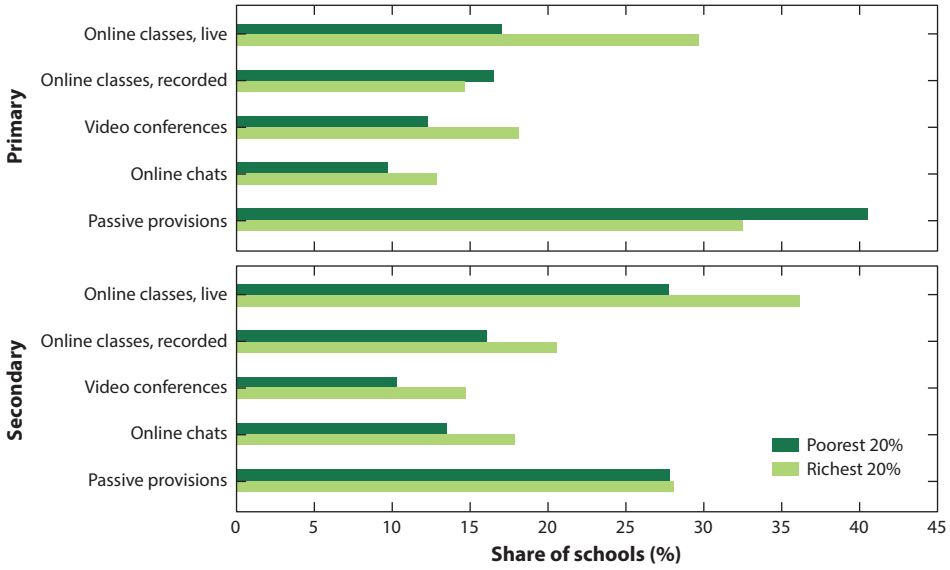

Figure 5

Home-learning provisions during periods of self-isolation, Autumn 2020 school term. The graph shows disaggregated active provisions. Passive provisions include online platforms, learning packs, and emails. Figure adapted with permission from Cattan et al. (2021).

teaching. **Figure 2** shows that attendance rates were consistently below the pre-pandemic levels of 95% of pupils. Because the incidence of COVID-19 was larger in poorer communities, children in these areas are also likely to have been disproportionately hit by consequent disruptions to the delivery of school education.

Sibieta (2020) finds a clearer negative relationship between local COVID-19 infection rates and school attendance. Cattan et al. (2021) calculate that, on average, the poorest fifth of primary school children lost an average of 8.5 school days during the Autumn term of 2020, compared to 6.5 days among pupils from better-off families.

The consequences for learning and for learning inequalities of these high absence rates depend crucially on what children were doing while staying at home. **Figure 5**, by Cattan et al. (2021), provides some detail. The figure shows that poorer students in self-isolation were less likely to have access to effective learning resources to support their home learning. Whereas 30% of self-isolating primary school children from the richest families had online classes, as did 36% of better-off secondary school children, these proportions were 17% and 28% for their poorer peers, respectively. Access to other active-learning provisions was also lower for disadvantaged children.

2.3. Inequalities in Attainment

The huge disruption to the provision of school education that characterized the majority of two school years is likely to leave lasting impacts on the attainment of children. Several studies suggest that instructional time delivered by teachers significantly increases test scores (Pischke 2007, Lavy 2015, Steward et al. 2018). Moreover, the unequal learning experiences faced by children from different socioeconomic backgrounds may further widen existing gaps in attainment.

Although it is still early to reach definite conclusions on the impacts of the lockdowns on children's attainment, recent studies summarize the evidence available so far (e.g., Blainey and

Hannay 2021, Rose et al. 2021, Weidmann et al. 2021). Reading test score data from England from the Department for Education show losses of between 1.5 and 2 months of progress across the board, which are larger in the most deprived schools and especially so for secondary school pupils (Dep. Educ. 2021).

Various international studies reached similar conclusions. For example, national primary school tests are regularly carried out twice yearly in the Netherlands (Engzell et al. 2021). In 2020, these tests were administered just before and soon after the short lockdown of 8 weeks that the country experienced in the spring. Despite the high penetration of broadband Internet nationwide, and an equitable and well-funded school system, the tests revealed an average loss in learning of about 3 percentile points relative to pre-pandemic times, with larger losses among children from less educated homes. Maldonado & De Witte (2020) study the effects of school closures on test scores taken at the end of primary school in the Flemish part of Belgium. They find that the cohort taking the tests in 2020 did significantly worse than prior cohorts, with math scores dropping by 0.19 standard deviations and Dutch scores by 0.29 standard deviations. Moreover, inequality in children attainment rose by 17% for math and 20% for Dutch. Kogan & Lavertu used test scores of third-graders from the Ohio's Learning Standards for English Language Arts to access the impacts of the pandemic on attainment (V. Kogan & S. Lavertu, unpublished manuscript). They found that the average achievement of third-graders declined by approximately 0.23 standard deviations between fall 2019 and fall 2020, roughly equivalent to one-third of a year's worth of learning, and that black students were especially penalized. Studying a wider set of school districts across the US, Domingue et al. (2021) found widening geographical inequalities in the reading fluency of children attending grades 2 and 3, with children living in lower-achieving districts falling further behind those living in higher-achieving districts. Pier et al. (2021) considered a wider group of children attending grades 4–8 in California. Using interim assessments taken in the winter of 2021, it quantifies learning losses of approximately 2.6 school months for English language and 2.5 months for math.

2.4. Apprenticeships

Although most recent studies have focused on the learning experiences of school-age children, some of the most consequential impacts of the pandemic were likely felt by those nearing the end of their education and preparing to transition into the labor market. In the UK, apprenticeships combine (part-time) formal education with paid work in the workplace. Historically, compared to countries like Germany and Switzerland, apprenticeships in the UK have been short (up to a year), generally at low skill levels, and relatively rare. Since the early 2010s, they have become more common, however, with big jumps in the proportion of people undertaking higher-skill-level apprenticeships (see McNally 2018). Of all education routes, work-based vocational education and apprenticeships were the most penalized by the closure of entire sectors and many firms and by the requirements for social distancing.

In comparison, the disruption to university education was much more limited, as classes continued online and most university places remained unaffected. Apprenticeships provide key pathways out of low pay for those with low academic qualifications, and they are often preferred to the university route by children from disadvantaged backgrounds, particularly boys (Cavaglia et al. 2020a,b). The massive disruption in their provision, therefore, is likely to affect the most the young people who have few alternative routes into good jobs.

Both ongoing and new apprenticeship places were affected by the prolonged crisis. Data from the Sutton Trust (Doherty & Cullinane 2020) show that in the UK, only 40% of apprenticeships

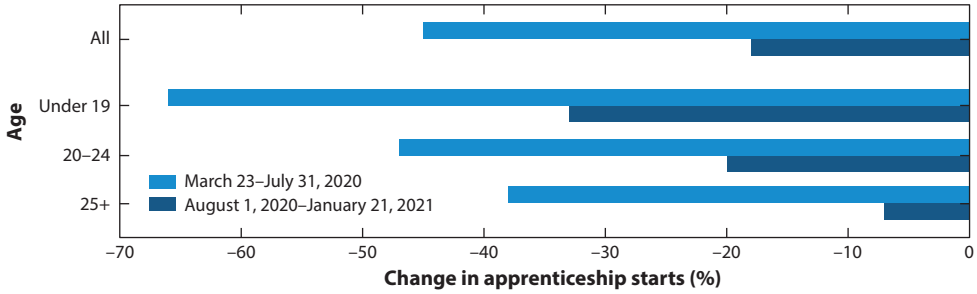

Figure 6

Change in the number of apprenticeship starts during the pandemic compared to the same period in the previous year, by age. Data from House Commons Libr. (2021).

that were operating when the pandemic first hit continued as normal, with the rest facing learning disruptions, furlough, or redundancy. The number of new apprenticeships also fell dramatically and remained low over an extended period. Using House of Commons Library data (House Commons Libr. 2021), **Figure 6** illustrates the extent of the fall by comparing new apprenticeships during the pandemic with those that happened one year before. The first four months since the first lockdown saw a 45% fall in new apprenticeships year-on-year. The reduction was especially large for prospective apprentices aged 17–19, down by 66% year-on-year. The reduction in apprenticeships continued into the next 6 months at a smaller, though still very substantial, degree. Overall, the number of new places dropped by 18% between August 2020 and January 2021, and by 33% for the younger group.

3. INEQUALITIES IN WORK

The pandemic crisis inflicted abrupt changes to the working routines of many workers and the activity of many firms. In most rich countries, social distancing measures demanded the shutdown of entire sectors of the economy. In the UK there were three extensive lockdown periods between March 2020 and June 2021, during which businesses in sectors deemed nonessential and that required close social interactions were required to close temporarily, while workers who could work from home were asked to do so. The requirement for people to stay at home also impacted the demand for different goods and services. For instance, footfall numbers in high streets collapsed, while online retail flourished. The immediate consequence of these changes was that many workers saw their jobs abruptly interrupted by a combination of lack of demand and lockdown rules, while others, such as essential workers in the health sector or those doing home deliveries, went through an especially busy period.

To avoid the worst of the crisis, governments were quick to implement policies protecting the jobs and incomes of workers. These new policies have been most significant in the countries with least generous safety nets. The UK and the US are two key examples of this, though they took different approaches. The US increased support for unemployed workers to see them through the worst of the crisis, whereas the UK introduced the Coronavirus Job Retention Scheme (known as the furlough scheme) in a massive effort to simultaneously protect incomes, preserve jobs, and support firms.

Under the furlough scheme, the government paid 80% of salaries to furloughed employees up to a cap of £2,500 ($3,250) per month (J. Cribb & P. Johnson, unpublished manuscript) between March 2020 and September 2021. The employer was initially not required to make any

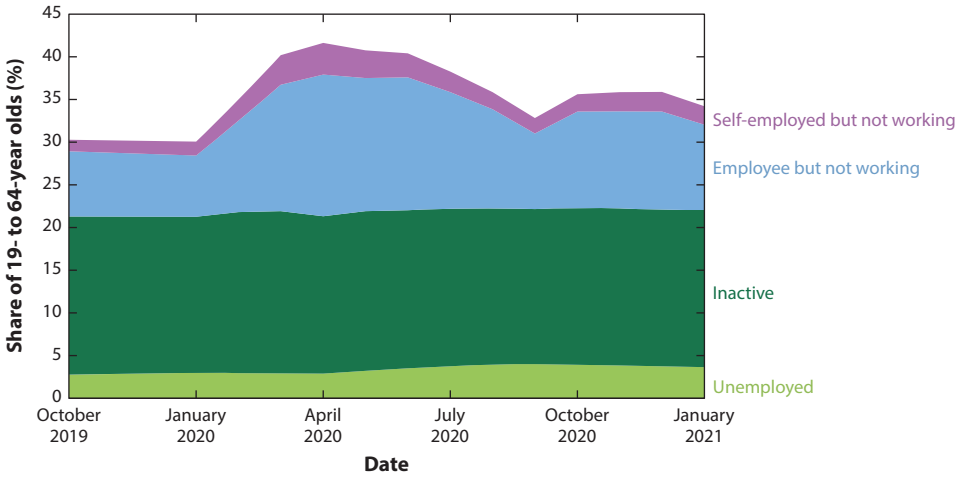

Figure 7

Share of people not working over the course of the pandemic. Figure adapted with permission from Cribb et al. (2021), using UK Labour Force Survey data.

contributions.[4] This provided far more support to employees who would have otherwise lost their jobs than would have been possible under the UK's pre-pandemic welfare system, which provides out-of-work means-tested benefits that are not related to individuals' previous levels of earnings. The unemployment rate in the UK peaked at 5.2% in 2020Q4, up from 3.8% a year earlier. This is fairly similar to the increase seen in Germany over the same period, when the German government implemented an extended version of their existing Short-Term Work (*Kurzarbeit*) scheme in response to the pandemic (see Eichhorst & Rinne 2020). In comparison, the US experienced a strong increase in unemployment early in the pandemic.

In total, nonworking rates in the whole working-age population jumped by over 10% during the first lockdown, mostly due to workers interrupting their jobs temporarily while on furlough (**Figure 7**). Many more workers were furloughed; indeed, the increase in the number of employees who reported not working in June 2020 is only about half the number of workers who were furloughed according to official figures. This may be accounted for by employees finding other jobs they could do while on furlough, which was allowed by the scheme; separate survey evidence (Adams-Prassl et al. 2020a) also suggests that some furloughed workers continued working in the jobs they had been furloughed from (despite program rules to the contrary). Nonworking rates fell very significantly over time as the restrictions were relaxed and firms, individuals, and families adapted to the new ways of working.

Workers in shutdown sectors such as hospitality or nonessential retail were especially exposed to work interruptions. **Figure 8** shows that shutdown sectors shrank dramatically in 2020 and 2021. In terms of employment, 10% of their 2019 workforce had been shaved off by 2021. Moreover, furlough rates in these sectors jumped in 2020 to almost 40% of the workforce but were more modest in 2021, at about 10%. In contrast, sectors that remained opened managed to modestly expand their workforce by over 1%, but they nevertheless saw high furloughing rates in the first

[4]Small changes to the scheme were gradually introduced, requiring increasing contributions from employers. The scheme was always planned as a temporary measure, to be discontinued with the reopening of the economy.

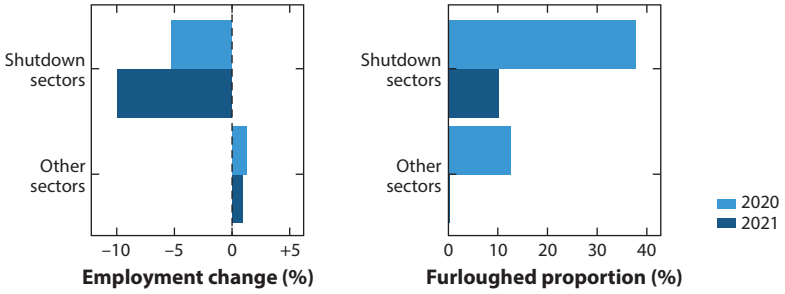

Figure 8

Changes in employment and furlough rates before and after the pandemic, by sector shutdown status. Data from UK Labour Force Survey.

stages of the pandemic. Some of the initial work interruptions, and particularly those in sectors that remained opened, may have been induced by workers who were unable of combining the increased domestic responsibilities imposed by the lockdown with the demands of their jobs, or by those who had frail health or whose jobs require physical contact.

3.1. How Have Different Groups Been Affected by Employment Changes During the Pandemic?

Workers were differently exposed to the pandemic shock. That much is visible from inspection of how unemployment and furlough rates changed over the crisis by demographic groups (**Figure 9**). For instance, the increase in nonworking rates was largest among the youngest workers by the start of 2021, as their jobs were less secure and disproportionately concentrated in the lockdown sectors (Blundell et al. 2020). However, their nonworking rates have since converged to levels similar to those observed for other groups as they returned to work, moved into new jobs, or remained in education for longer [with an 8-ppt (12%) increase in the rate of 18-year-olds in full-time education between 2019 and 2020; see Cribb et al. 2021].

The gender split is somewhat surprising. Early in the pandemic many predicted that female workers would suffer more than men, for two main reasons (Adams-Prassl et al. 2020b, Alon et al. 2020). First, the service sector, where women are disproportionately represented, was especially exposed to the lockdown. Second, the sudden and lasting closure of schools and child care providers meant that families with children faced huge additional demands on their time. The traditional division of responsibilities within the household suggested that mothers would take on most of the additional burden, with implications for their continued working. Against expectations, however, furloughing and job loss rates in the UK were initially lower for women than for men, and the two later converged to similar levels. Part of the reason for this is that female jobs are concentrated in essential sectors, such as health, and occupations that can be done from homev.

However, the picture was different for families with children. Andrew et al. (2020) studied changes in employment and time use among parents. They showed that indeed the jobs of mothers were not more vulnerable to the pandemic than those of fathers, but mothers did take on more of the additional domestic responsibilities than fathers did and were more likely to interrupt their work. Most of the gender difference in work interruptions within families with children could be due to the fact that mothers were more likely than fathers to agree on a furlough with their employer on the basis of increased care responsibilities, rather than to a lack of work for them.

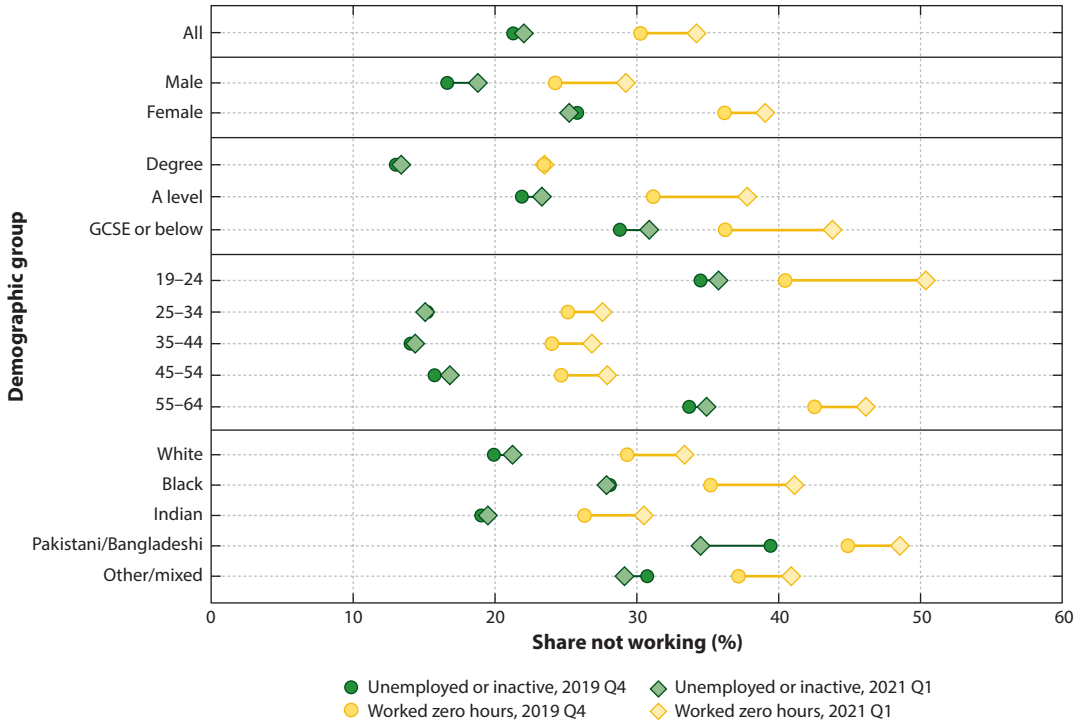

Figure 9

Share of nonworking population by demographic group, 2019Q4 and 2021Q1. A levels are public examinations take at age 18. The General Certificate of Secondary Education (GCSE) is a public examination taken at age 16. Figure adapted with permission from Cribb et al. (2021).

Perhaps unsurprisingly, it was those with lower education levels who experienced steeper increases in nonworking rates. Compared with university graduates, a higher number of lower-educated individuals work in sectors that were shutdown. They are also more likely to be older, have health vulnerabilities, and work in jobs that require physical proximity to others. The combination of these factors may have weighted in their decision to continue working if their jobs remained opened.

All these dimensions of inequality are tightly related to preexisting differences in earnings. Various studies have found that those in low paid jobs were disproportionately affected. Blundell et al. (2020) show that the ability of workers in nonessential sectors to remain actively engaged in work, and to do so from their homes, was strongly associated with pre-pandemic earnings (see **Figure 10**). Whereas less than 50% of those in the bottom decile of the earnings distribution worked in sectors that remained open, over 90% in the top decile did so. The ability to continue working from home was also unevenly distributed. **Figure 11*b*** shows that fewer than one in five non-key workers in the bottom earnings decile had jobs that could be done from home in sectors that remained active. Among non-key workers in the top earnings decile, the figure rises to three in four.

Other studies corroborate these findings. Crossley et al. (2021b) find that workers in lower-income households were more likely to stop working. Gardiner & Slaughter (2020) find that those without a salaried permanent job (including those with no guaranteed minimum hours, on a temporary contract, or who did agency work) were especially likely to lose work.

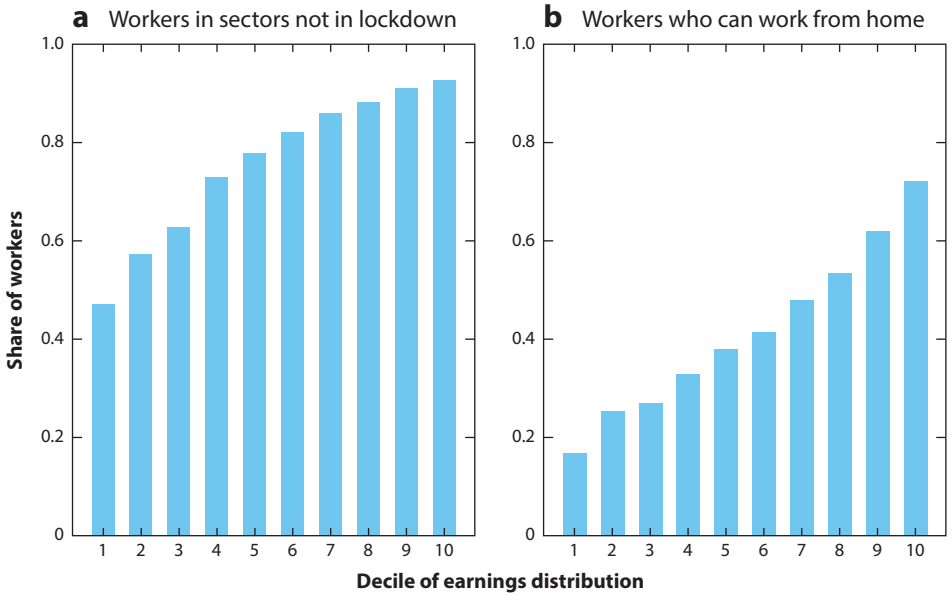

Figure 10

Share of workers (*a*) in sectors not in lockdown and (*b*) who can work from home, excluding key workers, by decile of the earnings distribution. Figure adapted with permission from Blundell et al. (2020), using UK Labour Force Survey, quarters 1–4 2019, waves 1 and 5 only.

Self-employed workers have been affected particularly hard. Cribb et al. (2021) find that a higher proportion of self-employed people than employees worked zero hours throughout the pandemic up to January 2021. This is shown in **Figure 11**. Blundell et al. (2021) find that the earnings of the self-employed failed to recover after the first lockdown, on average. They also find differences between self-employed workers, with workers who work via apps, such as drivers, being the least affected. Rather than being eligible for furlough, self-employed workers could claim the Self-Employment Income Support Scheme (SEISS). The SEISS scheme provided a grant, equal to 80% of past profits, to self-employed workers who declared that they had been negatively affected or suffered reduced demand because of the pandemic. Although the generosity of the grant means that many self-employed workers were more than compensated for their earnings losses, a number of eligibility conditions—especially a requirement that the worker must have previously got most of their income from self-employed work—excluded 38% of self-employed workers altogether (Adams-Prassl et al. 2020a).

The labor market impact of the pandemic has been particularly severe in some parts of the United Kingdom. Davenport & Zaranko (2020) construct an index of how affected the labor market in different areas was during the first 6 months of the pandemic. They find that areas dependent on tourism, such as many coastal towns, and more remote areas such as Northern Scotland, Cumbria, and Cornwall, were hit particularly badly; but so were also many large cities, including Glasgow, Liverpool, Newcastle, and large parts of London.

Over time, evidence has increased that London stands out as the area where the labor market was most affected by the pandemic. Workers in London accounted for 16% of the redundancies emerged during the first year of the pandemic, up from 12% in the 3 years before the pandemic. Vacancies in London were much slower to recover than in other parts of the country. Lower labor demand meant that Londoners were more likely to still be furloughed by July 2021, and Londoners

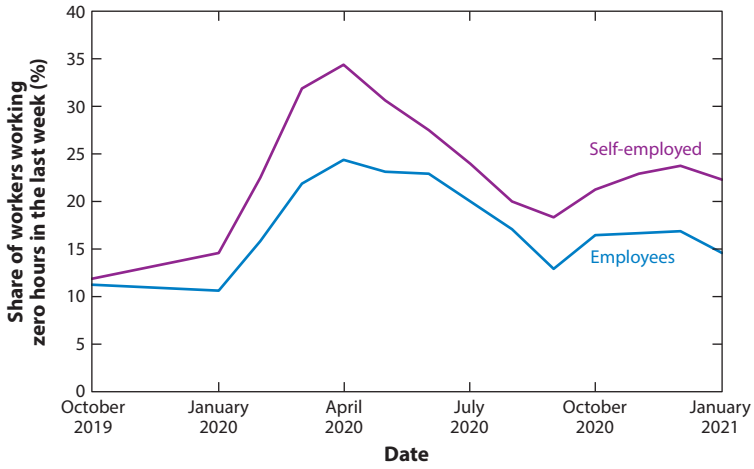

Figure 11

Share of workers working zero hours in the last week, over time and by employment status. Includes people aged 19–64. The figure shows forward-looking 3-month moving average. Data are available quarterly before January–March 2020 and monthly thereafter. Figure adapted with permission from Cribb et al. (2021).

made redundant over the pandemic were less likely to have found new work within 6 months compared to workers elsewhere (Cribb & Salisbury 2021). One reason for the slower recovery could be widespread working from home for people in (the large number of) professional jobs in London, which reduced demand for services such as food and entertainment in central London. International travel restrictions are also likely to have played a role: London suffered from the fall in international tourism over the pandemic but did not benefit from the boom to domestic tourism, as it is not a particularly popular destination for UK holidaymakers.

3.2. Long-Lasting Effects of the Pandemic

The huge disruption that the pandemic inflicted on the labor market will likely have lasting costs, and some workers will suffer more than others. Those who stopped working for an extended period, even if they remained employed, may have lost human capital, missed the opportunity to learn essential new skills at a time of rapid technical change, or become disconnected from their professional networks. Younger workers, those at key transition stages in their careers, and workers who permanently lost their jobs may struggle even more if opportunities for new and better jobs do not match their skills. Evidence from past recessions indicate that workers more directly affected can suffer persistent earnings losses and reductions in employment (Oreopoulos et al. 2012).

The longer-term effects of the pandemic on the careers of workers depend crucially on the opportunities for work that they face. The initial stages of this crisis saw vacancies collapse. In the UK, vacancies dropped by more than 60% for the majority of occupations (Costa-Dias et al. 2021a). Although by June 2021 new vacancy postings exceeded their pre-pandemic levels (and stayed high throughout the summer and fall), equally important for progression, earnings, and employment is whether the new skills demanded match those supplied.

Figure 12 shows how job opportunities varied from before to after the pandemic, between June 2019 and June 2021, by the pay level of the advertised jobs. Job opportunities are synthesized by an index constructed at the occupation level using vacancy data from Adzuna (see Costa-Dias

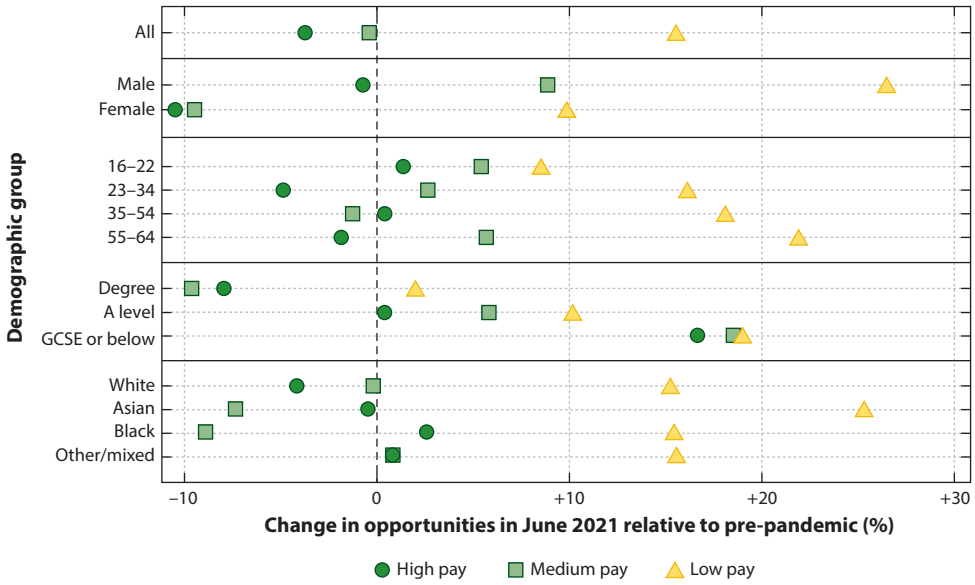

Figure 12

Change in opportunities in June 2021 relative to before the pandemic, by pay tertile and demographic group. A-levels are public examinations taken at age 18. The General Certificate of Secondary Education (GCSE) is a public examination taken at age 18. Figure adapted with permission from Costa-Dias et al. (2021a), using Adzuna vacancy data and UK Labour Force Survey data.

et al. 2021b for details on the construction of the index and underlying theory). For each origin occupation, the index weights existing vacancies against the historical probability of moving from an original occupation toward the vacancy's occupation. The job opportunities facing each worker are then measured by the value of the index corresponding to their last (or current, if employed) occupation. We further split occupations by three levels of pay, which correspond to tertiles of pre-pandemic average hourly wages (having removed variation in wages driven by sex, age, ethnicity, education, and region) of workers in that occupation.[5]

The key takeaway from **Figure 12** is that the initial rebound in job opportunities is concentrated mostly in lower-paid occupations. Job opportunities in the lowest-paid tertile were almost 20% higher in June 2021 compared to 2 years earlier. The early recovery was not seen to the same extent in better paid occupations, with those in the highest-paid tertile still being down from pre-pandemic levels at the same point in time. Similar patterns can be observed for all demographic groups, though some faced tougher conditions. Most prominently, the best opportunities for women and college-educated workers were still lagging behind those for other groups, down by 10% relative to pre-pandemic levels. This reflects the slower recovery in higher-paid service jobs, such as legal, business, and health professions, which are particularly relevant for these two groups.

These figures indicate that although jobs may have started to rebound soon after the onset of the crisis, opportunities for good jobs and career progression remained scarce. That conclusion

[5]Specifically, we use individual-level data in 2019 and estimate ordinary least squares (OLS) regressions of hourly pay as a function of occupation indicators, along with controls for sex, age, ethnicity, education, and region. We use the estimated coefficients on the occupation indicators as our measure of occupation pay. It can be interpreted as the wage premium to working in each occupation.

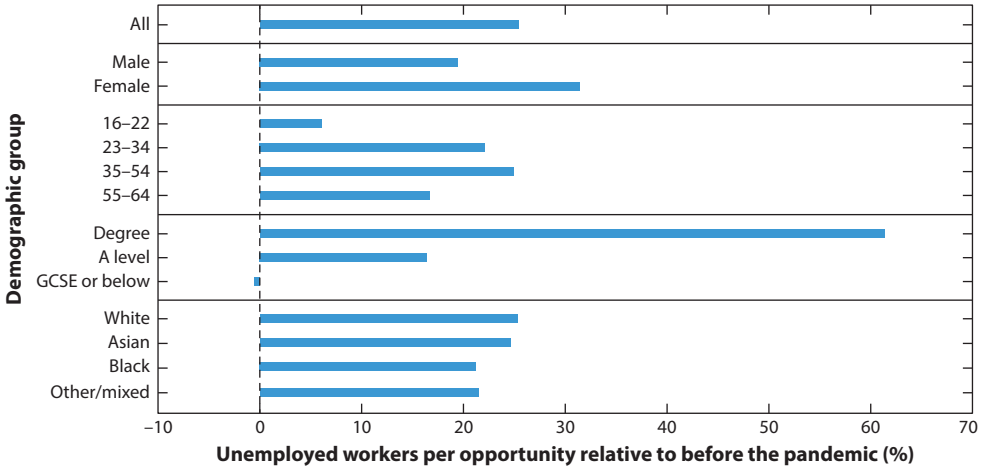

Figure 13

Unemployed workers per opportunity in June 2021 relative to before the pandemic, by demographic group. A-levels are public examinations taken at age 18. GCSEs are public examinations taken at age 18. The General Certificate of Secondary Education (GCSE) is a public examination taken at age 18. Figure adapted with permission from Costa-Dias et al. (2021a), using Adzuna vacancy data and UK Labour Force Survey data.

is reinforced if we look at competition for jobs by weighting available opportunities against the number of suitable workers in need of jobs.

Figure 13 shows how competition for new job opportunities (i.e., unemployed workers per opportunity) changed from before to after the start of the crisis by demographic group, again comparing June 2021 with June 2019. Across the board, the labor market was tighter in June 2021 than it used to be, and workers seeking jobs faced more competition from coworkers. Women and university graduates faced tighter competition than workers in other groups and, as we have seen, for jobs that are low paid in historical terms. In general, these patterns reflect differences in the recovery of vacancies relevant to each demographic group, rather than differences in their rates of unemployment or furlough.

4. MEASURES OF HOUSEHOLDS' MATERIAL LIVING STANDARDS

We now turn to analyzing how the shocks to the labor market and to the wider economy and policy environment have fed through to (inequalities in) material living standards. Several factors have limited the extent to which labor market disruption has translated into living standard declines for households. Most prominent, of course, are the policy interventions to support family incomes; but there have been other mechanisms, too.

First, wage replenishments over and above what was reimbursed by the government were paid to 70% of furloughed workers at the start of the pandemic; this was more common among higher-paid individuals (Adams Prassl et al. 2020a). Second, transfers from family or friends were received by 12% of those in households with a significant earnings loss in the spring of 2020 (Crossley et al. 2021b), with the rate being even higher among poorer individuals. Third, a quarter of those in households with significant earnings losses drew on savings, and 8% increased borrowing; both were more common among poorer individuals (Crossley et al. 2021b). Fourth, the availability of mortgage holidays has provided a form of credit to mortgagors who are disproportionately middle or higher income. Fifth, some younger adults—around 5% of those not in full-time

education—moved back in with parents, providing some protection to their living standards (Cribb et al. 2021). Sixth, reduced costs (in particular, those related to commuting) blunted the effect of earnings losses on living standards.

There are challenges to measuring material living standards during the pandemic. We discuss three measures of living standards: income, expenditure, and indicators of deprivation. Each of these tells us something different about material living standards. Often it is argued that expenditure is a better measure of living standards than income, since it more closely approximates the actual current consumption of goods and services and, for consumption-smoothing reasons, better approximates long-term consumption opportunities (see Blundell & Preston 1995). This latter argument is considerably less compelling in the context of the pandemic in which much of the economy has been shut down, resulting in forced saving unrelated to consumption smoothing. Effects on income (inequality) therefore may be more indicative of longer-term effects on living standards. Deprivation measures look at specific outcomes clearly indicative of poor living standards, and therefore they are less instructive about changes in inequality outside the worst off.

4.1. Income

There are three broad sources of information on income changes over the pandemic. First are direct surveys of households (Brewer & Gardiner 2020b, Handscomb & Judge 2020, Handscomb et al. 2021). These surveys find that the share of people reporting increases or decreases in income was roughly similar across the (pre-COVID) income distribution over the course of the pandemic. Second are nowcasting exercises. These use tax-benefit microsimulation, taking pre-pandemic household data and updating them to reflect known changes to the labor market and changes to the tax and transfer system. Two nowcasts focusing on the spring of 2020 find a clearly progressive impact of the pandemic (HM Treas. 2020, Brewer & Tasseva 2021); another one (Bourquin et al. 2020) finds broadly neutral changes across the income distribution. As the economy recovered from the first lockdown, growth in income was stronger. Looking at 2020–2021 as a whole, Handscomb et al. (2021) predict large increases in income at the bottom of the distribution relative to 2019–2020, with more modest gains further up. A third source of information is evidence from bank account data; Bourquin et al. (2020) show roughly neutral changes across the income distribution.

It is notable that although these papers do not all come to an identical conclusion, none of them estimates a regressive impact of the pandemic. It appears that its effects on incomes were either neutral or progressive. An important factor highlighted in many of these studies is that the increase in benefits brought in at the start of the pandemic boosted incomes for low-income families regardless of the economic shock they were exposed to, tending to actively equalize incomes rather than simply mitigate the effects of the crisis. This is a feature of a large number of countries; EUROMOD (2021) looks at tax and benefit changes during the pandemic and finds that most European countries undertook progressive policy changes in a similar, albeit not identical, way to the UK.

4.2. Expenditure

Unsurprisingly, aggregate household spending fell precipitously in the wake of the pandemic as much of the economy was closed and incomes fell, and it has not yet recovered to pre-pandemic levels (Off. Natl. Stat. 2021).

Brewer & Gardiner (2020a) use survey data to show that falls in spending were considerably larger for higher-income households in spring 2020, a pattern that was replicated in the reopening of summer 2020 (Brewer & Patrick 2021), though by summer 2021 there was relatively little

between poorer and richer households (Handscomb et al. 2021). These studies find greater declines in spending for households without children; among poorer families with children, spending appears to have actually increased. The authors, drawing on qualitative evidence, attribute this to a combination of greater purchases of certain items (energy, food, ways to entertain children at home, and materials for remote learning) and higher effective prices with fewer discounts on groceries, limited local shopping options, and the closure of charity shops and free services like libraries. These increases in prices are likely to have larger (proportional) effects on the budgets of poorer households.

Davenport et al. (2020), using bank account data from a budgeting app, confirm the key findings of survey data: Higher-income households experienced a larger proportional fall in spending by September 2020. Poorer households saw larger proportional increases in spending on items whose availability was largely unaffected by the pandemic (e.g., groceries), and richer households saw larger absolute and proportional cuts in spending on items more affected (e.g., restaurants).

A straightforward reading of these findings would indicate that the pandemic had a more negative impact on the immediate living standards of higher-income households. However, the qualitative evidence suggests that perhaps poorer households have experienced a larger effective increase in prices, meaning that the differences in real consumption might be somewhat smaller.[6] Moreover, as emphasized above, because much of the decline in spending was driven by lockdown restrictions rather than consumption smoothing, these differences are probably not very indicative of long-run changes in consumption opportunities. At the time of writing, rising inflation in the UK and elsewhere is bringing increased attention to living standards, and in particular real expenditure. Early evidence suggests that this will be felt evenly across the income distribution on average (Levell & Karjalainen 2021), though further increases in natural gas prices could tilt the burden toward lower-income households.

4.3. Deprivation

The outcomes examined in studies looking at deprivation fall into two main categories. First, they focus on whether households report being able to afford basic items. A data difficulty here is that there are few measures that were consistently asked of respondents both pre- and post-pandemic. An exception is foodbank usage examined by Cribb et al. (2021), who find that usage rose in the immediate wake of the pandemic, but by early 2021 it was actually slightly lower than before the crisis. Other studies focus on changes since the start of the pandemic or between groups. Benzeval et al. (2020a) find that in April 2020, 5% of UK adults reported not eating in the past week when hungry, with considerably higher rates for those who were younger, were lower educated, or had a lower pre-pandemic income. Xu & Ziliak (2021) show that hunger rates fell slightly between mid-2020 and early 2021. Handscomb & Judge (2020) measure the inability to afford various basic items (including, for example, heating the home when needed). They find that rates are much higher for those whose income was persistently hit during the pandemic (29% unable to afford at least three basic items) than for those whose income was unaffected (10%).

Other research examines whether households are behind on bills. There is clear agreement that housing bill (rent or mortgage) arrears rose in the wake of the crisis. Bourquin et al. (2020), using bank account data up to May 2020, find an 11% and 14% decline in rental and mortgage payments (including mortgage and rental holidays) relative to pre-pandemic trends. These results

[6]Richer households may also have cut their spending on commuting more than poorer ones. Because commuting is a work-related expense rather than a consumption good, this may have resulted in a relatively larger decline in expenditure for richer households that did not translate to a difference in genuine consumption.

are comparable to those of a survey in May 2020 (Judge 2020) that found that 8% of mortgagors, 13% of private renters, and 17% of social renters were in housing arrears (though a small part of these results likely predates the pandemic).[7]

Since then, it seems that arrears for mortgagors have returned to slightly above pre-pandemic levels. Judge (2021) and DLUHC (2021) find increases of 2 ppt by January 2021 and 1 ppt by spring 2021, respectively. The picture is a bit less clear for rent arrears. Baxter et al. (2020), NRLA (2020), DLUHC (2021), and Judge (2021), surveying at various points between October 2020 and May 2021, all find a moderate (∼3–6 ppt) increase in rent arrears compared to pre-pandemic levels.[8] Conversely, Earwaker & Elliot (2021) examine survey data from May 2021 and find that rent arrears have returned to pre-pandemic levels.

Researchers have also examined other forms of bills. Delestre et al. (2020) find a 9% fall in local tax payments by May 2020 and a decline in utility bill payments among poorer households. Cribb et al. (2021) find that arrears on non-housing bills increased by 1.5 ppt at the start of the pandemic, but by early 2021 they had on average returned to pre-pandemic levels. However, bill arrears remained elevated for households with self-employed workers, ethnic minorities, and those who entered the pandemic in poverty.

Taking this evidence in the round, it seems likely that material deprivation worsened along several margins in the immediate wake of the crisis.[9] It is less clear whether, or how much, it has recovered since.

5. MENTAL HEALTH

In addition to the concern regarding the material living standards of families, the disruption to people's lives, school closures, and general isolation from friends and family have led to intense interest in the impact of the pandemic on mental health in particular, and on happiness or life satisfaction more generally. Helliwell et al. (2021) use evidence from the Gallup World Poll to show that although evaluations of people's lives were relatively stable compared to before the pandemic, there were widespread increases in measures of sadness and worry.

The evidence from the UK is that the pandemic led to a sharp deterioration in mental health. Banks & Xu (2020) use data from a household survey and find that a summary measure of mental health, the General Health Questionnaire (GHQ) Likert scale, deteriorated by 1 point on a 36-point scale in April 2020, which is approximately equal in magnitude to the pre-pandemic difference between the top and bottom deciles of the income distribution.[10] Mental health

[7]A survey in January 2021 by the same author (Judge 2021) uses recall questions and finds much smaller arrears rates for spring 2020: 2% for mortgagors, 5% for private renters, and 6% for social renters. Only 1 ppt, 2 ppt, and 2 ppt of those, respectively, represent an increase from the pre-pandemic levels. We are inclined to put more weight on the contemporaneous questions from Judge (2020), though we note that perhaps part of the explanation is that some families spent only a short amount of time in arrears, causing them to report no arrears for spring 2020 as a whole when asked later.

[8]There is, however, some disagreement about arrears by renting tenure. DLUHC (2021) finds that the increase is almost entirely among private renters, whereas Judge (2021) finds a larger increase for social renters.

[9]In addition to these, some surveys asked about people's subjective experience of their financial situation (see Benzeval et al. 2020b, Handscomb & Judge 2020, Cribb et al. 2021). However, these surveys do not come to clear conclusions on the direction or magnitude of effects on these subjective measures of financial difficulties.

[10]The GHQ is a composite measure of mental health that consists of 12 questions scored on a 0–3 scale that has been shown to perform well as a screening tool for general (nonpsychotic) disorders (Anjara et al. 2020). The questions ask about a range of potential problems like losing sleep over worry, feeling under strain,

recovered during the summer of 2020 but was still below pre-pandemic levels in September 2020 (Banks et al. 2021).

The initial impact of the COVID-19 pandemic increased preexisting mental health inequalities by gender and age. A number of studies in the UK using the GHQ measure find that women, who already had worse levels of mental health before the pandemic, suffered a much larger deterioration as a result of the pandemic than men (Banks & Xu 2020, Daly et al. 2020, Etheridge & Spantig 2020, Pierce et al. 2020). Studies from other countries using different measures of mental health also show a larger impact on women, including those by Adams-Prassl et al. (2022) in the US, Bruelhart et al. (2021) in Switzerland, and Yamamura & Tsutsui (2020) in Japan. Although school closures negatively affected the mental health of parents, and more so for mothers than fathers (Blanden et al. 2021), Etheridge & Spantig (2020) find that differences in caring responsibilities explain only a small part of the overall gender differences in mental health impact. Nor can they be explained by differences in men's and women's exposure to the health and economic consequences of the pandemic—for example, the fact that women disproportionately worked in sectors affected by social distancing restrictions (Banks & Xu 2020). Instead, Etheridge & Spantig (2020) point to the importance of social factors: Women had larger social networks than men before the pandemic and were therefore hit harder by the social restrictions imposed during the pandemic.

In the early stages of the pandemic, the mental health impact was larger for young people, who had worse levels of mental health before the pandemic (Banks & Xu 2020, Daly et al. 2020, Pierce et al. 2020) (see **Figure 14**). However, young people's mental health recovered more quickly (Banks et al. 2021, Fancourt et al. 2021). Banks et al. (2021) find that although young women suffered the largest initial shock to mental health, the shock experienced by elderly women was much more persistent, so that by September 2020 they were the group with the largest deterioration. This could reflect higher adaptability to shocks among young people as well as positive changes in circumstances that disproportionately benefited the young, like the (temporary) lifting of social restrictions and the reopening of schools and universities.

The large mental health impact on women means that although women did not experience a larger labor market shock—as initially feared—the pandemic did widen gender inequality on some dimensions. The evidence suggests that this stems from women's stronger response to social restrictions rather than from the differences in material impacts that have been captured elsewhere (such as increased caring responsibilities). The effect on inequalities in mental health by age mirrors that observed in the labor market: Young people were hit hardest at the start of the pandemic but bounced back relatively quickly, whereas older-age groups were slower to recover from the shock.

6. WEALTH

In addition to the effects on incomes, significant changes in asset prices and in savings behavior have generated changes in wealth inequalities over the course of the pandemic. In the UK, the most important asset most families hold is their home, with the value of property (net of mortgage debt) making up half of the private wealth of people close to the middle of the wealth distribution. For the richest 10% (see Leslie & Shah 2021), it only makes up one-third of private wealth, compared to two-thirds held in financial wealth or private pensions.

and feeling unhappy or distressed. The Likert measure is computed by summing up the scores across the 12 questions, hence arriving at a value between 0 (least distressed) and 36 (most distressed). An alternative way of scoring, the so-called caseness scale, which sums up the numbers of the 12 dimensions on which individuals report a problem, also shows a large deterioration in mental health. Details of the questions included in the GHQ measure are provided by Banks & Xu (2020, appendix B).

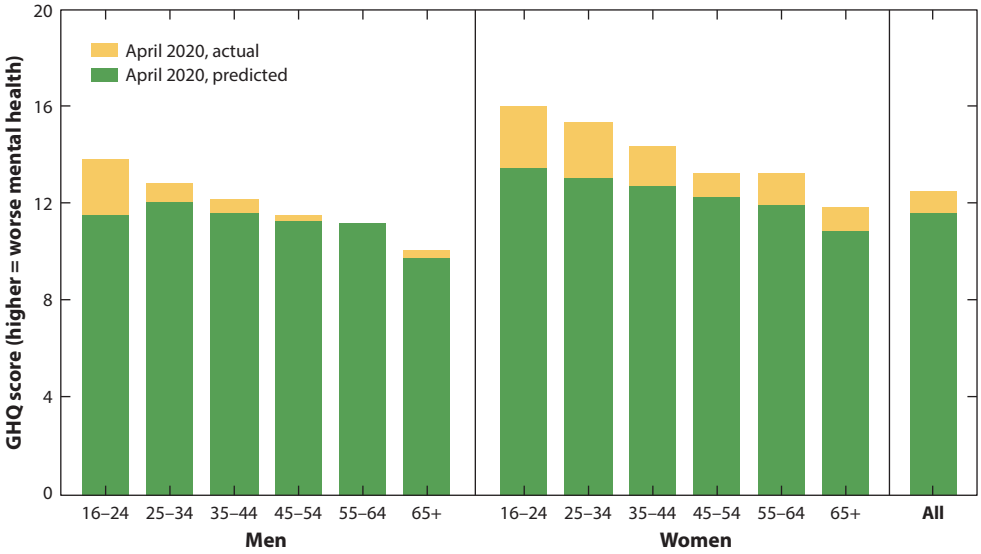

Figure 14

Actual and predicted mental health in April 2020, by age and gender. Abbreviation: GHQ, General Health Questionnaire. Figure adapted with permission from Banks & Xu (2020).

Similar to what happened in many developed countries, average house prices in the UK have increased significantly since the start of the pandemic. **Figure 15** shows that inflation-adjusted house prices increased by 9% between February 2020 and August 2021, to a level above the one seen before the 2008 financial crisis. There have also been large increases in house prices in the US (see FRED 2021). A large number of EU countries also saw an acceleration in house price growth (see Eurostat 2021).

In comparison with overall house prices, and in contrast to what happened in other nations, UK equities have seen little increase since the pandemic, with the FTSE 250 share index in December 2021 being only a little above its pre-pandemic level in nominal terms (4%), and the FTSE 100 being still below its pre-pandemic levels in nominal terms. This compares to the large increases seen in major share indices in the US, France, and Germany over the same period.

Second, the crisis changed savings rates. The sharp decline in spending discussed in Section 5 more than outpaced the decline in income, resulting in rising savings rates. Evidence from surveys and bank accounts shows that net savings increases were (in absolute terms) larger at the top of the income distribution (Davenport et al. 2020, Brewer & Patrick 2021, Leslie & Shah 2021).

Bringing these two effects together for the UK, Leslie & Shah (2021) simulate the effects of changes in asset prices and savings rates using pre-pandemic data, and they find that the largest proportional increases in wealth are concentrated in the middle of the income distribution, with changes in asset prices having a much bigger impact than changes in savings. This is potentially unsurprising given the large increase in property values, which are particularly important around the middle of the wealth distribution. High-wealth households saw moderate growth in their wealth, whereas the lowest-wealth households saw only a small increase from higher savings rates: Because they hold few assets outside of cash, they did not share much in rising asset prices. Conversely, Crossley et al. (2021a) take a different approach, simply using data from surveys asking respondents whether their net wealth had gone up or down by more than 10%. The picture here is regressive, though it is a little difficult to know how well respondents can answer this

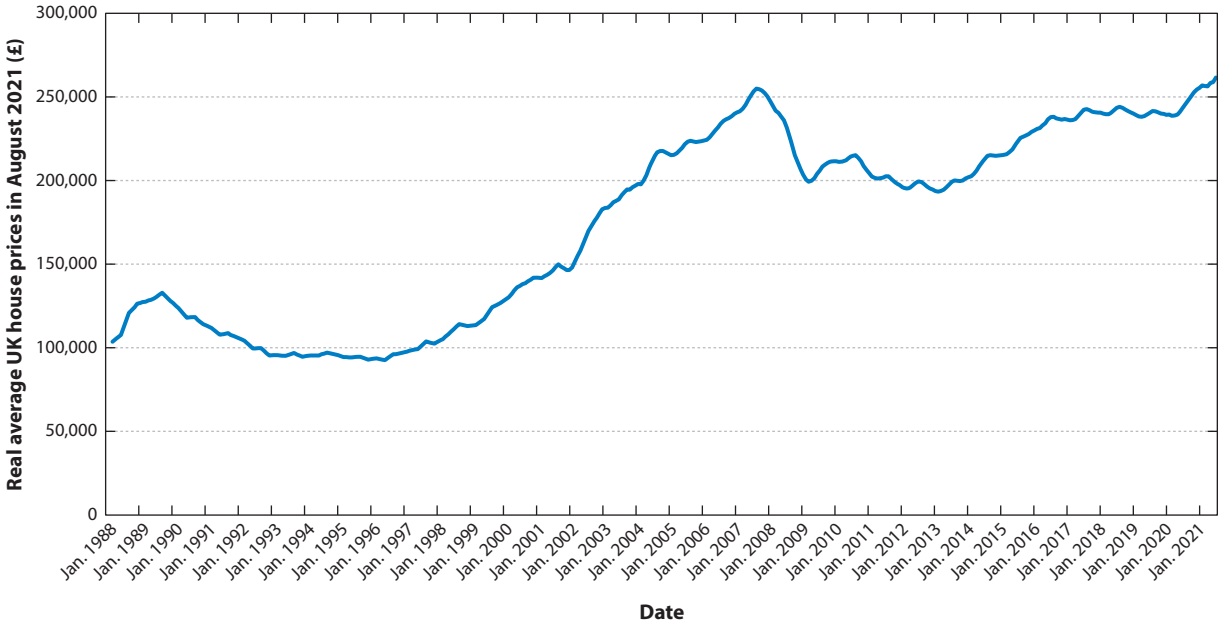

Figure 15

Real average UK house prices 1988–2021 (£, August 2021 prices). Data from HM Land Regist. (2021), deflated using the CPIH inflation index, 3-month rolling average.

question—for example, whether they would account for the changing value of their houses, and the ability to answer this sort of question might itself vary across the distribution.

These two approaches both suggest that wealth inequality is likely to have increased between the poorest households and the rest of the population. It is less clear what has happened within "the rest," though we are inclined to put more weight on the simulation approach, which suggests a decline in wealth inequality between the middle the and top of the wealth distribution. Because households seem unlikely to immediately spend their newfound wealth as the economy continues to recover (Levell 2021), this effect is likely to persist somewhat beyond the pandemic. The widespread rises in house prices, combined with the fact that middle- and high-income families are much more likely to own their homes, means that the increase in wealth inequality between the poorest households and the rest is likely to be common across many countries, though the extent of changes in each country may be specific to the performance of particular assets and to changes in the levels of savings.

7. DISCUSSION AND LONGER-TERM IMPACTS

The pandemic has affected inequalities across a number of margins. As we have examined here, the effects are complex, pointing in different directions and resisting easy simplifications.

On the one hand, the pandemic has pushed inequalities up across several dimensions. The effects on mental health, at least in the early stages of the pandemic, were larger for those groups whose mental health was already worse (though the effects were more ambiguous after the initial lockdown). Measures of deprivation also increased at the start of the pandemic. Although the impact of the loss of learning on inequality primarily hits the current cohort of school pupils relative to older and younger ones, within the current cohort, school closures have affected children from

poorer backgrounds harder. Different access to technology caused different experiences of remote learning, and these effects seem to have fed through to differences in actual attainment. The labor market shock has also tended to increase existing inequalities in the world of work, with lower-earning and less educated workers more likely to be in shutdown sectors and unable to work from home—and hence to lose their job or be furloughed.

On the other hand, the pandemic has also served to reduce inequalities in other ways. The inequality in the labor market shock did not result in higher inequalities in income in the UK (though, as discussed shortly, it may have longer-term implications). Instead, the enormous job-support programs, combined with the expanded benefit system, have meant that, if anything, income inequality has fallen. Wealth seems to have increased proportionally more for middle-income households in the UK rather than for those at the top or the bottom of the wealth distribution.

We conclude by considering the legacy of the pandemic for economic inequalities. This is clearly a more speculative exercise, and again we focus on the UK situation, though there are likely to be many parallels with other developed economies. The body of research we have discussed does provide at least some guidance on what we might expect to happen to inequalities in the coming years, even if variants of COVID-19 do not cause further economic and health challenges.

Naturally, the impact of the pandemic on educational inequality is very likely to have long-term implications for inequalities later in life. Three further questions concerning longer-term trends seem worthy of discussion. First, will the labor market shock have persistent effects? Second, will there be a move toward working from home, and with what implications for inequalities? Third, will the scale of the pandemic shift policy toward more redistribution and social insurance?

The disruption in the labor market may have so-called scarring effects. Those out of work may see their human capital depreciate, or at least fail to appreciate, meaning that later in life they may be unable to command as high a wage. It is worth noting that the effects on actual skill development are presumably just as bad for those who are furloughed as for those who are actually unemployed. The empirical literature has indeed found that that unemployment early in life can have a persistent impact on labor market outcomes (Burgess et al. 2003, Gregg & Tominey 2005), as can graduating during a recession (Oreopoulos et al. 2012). Given that the immediate labor market impacts of the pandemic have been unevenly felt, likely any scarring effects will be as well.

Any persistence in the move toward work from home would clearly have important impacts. Haskel (2021) finds that 21% of UK employees work in firms that intend to permanently increase remote work among their staff. Crucially, changes in working from home are not evenly split across industries: Remote working is likely to become more common in the higher-paid information, communication, and professional and scientific sectors (Haskel 2021). This matters because many people like working from home: On average, UK workers state that the value they place on working from home 2–3 days per week is equivalent to a 6% earnings rise (Taneja et al. 2021). Together, these facts suggest that there may be an increase in inequality of compensation (including the value of working from home).

Working from home could perhaps also particularly benefit women. Given that mothers tend to undertake greater caring responsibilities, more home working could make it easier for them to fit work around child care. Relatedly, the potential for working from home could reduce the effects of the gender commuting gap (whereby men commute further than women; see Joyce & Keiller 2018): Women may be able to search for jobs over a wider geographic area, leading to higher earnings.

Greater numbers of people working from home may cause changes in the demand for certain goods and services that exert their own force on inequality. First, working from home moves workers away from areas with locally consumed services (such as coffee shops or gyms) and toward

residential neighborhoods where there are fewer of these businesses (De Fraja et al. 2021). There does not seem to be any precise estimates of this effect for the UK, but in the US Barrero et al. (2021) use survey evidence on work-from-home plans and spending to estimate a 5–10% reduction in spending in city centers. In contrast, working from home may increase demand for tech services, such as virtual meeting software, and for e-commerce. Because locally consumed services (and e-commerce) tend to hire low-paid workers and tech services tend to hire higher-paid employees, this shift in demand could increase inequality, at least in the short run. The permanence of this effect depends in part on the extent to which the demand for locally consumed services shifts to residential neighborhoods rather than disappearing altogether, and in part on how quickly workers displaced from this change are absorbed into the new jobs in other sectors. Second, working from home has already changed relative house prices, with increases in rural and suburban areas compared to urban neighborhoods (Judge & Pacitti 2021). Given that poverty is higher in urban settings (e.g., Bailey & Minton 2018), should this change persist, it could lead to a reduction in after-housing-cost income inequality.

Finally, the pandemic may have an impact on longer-term policy reform. The pandemic has certainly resulted in many people interacting with the welfare system for the first time. One might reasonably expect that this could change voters' attitude towards welfare, perhaps resulting in greater demand for benefit increases after the pandemic. However, although attitudes became a little more pro-welfare during the first and second waves of the pandemic, that was largely undone when the virus receded, and by May 2021, people were only slightly more positively disposed toward benefits than they had been in February 2020 (de Vries et al. 2021).

The pandemic has also substantially weakened the public finances (see OECD 2020). If more spending is required in the short run to clear health care backlogs or to make up for lost schooling, or if the pandemic causes a permanent hit to national income, those finances will only become weaker. Thus, some fiscal tightening is likely. The effects here could go either way; in broad terms, tax increases are likely to reduce inequality and spending cuts are likely to increase it. In the UK, the initial response of the government has been to increase taxes, with tax revenue as a share of GDP set to reach the highest level on record, and with only minimal medium-term spending cuts penciled in (Johnson et al. 2021).

If governments wish to undo pandemic-induced inequalities, the preceding discussion shows that there are a number of fronts on which they can act, reflecting the huge number of domains in which the pandemic has disrupted social and economic life. Many of these—particularly education and the labor market—are likely to have persistent effects, meaning that policy choices now may have impacts for years to come.

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