



Inequality

The IFS Deaton Review

The IFS Deaton Review of Inequalities: a New Year's message

Paul Johnson
Robert Joyce
Lucinda Platt

An IFS initiative funded by the Nuffield Foundation



The IFS Deaton Review of Inequalities: a New Year's message

Paul Johnson, Robert Joyce and Lucinda Platt

Copy-edited by Judith Payne

Published by

The Institute for Fiscal Studies

ISBN 978-1-80103-020-5

An IFS initiative funded by the Nuffield Foundation



The Nuffield Foundation is an independent charitable trust with a mission to advance social well-being. It funds research that informs social policy, primarily in Education, Welfare, and Justice. It also funds student programmes that provide opportunities for young people to develop skills in quantitative and scientific methods. The Nuffield Foundation is the founder and co-funder of the Nuffield Council on Bioethics and the Ada Lovelace Institute. The Foundation has funded this project, but the views expressed are those of the authors and not necessarily the Foundation. Visit www.nuffieldfoundation.org

Co-funding from the ESRC Institute for the Microeconomic Analysis of Public Policy at IFS (grant number ES/T014334/1) is also very gratefully acknowledged.

The Quarterly Labour Force Survey is crown copyright material which is reproduced with the permission of the Controller of HMSO and the Queen's Printer for Scotland.

Executive summary

A year and a half ago we launched the IFS Deaton Review of Inequalities. When we did so, the chair of the Review, Nobel Laureate Sir Angus Deaton, raised the possibility that inequalities may prove a threat to our economic, social and political systems unless they are tackled effectively.

We also argued, among other things, that we lacked a coherent understanding of how key forms of inequality relate to each other: such as inequalities in health, income, wealth, educational opportunity and family life, and gaps between rich and poor, different parts of the country, different ethnic groups and different genders.

Since then, the world has changed more than any of us could have imagined. And yet COVID-19 seems to have shone a light on many of the issues we raised pre-pandemic, more vividly than we ever could have. It has cruelly exposed huge variations in how easily we are able to weather threats to livelihoods, to educational progress, to physical and mental health. These disparities have been closely correlated with pre-existing inequalities between groups according to their education, income, location and ethnicity – in ways that are often hard to disentangle, but depressingly familiar.

At the same time, public policy responses have been of a type and magnitude previously unimaginable. The shape and scale of these responses reflect the severity of the crisis and cannot be sustained, but they illustrate the power of governments to intervene to shape and mitigate inequalities. They surely provide succour to those, like us, who believe that the inequalities we saw before the crisis struck were not immutable.

2021 will be a key year for the Review. We will be publishing a huge amount of material from its major evidence-gathering phase which has been ongoing since late 2019. This will span topics from public attitudes towards inequality to inequalities in income, health and political inclusion, to inequalities by geography, gender and ethnicity, to the role of firms, trade, migration, labour market institutions, tax and transfer policy and much more besides. The aim will then be to use this evidence to build conclusions about how inequalities should most effectively be tackled.

As we embark on the new year, we wanted to take this opportunity to reflect on what 2020 told us about where we stand.

For those wanting to get more comprehensively up to speed with the published work of the Review so far, we refer you to the Review's website at www.ifs.org.uk/inequality, including the analysis of the COVID-19 crisis and its implications for inequalities at www.ifs.org.uk/inequality/covid-19. The members of the interdisciplinary panel at the nerve centre of the Review are shown here: www.ifs.org.uk/inequality/about-the-review/the-panel.

Key findings

The COVID crisis has exacerbated inequalities between the high- and low-paid and between graduates and non-graduates. Average graduate earnings were more than 60% above those for non-graduates pre-crisis. New divides have opened. Non-graduates were far more likely than graduates to work in a locked-down sector and far less likely to be able to work from home. By the third quarter of 2020, when compared with pre-pandemic levels, there had been a 7% reduction in the number of graduates doing any hours of paid work in a given week, but a 17% reduction in the number of non-graduates doing any hours of paid work (these reductions include those on furlough but not working any hours).

The crisis has hit the self-employed and others in insecure and non-traditional forms of employment especially hard. Ten years after the financial crisis, the self-employed still had median earnings below 2008 levels. They have been especially likely to lose income and hours of work through the crisis, and numbers of self-employed have fallen nearly 10% over the year. The government has struggled to target support on those worst hit or to provide a comprehensive support package. The Self-Employment Income Support Scheme does not cover around 2 million people with some self-employment income, or a substantial additional number with incorporated businesses taking income in some combination of salary and dividends. This is an illustration of the difficulty the welfare state has in providing for those in non-traditional forms of employment.

Educational inequalities will almost certainly have been exacerbated by the crisis. Pupils at private schools were twice as likely as state-school pupils to get daily online lessons during lockdown. Within the state sector, pupils from better-off homes were more likely to receive active support from schools and to have a better home learning environment. Since July, pupils from poorer areas and households have been more likely to miss days from school.

Between March and July, mortality rates from COVID-19 were twice as high in the most deprived areas as in the least deprived. Deaths from COVID have been, if anything, even more socially graded than pre-existing disparities in other deaths.

The crisis has had very different impacts on different ethnic groups. Mortality rates from COVID-19 among some black groups have been twice those among the white British. This is in part related to occupational differences. More than 20% of black African working-age women, for example, are employed in health and social care. Some ethnic groups have also had their livelihoods more disrupted, being much more likely than the population as a whole to work in locked-down sectors or to be self-employed.

Through 2020, pensioners have on average reported becoming financially better off, whilst the young have borne the brunt of job and income loss. The generational divide that has opened up in recent years could also be exacerbated by another bout of ultra-low interest rates and quantitative easing which could push up asset prices. Fiscal policy post-pandemic must recognise this: it strengthens the case for tax and spending measures to lean in the opposite direction, rather than exacerbating the disparity as has happened over the last decade.

Labour market divides

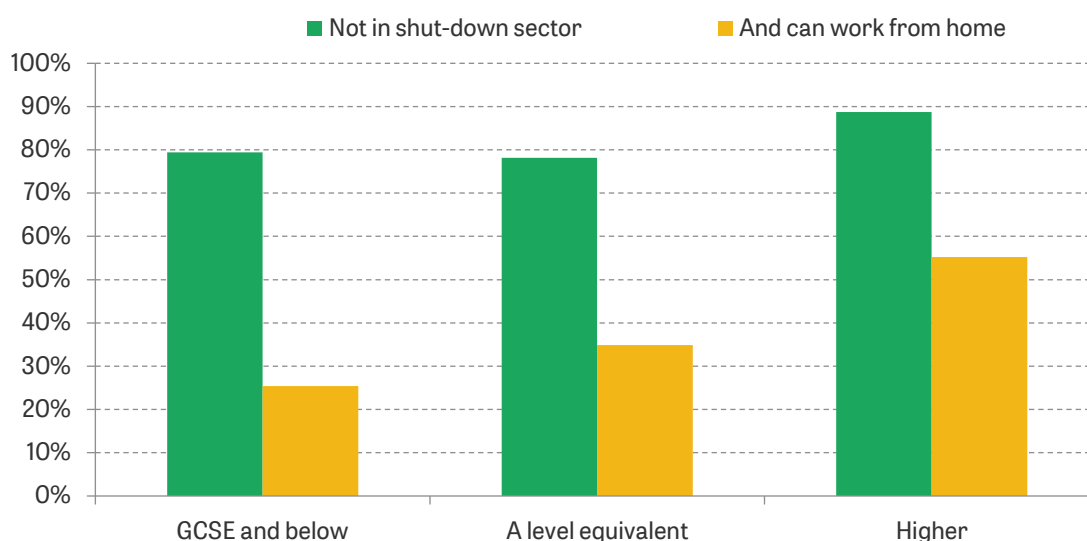
The divide between the well-paid and highest-educated, and the lower-paid and less-well-educated, has been viciously exposed by the pandemic.

The best-paid jobs have long been the preserve of the highly educated. Before the pandemic, graduates on average earned about £36,000 a year against an average of £22,000 for non-graduates. They were much more likely to be in work, at 85% versus 72%. And they were vastly more likely to be among the top 10% of earners – 81% of whom were graduates.¹

That is all partly a reflection of the fact that graduates and non-graduates tend to work in different occupations. Graduates are not only typically able to earn much more, but also have better prospects of progression and often better working conditions. The pandemic added a huge new twist to this story of occupational segregation: Zoom. Many people in occupations dominated by the high-educated population have continued their work safely and reasonably productively in the comfort of their own homes – shielded both from the virus and from the threat to their livelihoods.

The data show the divide starkly (see Figure 1). On the eve of the crisis, 71% of employees without a degree either worked in a sector that was locked down (e.g. hospitality) or had a job that could not easily be done remotely.² For employees with a degree, that figure was just 45%.³ Of course,

Figure 1. Share of workers not in shut-down sectors and who can work from home, by highest qualification



Note: O*NET data used to identify occupations that are amenable to working from home, using classification in Dingel and Neiman (2020).

Source: Labour Force Survey, quarters 1–4 2019, waves 1 and 5 only.

¹ Calculations using Labour Force Survey 2019 Q1–Q4.

² Assessed based on factors such as the typical, pre-pandemic levels of customer and colleague interaction in that occupation.

³ Calculations using Labour Force Survey 2019 Q1–Q4.

when the pandemic struck, some adaptation happened – some jobs that were previously considered hard to do from home were adapted so that this was possible. But the limits of such adaptation are all too clear. The proportion of people doing any hours of paid work fell by around 40% between February and April among those with no more than GCSE-level qualifications and by around 20% for those educated to degree level (Benzeval et al., 2020). By the third quarter of 2020, the proportion of non-graduates doing any hours of paid work was still 17% lower than it had been pre-pandemic, compared with 7% for graduates.⁴

There is another labour market divide which has been growing over time and which has become even more salient in 2020 – the divide between those in regular employment and those with insecure contracts or who are self-employed rather than employees. As we showed in another piece for the IFS Deaton Review, the increase in the number of solo self-employed accounts for a third of all employment growth since the onset of the financial crisis (Giupponi and Xu, 2020). Meanwhile, median real earnings among the self-employed were still 13% below 2008 levels by 2018 while median earnings of employees had returned to pre-financial-crisis levels by 2016.

The self-employed have been especially hard hit during 2020. For example, the initial lockdown resulted in three-quarters of the self-employed reporting less work than usual (Blundell and Machin, 2020), with the biggest reductions in working hours felt by those on the lowest incomes. Latest Office for National Statistics (ONS) figures show the number of self-employed jobs falling by nearly 10% between the fourth quarter of 2019 and the third quarter of 2020.⁵ The Self-Employment Income Support Scheme (SEISS) provided extremely rough justice: while it overcompensated many by entitling them to 80% of previous profits irrespective of how large a hit they took from the pandemic, it also offered no possibility of support at all to around 2 million people with self-employment income who were either newly self-employed, or reported profits of more than £50,000 in the previous year, or had total self-employment income that had represented less than half their income (Adam, Miller and Waters, 2020); while also not supporting a substantial additional group of people who had incorporated their business and hence whose income was a combination of salary and dividends. Many of the difficulties faced by government in designing SEISS are indicative of a wider problem faced by the welfare state as it comes to terms with supporting people in non-traditional forms of employment. It is a challenge with which we will have to wrestle if we are to tackle this form of inequality.

Education

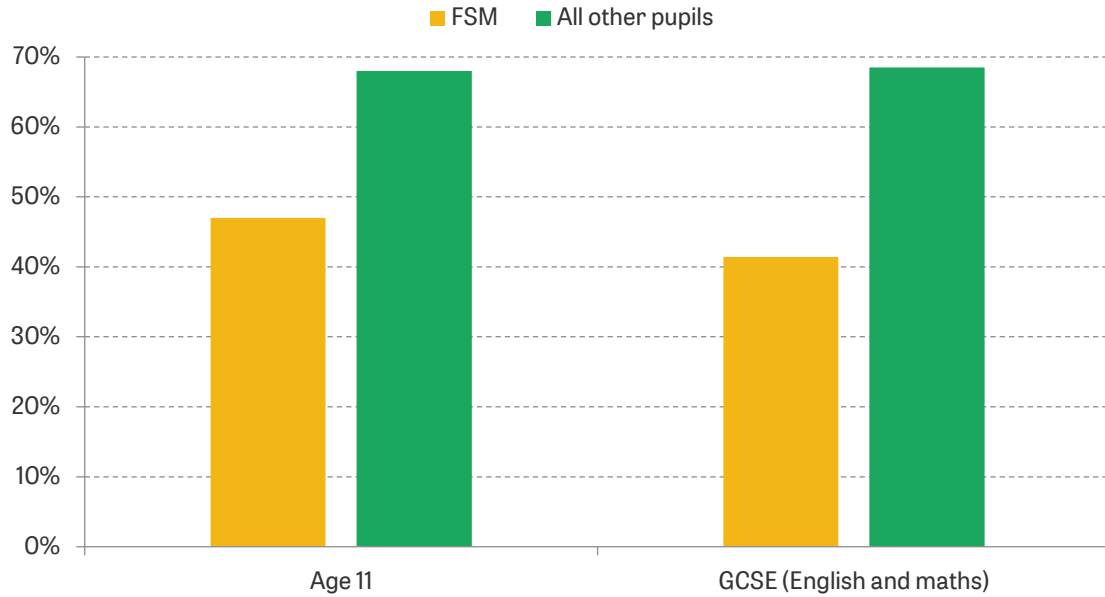
Educational inequalities open up early and, as we have seen, have big effects on what happens later on. As Figure 2 shows, fewer than half of pupils on free school meals reach expected levels of achievement in maths and writing by age 11, and only about 40% get good GCSEs in English and maths. Around 70% of other pupils reach these basic benchmarks. There are very big gaps in entry to university by social background. Fewer than a fifth of pupils from the most disadvantaged areas go on to university by age 19 in comparison with more than 45% of state-educated pupils in the most advantaged fifth of areas (Social Mobility Commission, 2019). Those from private

⁴ Calculations using Labour Force Survey 2019 Q4 and 2020 Q3. These numbers measure the number of people working at least one paid hour in the reference week of the survey – hence, employees on furlough but not doing any hours of work would be counted as doing no work, consistent with the figures from Benzeval et al. (2020) cited above.

⁵ <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/timeseries/dyzn/lms>.

schools are much more likely still to go into higher education, and the proportionate gaps are even greater when looking at entry into the most selective universities. Dive into the detail and the gaps get enormous. Just 8% of white boys on free school meals at comprehensive schools in the

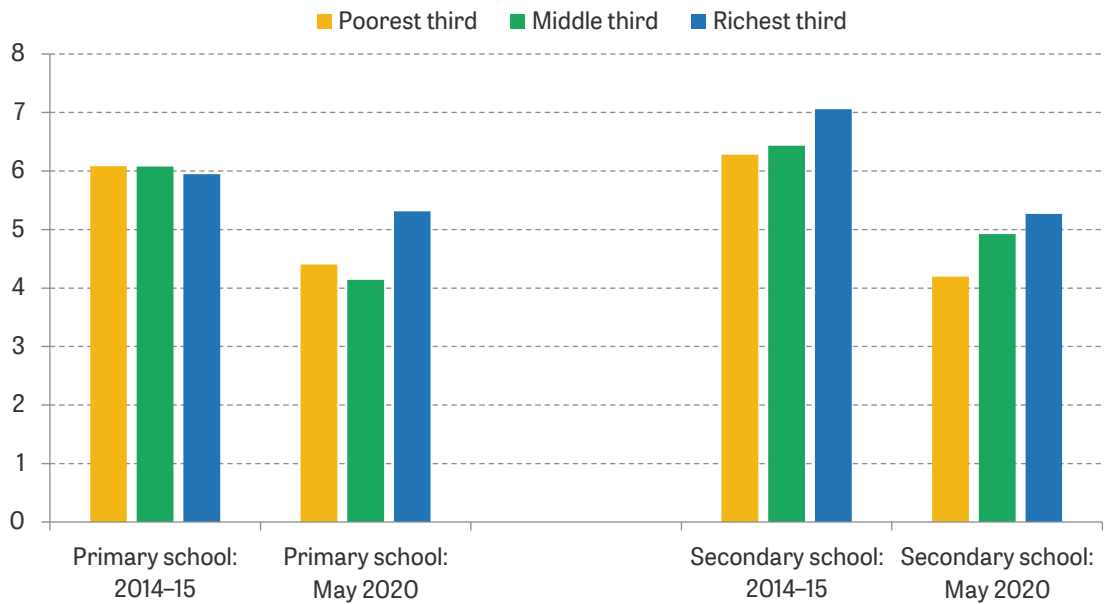
Figure 2. Attainment gaps between pupils eligible and not eligible for free school meals, 2019



Note: Age 11 results refer to reaching the expected level in all of the Key Stage 2 reading and maths tests and writing teacher assessment. GCSE refers to pupils who achieved grades 4–9 in both English and maths GCSEs.

Source: Department for Education official statistics for [Key Stage 2](#), [Key Stage 4](#) and [Key Stage 5](#).

Figure 3. Time spent on educational activities during a typical weekday



Source: Andrew et al., 2020a, figure 5.4.

poorest fifth of areas go on to university, while 85% of Asian girls not on free school meals at selective schools in the most advantaged areas do so.⁶

The pandemic is likely to exacerbate these inequalities. As Figure 3 shows, before the pandemic primary school children spent around six hours a day on educational activities, regardless of their family income. The COVID-19 school closures saw this fall by a quarter, to 4.5 hours a day, during early May. But school closures also saw new inequalities emerge; students in the richest third of families (based on pre-COVID income) saw their learning time fall by much less than their poorer peers.

And students trying to learn from home also faced different barriers. Among secondary school students, 65% of parents in the richest third of families reported that their child's school offered active home learning resources such as online classes or video chatting, compared with 53% of children in the poorest third of families (Andrew et al., 2020a). The inequalities at primary school were even larger. Research from the Sutton Trust suggested that pupils at independent schools were twice as likely as those at state schools to take part in online lessons every day (Cullinane and Montacute, 2020). Students in better-off families were also far more likely to have access to a quiet study space at home and to have access to a device to access online schooling resources.

In addition, when schools started to reopen in June and July, students from poorer families were substantially less likely to return when given the option (Andrew et al., 2020b). Since September, pupils in areas with lower GCSE attainment and higher levels of disadvantage have missed more days of school than others (Sibieta and Robinson, 2020). Taken together, this means that the poorest students spent less time learning than their richer peers; they had fewer resources at home and from their school to learn effectively; they were less likely to return to in-person schooling when given the chance; and they have lost more days of schooling during the autumn.

There has been a very, very gradual closing of social class gaps in some measures of educational achievement over the last several years. There is a real danger that a long-term consequence of the pandemic will be to halt, or even reverse, that all-too-modest progress.

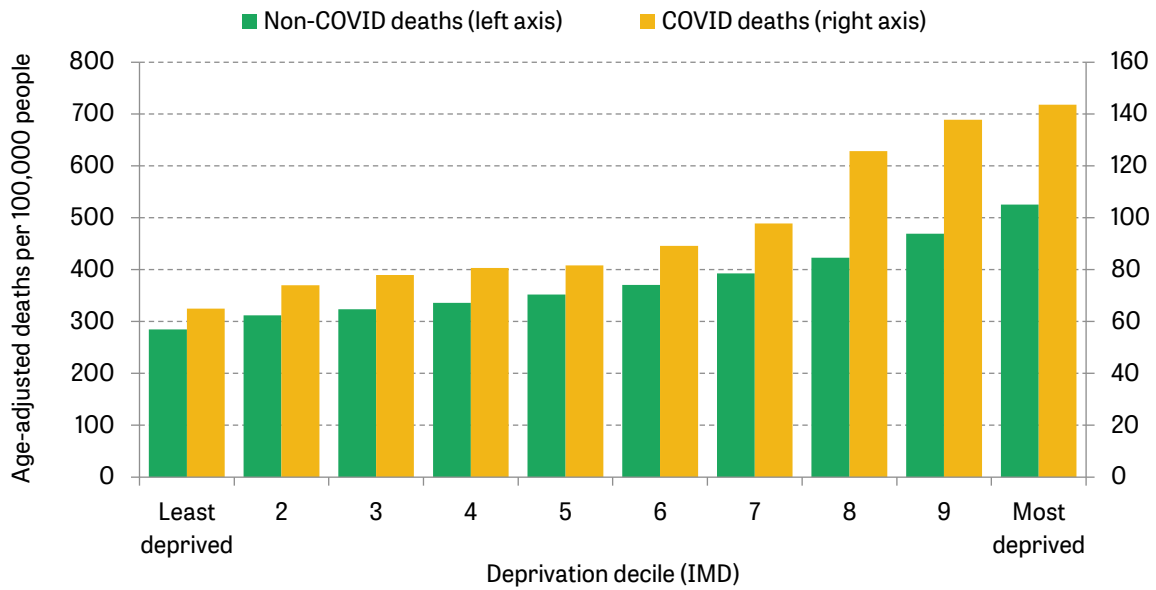
Health and geographic inequalities

One of the most salient inequalities is inequality between different places. Taking perhaps the most obvious metric of the impact of the pandemic – deaths from COVID-19 – we see that it is deprived communities that have suffered by far the most. There have always been disparities in mortality between richer and poorer areas, and those disparities were already getting wider in the years prior to the pandemic. Deaths from COVID-19 have increased that disparity even further. This is illustrated in Figure 4, which shows that while there were big overall mortality differences in non-COVID deaths between more and less deprived communities, there were, between March and July 2020, even bigger differences in COVID deaths.

Very much in keeping with a key theme of the Deaton Review, this seems to reflect a number of overlapping disparities in different domains of life – such as the jobs that people work in, their pre-existing health and their housing conditions.

⁶ <https://www.ucas.com/data-and-analysis/ucas-undergraduate-releases/ucas-undergraduate-analysis-reports/equality-and-entry-rates-data-explorers>.

Figure 4. Deaths by local area deprivation, March–July 2020



Note: The deprivation deciles are based on the Index of Multiple Deprivation (IMD).

Source: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsinvolvedwithcovid19bylocalareasanddeprivation/deathsoccurringbetween1marchand31july2020>.

More generally, geographic inequalities in the UK are not best understood through simple rules of thumb such as a North–South divide. The dividing lines are typically found at a more local level than that, and localities can often be in quite different places in the league table depending on what kind of outcome is looked at. As early pieces of work undertaken for the IFS Deaton Review have shown, this was true both before and during the pandemic (Agrawal and Phillips, 2020; Davenport et al., 2020). But geographic disparities in vulnerabilities to different aspects of life in a pandemic have certainly been large. Coastal towns, which were already relatively poor on average, are at the sharp end in more than one respect. Their reliance on tourism makes people’s jobs relatively exposed to the impacts of social distancing, and their older populations make them relatively vulnerable to COVID-19 itself.

Ethnic inequalities

Early in the pandemic, it appeared that COVID-19 deaths were higher among minority ethnic groups. A number of subsequent analyses confirmed these stark differences (Platt and Warwick, 2020a; Aldridge et al., 2020). Age-adjusted mortality rates were highest among black African men, at 2.7 times the rate for white men, and among black Caribbean women, at twice the rate of white women, with elevated risks for men and women from South Asian groups as well.⁷ These heightened mortality risks were associated with existing inequalities faced by minority ethnic groups. Overlapping risk factors of geography, deprivation, housing and overcrowding, alongside

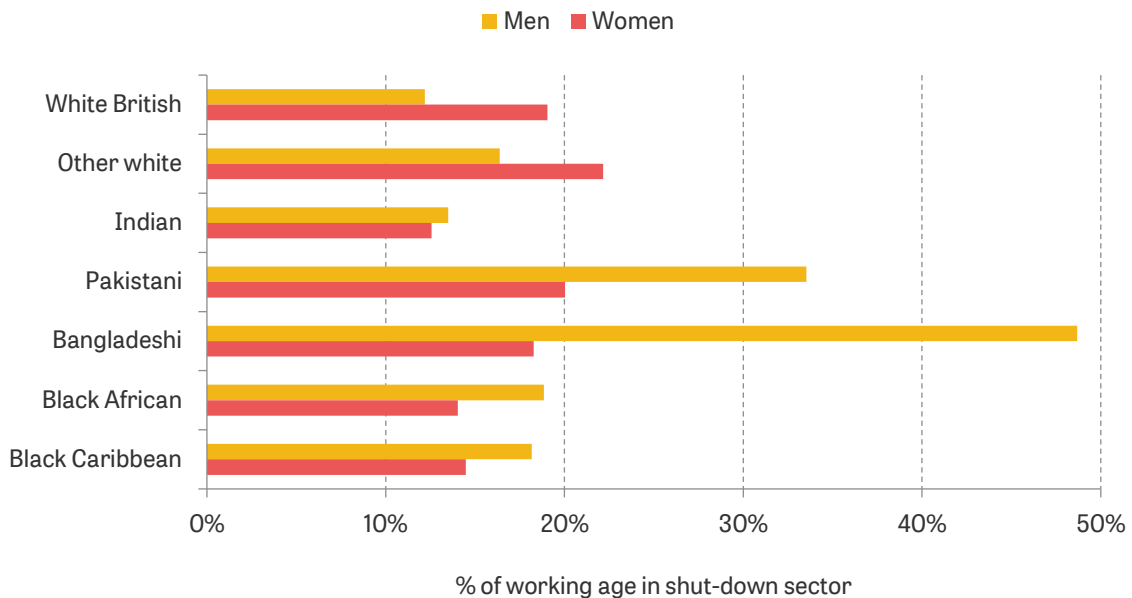
⁷ <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/updatingethniccontrastsindeathsinvolvedwiththecoronaviruscovid19englandandwales/deathsoccurring2marchto28july2020>.

differences in pre-existing health conditions, were found to partly, though not fully, explain the differences in mortality.

Differences in the risk of COVID-related death across ethnic groups stem from both more severe outcomes among those hospitalised (Public Health England, 2020) and greater risk of infection in the first place (Sze et al., 2020). Risks of infection can themselves be linked to geographical concentration and inequalities in housing conditions, but also, importantly, to occupational distributions. Ethnic minorities are over-represented in jobs that have been shown to have higher risks of COVID-19 infection and mortality, such as care workers and health care workers and also transport workers, retail staff and security guards. For example, more than 20% of black African working-age women are employed in health and social care (Platt and Warwick, 2020b).

While these occupational concentrations put workers at risk of infection, the pandemic has also had disproportionate impacts on minority ethnic groups through loss of work and livelihoods. Those from minority ethnic groups, particularly Pakistani and Bangladeshi men, were much more likely to be working prior to the pandemic in jobs that were subject to the lockdown (see Figure 5). Pakistani men are also much more likely than others to be self-employed, with 25% in this position. They therefore face the heightened economic vulnerability that has affected own-account workers. Negative economic consequences also extend to families, since minority groups in hard-hit labour market sectors (as well as in vulnerable self-employment) are more likely to have children financially dependent on them (Platt and Warwick, 2020b). The consequences of the pandemic risk entrenching ethnic inequalities into the next generation as well as exacerbating current ones.

Figure 5. Share of working-age population in shut-down sectors in England and Wales, by ethnic group and sex



Source: Platt and Warwick, 2020b, figure 12.

Generational inequalities

In the decades leading up to the COVID crisis, there was a sharp divide between the experiences of different generations. Between 2002–03 and 2018–19, the real incomes of the over-60s rose by 28% while the incomes of the under-60s rose by 7% (Bourquin, Joyce and Norris Keiller, 2020). Young people have had a particularly difficult time in the labour market since the last recession: average earnings among employees currently in their 30s (who were largely in their 20s when the 2008 recession hit) were still 7% lower in real terms in 2019 than they had been for their predecessors at the same age in 2008 (Cribb and Johnson, 2019).

This crisis has exacerbated economic inequalities between old and young. The young have been especially likely to work in shut-down sectors, to lose their jobs and to suffer falls in incomes. By September and October, those aged 16–25 were more than twice as likely as older employees to have suffered job loss during the pandemic, and a majority of the group had seen their earnings fall (Elliot-Major, Eyles and Machin, 2020). Those over pension age have been much more sheltered from the economic consequences of the pandemic. Most retired people report no financial impact from the crisis, while a fifth of them report that their financial situation improved after the coronavirus outbreak, almost twice as many as report the reverse (Crawford and Karjalainen, 2020).

Even more striking than the divergence in income growth between generations over the last couple of decades has been the different path of asset accumulation. There had been a collapse in homeownership from 55% to 35% among those in their late 20s and early 30s between the mid 1990s and 2017 (Cribb and Simpson, 2018). Membership of generous defined benefit pension schemes also effectively came to an end outside of the public sector. Over that period, real house prices rose by 170% (Cribb and Simpson, 2018), and the fraction of those in their 60s owning two or more properties reached 14% (Crawford, 2018).

There is certainly a risk that the current crisis will exacerbate some key wealth inequalities. Stock markets around the world have held up remarkably well and a combination of even lower interest rates and cuts in stamp duty have contributed to a rise in house prices of over 5% since March.⁸ The programme of quantitative easing and low interest rates in the aftermath of the financial crisis resulted, perhaps inadvertently, in a redistribution of wealth towards the older and wealthier and away from the younger and poorer; the same may happen again. It is important that fiscal policy recognises these distributional effects and leans against them, rather than doubling down on them as has happened over the past decade.

Conclusions

It looks as if government spending will have risen by about £250 billion this year. About £80 billion of that spending will have been on protecting people's incomes via the Coronavirus Job Retention Scheme and the Self-Employment Income Support Scheme, as well as through increases in welfare benefits. Spending on health services (including new measures for the pandemic such as Test and Trace) is due to rise by a staggering £50 billion. Yet this has been a year in which many inequalities have been exacerbated. Poor children have been hit worse than their better-off peers. Higher earners and graduates have had their work disrupted much less than lower earners and the less highly educated. The poor, and ethnic minorities, have borne the brunt of the

⁸ <https://www.bbc.co.uk/news/business-55483432>.

health crisis. And the young have suffered a much bigger economic hit than the middle-aged, while the old – who, of course, have been most at risk from the virus – have been largely insulated from the awful economic shock.

A complete measure of the effectiveness of our response to the pandemic is still to come. Whether or not we have a speedy vaccine roll-out with the effects on public health that we hope for, the wider impact of the pandemic on social and economic outcomes is a story that is just beginning. Various groups who were already among the most vulnerable have been especially hard hit by the events of 2020, but we do have the capacity to ameliorate the hangover from this most dreadful of years. This will require a broad set of policies aimed at increasing the skills of those in work, and doing more for poorer children still at school; at tackling the root causes of poor mental and physical health; at ensuring those from all social backgrounds, ethnicities and parts of the country have similar opportunities; and at supporting the younger generation as they enter the labour market, and recognising that while monetary policy perhaps has to support the older and wealthier, this strengthens the case for fiscal policy leaning the other way rather than, as over the last decade, pushing hard in the same direction; and it is surely now an inescapably urgent priority to find ways to adapt labour market and welfare policies to effectively support the growing numbers in self-employment and other forms of 'atypical' work.

The next phase of the IFS Deaton Review will be focusing on all these issues, spurred by the even greater urgency created by the pandemic. We knew 18 months ago that economic and social policy faced some serious challenges. That fact could not have been brought home more clearly than it has by the events of 2020. We have to learn from the policy failures of the last decades. And we must build on what could be a once-in-a-generation opportunity to tackle the disadvantages faced by many that this pandemic has so devastatingly exposed.

References

Here we list the publications specifically cited in this report. For those wanting to get more comprehensively up to speed with the published work of the Review so far, we refer you to the Review's website at www.ifs.org.uk/inequality, including the analysis of the COVID-19 crisis and its implications for inequalities at www.ifs.org.uk/inequality/covid-19.

Adam, S., Miller, H., and Waters, T. (2020), 'Income protection for the self-employed and employees during the coronavirus crisis', IFS Briefing Note BN277, <https://www.ifs.org.uk/publications/14786>.

Agrawal, S., and Phillips, D. (2020), 'Catching up or falling behind? Geographic inequalities in the UK and how they have changed in recent years', IFS Deaton Review report, <https://www.ifs.org.uk/publications/14969>.

Aldridge, R., et al. (2020), 'Black, Asian and Minority Ethnic groups in England are at increased risk of death from COVID-19: indirect standardisation of NHS mortality data', *Wellcome Open Research*, 5, 88, <https://dx.doi.org/10.12688%2Fwellcomeopenres.15922.2>.

Andrew, A., Cattan, S., Costa Dias, M., Farquharson, C., Kraftman, L., Krutikova, S., Phimister, A., and Sevilla, A. (2020a), *Family Time Use and Home Learning during the COVID-19 Lockdown*, IFS Report R178, <https://www.ifs.org.uk/publications/15038>.

-
- Andrew, A., Cattan, S., Costa Dias, M., Farquharson, C., Kraftman, L., Krutikova, S., Phimister, A., and Sevilla, A. (2020b), 'September return to school offers a chance to level the playing field', IFS Observation, 23 August, <https://www.ifs.org.uk/publications/14980>.
- Benzeval, M., Burton, J., Crossley, T., Fisher, P., Jackle, A., Low, H., and Read, B. (2020), 'Understanding Society COVID-19 Survey, April Briefing Note: the economic effects', University of Essex, ISER, Working Paper 10/2020, https://www.understandingsociety.ac.uk/sites/default/files/downloads/general/ukhls_briefingnote_covid_economics_final.pdf.
- Blundell, J., and Machin, S. (2020), 'Self-employment in the Covid-19 crisis', Centre for Economic Performance (CEP), Covid-19 Analysis, Paper 3, <http://cep.lse.ac.uk/pubs/download/cepcovid-19-003.pdf>.
- Bourquin, P., Joyce, R., and Norris Keiller, A. (2020), *Living Standards, Poverty and Inequality in the UK: 2020*, IFS Report R170, <https://www.ifs.org.uk/publications/14901>.
- Crawford, R. (2018), 'The use of wealth in retirement', IFS Briefing Note BN237, <https://www.ifs.org.uk/publications/12959>.
- Crawford, R., and Karjalainen, H. (2020), 'Financial consequences of the coronavirus pandemic for older people', ELSA COVID-19 Substudy, <https://www.elsa-project.ac.uk/covid-19>.
- Cribb, J., and Johnson, P (2019). 'Employees' earnings since the Great Recession: the latest picture', IFS Briefing Note BN256, <https://www.ifs.org.uk/publications/14530>.
- Cribb, J., and Simpson, P. (2018), 'Barriers to homeownership for young adults', in C. Emmerson, C. Farquharson and P. Johnson (eds), *The IFS Green Budget: October 2018*, <https://www.ifs.org.uk/publications/13475>.
- Cullinane, C., and Montacute, R. (2020), 'COVID-19 and Social Mobility Impact Brief #1: school shutdown', Sutton Trust, <https://www.suttontrust.com/our-research/covid-19-and-social-mobility-impact-brief/>.
- Davenport, A., Farquharson, C., Rasul, I., Sibieta, L., and Stoye, G. (2020), 'The geography of the COVID-19 crisis in England', IFS Deaton Review report, <https://www.ifs.org.uk/publications/14888>.
- Dingel, J., and Neiman, B. (2020), 'How many jobs can be done at home?', Becker Friedman Institute, <https://bfi.uchicago.edu/working-paper/how-many-jobs-can-be-done-at-home/>.
- Elliot Major, L., Eyles, A., and Machin, S. (2020), 'Generation COVID: emerging work and education inequalities', Centre for Economic Performance, CEP Covid-19 Analysis, Paper 011, <https://cep.lse.ac.uk/pubs/download/cepcovid-19-011.pdf>.
- Giupponi, G., and Xu, X. (2020), 'What does the rise in self-employment tell us about the UK labour market?', IFS Deaton Review report, <https://www.ifs.org.uk/publications/15182>.
- Platt, L., and Warwick, R. (2020a), 'COVID-19 and ethnic inequalities in England and Wales', *Fiscal Studies*, 41, 259–89, <https://doi.org/10.1111/1475-5890.12228>.
- Platt, L., and Warwick, R. (2020b), 'Are some ethnic groups more vulnerable to COVID-19 than others?', IFS Deaton Review report, <https://www.ifs.org.uk/publications/14827>.

Public Health England (2020), 'COVID-19: review of disparities in risks and outcomes', <https://www.gov.uk/government/publications/covid-19-review-of-disparities-in-risks-and-outcomes>.

Sibieta, L., and Robinson, D. (2020), 'School attendance and lost schooling across England since full reopening', Education Policy Institute, <https://epi.org.uk/publications-and-research/school-attendance-and-lost-schooling-across-england-since-full-reopening/>.

Social Mobility Commission (2019), *State of the Nation, 2018–19: Social Mobility in Great Britain*, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/798404/SMC_State_of_the_Nation_Report_2018-19.pdf.

Sze, S., et al. (2020), 'Ethnicity and clinical outcomes in COVID-19: a systematic review and meta-analysis', *EClinicalMedicine*, 29, 100630, <https://doi.org/10.1016/j.eclinm.2020.100630>.

Data

Office for National Statistics. Social Survey Division, Northern Ireland Statistics and Research Agency. Central Survey Unit. (2020). *Quarterly Labour Force Survey, 1992-2020*. [data collection]. UK Data Service. Retrieved from <https://discover.ukdataservice.ac.uk/series/?sn=2000026>.