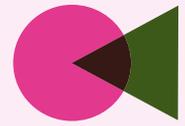


# Evidence



CENTRE FOR  
EVIDENCE-BASED  
PUBLIC  
SERVICES

## The Pandemic Edition

Hours in lockdown | Education interrupted  
Generation virus | East side story: mapping Bristol  
The pandemic in numbers | Extreme Economies

Winter 2020

# 01



# Welcome to Evidence

Hello and welcome to the first edition of Evidence magazine. From the second lockdown, we look at some implications of the first – for jobs, education and health.



**Helen Simpson**  
Director of CEPS /  
Evidence Magazine editor

The Covid-19 pandemic has forced us to confront something we already knew. People’s health, education, housing and wealth are strongly interconnected and these links result in pronounced inequalities. These inequalities persist across generations and across the geography of the UK and the pandemic will amplify them. The immediate effects on people’s health and way of life are highly visible, but other effects of the lockdown will manifest themselves much more slowly. The articles in this, the first edition of our magazine, discuss longer-term consequences for health, jobs and education.

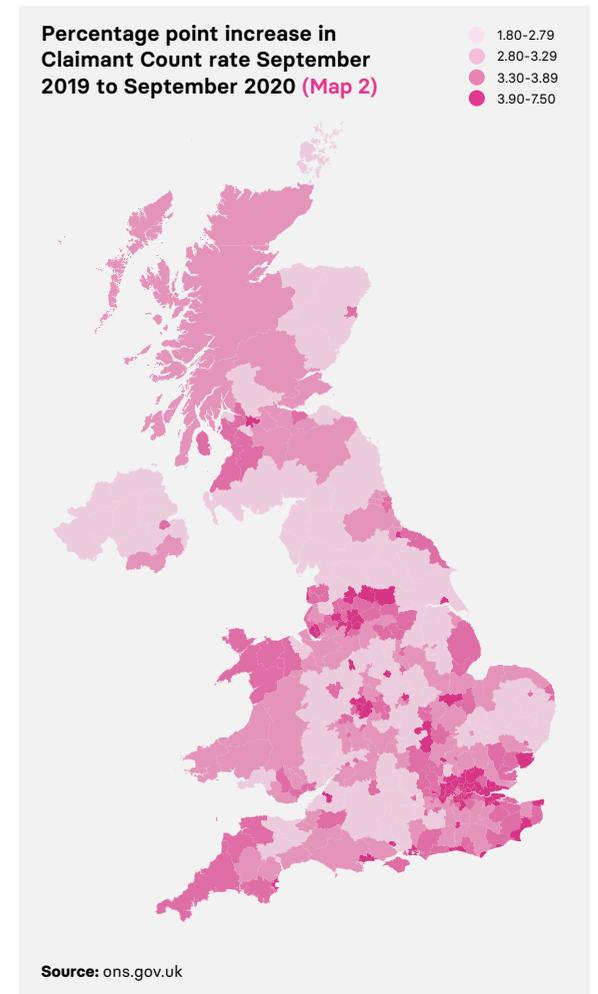
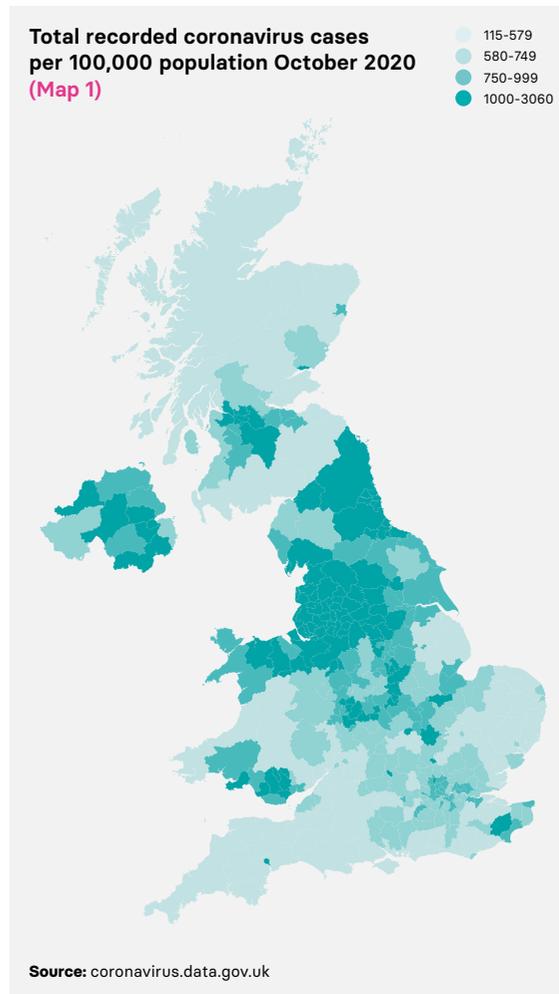
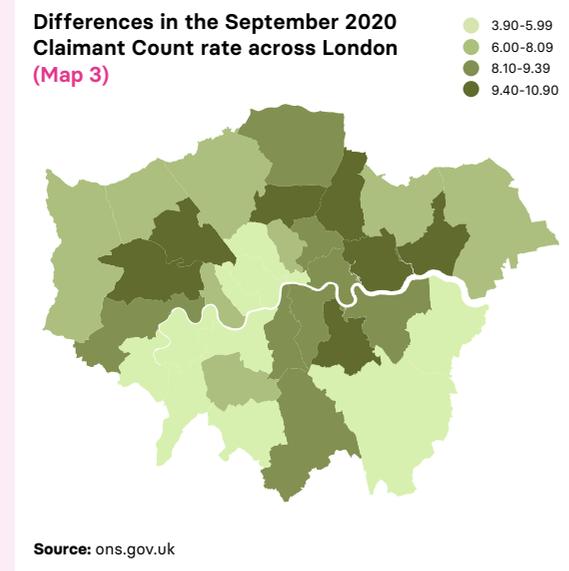
Maps help illustrate the overlaps between the health and economic effects of the crisis. Many areas that were already struggling before the pandemic are being hit the hardest. **Map 1** of the UK shows total coronavirus cases per 100,000 inhabitants in October. **Map 2** shows the percentage point increase in the benefit claimant rate over the year to September. Many urban areas in the North are experiencing both the highest increases in cases and in numbers moving on to benefits. And while coastal areas of the country have, at least to date, been hit lightly in terms of cases, they are feeling the economic pinch, as are areas around London.

Our first three articles look deeper into the effects of the crisis. While the final piece returns to maps and what we can learn from them about inequality and where people live, including here in Bristol.

First, **Peter Spittal** discusses the furlough scheme and the extent to which different groups will have felt the income reduction in their pockets, and had to adjust their spending during lockdown. He also looks at who is most likely to be at risk of job loss once the scheme comes to an end – those in the lower half of the earnings distribution, and within that both the very youngest and very oldest groups of workers.

Recessions and pandemics can have long-term health effects including for those who are not even born yet. **Stephanie von Hinke** discusses how exposure to disease and to adverse economic conditions, even while in the womb, can have negative consequences for people’s future health – both physical and mental, and for their future life chances. At the same time, the reduction in exposure to pollution during lockdown may have had beneficial effects on babies and infants.

Then, **Hans Sievertsen** looks at some of the more subtle effects of cancelled exams. The use of predicted grades and teacher assessments will have had immediate effects on admission to university and employment. But longer-term effects of missing exams might arise through changes in children’s confidence in their own abilities and in their ambitions and expectations if teacher-assessments are biased relative to actual performance in a blind test. Missed classroom time over the lockdown and differences in home-schooling are very likely to re-enforce pre-existing educational inequalities.



## The pandemic highlights the links between public health and the economy

The two maps highlight geographic disparities across regions – North versus South – and within regions – cities versus more rural or coastal areas. But these inequalities also exist within cities, with highly deprived neighbourhoods sitting close to highly affluent ones.

**Map 3** shows the benefit claimant rate for London boroughs in September 2020, with darker shaded areas representing higher rates. Some London boroughs, such as Barking and Dagenham, have been hit hard as activity in the city centre has dried up. Businesses that are reliant on footfall have had to close, and some will stay shut. Other areas have, relatively speaking, escaped, with the lowest increases in the claimant rate seen in boroughs to the west and south west of the city such as Westminster and Richmond-upon-Thames. This illustrates a phenomenon observed in many cities – the west side is often more prosperous than the east.

Our last article, by **Yanos Zylberberg**, explains why this pattern arises, and why geographic disparities in health, education, wealth and housing quality persist. It does so with a spotlight on Bristol where CEPS is based – why is Clifton more affluent than Lawrence Hill? The

research is digitising historical maps to describe how cities have evolved and how pockets of deprivation can develop. Imagine a typical Lowry painting with factory workers and chimneys emitting smoke that blows in one direction. Old maps are used to locate historical factories and chimneys. Those industrial sites plus the fact that the wind typically blows west to east can then explain why the west side of a city is often more prosperous. Pollution clearly affects health, but this research also captures the long-run, more indirect effects of pollution, as the rich moved to the west of cities to escape it.

Finally, we have a quick chat with **Richard Davies**, author of *Extreme Economies*, and the new Professor in the Public Understanding of Economics at Bristol University. He talks about what he learnt about economic resilience and recovery, and about his plans for events in Bristol.

# Hours in lockdown

Which households are bearing the economic costs of lockdown? And whose working hours were cut the most? The Prime Minister’s announcement of a second November lockdown comes with an extension of the furlough scheme, but the risk of job loss has not gone away, with the recession likely to widen existing inequalities.

Author: Peter Spittal



On 23 March, to slow the spread of Covid-19, the Prime Minister announced an unprecedented set of restrictions in the UK. The immediate economic costs were substantial – GDP fell by 20 percent in April alone, the sharpest decline on record. Despite a package of policies providing increased financial support to households, the costs fell disproportionately on those who were already disadvantaged. Now, increasing infection rates and a second national lockdown raise urgent questions about how best to mitigate the large and unequal economic costs.

## Employment impacts in the short and long-term

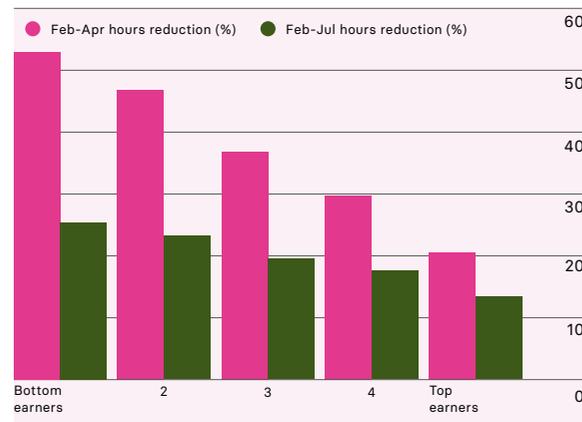
The first lockdown in the UK had significant impacts on workers. People whose jobs could not be easily adapted to working from home faced immediate restrictions on their ability to work. In other industries it was tougher still, with retail and hospitality forced to close completely. By contrast, those who could adapt to working in lockdown experienced less disruption.

There has been a clear and unequal impact on people’s jobs. The first chart shows how the effect of lockdown policies varied across the income distribution, using survey data from a sample of workers during the pandemic. Between February and the end of April, workers with earnings in the bottom fifth saw average working hours fall by more than 50 percent. By contrast, the highest earners experienced an average reduction

of only 20 percent. The gradual relaxation of lockdown restrictions over the summer led to a recovery in working hours across the income distribution. But the unequal labour market impacts were persistent – hours were still down by more for lower earners than for higher earners by the end of July.

These effects may echo for some time. Experience from previous recessions has shown that there may be long-term “scarring” effects for people forced out of work during economic downturns, as the lost opportunity to build skills and experience at work can lead to persistently lower earnings. Designing policy to minimise long spells out of work, and to help workers keep their skills up to date, will be critical to prevent the unequal labour market impacts from becoming entrenched.

## Labour market impacts of Covid-19 have been most severe for the lowest earners



Source: Understanding Society COVID-19 Study, 2020, waves 1 to 4. Notes: Chart shows, for people who were employed in February 2020, the average hours reduction in % between February and the ends of April and July, by quintile of the February earnings distribution.

## Did government support cushion the blow?

The government introduced a package of policies to provide financial support to affected households. The flagship policy, the Coronavirus Job Retention Scheme, allowed employers to furlough workers temporarily unable to work, with the government paying 80 percent of their usual monthly income (up to a cap of £2,500). By 18 October, 9.6 million jobs had been supported by the scheme, representing nearly 30 percent of the pre-pandemic labour force, at a total cost of over £40 billion. The government also introduced a similar scheme aimed at self-employed workers, and temporarily increased the generosity of Universal Credit benefit payments.



## The impact on jobs will widen inequalities in people’s ability to make ends meet

How effective were these measures in mitigating the labour market impacts of lockdown? We attempted to answer this question by examining how households might have to change their spending – were previous spending levels still affordable? We found that, as well as being more likely to have work disrupted during lockdown, lower income households were the least able to afford the income reduction without cutting back on spending – despite increased government support.

There are three main reasons for this. First, lower income households have a limited buffer between usual income and expenditure. This means that even a relatively small income reduction jeopardises their spending plans. Second, lower income households have fewer savings, further reducing their ability to sustain expenditure if income falls. Third, people in lower income households tend to be employed in more similar jobs than is the case for higher income families, which increases the risk of multiple earners losing income at the same time.

This new evidence on how the pandemic has hit people’s pockets has been corroborated by other research. For example, IFS researchers found that spending fell by 14 percent by the end of June for households furloughed onto the Coronavirus Job Retention Scheme, relative to a group of otherwise-similar households who were not furloughed. They also find that furloughed workers were less likely to make mortgage or council tax payments.

Therefore, while the package of economic support measures certainly provided some support to workers whose jobs were affected by the lockdown policies, it was unable to fully offset the negative effects. The unequal labour market impacts will feed through and widen existing inequalities in people’s ability to make ends meet.

## Whose jobs are at risk?

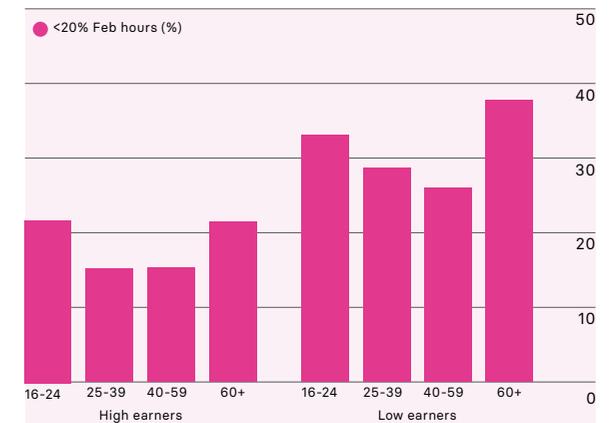
The furlough scheme, originally due to end in October, has now been extended until March. While this will make it easier for firms to keep workers on over the winter, it is unlikely that every job will be saved: the continued economic downturn will make it increasingly difficult for firms to afford their contribution to the cost of furloughing workers. And even for those who do keep their jobs, several more months away from work – on reduced pay – will put further strain on their finances and erode their skills and experience.

Who is most at risk of long-term furlough or job loss? The second chart shows the fraction of workers who were still working less than 20% of their February hours at the end of July (the most recent data), split by the age of the employee and by whether their pre-pandemic earnings were in the top or bottom half of the distribution. The people whose hours remained low through the summer are likely to be at greatest risk of continued disruption. Those working less than 20%, in particular, would not have been eligible for support under the Job Support Scheme, which was planned to replace the furlough scheme in November, unless their employer had agreed to increase their hours.

Two facts stand out. First, lower income workers of any age were more likely to still be on low hours relative to February compared to higher earners. Second, among both high and low earners those younger than 25 or older than 60 were still on the lowest hours before the November lockdown.

What are the prospects for these at-risk workers? The answer depends on how well suited their skills and experience are to firms who are hiring, and the opportunities for re-training. In a new study, joint with researchers at UCL and IFS, we are tracking the number and nature of job vacancy postings to see what skills are currently in demand from firms. By documenting the extent of mismatch between the skills and experience of at-risk workers and the needs of currently-hiring employers, we can identify groups of workers who will struggle the most in finding new work and, as a result, benefit most from targeted government support.

## What fraction of people were working low hours before the second lockdown?



Source: Understanding Society COVID-19 Study, 2020, waves 1 to 4. Notes: Chart shows the fraction of people who were working less than 20% of their February hours at the end of July, by age and position in the February 2020 earnings distribution (whether above or below median).

# Generation virus

Covid-19 is placing unprecedented pressures on individuals and families, and the effects of this on incomes and on physical and mental health will have ramifications for years, potentially harming the chances of those who have not yet been born. How will the pandemic affect the next generation?

Author: **Stephanie von Hinke**



## Health in lockdown

Anxiety among the UK population is on the rise. Evidence shows a worsening of mental health since the start of the pandemic with loneliness, the stress of balancing caregiving and employment, exposure to media stories and loss of income all explaining this worrying trend.

During the first lockdown, the ONS reported around one in five adults to be experiencing some form of moderate to severe depression, double the level before the pandemic. The incidence was particularly high amongst women and young adults. **Chart 1** shows that even people without depressive symptoms were affected, with over 50% reporting feeling stressed or anxious and over 25% feeling lonely or spending too much time on their own.

People have also changed their eating and drinking habits. A report by Obesity Action Scotland found that people were more likely to cook meals from scratch and eat more fruit and veg, and less likely to eat ready meals and take-aways. But, as shown in **Chart 2**, a substantial fraction of people reported that they were more likely to eat out of boredom, especially cakes, biscuits, confectionery, and savoury snacks, and about a third of people said they drank more alcohol. Other evidence also suggests the pandemic led to a reduction in physical activity.

Despite this, there were some positive effects of lockdown. For example, levels of pollution reduced dramatically with the start of lockdown in many countries, in particular due to reduced emissions from industry and traffic, leading to substantially improved air quality.

## How disease echoes

The impacts of the current pandemic will last for years to come. Evidence suggests that the changes we see now are likely to affect the next generation, including those who have not even been born yet. Adverse circumstances very early in life can have lifelong and irreversible impacts on people's health and development in older age. This so-called "developmental origins of health and disease hypothesis" considers the impact on later-life outcomes of the environment faced while babies are still in the womb, as well as effects in infancy and early childhood. Early-life environments and health and economic circumstances, including many that have changed during the pandemic, have been shown to have long-term consequences for the health and well-being of those who are currently young.

## Exposure to disease while in the womb affects later-life educational outcomes

The current pandemic has led many researchers to look back at the last major pandemic we experienced: the Spanish Flu of 1918-19. Evidence on being exposed to this flu outbreak whilst in the womb suggests substantial effects on people's later-life success, with those exposed being less likely to complete high school, have fewer years of education and lower incomes compared to those born in other years. A similar study of the UK Asian Influenza pandemic of 1957 finds that those who are exposed to higher levels of influenza in their local areas while in the womb have lower birth weights and do worse in academic tests.

## Economic downturns affect later-life health

The economic conditions we experience in early life, as measured by unemployment rates or shocks to income, affect our later-life health and well-being. Evidence suggests that being born in a recession is associated with a host of adverse health impacts, including increased mortality, cardiovascular disease, diabetes and schizophrenia, reduced height and reduced cognition. The channels through which early-life conditions affect later-life health and well-being include stress, nutrition and early-life housing conditions.

## Stress

Evidence suggests that the impact of the pandemic on women's mental health can also have effects on their children via intrauterine effects. Exposure to maternal stress, even before birth, can negatively affect outcomes in later life. To investigate this, studies have examined the impact of many different life events that cause maternal stress, such as death or illness of a family member, exposure to terrorist attacks, armed conflict, or to natural disasters, and the impact of the 2008 financial crisis. This evidence suggests that such events lead to reductions in children's later-life psychological and emotional outcomes, though no lasting effects on offspring's cognitive skills.

## Alcohol

Studies that look at the impacts of alcohol consumption during pregnancy on children report mixed findings. But those that try and isolate the effects of alcohol from other factors or other behaviours during pregnancy are more consistent and find large negative effects on adolescent and adult outcomes from lower academic attainment, lower graduation rates and lower years of schooling to lower earnings and higher welfare dependency.

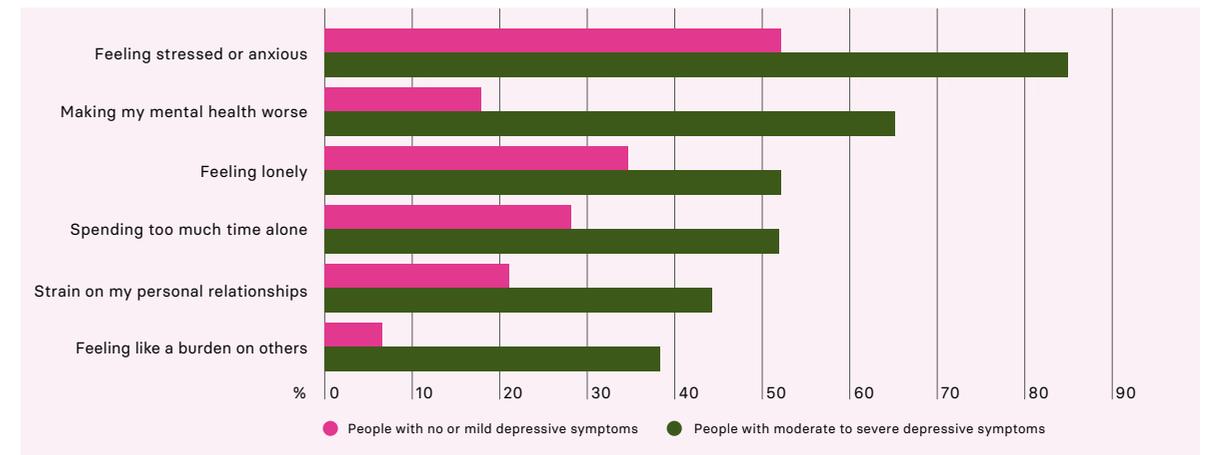
## Pollution

As historic pollution data are rare – making it difficult to evaluate long-term effects – most studies that explore the impact of exposure to pollution during pregnancy investigate their effects on birth outcomes. For example, using the introduction of the Clean Air Act in 1970 in the US, one study shows that a reduction in pollution leads to a drop in infant mortality rates, while others show that a reduction in exposure to carbon monoxide or traffic congestion reduced infant mortality, premature births and low birth weights.

## Implications for the long term

Adverse conditions both before birth and in early life can have long term effects on health and well-being at older ages, and these adverse circumstances are being experienced by many during the pandemic. Although no two pandemics are exactly alike, the weight of evidence suggests that individuals exposed to the Covid-19 pandemic even while in the womb may have worse health and economic outcomes in adulthood compared to those born before or after the pandemic. Choices made today echo for generations, raising the stakes on getting the analysis and policymaking correct right now.

How was well-being affected during lockdown? (Chart 1)



Source: ONS. Figures are for June 2020.

Unhealthy Eating (Chart 2)



Source: Obesity Action Scotland.

# Education interrupted

The disruption to classroom education and the cancellation of exams will have long-term effects on children's learning, future education and ultimately their job prospects and life chances. Time away from the classroom and a switch to online learning will act to widen educational inequalities. Compounding this, the cancellation of exams and use of teacher assessments can have knock-on effects beyond those on grades if, as a result, students change their own perceptions and expectations of what they can achieve.

Author: Hans Sievertsen



## Unequal learning-losses

According to estimates from UNESCO almost 1.5 billion students were affected by COVID-19 induced school closures in early April 2020. By now it is clear that school closures and the move to online teaching had, and continue to have, detrimental and unequal effects on those affected.

Schools, teachers, and parents moved to online teaching on an unprecedented scale within days. Even with this extraordinary effort it is clear that for students, learning online is not the same as a normal school or university day. In the ideal scenario online teaching includes a comfortable and quiet study space, a computer with a fast and reliable internet connection, and a parent or peer that can help. Numerous studies over the summer of 2020 showed that access to these resources is highly unequal, with one study for the UK by the Institute for Fiscal Studies showing that more than half of primary school pupils from the poorest families did not have access to their own study space. Children in richer households also spent more time on home learning: after around 35 days of school closure, a child from a household in the top fifth the income distribution had

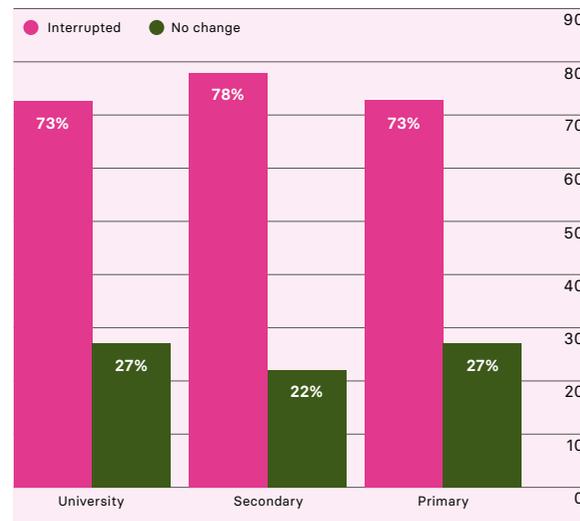
completed around seven more school days than a child in the bottom fifth. Given this it's not surprising that test data revealed increasing inequality between pupils - online learning test data for the UK reported by the DELVE Initiative suggests that gaps between high and low scorers increased by up to 50% from before to after the lockdown.

## Exam disruption

School closures not only led to cancelled teaching but also called off exams. These interruptions to students' assessments will not just be a short-term issue. They can have long-term consequences for those affected and are likely to lead to an increase in inequality.

On 18 March, in the UK A-level exams were scrapped to reduce the spread of the virus. In France, the Baccalauréat exam was abandoned for the first time since 1808. In Norway, all written exams in high school were dropped, and Denmark also reduced the number of high school exams. Importantly, this anecdotal evidence on assessment disruptions in Western Europe reflects a much more global picture. Based on a UNESCO survey covering 123 low and middle-income countries, across all educational levels, more than 70% of countries holding major, 'high-stakes' assessments reported some interruption.

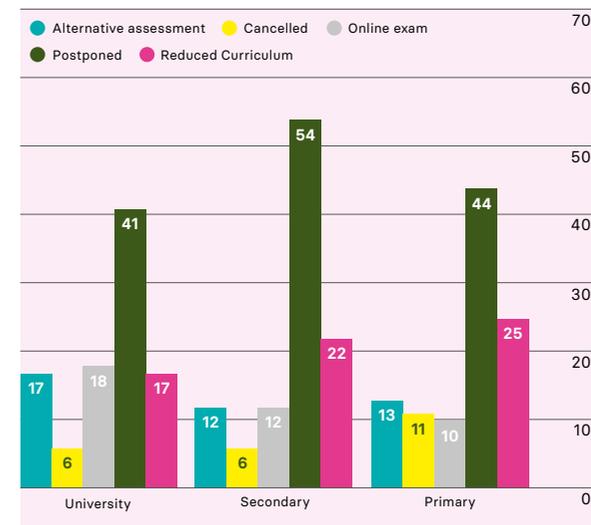
## Low and middle-income countries with high-stakes exams reporting exam disruption (%)



Source: UNESCO Institute for Statistics, based on UNESCO-UNICEF-World Bank Survey on National Education. Responses to COVID-19 School Closures, 1st Iteration. 2020.

At the time of the survey, April to mid-June 2020, the most common interruption reported was a postponement of the assessment, but many of these exams may have been subsequently cancelled entirely. Several countries reported that they reduced the curriculum tested in exams, that they moved to online exams, or introduced alternative assessments such as basing marks on homework, coursework and teacher assessments.

## Type of exam disruption in low and middle-income countries (%)



Source: UNESCO Institute for Statistics, based on UNESCO-UNICEF-World Bank Survey on National Education. Responses to COVID-19 School Closures, 1st Iteration. 2020.

## Pandemics and biases

But why does this matter, and how do assessments affect learning and inequality? Low-stakes exams without any direct consequences for students are often thought to be less important than exams leading to formal qualifications such as A-levels or GCSEs, and many were dropped during the pandemic. But the point of low-stakes assessments is to provide information about a child's progress



# Cancelled assessments can lead to delays in the recognition of learning difficulties

for families and teachers. Cancelled assessments can lead to delays in the recognition of learning difficulties and can have harmful long-term consequences for children. As evidence of this, a study in Denmark looked at what happened after a major IT crash led to some children being unable to attend an assessment. The study finds that participating in the test increased children's scores in a reading test two years later, and that the benefits of sitting the assessment were largest for children from disadvantaged backgrounds.

As a consequence of COVID-19 a higher weight has been placed on teacher assessments in determining students' grades. In the UK A-level exams were replaced by teacher predicted grades, and in Denmark and Norway teacher assessments were given a higher weight as a result of exam disruption. Recent research has shed light on the accuracy of these predictions, for example showing that they are often inaccurate, and for a set of students who do well in exams, the corresponding predicted grades for those from disadvantaged backgrounds are lower than those from more advantaged backgrounds. Further evidence from various settings shows systematic differences between non-blind teacher assessments and blind examinations, with a bias in teacher assessments towards groups that usually perform well in a given subject. For example, if girls usually perform better in a subject, a non-blind teacher evaluation of a given boy's performance is likely to be biased downward.

What are the implications? First, placing greater weight on non-blind assessments may directly affect students' access to further study and future employment opportunities through lower grades. And second, a lack of formal external assessment might also affect students' own beliefs about their own abilities and influence their expectations, and not always for the better. For example, research using data from France has shown that middle school teachers favour girls in their grading, and that this favouritism has long-term consequences for boys who then make less progress over the following three years. Exams, as much as students may dislike them, can provide objective data and avoid these biases.

This is an ongoing area of research in Bristol. In a new study we examine at the consequences of being assessed under a regime that is more favourable to some students than others. This uses data for Denmark where students were randomly allocated to sit different external exams some of which led to better grades. Early results suggest long-term effects, with consequences on university graduation a full ten years after the exams were sat.

# East side story: mapping Bristol

What can we learn about the evolution of neighbourhoods from historical maps? And why is the east side of a city often poorer than the west?

Author: Yanos Zylberberg



A striking feature of cities around the world is the large disparity in neighbourhood composition – who lives where – often reflecting long-term segregation. Bristol is no stranger to these extreme inequalities with the deprived neighbourhoods of Barton Hill or the Dings just a few miles from affluent Clifton.

During the first half of the nineteenth century, the Great Western Cotton Factory opened the Barton Hill Cotton Mill in the Barton Hill district, most likely due to the easy access to waterways. The large factory attracted poorer workers from the rural hinterlands, sometimes from much further north. The factory polluted the local area, as did the surrounding chimneys of other factories, foundries and tanneries. At the beginning of the twentieth century, the Barton Hill Cotton Mill was still operating; the neighbouring areas had however experienced a prolonged decline in living standards from the dismal environmental conditions, the low quality of public amenities such as schools, the systematic flight of richer residents to other areas, and the mirroring arrival of poorer migrants.

The Great Western Cotton Factory was liquidated in the 1920s, leading to a further decline of the Barton Hill area over the twentieth century. This decline was hardly mitigated by the destruction of the factory and the subsequent land remediation, slum clearances, and other, numerous urban renewal policies. By contrast, the hillside settlement of Clifton remained the richest part of town for the past two centuries, mostly unaffected by the successive transformations of the city through industrialisation, war bombings, and then deindustrialisation.



The Barton Hill Cotton Mill (Bristol City Council Museums)

## Why are the east sides of cities poorer?

This story of industrialisation, migration from rural to urban areas, inequalities existing alongside disparities in environmental conditions, neighbourhood segregation and (mostly ineffective) urban policies has not only shaped Bristol, but many British cities. One clear illustration of these underlying forces is the east to west – poorer to richer – pattern of neighbourhoods which can be observed across many cities that were formerly heavily reliant on industry. For example, the east sides of London and Manchester, and internationally, New York City or Paris are notoriously poorer than their west sides. The main mechanism at play is reminiscent of the ‘Barton Hill story’: the prevailing winds, from west to east, meant that the atmospheric pollution from coal-burning factories was mostly driven towards the east side of the city, leading to residential flight by those who could afford it, which still persists today.

While this story of disparities within cities appears to be straightforward and simple, in fact it is not, and many different factors underlie the evolution of different areas. For example: city residents, including migrants, will care about exposure to environmental pollution to different degrees and have different means of escaping it; the cost of land in different areas can lead to factories increasingly concentrating in (cheaper) polluted areas; people who work in these industries may want to live nearby due to a lack of commuting options despite

the worse amenities. Large-scale changes will also play a role over time: environmental effects on surrounding areas through the conversion of farmland to built-up land; the invention of the steam engine and improvements in public transport enabled a greater division of areas into purely residential versus commercial; and slum clearances, war bombings, social housing policies, and gentrification can further tilt the trajectory of neighbourhoods.

## How to turn maps into data

Our research takes a new approach to try and shed light on these mechanisms – using maps. We are generating unique data capturing the structure of cities combining information from local-level historical Census records capturing the characteristics of residents and workers and data derived from historical maps – the 25 inch to the mile Ordnance Survey maps covering England and Wales. These maps were produced at irregular intervals (approximately every twenty years) between 1880–1960, and were sufficiently precise to report detailed features such as industrial chimneys, lamp posts, or even the structure of gardens for the villas of affluent neighbourhoods – a reminder of the fastidiousness of early Victorian mappers. These maps have the potential to capture a comprehensive, changing image of the city, just like Google Maps does today.

Digitising these historical maps presents challenges. They are essentially a collection of highly unorganised information: writing, symbols, lines/segments, or coloured/striped surfaces, which have to be interpreted and converted into data. To do this, the research is using methods that rely on the latest innovations in visual recognition and machine learning to identify a collection of

# Past industrialisation and atmospheric pollution have not only shaped Bristol, but many British cities

features that are important to understand the location of production, public amenities, and housing – e.g., industrial chimneys, factories and their names, market halls, corn exchange, schools, theatres, prisons, churches, union workhouses, roads and their names, train stations etc..

The project will create an interactive map of Bristol which combines the information drawn from the analysis of the historical maps – pollution imprints, neighbourhood composition and urban renewal activities – with oral histories from two Bristol neighbourhoods, Barton Hill and the Dings/St Philips. The data on industrialisation, pollution and slum clearances will also be added to [www.kypwest.org.uk](http://www.kypwest.org.uk) and help connect it to communities for urban planning. More broadly, the resources can be used to inform policy decisions through a deeper understanding how different neighbourhoods have developed, and why inequalities are so persistent.



The Barton Hill Cotton Mill in the 25 inch to the mile Ordnance Survey maps

# Data story: the pandemic in numbers

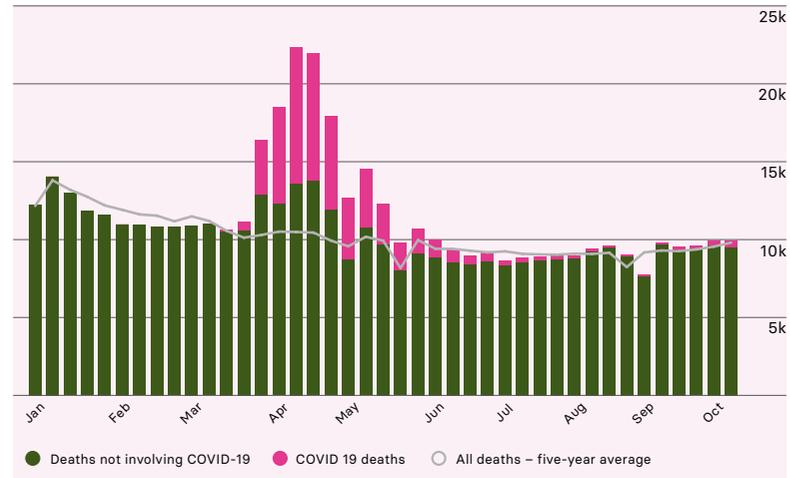
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## 'Excess' deaths have not all been directly due to Covid-19 infections

From the start of the year to the 9th October nearly 55,000 more deaths were recorded in England and Wales relative to the average over the last 5 years. Sadly, this figure looks only likely to rise.

Source: Office for National Statistics – Deaths registered weekly in England and Wales

Excess deaths



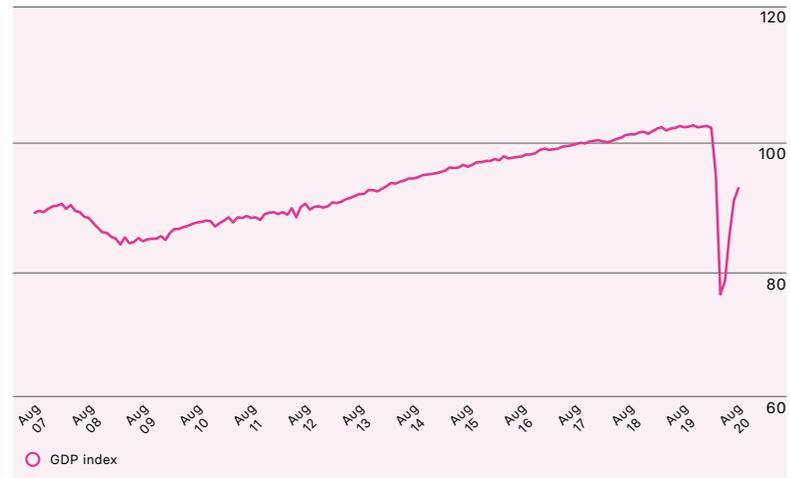
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## What letter will the recovery eventually look like?

A V-shape looks unlikely. GDP in August was nearly 22% higher than the low in April, but was still 9% below the pre-pandemic level in February.

Source: ONS

Monthly UK GDP index



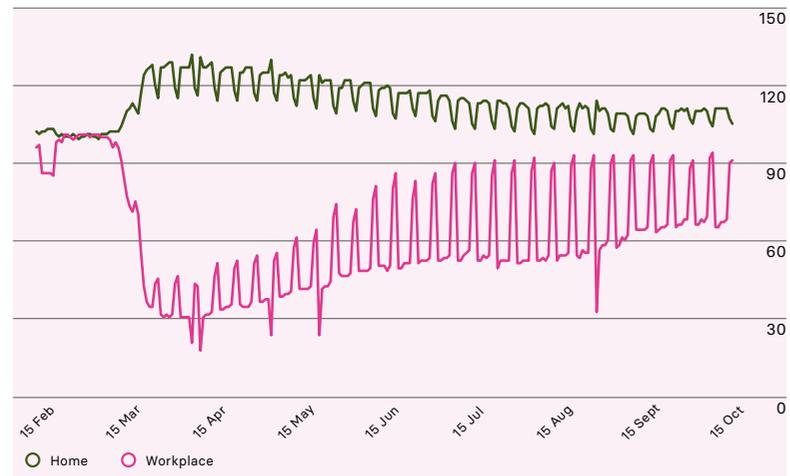
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## We were told to work from home. Those who could did, and kept doing so

Data from our mobile phones shows that relative to January we stopped going to the workplace. In October, on a weekday, trips to the workplace were still down 30%.

Source: Google mobility trends

At home versus the workplace relative to January (Indexed at 100)



4

## Lockdown led to a huge decrease in car traffic

Car use remains below pre-lockdown levels. The enormous decrease in transport use was accompanied by less pollution and improvements in air quality.

Source: Department for Transport road traffic statistics: management information

Car use relative to 2019 (Indexed at 100)



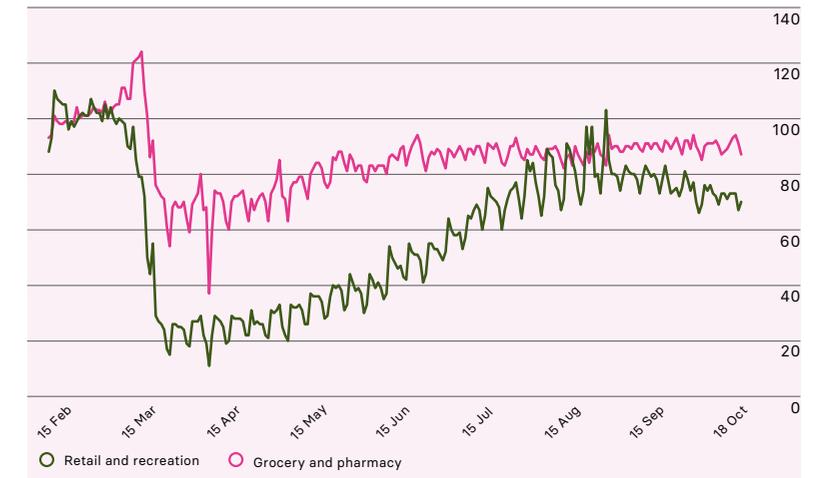
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## City centres are feeling a big hit

We rushed to the supermarket at the start of lockdown. But even after, we were still going to the shops and out for entertainment much less than before.

Source: Google mobility trends

Shopping trips relative to January (Indexed at 100)



6

## There has been a huge fall in recruitment in some sectors

Adverts placed for jobs in retail and hospitality are still below 60% of the level seen in 2019, while healthcare and social care have remained stable.

Source: ONS/ Adzuna

Job vacancies by sector relative to the average for 2019 (Indexed at 100)





## Q&A – Richard Davies

Author of *Extreme Economies* and Professor in the Public Understanding of Economics

### Q1. You went to nine ‘extreme economies’ for your book. How did you pick them?

It was a mixture of personal choice and more objective data driven selection. First I picked the themes I wanted to look at: extremes of the future – ageing societies, technology, inequality; extremes of survival against the odds – natural disaster, war, incarceration; and extremes of failed potential – human, environmental and industrial decline. Once I had those (which I guess you can quibble with) I used data, ranking places and finding the global extreme. Angola, the local name for Louisiana’s vast state penitentiary is the pinnacle if you are interested in prison economies; Akita, a rural prefecture in northern Japan, is the leading edge if you want to investigate the “hyper aged” society we are all heading towards.

### Q2. Some of the places you went sound a bit dangerous. Where there any places you wanted to go but couldn’t?

I got in everywhere eventually. Some were difficult. The Syrian refugee camps Zaatari and Azraq, since the Jordanian military polices them quite closely, required weeks of paperwork. The Darien Gap is a lawless place with Colombian ex-FARC and also right-wing militias there, so that was expensive since I took an experienced (and tough) guide with me. The one I nearly gave up on was Kinshasa – the Congolese government is not too favourable towards research or writing and it seems they would not grant me a visa - I’m so glad they did in the end – that trip really was a life changer.

### Q3. The Covid-19 pandemic is clearly an extreme event. What did you learn about what is needed for recovery?

In extreme times, I saw in all the places I went, hidden and informal economies sprung up or were relied upon. A lot of the stories I tell in the book don’t really fit into the modern way of doing economics, which I think is a lesson in itself. One does though and it relates to capital. When thinking about growth, physical capital and financial capital are vital clearly. But when it comes to resilience

in the toughest times, they matter less – money can be invented, machines can be repurposed. More important are human and social capital – my travels in Glasgow and Santiago – both hugely successful and two of the most deeply troubled cities on the planet show that.

### Q4. You are the UK’s first Professor in the Public Understanding of Economics. What do you hope to achieve in this role?

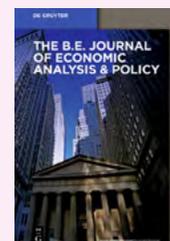
Yes, it’s quite daunting and exciting. I’m still settling in but the big picture task is clear. Wherever I went in the world researching the book I found people that knew huge amounts of economics – they didn’t call it economics but it was – they talked about shortages and surpluses, price spikes and drops, roles and wages – who was rising who was falling and why. I see economics is an earthy, on the ground subject, as well as one that needs models and data. The good thing about economics is that it is incredibly fluid and evolves. I’m hoping to contribute to that evolution.

### Q5. You are also based in Bristol. Do you have plans for events in the city?

Yes! We’ve just had the Festival of Economics with a fantastic line up. Next year will be the 10th anniversary and I hope everyone can get involved and make it the best economics event in the UK calendar. I’ve also got some early stage plans cooking with local venues keen to host economics and politics discussions once Covid restrictions lift – this would be a bit more rough and ready and include food, drinks and some music too inspired by Kilkenomics – my favourite event. Finally, linking back to the book, I want to establish a summer school for students from Kinshasa - they have 700 economists in each year there and they are super smart, speak many languages all while their teachers have scraps of paper in place of books. This is unacceptable in 2020, and economists in Bristol can do something to change it.



## Publications



### How have changes to student financing affected who enrolls at university in the UK?

*Charging for Higher Education: Estimating the Impact on Inequality and Student Outcomes* by Stefania Simion and Ghazala Azmat (The B.E. Journal of Economic Analysis & Policy)



### In developing countries, is child mortality higher for children whose mothers have faced physical violence?

*Domestic Violence and Child Mortality in the Developing World* by Samantha Rawlings and Zahra Siddique (Oxford Bulletin of Economics and Statistics)



### Are economic downturns good or bad for the health of newborn children?

*Economic Conditions and the Health of Newborns: Evidence from Comprehensive Register Data* by Gerard van den Berg, Alexander Paul and Steffen Reinhold (Labour Economics)



### How does the gender of the defendant and of the judge affect the length of a prison sentence?

*Gender Disparities in Sentencing* by Arnaud Philippe (Economica)



### How do grades in high-stakes exams affect students’ subsequent educational effort?

*High-Stakes Grades and Student Behaviour* by Ulrik Hvidman and Hans Sievertsen (The Journal of Human Resources)

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### Contact us

#### Email

ceps-economics@bristol.ac.uk

#### Keep updated

@CEPS\_Bristol

ceps.blogs.bristol.ac.uk

