

Beyond COVID-19

Data, training and impact for public benefit



“Across the world, data played a critical role in understanding the effects of the COVID-19 pandemic and its aftermath – on individuals, communities, institutions, businesses and the economy. This report shows how the UK Data Service enables the research community to gain a deeper understanding of these impacts. It acknowledges the hard work undertaken by the UK Data Service to ensure that access to data, support and training remained available during this turbulent period. ESRC is proud to fund the UK Data Service and looks forward to working with the team in the future.”



Professor Alison Park,
Interim Executive Chair, Economic and
Social Research Council, UKRI.

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Overview

This Annual Report covers the extraordinary two-year period between April 2020 and March 2022.

This report highlights the exceptional work and impact the UK Data Service made throughout the pandemic and demonstrates the significant rise in service use throughout that period. It also describes work undertaken in response to the Economic and Social Research Council (ESRC) recommendations in the Mid-Term Review, 2020.

Background

The UK Data Service is the largest digital repository for economic, social research and population data in the UK and has been a critical part of national data infrastructure since its original formation in 1967.

Funded by UK Research and Innovation (UKRI), the Service integrates and builds on investments the ESRC has made in UK research infrastructure for decades, including the UK Data Archive at the University of Essex, Economic and Social Data Service, Secure Data Service, Census Programme and Survey Question Bank.

Building on our trusted reputation and expertise, the UK Data Service has built lasting, collaborative relationships with national and international stakeholders to maximise the value and impact of long term access to data.

Experts in data governance, training and ethics, we advance and share best practice with other national archives, data repositories and research organisations across Europe and the rest of the world whilst continuing to deliver outstanding user support.

We continue to underpin the research and innovation ecosystem, enabling evidence-led research with data and computation efficiently, cost effectively and securely, at scale, for public benefit.



“Good policy-making is essential in a democracy and trusted, relevant data is crucial to help inform decisions. It’s a time for us to be bold about the importance of our research studies in business cases and cost-benefit analyses.”



Guy Goodwin,
Director, National Centre
for Social Research (NatCen)
and Chair of the UK Data
Service’s Advisory Group.

Vision and strategic objectives

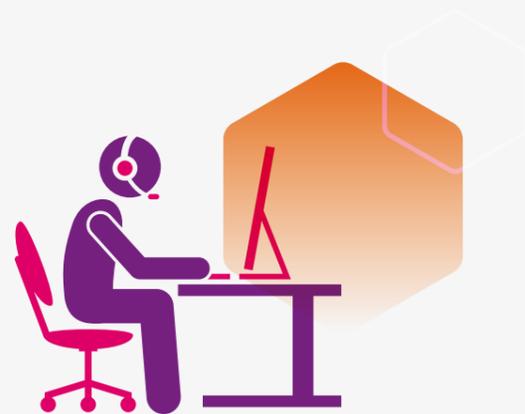
Our vision

To continue to be a critical part of the UK's research infrastructure where the exceptional economic and social research data we make available are central to the achievement of excellence in research, teaching and in the realisation of public benefit.



Trusted infrastructure

To be recognised as a trusted national digital repository for data owners and users. To innovate and lead in data infrastructure provision through the development of common standards and agreed strategies for data deposit, preparation processing, documentation and preservation.



Training and user support

To provide training and support services for depositing, finding, accessing, using and managing data.

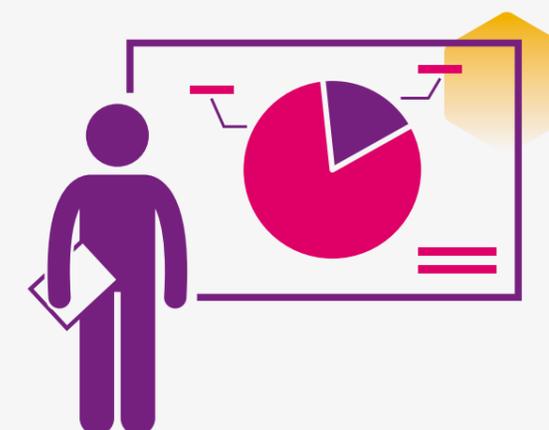
Our mission

To support high quality social and economic research, teaching and learning through assuring long term access to quality economic, social research and population data, supporting and promoting their use, value and impact.



Data access

To provide a federated point of access for users with clear transparent application or registration procedures to quality assured economic and social research data, regardless of data access status. To increase and enhance our collection of datasets available for research and impact.



Data impact

To support research funders in their data related activities and influence relevant data policy development. To lead in the discussions on research integrity and open research, ensuring that data can be used in an ethical and legal way. To extend use of our data to the widest possible academic, policy and practitioner communities for generating greater impact.



1 APRIL 2020 - 31 MARCH 2022

UK Data Service statistics

User profile and reach

World leaders in data curation, training and long-term access to high quality research data that inform policy, improve lives and increase prosperity.



Data curation and acquisition

UK Data Service made the first COVID-19 data available to researchers in May 2020.



Curated collections in 2021, compared to 2020.



New studies and editions to our curated data collection.

Individual new researcher deposits (ReShare).



Census 2021/2022 open data

Only national data source to provide comparable levels of population coverage, detail and research potential for analysis about UK society through unique open access to census aggregate data from 1971 to 2021/22.

Nesstar data library

Enables widest data use without specialist software.

Researchers search, browse, visualise, explore, analyse and download open and safeguarded datasets; from frequencies to cross tabs and regression.

54,209

Data queries recorded during the 24 months.

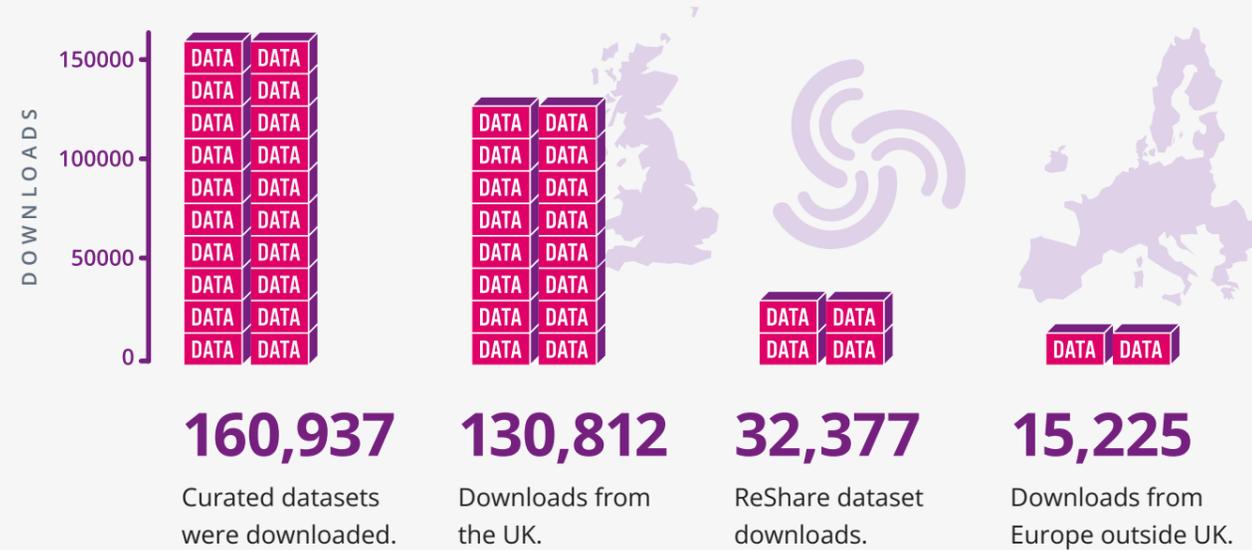
97

Nesstar editions and studies were added.



Continual rise in data access

From 1 April 2020 – 31 March 2022



Safe access to controlled data throughout lockdown

First Trusted Research Environment (TRE) to enable safe access to Special Licence and controlled data from home during the pandemic.



¹ Some studies are regularly updated and had more than one new edition in the period.

Unique expertise

- Pioneers in data technologies and practices
- Trusted advisors on data ethics and governance nationally and globally
- Leaders of research data management
- Providers of complex data support to researchers
- One of the first TREs: providing controlled access for over 10 years
- World-renowned data skills training
- The development of FAIR data standards and assessments across UK and Europe
- Maximising value of large surveys through improving discoverability and replicability by driving data citation
- Showcasing data-driven value and impact
- Shaping the next generation of research data infrastructure and future data services in the UK and beyond.



Informing policy



Improving lives



Increasing prosperity

Over 75%

UK Data Service collections now accessible from home, permanently.



22% increase

Controlled data accessed through UKDS SecureLab².

10 years

UKDS SecureLab 2011 – 2021.



Our research data management, training and support services develop vital data skills, inform research and influence policy to address societal challenges across the UK and beyond.

² Increase from 3,337 secure datasets accessed up to 4,074.

Rapid research response

The COVID-19 pandemic changed lives dramatically and sparked even more questions about the social, economic and health challenges across the UK.

Our agile response to COVID-19 enabled early research into the economic and social impacts of the pandemic, whilst facilitating researchers to continue their work remotely, wherever safe.

Our online training, guidance and events upskilled over 12,000 data users to extract knowledge and insights from complex collections of digital data. Our on-demand YouTube videos received over 6,000 visitors per month.

Since ingesting the first COVID-19 survey data from the Institute for Social and Economic Research (ISER) in May 2020, we have curated an extensive collection of COVID-19 data accessed by researchers across the UK and beyond.

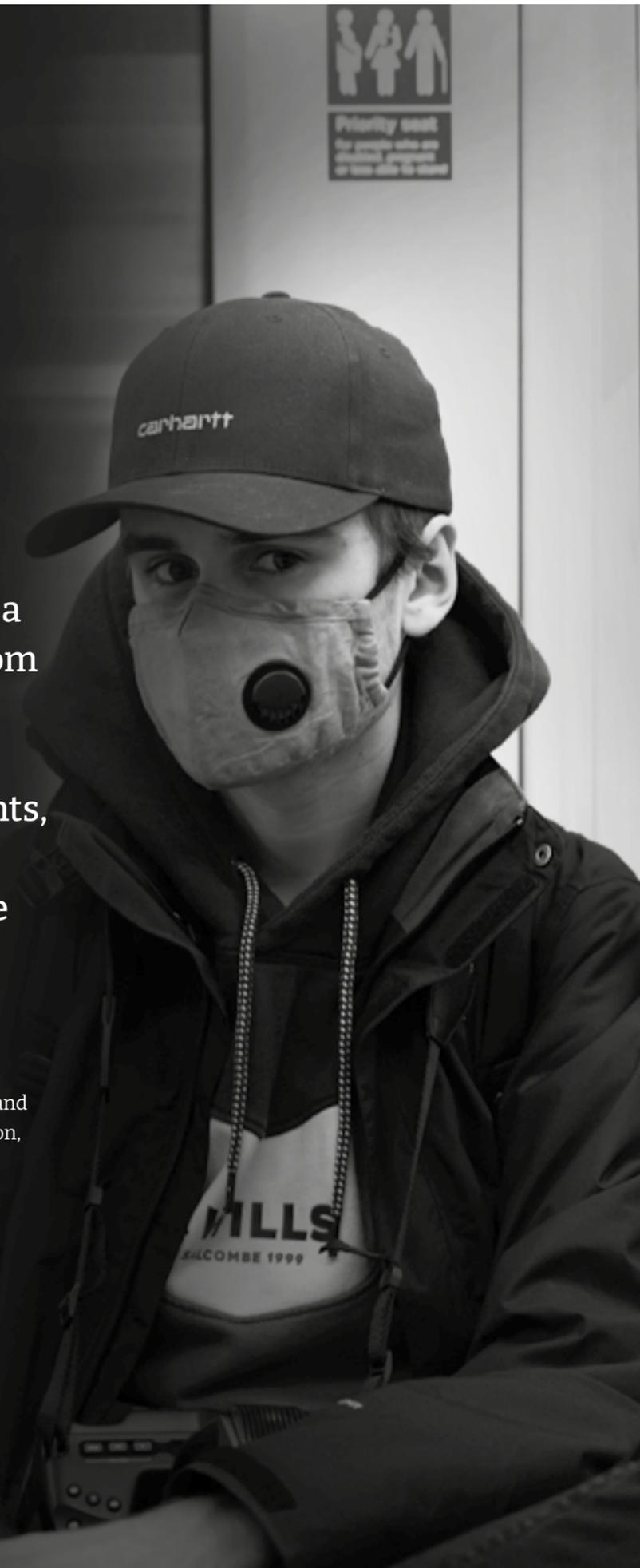
The data we hold include national studies and surveys about the effects of COVID-19 on, for example, business and community life, the responses of schools to the pandemic, plus issues relating to inequalities, employment, ageing, welfare and mental health.



“I have been using the UK Data Service for over 10 years, both as a researcher and teacher – in total I have utilised a further 100 datasets from its collection (including multiple waves of surveys), and my students, probably a further 100 datasets. I can’t imagine doing my work without the UK Data Service!”



Benjamin Geiger,
Professor of Social Science and
Health, King’s College London,
and a founding director of
the Kent Q-Step Centre.



New data curation and acquisitions

We worked closely with the Medical Research Council (MRC) and Wellcome, culminating in the March 2020 report, 'Clinical trial data sharing: what we've heard from researchers'.

Through our expertise as technical leads we have also enabled the delivery of the Smart Research Energy Lab (SERL).

80% increase

Data collections via self-deposit repository, ReShare to support research and reproducibility.

40% increase

2021 curated collections to 2020.

As part of our proactive approach to data acquisition we are negotiating the deposit of key series, such as the British Business Bank finance survey data series and the health-led trial data. We have also begun a gap analysis for our curated collections to identify and ingest missing key studies. We continue to target the acquisition of data that have high value for current and future research and teaching.

See Appendices 1-3 for further information about the new editions and most downloaded studies from our curated collections, ESRC funded surveys, ReShare repository and other data providers during this period.

2



Early COVID-19 studies and editions

Due to rapid research funding, many notable COVID-19-related studies needed to deposit their data quickly and release them to secondary users to start pandemic related research as soon as possible.

We enabled national data providers including ISER to start depositing COVID-19 datasets within two months of the first UK lockdown, in May 2020.

This work has led to a wide range of COVID-19 focused studies being made available for secondary use via the Service. This includes projects funded by the ESRC, the MRC, the National Institute for Health Research, Horizon 2020, and the Leverhulme Trust.

In total, 50 new studies have been added to our curated collection and 40 studies to our self-deposit repository, ReShare. These studies specifically focus on the pandemic, or briefly cover it among other topics; some of which are already contributing to impactful COVID-19 research.

These studies cover a broad number of topics, such as the pandemic's effect on people's well-being, health, education, caring responsibilities and their ability to cope while staying at home. They also explore how community support networks have been affected, the impact of vaccinations, plus the financial and operational performances of businesses.

We proactively targeted the acquisition of new COVID-19 focused studies including:

- The UCL CEPEO - LSE COVID-19 Survey of Young People
- The COVID-19 Psychological Research Consortium Study
- The National Survey of Sexual Attitudes and Lifestyles COVID-19 Study.

Additionally, several already established key data series have incorporated a new COVID-19 dedicated module into their work and newer projects have generated data with a strong pandemic focus.

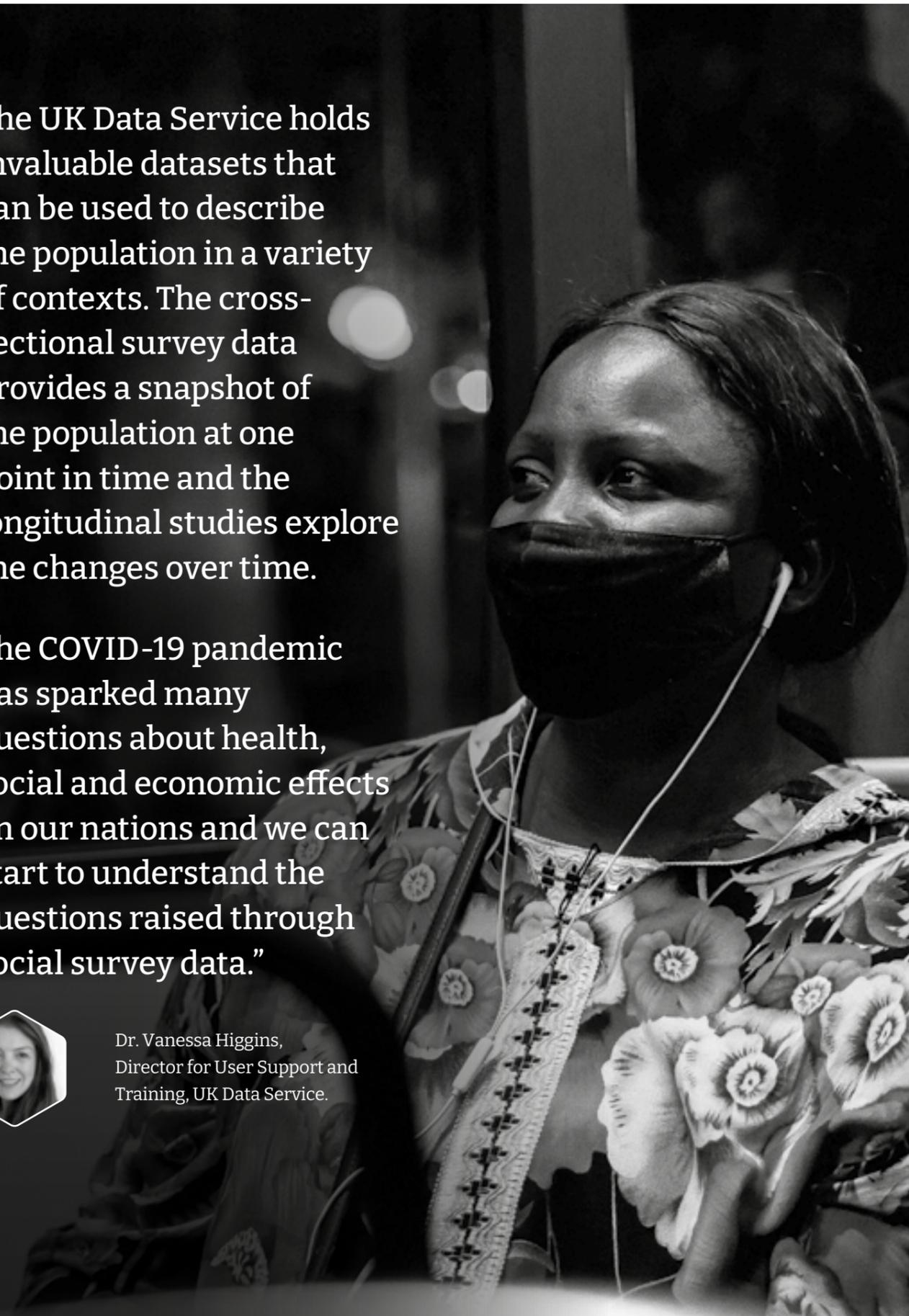
We prioritised the curation of all incoming COVID-19 related data, often releasing studies within days of receipt, to ensure researchers had access to the latest information as soon as possible.

“The UK Data Service holds invaluable datasets that can be used to describe the population in a variety of contexts. The cross-sectional survey data provides a snapshot of the population at one point in time and the longitudinal studies explore the changes over time.

The COVID-19 pandemic has sparked many questions about health, social and economic effects on our nations and we can start to understand the questions raised through social survey data.”



Dr. Vanessa Higgins,
Director for User Support and
Training, UK Data Service.



SPOTLIGHT

Rapid access to Understanding Society COVID-19 data

The Curation and Collections Development teams' long-term relationship with the Institute for Social and Economic Research (ISER) at the University of Essex, meant we were able to release the Understanding Society COVID-19 study to the keen research community within five working days at first release, and at each subsequent new edition as the study has been refined and updated.

Similar arrangements were also agreed for the COVID-19 studies from the Centre for Longitudinal Studies (CLS).

The bulk of these studies came from teams responsible for existing data series, so our long-standing relationships with depositors meant it was quicker to agree release schedules.

“Early communication is key and the quick turnaround for access to the COVID-19 data demonstrates this. Understanding Society initiated the discussion about this new study a couple of months before the original deposit, making it easy to plan in advance. The high quality of both the documentation and data, as well as the provision of complete catalogue metadata, made the curation and publishing processes swift and straightforward”

Cristina Magder,
Data Collections Development
Manager, UK Data Service.

“The Understanding Society team within ISER have a very good working relationship with the UK Data Service. One consequence of this was that as soon as we made them aware we were developing a special COVID-19 study, they engaged with us to ensure that the initial release went as smoothly and as quickly as practicable. This has been the case for every subsequent edition of the Study too.”



Graham Jolliffe,
Research Data Manager, ISER.

Service value and early impact

Organisation/gov department	Research use
HM Treasury	Economic impact of COVID-19 on household incomes
Public Health England	Monitored mental health and wellbeing over the course of the pandemic
SAGE	Advised the government on improving vaccine take-up in ethnic minority groups after analysis of vaccine hesitancy
Other researchers including academia, NGOs, charities and central and local government.	<ul style="list-style-type: none"> The impact of school closures on children The effect of lockdown on gender roles How furlough has protected household incomes The changing nature of work and homeworking in the UK.

Early research:

- [‘Estimating variation of COVID-19 ‘infection’ in the population: results from Understanding Society’s \(UKHLS\) first monthly COVID-19 survey.’](#)
- [‘Mental health and health behaviours before and during the initial phase of the COVID-19 lockdown: longitudinal analyses of the UK Household Longitudinal Study.’](#)
- [‘How has the COVID-19 crisis impacted parents’ relationships with their children?’](#)
- [‘The initial impact of COVID-19 and policy responses on household incomes.’](#)

This demonstrates just some of the value we provided by quickly collaborating with other national ESRC programmes to enable rapid research into COVID-19.

Read Appendix 1 for more information about the research and data.



2,300
Researchers.



2,700
Projects registered for this data.



50
Countries worldwide.

Census 2021/2022 data

March 2021 saw the latest census conducted across England, Wales and Northern Ireland, with Scotland's census a year later.

Some of the 2021 census data was made available for research through the UK Data Service from Spring 2022.

From the outset, the collection process was always designed to be 'digital first', with around 75% of the population expected to complete the questionnaire online for the first time, but this change became even more important with the pandemic.

“It could be the most important census since 1921, when the UK emerged from the First World War and the 1918 Spanish Flu epidemic, or 1951, following the Second World War.”



Dr. Oliver Duke-Williams,
Service Director for census,
UK Data Service.

Value through the UK Data Service

We are unique in providing access to census aggregate data from 1971 to 2011 (with plans to include data from the 1961 and 2021/22 censuses) as open data. Being able to offer census data in a time series is invaluable for researchers wanting to observe changes within the UK across that time period, especially given the special coverage of censuses compared to other surveys and longitudinal studies.

Our expert Census Collections team provides a single point of entry to all official census geography outputs and products from the various agencies, quality assuring and processing data, making it easy for researchers to access data about migration and travel-to-work flows between areas; information on digital boundaries; look-up tables and samples of anonymised records.

In addition, for the 2011 censuses, the UK Data Service has worked to [harmonise the data across the three UK censuses](#) (England & Wales, Scotland, Northern Ireland), all of whom have some variation in questions asked and descriptors for variables generated in the output. This provides an opportunity to compare a range of variables for a variety of geography types across the UK.

By ingesting, curating and making the census datasets openly accessible through the UK Data Service, we continue to help researchers and policy makers enable post-pandemic recovery across Britain.

“Even the most basic questions about COVID-19 prevalence, death rates and how they vary across communities, age groups, and ethnic groups, are fundamentally rooted in our capacity to access high quality population statistics. The census underpins our ability to answer all of these questions, more so than any other data source.”



David Martin,
Deputy Director of the UK
Data Service and Professor of
Geography at the University
of Southampton.



SPOTLIGHT

Revolutionising research into energy use

The energy landscape is changing faster than ever. With rising fuel costs, the need to develop renewable energies and reduce CO2 emissions has become more important for policymakers.

Technology is also surging forward through the adoption of electric vehicles, solar panels and smart-home internet-enabled devices.

The UK Data Service has built the data infrastructure technology to collect smart meter data from consenting households across the UK as part of the innovative Smart Energy Research Lab (SERL) with the UCL. We have also enabled researchers to have remote access to this important smart meter data.

This domestic smart meter data has the potential to revolutionise research into home energy use by offering much more finely-grained data than was previously possible. Research projects explore a range of topics, including thermal comfort; improving Energy Performance Certificates; and **habitual energy consumption**.

One of the main aims of SERL is to provide a secure, consistent and trusted channel for researchers to access high-resolution energy data, which will facilitate innovative energy research for years to come. Only accredited researchers have access to controlled datasets via the UKDS SecureLab.

Funded by the Engineering and Physical Sciences Research Council (EPSRC) and managed by a consortium of seven UK universities, plus the Energy Saving Trust, it is a very good example of the new data that the UK Data Service stores, which will play a significant role in society, especially with influencing future government policies on climate change.

In August 2021, the first SERL dataset (Smart Energy Research Lab Exploratory Data 2019-2020) was made available to SERL consortium researchers through the UKDS SecureLab.

Figures from the Smart Data Communications Company show that the number of smart meters on the GB network, as from July 2020, was 4,571,944, with 161,198,763 messages sent across the network in June of that year.

- We receive half-hourly meter data every night for around 35,000 devices from 20,000 UK households, which represents around 50 million rows of data - this is also constantly growing
- 17 live projects are using SERL – 8 of these are part of our original consortium and 9 are externally funded
- 5 more applications are in progress
- 37 researchers are using SERL and 13 pending access across 14 UK Higher Education Institutions (HEIs)
- There have been 139 initial access requests to use SERL.

“21 million gas and electric meters are already connected to the national secure network to date.”



James O'Toole,
Smart Energy Research
Lab Consortium Manager,
UCL Energy Institute.



Continual rise in data access

Over 75% of our data collections are now accessible from home, permanently.

We quickly negotiated a temporary working-at-home protocol with data providers in April 2020, to enable accredited researcher access to Special Licence and controlled data assets when the government advised against all non-essential social contact and travel.

As a leading Trusted Research Environment (TRE) working within the Five Safes Framework, we have established permanent working-from-home access to over three quarters of our collection.

From May 2020 researchers were using the first COVID-19 survey data and in October we hosted an online COVID-19 data dive with researchers, policy makers and charities to explore the early social and economic impacts of the pandemic. We enhanced our online services for users, especially our curated and self-deposit repositories to ingest data; and adapted all training and events to be held online.

Finding and accessing data more easily

A combination of enabling rapid access to COVID-19 data, and continual improvements across the Service has led to a noticeable rise in service users over the past two years. Whilst many service industries were negatively affected across the UK by the pandemic, our technology, processes and expertise meant the UK Data Service maintained quality service support and even increased data acquisition, training and access levels, to an all-time high. The number of registered users, outputs from the UKDS SecureLab, data catalogue downloads and web visits have all risen and in particular, more people accessed our census datasets during this time.

To increase the usage and service value, we conducted a detailed user experience review and designed the new website with an emphasis on enabling greater self-service and accessibility, without reducing the quality of support. A 22% reduction of user queries has been achieved through technical improvements and better guidance related specifically to helping researchers find and access data, compared to 2019.

This enables us to advise and support those with more complex requirements, thereby adding greater value across the data landscape to researchers, teachers and data providers. There has also been an increase in the number of controlled data downloads over this period, compared to previous year-on-year figures.

Every six minutes a researcher accesses data from the UK Data Service data collection, 24x7x365.



“The wealth of information and guidance we provide is much of what makes the UK Data Service such an essential research resource. The new website makes it easier for our users to find and access services quickly, whilst highlighting the value we bring to develop data skills, inform research and influence policy.”



Gemma Hakins,
Director of Communications
and Engagement,
UK Data Service.

3

Pioneering technology and cross-disciplinary data

We made a strategic decision to adopt a cloud-first approach for all future infrastructure and partnered with Jisc through the [OCRE cloud framework](#) to deliver this. Our adoption of open-source first tooling helps us integrate more closely with the wider research data and archival community and we are adapting architectures to ensure greater longevity of the services we provide.

We significantly reduced manual processes in the data ingest process and are using automated data orchestration tools to clean and capture data for high-volume data streams.

We currently have the largest corpus of smart energy data for research in the UK academic sector, having designed and implemented an end-to-end infrastructure that spans the entire data lifecycle from consent to collection to dissemination for the Smart Energy Research Lab.

We are leading the development of vocabulary; reference data management systems and integrated metadata. Work continues to enable better linked data technologies, focusing on interoperability with UK and European platforms including CESSDA Data Catalogue and DataCite, whilst we enhance the user experience around online automated approval processes.

Following our internal implementation of open-source tools such as VocBench and Skosmos as part of our Consortium of European Social Science Data Archives (CESSDA) partnership, we also play a key role in the intellectual and technical development of Data Documentation Initiative (DDI) metadata standards.

We are the first research infrastructure globally to implement the latest DDI standard DDI-CDI (Cross-Domain-Integration) as part of our commitment to open science and participation in EOSC (European Open Science Cloud).



SPOTLIGHT

Exploring early impact of the pandemic

We worked with national data providers to host a two-day online data dive, just seven months after the start of the first UK lockdown.

Over 60 researchers, policy-makers and charity specialists joined us as part of the UK Research and Innovation (UKRI) rapid research response to the pandemic.

With expertise in running face-to-face data dives, we were approached by the Welfare at a (Social) Distance project, part funded through UKRI's rapid response to COVID-19 as a collaboration between University of Kent, University of Leeds, London School of Economics and University of Salford. Through our well established networks, we quickly widened collaboration with longitudinal organisations also funded by UKRI through the Economic and Social Research Council (ESRC): ISER's Understanding Society and UCL Centre for Longitudinal Studies (CLS) to drive greater research value and impact.

“Exciting to see all those ideas spring into life. It’s more vital than ever that data is used to tackle the economic and social challenges COVID-19 is presenting.”

Gemma Schwendel,
Senior Statistician, National Foundation for Educational Research and formerly Senior Analyst, Joseph Rowntree Foundation.

Benefits for COVID-19 research

By bringing together major social research, economic and population studies in a single place, we provided an opportunity for researchers, policy and charity experts to collaborate and draw out early critical questions about the impacts of the pandemic around mental and physical health, youth transition, self-employment, business turnover and growing inequalities.

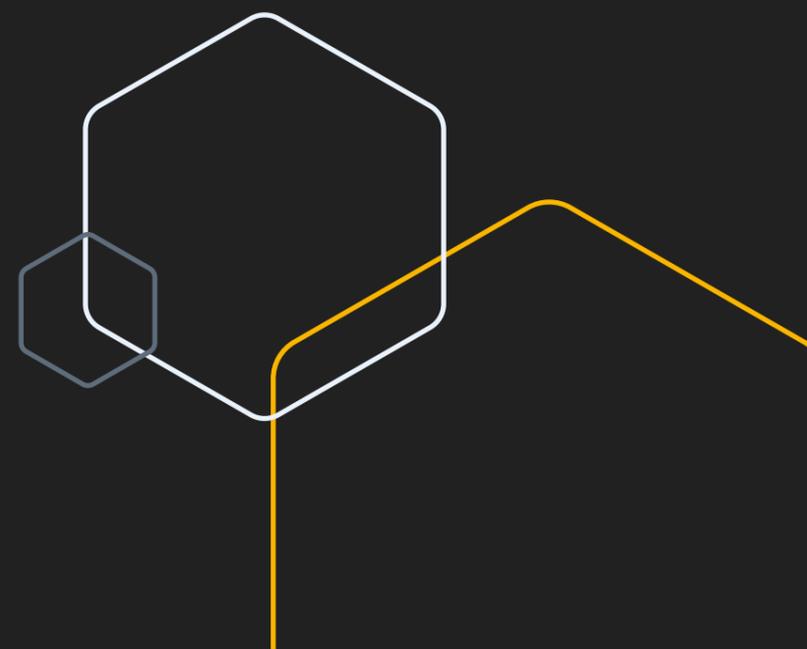
Highlights of the data can be found on Twitter #UKDSCovidDataDive.

“I was amazed by the level of research insights and critical thinking people produced in such a short period of time, enabled by the expert UKDS facilitators. More than that, people discovered what kind of social data existed at the start of COVID-19 and felt more confident about using them, with the possibility of taking them into their work afterwards.”

“Most of all, the event helped to drive the collaborative element of academic practice, which needs other like-minded people in the face of a lot of academic pressures towards individualism.”



Professor Benjamin Geiger,
Social Science and Health,
King's College London.



Improvements to access secure data

We became the first Trusted Research Environment (TRE) in the UK to enable comprehensive remote support for users, whilst maintaining data security, in April 2020.

When the government advised against all non-essential social contact and travel, we established a temporary working-at-home protocol for access to Special Licence and controlled data assets.

Without the Five Safes in place, this would not have been possible and any research using UKDS SecureLab would have been severely disrupted throughout the pandemic.

Safe Researcher Training

We quickly adapted the course content for online delivery, whilst maintaining the integrity and safe research principles that ensure Approved Researcher status is attained.

This was crucial to enable users applying to access secure data to continue research throughout the pandemic. Other TREs including the ONS, followed our lead in subsequent weeks.

499 projects were granted UKDS SecureLab access, ensuring research using controlled data continued throughout the pandemic.

Safe access to controlled data

We have improved accessible guidance to help researchers understand and fulfil application criteria set by data owners and wider Digital Economy Act (DEA) legislation, whilst executing a comprehensive review to help improve access to UKDS SecureLab, under 'normal' circumstances.

A new Data Access Service Manager, additional helpdesk and technical staff joined us in 2021 and we are driving greater commitment across the UK Statistics Authority, Office for National Statistics (ONS), ESRC and UK Data Service, to streamline research access.

Despite the continued challenges of running the UK Data Service remotely, the amount of positive feedback from researchers accessing SecureLab during this unprecedented time was encouraging.

Over the past ten years, UKDS SecureLab has enabled over 1,500 researchers to access controlled data and we currently have 952 active researchers using the service.

With continual improvements, research productivity has increased due to ease of access; analytical outputs can be generated more quickly and published sooner; and research grants are no longer being eaten into by travel expenses.

As part of our UKDS SecureLab 10th Anniversary, we launched our new SecureLab service newsletter to provide the latest guidance and tips. And a guest Data Impact blog post from Richard Welpton, Director of Data Infrastructure, ESRC, reflected on our pioneering expertise as one of the first Trusted Research Environments in the UK.

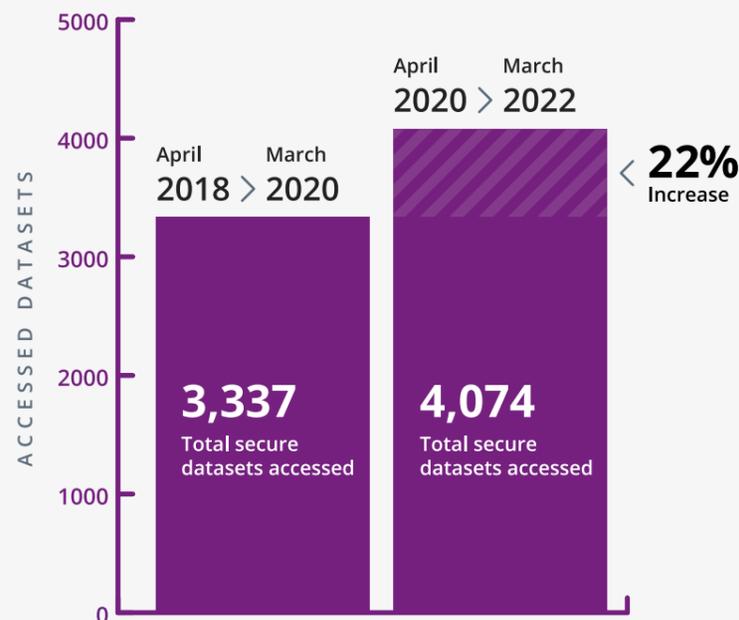
More safe settings accessed UKDS SecureLab

In March 2020 we gained early accreditation as a processor for the provision of data through the DEA 2017, approved by the UK Statistics Authority Research Accreditation Panel.

Nationwide research access to sensitive datasets we hold was further enabled in 2021, as data through UKDS SecureLab became available to researchers across the newly launched UKRI-ESRC SafePod Network. The UK Data Service also advised throughout both projects.

22% increase

Secure data access.



UKDS SecureLab 10th Anniversary

At its very inception, UKDS SecureLab broke new ground for controlled data access in the UK. Funded by the [Economic and Social Research Council](#) (ESRC), and formerly known as the [Secure Data Service](#) (SDS), its remit was to make access to detailed microdata possible and safe, without the need to travel to a specific location.

European data access

International Data Access Network (IDAN)

We are committed to enable international access to controlled data across Europe as part of our work with IDAN.

We have successfully negotiated access to more than 40 key data collections via IDAN, for the CLS and ISER Secure Access studies via a Safe Room access point at one of our IDAN Partners, the Research Data Centre (FDZ) of the Federal Employment Agency (BA) at the Institute for Employment Research (IAB) in Germany. The data owners have been very positive and look forward to the data being made available more widely.



Social Sciences and Humanities Open Cloud (SSHOC)

The SSHOC project developed the social sciences and humanities area of the European Open Science Cloud (EOSC) to provide European researchers and professionals with open and seamless services for storage, management, analysis and re-use of research data.

As a consortium of 20 partners and 29 collaborating organisations, coordinated by CESSDA, it is transforming the current social sciences & humanities data landscape with its disciplinary silos and separate facilities

into an integrated, cloud-based network of interconnected data infrastructures where data, tools, and training are available and accessible.

Throughout the project, we were active partners in training delivery, secure remote access and CoreTrustSeal support activities, which ran between January 2019 to February 2022. The outcomes of SSHOC will go on to help inform the necessary trustworthy characteristics of data services (beyond repositories) and how Trust standards and FAIR Principles can be extended to the needs of the social science and humanities domain.

“We have reached a huge milestone. For the first time, selected UKDS SecureLab studies are now available remotely to researchers outside of the UK via Safe Room access points at IAB FDZ and GESIS, Germany - just another reminder that our data is for all.”



Beate Lichtwardt,
Project Manager, UK Data
Service lead for transnational
access to controlled microdata.



SPOTLIGHT

Counting international data for COP26

2021 saw the UK host the UN Climate Change Conference (COP26) at a time when people have been increasingly drawn to discussions on climate change and what they can do to lower their contribution to it. The UK Data Service makes international data available which has been used to underpin research in this area.

We offer access to the rich seams of International Energy Agency (IEA) data to researchers and students in higher and further education.

The IEA data includes breakdowns on different energy use, including electricity, oil, coal, natural gas and renewables, alongside data on greenhouse gas emissions and world energy balances, prices and statistics.

Research use and impact

- Doukas et al (National Technical University of Athens and Imperial College London) assessed changes needed to make container shipping less emissions-heavy.
- Meng et al (University College London, the Norwegian University of Science and Technology and the Chinese Academy of Sciences) investigated energy consumption during different stages of production across sectors and across nations.
- Oswald, Owen and Steinberger (Sustainability Research Institute at the University of Leeds) examined how income groups and consumption categories affect energy footprints internationally.
- One international collaboration across eleven universities (Lee et al) used IEA oil information to investigate the effects of air travel on climate change.
- Other open international data we make accessible, and which have underpinned climate change research include the World Bank World Development Indicators (WDI) and the OECD Environment Statistics.
- Muhumuza et al, from the Centre for Sustainable Technologies at Ulster University, used the WDI to investigate energy consumption levels and technical approaches for supporting development of alternative energy technologies for rural sectors of developing countries.

See Appendix 4 for further reading, and more information about our collection of International datasets.



Training attendance reaches all-time high

Our live and on-demand training programme has substantially grown.

Attendance at our training events doubled, and our reach broadened as all training and events quickly moved online. Over 12,000 delegates attended our training and events, covering all sectors and our interactive data skills modules and training videos were watched by over 6,000 visitors a month.

New training topics highlighted our growing expertise in computational social science as much as continued core training around surveys, longitudinal data, qualitative data, research data management, census data and international macrodata.

We continued to deliver ongoing Safe Researcher Training for UKDS SecureLab access.

Our effective response to the pandemic has involved experimentation with new technology as we introduced live streaming of events and used more interactive software to improve the online learning experience and meet service demand.



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“Enabling researchers to properly prepare and use the data that improve peoples’ lives through influencing policy development is probably the main driver for those working in the UK Data Service. I’m really passionate about delivering a high-quality training programme that enables researchers, lecturers, citizen scientists, data producers and policy makers to continue doing just that.”



Dr. Vanessa Higgins,
Director for User Support and
Training, UK Data Service.



New resources and guidance

Our newly launched online Learning Hub includes a wealth of data skills training materials, video tutorials, guides and interactive modules and our YouTube channel hosts event recordings to help researchers and data professionals find, access, use and manage data.

We continued to collaborate widely with other ESRC organisations to maximise value and effectiveness of data training across the data landscape.

The three online data skills modules were updated and we created a new themed module about Crime data using "R". We are working on other modules including one to help researchers start using the British Social Attitudes Survey.

Census training and impact

As part of our series of census training, bespoke search facilities and tools, we developed new resources and Data Impact blog posts. We also hosted a series of free training webinars, as well as podcasts, to help researchers and teachers to better understand how to use the 2021 Census.

New audiences

Voluntary, Community & Social Enterprise (VCSE)

Throughout 2020 we developed a series of training workshops for researchers across VCSE organisations following results from our widespread user consultation across members of the Greater Manchester Third Sector Research Network and one-to-one interviews with researchers from Oxfam and GMCVO (Greater Manchester Centre for Voluntary Organisation).

Schools

To support teachers to introduce the importance of social science data in an engaging way to 11-18 year olds, we developed a schools training programme and online resources — 'Britain by numbers: big social science data quiz.' This training programme provided interactive sessions to enable students to learn about different data sources, including social surveys and the census, and see how they help us understand our changing world.

Following the training, students were able to make hypotheses about social science questions, as well as analyse, visualise and interpret data. Our model was used by Edinburgh QStep to develop further resources using Scottish data, which teachers can also access via our website.

We are also collaborating closely with the Advanced Mathematics Support Programme (funded and managed by Mathematics in Education and Industry (MEI)) to get data accessed through the UK Data Service into the Core Maths curriculum.

GDPR training

How GDPR applies to managing and sharing research data was particularly popular with four workshops and many more outreach presentations delivered (on request) for various research organisations across the UK and Europe.

Sharing best practice

We continued to provide best practice to deliver webinars and create video tutorials to other CESSDA service providers and archives, alongside training around our technology, services and data management expertise, through our role in the CESSDA Training Group.

Following the success of our campaign to boost the profile of our training provision we regularly advised other collaborators on effective campaign execution, impact measurement and marketing communications.

"It was a really useful course. The presenters were absolutely fantastic at disseminating new information. The informed consent forms talk and the disclosure review workshop was particularly illuminating."

GDPR training delegate



Training value and reach



Total no.	2018 - 2020	% Increase	2020 - 2022
Training attendees	3,845	↑ 223%	12,870*
Training events	157	↑ 45%	228
Higher education staff	1,765	↑ 162%	4,640
Postgraduate students	854	↑ 373%	4,038
Attendees outside academia	1,226	↑ 206%	3756

6,000+
Visitors per month.
Online training,
interactive data
skills modules and
event videos.



*Including 436 livestream attendees, sector unknown.

Reach and attendance at our digital conferences almost doubled compared to previous face-to-face events – partially due to the ease of attending.

Training event highlights

No. of attendees	Event
654	Dissertation projects: Introduction to secondary analysis for qualitative and quantitative data.
610	Data management basics: Introduction to data management and sharing data.
378	Health Studies User Conferences 2020 and 2021 combined (collaboration with NatCen and UCL).
334	Safe Researcher Training to use secure data.
275	How to become a computational social scientist.
240	Tools and resources for FAIR data.
216	UK Business Data User Conference 2021 (collaboration with ONS).

430+
Hours per month
On-demand data training
and events watched.



SPOTLIGHT

Charities use data for public benefit

The Data for Good workshop held online during the 2020 ESRC Festival of Social Science, explored how different types of data can be used for public benefit and promoted the variety and use of data in the Voluntary, Community and Social Enterprise sector within the UK.

Two community organisations - [HMR Circle](#) and [Independent Age](#), discussed the significant impact their evidence-based research has had, both on the communities of people they support, and their funding opportunities. HMR Circle worked closely with external researchers from universities in Salford and Manchester to evaluate their work, find areas for improvement, identify good practice and create evidence to show how their services improve people's lives. They have received international recognition for their work to reduce social isolation amongst older people through using data generated from the services they provide.

[Independent Age](#) discussed their research on highlighting inequalities within the experiences of older people across the UK accessing data through the UK Data Service. Working with external research partners, Independent Age has combined findings from in-depth qualitative interviews with quantitative analysis from the [Understanding Society](#) study to explore the different challenges facing sub-groups of older people in England today.

This research has been used to inform the organisation's policy consultation responses to government and other high level decision making bodies, most recently in relation to the needs of older people during the COVID-19 pandemic.

“In all these things it can come across as slightly academic, when using words like data. But in reality, we're translating that data into real life positive human benefits. We affect the lives of the people we work with on a positive level, by analysing the stuff we do.”



Mark Wynn,
HMR Circle Director.



Knowledge transfer and collaboration

The UK Data Service prides itself on sharing its expertise across a wide range of collaborations in the UK, Europe and the rest of the world.

As leaders of international best practice across research data management and survey data especially, we frequently collaborate with national and international data providers, researchers, policy makers and research organisations to share knowledge and the latest insights using data we hold.



Annual User Conference programme

This unique forum established by the UK Data Service in 2017 enables the creators of large-scale surveys in our collection to conduct important secondary analysis with researchers who use their surveys. It also enables knowledge sharing with the wider research and data community.

During the pandemic we were able to maximise value and impact by hosting these online for the first time. Delegates across higher education, central and local government and the voluntary sector heard papers from leading and early career researchers on key social science themes. Each conference demonstrated the value of evidence-led research using data through the UK Data Service and how it could drive policy development to benefit society.

Reach and attendance at our digital conferences almost doubled to any previous face-to-face events. Given this increased attendance, we will continue to run some user conferences online in the future.

See Appendix 4 for data highlighted in each user conference.

Economists explored UK sustainable development through controlled business data

Run in part, to provide the vital link between the UKDS SecureLab researcher community and ONS Secure Research Services, this conference was our first joint event to explore research using controlled business data.

Frances Pottier, Head of Business Statistics, Data Analytics and Business Statistics at the Department for Business, Energy and Industrial Strategy (BEIS) and Grant Fitzner, ONS Chief Economist and Director of Macroeconomic Statistics and Analysis discussed enabling and strengthening research relationships between central government and academia.

A panel of senior economists and data specialists from across the UK Data Service and ONS presented the latest insights using controlled business data. Researchers presented their work into business productivity, R&D and innovation; the impact of investments and policy; the affects of high-speed rail; impact of minimum wage uprisings on wage growth and distribution; and public support for business R&D.

Health Studies conferences shared crucial insights including the early impact of COVID-19.

Produced in collaboration with University College London (UCL) and the National Centre for Social Research (NatCen), our 2021 Health Studies User Conference explored four thematic areas: health and inequalities; ageing; ethnicity and mental health; and COVID-19.

Experts discussed research looking at health service utilisation among migrants to the UK; social isolation and loneliness and insights into wellbeing during the COVID-19 pandemic using secondary data analysis. The persistence of inequalities in health and wellbeing was highly evident.

Research into adverse childhood experiences and multiple mental health outcomes through adulthood; and income trajectories and health outcomes later in life were among other crucial research on the lives of ethnic and religious minority people through documenting the impact of COVID-19.

Guy Goodwin, Director of NatCen and Chair of the UK Data Service Advisory Board, finished the day with an inspiring and thought-provoking keynote presentation about the future of surveys in a post-pandemic world:

“The pandemic itself has shown the real importance of surveys - such as the CLS, but also the Mental Health of Children and Young People survey, our longitudinal studies (like Understanding Society) and so on - in understanding the pandemic and responding to it at pace.”

“The innovative work on survey methodology that has taken place over the last year has been incredible. We are so lucky to have these fantastic survey teams and to have the data available for secondary analysis. It has been wonderful to watch it grow over the years from a small seminar in 2004 to an annual conference with over 170 attendees and parallel sessions.”

Dr. Vanessa Higgins,
Director for User Support and Training,
and specialist in cross-sectional survey data, UK Data Service.

Family Finance

In collaboration with the Department for Work and Pensions and the Office for National Statistics, this conference included research papers exploring the widening labour market and financial inequalities through the crisis; intergenerational wealth accumulation and transmission; spending patterns of older generations and the changing poverty risk facing children in larger families in the UK.

It also examined the potential of combining survey and benefits administration data to create representative real-time poverty estimates to tell us more about how poverty in London has changed over the past year and assist with policy in practice.



Crime

This years' programme featured research as varied as exploring the inequalities of victimisation and the importance of a public health approach to violence prevention in England and Wales; through to methodological expertise in applying a Western-style crime survey approach to Eastern Europe. Other presentations looked at whether crime severity can predict victim willingness to meet the offender; and when businesses choose to report cybercrime in the UK. Keynotes from the ONS and Scottish Government also provided valuable updates to the research community.

Labour Force Survey and Annual Population Survey

Nye Cominetti, Senior Economist at Resolution Foundation gave this year's keynote and the conference showcased some of the latest evidence-led research using these surveys.

Early analysis showed that COVID-19 exacerbated the segmentation and segregation of mental health disabled workers, driven by their over-representation in part-time jobs and in caring, leisure and other service occupations; and under-representation in managerial and professional occupations.

Delegates also heard how the negative impact of the pandemic on employment and wages was more severe for non-graduates than for graduates.

Up to 5 million jobs would have been lost in the first wave of the pandemic in the absence of the Job Retention Scheme.

Other research showed the increase in UK imports from China and Eastern Europe accelerated the long-term trend decline in UK manufacturing jobs and led to a short-term increase in the unemployment rate in exposed areas. The data also showed that the electorate in exposed areas was more likely to have voted to leave the European Union in the 2016 referendum. Rather than the uneven gains from globalisation, it is the reallocation of highly educated workers across different areas of the UK that accounts for much of this link. When we also consider the rise in exports to low-wage countries, the measured effects of globalisation on local labour markets and the referendum result are less pronounced.

Researchers also highlighted further insights into the link between inequality of opportunity and inequality of earnings in the UK.



Outreach activities

ESRC award holders

Our outreach has continued to grow with ESRC award holders and research centres keen to encourage streamlined data acquisition and enhancements to the discoverability of ESRC data assets.

Other ESRC investments and research organisations

Our longstanding relationships with data producers and data owners enable us to continue to partner with other ESRC investments via the Data Resources Training Network, comprising UK Data Service, CLOSER, UBDC, BLG, CDRC and AQMEN to ensure events and training collaborations maximise value and impact. We also collaborated with lecturing staff from QStep Centres and held regular meetings with the NuffieldQStep Coordinators.

Humanities and Social Science Electronic Thesaurus (HASSET)

During the pandemic, we released the latest version, originally developed from the UNESCO thesaurus, and moved it to a new publishing platform. The leading British English thesaurus for the social sciences, HASSET, is a digital tool designed to help researchers retrieve data from the UK Data Service collection.

Safe Data Access Professionals (SDAP)

Tanvi Desai and Richard Welpton formerly at the UK Data Service, collaboratively founded SDAP with HMRC and ONS in 2011. Since then, the UK Data Service has developed a coordinating role to deliver this sustainable working professional network where good practice is developed and shared with other Trusted Research Environments from across the health and social science research sector.

Other members include the Alan Turing Institute, Cancer Research UK, ESRC, Genomics England, GESIS, The Health Foundation, HMRC Data Lab, Public Health Scotland, Office for National Statistics, NatCen Social Research, NHS, Scottish Government, University of Manchester and UCL.



European and international collaboration

Coordinated Access for Data, Researchers and Environments (CADRE)

Building on our expertise as an early Trusted Research Environment, we have been advising the Australian Data Archive and Australian National University Centre for Social Research and Methods partnership, CADRE, how to develop and roll out the Five Safes Framework to enable safe research in Australia.

CESSDA

Through our involvement with the CESSDA Metadata Office, the UK Data Service has been leading the implementation of the DDI Metadata Profiles for both the CESSDA Data Catalogue and the upcoming European Question Bank. These form the basis for ensuring quality standards across the whole of CESSDA.

We advised on how to maintain standards as CESSDA harvested 200 COVID-19-related datasets to the data catalogue whilst we continued to organise training webinars and workshops, including advice on managing microdata.

The UK Data Service has continued its active participation in CESSDA by providing leadership for the CESSDA Trust working group. This work includes support towards achieving CoreTrustSeal (approaches referenced by other projects including FAIRsFAIR, SSHOC and EOSC Nordic); monitoring the rapidly changing landscape of trust as it impacts organisational infrastructure; digital object management, technology and security.

The CESSDA Trust work plans have also taken a key role in improving the design, collection and analysis of CESSDA service provider information, including mandated key performance indicators, to ensure a data-driven future for the CESSDA strategy.



European Language Social Science Thesaurus (ELSST)

UK Data Service maintained ELSST for 20 years, since 2000 and we transferred it to CESSDA in 2020. Whilst the data continues to be maintained and prepared by us, including support for editors and users, the administration of the platform is performed by CESSDA, and hosting has also been moved.

“The move will raise the profile of ELSST as a key multilingual metadata tool and establish it at the forefront of international thesaurus development. Planning and development have been carried out by an international project team drawn from staff at the UK Data Service, the CESSDA main office and the Finnish Social Science Data Archive (FSD). The Leibniz Institute for the Social Sciences (GESIS) and the Norwegian Centre for Research Data (NSD) also played a valuable role in testing.”

Ingrid Dillo,
FAIRsFAIR Project Coordinator, Data Archiving and Networked Services in Amsterdam.

CoreTrustSeal

UK Data Service lead partner, UK Data Archive, has been awarded the CoreTrustSeal, an international certification that promotes sustainable and trustworthy data infrastructures by setting out requirements for Trusted Digital Repositories.

The Research Data Alliance (RDA) endorsed CoreTrustSeal has now certified over 120 global repositories and has been recognised as an exemplar certification methodology and process by the European Open Science Cloud (EOSC).

The Service's Director, Professor Matthew Woollard has been involved in TDR standards and certification since the precursor to CoreTrustSeal was developed and our Repository and Preservation Manager is part of the community of peer reviewers and current Vice-Chair of the International Board.

“Achieving this accreditation demonstrates the ability of the UK Data Service, through lead partner, UK Data Archive, to perform all of the critical activities relating to providing long-term access to data of value to social science researchers.”

Hervé L'Hours,
Repository and Preservation Manager,
UK Data Archive, University of Essex.

FAIR data

The FAIRsFAIR project (Fostering FAIR Data Practices in Europe) involved 22 partners in eight EEC member states and is continuing to develop. It aims to increase the production and use of data that are FAIR in the European Open Science Cloud (EOSC).

The Service participation in the project included providing a range of support to repositories seeking CoreTrustSeal Certification; the development of a formal alignment between the FAIR-enabling activities of repositories and the FAIR Principles and a capability-maturity model to support benchmarking and strategic planning towards certification.

Work related to FAIR will continue in the FAIR-IMPACT project where the Service will help develop tools that assess the FAIRness of data and metadata, establish improved approaches to [linked data](#) in [repository registries](#) and develop use cases for persistent identification of sensitive data.



Leading the way through Data Impact

Representation and inclusivity are central to how populations, communities and individuals are described in data. Definitions of self and identity in data evolve.

In February 2021, the UK Data Service Impact team at Jisc facilitated the latest of our Data Impact events: #IdentityInData: Who counts? Visibility, voice and culture in data collection and use. The event explored how producers of data in the UK Data Service collection support the ways in which data remain robust in their representation and how researchers are expanding their focus on exploring how discourses of self and identity in data remain inclusive from the perspectives of those populations, communities and individuals.

The keynote speech was given by Lemn Sissay MBE, poet, author, broadcaster and then Chancellor of The University of Manchester. Lemn brought a personal perspective to #DataImpact2021 of his own experiences of being (as he described it) “data wiped” and the impact this had on his life. Lemn spoke powerfully about his battle to rediscover his past.

The event’s panel was chaired by Gillian Prior, Director of Survey Research at NatCen Social Research. The panel members presented on their areas of expertise before answering questions from the floor.

Dr. Dharmi Kapadia, lecturer at the University of Manchester, a member of the ESRC Centre on Dynamics of Ethnicity and one of the UK Data Service’s original Data Impact Fellows, talked about the idea of being ‘so visible, yet invisible’ in relation to ethnic minorities in data:

“Many ethnic minority people are visibly minorities but often their experiences to a large extent are not sufficiently acknowledged and sometimes are completely erased from our data sources.”



Dr. Daniel Staetsky, Senior Research Fellow at Jewish Policy Research (JPR) and Director of its European Jewish Demography Unit introduced what he terms the ‘rarity problem’. He explained that Jews are less than half of one percent of the UK population with implications as to how they are captured in surveys, if at all:

“Being a minority, you need to be identified in the sources. And not only do we want to be identified, but correctly identified. And not only that, we need to be counted.”

Dr. Kevin Guyan is a Research Fellow in the School of Culture and Creative Arts at the University of Glasgow. His expertise specialises around the collection, analysis and use of gender, sex and sexuality data, particularly as this relates to LGBTQ individuals in the UK. Kevin focused on the intersection where data practices and concepts of gender, sex and sexuality meet:

“I’m not only interested in what data says about LGBTQ individuals but also how data relates to power and questions of representation. I’m interested in how we establish who counts and how this brings some identities into focus while casting other identities further into shadows.”

Craig Moss,
Research Manager for Scope, the disability equality charity in England and Wales.

Craig discussed how the Equality Act 2010 identifies disabled people by the ‘medical model,’ which focuses on their individual conditions or impairments and frames the approach to data collection. He identified the need for meaningful consultations to understand how disabled people experience inequalities and that adopting the social model (which proposes that what makes someone disabled is not their medical condition, but the attitudes and structures of society) could frame disability in terms of supporting representation data.

Dr. Karen Hurrell works for the Equality and Human Rights Commission, the UK’s national equality body and a national human rights institute. As part of its role, it reports at least every five years on Britain’s progress in equality and human rights in its ‘Is Britain Fairer’ series of reports.

Karen explained that the Commission relies on a great deal of data to pull together its indicators, much of it data in the UK Data Service collection. Karen noted that while there is increasing availability of data, there are some areas, such as disability and sexual orientation, where data is not as easily available.

Over 300 people attended #DataImpact2021, which was a powerful and thought-provoking event and just the beginning for discussions on #IdentityInData.

6

CASE STUDY

Creating new poverty measures for the UK

The Social Metrics Commission, founded in 2016, has developed a new approach to poverty measurement in the UK, helping to transform official measures of poverty and drive policy action to bring about change for those living, or at threat of living, below the poverty line.

As the cost of living significantly rises across the UK, these new poverty measures become even more valuable to research and policy development. The Commission used data in the UK Data Service collection to develop the poverty measure.

The new metrics include:

- A core measure of poverty, which enables better understanding of how many and which sorts of people are in poverty.
- Broader measures that provide deeper insight into the depth, persistence, and lived experiences of poverty.

The Commission's findings confirm that poverty in the UK remains a significant issue.

14.4 million people affected

Of these, rates of poverty were found to vary across different age ranges:

33%	Children
22%	Working-age adults
11%	Pension-age adults

Poverty rates vary significantly between English regions, but vary less across the UK's four nations. The Commission's Lived Experience indicators show that families in poverty experience worse outcomes than those not in poverty, including having fewer formal qualifications and increased chances of being behind on bill payments.

In May 2019, the UK Government's Department for Work and Pensions announced that it would develop Experimental Statistics based on the Commission's measurement framework, and in June 2019, the Work and Pensions Select Committee recommended that the government adopt the Commission's approach as its 'official central measure of poverty'. These impacts are a major step towards the Commission's ultimate goal of official UK poverty statistics.

The Commission's poverty measure continues to be covered by the media and be cited in other contexts. For instance, several contributors to the 2021 [UK Parliament Work and Pensions Select Committee inquiry into Children in Poverty: Measurement and Targets](#) supported the use of the measure.

Data accessed

- Family Resources Survey
- Households Below Average Income
- Understanding Society

“The bipartisan Social Metrics Commission's New Poverty Measure represents an attempt to create a single comprehensive measure of poverty ... I would urge the Government to respond to the Commission and adopt its approach, which has received an impressive degree of cross-party support.”



Professor Philip Alston, UN Special Rapporteur on extreme poverty and human rights.

Data Impact Fellows

Our third intake of Data Impact Fellows has joined us since our last report.

The programme was designed by Dr. Victoria Moody, Deputy Director of the UK Data Service (and Director of Research Infrastructure at Jisc), to support the use of our data and resources by new generations of researchers. For the first time, our Data Impact Fellows cohort included not only academic researchers but those working in the charity sector. Broadening the scheme has opened up additional opportunities for collaboration and understanding of the use of data to enhance impactful research.

Read the progress of the Data Impact Fellows 2019-2021 on our [Data Impact blog](#).

“All Data Impact Fellows have in common their use of data from the UK Data Service collection, and a desire to develop their understanding of data impact theory and practice.”

Neil Dymond-Green,
Director of Impact, UK Data Service.



Anne Alarilla

At the start of her fellowship, Anne was working as a Data and Research Analyst in the Cancer Intelligence team at Cancer Research UK. She used multiple data from the UK Data Service collection and created a tool to accumulate smoking, overweight and obesity prevalence statistics from individual nations' health surveys in one central place.

Anne moved on to a role as Insight Analyst for NHS Blood and Transplant and now works in the Data Analytics team at the Health Foundation, an independent charity committed to bringing about better health and health care for people in the UK.

Ben Brindle

Ben is researching for an economics PhD at the University of Brighton's Business School. His research examines how the labour market responds to immigration-induced supply shocks.

Since his fellowship started, he has also worked with LSE's Centre for Economic Performance, the International Organization for Migration (the United Nations' migration agency) in Geneva and the Department for Work and Pensions. He has also developed the Changing Perceptions Challenge, a competition for sixth-form and college students examining the gap between media and public perception of the economic effects of immigration, and what data-enhanced research show.

Janet Bowstead

Janet is a Postdoctoral Research Fellow at the Royal Holloway, University of London and a feminist academic with a professional background in frontline, policy and coordination work on violence against women. Her research is interdisciplinary in nature, across geography, social policy and sociology; integrating quantitative, spatial, qualitative and creative methods.

Her research draws on theory, concepts and analysis techniques from migration research and applies them to the internal migration journeys of women within the UK escaping domestic violence.

Stuart Campbell

Stuart is a Research Fellow in the Department of Social Science at the UCL Institute of Education.

During his doctoral studies, Stuart completed an ESRC Internship in Migration and Border Analysis at the Home Office, and was employed as a Postgraduate Teaching Assistant in Economics at the UCL School of Slavonic and East European Studies. He also gave lectures on the Economics of Identity and the Economics of Sport while working as a researcher at the University of Sheffield. In his current role, Stuart has lectured and led tutorials at both the undergraduate and postgraduate level, on a range of courses in economics and applied statistics, and has also supervised postgraduate research.

James Cockett

James was a Research Economist at the Institute for Employment Studies, where he was part of a team carrying out research for UK public policy clients, European bodies and employers, undertaking analyses in the fields of employment, labour markets, health, and social policy.

One of James' pieces of research was to evaluate the effect of the introduction of the National Living Wage and changes in the National Minimum Wage on employment and hours. James and colleagues developed a case study for the UK Data Service, based on this work.

James has since moved to a Senior Consultant role in the private sector.

Christian Reynolds

Christian is recognised as a global expert on food loss and waste and sustainable diets. He began his fellowship as a Knowledge Exchange Research Fellow at the University of Sheffield, and an adjunct Research Fellow at the Barbara Hardy Institute for Sustainable Environments and Technologies, University of South Australia. Christian was also on secondment to the charity Waste and Resources Action Programme (WRAP) as technical specialist in international food sustainability.

Christian has more recently taken on a role as Senior Lecturer in Food Policy and Senior Tutor for Research at City, University of London.

David Kingman

At the start of David's fellowship, he was Senior Researcher at the Intergeneration Foundation (IF), a non-party-political think tank which researches intergenerational fairness responsible for day-to-day management of IF's research projects, including research design, accessing relevant data sources, undertaking data analysis and producing insightful, newsworthy research reports.

David went on to work as a Senior Research and Statistical Analyst at the Greater London Assembly and has since taken on a role as Senior Policy Advisor at HM Treasury, where he works on policy microsimulation and data science.

Bozena Wielgoszewka

Bozena is a Research Associate at the Centre for Longitudinal Studies. At the beginning of her fellowship she was primarily working on a project to harmonise the income and earnings data across three cohort studies: National Child Development Study (NCDS), 1970 British Cohort Study, and the Millennium Cohort Study. She was also investigating what the language used in essays written by the participants of the NCDS when they were age 11 can tell us about their future social mobility.

Bozena has also worked on the Gender Wage Gap (GWG) project, a comprehensive analysis of the GWG across individuals' lives and across three generations.



CASE STUDY

Minimum wage impact on employment and hours

Researchers from the Institute for Employment Studies (IES), including Data Impact Fellow James Cockett, used Annual Survey of Hours and Earnings and Labour Force Survey data to assess the impact of the introduction of the National Living Wage (NLW) in April 2016, and its upratings in 2017 and 2018, on employment retention and hours worked.

The IES research was commissioned by the Low Pay Commission (LPC), an independent body that advises the UK Government on the National Living Wage and the National Minimum Wage.

The researchers focused on how the introduction and upratings of the NLW affected employees aged 25 and over, with some consideration of differences in impact on younger employees. It assessed the impact on employee retention and basic weekly working hours for part-time and full-time male and female employees, and considered whether impacts varied depending on sector (public or private), firm size, and employee contract type (permanent, temporary, or casual).

The researchers found that the 2016 introduction of the NLW reduced employment retention for both male and female part-time employees, with the biggest reduction experienced by part-time women working in the public sector. However, they found little evidence that the 2017 and 2018 upratings affected employment for men or women, whether part-time or full-time.

They also found some evidence that the 2018 uprating positively impacted employment retention for women working part-time for private sector firms, and for part-time men working for larger firms of more than 50 employees.

Analysis of the Labour Force Survey provided some evidence that men working full-time on temporary contracts experienced an increase in hours following the 2017 uprating relative to those on permanent contracts. Otherwise, the evidence did not suggest that the working hours of employees with other characteristics considered were affected.

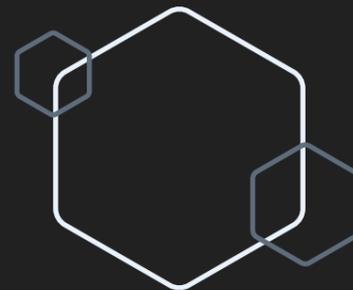
The IES researchers found that, since the introduction of the NLW in 2016, NLW upratings have had a limited impact on employee retention and working hours.

The research fed into the LPC's recommendations for an increase of 6.2% in the NLW from April 2020. In their 2019 report, the LPC anticipated that this increase would uplift pay in around 2.9 million (1 in 10) jobs.

“It has been really positive to see that research and analysis we have undertaken has been an important part of the considerations by the Low Pay Commission, which will have a positive impact on the everyday lives of many of the lowest-paid workers in the UK.”



James Cockett,
Data Impact Fellow and
formerly from the Institute
for Employment Studies.



CASE STUDY

Is Britain fairer?

The Equality and Human Rights Commission is Great Britain's national equality body.

The Commission produces the 'Is Britain Fairer?' report every three years. This report offers the most comprehensive review of how Britain is performing on equality and human rights. Substantial amounts of data were accessed from 13 surveys in the UK Data Service collection and used in 33 of the 48 data tables supporting the statistical measures.

The Commission analysed the data to monitor progress across six key areas of life: education, work, living standards, health, justice and personal security. Where available, they were broken down by the 'protected characteristics' defined in the Equality Act 2010.

- Age
- Disability
- Gender reassignment
- Marital and civil partnership status
- Pregnancy and maternity
- Race
- Religion or belief
- Sex
- Sexual orientation

In addition to the 'protected characteristics', additional groups were monitored using disaggregated data in relation to equality and human rights: socio-economic group; geographical analysis; people at higher risk of harm, abuse, discrimination or disadvantage; and intersectionality.

The Commission's findings indicate that some progress has been made in the review period, for instance for some groups in the areas of education, work and civic participation.

However, the research also provides substantial evidence of bleak living standards for Britain's most at-risk groups, who remain at severe disadvantage across multiple areas of life, including ethnic minorities, disabled people, LGBT people. Poverty has changed little and has even increased for children.

Whilst the data available has enabled the Commission to paint a comprehensive picture of equality and human rights for disabled people, ethnic minorities, women and men, their research reveals significant gaps in the data. Data is scarce for LGBT+ people, people with a religion or belief, and pregnant women and new mothers. There are also gaps in the evidence around working conditions.

In providing evidence of the vast gaps in Britain's data landscape, and the need for a robust legal framework to protect people's rights, the Commission's research presents a compelling case for the action needed to achieve meaningful change and ensure that Britain is fairer for everyone.

Substantial amounts of microdata were accessed from 13 surveys in the UK Data Service collection and used in 33 of the 48 data tables supporting the Measurement Framework used in the 'Is Britain Fairer Reports'.



Widening communication and impact

During the pandemic we enabled rapid research from the [Institute for Fiscal Studies](#), [National Voices](#) and [The Lancet](#), among other leading research organisations and publications, to highlight growing inequalities and critical challenges exacerbated by the pandemic.

Articles in [The Conversation](#) and [The Guardian](#) have both featured insights from the [British Social Attitudes Survey](#), whilst the [New York Times](#) recently highlighted research using our [census support services](#).

Our [Data Impact blog](#) explored various ways data has supported research and understanding around the effects of COVID-19 including using [new biosocial data to explore inequality of opportunity in health](#) and what the [data tells us about the effect of COVID-19 on global fossil fuel consumption and CO2 emissions](#).

Other discussions on the blog have drawn from ["The Science"](#) and ["The Politics"](#) of pandemics to [census geography and pandemic statistics](#), demonstrating how the pandemic has inspired researchers to think differently about social inequalities and research data.

A special COVID-19 newsletter went to subscribers in May 2020 and our new website went live in August 2021. We continued to keep service users and stakeholders up to date with the latest data, training and impact through our newsletters.

We launched a new podcast series, [The Experts' Expert](#) on Spotify, showcasing some of what makes our organisation and staff so unique. Early interviews feature our expertise around data training, census, access to controlled data, computational social science, data impact and pioneering social research which has had over 10,000 listeners already.

Our social media strategy broadened reach and we started a service newsletter to accredited researchers to share best practice and guidance as part of our ten year UKDS SecureLab commemorations.

We also advised other ESRC funded Communications teams on effective campaign development, execution, measurement and impact, including CLOSER and ISER as well as CESSDA.

User feedback

Frequent user testing takes place to inform process changes, product development, training, website navigation and service improvements. The new website was designed to meet accessibility, user and service requirements and we are building feedback mechanisms into everything we do.

Over the past two years we have conducted consultations to better understand user requirements to deposit data; improve access and support services for census data; enhance training workshops and develop new guidance and resources.

We plan to enhance the customer experience and accessibility of our services by establishing a user panel to enable us to continue to adapt, enhance and develop our services to meet the future needs of research data and the next generation of researchers for many years to come. If you are interested in joining this panel, please contact us at comms@ukdataservice.ac.uk.

“Understanding Society currently has 23,400 users. It’s absolutely essential to have the UK Data Service ensure that such a wide range of researchers, mainly in the UK, but also internationally, can use the data.”



Professor Michaela Benzeval,
Director, Understanding Society, ISER, University of Essex.

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Looking ahead

As society learns to live with COVID-19, the serious economic, social, political and health implications are only starting to show.

The creation of robust evidence is driven by the unique power of data. As the UK's largest social science repository and data skills training service, it is even more important now, for researchers and policymakers to access and accurately understand the data. They will be able to respond to local and regional inequalities, the impact of rising living costs and climate change alongside the pandemic.

World pioneers in developing technologies and practices to support research data management; data ethics, governance and handling secure data; enhancing data skills; and informing research and influencing policy through data impact - we continue to improve lives by enabling long-term research access to vital data resources.

Throughout the COVID-19 pandemic we demonstrated our ability to quickly adapt to the changing needs of data depositors and researchers, despite different challenges and new uncertainties.

It is expected that many national studies will continue to include questions specific to COVID-19 and changes resulting from the pandemic. Most of this data will be made available for research through the UK Data Service.

We continue to lead the development of standards and assessments for trusted repositories that enable FAIR data across the lifecycle and throughout the complex network of partnerships and collaborations that make up modern research data infrastructures in the UK and globally.

We also continue to drive data citation to improve research discoverability, enhance replicability and further evidence the value, benefits and impact that large surveys have on research. We will raise greater awareness around our expertise and impact.

Our renowned training programme continues to transform social science teaching, learning and research and helps to address the data skills gap across the UK and beyond. We continue to harness the latest technology to enable a step-change in the next generation of data infrastructure capability – both throughout the UK and international partnerships.

Future enhancements will see streamlined accredited research access to secure data and the implementation of a new online management system to help track and respond to service queries more efficiently. An upgraded data catalogue system will also help us meet further research needs.

We will continue to evidence and promote the value of our data, its use in research, and the academic and societal impact it contributes to. Alongside this we will highlight the impact of our training and the Service as a critical research infrastructure in the UK. Our new user panel will provide ongoing feedback to help inform future development and service improvements around research and provider needs.

Our expertise will continue to lead and enhance methodological and technical capabilities to bring digital transformation to the research sector, whilst we will continue to advise and collaborate with other research councils, organisations and data centres to shape future data services for years to come.

“If policymakers are going to succeed in helping Government level up the UK, then data and research is vitally important and we must be bold in conveying that to those in power.”



Guy Goodwin,
Director, National Centre
for Social Research (NatCen)
and Chair of the UK Data
Service's Advisory Group.



Host organisations and expertise

These strategic partners have provided the foundation for our data, resources, training, technology, access, communications and impact services since 2012.

UK Data Archive

University of Essex

Lead partner of the UK Data Service, the UK Data Archive is curator of the largest collection of digital social science data in the United Kingdom. Founded in 1967, the Archive is an acknowledged centre of expertise in the areas of acquiring, curating and providing access to data. In 2010 it became the first academic department in a UK university to earn ISO27001 certification, an international standard of information security. And in 2020 was accredited to continue to provide controlled access to secure research data, under the Digital Economy Act 2017. In 2020 it also gained international certification from CoreTrustSeal as a trusted digital repository.

Cathie Marsh Institute for Social Research

University of Manchester

The Cathie Marsh Institute for Social Research (CMI) is a centre of research excellence specialising in the application of advanced quantitative methods in an interdisciplinary social science context. Named after Cathie Marsh who founded the Census Microdata Unit in 1993, CMI still plays a key role in the support and development of UK secondary microdata including the Sample of Anonymised Records (SARs) from the census.

Jisc

UK

Jisc is a registered charity and champions the use of digital technologies in UK education and research. As part of the Digital Resources Directorate of Jisc, UK Data Service staff provide access to, and specialist support for, the databanks of inter-governmental organisations such as the International Monetary Fund, the World Bank and OECD as well as aggregate statistics from the 1971 to 2021/2022 UK censuses.

Geography and Environment

University of Southampton

The Population, Health and Wellbeing research group in Geography and Environment at the University of Southampton has an outstanding reputation for leadership in population and health research, based on the combination of innovation in methodology covering geographical information systems (GIS), spatial analysis and quantitative and qualitative methods with substantive expertise in census, population and health issues. Our work comprises spatial population analysis and modelling; cultures, spaces and practices of care and population health. Our members work closely with the Office for National Statistics, co-direct the ESRC National Centre for Research Methods and UK Data Service and edit the journal Health and Place.

EDINA

University of Edinburgh

EDINA is a national academic data centre operating since 1995. It is designated by Jisc to support the activities of universities, colleges and research institutes across the UK and has a mission to develop and deliver shared services and infrastructure for research and education that are innovative, high quality and cost-effective, based on knowledge and expertise gained through research and development. EDINA also continues to act as the ESRC specialist geography unit for the census, supporting UK Data Service users in accessing and using the geography outputs of the 2021/2022 and previous censuses.

Department of Information Studies

University College London

The UCL Department of Information Studies is an international centre for knowledge creation and transfer in the fields of librarianship, archives and records management, publishing, information science and digital humanities. The department brings together academics and practitioners in these fields, with research aiming to develop the understanding and insights needed to shape the emerging information environment, while elucidating and building on the historical developments that have created this environment.

Centre for Advanced Spatial Analysis

University College London

The UCL Centre for Advanced Spatial Analysis (CASA) is one of the leading forces in the science of cities, generating new knowledge and insights for use in city planning, policy and design and drawing on the latest geospatial methods and ideas in computer-based visualisation and modelling. CASA is part of The Bartlett, UCL's global faculty of the built environment.



Appendices

APPENDIX 1

Understanding Society COVID-19 data and impact

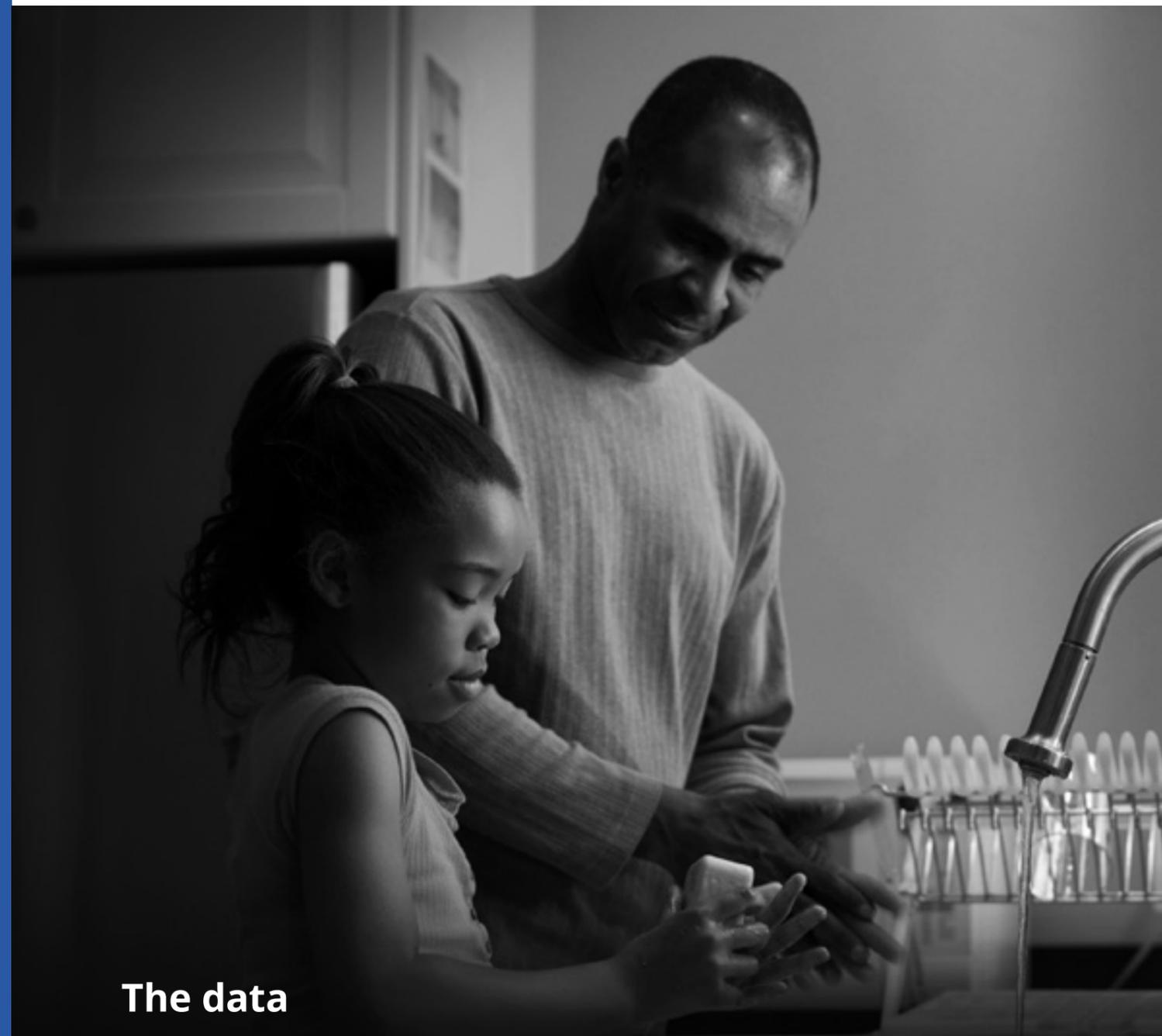
'Estimating variation of COVID-19 'infection' in the population: results from Understanding Society's (UKHLS) first monthly COVID-19 survey, by Breen and Ermisch in medRxiv revealed that the chances of infection increase when a person's education level is lower and when people are aged over 55. The chances were also higher in the West Midlands and London and lower in the North East than in the rest of the country. Additionally, the chances of infection tended to increase with regional population density.

'Mental health and health behaviours before and during the initial phase of the COVID-19 lockdown: longitudinal analyses of the UK Household Longitudinal Study, published by Niedzwiedz et al. in the BMJ Journal of Epidemiology and Community Health suggests that psychological distress increased during the initial phase of lockdown. Women, young adults, people from Asian backgrounds and degree educated people were the adversely affected groups.

'How has the COVID-19 crisis impacted parents' relationships with their children?' from the Centre for Population Change Policy found that while lockdowns may have had adverse consequences on many, they strengthened the parent-child relationship in many families.

'The initial impact of COVID-19 and policy responses on household incomes' explored some of the economic impacts of the pandemic. Brewer and Gardiner published a paper in the Oxford review of Economic Policy that discusses the impact of UK government initiatives, such as the job retention scheme, self-employment income support scheme and increases in universal credit on living standards.

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The data

The Understanding Society COVID-19 study 2020 received priority support because of its potential to help shape future policies that could aid our recovery from the pandemic. Out of all the adult sample members aged 16+ who were invited to take part in one of the two last waves of the main Understanding Society study, an impressive 17,450 of them completed the survey in the first wave, which was deposited in the UK Data Service within a month of the data collection.

The 20-minute questionnaire includes core content repeated at each data collection checkpoint to track changes throughout the pandemic, focusing on employment, finance, health, family, education and civic engagement.

From September 2020 onwards, the survey was distributed every two months by Ipsos MORI and complements the annual interviews from the core annual Understanding Society survey.

APPENDIX 2

Early COVID-19 data

Key studies include:

COVID-19 Survey in five national longitudinal cohort studies	<p>The study includes the four Centre for Longitudinal Studies (CLS) cohorts:</p> <ul style="list-style-type: none"> • Millennium Cohort Study (respondents born 2000-02), involving both cohort members and parents • Next Steps (born 1989-90) • 1970 British Cohort Study (BCS70) • 1958 National Child Development Study <p>As well as the Medical Research Council Unit of Lifelong Health and Ageing's cohort study</p> <ul style="list-style-type: none"> • National Survey of Health and Development, incorporating the 1946 British birth cohort.
Understanding Society COVID-19 Study	<p>Designed to enable research on the socio-economic and health consequences of the pandemic.</p>
Welfare at a (Social) Distance, 2020-2021: Wave 1 study	<p>Focused on the benefits system and aimed to identify the key challenges, as well as feasible solutions to overcome these.</p>
ONS Opinions and Lifestyle Survey, COVID-19 Module, 2020-2021	<p>Main aim was to help better understand the impact of the pandemic on people, households and communities in Great Britain.</p>
Zoomshock: The Geography and Local Labour Market Consequences of Working from Home, 2020-2021	<p>Concentrated on the substantial shift of economic activity across geographical areas and used open access data to provide calculations of the pandemic's effect.</p>

Cohort and Longitudinal Studies Enhancement Resources (CLOSER), UCL

New studies included:

Born in Bradford	Bradford Teaching Hospitals NHS Trust
English Longitudinal Study of Ageing	UCL
Generation Scotland	University of Edinburgh
Growing Up in Scotland	The Scottish Government
Health and Employment After 50/HEAF	University of Southampton
LSYPE 2	Department for Education
Next Steps	UCL
NICOLA	Queen's University Belfast
ONS Longitudinal Study	Office for National Statistics
Whitehall II Study	UCL
Wirral Child Health & Development Study	University of Liverpool

New editions

Throughout the pandemic we continued to acquire and licence the newest editions to data series from government departments and other academic centres including:

- Active Lives
- Scottish Crime and Justice Survey
- Family Resources Survey
- Food and You
- Health Survey for England
- Scottish Health Survey
- Crime Survey England and Wales
- Annual Population Survey
- Labour Force Survey
- And numerous controlled business microdata.

APPENDIX 3

Most downloaded studies

Top 10 most downloaded studies

Study Number	Title	No. of Downloads
6614	Understanding Society: Waves 1-10, 2009-2019 and Harmonised BHPS: Waves 1-18, 1991-2009	6887
8644	Understanding Society: COVID-19 Study, 2020-2021	4851
8644	Understanding Society: COVID-19 Study, 2020	3685
6614	Understanding Society: Waves 1-11, 2009-2020 and Harmonised BHPS: Waves 1-18, 1991-2009	3350
6614	Understanding Society: Waves 1-9, 2009-2018 and Harmonised BHPS: Waves 1-18, 1991-2009	3199
5050	English Longitudinal Study of Ageing: Waves 0-9, 1998-2019	2669
5151	British Household Panel Survey: Waves 1-18, 1991-2009	2037
7483	Young Lives: an International Study of Childhood Poverty: Rounds 1-5 Constructed Files, 2002-2016	2036
8682	Millennium Cohort Study: Seventh Survey, 2018	1796
8156	Millennium Cohort Study: Sixth Survey, 2015	1513

Top 10 most downloaded data for ongoing studies that are repeated over time

Generic Number	Title	No. of Downloads
33246	Quarterly Labour Force Survey, 1992-	51477
33423	Understanding Society: Waves 1- , 2008-	25697
33379	Young Lives: an International Study of Childhood Poverty	12462
33359	Millennium Cohort Study – Survey and Biomeasures Data	10531
33168	British Social Attitudes Survey, 1983-	8970
33357	Annual Population Survey, 2004-	8001
33261	Health Survey for England, 1991-	7842
33315	Labour Force Survey Two-Quarter Longitudinal Datasets, 1992-	5651
33283	Family Resources Survey, 1993-	5546

Top 10 ReShare

eprintid	Title	No. of Downloads
852155	Sixteenth-century English accident inquests	1749
851617	Change.org petitions data	1466
852904	Drupal Planet links archive, 29-05-2013 - 23-11-2016	1128
853313	Becoming Adult: Qualitative data on well-being outcomes for unaccompanied migrant young people turning 18 2016-2017	1100
851614	Petitions: gov.uk petitioning website	914
852135	The international maritime labour market in Europe, relational database 1650-1815	497
852925	Human trafficking media texts	439
854380	Estimating the effects of non-pharmaceutical interventions on COVID-19 in Europe, model fit for Bayesian model 2020	437
854720	Student Mental Health During COVID-19 Pandemic, 2020	427
851934	Broadly engaging with tranquility: a high resolution pilot study for modelling public perceptions	349

APPENDIX 4

Key international datasets

The International Energy Agency (IEA)

International Monetary Fund

CO2 Emissions from Fuel Combustion

The Organisation for Economic Co-operation and Development (OECD)

The United Nations Industrial Development Organization (UNIDO)

World Allocation of Emissions from Electricity and Heat

The World Bank

World CO2 Emissions from Fuel Combustion

World CO2 Indicators

World IPCC Fuel Combustion Emissions



Further reading:

[International data supporting climate change research](#)

APPENDIX 5

Controlled data usage

4,074

Datasets accessed from the UKDS SecureLab during this period.

75

New Secure Access studies and editions released during this period.

Controlled data - user breakdown

User type	Datasets accessed	% of accessed datasets
Higher education staff	2878	70.64
Further education staff	199	4.88
Postgraduate	693	17.02
NGO + other non-profit	293	7.19
Commercial user	11	0.27

APPENDIX 6

Data highlighted in Annual User Conferences

Controlled business data conference

- Business Structure Database
- Annual Business Survey
- Annual Inquiry into Foreign Direct Investment
- Annual Survey of Hours and Earnings
- Business Insights and Conditions Survey
- Inter-Departmental Business Register (and linked data)

Health studies conferences

- 1958 Birth Cohort Survey (National Child Development Study), CLS
- English Longitudinal Study of Ageing (ELSA)
- European Health Interview Survey (EHIS)
- Health Survey for England
- National Survey of Sexual Attitudes and Lifestyle
- Psychiatric Morbidity Surveys
- Scottish Health Survey
- UK Household Longitudinal Survey
- Understanding Society, Institute for Social and Economic Research (ISER)

Family Finance

- Family Resources Survey
- Living Costs and Food Survey
- Understanding Society
- Wealth and Assets Survey

Crime

- The Crime Survey for England and Wales
- Scottish Crime and Justice Survey
- The Commercial Victimisation Survey
- The Cyber Security Breaches Survey

Labour Force Survey and Annual Population Survey

- Business Structure Database (not from UKDS)
- COMTRADE through WITS (not from UKDS)
- Annual Survey of Hours and Earnings
- Apprentice Wellbeing Survey, Skills Development Scotland (not from UKDS)
- HESA Graduate Outcomes Survey (not from UKDS)



Download the digital version of the report to access the hyperlinks

www.ukdataservice.ac.uk/ukdsannualreport2020-2022

This report summarises the work of the UK Data Service, covering the period 1 April 2020 to 31 March 2022. It was written and printed in February 2023. The UK Data Service has made every effort to ensure the information and data were accurate at the time of printing. Should you notice an error please notify comms@ukdataservice.ac.uk.



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