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Understanding Society: How does the Study as data infrastructure generate benefits for science, policy, and society?

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Non-technical summary

Understanding Society, the UK Household Longitudinal Study, is one of the largest household panel studies in the world and one of the UK's leading data collections. The Study tracks changes in the lives of people, collecting extensive data on multiple facets of life covering education, employment, income and deprivation, health and wellbeing, families, transport and environment and civic engagement. Understanding Society is a nationally representative sample, taking a range of measurements across the entire adult age range and from everyone in the household over time, making it a unique resource for science and policy. Data is collected annually from the same households across all four UK nations. There are also similar studies in some other nations, which provides an opportunity for comparative research and policy analysis.

While maintaining consistency in measures over time is critical to any longitudinal study, Understanding Society also pursue an extensive programme of experimentation, methodological research and innovation to be at the forefront of science, survey delivery, user experience and impact. Central to our framework for the Study therefore are a Longitudinal Core of consistently collected data on key concepts over time; and New Enhancements, based on an ongoing programme of innovation and development to create new content, new kinds of data collections augmenting the core or shorter-term data, new survey methods and different approaches to improve usage and impact. In particular, the (regular) addition of biological information has afforded a range of interdisciplinary research.

This document provides an outline of the broad ranging activities undertaken by the Understanding Society team and users, and how these are designed to generate benefits for science, policy and society. Using a theory of change (ToC) model it provides a coherent account of how the things we do reasonably might have the effects we want on science, policy and society, and our planned route to such outcomes.

Our goal in sharing this working model is to help wide ranging stakeholders - from staff and data users to policy makers and funders – understand how data infrastructure works and the pathways through which the activities carried out by the team can lead to the desired benefits.

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Keywords: policy impact, theory of change, evaluation

JEL classification: C83

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INTRODUCTION

Understanding Society, the UK Household Longitudinal Study, is one of the largest longitudinal household panel studies in the world and one of the UK's leading data collections. The Study tracks changes in the lives of people, collecting extensive data on multiple facets of life covering education, employment, income and deprivation, health and wellbeing, families, transport and environment and civic engagement. Understanding Society is a nationally representative sample, taking a range of measurements across the entire adult age range and from everyone in the household over time, making it a unique resource for science and policy. Data is collected annually from the same households across all four UK nations. There are also similar studies in some other nations, which provides an opportunity for comparative research and policy analysis.

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The Study is funded by UK Research and Innovation's (UKRI) Economic and Social Research Council (ESRC) and supported by a number of government departments. The ESRC has identified **nine benefit areas** which they believe Understanding Society as a resource is uniquely placed to deliver. These benefits inform the design and running of the Study, and the work of the team supporting it, and are used to measure the success of the Study in meeting Funder's aims. The team report against these benefits to the Strategic Oversight Board and ESRC annually..

The nine benefit areas (classified by us into 4 categories) are:

Science

1) Promotes new waves of inter- and multi-disciplinary research

2) Promotes and develops new forms of methodology
3) Generates new insights into interactions between social and biological data
4) Enables new forms of science over time (i.e., answer new questions)

People & Systems

5) Increases the number and breadth of data users over time
6) Contributes to capability in quantitative methods and use of interdisciplinary data

Policy & Society

7) Informs development of new policy over time
8) Informs development of business practice in private and Civil Society sectors

With the final benefit being derived from all of the above

9) Raises the recognition of the UK's reputation as an international centre of social science excellence

OUR WORKING MODEL FOR GENERATING BENEFITS

Our working model to generate the benefits specified by ESRC, and meet the expectations of our data users, participants, policy audiences, other funders and partner organisations is set out as a theory of change in this document. Simply defined, this is a model of how (in principle) an organisation expects the activities it engages in to achieve its desired outcomes – explaining how and why an initiative works.

There are many varieties of theories of change used in different contexts, and it is widely used as a framework to assess the success of a project. "Theories of change are used at all stages of a project cycle: to articulate a programme design, to identify and build agreement among stakeholders, to inform the design of monitoring and evaluation systems, to focus individual evaluations, and to structure reporting to donors and other stakeholders (Davies, R)[1]". Identifying connections between activities and outcomes, and capturing information about how the different parts of process join-up is important to understanding whether complex initiatives such as Understanding Society achieve their goals. Indeed, the evaluators commissioned by ESRC recently to evaluate the Study adopted this approach. All theories of change are simplified version of the real world, and we hope to update ours periodically in light of experience, evidence, funder priorities and wider changes in the environment in which we operate.

As a data infrastructure project, **the impact of the investment in Understanding Society rests not simply on what we do, but also what thousands of data users do**. Our framework covers the activities we carry out, and the results we and others achieve using the data itself and the evidence generated through it. The data and evidence are available to users nationally and internationally across universities and research institutes, government departments, parliament, charities, business,

[1] Davies R, 2018, Representing Theories of Change: A Technical Challenge with Evaluation Consequences, CEDIL Inception Paper 15: London

regulators, public services, trade unions and other organisations. Vital to the Study is also our relationship with survey participants and their ongoing participation – often across generations.

OUR OPERATIONAL FRAMEWORK

A range of inputs go into running a complex study like Understanding Society - such as research funding, expert staff, fieldwork capacity, facilities and software, etc. Responsiveness to user needs and ideas, good governance and sustained leadership are also vital to success. An important contribution is the part played by our various stakeholders, who bring a breadth of external expertise and experience, and provide direction and advice to our leadership team.

The inputs into the study drive our activities and translate into outcomes and impacts. Overleaf we set out a representation of how we seek to maximise the use and impact of Understanding Society through the detailed process of translating activities → outputs → outcomes → impact.

Activities: These are a high-level breakdown of full range of tasks and projects carried out by the Understanding Society team.

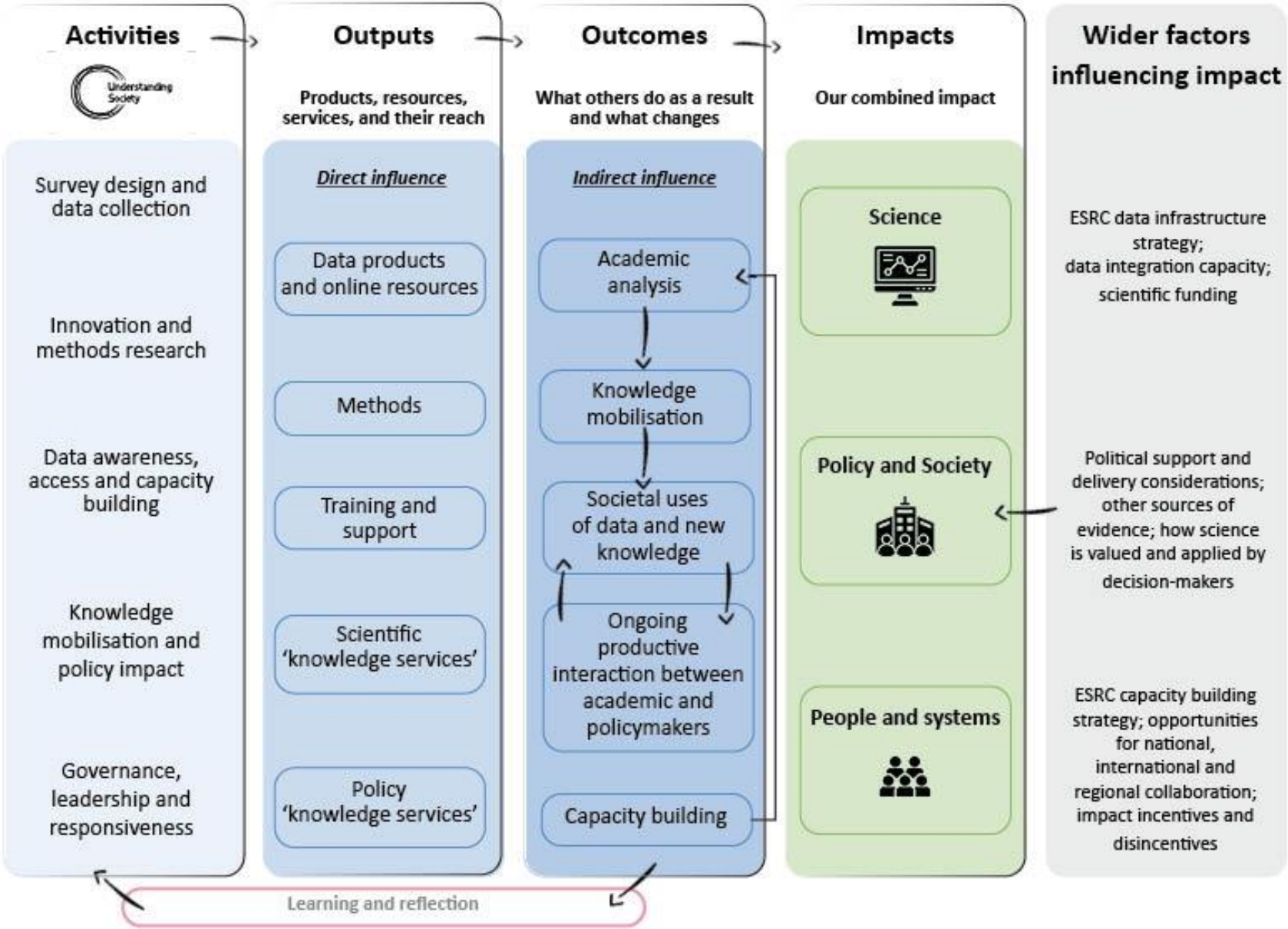
Outputs: The study generates a wide range of outputs which cover data products and online resources, methods outputs, training and support, and knowledge services for scientific and policy users. We regularly monitor the take-up of these output and their use by different audiences.

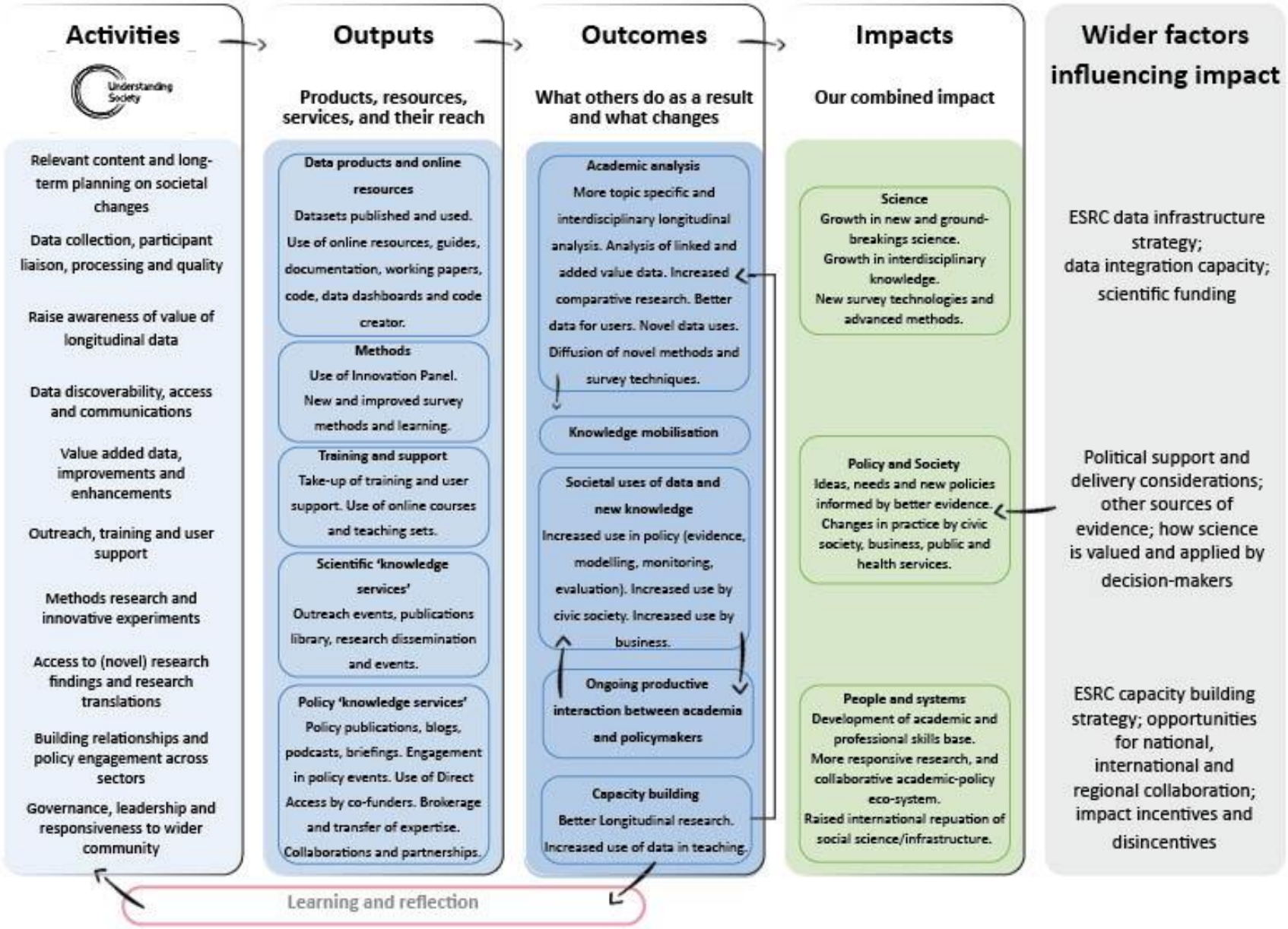
Outcomes: These are the logical results from what we do, and the results of others in the process of using our products, resources and services. These are the changes or differences we expect the investment to generate which we have a level of influence over.

Impacts: The consequences for science, people and systems, and policy and society that flow from the combined impacts of Understanding Society and its users. We can only have indirect influence on these impacts via the activities and outputs described above – which are also shaped by wider factors some of which we have indicated in the chart.

Collaborating with other organisations

A growing feature of our work is collaborating with other organisations to build productive relationships which help to enhance delivery of Understanding Society and share its benefits more widely. Some partnerships can be informal while others seek to systematically improve the data infrastructure, its utility and impact. For instance, we work with the ESRC, CLOSER (partnership of leading social and biomedical longitudinal population studies), National Centre for Research Methods (NCRM), the Data, Resources and Training Network (DRTN), Doctoral Training Partnerships, University of Essex and many others to meet the needs of data users. Our Co-Funders Group of government departments and devolved administrations and the Policy and Partnerships Forum provide input and advice to the Study on improving policy and practitioner engagement.


Activities
Outputs
Outcomes
Impacts
Wider factors influencing impact
Understanding Society
Products, resources, services, and their reach
What others do as a result and what changes
Our combined impact
Survey design and data collection
Innovation and methods research
Data awareness, access and capacity building
Knowledge mobilisation and policy impact
Governance, leadership and responsiveness
Direct influence
Data products and online resources
Methods
Training and support
Scientific 'knowledge services'
Policy 'knowledge services'
Indirect influence
Academic analysis
Knowledge mobilisation
Societal uses of data and new knowledge
Ongoing productive interaction between academic and policymakers
Capacity building
Science
Policy and Society
People and systems
ESRC data infrastructure strategy; data integration capacity; scientific funding
Political support and delivery considerations; other sources of evidence; how science is valued and applied by decision-makers
ESRC capacity building strategy; opportunities for national, international and regional collaboration; impact incentives and disincentives
Learning and reflection


Activities
Understanding Society
Relevant content and long-term planning on societal changes
Data collection, participant liaison, processing and quality
Raise awareness of value of longitudinal data
Data discoverability, access and communications
Value added data, improvements and enhancements
Outreach, training and user support
Methods research and innovative experiments
Access to (novel) research findings and research translations
Building relationships and policy engagement across sectors
Governance, leadership and responsiveness to wider community
Outputs
Products, resources, services, and their reach
Data products and online resources
Datasets published and used. Use of online resources, guides, documentation, working papers, code, data dashboards and code creator.
Methods
Use of Innovation Panel. New and improved survey methods and learning.
Training and support
Take-up of training and user support. Use of online courses and teaching sets.
Scientific 'knowledge services'
Outreach events, publications library, research dissemination and events.
Policy 'knowledge services'
Policy publications, blogs, podcasts, briefings. Engagement in policy events. Use of Direct Access by co-funders. Brokerage and transfer of expertise. Collaborations and partnerships.
Outcomes
What others do as a result and what changes
Academic analysis
More topic specific and interdisciplinary longitudinal analysis. Analysis of linked and added value data. Increased comparative research. Better data for users. Novel data uses. Diffusion of novel methods and survey techniques.
Knowledge mobilisation
Societal uses of data and new knowledge
Increased use in policy (evidence, modelling, monitoring, evaluation). Increased use by civic society. Increased use by business.
Ongoing productive interaction between academia and policymakers
Capacity building
Better Longitudinal research. Increased use of data in teaching.
Impacts
Our combined impact
Science
Growth in new and ground-breakings science. Growth in interdisciplinary knowledge. New survey technologies and advanced methods.
Policy and Society
Ideas, needs and new policies informed by better evidence. Changes in practice by civic society, business, public and health services.
People and systems
Development of academic and professional skills base. More responsive research, and collaborative academic-policy eco-system. Raised international repuation of social science/infrastructure.
Wider factors influencing impact
ESRC data infrastructure strategy; data integration capacity; scientific funding
Political support and delivery considerations; other sources of evidence; how science is valued and applied by decision-makers
ESRC capacity building strategy; opportunities for national, international and regional collaboration; impact incentives and disincentives
Learning and reflection

HOW DOES THE STUDY IMPROVE ITS THE USE AND IMPACT?

Our working model sets out the changes (outcomes) we are seeking across science, policy and people. However, it isn't designed to pin-point specific priorities for resourcing, development or innovation as the model's function is to:

- provide an understanding of the role of the Study as a data infrastructure and as a team, and explain its scope
- provide a 'map' to connect different parts of the Study, and the Study with the wider research and policy eco-system
- differentiate the role of the Study relative to other stakeholders and avoid 'mission creep' to maximise cost-effectiveness
- inform what activities and benefits of the Study could be measured to report on the Study's progress and impact

Our proposal to funders set's out the overall direction of travel for that period of funding and key deliverables, and we have an annual planning process to set priorities and objectives for each year as well as various advisory groups that reflect different stakeholder perspectives. While the Study only has indirect influence over how others contribute to generating the outcomes the Study is seeking to achieve, there are upstream direct actions that can be taken to try and maximise downstream results. There are different enhancement activities and tools we utilise to improve the use and impact of the Study, for example (not comprehensive):

- attract new users by exploring opportunities across students/Early Career Researchers, and in particular disciplines and sectors
- add tested data enhancements and adapt the mainstage survey to facilitate better quality research
- provide ideas to users on how the unique features of the data can be exploited through training, fellowships and by sharing novel scientific and policy applications
- pioneer collaborative models of working between academia and policy organisation.

HOW DOES THE STUDY TRACK ITS PROGRESS?

Understanding Society tracks progress on the desired benefits for the Study through a number of indicators and datapoints. There are different types of data collected regularly, both quantitative and qualitative. As much of the Study's data are readily available via the UK Data Service, we do not directly know who is using the Study or for what research or policy purpose. We use wider monitoring processes such as participation in training, publication of journal articles, reports and media stories based on the data (where these reference the Study) and policy applications of the data and evidence from the Study.

Various methods are used to track down publications and other outputs that use Understanding Society data and evidence, depending on the publication type and discovery options available. All results are evaluated to verify their use of the data (if possible, through analysis of the full text) and then catalogued and indexed. Links to all publications are also provided on the Understanding

Society publications web page. Further exploration is carried out where we believe evidence from the Study may have been used in policy to identify and documents the 'pathway to impact'.

We publish how we are doing as a Study, and the impact we are having, through an annual benefits report and an impact case studies series. Research uses of the data and impact case studies are also a vital source of information for our participants, so they are informed about how the data they provide are being used.

Annual Benefits Report: This report outlines progress against our ESRC defined benefits. In preparing this report we have tried to capture metrics on the number of data users and the growing research use of the dataset in different disciplines, plus the wider impact of the Study on policy and commercial areas. Our 2020 report was produced in recognition of 10 years of Understanding Society and presents evidence on the achievements of the Study up to the end of 2020. The most recent Annual Benefits Report can be seen here.

Impact case studies: We regularly seek to identify the different applications of our data and evidence, and how this is helping policy makers and practitioners. Our impact case studies are also available online.