Interim evaluation of Administrative Data Research UK

November 2024

oxford insights

Lateral Economics

Interim evaluation of Administrative Data Research UK

This report was produced by Oxford Insights and Lateral Economics. MEL advisory support was provided by the Open Data Institute.

Authors: Jasmine Kendall, Livia Martinescu, Sulamaan Rahim, Gene Tunny.

Advisory support: Richard Stirling, Nicholas Gruen, Kanika Joshi and Jared Keller.

For any questions directed to the evaluation team please contact us at info@oxfordinsights.com

1. Executive summary

This report presents the results of the midterm evaluation of Administrative Data Research UK, conducted by Oxford Insights and Lateral Economics with support from the Open Data Institute. It provides an assessment of ADR UK's progress to date, as well as recommendations for getting further value out of the remainder of this investment period and tracking future progress. The evaluation employed a mixed methods approach, drawing on findings from interviews and surveys with stakeholders in government and academia, as well as bibliometric and economic analysis.

Overall, the evaluation found that ADR UK is a beneficial investment which is returning significant value to both government and academic researchers.

From the evidence available to date, our analysis of the cost savings incurred by the partnership and its projected wider social-economic impacts reveals that ADR UK's benefits significantly outweigh costs (see benefit-cost ratio below).

Beyond the economic value of the programme, qualitative insights collected from experts across both government and academia confirm that ADR UK is broadly on track to meet its intended goals. In particular, our interim findings highlight ADR UK's contribution to:

- **Supporting the acquisition, linkage and cleaning of over 200 new datasets**, which would not exist without the partnership's funding (and many more datasets which are indirectly enabled by ADR UK's funding of data linkage teams and TRE environments)

- **Improving data accessibility by funding remote access through SafePods and trusted research environments without compromising security.** Whilst researchers still highlight challenges with timely data access, ADR UK's investment has substantially improved access to administrative data across the UK, and, in most cases has obviated the need for users to visit a department. Data owners sharing data through ADR UK are confident in the security offered by the ONS 5 safe framework, and ADR UK has a solid reputation across government.

- **Building buy-in for administrative data sharing across Whitehall departments and devolved governments.** The work of the ADR UK Strategic Hub was highlighted as being crucial to "unlocking" data from across Whitehall departments by building the relationships and trust needed for data owners to share administrative data.

- **Establishing closer links between researchers and policy.** Whilst connecting academic evidence and policymaking comes with difficulties (which are not specific to ADR UK), case studies and bibliometric analysis show that research funded by ADR UK, or using ADR UK-funded datasets, is beginning to influence policy. The socio-economic benefits associated with more informed policymakers will increase as more projects move from the data acquisition and analysis phases into publishing findings.

In terms of return on investment, we conservatively estimate that the partnership has a partial benefit-cost ratio of 5.05 to date.

Our economic analysis of the first four years of the ADR UK investment points to strong return on investment (ROI) across the partnership. Using a relatively conservative methodology which is based upon economic estimates of ADR UK's outputs and outcomes as defined in the partnership Theory of Change we have calculated the benefit-cost ratio (BCR) of the programme as 5.05. That is to say, for every £1 spent on the programme, it produces an estimated £5.05 worth of benefits.

This excludes some of ADR UK's wider socioeconomic potential for informing evidence-led policy. We have begun to estimate the value of these impacts using case study examples (see section 6.11), but excluded these estimates from the BCR at present, due to attribution challenges and the fact that most tangible impacts on policy are most likely to be realised in the future.

The partnership is performing significantly better than its previous iteration (ADRN), particularly when it comes to the sustainability of outcomes.

From interviews especially, it is clear that stakeholders across government and academia who were involved in ADR UK's previous iteration, the Administrative Data Research Network (ADRN), feel that **ADR UK has made significant improvements upon the previous delivery model**.

ADRN functioned as the primary point of comparison for ADR UK in this evaluation since it also sought to promote the use of administrative data for academic research but under a different delivery model. A number of senior stakeholders also have experience of both partnerships, which facilitated direct comparisons. We have used ADRN as a counterfactual in qualitative interviews and surveys, and, where data was available from the previous programme, to support the bibliometric analysis.

"You had to destroy the dataset once the research had been done, which makes no sense [...]. It's night and day in terms of the effectiveness of the model"
Interviewee 16

In particular, interviews highlighted how ADRN operated on more of a project-by-project basis, connecting academics with departments to conduct research on linked administrative data which then had to be destroyed upon the completion of research. **ADR UK's model is much more sustainable**, **conserving data linked under the partnership for future use**, and as such, opening up value through data reuse.

More generally, **ADR UK was also acknowledged as a more cohesive partnership between the four nations than its predecessor**. Whilst there remain opportunities for further knowledge sharing across the devolved governments, particularly between the trusted research environments (TREs), researchers in particular value the support of the Strategic Hub and the networking opportunities provided by ADR UK.

The only area where we were unable to identify a positive shift from ADRN to ADR UK concerned data access (see the following finding). Nonetheless, direct comparisons of data access between these two periods are somewhat difficult. Before ADR UK, educational outcomes data held in the National Pupil Database was the only administrative data widely used by researchers. The Department for Education would send physical copies of the data for researchers to analyse locally. This process was replaced by the trusted research environment model after the Information Commissioner's Office identified security concerns, a move which coincided with the advent of the ADR UK pilot phase in 2018. As such, there is some risk that researchers associate ADR UK with longer waiting times for data, when these changes were actually external to the partnership.

Researcher experience remains one of the partnerships' main challenges, particularly when it comes to the timeliness of data availability.

Despite the programme's successes, **the most significant challenges we uncovered through interviews and surveys concerned timely access to data**.

Whilst researchers were overall satisfied with how easy it is to use the TREs once access is granted (with the exception of some respondents facing technical issues), there was a general sense that data access takes too long.

In particular, we heard that access forms are long and complicated, accreditation can be time-consuming, and that some researchers have faced delays in linked data becoming available which haven't been well communicated by TREs.

> *"This is the weak spot. It still takes too long to gain access to data and the process is very cumbersome."*
> Survey respondent

We recognise that **these concerns must be balanced against data owners' security requirements**. However, there is scope for ADR UK to work with the TREs to conduct more focussed service design work to find further opportunities for the researcher journey to be simplified, or, at minimum, to help set more realistic expectations around data access. Beyond this, the ADR UK partnership should also collaborate with the Central Digital and Data Office / Department for Science Innovation and Technology to explore how further external intermediation might be introduced in cases where delays are significant, to provide more motivation for departments and TREs to provide timely access to data.

This work is particularly important considering the planned migration to the Integrated Data Service, where we have heard ADR UK have already been instrumental in advocating for academic user needs (Interviewee 29, Interviewee 23). Continuing to reduce the barriers for researchers to access data will be instrumental to maximising data use, a prerequisite for the wider social and economic benefits of the partnership.

Research is beginning to inform policy, but more can be done to ensure academic insights transfer to policymakers and any impacts are tracked.

Experts we spoke to acknowledged how **informing policy through academic research can be notoriously challenging** and emphasised that this problem is not specific to ADR UK. On the one hand, academic research incurs large costs and delays associated with 'one size fits all' competitive funding bids and publication processes which are not optimised for informing policy. On the other hand, policymaking cycles run on much shorter timelines, are rarely influenced by a single piece of evidence and are often directed by ministerial imperative rather than academic research.

Yet despite these challenges, **bibliometric analysis and case studies show that ADR UK-funded research is starting to influence policy**. Examples include ADR UK-enabled research which informed Wales shift to Alert Level Zero during the COVID-19 pandemic and provided evidence for the extension of Scotland's Minimum Unit Pricing policy in 2024.

Influence on policy seems only set to increase as a result of ADR UK's investment in improving the interface between research and policymakers, whether that is through promoting digestible findings in the form of or directly embedding research fellows into government teams.

However, engaging with the ADR UK community throughout the evaluation made it clear that there is an opportunity to further strengthen ADR UK's influence on policy. We found that i**t is currently very hard to track policy impact, and stakeholders feel responsibilities around recording impact could be better defined**. Further clarity here, as well as investment in resources such as Overton.io, which allow policy impact to be tracked more efficiently, would help ADR UK as more projects shift from data acquisition and analysis into disseminating findings.

There are changes ADR UK can make to its MEL processes which will make it easier to evidence the partnership's value in 2026.

ADR UK Strategic Hub has made progress in creating an MEL framework for the programme and in collecting data from across the partnership through Quarterly Hub Reports. Nonetheless, the **information returned by partners is often reported back in different formats and to different degrees of detail**, which makes tracking progress over time more difficult.

We think there are some steps which can be taken to improve MEL reporting, to **make it clearer for partners how they need to report**, and in some cases to **centralise data collection** to remove burden on partners where it is clear that they are having difficulties responding. This should also make it easier for the team within the Strategic Hub to collate responses and provide updates on progress.

A more detailed set of MEL recommendations is included in Section 5 of this report, including recommendations to:

- Ensure that partners are reporting either cumulatively, or quarterly shifts in totals such as

dataset counts. Edit existing data to ensure consistency (already underway)

- Begin to track publication counts quantitatively in QHRs – as far as we are aware there is currently a lack of quantitative publication counts, and collating this information from across ResearchFish, websites and QHRs is time-consuming

- Begin to use bibliometric software such as Overton.io to track policy impact at scale, in combination with more targeted qualitative approaches which capture the nuance of research impacts

- Ask partners to provide DOIs to support the above, at the moment, collating DOIs from across various time sources is also time-consuming, which could pose a challenge if ADR UK is to use bibliometric tracking software on an ongoing basis

Looking forward, ADR UK will need to navigate a changing data-sharing landscape, which comes with some new challenges but, more importantly, sizable opportunities.

To get the best out of the remainder of the investment and beyond, ADR UK will need to navigate some upcoming changes. In the short term, ensuring the **migration from ONS' Secure Research Service to the Integrated Data Service** goes as smoothly as possible will be crucial to maintaining and improving upon the levels of data use, which are so integral to the wider benefits of the programme.

As mentioned, interviewees have flagged that ADR UK has already played an important role in helping to represent different stakeholder needs in conversations around the shift to IDS. Finding the balance between ensuring stakeholder needs are heard and moving towards a more modern infrastructure which may require researchers to update their practices will be important over the coming months. More targeted service design work, to seek out further efficiencies in the data access process, would help to tackle the issues with timely access encountered over the course of the interim evaluation.

A **new government** also looks set to change the wider data-sharing landscape in the UK in a way which aligns with ADR UK's existing objectives. For example, the manifesto pledge to improve cross-government data-sharing for the public benefit echoes the goals of ADR UK's Theory of Change. Moreover, research-ready data funded and enabled by ADR UK would be well suited for inclusion in the proposed new [National Data Library](#).

As such, the change in administration provides a promising opportunity for the partnership to seek further buy-in from the central government. In particular, it opens up the possibility of conversations around how the central government might provide departments with more of an incentive (or a mandate) to share data, reducing the current dependency on individual champions and paving the way for data sharing within their departments. ADR UK will need to form the right relationships to ensure that its partners are granted a seat at the table during these upcoming discussions and that

any new initiatives such as a [National Data Library](#) do not unduly replicate or diminish any of its efforts to date. We note that ADR UK has already acknowledged the potential of the National Data Library in [a blog](#) published in August 2024 by the partnership's Director.

2. Introduction

This report presents the findings of the midterm evaluation of Administrative Data Research UK commissioned by UKRI in 2024. ADR UK is a major ESRC investment which has established a UK-wide partnership to transform the wealth of administrative data held by the government into academic research assets, with the ultimate goal of informing evidence-led policymaking. The study ran from April 2024 to October 2024 and was conducted by Oxford Insights and Lateral Economics with advisory input from the Open Data Institute.

2.1. Evaluation questions and objectives

Fundamentally, this evaluation seeks evidence to understand **to what extent ADR UK is a worthwhile and cost-effective investment.** All our work looks to provide insights and tools which can start to answer this question, paving the way for a final evaluation of the cost-benefit analysis of any future business cases. Supporting this overarching goal, the evaluation has 3 primary objectives, each with a relevant set of evaluation questions as defined by ADR UK:

1. **Understanding to what extent ADR UK is delivering as intended and progressing in achieving its strategic outcomes as well as its economic benefits and social impacts**.

    a. According to the theoretical model, is ADR UK delivering the expected changes in transforming access to public data and the use of research for policymaking? Are the assumptions still valid for the rest of the implementation period?

    b. Is the Theory of Change reflecting the way in which ADR UK should be enabling the government to make policy that supports economic growth and better public services to improve people's lives?

    c. To what extent and how has ADR UK increased trust and sustainability among stakeholders in the need to release data?

    d. To what extent and how has ADR UK increased research to deliver measurable public good with demonstrable impact in addressing major societal challenges?

    e. To what extent and how has ADR UK increased researcher access and seamless service support?

    f. To what extent and how has ADR UK increased the availability of useful long-term and research-ready resources to address societal challenges?

g. What knowledge, economic and social impacts from ADR UK can be evidenced from case studies?

h. Are there any unintended spillovers, externalities or outcomes that were not expected as part of the implementation of ADR UK that are relevant to consider for future funding?

2. **Learning what has and has not worked well in the implementation and delivery of ADR UK, including an articulation of the reasons, good practices that have been developed, and main bottlenecks.**

   a. What elements of ADR UK's processes and implementation plan have worked well in influencing policy and what elements have room for improvement and how?

   b. What are the main bottlenecks researchers, data owners and policymakers have encountered in producing and using research outputs to address major societal challenges?

   c. How effective has ADR UK been in collecting monitoring information to inform the delivery process?

   d. How effective has ADR UK been in engaging with policymakers (Whitehall departments and devolved governments) to link administrative data across sectors and geographies, make it available and use research outputs for public policy?

   e. How effective has ADR UK been in interacting with researchers to use public data to create knowledge and engage in partnerships to influence policymaking?

   f. To what extent will ADR UK's impact be sustained beyond its initial period of implementation, and what factors may influence or limit this?

   g. Considering the Critical Success Factors, how effective has ADR UK been in promoting the service and interacting with data owners and the research community?

3. **Providing recommendations on methods for the final impact evaluation (in 2026) and any additional metrics or other data that ADR UK should be collecting to facilitate this.**

   To what extent are the current indicators in the ADR UK's monitoring and evaluation plan pertinent to measure the outcomes and impacts of the investment?

   a. To what extent is the data collected by ADR UK relevant and sufficient to assess the economic and social impacts of the programme?

   b. What evidence needs to be collected for ADR UK to be able to measure the economic and social impacts and which tools would be the most feasible to use?

   c. What is the feasibility of conducting a counterfactual analysis to measure the

outcomes and impacts of ADR UK and what are the necessary conditions to perform it?
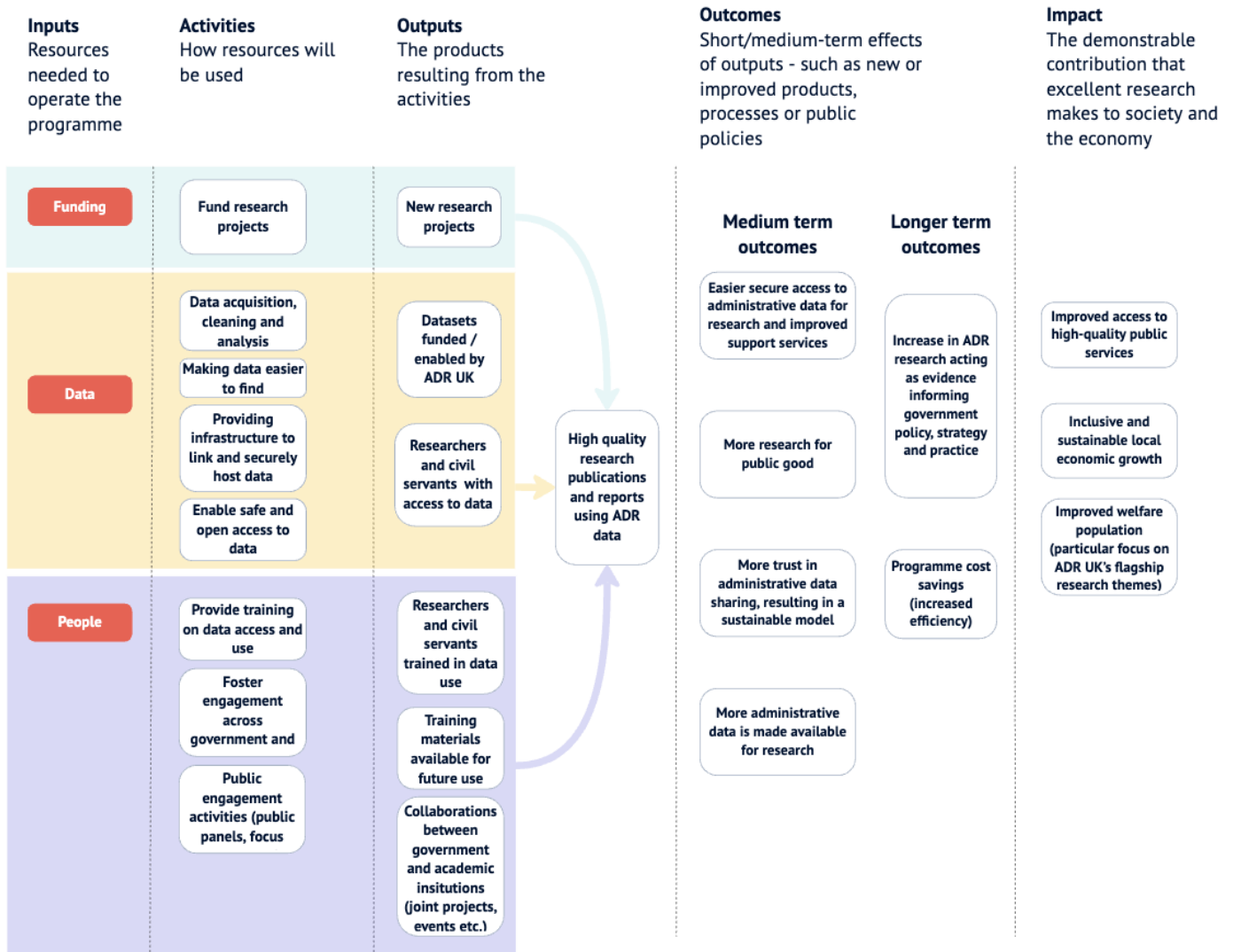
2.2. Methodology and rationale

Phase 1 of the project was focussed on revising the programme Theory of Change and a draft evaluation framework, which sets out indicators for tracking progress against ADR UK's targeted outputs, outcomes and impacts. Having established a set of appropriate indicators, we then worked with ADR UK stakeholders to determine research methods. A **mixed-methods approach** was favoured due to the need to combine quantitative and economic findings with more qualitative assessments of the effectiveness of ADR UK's delivery model (meeting Objectives 1 and 2).

During Phase 2 we then collected data from a combination of secondary sources, trusted research environments, surveys and interviews that supported the economic quantification of ADR UK's outcomes, outputs and early impacts, feeding into a cost-benefit analysis. This ratio was calculated by simply dividing the benefits produced by the programme by the cost incurred in conducting it. To calculate the benefits, we quantified and monetised a number of the outcomes, outputs, and impacts highlighted in ADR UK's Theory of Change.

Calculating the BCR involved making a variety of simplifying assumptions, underpinned by the Theory of Change, around how these benefits are realised and, subsequently, monetised. These assumptions will be outlined in each of the relevant following sections as well as the Technical annex.

Phase 3 of the evaluation was then focussed on writing up our analysis in this report.

The full evaluation framework detailing indicators and methods is available in the annex, alongside the Theory of Change. A summary of the Theory of Change and evaluation methods is included below, whilst further detail on challenges and limitations is available in the Technical annex.

Inputs
Resources needed to operate the programme

Activities
How resources will be used

Outputs
The products resulting from the activities

Outcomes
Short/medium-term effects of outputs - such as new or improved products, processes or public policies

Impact
The demonstrable contribution that excellent research makes to society and the economy

Funding

Fund research projects

New research projects

Data

Data acquisition, cleaning and analysis

Making data easier to find

Providing infrastructure to link and securely host data

Enable safe and open access to data

Datasets funded / enabled by ADR UK

Researchers and civil servants with access to data

People

Provide training on data access and use

Foster engagement across government and

Public engagement activities (public panels, focus

Researchers and civil servants trained in data use

Training materials available for future use

Collaborations between government and academic insitutions (joint projects, events etc.)

High quality research publications and reports using ADR data

Medium term outcomes

Easier secure access to administrative data for research and improved support services

More research for public good

More trust in administrative data sharing, resulting in a sustainable model

More administrative data is made available for research

Longer term outcomes

Increase in ADR research acting as evidence informing government policy, strategy and practice

Programme cost savings (increased efficiency)

Improved access to high-quality public services

Inclusive and sustainable local economic growth

Improved welfare population (particular focus on ADR UK's flagship research themes)

Summary of the ADR UK Theory of Change as agreed in Phase 1 of this evaluation.

Method	Rationale
Held a total of 30 key informant interviews with: • 8 researchers • 4 data owners • 5 TRE stakeholders • 5 ADR SHUB stakeholders • 8 policymakers	• Allows us to collect more nuanced qualitative insights on the effectiveness of ADR UK's delivery model (what has and hasn't worked well) • Possibility of raising unexpected outcomes / consequences of the ADR UK programme not previously accounted for in the evaluation framework
Surveys (targeting policymakers, data owners, data analysts and academic researchers) We received **109 survey responses** from: ○ 68 researchers ○ 8 data owners ○ 9 data analysts ○ 12 policymakers ○ 12 Government Economic and Social Research network stakeholders	• Broadens the sample of stakeholders who can be reached • Allows us to collect broad estimations of ADR's value across various indicators (e.g. time saved, number of times data is accessed) • A way of seeking counterfactual estimates (for those with ADRN experience)
Bibliometric analysis Combination of key-word searches (how many times does ADR UK appear in policy) with DOI searches (how many times do ADR UK funded/facilitated research papers appear in policy)	• Allows us to categorise the different ways in which ADR UK funded and facilitated research appears in policy documentation • Facilitates a comparison with ADRN
Case study analysis of 6 case studies from across the devolved nations supported by desk research and interviews. Case studies included: • MoJ Data First – Criminal Courts Linked Data • Vaccination rates in Welsh Schools • Policing the Pandemic in Scotland • Trajectories of Social Care Leavers in Northern Ireland • Local Data Spaces – Supporting Local Authorities with COVID-19 testing • Informing Minimum Alcohol Unit Pricing	• Allows us to evidence the way in which ADR UK is seeking to influence policy across different thematic areas, how research aligns with government priorities, and how projects are maintaining public trust in admin data sharing • Supports the economic quantification of benefits

|	
policy in Scotland	
Analysis of existing data collected by trusted research environments (TREs) and ADR UK Strategic Hub (e.g. Quarterly Hub Reports).	• Allows for the analysis of ADR's progress on core indicators related to dataset creation and researcher access • Supports economic analysis (e.g. on value of datasets)

Table of methods employed during the interim evaluation

3. Overarching findings

Overall, ADR UK is delivering strong return on investment. A conservative estimation of the partnership's economic benefits has a year-to-date benefit-cost ratio of 5.05.

Evidence collected during the midterm evaluation suggests that ADR UK is a cost-effective partnership that delivers benefits well in excess of the costs of funding it. We have calculated the year-to-date (YTD) benefit-cost ratio (BCR) of the partnership as 5.05. This means that for every £1 invested—that is for every £1 of cost—the programme produces £5.05 worth of benefits, factoring in yearly adjustments to account for inflation. **The full extent of the programme's benefits is likely to exceed this BCR** since ADR UK's major economic potential lies in informing evidence-based policy. Whilst we have begun to estimate the extent of these impacts through case studies (see section 6.11) these figures are excluded from the BCR below at present to account for challenges in robustly attributing impacts to ADR UK funding specifically.
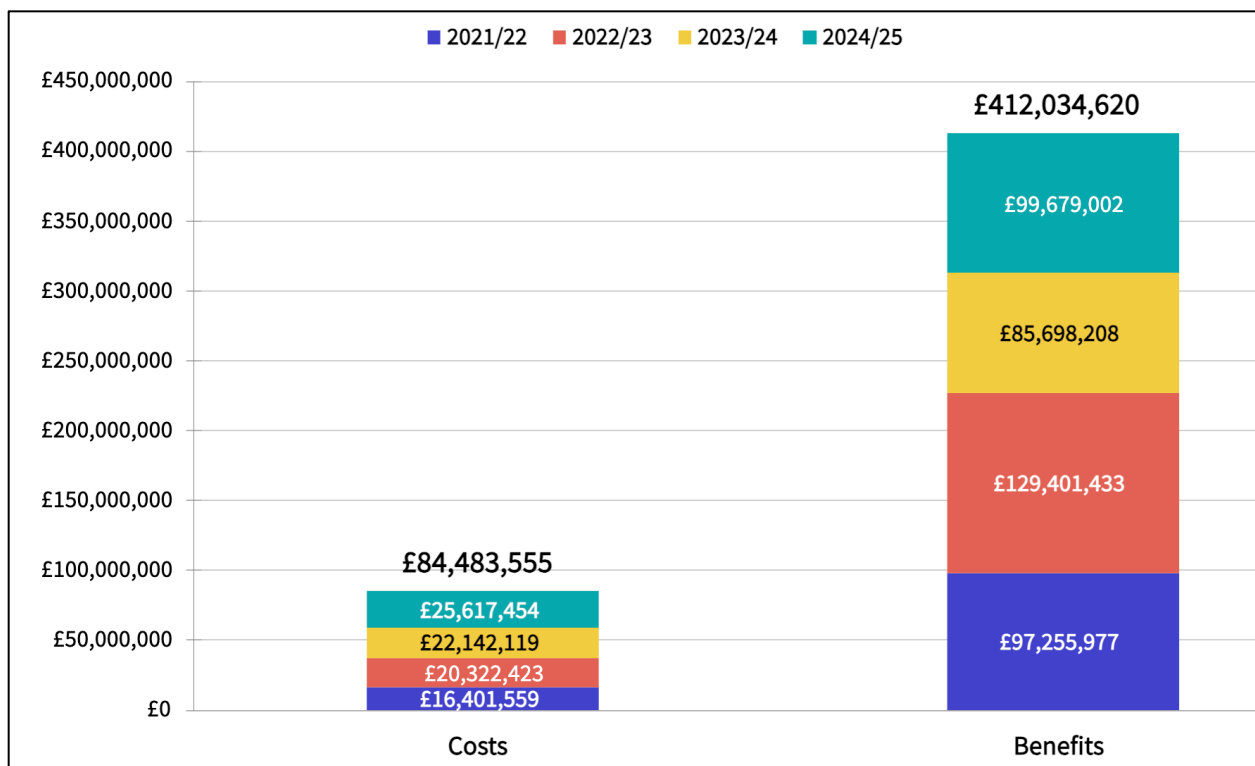
The benefit-cost ratio is primarily driven by outputs, as it remains difficult to quantify longer-term outcomes and impacts of the programme, such as informing policy, at scale at this stage.
The datasets funded and facilitated by the programme constitute the biggest driver of benefits within the BCR, accounting for over 92% of the total benefits quantified. This aligns with findings from interviews, where stakeholders close to the partnership emphasised that ADR UK's most

consistent value lies in the data and research environments it funds. As one interviewee put it, whilst policy priorities and government research interests will shift over time, the data and infrastructure funded by the partnership will endure (Interviewee 7). Due to datasets playing a fundamental role in the BCR, the total benefits for the third year of this investment are somewhat lower comparatively since the ratio of costs to datasets was lower in 2023/24.

Wider benefits included in the BCR include:
- Operational cost savings due to having a dedicated linkage team funded by ADR UK (6.78% of total benefit share),
- The value of ADR UK-enabled events and collaborations (0.03%),
- Wage premiums from ADR UK funded PhDs (0.02%)
- The value of ADR UK-funded training courses (0.01%).

To test assumptions further and give us a better understanding of the possible range of benefits for the project, we conducted a sensitivity analysis. This involved providing upper and lower bounds for some of our assumptions—primarily those most critical to the BCR and those which rely on single sources—and recalculating the BCR based on these changes. In doing this, we found that **the lower bound for a year-to-date BCR of the project is 4.56 and the upper bound is 21.20.**

More detail on the methodology behind the economic quantification of each benefit and how we conducted sensitivity analysis is available in the [Technical annex](#).

The midterm evaluation found that ADR UK is on track to deliver upon most of its expected outputs, outcomes and impacts as outlined in its Theory of Change.

Where data is sufficient to track progress, the midterm evaluation found that ADR is on track to meet its goals, as illustrated in the Theory of Change. Indeed, **89% of survey respondents across government and academia claimed that they felt that ADR UK was either likely or extremely likely to meet its objectives**.

Even where pain points were identified, they did not call into question the validity of the partnership's logic model, but rather called for improvements in its implementation. Overall, interviews and a thorough review of the partnership's logic model found the Theory of Change and its underlying assumptions to be coherent.

The only area in which the Theory of Change was partially challenged was in its assertion that by supporting the creation of research using administrative data ADR UK can contribute to better informed government policy. Interviewees from both government and academia emphasised that policy is rarely influenced by a single piece of evidence and can be directed by competing factors (e.g. ministerial imperative) rather than academic research. Despite these doubts, there is evidence that ADR UK-enabled research *can* inform policy, leading to positive socioeconomic outcomes (see [section 6.11](#)). **As such, this interim evaluation concludes that the logic model**

remains valid, but attributing policy impact to ADR UK interventions requires further attention moving forward.

There is evidence of ADR UK meeting most of the Critical Success Factors (CSFs) as outlined in the 2020 programme business case.

ADR UK's 2020 programme business case identified a series of 8 critical success factors which were identified as being instrumental to achieving the partnership's goals. This interim evaluation has found evidence of the partnership meeting, or partially meeting, 8 of these critical success factors. Note that one CSF, regarding the establishment of Centres for Doctoral Training (CDTs), no longer applies, since ADR UK has pivoted away from its original plan to invest in CDTs.

ADR UK's progress in line with the 2020 critical success factors is summarised in the table below:

Critical success factor	Summary of evaluation findings
1. There is tangible evidence that ADR UK is known and trusted throughout government as a route to make better use of existing data and informing policy.	The midterm evaluation found evidence that **ADR UK is meeting this CSF.** In qualitative interviews and survey responses, we heard repeatedly that ADR UK has a positive reputation as a trusted mechanism for sharing data with the academic community. In the words of one academic "the reputation helped us out [...] the fact it is a UK wide consortium with a brand, it developed trust and interest" (Interviewee 10).
2. ADR UK is being approached directly by government departments to help them make better use of their data to inform policy. This has in part been driven by a cultural shift in government use of data, to which ADR UK has contributed. (Measured by an increase in departments with ADR UK funded projects).	**This evaluation found this CSF to be partially met**. We found no evidence of engagement beginning by departments reaching out to ADR UK. Whilst we heard that the Strategic Hub plays an important role in raising awareness of the model amongst departments and building trust, we did not encounter evidence of departments themselves proactively reaching out to the partnership. Nonetheless, the number of departments involved in ADR UK funded projects is steadily increasing year on year. However, the evaluation identified a need for further mandate from the central government in order to achieve a wholesale cultural shift in terms of how departments conceive of data sharing for research.
3. ADR UK has a growing suite of linked administrative datasets in the UK's secure setting and data centres, which researchers can apply to use, either with or without funding support from ADR UK, and these are well showcased online with comprehensive user guides.	The evaluation found evidence that **ADR UK is meeting this CSF.** Over the course of the investment, the partnership has contributed to at least 126 datasets becoming available, either by directly funding linkage projects, or the infrastructure that data is held upon. Datasets are well showcased online on ADR UK's comprehensive [Data Catalogue](#) and academic researchers spoke of a recent improvement in metadata and user guides, due to the partnership's influence.

4. ADR UK has efficient and transparent processes for data deposit, acquisition and researcher access across the UK. Integration and sharing of administrative data exist between all parts of a coherent system and across the UK.	The evaluation found evidence that **ADR UK is meeting this CSF, but there remains scope for improvement.** Most academic researchers told us that without ADR UK there would be no transparent process for getting access to administrative data. However, there remain issues with efficiency in terms of delays getting access to data, as detailed in this report. Whilst ADR UK has established mechanisms for secure administrative data sharing for research across the UK, there also remain opportunities for further standardisation across devolved governments, particularly in terms of trusted research environment access times and conditions.
5. ADR UK has conducted a programme of public engagement that has produced recommendations for the research questions and issues that should be investigated using linked data. The engagement work is ongoing as newly linked datasets emerge.	The evaluation found that **ADR UK is clearly meeting this CSF** and has included public engagement activities as a requirement for all projects funded by the partnership. Researchers highlighted public engagement as a key contribution of ADR UK, emphasising that the partnership's funding in this area was fundamental in allowing them to "co-produce" research questions with the communities most affected by the social issues in focus.
6. Continuing opportunities, informed by engagement work for funding for research projects through targeted and open calls, with some projects near completion.	**There is strong evidence that ADR UK is meeting this CSF.** Funding data makes it clear that the partnership is continuing to support research projects, either through open calls or "core" funding allocated amongst the devolved nations.
7. ADR UK is producing high impact research findings which are being used to shape policy and build bodies of knowledge within population data science. Our research findings have revealed valuable insights which are utilised by policymakers.	**There is evidence that ADR UK is beginning to meet this CSF and is likely to inform more policy over the coming years as projects mature**. Over the course of the evaluation, we found various instances of research funded by the partnership informing policy, as detailed in section 6.9. In our survey to academic researchers, most respondents reported that their research was likely to inform policy over the next two years.
8. New Centres for Doctoral Training are established to fund doctoral students to address significant public policy and public service challenges, supported by research fellows to ensure there is senior academic expertise to nurture the doctoral students and maintain the talent pipeline. In addition, work with ESRC	**This CSF is no longer applicable** in that ADR UK has made the decision to pivot away from funding a new Centre for Doctoral Training (CDT), due to feasibility and efficiency concerns. Instead ADR UK decided to "focus instead on increasing the number of PhD students and other researchers at different levels of experience trained to use the more complex linked administrative datasets" (source). **There is evidence, detailed in this report, that the partnership is meeting this new aim.** Over this investment

to ensure ESRC-funded PhD students are trained to use ADR UK datasets.	ADR UK has funded one cohort of 20 new PhD students. Moreover, over 100 academics have attended ADR UK training events.

ADR UK's processes are facilitating the availability and use of over 200 linked administrative datasets, but there remain opportunities to improve the academic researcher user journey.

ADR UK's current processes are effective in that they allow thousands of academic researchers and government users to access linked administrative data which would not be available without the partnership. In interviews and survey responses, we heard how the ADR UK process for accrediting academic researchers and providing them with secure access to data was fundamental in giving government departments the assurance they need to share data outside of the public sector. These rigorous procedures have helped the partnership to establish a reputation as a trustworthy intermediary between the academic community and government.

Nonetheless, there are several opportunities for improving ADR UK's processes, as detailed further in the report. In summary, we recommend the partnership should focus on:

- Making the researcher journey even more efficient, since many academic researchers are still reporting lengthy wait times when seeking access to data (see section 6.5). This could involve introducing some form of intermediator into the process, who academic researchers can appeal to when wait times significantly exceed anticipated timelines.

- More efficiently tracking the impact of research on policy at the central level by introducing the use of bibliometric software to reduce reliance on Quarterly Hub reports (see MEL recommendations and section 6.9).

- Exploring avenues by which ADR UK's processes for making administrative data available for research might be further standardised across government through central government mandate, given that the current delivery model is largely dependent on the buy-in of individual champions (see General recommendations).

The evaluation found no evidence of unintended negative consequences of the investment, but there have been positive spillovers not originally anticipated in the programme business case.

Firstly, the programme has led to the creation of a new tool for improving data linkage practices: Splink. Splink is a free and open-source software library used for more efficiently linking datasets at scale, which was developed by the Ministry of Justice after they observed a lack of an open-source tool for probabilistic record linkage when engaging in the Data First project. The tool has

since been used to link some of the largest datasets held by the Ministry of Justice, has been downloaded more than 3 million times as of 2022, and has won [a number of awards](#) for public sector innovation.

A second unanticipated consequence of the partnership has been that working with ADR UK has allowed multiple government departments to gain additional funding for cross-government data sharing. The Ministry of Justice, the Ministry of Housing, Communities and Local Government, Department for Health and Social Care and Welsh Government have secured funding for cross-government data sharing through the [BOLD (Better Outcomes through Linked Data)](#) initiative following their involvement with the ADR UK partnership. In two interviews, stakeholders noted that this additional funding would not have been secured without the experience and successes of their engagements with the partnership.

BOLD differs from ADR UK in that it focuses on internal government data rather than opening up administrative data for academic use. Nonetheless, these examples demonstrate how ADR UK can build momentum for broader data-sharing initiatives across government, having spillover effects in terms of securing further funding.

4.   General recommendations

1.   Where the programme has succeeded in making data available, ADR UK's focus should shift from "getting the data in" to "getting the data *used*"

Across interviews, it was clear that a number of stakeholders across all academic and government interest groups are eager for the partnership to shift towards a **further emphasis on informing policy** (this argument was raised in 11 interviews).

As one interviewee (7) put it, the focus of a number of projects so far has been on "getting the data in". Now that ADR UK is succeeding in making large amounts of administrative data available for research purposes, **stakeholders are keen for even more effort to be applied to ensuring research insights are *used* by policymakers**.

ADR UK partners have already taken important steps to promote the transfer of research insights to policymakers, as evidenced by the partnership's dual publication approach and the promotion of easily digestible research outputs in the form of blogs, [Data Insights](#) and [Data Explained](#) reports. The results of this approach are starting to be seen; bibliometric and survey data collected during the evaluation confirms that ADR UK research is beginning to inform policy in some cases.

More broadly, however, **interviewees across both government and academia were often unclear as to how and whether policymakers were engaging with the outputs of ADR UK-funded and enabled work.** In some cases, there appears to be a disconnect between policy teams and academics working

closely with their direct contacts within the government (who often work in data and analysis functions).

As ADR UK moves forward, it should explore ways of further bridging these gaps to ensure more policymakers are engaged with these outputs, know where to access them, and are aware of the value which ADR UK-funded research can bring them. The partnership should also continue to push for researchers to create policy-relevant research, **actively positioning itself as the interface between academia and government, which helps academics produce policy-relevant and policy-ready research.** We acknowledge that ADR UK has already made some progress here, for instance, by funding an [engagement programme through the Department for Education](#), which focuses on ensuring that all research aligns with policy priorities, as detailed in the Department's Areas of Research Interest.

One way to achieve this could be to introduce **more opportunities for researchers to interact directly with policymakers**, present their work, and respond to more urgent government queries (as evidenced during the pandemic) as part of standard project processes. For example, the partnership should consider introducing a requirement for academics on larger projects to meet with policy teams to brief them on findings and respond to any queries or invest in events targeted specifically at introducing more policymakers to research funded by the partnership.

2. The partnership should also clearly define who holds the responsibility for tracking policy impact and explore ways of tracking this impact more efficiently (e.g. through Overton.io)

As a corollary to the above, our research also made it clear that **it can be very difficult to track the impact of research on policymaking**, even if findings are delivered to government teams in an appropriate format. Academics we spoke to often lacked visibility of how their work had been used, limiting their ability to evidence the impacts of ADR UK in the evaluation.

We recognise that this is a challenge which is not specific to ADR UK; tracking policy impacts can be notoriously difficult; various pieces of evidence and political actors can influence policy, making it difficult to attribute policy changes to a single piece of research. However, **ADR UK can do more to ensure that any contributions to effective policymaking are well documented**. This will be particularly crucial as the programme matures and begins to shift its focus towards the latter half of its Theory of Change, seeking to evidence its impacts.

As a first step, stakeholders on all projects should ensure that they **clearly define who holds the responsibility for tracking policy impact**. It would seem logical that some of this responsibility falls within government, where stakeholders have better visibility over how findings are used.

Moreover, in any future investment, there could be an **opportunity for ADR UK to create more dedicated resources within the Strategic Hub for monitoring impact on policy**. For instance, a policy monitoring officer could be explicitly responsible for coordinating a more consistent approach

to tracking policy impact through government champions and research fellows embedded in departments. Additionally, **adopting new technologies such as Overton.io could help ADR UK to better track any impact on policy centrally and efficiently**, somewhat reducing the burden on QHRs as the main mechanism for collecting this information (see also [MEL recommendations](#) for more detail).

3. **ADR UK should lead the way on helping TREs to identify and remediate bottlenecks in terms of getting access to data, for example through focussed service design work.**

Researchers across surveys and interviews acknowledged the power of ADR UK's good reputation in government when granting them data access. Many made it clear that datasets simply would never be available to them without ADR UK.

Nonetheless, issues with the timeliness of data access emerged as one of the biggest challenges facing the partnership. **Some academics remain dissatisfied with how long it takes for the data to become available to them**, with more than a third of academic survey respondents reporting that it took them more than 6 months to access data.

In particular, a number of researchers flagged that they had experienced **delays in accessing data which was previously promised to them for an earlier date**, which can be particularly challenging when working to tight academic funding deadlines. Delays can be significant - e.g. when interviews took place in 2024, researchers in Northern Ireland had only just gained access to linked datasets incorporating 2021 census data.

Some researchers felt that there is scope for ADR partners and the Strategic Hub to further "nudge" data owners to provide this data, and TREs to link it and provide access along more reasonable timelines. We recognise that it might not always be possible for ADR partners to speed up these processes in this way, due to dependencies on other actors.

However, in response to these challenges, **ADR UK should invest in more focused service design work across the TREs**, to better understand the nature of some of the bottlenecks alluded to in this evaluation (such as delays passing Research Accreditation Panels) and how to remediate them. Here, the partnership can build on early successes such as the [simplification of the ONS output clearing model](#), which help to showcase the potential for making the current process for accessing data more efficient. Investing in this work could help to reassure researchers that ADR UK is advocating for the fastest outcomes possible.

At a minimum, ADR partners could also play more of a role in getting more realistic estimations of when data will be made available to research projects (to assist in academic planning and managing expectations). Going further, **the partnership might also explore how delays might be escalated to some form of intermediator**, which could help to expose any lack of urgency and incentivise timeliness. Collaborating with the central government would be key to empowering such

an 'ombudsman' style body (see recommendation 7).

4. There is also an opportunity to promote even further collaboration across the four nations, especially when it comes to sharing expertise around providing efficient data access.

It is not surprising that the evaluation found that ADR partners have not progressed uniformly over the course of the investment, given that each of the devolved nations started the investment with varying contexts, challenges and levels of maturity. ADR UK is clearly succeeding in making its delivery model feel like more of a true partnership; a number of interviewees cited the role of the Strategic Hub in organising events and promoting networking as a real contribution to their work.

Nonetheless, **there remain even further opportunities to promote collaboration across the four nations, particularly when it comes to improving researchers' experience when seeking to access data**. Here, some of the TREs are trailing. For instance, NISRA does not yet provide remote access to datasets and needs to increase the frequency of its updates, and the experience in Scotland remains "clunky" to cite one interviewee (17).

Therefore, we suggest that as ADR UK looks to improve academics' experience along the first part of the user journey (as recommended above), it continues to encourage TREs to share learnings and best practices. This might involve hosting **more joint events for TRE stakeholders** or promoting **more projects across the four nations through which technical best practices can also be shared.** The latter could also meet researchers' calls for more projects using data from across the UK's devolved nations to tackle major societal challenges (Interviewees 14 and 25).

5. ADR UK should focus specifically on 'unlocking' HMRC and DWP data, which has been identified as a priority by academics and civil servants alike.

It also became clear over interviews in particular that there is **particularly high demand for HMRC and DWP data to be made available** to researchers, both from academics and from government data owners in other departments who are eager to link their datasets.

We heard that the potential for HMRC and DWP data to contribute towards impactful research was particularly high, given that both departments hold data on income and socioeconomic deprivation. In the words of one interviewee (9), making this data available would "unlock masses more value" since data is applied to analyses across almost any research theme, to understand how poverty and wealth can be a driver of different outcomes.

Whilst ADR UK has recently succeeded in establishing a more formal partnership with HMRC, providing funding for them to explore how tax data might be made available for research, a number of interviewees alluded to **difficulties getting buy-in to release administrative data from DWP**, which unlike other departments requires ministerial sign off (Interviewee 3).

As ADR UK sets its goals for any future investment periods, **it should factor this high demand for DWP and HMRC data into its priorities for data acquisition**. In particular, a more explicit focus on unlocking DWP data is required. Practically, this could involve following the approach taken with HMRC and dedicating an initial period of funding to establish a firmer proposal for how data might be shared, giving DWP staff more dedicated time to understand how the programme works and allay concerns. This proposal would emphasise the potential benefits of sharing the data.

However, **we also acknowledge the risk of ADR UK investing considerable resources into a department where administrative data sharing is unlikely to gain traction**, due to factors beyond ADR UK's direct control, such as a misalignment of priorities. Where this is the case, we recommend that ADR UK encourages the central government to play more of a role in standardising the approach to administrative data sharing for research across departments (see recommendation 7).

6. In a changing political landscape, with new data-sharing initiatives potentially emerging, ADR UK should restate its value.

The new government's plans to change the UK data sharing landscape by establishing a [National Data Library](), resonate (and even have the potential to overlap with) ADR UK's mission. Research-ready data assets funded by ADR UK would be prime candidates for inclusion in a national repository of data sets intended to be used for public benefit. Moreover, there is clear alignment between the new government's [missions]() (relating to societal challenges concerning health, justice, climate and security) and ADR UK's own [strategic research themes]().

As interviewees (22,29) have highlighted, it is crucial that ADR UK establishes its footing within this new data-sharing landscape, making it clear where there is existing expertise, data, and infrastructure enabled by the programme.

Here, the ongoing work of the partnership's Strategic Hub will be particularly important in **keeping in-step with the latest developments regarding a National Data Library and responding quickly**, establishing the right relationships to ensure that any new investments build upon the successes of ADR UK.

The Strategic Hub is already aware of this need, as evidenced by [a blog]() published in August 2024 by ADR UK's Director acknowledging the potential of a National Data Library. Nonetheless, we re-emphasise the risk of a new initiative, such as the National Data Library replicating or diminishing what ADR UK has achieved should the partnership be excluded from conversations within the new government about the future of administrative data sharing.

7. ADR UK should also drive for further mandates in terms of how departments engage with administrative data sharing for research.

Finally, in light of changing policy context around departmental data sharing at a UK-government level, there could be an opportunity for ADR UK to push the Central Digital and Data Office to

standardise departmental approaches to administrative data sharing for research.

Right now, ADR UK's delivery model is somewhat **dependent on buy-in from champions across government**, particularly in departments where there are not established data sharing programmes in place (such as Data First in the Ministry of Justice). From the perspective of some interviewees, ADR UK is limited by the fact that it can only "ask nicely" for data to be added to TREs but has no central directive to rely upon (e.g. Interviewee 1).

Ultimately, **centrally set targets and responsibilities**, making it clear that departments are expected to share administrative data for research, would reduce the dependencies around buy-in which ADR UK currently faces, leading to a more sustainable model. Moreover, **introducing scope to appeal to an independent party when data access is not granted, or is not timely**, could better ensure that decisions are made in the public interest, rather than in the interest of data custodians.

Whilst it is of course outside ADR UK's remit to set such objectives, given the new government's focus on "data-driven public services", the partnership should look to **explore whether there is scope for a more centralised mandate for administering data sharing to be introduced** as it establishes itself in the conversation around the future of data landscape across government.

5.   MEL recommendations

In addition to the more general recommendations outlined above, we have identified specific opportunities for ADR UK to improve upon its current monitoring and evaluation processes. These recommendations seek to ensure that ADR UK collects the right data to track its performance against the Theory of Change and can robustly evidence its economic and social value going forward.

1.   ADR UK Strategic Hub should work with partners to standardise the information reported back in the Quarterly Hub Reports.

The ADR UK Strategic Hub has made important progress by beginning to collect data from across the partnership through Quarterly Hub Reports. However**,** at present, **the data returned by partners is provided in different formats**, meaning it must be manually standardised for the purposes of tracking progress across the board.

In some cases, this seems to be due to partners misinterpreting or misremembering Strategic Hub guidance. For instance, we found one case of a partner recording the number of datasets funded directly by ADR UK cumulatively as opposed to only recording new datasets per quarter. Whilst these mistakes have been identified and centrally corrected for the purposes of the evaluation, cumulatively, this takes time.

Moreover, much of the information provided in the QHRs is recorded in a mix of qualitative and quantitative responses. This unstructured information is difficult to analyse at scale and to use for

quantitative tracking and economic appraisal of benefits. This was the case for several indicators, for example:

- "Whitehall departments & devolved governments embedding data sharing on an on-going basis"
- "Peer-reviewed publications and academic journals"
- "Academics attending training events organised by ADR UK", and;
- "Research case studies produced (ADR UK funded and wider, e.g. researchers utilising ONS SRS)"

To address the issues above and further standardise the data received, there is an opportunity to redesign the QHR reporting process, making it clearer to partners exactly what data is required. **Switching from a Word Document QHR template to an online form**, for example, would allow the Strategic Hub to impose more parameters on how data is returned – i.e. by introducing numerical fields.

We recognise that the **Quarterly Hub Reports need to be user-friendly for the partners completing them, who are dealing with high volumes of work**, so any changes to the current process should be piloted before rolling out, factoring in stakeholder feedback.

2. **Similarly, ADR UK should consider removing some of the indicators currently included in the QHR template, which are difficult for partners to complete or less pertinent to the partnership Theory of Change.**

In addition to standardising the format of QHR reporting, **there is also an opportunity to refresh the indicators currently included in the template** to relieve burden on the partners completing it and ensure alignment with the Theory of Change.

For instance, it is clear from QHRs to date that the current reporting format falls short of collecting useful information on "ADR UK-funded research projects: - aligned to Areas of Research interest & devolved government need". Partners either emphasise that all their projects align with government needs or leave this field blank. As such we would suggest removing this field from the QHR, and instead evidencing alignment with government priorities qualitatively, through case studies.

We also suggest removing "Freedom of Information requests successfully handled" as a MEL metric, since this is largely unpopulated by partners and does not align with the Theory of Change as defined with ADR UK in Phase 1 of this evaluation. We recognise that there does need to be a process for reporting any FOIs handled, should this change as the partnership matures, so the field could remain as an optional question in a QHR form.

Similarly, partners are not providing "Evidence of on-going efficiency benefits in the collection and release of administrative data". We recommend that these efficiency benefits are instead

identified centrally, through the monitoring of key metrics provided by TREs regarding data access (see also MEL recommendation 6) and by repeating the researcher survey during the final evaluation in 2026.

3. **The Strategic Hub should dedicate more resources to tracking policy impact, both in terms of staff and tooling. Using bibliometric software to track mentions in policy documents, in combination with qualitative evidence, could be an efficient way of achieving this.**

As alluded to throughout the evaluation, **researchers and government stakeholders alike found it difficult to track where ADR UK-funded and enabled research has informed policymaking**. This was evident in both interviews and QHR responses, where partners have largely left the field "Evidence that ADR UK-enabled research has influenced government/public policy" incomplete.

One element of this solution is to encourage project teams to clearly define the responsibility for tracking (see [General recommendations](#)). Moreover, there is also **an opportunity for the Strategic Hub to play more of a role in tracking policy impact centrally**, particularly as projects mature and policy impacts scale in number.

Here, **we recommend that the Strategic Hub adopts Overton.io, or equivalent software**, to continually monitor for mentions of ADR UK-funded DOIs or key words in policy documentation.

Nonetheless, **we also recognise that such metrics, whilst useful for tracking progress at scale, can be overly mechanical when applied in isolation**. Research might turn up cited in policy documents on bibliometric software, but that does not necessarily mean it has had an impact on policy. As such, we recommend that bibliometric searches are always combined with more targeted qualitative approaches, which help to illustrate the nuance of how research is used in policy documentation.

One such approach might be to conduct periodic "deep dives" (mirroring those conducted during this midterm evaluation), where the Strategic Hub more closely examines a sample of policy documents flagged as citing ADR UK on bibliometric software. Stakeholders can then flag where research has genuinely informed a policy change (as opposed to being cited in a literature review, for example) and reach out to the relevant project team to better understand and document this process.

This approach could be used to build up a stronger evidence base of ADR UK's contribution to evidence-based policymaking but will require dedicated resources within the Strategic Hub. However, given that informing policy is a crucial precursor to ADR UK's target impacts, and has been identified as the next priority for ADR UK by interviewees, we suggest that this should be a primary focus for the partnership over the remainder of this investment and beyond.

4. Asking for additional data points on publications in QHRs will also further support the appraisal of ADR UK's contribution to evidence-led policy making.

For **Overton (or any other software for tracking policy citations) to work most effectively, ADR UK will need to consistently collect Digital Object Identifiers (DOIs)** for publications funded by the programme or using ADR UK-enabled datasets.

During this evaluation, DOIs were manually extracted from QHRs by searching the publication names provided, as well as being drawn from ResearchFish and the ADR UK website. However, this is a time-consuming task which could be made much more efficient by explicitly asking partners to provide DOIs in QHRs (we do, however, recognise that some more informal publications might not have DOIs).

Moreover, we also found that there is a lack of centrally accessible metrics on the total number of publications ADR UK has funded. Some partners do report this in QHRs under "Peer-reviewed publications", but these do not provide a comprehensive total when compared to the number of DOIs compiled from manual research. Therefore, **we recommend that the Strategic Hub focus on maintaining a centrally held total publication count and DOI lists**, actively building upon the figures identified in this evaluation by adding any additional data from QHRs and ResearchFish. This will support both the quantification of output metrics and policy impact tracking through Overton, as outlined above.

5. Improving metadata surrounding ADR UK-funded and enabled datasets will also assist in the monetisation of the programme's outputs.

When looking to assess the economic value of ADR UK datasets, we encountered challenges in that **it is not easy to determine the average size of datasets funded and enabled by the partnership** (e.g. number of records). This information is important, as any method for quantifying the value of a dataset needs to account for its relative size, and ADR UK datasets can vary in orders of magnitude in terms of number of records (ranging from thousands of records to several million).

Therefore, whilst the datasets funded and enabled by ADR UK are well documented in the ADR UK Data Catalogue **there is an opportunity to assist with future economic analysis by collecting information on data set sizes**, in conjunction with the TREs.

6. ADR UK should support trusted research environments to standardise reporting processes in a way which is mutually beneficial.

Finally, over the course of the evaluation we encountered varying levels of data quality and coverage in terms of the metrics collected by trusted research environments. As such we

recommend that ADR UK work carefully with TREs to seek ways of measuring the following priority indicators on a quarterly basis, so that progress can be tracked incrementally:

- **Time taken from user application to data access being granted:** tracking this across TREs will be crucial when seeking to evidence any future improvements to the timely provision of data access, identified as a priority by this evaluation. Currently, only SAIL is reporting on this metric.
- **Total number of user interactions with data:** monitoring how many times users interact with datasets (through session or login figures) is key to understanding the accessibility of ADR UK enabled datasets. ONS data here is of low quality, with a number of gaps, and the National Safe Haven in Scotland was not able to report on this metric.
- **Government/academic researcher interactions with data:** in addition to tracking the number of sessions, it is useful to have this data broken down by user group. Having data on government users and logins is particularly useful when seeking to evidence public sector analysts' engagement with datasets. The National Safe Haven in Scotland was not able to report on this metric and to date SAIL has not been able to provide this data broken down over time.
- **Number of datasets updated according to planning:** high-quality data needs to be updated according to schedule. So far only SAIL is reporting on this metric.

Whilst we understand that there are a number of resourcing and technical challenges which can impede capacity to track these metrics, we believe trusted research environments would also benefit from measuring the indicators above. Beyond their engagement with ADR UK, TREs are seeking to improve user experience, data use, and quality, and holding data on the above will allow them to measure their own progress towards such goals. The ADR UK Strategic Hub should emphasise these benefits when making the case for more consistent and robust metrics tracking across TREs.

Considerations for a 2026 evaluation

1. **Replicating the methods in this evaluation will allow for a longitudinal analysis of ADR UK's progress over time.**

As outlined in the methodology, over the course of the interim evaluation we have explored various methods for charting ADR UK's progress over the course of the past 4 years and beyond.

Mindful of the need for longitudinal analysis, we have sought out methods with a view to replicability in 2026, when ADR UK commissions a final evaluation. For instance, we have avoided including analyses based on specific case studies in the final Benefit Cost Ratio, instead focussing on monetising outputs and outcomes using data which is updated over time (e.g. publication counts, number of datasets).

We recommend that the final evaluation builds upon these same methods, in order to produce results which are comparable with those documented here, particularly when it comes to the quantification of economic benefits for the BCR. We also anticipate that this will make a 2026 evaluation more efficient, meaning that a future evaluation team can focus efforts on filling the gaps encountered at present.

2. ADRN remains the most readily available counterfactual for ADR UK's outcomes and impacts.

Over the course of the evaluation, it became clear that establishing counterfactuals for ADR UK's contributions is challenging. For instance, when we asked researchers and civil servants to estimate how long accessing or releasing linked administrative data would take in a hypothetical scenario without the ADR UK partnership, participants were unable to provide estimates. Instead, many participants flagged that linked administrative datasets for academic use would most likely not exist without ADR UK.

We concluded that the Administrative Data Research Network, the previous iteration of ADR UK, is the most readily available counterfactual for ADR UK, which has been designed to respond to some of the shortcomings of its predecessor. For some indicators, it is possible to make direct comparisons with historical ADRN data (e.g. on publication numbers, and bibliometric indicators exploring impact on policy). Elsewhere, a number of senior researchers have experience of both partnerships, which has allowed us to collect qualitative assessments of progress made between 2021 and 2024 in comparison with the ADRN period.

In the absence of any other robust counterfactual, **we suggest that a future evaluation continues to chart progress in comparison to ADRN and the results of this evaluation, which will provide a further point of comparison in 2026.**

3. Reducing a reliance on surveys for gathering estimations and finding alternative ways to ensure higher response rates will de-risk a 2026 evaluation.

As outlined in more detail in the challenges and limitations section of this report, one of the biggest challenges faced over the course of this evaluation surrounded surveys. There were some difficulties in assembling contact lists and due to low completion rates the survey window had to be extended, despite reminders being sent. Completion rates increased significantly upon a set of "final call" personalised reminder emails. However, for the policymaker, government analyst and government data owners survey, where the population of ADR UK contacts was smaller, sample sizes remained low.

Moreover, when we asked survey respondents to make quantitative estimations about various aspects of the ADR UK process (e.g. how long it takes to access data or provide access to a

dataset), respondents were often hesitant to provide responses as such metrics can vary significantly by project. **Therefore, whilst the surveys were useful for collecting feedback at scale, particularly from academic researchers, they were less valuable when seeking robust quantitative estimates of different outcomes.**

As such, where possible, **we advocate for a reduced reliance on surveys and for a 2026 evaluation team to combine surveys with alternative methods where possible**. For example, using bibliometric software to track the appearance in policy was much more revealing than asking policymakers how often ADR UK-funded research is cited in policy. Moreover, where quantitative estimates of metrics are required, for example, to build upon cost-saving analyses, **a 2026 evaluation could look to hold workshops where a sample of stakeholders are tasked with establishing estimates of how long parts of the ADR UK process take**. This could then be combined with survey estimates to strengthen the assumptions feeding into economic analysis. Alternatively, should dates align, **the ADR UK Conference could present an opportunity to ask participants to complete surveys**, helping to increase completion rates efficiently.

4. Working with TREs early in the evaluation process will be crucial.

Another challenge faced by this evaluation concerned the varying quality of data from the various trusted research environments, which is crucial to understanding data availability and trends in data use. We are very grateful to the ONS, SAIL, Scottish National Safe Haven and NISRA for their support in providing the data that they have and acknowledge that any evaluation of ADR UK is to some extent dependent on TRE data.

Therefore, **we recommend that future evaluators establish contact with TREs from the start of an evaluation**, making it clear from the outset what data is required from them and how it should ideally be reported. Whilst our team did establish contact with TREs within the first weeks of this evaluation, due to resource constraints and unplanned leave within TREs, we nonetheless experienced some delays, meaning that forward planning here is essential.

5. Where impacts on policy are beginning to be observed, final evaluators should look to use case studies to estimate their economic value, working with stakeholders to test assumptions around ADR UK's contribution.

Through both interviews and bibliometric analysis, it has become clear that ADR UK-funded research and data are beginning to inform policymaking. However, many more of these impacts are on track to be realised in the coming years as projects mature.

We have started to outline how the economic benefit of these impacts might be measured, through case studies which draw upon a combination of secondary literature and interviews with project stakeholders. Based on this initial analysis of some of the projected benefits of the programme, it is already evident that much of the ADR UK's economic value lies in its potential to lead to evidence-led policy making around some of the UK's biggest societal challenges. In this

sense, **even one successful ADR UK project could have economic benefits in the order of millions.**

As more projects reach the stage where insights are being fed into policy, and ADR UK shifts its focus towards documenting these impacts, **a future evaluation should seek to quantify these benefits, working closely with policymakers and project teams to understand ADR UK's exact contribution**.

6. Findings by indicator

The following findings detailed in this report are **structured to mirror a set of output, outcome and impact indicators as defined in the programme Theory of Change and evaluation framework** (see Annex a).

Output areas	Outcome areas	Impact areas
- Funding: more projects funded by ADR UK - Data: more datasets funded and enabled by ADR UK - People: more civil servants and academics engaged by ADR UK and trained in using administrative data - Publications: more high-quality research publications using administrative data	- Researcher access and support - Research for public good - Trust and sustainability - Available data for research - Informing government policy, strategy and practice - Programme cost saving	- Improved access to high quality public services - Inclusive and sustainable local economic growth - Improved welfare across the population

*An overarching view of output, outcome and impact areas as defined in the evaluation framework.*

For each output, outcome and impact area, we have analysed data collected across various research methods and outlined our findings. Case study callouts are included where examples of particular ADR UK projects help to illustrate outcomes or impacts.

In a number of cases, there is overlap between outputs and outcomes (e.g. Output area: Data and Outcome area: Available data for research). Whilst the output sections give an overview of basic quantitative data on the products resulting from ADR UK activities and their economic benefits, each outcome section provides a more detailed discussion of their observed effects over time.

6.1. Output area: Funding

Output area	Outcome	Indicator
Funding	**New research projects funded by ADR UK**	Number of research projects funded by ADR UK

Whilst ADR UK does not centrally hold data on the number of projects it funds, over the past four years, the partnership has steadily increased the number of grants it awards. In the cases of Northern Ireland, Wales and Scotland, this sheds little light on the number of projects funded over time, since multiple projects there are covered by each nation's "core" research grant. Yet in England, grant data functions as a better proxy for projects, since ADR England operates on a more flexible model whereby research projects are funded through a series of open calls in response to government priorities.

New ADR UK-funded research projects
(Note that this chart mostly pertains to ADR England grants)
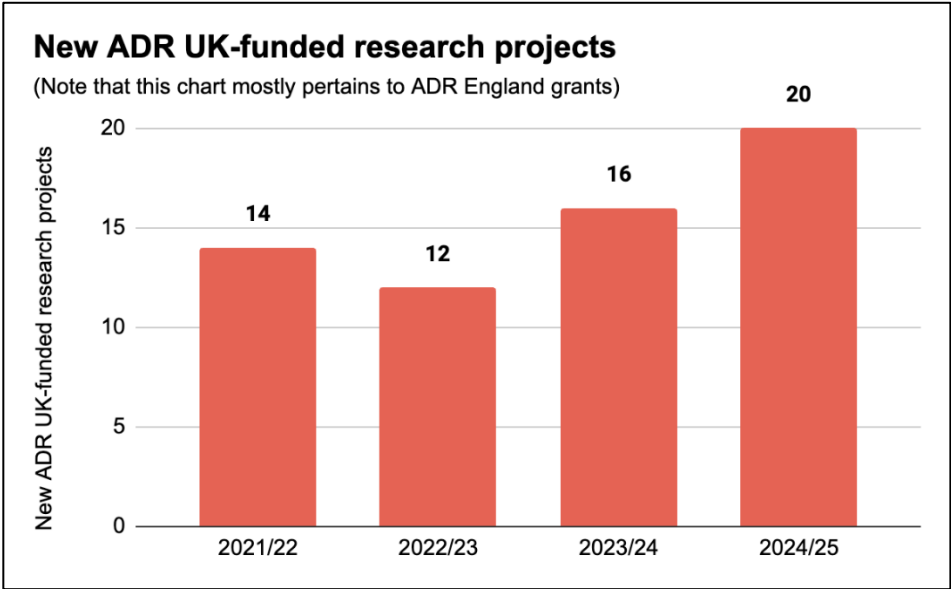
Note that since final commissioning is taking place in 2024, there will be no new ADR England projects funded in the final year of the investment (2025/26), as planned.

Whilst this data points to sustained investment in new projects, this output is not a major focus of the evaluation, since we have determined that **funded research projects themselves do not generate value, but rather their products do**. For example, a project might lead to the availability

of a new dataset, or the publication of journal articles which are subsequently used in additional research or to inform policy. As such, we determined that the evaluation should not seek to estimate the economic benefit of funded projects, focussing instead on quantifying the value of datasets, publications and other key outputs (see below).

6.2. Output area: Data

Theme	Output	Indicator
Data	New and existing linked and de-identified datasets are ready for research	Number of new linked datasets made available as a direct result of ADR UK funding
		The number of existing datasets hosted on ADR infrastructure
	Number of researchers with access to research-ready data via secure research services	Number of accredited users accessing the SRS
	Number of flagship data sets	Number of flagship datasets available via ADR SRS (meeting ADR criteria)

Providing new, linked, and de-identified data for research use is estimated to have brought total benefits of just under £319m across the ADR programme to date.

Relevant indicators:
- Number of new linked datasets made available as a direct result of ADR UK funding
- The number of existing datasets hosted on ADR infrastructure

Over the course of the last four years, ADR UK has directly funded at least 126 new administrative linked datasets according to partners (see below and Outcome area: Available data for Research for more discussion of this contribution over time). Beyond this, the partnership has also enabled existing datasets, not directly funded by ADR UK, to be hosted on ADR-supported infrastructure. For instance, in quarterly reports, ONS reports that ADR UK has funded 88 of their datasets (included in the total figure above), whilst 142 datasets are available on their Secure Research Service (source).

Number of new datasets per quarter

As reported in ADR UK QHRs
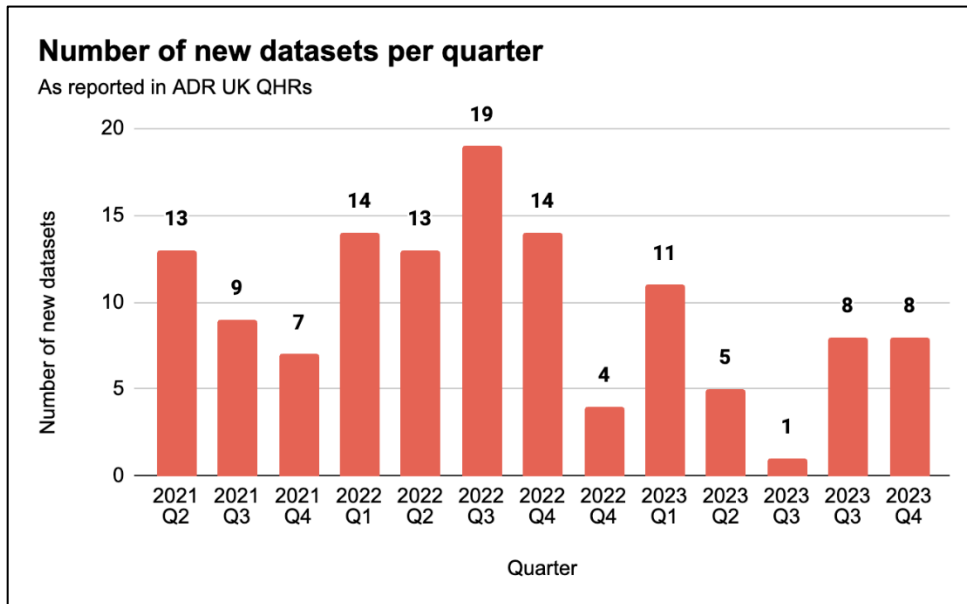
The evaluation sought to monetise the value of new datasets by reviewing literature on administrative data valuation which suggested the idea that using the cost of a comparative survey was a sensible proxy for Willingness to Pay (WtP) for a dataset. As detailed further in the Technical annex, using data from a report from the UNECE and an ADR UK case study with NISRA and the Department of Agriculture and Rural Development, we established upper and lower bounds for the value of a single record in a dataset. We then averaged this to get an average cost per record of £7.93 (rounded to the nearest pence).

We calculated the median number of records across 20 flagship ADR UK datasets. This gave us an average dataset size of 234,125 records. We then cross-referenced this with an estimate based on similar (administrative) datasets from other countries such as the Australian Taxation Office's Individual sample files[1] to confirm it was in the right ballpark.

The average value of a dataset is simply the average price per record multiplied by the average number of records. **This amounts to a single ADR dataset being worth £1,856,015.53** (using un-adjusted values as per record costs are quoted to the nearest pence). To derive the benefits per financial year, we simply multiplied this number by the number of datasets produced within the financial year.

---

[1]The ATO Individual samples files data set comprises a 2 percent sample of Australian taxpayers. With 13.6 million Australian taxpayers, according to a recent Australian Government estimate, a 2 percent sample corresponds to 272,000 individuals.

ADR UK has also continued to enable hundreds of academic researchers and government users to access administrative data.

Relevant indicator: Number of accredited users accessing the SRS

By supporting the Research Accreditation Service run by the Office for National Statistics, ADR UK has enabled 1625 users to gain accredited access to linked administrative data between April 2021 and July 2024. As such, the total of accredited users across the devolved nations stood at 5705 as of July 2024. We explore these statistics further in Outcome area: Researcher access and support.

Ultimately, the evaluation team determined that it was not possible to monetise this output indicator since it is unclear purely from data on the number of sessions exactly how each accredited individual uses administrative linked datasets. Whilst we have explored this through surveys, interviews and bibliometric analysis, as detailed throughout the report, this data does not support the economic quantification of a single session. Instead, the evaluation estimates the value of data use by considering publication value (see Output area: publications).

The partnership has also funded 20 flagship datasets, which are defined as having particularly strong potential to unlock public good by filling evidence gaps.

Relevant indicator: Number of flagship datasets available via an ADR UK TRE

ADR UK has also increased the number of flagship datasets available over the course of the investment. Flagship datasets are a subset of the total number of linked administrative datasets enabled by ADR UK which have been determined to be particularly valuable in that they meet the following criteria defined by ADR UK:

- The dataset is a linked administrative dataset, connecting data from two or more public bodies;
- it has coverage of at least one UK nation (or wider);
- It aligns with one of ADR UK's eight strategic research themes;
- it is available to all ADR UK accredited users via a trusted research environment; and,
- it has been determined to be of wide appeal to the research community and policymakers.

As of August 2024, ADR UK has designated flagship status to 20 datasets which are available across the TREs.

We have not monetised this indicator in isolation due to the lack of a robust method for discerning the value of flagship datasets specifically; its value is incorporated into the wider economic valuation of

ADR UK-funded linked administrative datasets outlined above.

6.3. Output area: People

Theme	Output	Indicator
People	Researchers and civil servants trained in the use of administrative data	Number of academics attending training events organised by ADR UK to increase knowledge of how to analyse relevant data sources
		Number of civil servants trained in the use of ADR data (including PhDs)
		Number of PhDs funded by ADR UK
	Quantity of training materials available for future use	Number of training materials on ADR data available to researchers and policymakers for future use
	Collaborations between government and academic institutions (joint projects, events etc)	ADR UK led stakeholder engagement events
		Number of Whitehall departments & devolved governments embedding data sharing on an on-going basis
		ADR UK champions in place

Currently, detailed data on the number of academics and civil servants trained by ADR UK is mixed in quality. However, the investment in funding PhDs yields a modest return, with an estimated benefit of around £50k.
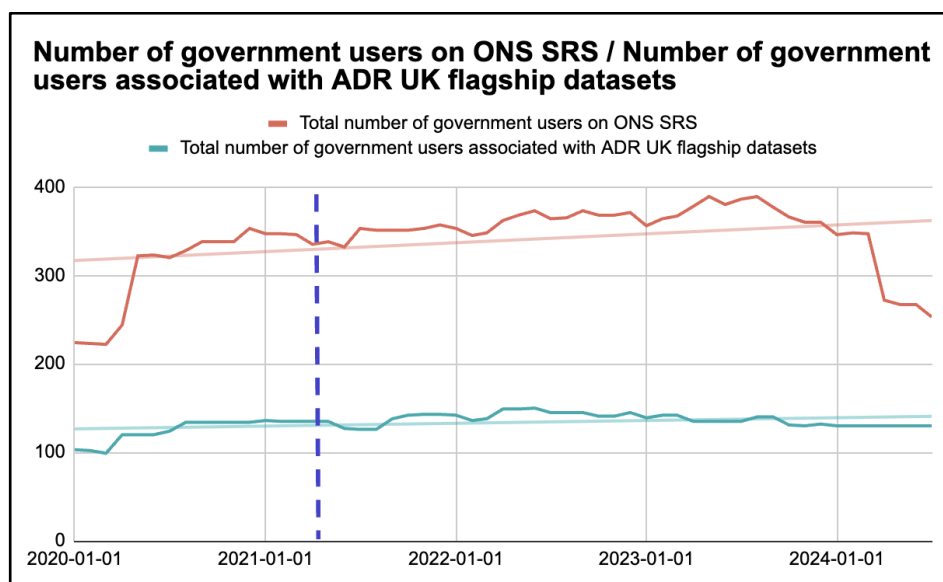
Relevant indicators:
- Number of academics attending training events organised by ADR UK to increase knowledge of how to analyse relevant data sources.
- Number of civil servants trained in the use of ADR UK data
- Number of PhDs funded by ADR UK

Since the beginning of Q3 2023—the first period for which we have data—there have been an estimated total of 120 academics recorded as having attended an ADR UK training event. (This figure is estimated as there is missing data for two events; we have extrapolated figures based on similar events.) This represents 48% of all attendees, with other stakeholder groups including civil servants, and representatives from research institutes, the third sector and the private sector. More data will be needed to confidently draw conclusions about levels of attendance over time. ADR UK has recently developed a series of "standard" feedback questions to be used across training and events, which includes a "tell us who you are" question which should improve data quality in the future. The Strategic Hub should ensure that this data is then fed back into central MEL tracking.

In order to quantify the number of civil servants trained in the use of ADR data, we used a proxy measure of the number of government users with access to the trusted research environments, since all users need to undergo basic training to obtain accreditation. Looking to the number of government users of the ONS's Secure Research Service over time, we can see a slight dip in the number of government users over the course of the investment (with the start of the investment represented by the dotted blue line). This is due to a number of accreditations expiring and projects finishing at once, and perhaps also a lack of new projects given the planned closure of the SRS (see Outcome area: Informing government policy, strategy and practice for further discussion). Nonetheless, data shows that under the current investment period, 54 new government stakeholders have gained accreditation, with the number of government users peaking at 389 in May 2023.

Interestingly, the number of government users has changed very little over the course of the investment. This might not be cause for immediate concern, since many government stakeholders do not have time to interact directly with data (see Outcome area: Informing government policy, strategy and practice), and it is not possible to determine from ONS data provided how many government users have rolled on and off the SRS during the period in question. We would nonetheless expect to see an increase in government data users as the partnership onboards more departments. As such, we recommend that ADR UK maintains to track government engagement with datasets going forward.

Number of government users on ONS SRS / Number of government users associated with ADR UK flagship datasets

— Total number of government users on ONS SRS
— Total number of government users associated with ADR UK flagship datasets

Given the impact of training civil servants is likely long-term and was difficult to attribute at this point in the project, we agreed not to seek to put an economic value on the number of civil servants, instead seeking to estimate the market value of courses themselves as detailed under the next indicator.

However, **we did determine that it is possible to assign an economic value to ADR UK's training offer by considering the wage premiums that arise from the PhDs that ADR UK has funded**. We surveyed relevant literature for wage premiums and found an IFS report that detailed the differences in wage premiums for men and women with PhDs. Women make an additional 8% while men appear to lose 9% of median incomes.

During our calculations, we adjusted the wage premiums for men down to neutral (0%) to account for selection effects (more detail in the technical annex). Our benefit estimate is therefore based solely on women getting a PhD. **Following this analysis, we found modest benefits generated by the funding of PhD programmes of around £50k.**

Over this investment period, ADR UK has started to build up a portfolio of training materials to support academics and civil servants in using linked administrative data. Training courses are estimated to have generated a modest revenue of just under £22k in the financial year 2023/24.

Relevant indicator: Number of training materials on ADR data available to researchers and policymakers for future use.

Over the past two years in particular, **ADR UK has made significant contributions towards building up a body of resources to help train both academics and civil servants in the use of linked administrative data in the long term**. This is evident through multiple initiatives. For instance, the

[ADR UK Learning Hub](#), established in 2023 functions as a helpful "front door" for anyone interested in using administrative data, providing introductory video materials, as well as more technical guidance on using administrative data (e.g. running code). Moreover, ADR UK's [Research-Ready Data and Access grants](#) – with 11 successful recipients – require the creation of metadata (e.g. data dictionaries, user guides), as well as other training and capacity building resources (e.g. training courses and explainer videos) as part of the funding.

Ultimately, we determined it is difficult to assign a value to these resources, partly due to a lack of data to quantify them. However, the evaluation did look to estimate the value of ADR UK supported courses, using a market-based approach. Taking data from the [ADR UK-Supported Training Courses - Registration Tracker](#), we found that a total of 248 people from across government, academia, the voluntary sector, and the private sector attended ADR UK training events. Using figures from the National Centre for Research Methods (NCRM), we were able to find an illustrative cost for these events from an online training event around the flagship [Growing up in England](#) dataset. Multiplying the numbers from the registration tracker by the illustrative NCRM costs, **we were able to estimate that ADR UK training courses generated £21,875 during the financial year 2023/24.**

Stakeholder engagement events likely incur a small monetary cost, but their true economic impact is likely going uncaptured as it is difficult to track precisely.

Relevant indicator: ADR UK led stakeholder engagement events

Up to Q3 2024, ADR UK has funded 26 events, ranging from webinars to workshops and symposiums. Using data from the ADR UK conference, we estimated the **minimum willingness to pay per hour** to attend an ADR UK stakeholder event. Based on attendance and ticket sales, we estimated that this WtP was £15.57 per conference hour. To properly assess the benefits, however, we had to also include the opportunity cost of attending; in this case, the productivity loss from civil servants and researchers attending such events. Based on the median hourly salary of a civil servant and an early career researcher, we estimated this was £18.09. This should also be added to the ticket price as a minimum WtP as employers are willing to forego this to allow employees to attend. This means that each event amounts to a small net gain of £15.57 for each participant.

This, however, does not quite account for the true benefits of these events. We simply do not know the average WtP or have the data to trace connections that arise from events like this. Such connections, or new ideas garnered, may provide the starting point for the development of a new research project or linked datasets, which have substantial benefits that we have elsewhere quantified. In early 2024, the Strategic Hub made efforts to standardise how the benefits of events are captured, with standardised feedback templates. Such templates are unlikely to capture any longer-term impacts of events, as they are circulated shortly after or during an event. Nonetheless, analysing responses to questions like "how do you expect to use what you have learned?" will help future evaluators understand the wider benefits of attendance.

ADR UK is steadily increasing its engagement with government departments, and with administrative data sharing "champions" who promote administrative data sharing for research within government.

> **Additional indicators:**
> - **Number of Whitehall departments & devolved governments embedding data sharing on an on-going basis**
> - **ADR UK champions in place**

Finally, it is clear that **ADR UK is steadily increasing the number of engagements it holds with Whitehall departments and devolved governments** (see below). This aligns with broader findings from interviews that academic stakeholders appreciate the work led by the strategic hub to "unlock" data from new departments.
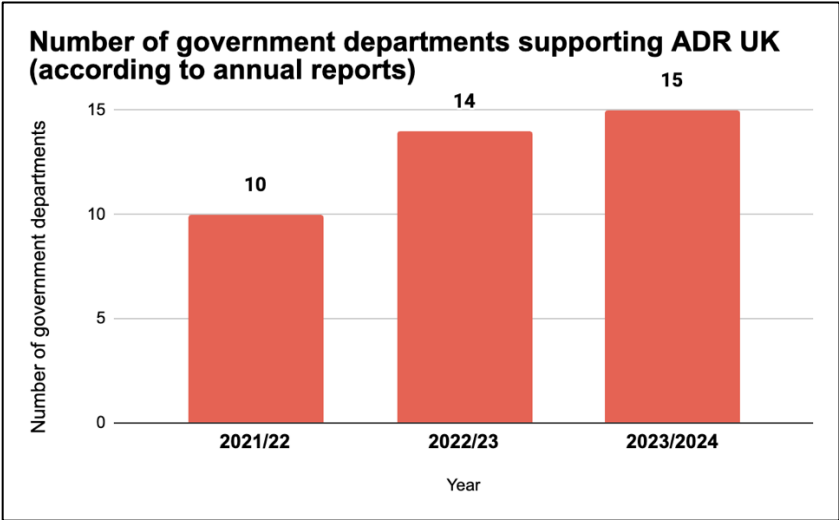
Moreover, the partnership is also steadily growing its cohort of "champions" or ambassadors, defined on the ADR UK website as "people working in and around government and academia who are committed to increasing and improving the use of administrative data for research to inform policy and practice".

ADR Champions in Place

Number of champions

Year	Value
2021	7
2022	19
2023	21
2024	23
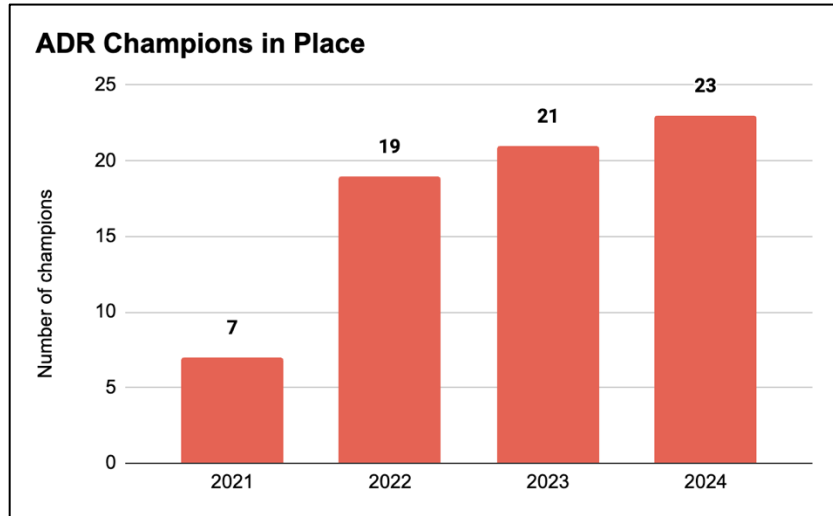
We avoided quantifying the economic value of these indicators, largely because their ultimate value lies in facilitating data access and ultimately informing policy. That is to say, establishing a relationship with a new government department or appointing a new champion will not lead to any value created unless said department makes administrative data available to researchers following the engagement.

6.4. Output area: Publications

Theme	Output	Indicator
Publications	High quality research publications using ADR data	Number of peer reviewed publications and publications in academic journals or reports
		Number of publications outside academic journals (wider publication of research; e.g. on policy-related websites)

High-quality research produced by ADR UK data is generating an average yearly benefit of around £178k through both articles and citations.

Quantifying the number of publications produced under the ADR UK investment was a largely manual task, which involved pulling together information from Quarterly Hub Reports and ResearchFish reports. **Overall, we found that 221 publications in journal articles have been recorded by partners so far.** However, we note that moving forward ADR UK should look to keep a more authoritative running total of publication counts (see MEL recommendations).

To assess the value of peer-reviewed publications and publications in academic journals or reports, we sought to understand the value of articles and citations. We took the minimum gross benefit of an academic journal article to be the value of its production. As this is really a cost, there is an equivalent cost-line of resource that means this ultimately zeroes out. However, based on production costs, we would hope this is the minimum gross benefit of an individual paper.

Using data provided by SAIL databank, we estimated this **minimum gross benefit to be £8,554.93.** Not all of these are ADR UK-funded/produced, however. In order, therefore, to ensure that this zeroes out with the cost line—as we are calculating the minimum gross benefit to be the cost of production—we must account for the proportion of this funded by ADR UK. We estimated this to be 30%.

There is, however, additional value from the production of peer-reviewed research. In particular, the way that it contributes to the pool of knowledge and improves the quality of future research through citations. We estimated the value of a single citation by looking at the share of time researchers spend reading/citing and how many things they cite in an average paper. Using the above production costs, we estimated **a single citation to be worth £30.41**.

To find the total value of publications, then, we multiplied the number of publications by the average publication value and the number of citations by the average citation value. **This resulted in an average yearly monetary benefit from this of £178k based on YTD figures.**

Whilst harder to quantify economically, the value of ADR UK's non-academic outputs and dual publication approach should not be understated.

In addition to publications in academic journals, the evaluation also tracked the number of

publications outside of academia, i.e. on policy related websites or in the general media. This is vital, since **ADR UK's dual publication approach encourages researchers to share their findings with both academic and more policy-focussed audiences**, ensuring that academics can meet professional targets whilst still producing digestible outputs.

Over the course of the investment, ADR UK has supported the publication of 57 Data Insights on the ADR UK website, intended as bite-sized snapshots of research findings. Moreover, data recorded by partners in Quarterly Hub Reports indicates that researchers are increasingly publishing outputs outside of journals, including Data Insights reports, blogs, news articles, and publications on policy websites (see below).

Number of publications outside of journal articles reported in QHRs
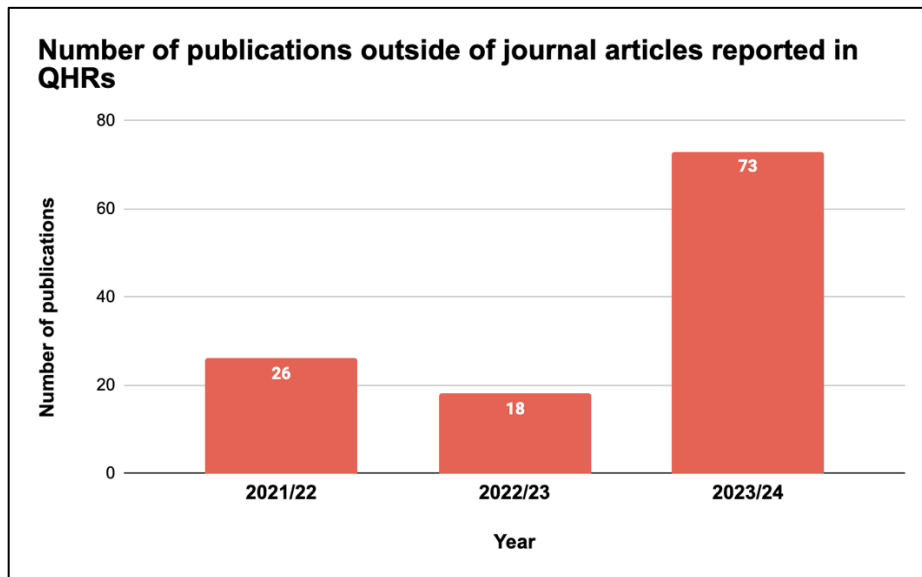
The value of these outputs and ADR UK's dual publication approach in terms of getting research findings transferred to policymakers quickly should not be understated. According to [information from researchers collected by SAIL](#), **Data Insights are much quicker to produce than academic articles and usually take between 1 and 4 weeks to write up,** as opposed to academic articles which take months to produce and get published. Multiple interviewees emphasised that short timelines associated with government policymaking could be a challenge when seeking to integrate academic research into policy, which makes these quick-to-produce, easily digestible mechanisms for knowledge sharing vital.

Note that further detail on ADR UK's progress in terms of increasing the number of publications (both academic and policy-oriented), as well as a comparison with the ADRN period, is included under [section 6.9](#)).

6.5. Outcome area: Researcher access and support

Outcome area	Outcome	Indicator
Research access and support	Better access to administrative data across the UK	Increase in number of users/requests for using linked datasets (data provided by trusted research environments)
		Increase in researcher interactions with linked data (data provided by trusted research environments)
		Increase in researcher satisfaction with ease of access (Survey for researchers, Interviews)
		Reduction in time it takes for users to access to linked data (Survey for researchers)
	More secure mechanisms for sharing and accessing administrative data	Increased satisfaction of data security (survey for government data providers)
		Evidence of breaches to the secure research services being resolved (SafePod data, Interviews)
	Improved support services for researchers seeking to access administrative data	Improved satisfaction of support available amongst researchers (Survey for researchers, Interviews)

Recap of indicators for Outcome area: Researcher access and support

The number of researchers accredited by the ONS has increased by almost 40% since the start of the investment.

> Relevant indicator: Increase in number of users/requests for using linked datasets (data provided by trusted research environments)

We looked at data provided by the ADR UK TREs to understand how the number of researchers and government stakeholders using ADR UK-funded TREs and datasets has changed over time.

Overall, **the number of accredited users registered to ONS Secure Research Services (SRS) has increased by almost 40% over this ADR UK investment**, beginning at 4080 in April 2021 and increasing to 5705 by July 2024. This amounts to a net increase of 1625 new accredited users, building upon the positive trajectory in the number of accredited users established during ADR UK's pilot phase between 2018 and 2021.

Whilst all accredited users are not necessarily working on ADR UK-funded projects, we have nonetheless included total numbers to account for ADR UK's contribution to data access more generally by funding the expansion of each TRE and its infrastructure.

Number of ONS accredited users
Blue line indicates start of ADR UK investment
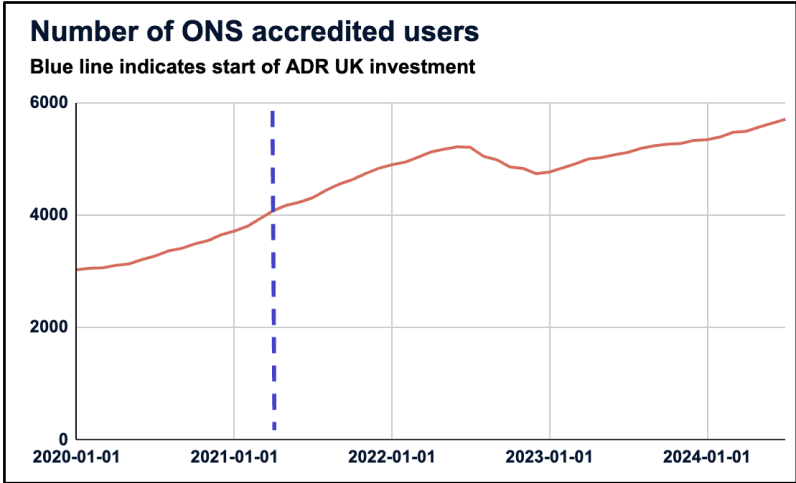
The number of accredited users linked to ADR flagship datasets has slightly dropped.

In addition to the overall number of accredited users with access to the SRS, we also sought to understand whether there has been any observed increase in **the number of users working directly with ADR UK funded datasets** (marked as ADR UK flagship datasets in ONS data). We took flagship datasets as a proxy for datasets within the ONS data which have been fully funded by ADR UK since these are high-value datasets prioritised by the partnership, where ADR UK has coordinated activity and funding to drive up data use ([source](#)). We note that the total number of datasets funded by ADR UK as reported by ONS in QHRs is higher (88), but it is not possible to distinguish these datasets in the ONS data provided.

Over the course of the investment to date, there has been **a minimal shift** in the number of users associated with ADR UK flagship datasets, ranging from 335 in April 2021 to 291 in July 2024 (see graph below).

Number of ADR flagship data users on ONS SRS split by user group

Blue dotted line indicates start of ADR UK investment

- Total users on Projects using ADR Flagship Datasets
- Government Users using ADR Flagship Datasets
- Researcher Users using ADR Flagship Datasets
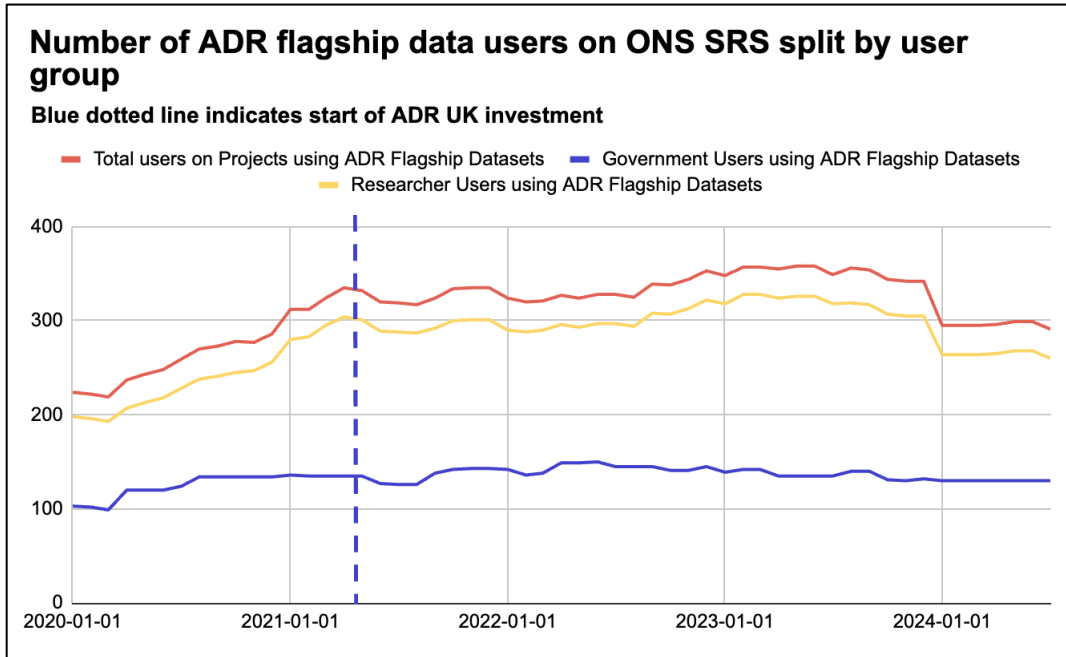
This is potentially because researcher numbers shift as academics join and leave projects. Nonetheless, the lack of a clear uptick in user number could also suggest that the ADR England model of commissioning research through individual Fellowship grants may not be best suited to fully leveraging flagship datasets, which are large, complex, and cut across research sectors. Continued investment in the partnership's Community Catalyst model, launched in 2023, which granted funding to establish networks of academics and wider stakeholders to work with flagship datasets, could be an effective way of continuing to promote the use of these particularly large datasets going forward.

Given that the number of flagship datasets changes over time, we have presented this data as an average of how many researchers are associated with each active ADR UK flagship dataset project on the ONS SRS at a given point (see graph right). This number has fluctuated only slightly, dropping from 10 to 9 over the investment period. **Note a slight positive increase over time, with a drop off in user numbers at the beginning of 2024**, which ONS has confirmed is due to accreditations expiring and projects finishing. As of July 2024, an average of 32.3 researchers were associated with each ADR UK flagship dataset, compared to 33.5 in January 2020.

ONS ratio of users to ADR flagship datasets

Blue line indicates start of ADR UK investment
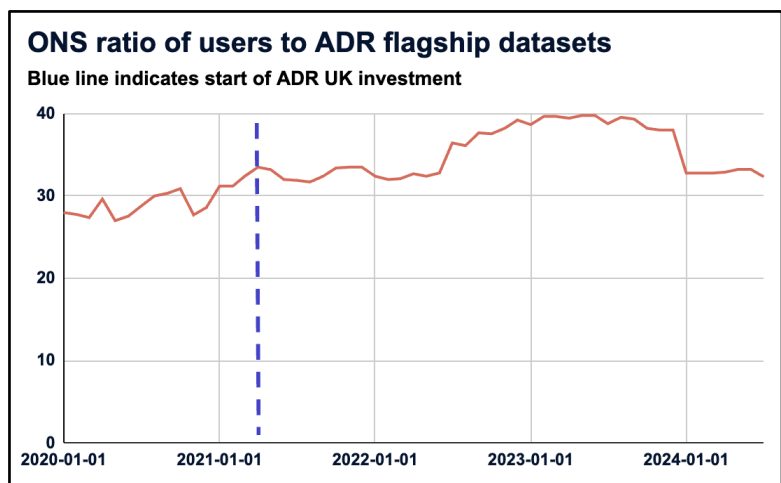
TRE data on the number of user logins (sessions) is inconsistently recorded and hard to draw conclusions from.

> Relevant indicator: Increase in researcher interactions with linked data (data provided by trusted research environments)

We also looked to understand the extent to which users were **actively interacting with ADR-UK-funded datasets**, drawing upon data provided by TREs on the number of researcher logins to the Secure Research Services.

Note that there were some data quality and availability issues regarding this indicator, in Scotland the National Safe Haven team were unable to provide data on the number of sessions, and in Wales, the data collected by SAIL databank is not yet available split over time. NISRA was able to provide data on the number of in-person sessions in the Secure Research environment in Belfast. However, these figures are distorted somewhat by COVID-19 restrictions preventing sessions from taking place

Number of NISRA in-person data access sessions over time
(See caveats)

Year	Sessions
2021	211
2022	217
2023	429
2024	196

and drop significantly in 2020 and 2021 due to their facilities closing completely during lockdowns (see graph right). Remote access to NISRA data has since been facilitated via the ONS SRS.
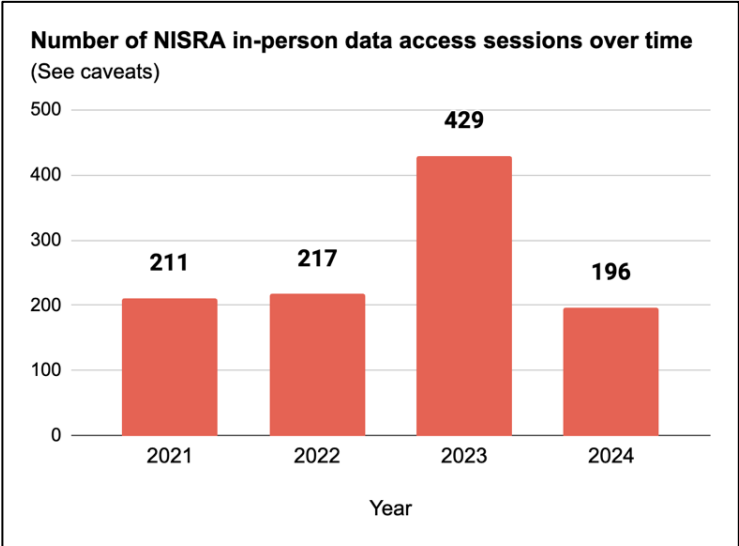
Meanwhile, whilst the ONS does collect metrics on sessions over time, this cannot be broken down by user group. We also encountered gaps in the data which render this analysis somewhat limited. We also removed some outliers from the dataset (see graph below).

Number of user logins to ONS SRS project areas

Blue line indicates start of ADR UK investment
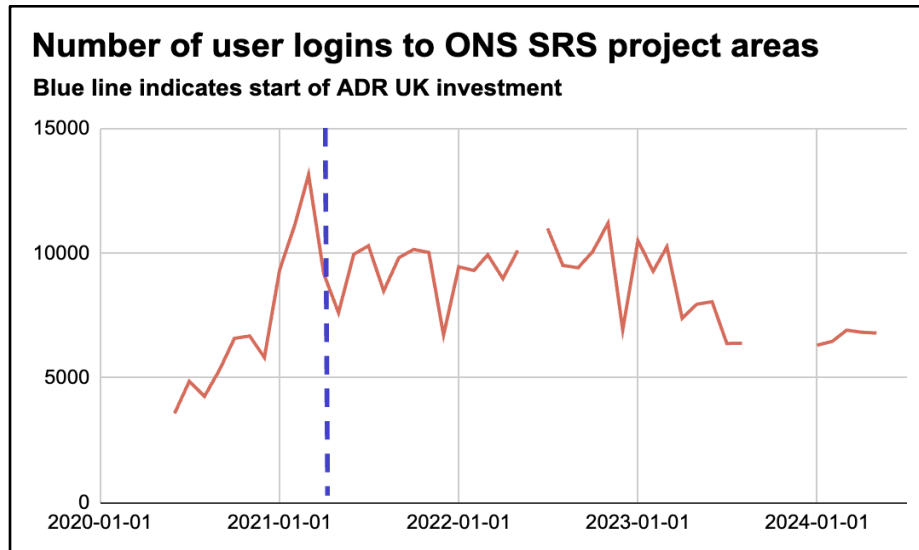
Nonetheless, **the ONS data provided does indicate a slight positive shift in the number of user logins to SRS project areas** can be observed from the beginning of data collection in 2020, during the ADR UK pilot period. The number of logins to SRS has increased by more than 90% from 3576 in June 2020 (the earliest data we were able to access due to gaps), to 6805 in May 2024. A spike in January 2021 is likely related to the sudden availability of a suite of COVID-related datasets.

Whilst it is not yet available over time, aggregate data from May 2022 - August 2024 from the SAIL databank in Wales also points to considerable engagement with administrative datasets enabled by ADR UK. During this period, SAIL tracked 33,361 distinct logins (1966 government user logins and 31,395 academic researcher logins).

Academic researchers gave mixed responses when we asked how easy it is to access data through the TREs.

Relevant indicator: Increase in researcher satisfaction with ease of access (Survey for researchers, Interviews)

Academic researchers gave **mixed responses** when asked to comment on **satisfaction with how easy it is to access linked data through trusted research environments**, particularly in interviews.

Just over half of the researchers surveyed were overall satisfied with how easy it is to access data through TREs, flagging remote access as being particularly helpful. On the other hand, interviews and other qualitative survey responses revealed ongoing issues and dissatisfaction with the time it takes to actually get access granted, which we explore later in this section.

How satisfied are you with how easy it is to access data through the ADR UK trusted research environments (TREs)?

Number of responses out of 68 respondents
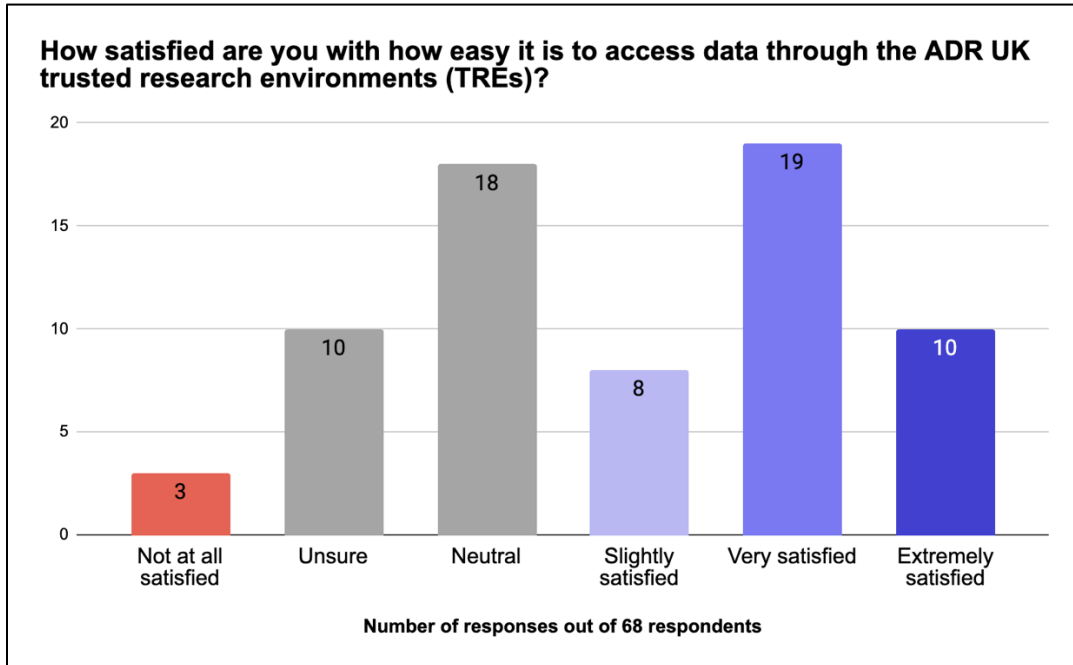
We also heard that some researchers felt **the process of getting access to data is uneven across the devolved nations and TREs**. For instance, one interviewee (17) in Scotland said "I think the [experience] depends on what part of the country you're in "[...] if I'm really honest in Scotland, it's still very clunky. It's very slow and there are too many component parts". Equally, we heard that in Northern Ireland NISRA was not "living up to its potential" due to delays in data availability and a lack of remote access (Interviewee 10). The same interviewee did say that the fact that these delays were acknowledged was a step forward, however.

Delays in accessing data were highlighted as a key barrier, but once data is available, most researchers find the TREs easy to use.

Where researchers had issues with TRE access, the biggest complaints surrounded the **time it takes to access data** through the TREs. Academic researchers referred to the process as "slow and laborious" (Interviewee 15), particularly in reference to accreditation and getting past panel stages.

Additionally, some researchers mentioned **technical issues** with using TREs. For instance, we heard that it would be useful if the Secure Research Service server did not need to reboot weekly, as this can be a blocker for complex modelling (Survey respondent 34), whilst others referred to issues with connection instability and servers being too busy (Survey respondent 40).

Nonetheless, despite these issues with getting access, a number of participants felt that once data is in the TRE, and researcher access has been granted, **actually using the TREs was a positive experience** (see quotes).

"Once approvals are in place and data have been made available, access via the TREs is usually pretty smooth"
Survey respondent 24

"While it is fantastic to have TREs set up and available, their implementation can be a bit 'clunky'. Getting data into the TREs is not easy (for anyone!), and the variation in TREs across the UK is noticeable"
Survey respondent 15

Getting access to data usually takes academic researchers at least 4-6 months due to the time it takes for data owners to provide data for linkage, and for accreditation to take place.

Relevant indicator: Reduction in time it takes for users to access to linked data (Survey for researchers)

Whilst issues with the timeliness of data access emerged when asking researchers about their overall satisfaction with data access, we also asked specifically about how long it takes to access ADR UK data, seeking to compare this with the ADRN period.

How long does it take you to access linked administrative data to support a research project using ADR UK trusted research environments (TREs) from the point of starting your application to access the data?

Category	Number of responses
1 to 3 months	6
4 to 6 months	18
More than 6 months	10
More than 1 year	15
I have not received project specific funding.	6

Number of responses out of 68 respondents

Most survey respondents indicated that accessing data took them **at least 4-6 months**, factoring in the time taken to apply for access and for government departments to grant access.

Elsewhere, we heard that it was not uncommon for data access to take upwards of a year, particularly when setting up new projects (e.g. Interviewee 27). This can be particularly challenging for researchers when working to tight academic funding deadlines, we heard of project start dates having to be delayed due to data access issues (survey response) and interviewees refer to data not being available within the timeline of a PhD (Interviewee 29).

We also asked TREs how long it takes to provide data access from a user application to a live project. Only SAIL was able to provide metrics on this; between 2019 and 2024 it took on average 8.425 weeks from a user starting an application to having data access. This average excludes 2020 and 2021 as outliers when SAIL was in COVID rapid response mode and all staff were fully focused on expediting the process. Stakeholders flagged that it would not be sustainable to maintain this speed of access with the current resources available and other responsibilities.
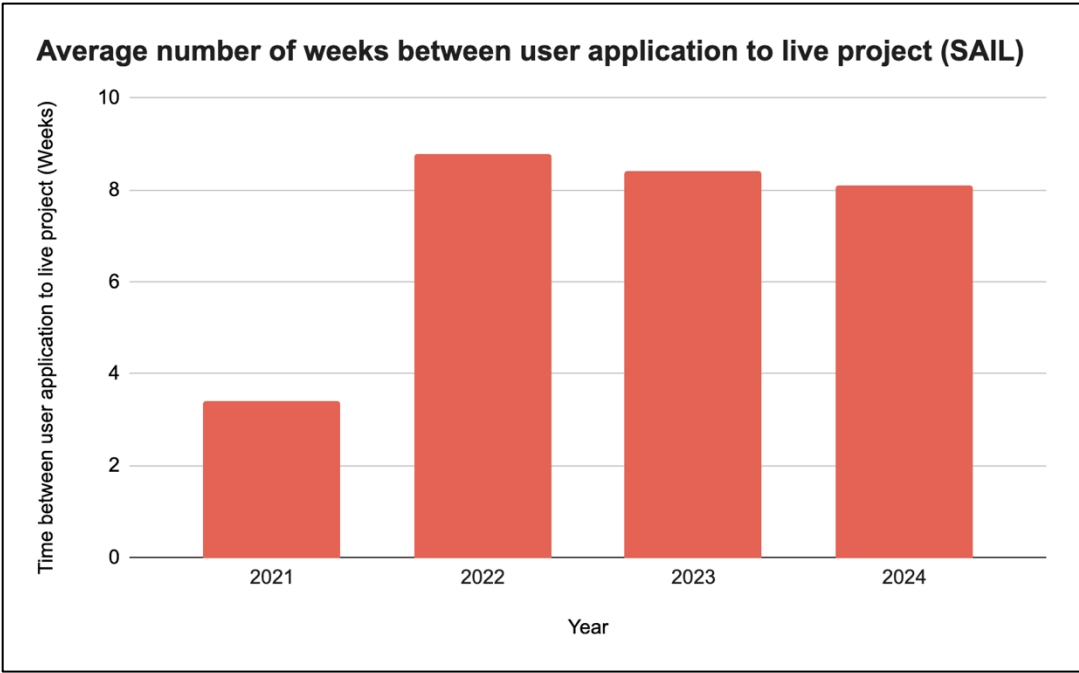
Comparing survey responses with SAIL data, it appears that there are discrepancies between data access times across TREs. **In the future, having more standardised metrics, collected by TREs, on how long it takes to provide data access from the point of user applications would improve performance tracking in this area** (see MEL recommendations).

Whilst it is not clear that the process of accessing data has become quicker, researchers flagged that in many cases access would be impossible without ADR UK.

When asked to compare this to ADRN or other counterfactual scenarios **most researchers felt that they were unable to comment**, largely due to a lack of experience ranging back to the ADRN period. As such, at this point, it is difficult to estimate confidently how much time researchers save accessing administrative data via ADR UK.

When comparing the specific estimations regarding pre- and post- ADR UK data access times, we found that academic researchers were split as to whether data access is quicker in the ADR UK period. However, making direct comparisons of data access between these two periods is somewhat challenging. Prior to ADR UK, researchers primarily relied on educational outcomes data from the National Pupil Database, which was distributed by the Department for Education via physical copies for local analysis. This process was replaced by the trusted research environment model following security concerns raised by the Information Commissioner's Office, coinciding with the launch of ADR UK's pilot phase in 2018. As a result, researchers may perceive ADR UK as responsible for longer data waiting times, when in fact, these changes were driven by external factors.

Please indicate the number of weeks or months it would take you to access administrative data without ADR UK (either through ADRN or other means)

Category	Number of responses
Unclear	37
Would not be possible	9
1 month	3
2 months	1
3 months	3
4 months	2
6 months	5
9 months	1
1 year	3
2 years	2
Similar	1
Years	1

Number of responses out of 68 respondents
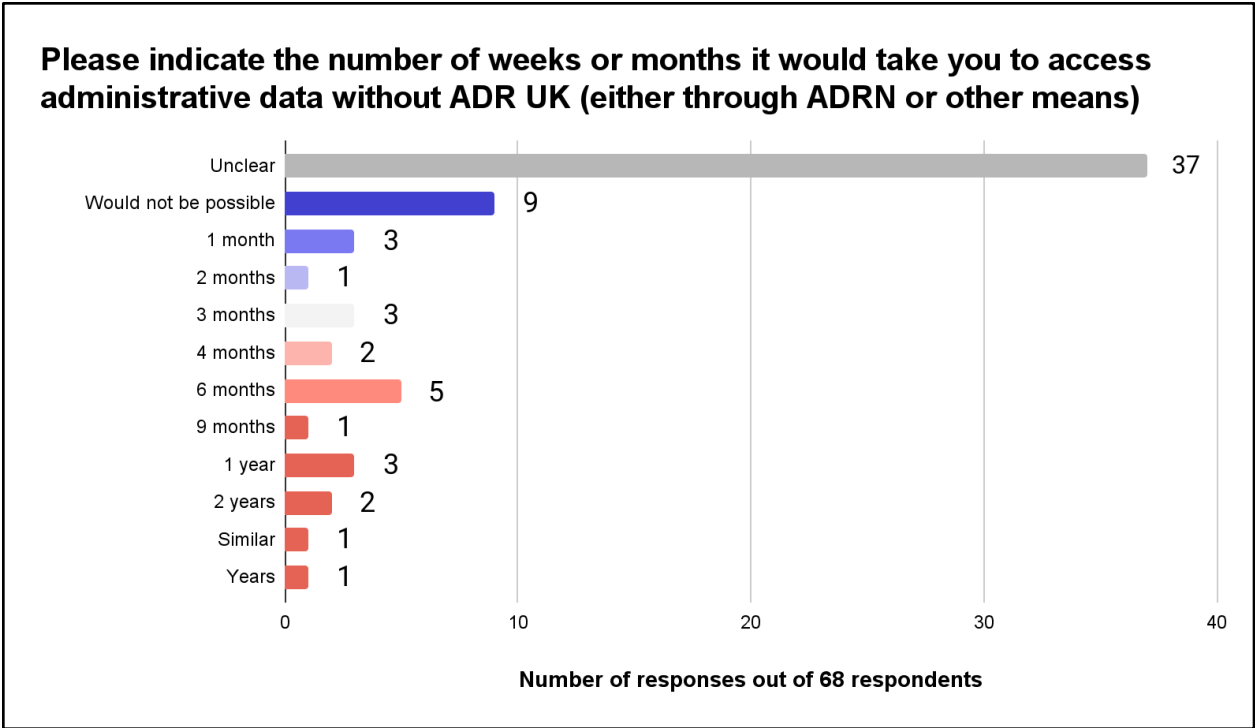
The second most common survey response was that whilst getting access to linked data could take a long time, academics felt would not be able to access linked data at all, without ADR UK support.

Looking at access from a data owner perspective, however, it is clear that **linking data is quicker with ADR UK support** (see findings on cost savings). Logically, this also could also translate into quicker

53

access for academics.

Data owners across the survey and interviews were satisfied with data security.

Relevant indicator: Increased satisfaction of data security (survey for government data providers)

Both survey and interview participants emphasised ADR UK's value in facilitating secure data-sharing mechanisms through the trusted research environments.

No data owners across the course of either surveys or the interviews expressed concerns about the data security offered by the TREs.

Indeed, 87.5% of data owners surveyed reported that they were either "very satisfied" or "extremely satisfied" with ADR UK's data security processes.

"I think [without ADR UK] you have to put in the extra investment and research to understand what the different processes used by the organisations you are sharing data with are. That is much more time intensive than where you have already got a well-established process."
Interviewee 9

In comparison with ADRN or other ways of accessing administrative data, how satisfied are you with the support services offered by ADR UK-enabled TREs?

Response	Number of responses
Significantly more satisfied	14
Slightly more satisfied	14
No change	10
Unsure / I have not been involved in ADRN or other forms of administrative data	30

Number of responses out of 68 respondents

When exploring the reasons behind this satisfaction in data security, we found that **having an established framework, in the form of ONS 5 Safes, helped to inspire confidence in sharing data via ADR UK TREs:**

"It's very easily recognisable […] It helps kind of give that reassurance in a way that might have been more challenging when something was newer perhaps" (Interviewee 9).

Additionally, the same interviewee pointed out that **having a well-recognised framework for sharing administrative data saves time for data owners compared to other "one-off" data shares.**

In funding the SafePod network, ADR UK is increasing data controllers' capacity to identify and resolve any breaches of their terms of access.

Relevant indicator: Evidence of breaches to the secure research services being resolved (SafePod data, Interviews)

Over the course of the evaluation, we found no evidence of Information Commissioner's Office reportable breaches (data leaks involving personal data) occurring. Moreover, TREs emphasised their strict adherence to data protection best practices; SAIL has maintained an ISO 27001 accreditation since 2015 whilst other TREs have their own security guidelines which incorporate ISO 27001 controls.

However, we looked at data from SafePod (a network of standardised safe data access settings across the UK) to understand how many breaches were detected and resolved across the network. It is important to emphasise here that **breaches here refer to infractions regarding researchers' use of the SafePods, e.g. bringing in notes, or using a mobile phone in a SafePod**. The breaches recorded in the graph below are not instances of data being leaked beyond its intended audience.

Number of SafePod incidents per year

Ratio of sessions to SafePod Incidents
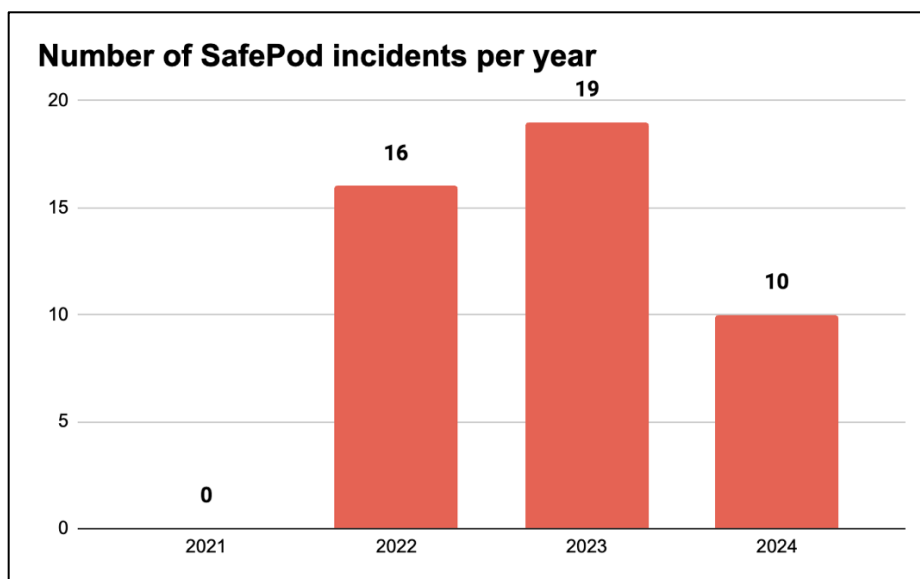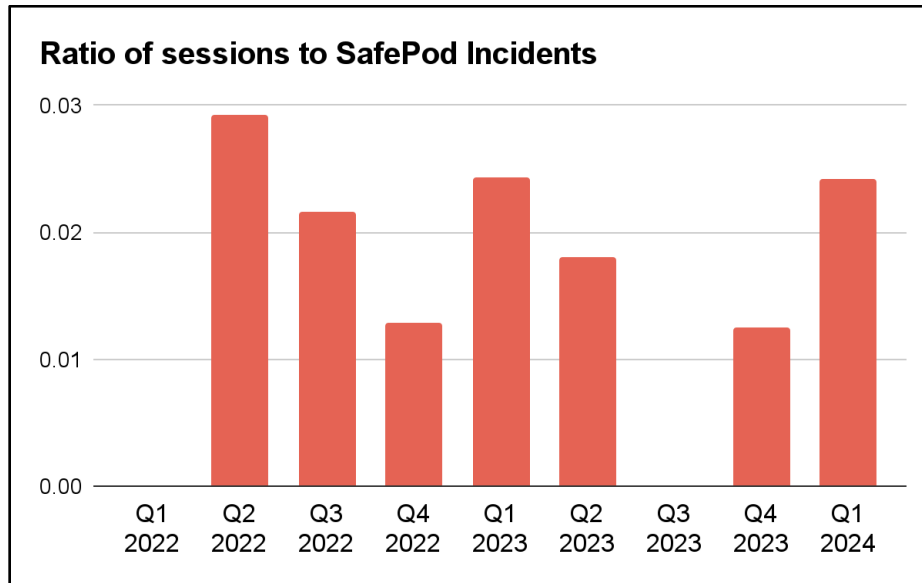
Infractions are detected using an efficient CCTV monitoring system, reviewed weekly, and then escalated to the relevant data controller who can decide upon a course of action (usually account suspension). We heard **it takes less than a week to resolve the breach by taking the appropriate action**. Without the ADR UK-funded SafePod network in place, one interviewee felt that data controllers would not have the resources to identify these incidents (Interviewee 28).

Whilst data only ranged back to the end of 2021, the ratio of incidents: the number of sessions is clearly not rising. We heard that SafePod is taking a proactive approach to reducing the number of breaches through reminder campaigns. The network is also considering how it might go about revising rules around bringing metadata and code into the SafePods to improve the researcher experience, which would also likely bring about a reduction in incidents.

Academic researchers agreed that TRE support services are helpful and flagged an improvement in the quality of support over the investment.

Relevant indicator: Improved satisfaction of support available amongst researchers (Survey for researchers, Interviews)

There was consensus across the interviews that the support offered by the TREs is to a high standard. For instance, one academic stakeholder (interviewee 17) said that pre-ADR UK they would be worried about taking on PhD students in their field due to a lack of support around admin data, characterising the lack of support during the ADRN period as a "sink or swim" model.

To what extent are you satisfied with the research support materials available (i.e. user guides, metadata, etc.)?

Response	Number
Extremely satisfied	6
Very satisfied	30
Slightly satisfied	5
Neutral	14
Not at all satisfied	3
Not sure	10

Number of responses out of 68 respondents
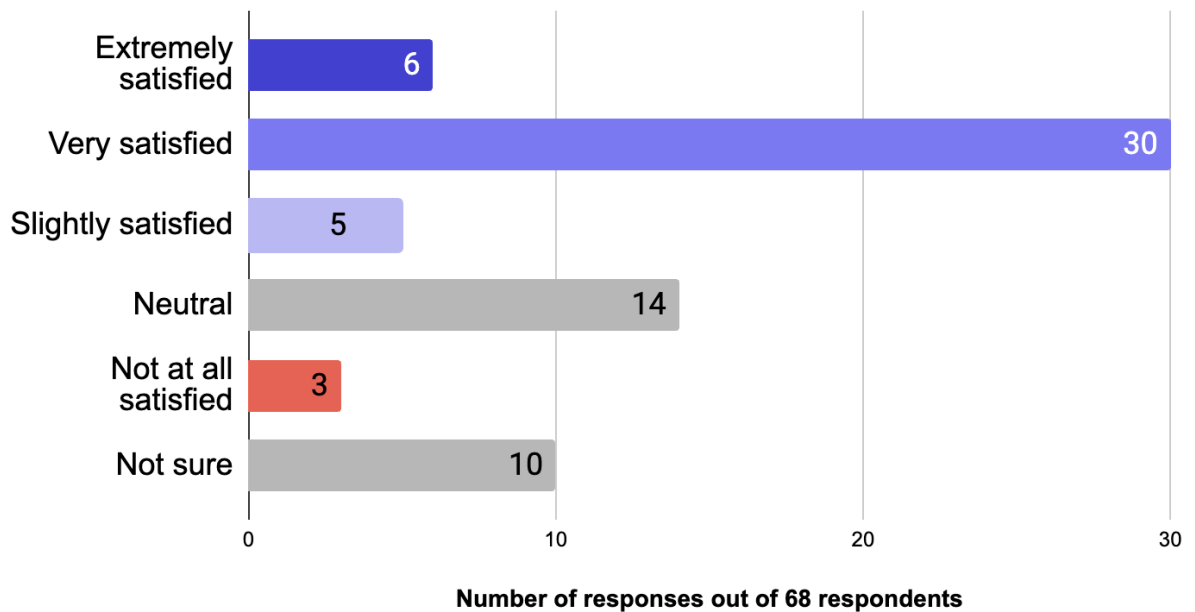
They said they are now "much more confident" that their PhD students will be able to produce good research using administrative data because of a significant increase in the quality of support and metadata. In the survey, most respondents were unable to compare support services to other ways of accessing administrative data. **Nonetheless more than 70% of those who did make the comparison said that they were more satisfied with ADR UK TRE support services than alternatives.**

In comparison with ADRN or other ways of accessing administrative data, how satisfied are you with the support services offered by ADR UK-enabled TREs?

Response	Number
Significantly more satisfied	14
Slightly more satisfied	14
No change	10
Unsure / I have not been involved in ADRN or other forms of administrative data	30

Number of responses out of 68 respondents
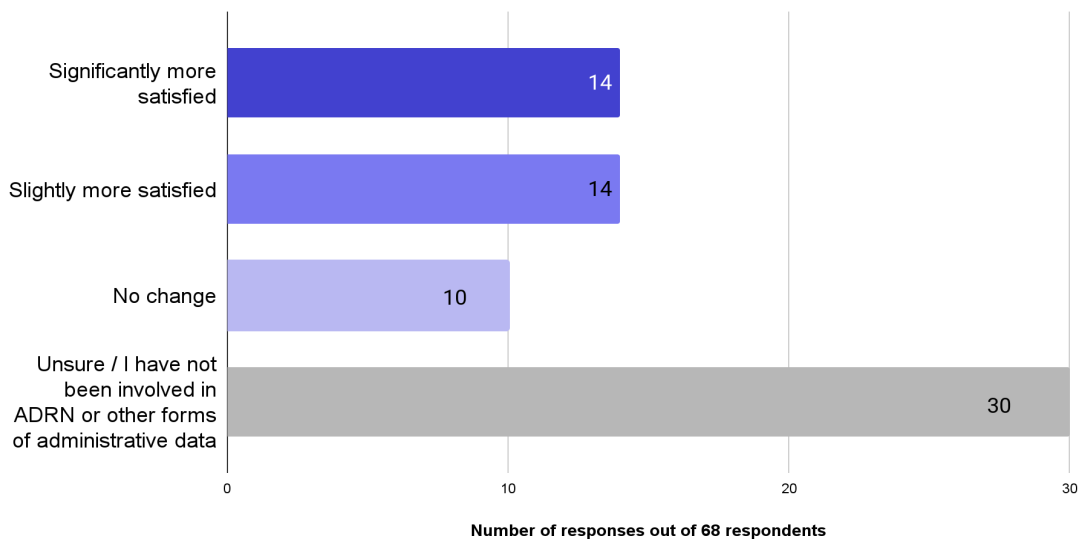
The support of the Strategic Hub was highlighted, particularly when "unlocking" new datasets across government.

Similarly, researchers positively highlighted the support of **ADR UK strategic hub**, particularly regarding the role played in facilitating new connections across the devolved nations, 'unlocking' new government datasets and in supporting academics with public engagement work.

However, interviewees revealed that there is an appetite for further opportunities to learn from experiences across the devolved nations, particularly when it comes to TREs and data access (see quote).

We recognise that ADR UK has already promoted the sharing of best practice between TREs – for instance, a specific grant condition of extra funding awarded to ADR Wales was that "ADR Wales will reach out to other ADR UK partners to spread good practice" (source: 'Letter of intent to fund' dated 5th October 2021 from ADR Director Dr Emma Gordon to SAIL / ADR Wales PI Prof David Ford). There is clear evidence of this taking place – SAIL has helped to shape the ONS Integrated Data Service, has collaborated with Research Data Scotland to guide the implementation of new policies and processes, and shared learnings with the UK Data Service.

> "*Shared learnings do not seem to translate when it comes to data access and TRE best practice.*
>
> *It is not clear how much we are learning from SAIL and their connections with government and linkage practices. This happens 'ad-hoc-ly' [sic] with each centre getting in touch.*"
> *Interviewee 10*

Nonetheless, it was clear in interviews that TRE capacity remains uneven across the four nations, and more can be done to help partners like NISRA, who are earlier in the maturity curve than other TREs in that they still do not offer remote access to all datasets.

6.6. Outcome area: Research for public good

Outcome area	Outcome	Indicator
Research for public good	Increased contribution of administrative data to academic and public bodies of knowledge around major societal challenges (new data and research)	Evidence of more research tackling major societal problems / aligned with government need (funded directly by ADR) (Interviews and case studies)
		Total numbers of reports and publications *(See also overarching output indicators)*
	Increased contribution of administrative data to academic and public bodies of knowledge around	Evidence of more research tackling major societal problems / aligned with government need (funded indirectly by ADR) (Interviews and case studies)

	major societal challenges (existing data and research)	See also overarching output indicators on total numbers of reports and publications

Stakeholders agreed across the board that research is in line with government needs. This was particularly evident during the pandemic.

Relevant indicator: Evidence of more research tackling major societal problems / aligned with government need (funded directly by ADR) (Interviews and case studies)

ADR UK received positive feedback across both interviews and the survey when it comes to ensuring research is aligned with government needs.

Out of 20 policymakers and data analysts surveyed, 15 said that they believed ADR UK was contributing to the bodies of public knowledge around major societal challenges "to a great extent", with the remainder responding "somewhat".

In interviews, we heard repeatedly how having an **established process** for feeding government priorities from departmental ARIs (Areas of Research Interest) into funding opportunities through ADR UK had helped to ensure research is relevant to policy.

"We were having questions asked of us on a Monday, and the output being talked about on the Friday by the First Minister on a COVID briefing"
Interviewee 25

The alignment of ADR UK-funded research with government needs was made particularly clear during the COVID-19 pandemic when researchers and analysts were able to use ADR UK-enabled linked data at pace to inform government strategy in Wales (see quote above).

ADR UK is providing data and infrastructure which will outlast the ministerial priorities of the day.

Whilst the evaluation indicates that ADR UK-enabled research is well-aligned with governmental priorities, participants emphasised that **achieving this has required significant work on behalf of ADR UK and partners**.

"Data is the bigger contribution, I think. […] Policy priorities will change over time, so having an infrastructure that can serve those is important."
Interviewee 7

We heard that there are multiple challenges when looking to bring academic and government priorities together. These include "asynchronous timescales" (Interviewee 1) and academic incentives which encourage long and rigorous outputs which will

withstand peer review, but do not necessarily lend themselves to being quickly digestible for policymakers.

Moreover, researchers stressed how with each **change in government**, new research interests and priorities emerge, making it difficult to maintain a consistent research agenda over the longer timelines required for academic analysis.

As multiple stakeholders emphasised, government priorities are out of ADR UK's control and will inevitably change. As one researcher put it, **ADR UK's main contribution is supporting the creation of infrastructure and data** which can serve the changing needs of the government over time (see quote above).

In its first three years of operation, ADR UK has supported significantly more publications than in the equivalent ADRN period.

> Relevant indicator: overarching output indicators on total numbers of reports and publications

Drawing upon MEL data recorded by ADR UK and partners in quarterly reports, we also tracked the number of publications directly funded by ADR UK contributing to the bodies of knowledge around major societal challenges (see also Bibliometric analysis under section 6.9. Informing government policy, strategy and practice).

Note that the publications included in this count are reported by partners as being directly funded by ADR UK. There is no provision in the current data collected for research which is *enabled* by ADR UK – e.g. uses an ADR UK-funded dataset. As such, we are not able to confidently measure the number of publications indirectly enabled by ADR UK.

For a fair comparison, we have provided a snapshot of data from the first 3 years of each investment. Data from the 4th year is also included, however we note that the ADR UK total of publications is only partial, since data was captured in June 2024.

Data shows that in its first years of operation, **ADR UK has contributed to significantly more published research than its predecessor** (on average 3.5 times more publications have been recorded over the first three years).

Publications by year (ADRN and ADR UK)
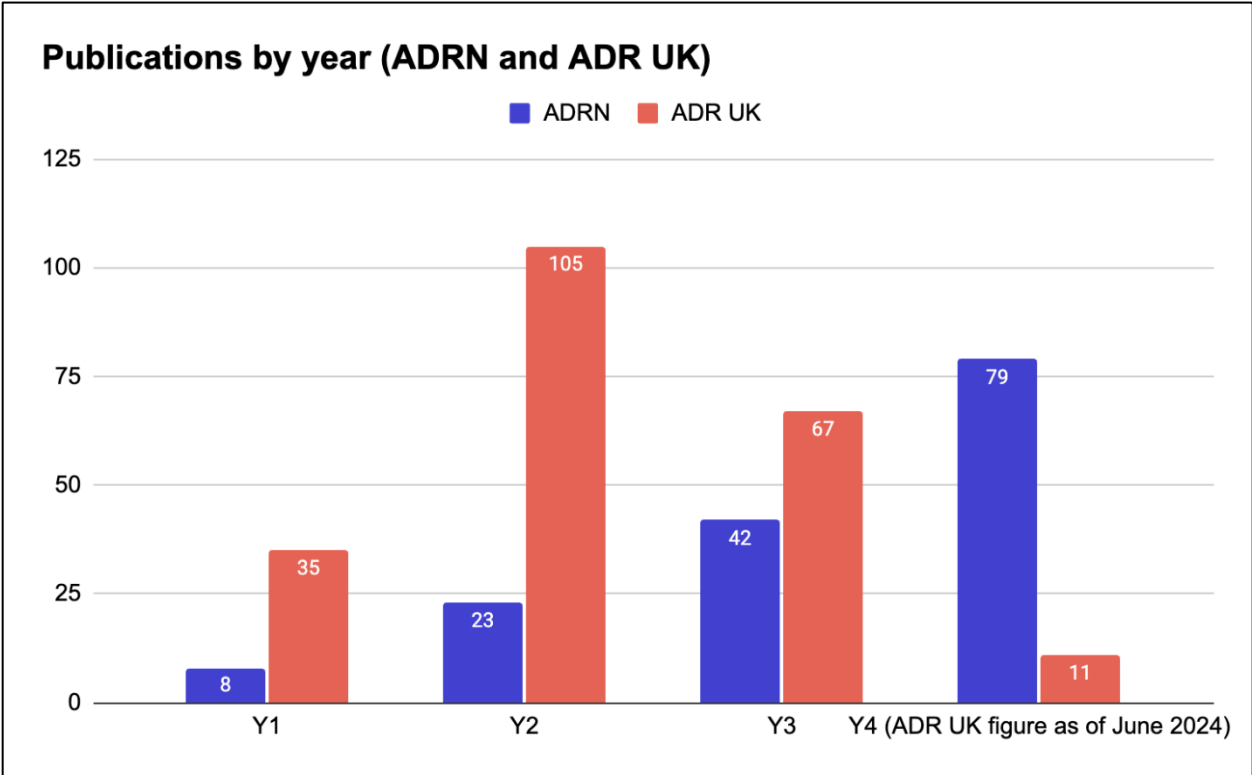
By funding essential data-sharing infrastructure, ADR UK has enabled research *beyond* those projects directly funded by the partnership.

Relevant indicator: Evidence of more research tackling major societal problems / aligned with government need (funded indirectly by ADR) (Interviews and case studies)

It is also clear (albeit more difficult to quantify directly) that ADR UK has also facilitated research beyond projects it has funded, primarily by supporting the linkage of government data and the trusted research environments used to host it securely. This was highlighted in interviews. Specifically, we heard that administrative data **hosted on the ADR UK-enabled infrastructure**, such as Longitudinal Education Outcomes (LEO) data, is continuously receiving an increased number of requests for access from academic researchers not necessarily funded by ADR UK (Interviewees 6, 18).

Moreover, **bibliometric research shed light on case studies which demonstrate ADR UK's more indirect impact on policy.** This was particularly apparent in the Minimum Unit Pricing case study, whereby academic researchers not directly funded by ADR UK assessed the effectiveness of minimum unit pricing (MUP) as a policy instrument for reducing alcohol-related deaths. Incorporating death records from the ONS Secure Research Service (infrastructure funded by ADR UK) and National Records of Scotland, the project observed a reduction in alcohol-related deaths related MUP policy. were endorsed by Scotland's Public Health Minister and cited in a 2024 Scottish government report, concluding strong evidence for MUP's impact on reducing chronic alcohol harm, leading to the

policy's extension. A more comprehensive outline of this case study, as well as an estimation of its economic benefits, is included in [section 6.11](#) of this report.

6.7. Outcome area: Trust and sustainability

Outcome area	Outcome	Indicator
Trust and sustainability	Increased public commitment from government regarding sharing administrative data for research	Increase in government departments' public support related to the commitment to admin data sharing to support research (Interviews and Case studies)
		Increase in department's public support related to the commitment to admin data sharing to support research (statements/speeches/social media comms on R&D tracked by ADR UK PMO)
		Increase in the number of governments that support ADR UK (data on Whitehall departments/devolved governments/public service/policy organisations engaged with ADR UK research tracked by ADR UK PMO)
	A more sustainable long term research resource is created, producing evidence to inform continued investment	Linked datasets are updated more regularly by government departments (Survey for data owners)
		Number of individual datasets that are updated according to planning (TRE data)
	Public acceptance of administrative data sharing and perseverance for research is maintained	Increase in the number of projects conducting meaningful public engagement (ADR PMO QHRs and interviews)
		Evidence of maintenance / improvement in public understanding and acceptance of using administrative data for research (Interviews, Case studies)

ADR UK has had a marked influence on departments' willingness to share data, but this is not uniform.

> Relevant indicator: Increase in department's public support related to the commitment to admin data sharing to support research (interviews and case studies)

Overall, interviews with researchers and government officials indicated that **ADR UK has had a positive effect on government's commitment to share data** by providing an "established process" (Interviewee 23) for the government to connect with academia to produce research for the public good.

[There has been] *"a shift in public commitment and ADR UK has to take huge credit here"*

Interviewee 15

However, participants also agreed that this effect is **not uniform**. Some government interviewees were unable to point to significant public commitments made by their departments, whereas others cited numerous examples. Wales emerged as a forerunner in commitment to sharing administrative data for research, having published a Digital Strategy for Wales which **acknowledges the achievements of ADR Wales** and commits to opening up data for reuse.

Public support from the government leads to improved administrative data sharing within and across departments.

A common theme in interviews was that once departments have begun to share data and committed to administrative data sharing by putting out funding calls, it will be difficult to "row back" on sharing linked administrative data (e.g. Interviewee 19, Interviewee 23).

[My department] *"really believes that sharing data with academic researchers is the right thing to do."*

Interviewee 19

A number of interviewees also flagged ADR UK flagship dataset projects, **Data First** and **ECHILD,** as prime examples of where departments had publicly expressed their support for administrative data sharing for research, by celebrating attained successes (see case studies included in this section of the report).

Others pointed to a **"multiplier effect"** which occurs when departments express their support for administrative data sharing, encouraging more sceptical departments to follow suit, once there is an established route for sharing linked data with academics (Interviewee 16).

Case study: Building buy-in for administrative data sharing within the Ministry of Justice

The Data First initiative - led by the MoJ and funded by ADR UK - has emerged as an exemplar of how ADR UK has created sustained partnerships between government departments and academia, resulting in increased government commitment to administrative data sharing.

Engagement activities conducted with ADR UK support (e.g. workshops, stakeholder panels) to explore existing data and its possible uses was reported to have improved confidence in research findings on the part of government officials.

For instance, at the inception of the Criminal Courts project, a significant effort was dedicated to publicising the work, including conducting online workshops (at least one per quarter). Such events were useful for academics in that they provided opportunities to request additional information needed to address key research questions and to make recommendations for improving data collection methods at operational level. On the other hand, stakeholders have also claimed that these activities contributed to government officials gaining confidence in the academics' findings, which in turn has the potential to lead to more evidence-informed justice policy.

To maintain high engagement levels after the completion of the research and ensure research insights are fed into decision-making, one researcher points out that the MoJ has set up internal meetings to relay research findings to policymakers. The 'Data Explained' and 'Data Insights' publications, which summarise research experiences and learnings (outputs are open access and publicly available), further contribute to an on-going collaboration between MoJ analysts and academic researchers and a *"common effort to improve the data which is shared"*. Moreover, ADR UK has funded accessible ways to present research findings; for example, by creating animations.

Building on the learnings from ADR UK, the MoJ received funding from HM Treasury via the Shared Outcomes Fund to lead a cross-government linked data project Better Outcomes through Linked Data (BOLD), which links the Data First datasets with data from the Department of Health and Social Care, the Department of Levelling Up, Housing and Communities, Public Health Wales and the Welsh Government for internal analysis. The MoJ explicitly credits ADR UK as the programme the BOLD initiative is developed on.

Significant progress has been made over the last few years in involving data owners from the MoJ and other government departments. Initially, it was expected that the academic findings would primarily interest criminologists, but the scope has expanded to include data science and education, such as the history of education linked data in the Department for Education (DfE). Data sharing between the MoJ and DfE has also improved, following recommendations from ADR UK research fellows.

These activities contribute to the MOJ's increased commitment to share administrative data. The MoJ now aims to build on the success of Data First and make the ADR UK model the standard practice, contingent on funding: "[Data First] *provided the means to expand linked data across government*" (Interviewee 14).

There have been at least 15 instances of departments publicly expressing support for ADR UK, but data on public commitments is inconsistently recorded.

Relevant indicator: Increase in department's public support related to the commitment to admin data sharing to support research (statements/speeches/social media comms on R&D tracked by ADR UK PMO)

The data reported back to ADR UK from partner organisations on public commitments to administrative data sharing is of mixed quality. A number of partners either do not report on this (ADRC-NI, NISRA, Welsh Government, SCADR, Scottish Government) or provide generalised updates in quarterly reports (Swansea University) which do not lend themselves to robust quantification.

The most detailed data available on public commitments made by the government is collected by the ADR UK Strategic Hub. Whilst this data is not exhaustive, it indicates that there have been at least 15 registered instances of departments publicly expressing their support for ADR UK or administrative data sharing more broadly since the start of 2021.

This is one area where we see an opportunity for ADR UK to improve upon its MEL model since most partners are not tracking public commitment in QHRs in line with the current framework (see MEL recommendations). We also currently have no sense of whether commitments are increasing over time, so working to record dates for each commitment could improve the quality of this analysis.

Whilst it is currently difficult to quantify commitments made to administrative data sharing over time, desk research and qualitative data makes it clear that departments are acknowledging the value of ADR UK publicly. Public commitments have taken various forms:

- **Mentions in speeches**
  For instance, Welsh minister for Social Justice, Jane Hupp, spoke in 2023 about the value of ADR Wales' partnership approach in working with SAIL to provide secure access to de-identified linked data to support crime prevention (source).

- **Press release statements**
  Such as comments made by the Director General of Performance, Strategy and Analysis at the Ministry of Justice upon the renewal of Data First funding in 2022: *"I am delighted that ADR UK is continuing its investment in Data First for another three years. It will help us to build on our achievements to date, providing further unique opportunities for analysis that have not been possible before. This will lead to rich new insights for evidence-based policymaking to improve the lives of our justice system users"* (source).

- **Awards**
  For example, Swansea University and the SAIL databank were awarded the Queen's Anniversary Prize for their work "harnessing public data to improve population health and wellbeing". The Prizes are the highest national honour awarded to UK universities for outstanding work which delivers real benefit to society ([source](#)).

- **Social media content**
  We found limited evidence that government departments are using social media to express their commitment to administrative data sharing and research (perhaps due to the risk of public misinterpretation of how data is used). Nonetheless, some ADR UK funding opportunities have been promoted by departments like Ofsted ([source](#)).

This is in addition to mentions in policy papers (see findings on [informing policy and practice](#)).

There has been an increase in the commitment of UK government departments to share administrative data for research.

Relevant indicator: Increase in the number of governments that support ADR UK (data on Whitehall departments/devolved governmentss/public service/policy organisations engaged with ADR UK research tracked by ADR UK PMO)

As with the previous indicator, the data provided in the QHRs on the number of departments, governmentss and policy organisations engaged with ADR data and research is inconsistently reported across partners.

However, ADR UK Strategic Hub also tracks statements of support written by UK government departments and devolved governments centrally, available [here](#). Since 2021, **26 different letters of support have been logged**, authored by 14 departments / devolved governments in total. The Department for Education has authored the most letters of support, having produced them for 6 different projects.

There is evidence that without ADR UK, administrative datasets would be updated less frequently for academic use.

Relevant indicator: Linked datasets are updated more regularly by government departments (Survey for data owners)

When we surveyed data owners about how long it takes them to update datasets, half replied that they did not know, with the rest of respondents indicating that data is updated at least yearly.

We also asked how long equivalent datasets would take to be updated in a scenario without ADR UK. Half of respondents said **it would take much longer to update datasets**, with 3 out of 8 estimating

that update times would jump from on average once per year, to once every 2 years or less frequently.

In a hypothetical situation where ADR UK did not exist, how often would you update administrative data for research purposes?

Unsure	1
Unsure - but less frequently	1
No change	3
Every 2 years (or less frequently)	3

Number of responses out of 8 respondents
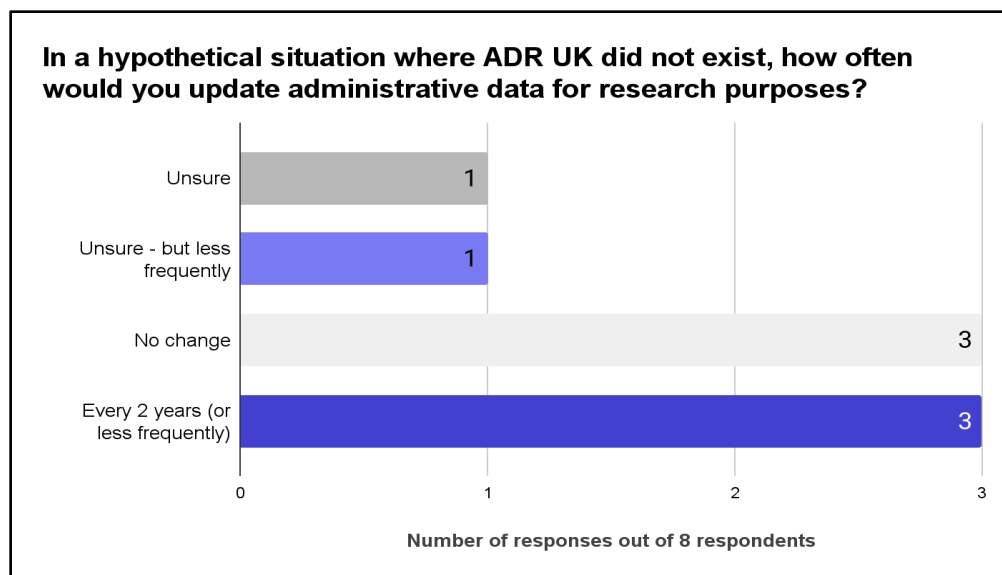
Elsewhere, in interviews, we heard how **data use enabled by ADR UK has provided an incentive for departments to keep datasets up-to-date**, even after a period of funding has ended (Interviewees 6, 18).

For instance, one interviewee highlighted that in the Department for Education the Longitudinal Educational Outcomes (LEO) dataset has been updated more regularly due to increased interest from researchers (Interviewee 18).

Elsewhere, stakeholders were less optimistic about the potential for data use alone to encourage departments to update linked datasets. One interviewee, in particular, felt that were ADR UK's funding to stop at the end of this investment period, then datasets might cease to be kept up to date (see quote).

Data from SAIL in Wales also indicates an increase in the extent to which datasets are updated, with more than 90% of datasets refreshed according to schedule.

Relevant indicator: Number of individual datasets that are updated according to planning (TRE data)

Originally, we anticipated compiling data from across the trusted research environments to better understand how often ADR UK-funded datasets are updated, and importantly, whether they are updated according to planning schedules. Updating according to schedule is particularly crucial for academic researchers, who use update schedules to plan out their projects.

67

ONS and Scottish National Safe Haven have not been able to provide statistics on the number of linked datasets updated according to planning (although ONS are following up internally as to whether this will be a possibility in the future). In Northern Ireland, NISRA also does not yet collect metrics on the number of datasets updated according to planning, and as of July 2024, none had undergone an update. Stakeholders did point to 4 new datasets planned for release in Autumn 2024, however, including an update of the Education Outcomes Linkage Dataset.

> "If the [ADR UK] investment was to end though, I think that the legacy would still be there but you're not going to keep building on it [...] there's not really the same incentive to keep updating the data sets"
> Interviewee 9

The SAIL databank in Wales does report on the percentage of datasets updated according to planning schedules yearly, with figures pointing to a steady increase in timely update rates over time. Note that **update rates have remained at 90% or above since 2021**, when this period of investment began (see graph below). SAIL stakeholders noted that lapses in updating according to schedules are often attributable to data owner capacity issues.

% of SAIL datasets updated according to planning each year

Year	% of datasets updated according to
2018	78
2019	81
2020	84
2021	90
2022	90
2023	90
2024	91
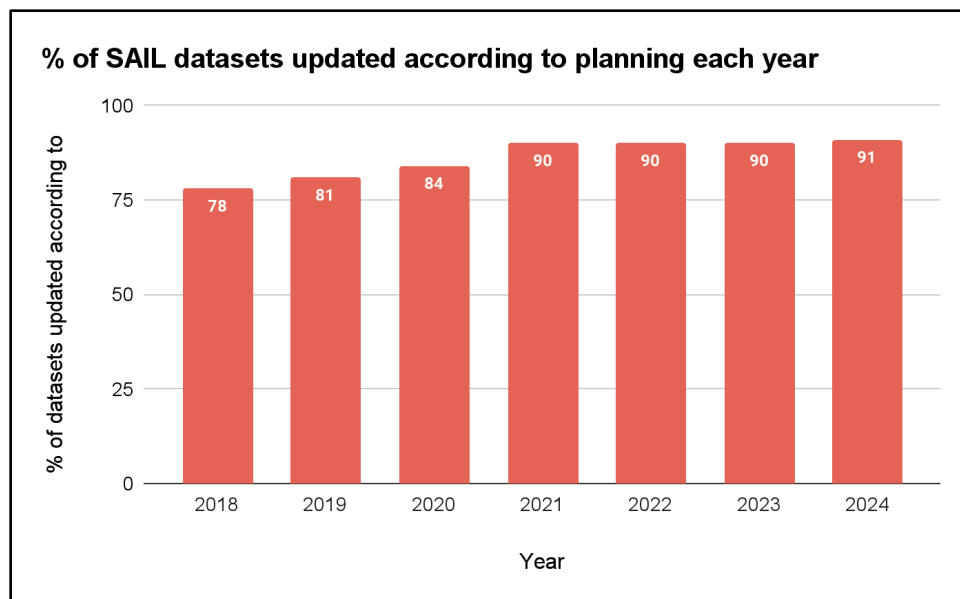
All ADR UK-funded projects are conducting public engagement work, which is designed on a case-by-case basis to avoid being tokenistic

Relevant indicator: Increase in the number of projects conducting meaningful public engagement (ADR PMO QHRs and interviews)

In interviews we learned that **all ADR UK-funded projects conduct public engagement activities**, except for 2-3 projects where public engagement stakeholders have determined with researchers that it would be "tokenistic" to convene a public engagement panel or advisory group at this stage, as datasets do not yet exist, and it is unclear what form research questions will take (Interviewee 26).

We also heard from ADR UK that **"meaningful public engagement" differs across projects**. A **needs-based approach** must be taken, again to avoid tokenistic meetings which use up stakeholders' time without promoting any real dialogue or providing value back. As such we have avoided establishing a prescriptive definition of what meaningful public engagement requires, instead conducting a more nuanced analysis anchored in case studies. We also recommend that in terms of MEL tracking in this area, ADR UK use a largely qualitative approach, anchored in case studies and qualitative evidence which demonstrates the value of well-tailored public engagement. There is also scope to supplement this by developing more standardised public engagement feedback questions to be shared amongst participants; an approach ADR UK has recently taken to its events.

Across interviews, **researchers and government stakeholders alike appreciated the value of public engagement work** they were able to do with the help of ADR UK. Specifically, interviewees mentioned that ADR UK had done valuable work to maintain the **public credibility and acceptability** of using public data for research, which was repeatedly emphasised as a vital precondition for conducting their work.

One particular interviewee was very clear that **without ADR UK support, they would not have been able to conduct public engagement work to the same degree**, as ADR UK funded a small public engagement team on their project. When asked about a counterfactual scenario, they said public engagement would have been less of a priority without ADR UK, due to the other obligations of the researcher team (Interviewee 10).

Whilst there was a broad acknowledgement of the continued importance of public engagement, a number of stakeholders felt that the public stance on administrative data sharing for research is actually already positive (e.g. Interviewee 24). Others emphasised how ADR UK's work on public engagement can help to quell the concerns of government departments concerned about whether or not sharing data would attract criticism from the general public (see quote).

"It helps us understand whether we're still in a safe zone where, on the whole, most people will be comfortable [with administrative data sharing]. *That has been really useful when feeding back to these departments that have been worried and concerned"*
Interviewee 7

Despite the successes detailed above, those close to this work did stress an opportunity to do more regarding public engagement. In particular, there is **scope to create an overarching public engagement panel in Northern Ireland,** which currently is the only devolved government without one.

We also heard there is **a potential opportunity to expand ADR UK's central public engagement capacity**, which is currently limited to just one person, given the demand for this support across projects) and the continual need to use this work to reassure data owners that public acceptance of administrative data sharing is being maintained.

Case studies are testament to ADR UK's work to maintain public acceptance of administrative data sharing.

Relevant indicator: Evidence of maintenance / improvement in public understanding and acceptance of using administrative data for research (Interviews, Case studies)

Case study: involving young people in research on outcomes for care-leavers Northern Ireland

Research has indicated that care-leavers are [significantly less likely](#) to experience the same health, social, and economic outcomes as other adults. Additionally, children in social care are [disproportionately affected by mental health issues](#). Despite this, there was a lack of local data on this topic in Northern Ireland.

To address this, ADR UK funded researchers in Northern Ireland analysed over 30 years of linked data to assess the mental health and long-term health outcomes of young people in care. The dataset consisted of records of 1,508,850 individuals born between 1970 and 2015, tracked until December 2019, including primary care and mortality data for the entire period. This data was combined with social services information from 1985-2015, and prescription and hospital records from 2010-2019.

ADR UK also supported a communications and engagement team to promote a "*true co-production*" approach, involving young people in the research process. This team maintained a connection with the charit [Voice of Young People in Care (VOYPIC)](#) - advocating for the promotion of the rights and views of children and young people with lived experience of care in Northern Ireland - and organised workshops with young people.

The collaboration with VOYPIC played an important role in improving public understanding and acceptance of using administrative data for research. The charity provided a safe and familiar environment for young people, essential for their involvement in the project. By facilitating communication through a trusted entity, the project was able to reach care-experienced young people who might otherwise have been sceptical or disengaged. This approach allowed the research team to improve awareness of administrative data uses in a way that was accessible and relatable.

The research team organised a series of eight quarterly workshops with care-experienced young people, aiming to help young people understand the results of the project and data research more generally. A key function of the events was to facilitate discussion, supporting care-experienced young people to identify what future research may be a priority for the ADRC NI (sources [here](#) and [here](#)).

> *"We were keen to get to the individuals behind the data. [...] We wanted to [implement] a true co-production model."*

While the [academic version of the research](#) has been cited in various contexts, the [version tailored for young people](#) has not received the same formal recognition. However, it has made a significant impact in other ways, particularly through [social media engagement.](#)

While the formal evaluation of the project's impact is still underway and is expected to be published in the autumn, informal feedback has already indicated that young people appreciated their involvement and felt positively about the experience.

6.8. Outcome area: Available data for research

Outcome area	Outcome	Indicator
Available data for research	Better availability of administrative data for research	Increase in the number of administrative datasets available to researchers ADR UK PMO quarterly reporting)
		Improved researcher satisfaction of data availability (Survey for researchers, Interviews)

	Increase in the quality of administrative data which is available for research	Improved researcher satisfaction of data quality (Survey for researchers)
	New datasets are created which align with government research priorities and problem areas	More available data directly linked with government priorities (Interviews)

ADR UK has funded at least 126 new research-ready datasets during this investment.

Relevant indicator: Increase in the number of administrative datasets available to researchers (ADR UK PMO quarterly reporting)

Up to Q4 2023, partners reported that **ADR UK has funded 126 new datasets:**

- 34 – just under 27% – of datasets were reported by partners in **Wales** (Swansea University and ADR Wales)
- 68 – just under 54% – of new datasets were reported by partners in **England** (ONS)
- 10 – just under 8%– of new datasets were reported by the **Scottish Government**
- The remaining 14 – again just over 11% – were reported by NISRA in **Northern Ireland**

This mirrors findings from interviews that progress across the four nations has been somewhat uneven, due to the varying contexts within which each partner began the investment.

Number of new datasets per quarter
As reported in ADR UK QHRs
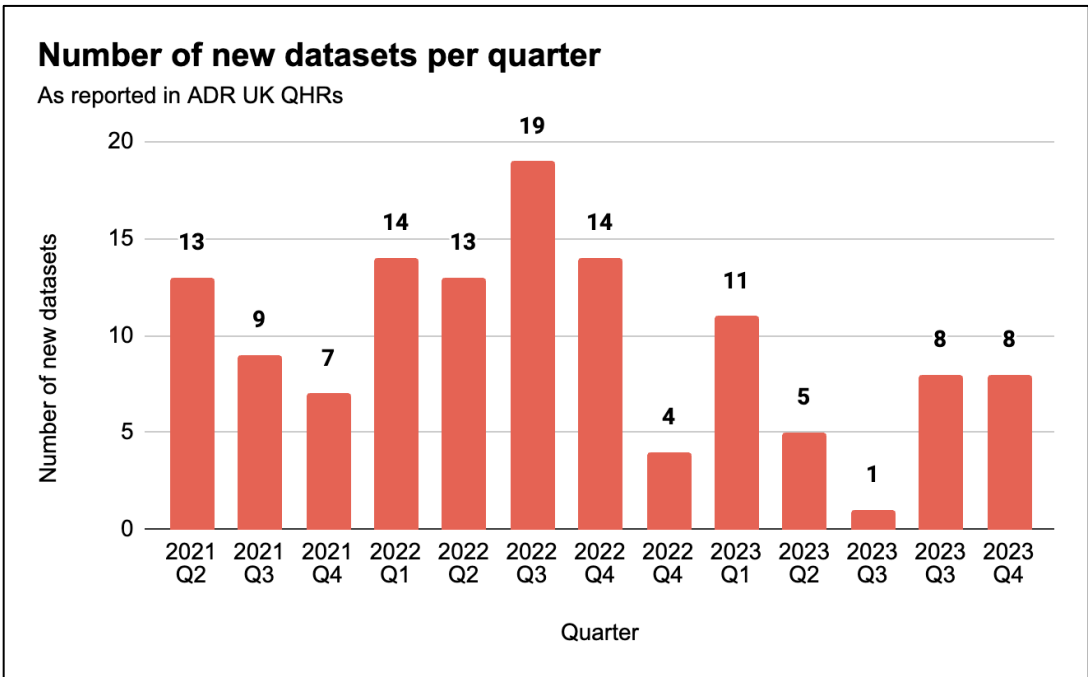
However, there remains scope to make more data available, particularly when looking to departments like HMRC and DWP.

> **Relevant indicator: Improved researcher satisfaction of data availability (Survey for researchers, Interviews)**

Whilst data shows that **ADR UK is succeeding in making more datasets available to researchers, the academic researcher survey revealed that data availability remains a challenge.** Almost 40% of academic researchers cited data availability (e.g. lack of coverage) as a barrier when looking to use administrative data effectively.

When we interrogated why data availability remains a problem in interviews, most respondents referred to uneven buy-in across government departments. **DWP and HMRC were commonly cited as departments where ADR UK should focus on 'unlocking' more data** since they hold information on socioeconomic status which is valuable for research questions across various thematic fields (see for example Interviewee 1, Interviewee 9). A number of participants also called for a further focus on health data (e.g. Interviews 8, 6, 29) but acknowledged challenges since this falls outside the Digital Economy Act.

When it comes to the availability of data, one respondent signalled that some datasets are not compatible with the TREs (Interviewee 4), while another argued that more data needs to be linked across government and made available in TREs (Interviewee 10). In the same vein, one participant pointed out that some researchers request access to multiple datasets which might contain relevant data for their projects (Interviewee 25).

Most researchers are content with the frequency of updates (which has improved since ADRN), but there remain academics requiring more recent linked data.

In addition to understanding how often data owners report updating datasets, the academic researcher survey also quantified research satisfaction with data availability in terms of updates. A number of academic researchers were unsure (largely because they had not yet received data access), but **more than 50% of researchers expressed satisfaction with how often datasets were updated in the academic researcher survey.**

To what extent do you agree with the statement:

'The ADR UK datasets are up-to-date for the required research'?

Number of responses out of 68 respondents
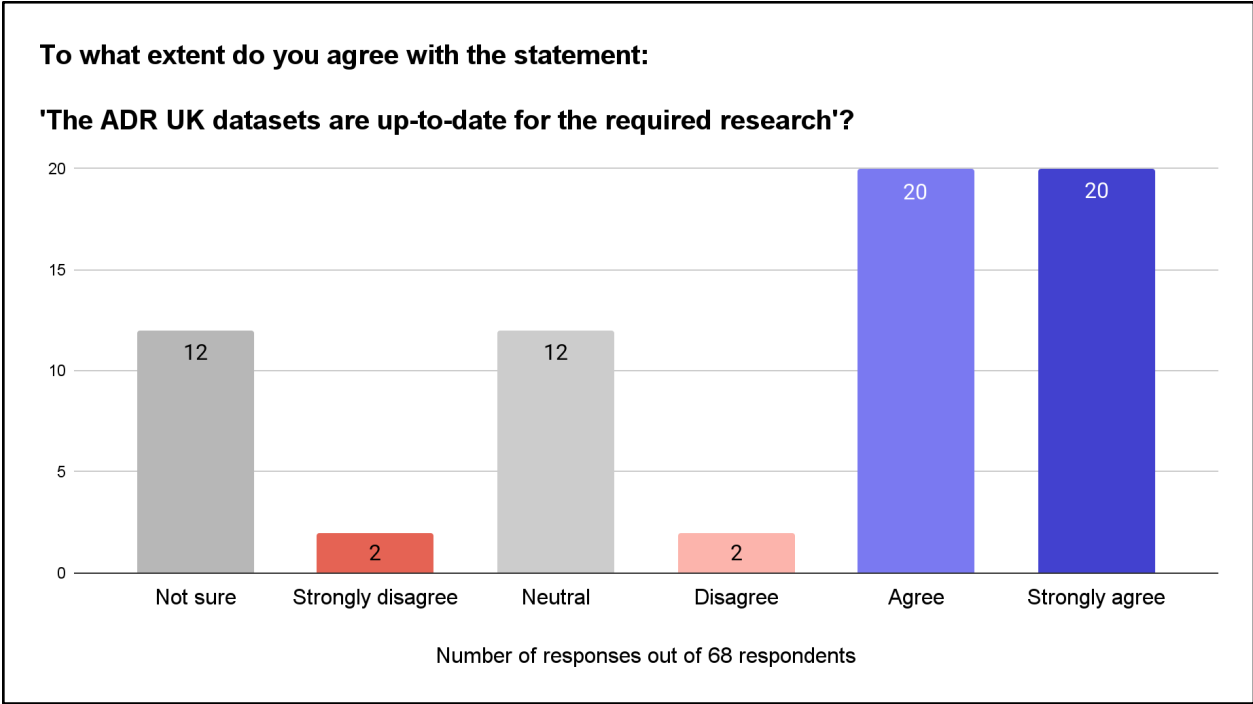
When asked to compare this with a scenario without ADR UK / ADRN period, 50% said they were unable to comment, but of those who did respond, 53% were more satisfied with the extent to which data is updated during the ADR UK period, compared to just 9% who said they were less satisfied (38% of respondents who could comment reported no change).

In comparison with ADRN or other ways of accessing administrative data, how up-to-date is ADR UK-enabled data?

Number of responses out of 68 respondents
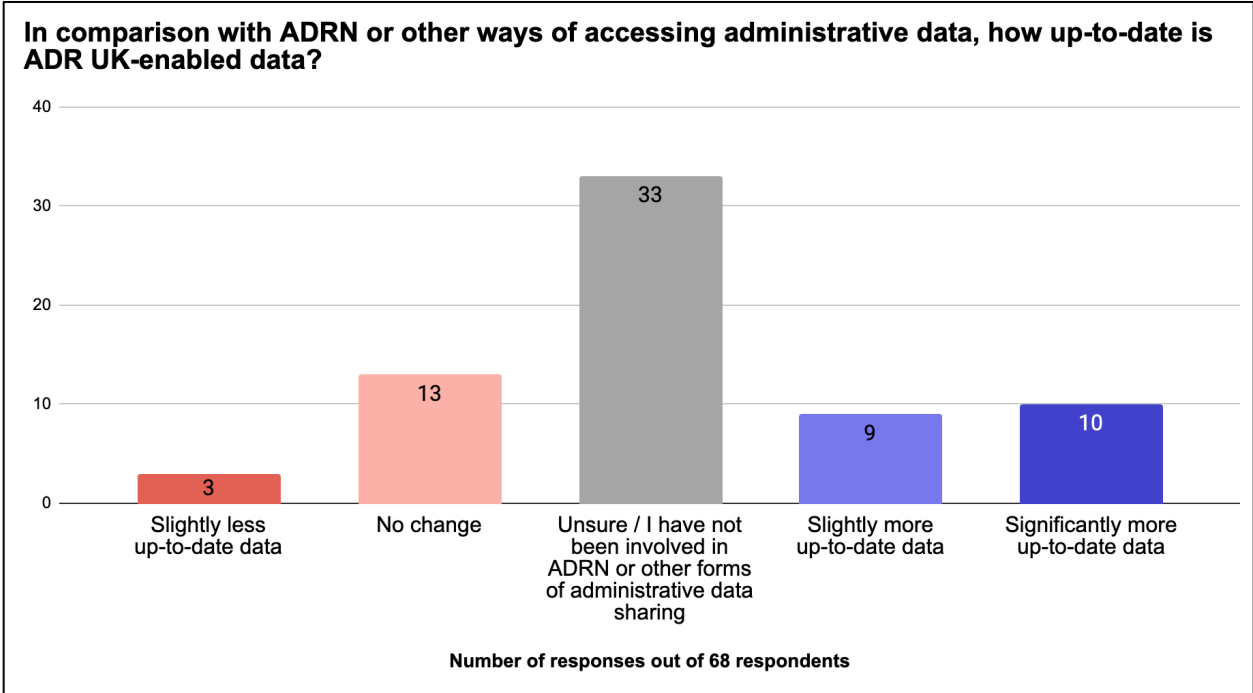
In interviews, we heard that **the change in delivery model between ADR UK and ADRN has been**

crucial to improving data availability, which is likely the driver of the overall positive feedback. Prior to the ADR UK pilot, ADRN datasets would be destroyed once the research was completed, significantly limiting the amount of data available in the longer term (and the impetus for government departments to keep data up to date).

Other researchers flagged that **there is still a need for more up-to-date linked data**, particularly in Northern Ireland (Interviewee 10). Respondents also emphasised that researchers are often limited in what they can do with the data without more updates (Interviewee 10, qualitative survey responses).

Data quality can be mixed, but researchers highlighted that this is typical of administrative data and by no means a failure of ADR UK.

Most survey respondents reported that they were satisfied with data quality. Even where one respondent reported that they were "not at all satisfied", this was qualified in an accompanying response:

"*The data is a mess. However, this is not the fault of ADR UK, ONS or HMRC; it's in the nature of administrative data that it often needs a lot of work to be wrestled into a useful form. This is what ADR UK pays us for*" (Academic survey respondent).

To what extent are you satisfied with ADR UK data quality?

Not sure	Not at all satisfied	Neutral	Slightly satisfied	Very satisfied	Extremely satisfied
13	1	8	8	25	9

Number of responses out of 68 respondents
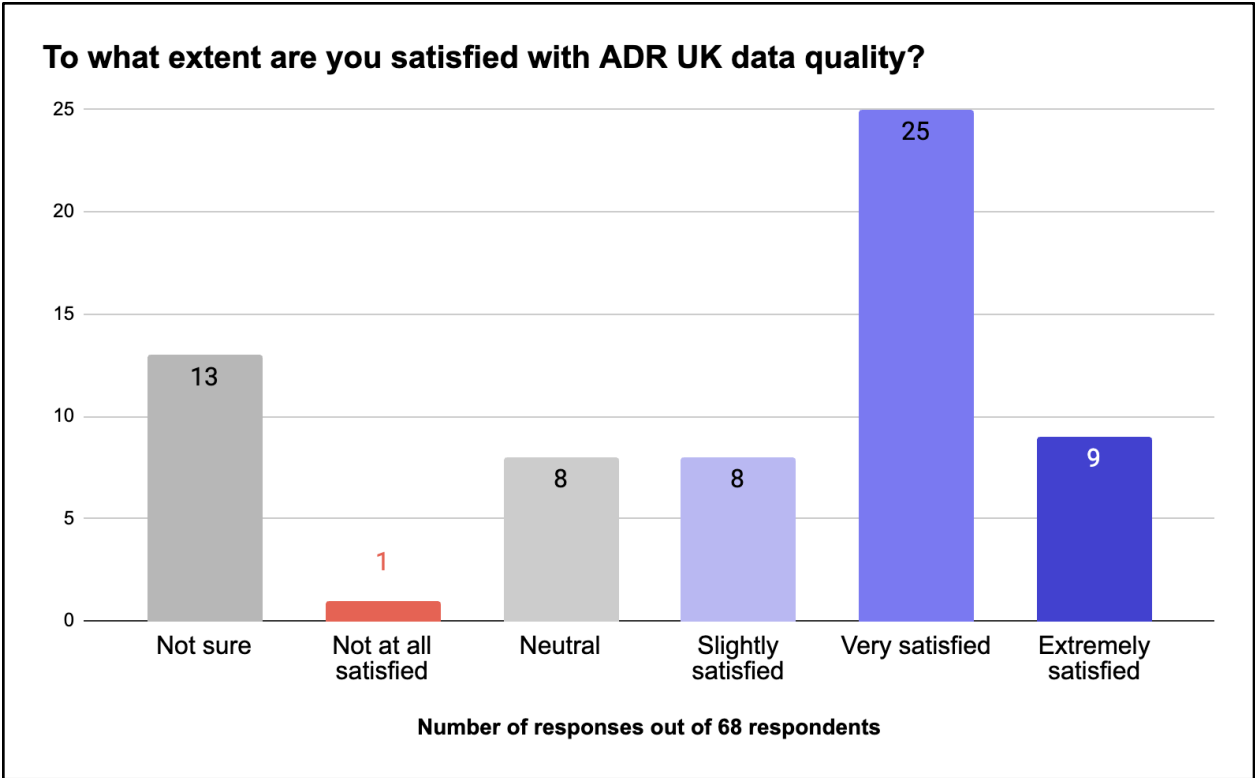
This was also a running theme across interviews, where we heard repeatedly that it is a natural characteristic of administrative data to be messy since it was not created with research as a primary goal. One interviewee went as far as to say that only researchers who are inexperienced in using

75

administrative data would be likely to complain about data quality (Interviewee 1).

When asked to compare data quality with the ADRN period, 35% of respondents said that they were more satisfied with data quality than under ADRN, whilst the remainder either reported no change or were unable to comment.

New datasets funded by ADR UK align with government research priorities and problem areas.

Relevant indicator: More available data directly linked with government priorities (Interviews)

Overall, participants had confidence that the current process for funding projects ensures that the research and datasets produced under the ADR UK investment respond to government needs.

Several participants (e.g. Interviewees 1, 18, 19, 23, 25) referred to the fact that departmental Areas of Research Interest (ARIs) help to inform decisions around which data link and projects to fund, identifying ARIs as the most useful mechanism for defining departmental priorities.

Nonetheless, some interviewees did identify scope to improve upon the way that ARIs inform ADR UK projects. For instance, one government stakeholder flagged that **certain government departments need to more actively ensure that ARIs are updated** – particularly in light of a change in government (Interviewee 18).

There is also evidence that ADR UK's partnership model is supporting research into specific challenges or policy priorities in the devolved nations. For instance, in Scotland, interviewees spoke about how ADR UK had supported research into child poverty and drug and alcohol-related deaths, which were key focus areas for the Scottish Government (Interviewee 7).

6.9. Outcome area: Informing government policy, strategy and practice

Outcome area	Indicator
Increase in ADR research acting as evidence informing government policy, strategy and practice	Evidence that ADR UK-enabled research has informed government/public policy (surveys, interviews, case studies, ResearchFish data and bibliometrics)
	Increase in number of government users of ADR data (TRE data)
	Increase in government interactions with ADR data (survey on number of sessions)

Evidence of an increase in linked datasets being used by the public sector for policy formulation (TRE data where possible, interviews)

Number of documents for policy formulation that used research outputs funded by ADR UK (interviews, evidence from QHRS where possible)

Number of briefings for policymakers produced by ADR partners/Number of requests received for expert advice on certain policy proposals or programmes (surveys, evidence from QHRs where possible)

Overall, interviewees agree that ADR UK research and data has started to inform policy, but emphasised differences across the four nations.

Relevant indicator: Evidence that ADR UK-enabled research has influenced government/public policy (surveys, interviews, case studies and bibliometrics)

Overall, the academic researchers and government stakeholders interviewed agree that research enabled by ADR UK has **already begun to influence government policy** and holds significant potential to do so further in the future.

The relationships between researchers and policymakers **vary across the four nations**. Participants attribute these differences to **government structure and priorities**. In the devolved nations - with smaller administrative jurisdictions researchers might find it easier to establish partnerships to feed findings into policy (Interviewee 24).

In Wales, there is a **particularly strong connection** between research and policy, facilitated by a model where policymakers work closely together in the same teams (Interviewees 1, 3).

Academic researchers were generally optimistic about the extent to which their research can and will influence policy.

Whilst 15 (22%) of respondents felt that there is already "strong evidence" that their work has influenced policy, the majority of respondents (36%) indicated that policy impact is likely to be registered within the next 2 years.

This aligns with the broader qualitative findings from interviews that in many cases, it is too early for research to have influenced policy, largely because research has not yet been published and disseminated.

To what extent has the research you have produced influenced government policies and practice?

Not at all: 1
Unsure: 9
Somewhat: 18
Strong evidence of influence: 15
Not yet but likely to do so in next 2 years: 25

Number of responses out of 68 respondents
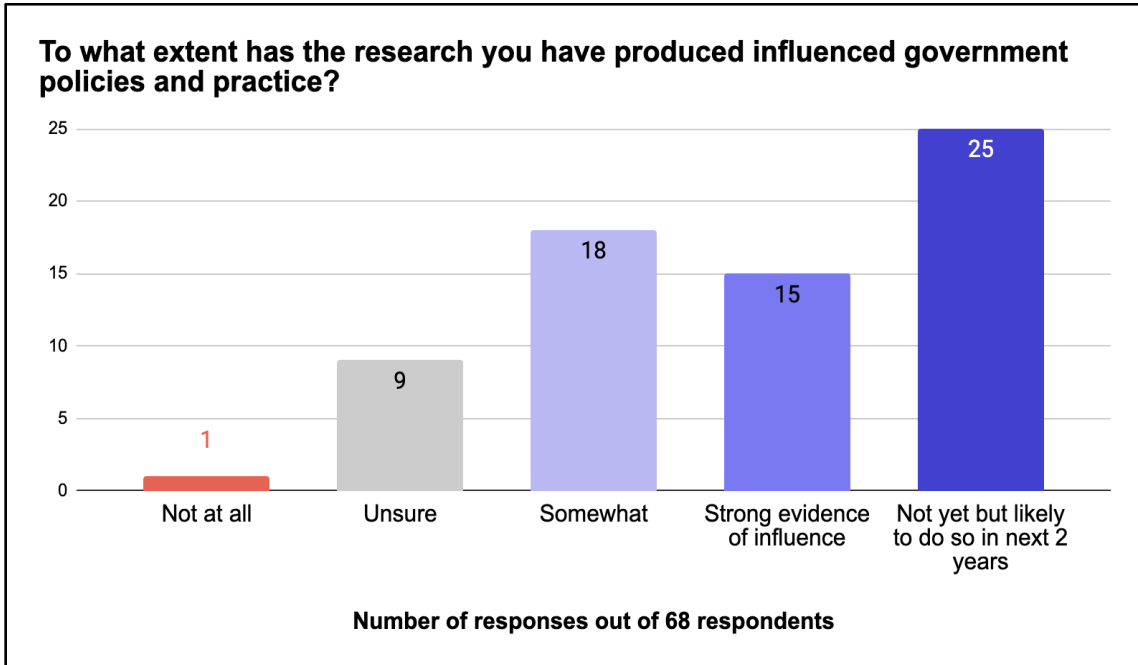
Government analysts familiar with the partnership also reported that they do use ADR UK research outputs, but direct data use is limited by time constraints.

Relevant indicators:
- Increase in government interactions with ADR data (survey on number of sessions)
- Evidence of an increase in linked datasets being used by the public sector for policy formulation (TRE data where possible, Interviews)

When we asked government analysts how often they access ADR UK data, half of respondents said that they use ADR UK weekly or more.

When asked to provide more specific estimates of how often they access data and research enabled by ADR UK, most respondents were less willing to provide firm figures. The second most common response was that analysts use ADR UK outputs at least 2-3 times per week. One respondent added that they felt that the use of **administrative data is "increasingly becoming**

How often do you access ADR UK-enabled linked data and research for analysis?

Weekly or more: 4
Monthly: 2
Less than once a year: 2

Number of responses out of 8 respondents

78
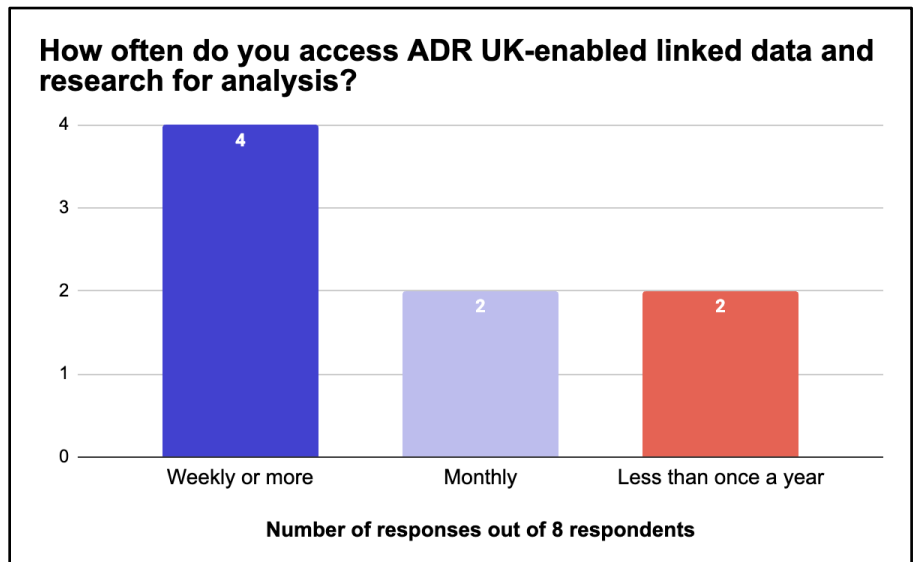
part and parcel of routine statistical work".

Interviews and the survey revealed that whilst many civil servants see the value in using administrative data, **time pressures and resourcing constraints impose limits on how much they can actually use the data itself** (highlighting the value of easily digestible outputs, like ADR UK's Data Insights). In the words of one survey respondent who is a government analyst, they access data "Less often than I would like! I mostly get to read the research once it is completed - not play with the data!"

However, as we might expect, analysts within government more broadly reported less frequent data use.

Nonetheless, when we surveyed analysts within government more generally, by circulating a survey through the Government Economic and Social Research (GESR) mailing list, we found that the broader pool of analysts reported much less frequent use of linked administrative data. Most respondents claimed to use it less than once a year (see graph below), compared to the weekly and monthly usage reported by analysts familiar with the partnership. Whilst response rates here were relatively limited, **the data that we do have implies that analysts in departments and teams engaged by ADR UK are more likely to use administrative data with some regularity**, since none of the GESR respondents had been involved in ADR UK research or used ADR UK data.

How often do you access linked administrative data and research for analysis?

Quarterly	Yearly	Less than once a year	Never
2	2	7	1

Number of responses out of 12 respondents
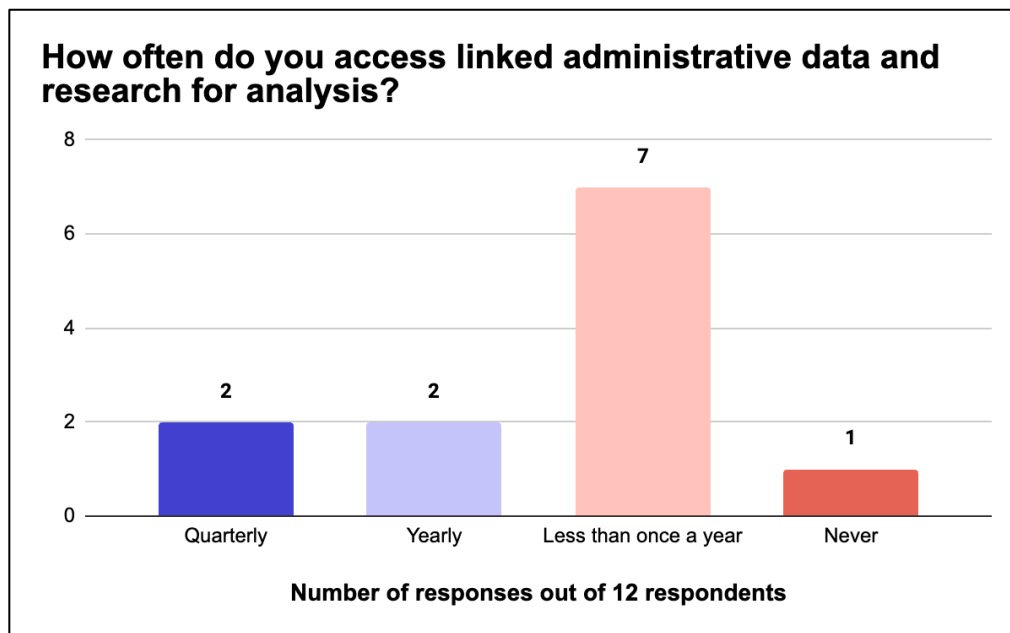
Quantitative data from the ONS also points to an increase in data being used to influence policy.

Data from the Office of National Statistics also suggests that the ADR UK investment coincides with an **increase in the number of datasets associated with projects which have informing policymaking as a stated aim.**

Number of datasets with informing policy as a stated aim on ONS Secure Research Services
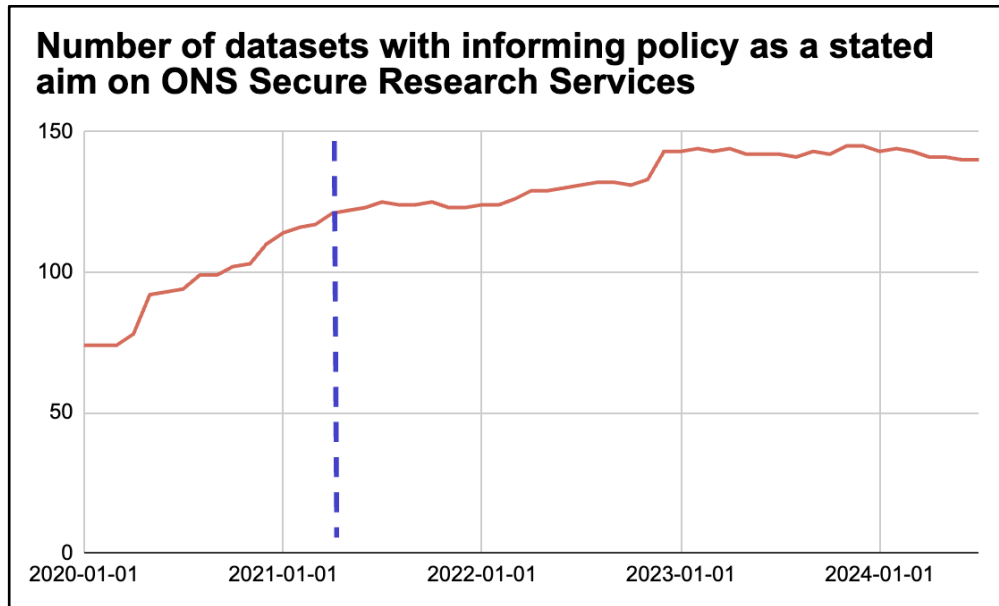
Whilst this increase cannot be directly attributed to ADR UK (only 6.4 % of these datasets have been fully funded by ADR UK), it was made clear in interviews that **ADR UK has made significant contributions to expanding ONS' capacity to create linked administrative data sets for policy making**. For instance, interviewees stressed how ADR UK funds data acquisition and linkage teams within the ONS, without which we heard the process of creating new datasets would be significantly slower: "The fact that ADR UK is funding this time provides a lot in terms of efficiency and quicker work" (Interviewee 12).

Case studies provide solid evidence that ADR UK research is influencing policy.

Relevant indicator: Evidence that ADR UK-enabled research has influenced government/public policy (surveys, interviews, case studies and bibliometrics)

Case study: informing Wales move to Alert level zero during the COVID-19 pandemic.

Since the launch of Wales' rapid vaccination programme on December 7, 2020, the country has made significant strides in combating COVID-19 and mitigating its impact on public health. In the context of the evolving pandemic landscape, the summer of 2021 saw discussions within the Welsh government regarding the relaxation of certain pandemic restrictions in schools, particularly those related to mask-wearing for students and teachers.

In response to these discussions, the need for accurate and timely data on vaccination rates among the school workforce became critical. ADR UK stepped in to fund essential research linking the School Workforce Annual Census with COVID-19 vaccination data housed in the SAIL Databank. This linking of datasets,

facilitated by ADR UK, enabled a detailed statistical analysis that was instrumental in shaping policy decisions on school safety and the management of pandemic restrictions. The team delivered a statistical report and updates which fed into ongoing policy decisions regarding school safety.

The project's findings were shared with policy officials and the Education Minister, who cited findings and figures in media interviews.

> *"[We saw] really quick uptake by the government [regarding the] spread of Covid over time during the UK government daily briefings. In Wales, our findings were presented on the screen."*

While our informants acknowledge that policy decisions are rarely based on a single piece of evidence, this analysis was an important factor influencing decision-making. ADR Wales' analysis significantly impacted school practices during the pandemic and demonstrated the value of effective data linkage. The project played a crucial role in informing Welsh Government policy by providing detailed insights into the demographics and vaccination status of the school workforce. The findings were used to produce the Local COVID-19 infection control decision framework for schools from autumn 2021, as well as the Renew and Reform programme. Ultimately, interviewees have confirmed that the research contributed to Wales' shift into alert level zero.

By identifying potential areas of concern, the analysis enabled the development of targeted intervention strategies and informed decisions regarding school safety. The high levels of compliance with the vaccination programme revealed through the analysis were used to shape policy decisions. Without ADR UK's support, the process would have been slower and more complex, as SAIL would have lacked the resources to create research-ready datasets and integrate vaccination data.

Case study: informing policing strategies during public health emergencies

In 2021, for the first time in Scotland, approval was granted to link health data with police records of individuals subjected to enforcement for non-compliance with public health regulations. The Scottish Centre for Administrative Data Research (SCADR) provided the necessary datasets, protocols, and infrastructure to facilitate research into pandemic-related policing. ADR UK also provided additional funding to assist the police with data processing and requests.

The analysis extended to data from England and Wales, where researchers identified disparities between white and BAME (Black, Asian, and Minority Ethnic) communities, as well as between economically deprived areas across all UK nations. This led to the publication of eight policy reports on the standalone data.

While the data linkage project was completed after the pandemic's peak, limiting its immediate impact on pandemic management, its influence has shaped inquiries of that time and future policy decisions. The

research team was one of the few academic groups to present evidence on government decision-making during the pandemic.

Throughout our data collection period, the project has been referenced multiple times as one which has informed policy. Their research directly informed reports by the Scottish Police Authority, [shaping how the board assessed and managed the police response to the pandemic](). Moreover, the Scottish Police Authority (SPA) created the Independent Advisory Group (IAG) to provide scrutiny around Police Scotland's use of new temporary policing powers. Scotland's Chief Constable, Sir Iain Livingston, [acknowledged the value of the model](), stating that it would be adopted for all future emergency scenarios at SPA Board meetings. This work was also mentioned in an [independent evaluation of the IAG]()published in November 2021.

Research insights stressed critical issues, such as the discriminatory aspects of policing during the pandemic. One participant highlighted that the evidence helped produce recommendations for future regulatory measures in public health emergencies. Equally, the findings informed public policy about the unintended consequences of enforcement measures. The results of the project have been cited in several key recommendations regarding pandemic policing ([here]() and [here]()), and featured in [prominent media publications](). Additionally, the work underscored the inequality of financial-based sanctions during a health crisis that affected various population groups differently, potentially exacerbating existing disparities.

The impact of this work has extended beyond Scotland. Evidence from their research has informed both England's COVID-19 inquiry and the Bingham Centre inquiry into the pandemic. The main author of the research has been cited in several key recommendations on policing during the pandemic, as outlined in the [Bingham Centre inquiry's report](). This demonstrates the broader relevance and influence of the findings, contributing to national and international discussions on policing and public health during emergencies.

However, the number of government users using ONS Secure Research Services has dipped in the last year, due to a number of projects ending and accreditations expiring at the end of 2023.

Relevant indicator: Increase in number of government users of ADR UK data (TRE data)

We also asked the TREs to provide data on the number of government users associated with linked administrative data projects.

Data availability here was generally poor. ONS were able to provide data on the total number of government users associated with projects, as detailed in the section below, but not on the number of sessions. SAIL was able to provide the total number of government sessions and users but, as of yet, has not been able to split this data out over time to evidence any improvement. In Scotland, National Safe Haven reported that they have 10 government users registered, but were not able to provide any

data on how this has changed over time, or on user sessions. Finally, NISRA referred us to ONS data for the total number of government users but were able to break down in-person session data to show the number of government sessions over time.

Overall, the number of government users on all ONS projects has dropped over the course of the investment period. It began at 335 in April 2021, peaked at 259 in May 2023, and since dropped to 253 by July 2024, mirroring an overall drop in all users associated with live projects across the same period. When we queried this drop in the number of users with ONS, we heard that this was due to a combination of user accreditations expiring and a number of projects ending at the end of last year.

When it comes to ADR UK flagship data sets, which are fully funded by the programme, the number of government users associated with projects is more stable but has still slightly decreased over the course of the investment period from 135 to 130.

Number of government users on ONS SRS / Number of government users associated with ADR UK flagship datasets
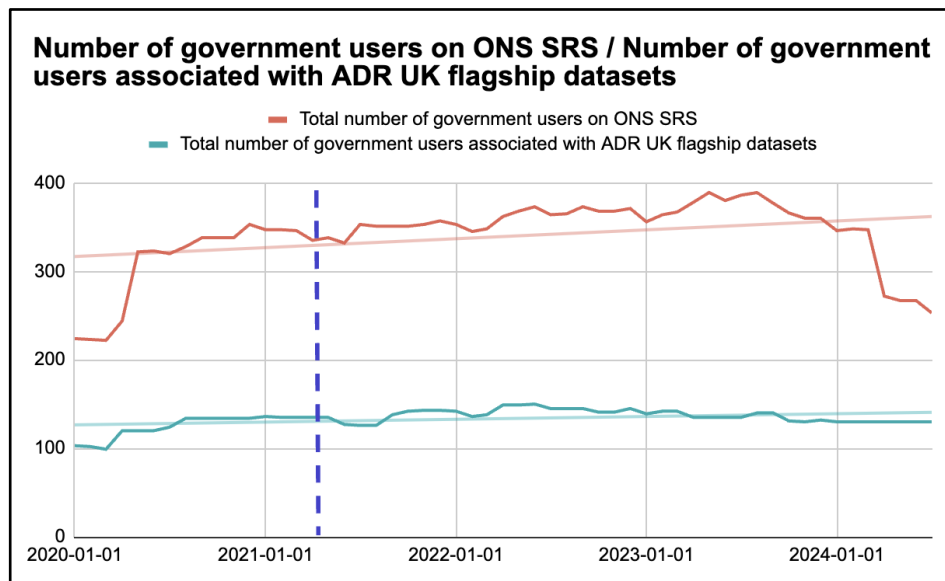
Meanwhile, in Wales, SAIL reported that there have been 98 distinct government users associated with the TRE between 2022 (when SAIL began to categorise users) and August 2024. During this time there have been 1966 distinct government logins. SAIL has not yet been able to provide this data broken down over time.

In Northern Ireland, government interactions with the in-person Secure Research Environment are relatively limited, ranging between 0 and 4 sessions per quarter, with no clear trendline over time.

Due to data availability issues, it is not possible to clearly evidence any positive (or negative) shift in government's engagement with data held in the TREs over the course of the investment. We address this further in the MEL recommendations section of this report.

Bibliometric research also helps to understand ADR UK's impact on policy on a wider scale.

Relevant indicator: Evidence that ADR UK-enabled research has influenced government/public policy (surveys, interviews, case studies, ResearchFish data and bibliometrics)

We used the bibliometrics software Overton.io to understand **the extent to which the DOIs of research and datasets funded or enabled by ADR UK are cited in policy documentation**. Overton is the world's largest searchable index of policy documents, guidelines, think tank publications and working papers.

We collected DOIs available on the ADR UK website, ResearchFish and provided in partner QHRs, which were inputted into Overton. **We found evidence of 149 citations of ADR UK research and datasets in policy documents to date**.

We then conducted an initial sample of 40 'deep dives' to understand how exactly research was being cited. From this, we were able to categorise citations into the following classes:

- Citations clearly **evidencing a policy change**, where it was clear that ADR UK-enabled research had informed a change in policy or government practice
- Citations **forming part of a literature review** (providing context for policymakers)
- Citations used when **submitting evidence to parliament** (with ADR UK research sometimes also cited in government's responses)
- Citations **evidencing a department's investment in research** / a particular policy area

Type of citation

Literature review
Evidencing a policy change
Evidencing investment in research
Submitting evidence to parliament

9 (22.5%)
4 (10.0%)
23 (57.5%)
4 (10.0%)
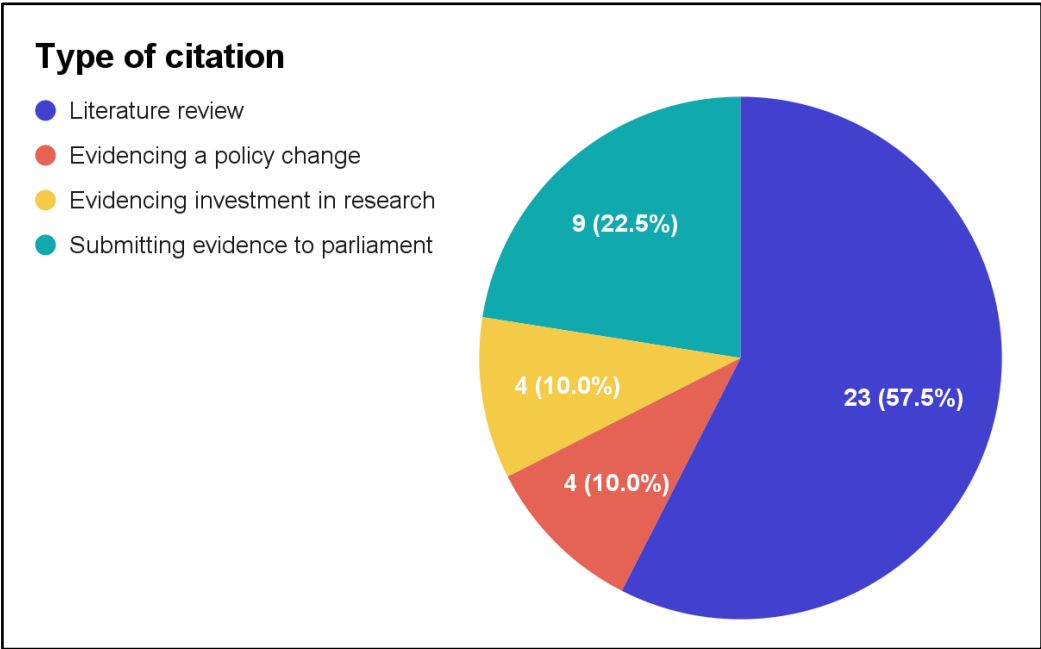
Overall, we found that ADR UK research was most likely to be referenced in the context of a literature review or when submitting evidence to Parliament. Nonetheless, this exercise also revealed interesting cases of ADR UK research directly influencing policy beyond what had already been documented in case studies. For instance, we found research by Wyper et al. on the link between alcohol minimum unit pricing and morbidity is cited in a Scottish government policy paper examining the background of the Minimum Unit Pricing policy in light of its proposed continuation in 2024. In 2024, the report led Public Health Scotland to reach an overall conclusion that there was strong evidence that MUP reduced chronic alcohol deaths and hospital admissions caused wholly by alcohol consumption. There was some pushback in the consultation but ultimately the policy was extended in 2024.

So far, the ratio of citations to research output DOIs is similar to the ADRN period, taking into account methodological caveats.

Data from Overton.io suggests that **ADR UK sources which appear in the Overton database have been cited in policy documents just under 3 times each on average**.

When looking to conduct a counterfactual analysis with ADRN data, we found that a direct comparison of ADRN DOI citation counts was somewhat misleading. Since ADRN DOIs date back to 2013, they have accumulated more citations over a 9-year period. We also found significantly more ADRN DOIs registered in the end of grant reports (456, compared to 234 ADR UK DOIs).

To account for this, we compared how many citations articles from the first 4 years of each investment had amassed over 4 years. The results indicate that **ADR UK is matching, if not outperforming citation ratios per research output during the ADRN period**.

Annual ratio of number of citations to number of research output DOIs

ADRN / ADR UK

	Y1	Y2	Y3	Y4
ADRN	3.80	1.10	3.10	2.50
ADR UK	3.5	2.8	3.2	2.4
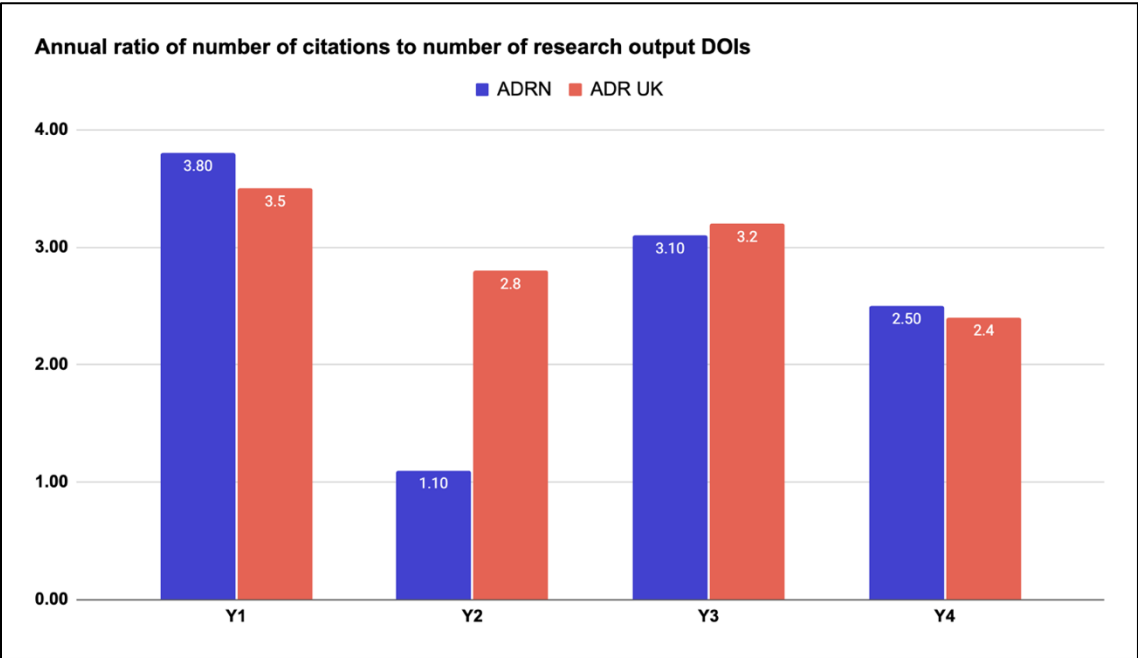
Note that for Y4, the ADR UK results are still set to grow, since Y4 of the ADR UK investment concludes in April 2025.

The UK Government is the main source of policy citations, but bibliometric analysis also shows that ADR UK research has international reach.

Analysis in Overton also allows us to understand where ADR UK research outputs and datasets are being cited by policymakers.

As would be anticipated, **the majority of citations come from organisations which form part of the UK government or devolved governments**. Within this broader category, 20% of citations are attributed to the UK Parliament Select Committee, whilst almost 5% are linked to the Welsh government, and 2.3% to Public Health Scotland. Note that the Northern Ireland Executive and its constituent departments are not cited among these sources.

Top policy sources citing ADR UK DOIs
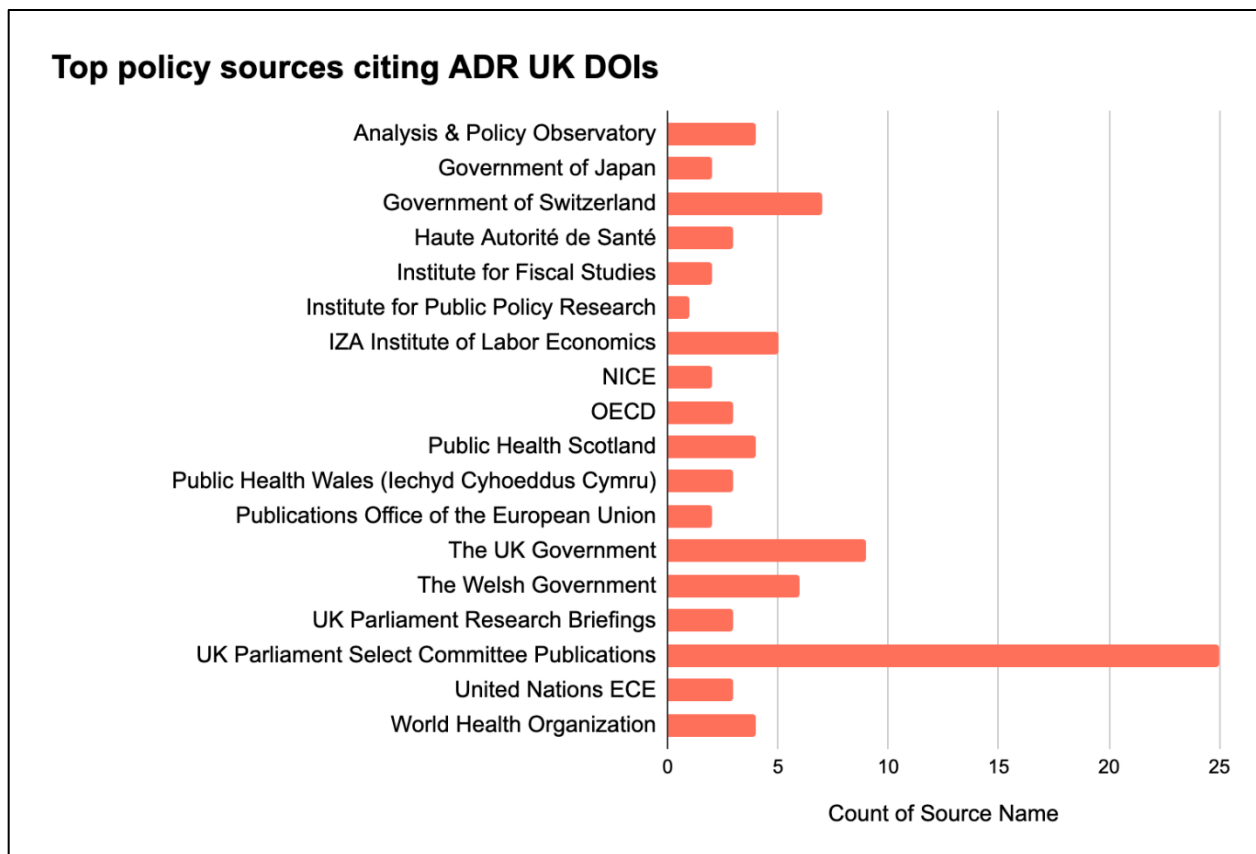
Overton also shows how **ADR UK research is having an international impact**. The governments of Japan, Sweden and Belgium also feature in the list of sources, with the Swiss government accounting for a surprisingly large 5.6% of citations. International government organisations (such as OECD and the European Parliament) also account for 8% of citations.

However, ADR UK is mentioned significantly more in policy documents than ADRN, according to Overton.io key word searches.

In addition to tracking how ADR UK DOIs appear in policy, Overton also allowed the evaluation team to conduct **key word searches**, quantifying the number of times the programme is mentioned in policy documents.

We searched for documents containing "ADR UK" "Administrative Data Research UK", "ADR Wales" "ADR Scotland" "ADR Northern Ireland" or "ADR NI", comparing this to documents containing "Administrative Data Research Network" (ADRN returned too many false positives as this is an acronym shared with other organisations).

Comparing the number of matched documents reveals that **key words associated with ADR UK are significantly more likely to be found in policy documents searchable on Overton when compared with ADRN** (see below) Note that these figures could be slightly skewed due to the aforementioned exclusion of ADRN, however a manual review of ADRN search results revealed very few results linked to the partnership.
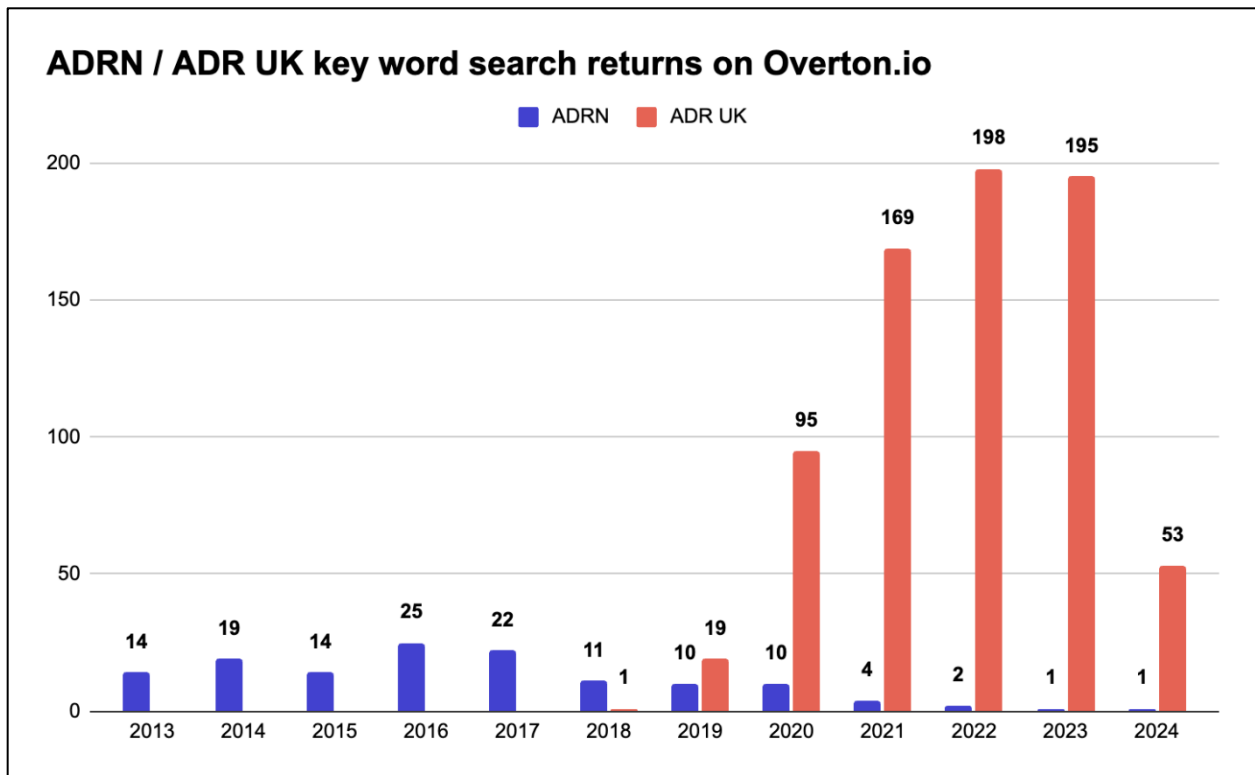
Despite evidence that ADR UK research can influence policy-making, there remain challenges, particularly for researchers struggling to track the impact of their work.

In interviews, researchers pointed out that **whilst there is evidence that ADR UK research reaches policymakers,** it is **difficult to follow** how it is being used. When asked whether the work of ADR UK has informed more effective policy, one policymaker explains that it is "*really difficult to measure and define impact*" (Interviewee 19).

Participants report numerous **obstacles** to informing government decision-making:

"We are now starting to see these benefits, give it a year or two to see whether [impact on policy] has actually been achieved"

Interviewee 23

1. It might be **too early to measure policy impact** accurately (see quote above).

2. Another impediment could be that policymakers often **do not directly attribute** their decisions to specific sources of evidence. Instead, policy decisions are based on a body of evidence that includes internal and external research, surveys, and various viewpoints. One participant argued that tracking ways in which ADR UK-enabled research informs policy is "difficult to know because a lot of policy-making processes are opaque" (Interviewee 22).

3. While ADR UK helps to get research outputs into the hands of policymakers, there is **"no established process to track policy impact"** (Interviewee 23). We heard that for the majority of projects, researchers do not see it as part of their role to track impact (Interviewee 28, 14). On the contrary, larger initiatives with proven policy impact, such as LEO or ECHILD, use funding to designate team members to keep track of impact (Interviewee 28).

4. One participant highlighted that the degree of policy impact "depends on the project" (Interviewee 16) and the researcher's integration within government departments. Interview findings indicate that **projects with embedded fellows are more likely to inform policy, due to the increased visibility embedded academics have over internal team structures and priorities**. Remote research projects often face challenges in informing policy effectively due to their physical and operational distance from decision-makers (Interviewees 16, 28). Out of those interviewed, 3 participants said a single piece of research will not inform policy.

5. 7 participants interviewed stressed that **changes in government often impede the influence of ADR UK-enabled research on policy**. Each new administration has different priorities and approaches, which can disrupt ongoing projects and alter the focus of policy development, making it challenging for research to have a consistent impact.

The majority of researchers also reported that they have not yet submitted evidence or provided expert advice to policymakers.

Relevant indicator: Number of briefings for policymakers produced by ADR UK partners/Number of requests received for expert advice on certain policy proposals or programmes (surveys, evidence from QHRs where possible)

When we asked academic researchers whether they had received requests for expert advice for policymakers or submitted evidence to the government, most respondents answered that they had not.

From other responses across the survey, we infer that this is partly because research is still underway, or researchers do not yet have full data access. However, it also suggests that **the mechanisms by which researchers feed into policymaking cycles could be further standardised**.

For those who responded "Yes" we asked how many requests for advice/submissions researchers had been involved in. Out of those who responded, **the average number of requests for expert advice received by researchers was 2.3**. Meanwhile, **the average number of submissions made by researchers was 1.8**.

Have you ever received requests for expert advice on policy proposals or programmes, or successfully submitted evidence to government inquiries, in relation to ADR UK-supported research/research using ADR UK data?

	Yes	No
Number of responses	26	42

Number of responses out of 68 respondents
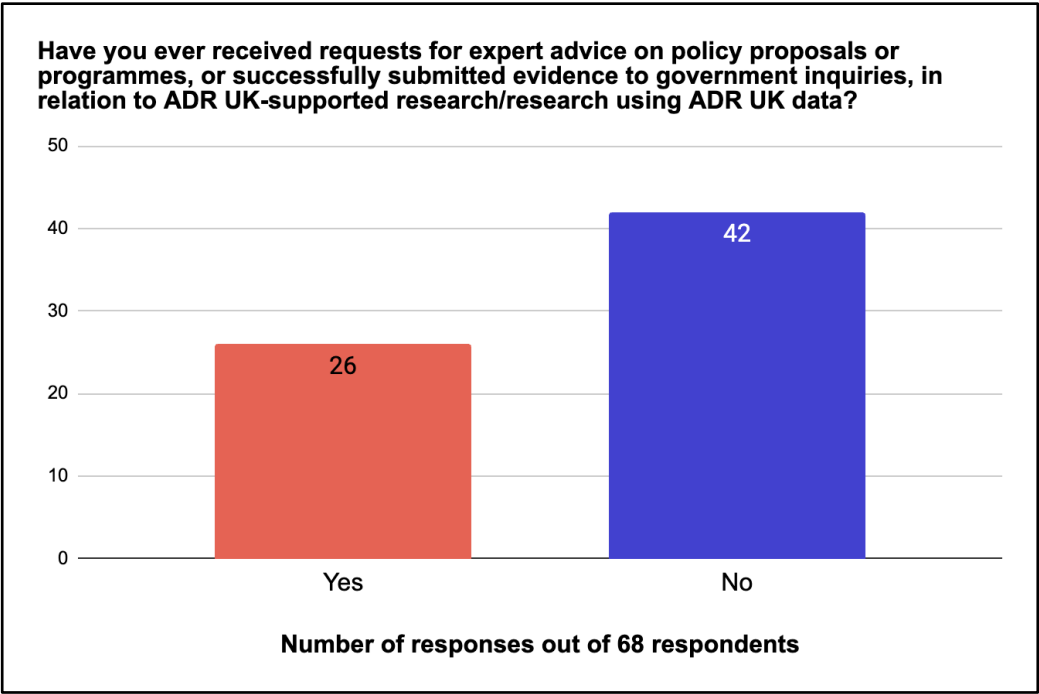
Meanwhile, policymakers were unable to make specific estimates of the number of ADR UK-informed documents used for policy formation, with bibliometric analysis offering more detail.

Relevant indicator: Number of documents for policy formulation that used research outputs funded by ADR UK (interviews, evidence from QHRS where possible)

When we asked government policymakers how often they had received briefings or research outputs to inform their work over the course of the ADR UK investment, responses were mixed (see below). When digging into the quantitative responses accompanying answers, this seems largely related to the sampling challenges we faced; half of respondents said that receiving briefings was not part of their role.

How often have you been sent or encountered any policy briefings or publications from ADR UK-enabled research projects which were used to inform policy and practice development?

Category	Number of responses
Not sure	2
Never	1
Rarely	3
Sometimes	2
Often	3
Always	1

Number of responses out of 12 respondents
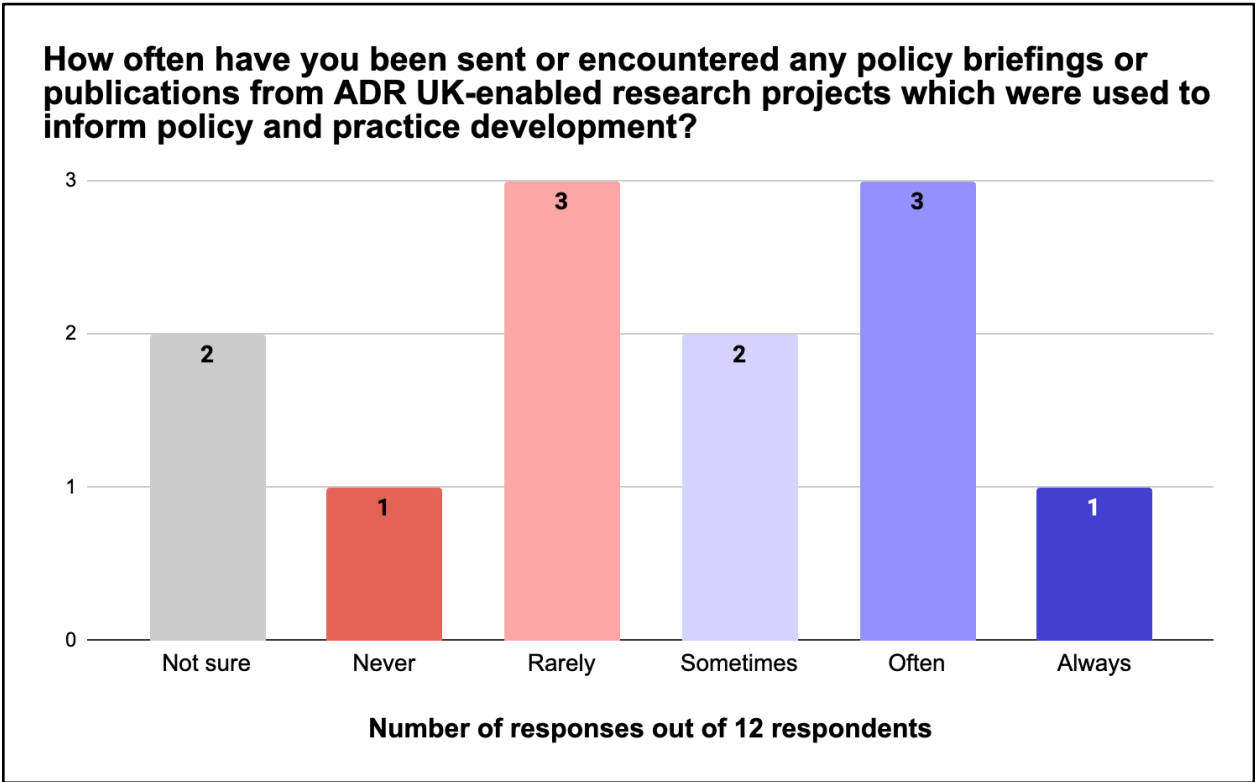
Moreover, policymakers responding to the survey and in interviews were consistently **unable to quantify exact numbers of documents using ADR UK outputs**, although often pointed us to specific examples, such as those highlighted in the case study section of these findings.

In QHRs ADR UK partners were also unable to provide estimates of the number of documents used for policy formation, but did point qualitatively to example cases where ADR UK research was cited by policymakers.

Given the lack of quantitative rigour in the data available to us across this indicator, we suggest bibliometric **analysis is a more robust way of quantifying impact on policy documentation**.

Finally, data submitted to ResearchFish indicates that policy related outcomes of academic research are growing, but the ultimate impacts often remain unclear.

We also looked to data available on ResearchFish, the platform used by UKRI to track project outcomes, to further understand any outcomes related to policy. As part of grant management processes, Principal Investigators (PIs) on ADR UK projects are expected to routinely record any outcomes related to policy on the platform. **So far, the number of instances of policy outcomes recorded over the course of the investment appears to be steadily growing** (note that figures are incomplete for 2024, and there is a high likelihood that more outcomes will be recorded towards the end of the year).

Number of policy outcomes recorded on ResearchFish

Year	Number
2020	3
2021	4
2022	25
2023	31
2024 to date	10
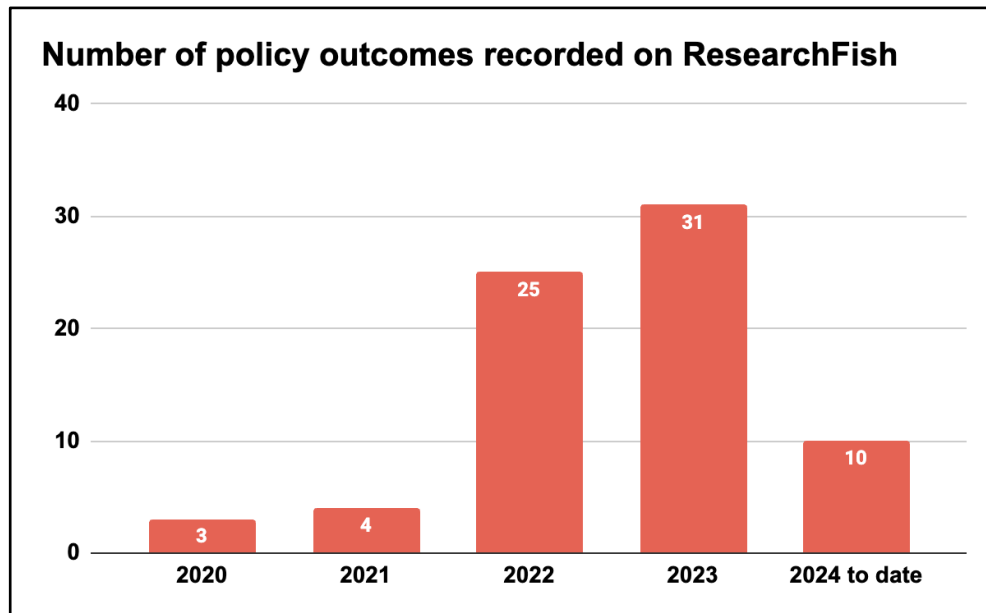
Policy outcomes here range from contributing to new and improved professional practice, e.g. by running a course introducing researchers and analysts to a dataset, right through to being cited in a systematic review produced by the government. **We found that the most common type of policy impact as recorded by PIs was contributing to a national consultation or review** (see below). For instance, the research team working on a Data First project investigating the effectiveness of alcohol bans when reducing reoffending contributed to a consultation by the Sentencing Council on imposing custodial sentences.

Policy outcomes sub-types recorded on ResearchFish

- Contribution to new or improved professional practice
- Contribution to a national consultation/review
- Citation in other policy documents
- Implementation circular/rapid advice/letter to e.g. Ministry of Health
- Influenced training of practitioners or researchers
- Participation in a guidance/advisory committee
- Citation in systematic reviews – 1 (1.4%)

12 (16.4%)
25 (34.2%)
17 (23.3%)
8 (11.0%)
6 (8.2%)

Ultimately, however, when asked about the longer-term impacts of each policy outcome, ResearchFish data mirrors findings from across the evaluation; **most PIs reporting policy outcomes (over 89%) state that impacts are either not yet known or haven't been observed**. The most common impact (identified by only 3 PIs so far) was regarding changes in the efficiency and effectiveness of public service delivery. One recorded example of this was a researcher's participation in a senior data governance panel to improve the use of courts and tribunals data.

Type of policy impact recorded on ResearchFish

- Not known – 31 (42.5%)
- No impacts yet – 34 (46.6%)
- Improved educational and skill level of workforce – 2 (2.27%)
- Changes in efficiency and effectiveness of public service delivery – 3 (4.1%)
- Changed public attitudes – 1 (1.4%)
- Economic impacts – 1 (1.4%)
- Effective solutions to societal problems – 1 (1.4%)

31 (42.5%)
34 (46.6%)
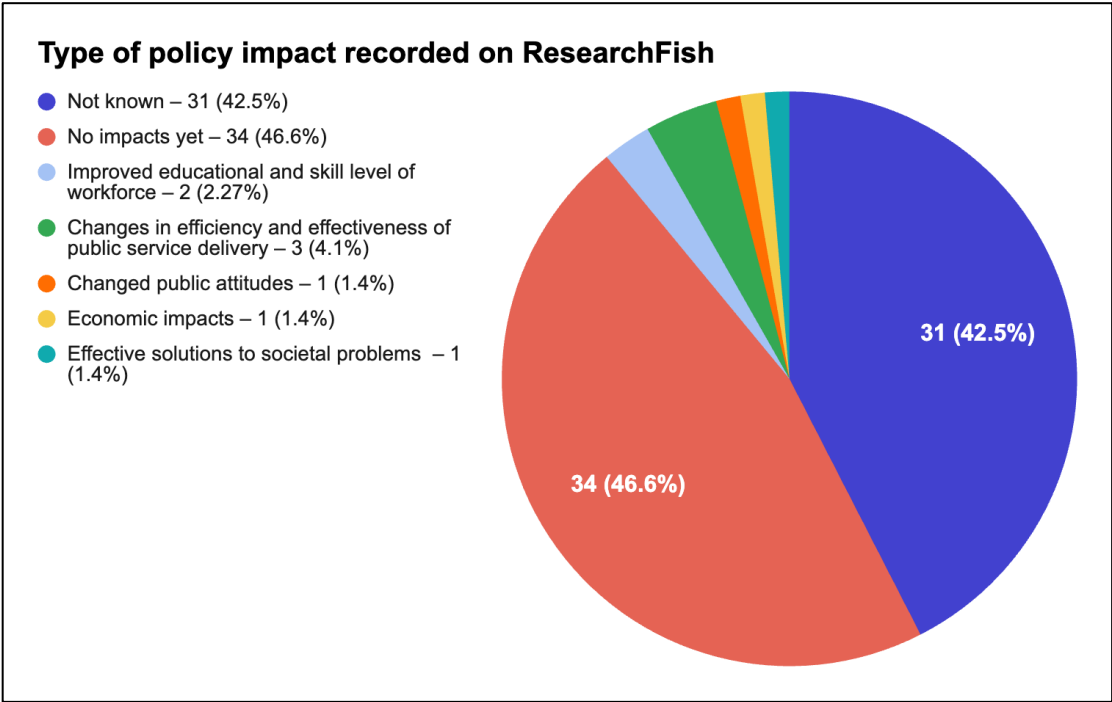
Whilst ResearchFish data provides useful insight into some of the types of policy outcomes observed by PIs, this data has its limitations. Firstly, it is not spread evenly across grants – out of 51 awards on the system, there have only been policy outcomes recorded for 12. This might simply reflect the status of different projects but could also be influenced by different reporting practices across PIs.

Moreover, where policy impacts are recorded, it is not always clear how the example in question has led to tangible impact in the relevant category. For example, whilst the data governance panel referenced above sets out to harness independent expertise to make the best possible use of courts and tribunals data, there is no easily accessible associated evidence which shows how this has been achieved. As such, there is potential scope for more guidance and standardisation in reporting practices, with ADR UK encouraging all PIs to record policy outcomes, and setting clear guidelines for what classes as an impact.

6.10. Outcome area: Programme cost savings

Outcome area	Outcome	Indicator
Programme cost savings (increased efficiency)	Programme cost savings (increased efficiency)	Savings associated with time taken for researchers to access linked data
		Savings associated with reduction in government time taken to make administrative data available for research purposes
		Savings associated with government time taken to create linked datasets

Dedicated ONS teams are reducing the time taken to link datasets by up to 50%, or upwards of around 6 months, which is leading to substantial cost savings of around £135k per data linkage.

> Relevant indicator: Savings associated with government time taken to create linked datasets

Research findings from interviews and surveys suggest that the primary way that ADR UK is generating operational improvements is by reducing the time it takes to link datasets. The way in

which it primarily does this is through funding a dedicated linkage team at the ONS.

Findings from interviews and surveys showed that the linking of (multiple) **datasets typically takes between 6-18 months.** Responses from four different data owners emphasised the variability of dataset linkage so we have decided to use this range as it is the widest estimate and captures the breadth of responses. Taking, then, the average of the range above, **we assume the average dataset would take around 12 months to link.**

These responses also suggest that linking datasets from scratch—i.e., without ADR—could potentially take additional years, at a maximum. This is in large part due to the additional time burden on civil service teams and the lack of a dedicated team, as opposed to any technical differences in the process of linking. Survey responses overall, however, suggest that **it would, on average, take around 50% more time to link than normal: an additional 6 months**.

This is just chronological, though, and does not account for the fact that civil service teams will not be solely dedicated to this task; they will likely spend around 0.5FTE on a linkage project, so **an additional 3 months' worth of dedicated work**. We must, however, account for the fact that the ONS dedicated linkage team is streamlined compared to teams involved in other parts of the civil service. We have assumed that there would be around two times as many people involved.

To calculate the savings, we used the current dedicated ONS linkage team—which consists of 1 grade 7, 4 SEOs, 2 HEO—as a baseline. We then calculated the operational time saved based on their 3 months' worth of their salaries, with a similar composed team that is twice the size. **This amounts to savings per linkage of £135,458.50.**

This is **likely to be a conservative estimate** as a dedicated linkage team likely has **benefits similar to those in economies of scale** and embedded civil service teams likely have to involve civil servants of higher grades.

Though difficult to quantify and monetise, ADR UK is reducing the time it takes for the government to make data available. However, these benefits aren't being felt by all researchers.

> Additional indicators:
> - Savings associated with time taken for researchers to access linked data
> - Savings associated with reduction in government time taken to make administrative data available for research purposes

Survey and interview responses varied greatly in the assessment of how much additional time it would take to make data available, but the general assessment was that **"without ADR UK's assistance this would take substantially longer"** (respondent 8).

We found that this is due both to the lack of dedicated teams— "[making datasets available without

ADR would] depend heavily on available resource"—and the fact that ADR UK has led to more established processes for making data available. These are well-known and have a strong reputation within government meaning that it takes fewer meetings to build trust and organise the data-sharing process. For instance, we heard that 1-2 years to sort out approvals, but current ONS accreditation takes 3-5 weeks (respondent 8).

These savings are difficult to quantify right now given the variability in team size that may be making datasets available.

> *"It is unlikely we would get access to the linked data if ADRN and ADR had not existed. Using unlinked data would take around 3 months to secure but would not satisfy our needs."*
>
> Researcher survey respondent 17 .

As summarised earlier in the findings, interviews and survey responses indicate that the approval process appears to still be a weak spot within the academic researcher user journey. **We found no robust evidence to quantify a time-saving for researchers at this stage.**

The process is extremely variable with lots of researchers having substantially different experiences dependent both upon the kind of data they are trying to access and where within the UK they are trying to access it from: Scotland and NI have much more difficulty. Some survey respondents suggested that it took half as long previously. Others suggested no change, and some suggested a slight improvement.

Our interpretation of this is that during the ADRN period, data access times varied by department. With the introduction of standardised processes, some researchers now face longer wait times for data access. Additionally, **the Digital Economy Act of 2017 introduced new requirements for data de-identification and processing, complicating direct comparisons between the two periods.**

Moreover, **many respondents acknowledged that there remains the question of whether accessing the data they want to would even be possible without ADR UK**, concluding that a counterfactual is difficult to establish.

6.11. Impacts: wider socioeconomic value of ADR

Impact area	Indicator
Improved access to high-quality public services	Increase in the efficiency of public service delivery
	Increase in the effectiveness of policy in achieving desired outcomes

	Improved attitudes towards different public services
Inclusive and sustainable local economic growth	Additional jobs and Gross Value Added (GVA) if ADR does stimulate growth.
Improved welfare of the population (particular focus on ADR UK's strategic research themes)	Civic/democratic benefit of people understanding their society and economy and the operations of government better
	Wellbeing of the population with positive welfare outcomes across the following areas - Children and Young People; Climate and Sustainability; Crime and Justice; Growing Old; Health and Wellbeing; Housing and Communities; Inequality and Social Inclusion; and World of Work.

ADR UK's wider socio-economic impacts are best estimated through case studies.

Beyond the outputs and outcomes monetised in this midterm evaluation, in the long term, we anticipate that **most of ADR UK's economic value will be derived from its potential to inform evidence-led policymaking**. This comes with a number of socioeconomic benefits, including improved access to high-quality public services, more inclusive and sustainable economic growth and improved welfare across the population.

At this point in the partnership, many of these benefits are yet to be realised, since most interviewees we spoke to are yet to be able to point to having a direct influence on policy in a way which will have led to tangible economic benefit (with some exceptions, as highlighted below). Even where benefits have been realised, stakeholders were reticent about the ability to attribute them to ADR UK, given how policy is often influenced by a myriad of factors beyond a single piece of research. As such, in an effort to be conservative in our estimations of the economic value generated by the programme to date, we have not included benefits related to impact indicators in the benefit-cost ratio at present.

However, the economic potential of ADR UK in terms of informing policy changes can still be evidenced through case studies, which illustrate ADR UK's impact on some of its key research areas such as health and wellbeing, crime and justice, and children and young people. Below, we illustrate how a series of leading ADR UK projects are estimated to result in **multi-million-pound cost savings to government and society as a whole**, drawing upon interview findings and economic literature to support our assumptions. In some cases, these benefits are projected, elsewhere they have been realised.

Case studies were selected to cover all of the devolved nations which constitute the partnership, as well as to ensure a spread across ADR UK's eight core strategic research themes. Upfront, we need to

acknowledge the challenge of attributing benefits to ADR UK. Experts and stakeholders we interviewed were reluctant to give estimates of the contribution of ADR UK activities to the ultimate outcomes. In the case studies below, we assume attribution rates of 25%. This reflects that ADR UK made a significant contribution, but it was not responsible for the whole outcome nor even the majority of the outcomes in each case study.

ADR Wales funded data and research enabled the Welsh Government's move to Alert Level Zero by providing insight into vaccination rates in schools (realised benefit).

Interviewees confirmed that ADR Wales analysis of school vaccination rates in 2021 played a role in informing Welsh Government policy by providing detailed insights into the demographics and vaccination status of the school workforce. The findings were used to produce the Local COVID-19 infection control decision framework for schools from autumn 2021 which sets out guidance for delivering lessons in schools during the pandemic. Ultimately, the research also contributed to Wales' shift into alert level zero on 7th August 2021, which meant that children and young people under 18 no longer needed to isolate if they came into contact with an individual with COVID-19. This is corroborated by a statement by the Cabinet Secretary for Education in Wales at the time, Jeremy Miles, which cites ADR Wales generated figures when announcing the relaxing of restrictions.

Given the large economic and social costs of lockdowns, this policy change is estimated to have led to significant economic benefit. The Institute for Fiscal Studies has broadly estimated the disruption of normal schooling (½ year lost) during COVID could cost students £40,000 each in lifetime earnings (see The Crisis in Lost Learning). This amounts to an illustrative £350 billion loss in lifetime learning across the 8.7 million school children in the UK.

The way that COVID-19 absences have been recorded in Wales* and confounding factors such as peaks in infection rates make it difficult to confidently attribute the shift to alert level 0 to reduced COVID related absences.

However, conservatively, we might assume that this policy change helped prevent 1 in every 100 Welsh school children avoid 5 days of absence from COVID-19. Given that there are 405,00 schoolchildren in Wales according to Stats Wales, this would mean ~20,000 school days not lost across Wales and a benefit of £8 million.

With ADR-related costs for data linkage and analysis around £0.8 million, and an assumed attribution rate of 25%, the benefit-cost ratio (BCR) can be conservatively estimated at 2.6:1.

*Note that Wales only began recording COVID related absences as such on the 6th September 2021.

As such it is not possible to observe any direct shift in COVID related absence rates directly before and after the implementation of Alert Level Zero.

Helping to understand the drivers of recidivism within the Ministry of Justice (projected benefit).

Reducing recidivism is a clear priority for the Ministry of Justice. Interviewees confirmed that work that helps to better understand the drivers of recidivism is therefore vital to helping inform good policy on the matter. ADR's Data First programme aims to do just this: through linked administrative data, it provides the ability to generate new insights into the nature and drivers of recidivism which can help inform better policymaking. The data linkage team at MoJ has linked 3 main justice datasets alongside data from Indices of Multiple Deprivation in England and Wales to facilitate this research.

There is a significant economic burden imposed by recidivism: according to MoJ research (p. 2), the total estimated economic and social cost of reoffending was £18.1 billion in 2017-18. Policies that effect a reduction in recidivism will therefore have extensive follow-through economic benefits. Suppose we take a conservative estimate that relevant research could account for 25% of the decision to change a particular policy. This means that 25% of the benefits of that policy could be attributed to the research.

If we conservatively assume that a good policy that reduces recidivism is able to do so by 0.5%. This 0.5% would correspond to an avoided cost of £90.5 million annually. This would correspond to a net present value (NPV) of £752.7 million over ten years (at a 3.5% discount rate).

Accounting for attribution, then, ADR UK-funded research that helped influence the decision to change policy would be responsible for £188.175m of those benefits over the 10 years.

From the funding agreement we know the ADR UK-related costs are £5.8 million. If we assume some additional program implementation costs (unknown at this stage) bring the total cost to £20 million in NPV terms, then the £188.175 would correspond to **a BCR of 9.4 over 10 years.**

Research on the link between social care and mental health in NI could have a BCR of up to 13.0 (projected benefit).

ADR UK funded researchers in Northern Ireland to use over 30 years' worth of linked data to analyse young people experiencing care's mental health and long-term health outcomes (ADR NI case study). The research discovered that children in care have significantly fewer opportunities to achieve the same social and economic advantages in adulthood as their peers. It also found that people who are known to social services are more than 10 times more likely to receive antidepressant prescriptions and rates of self-harm amongst care-experienced children are more than 25 times higher. Of a cohort of individuals who died by suicide, almost 1 in 20 had previously been a care-experiencing child.

The research has been cited in a set of fundamental facts published by Northern Ireland's Mental Health Champion and in the Northern Irish strategy on caring for young people "A Life Deserved: "Caring" for Children and Young People in Northern Ireland" (see page 29). The latter sets out a commitment to improving mental health outcomes amongst care-experienced children, for example by introducing more mental health Interface officers to improve the integration between social care and mental health services and by exploring more early intervention strategies in schools (see page 30). The researchers working on the project also have a sustained engagement with the Ministry of Health in Northern Ireland, who have expressed interest in their research.

Whilst there is currently a lack of evidence documenting the implementation and effectiveness of the commitments outlined above, the potential for this research to make a substantial social and economic impact in Northern Ireland is significant. Mental health problems are costly to the community, currently costing £3.4 billion annually in Northern Ireland, according to LSE research. The cost per suicide has been estimated at £1.46 million for every life lost to suicide, according to research for Samaritans.

If ADR UK-supported research can prevent just one suicide annually, that would correspond to a benefit/avoided cost in NPV terms of £12.1 million over ten years. This is probably an underestimate of the total benefit. On the other hand, if ADR UK research were to contribute to a 0.1 percent reduction in mental health costs in NI would amount to £28 million over ten years. Costs for the ADR UK-supported research relating to mental health in Northern Ireland were £1.8 million, **meaning a BCR of 1.7 to 3.9,** assuming a real discount rate of 3.5% and an attribution rate for benefits of 25%.

ADR UK research informed optimised COVID-19 testing in Liverpool, with estimated savings of over £1 million (realised benefit)

ADR-UK funded researchers brought together datasets from the ONS SRS to create 'local data spaces' for local authorities to access secure data which they previously not have been available to them. Ultimately, research using this data informed advice provided to the Liverpool City council helped to optimise the location of COVID-19 test sites, which guided the design and evaluation of their mass testing pilot.

This COVID testing reduced COVID cases by an estimated 21% according to the evaluation report produced on the pilot. In terms of infection numbers, the estimated impact was a reduction of 850-6,600 cases. For this analysis, we used the midpoint estimate of 3,725.

Given an employment-population ratio in the UK of around 60 percent, and assuming a five working days absence from work, that would mean the avoided cost of 11,175 workdays lost. Based on average daily earnings at the time of around £110, the optimised test sites avoided an economic cost of £1.2 million.

Given relevant costs were no more than £0.3 million, the BCR is estimated to be at least 1.2:1, assuming an attribution rate of 25%**.**

ADR UK research informed a continuation of Minimum Alcohol Unit Pricing in Scotland (realised benefit).

ADR UK enabled research in Scotland into the effectiveness of minimum unit pricing as a policy intervention for reducing alcohol-related deaths. The project accessed death records for England through the ADR funded ONS Secure Research Service, whilst Scottish death records were sourced from the National Records of Scotland.

Following over two and a half years of enforcing minimum unit pricing for alcohol in Scotland, a notable reduction in alcohol-related harm has been observed. Deaths directly linked to alcohol consumption declined by 13.4%, potentially saving around 156 lives annually. Additionally, hospital admissions for alcohol-related conditions fell by 4.1%, translating to approximately 411 fewer admissions each year.

The findings received significant media coverage and a statement of endorsement from Scotland's Public Health Minister at the time (see ADR UK website for full quote). It was also cited in a report produced by the Scottish government examining the background of the Minimum Unit Pricing policy in light of its proposed continuation in 2024. On page 16, the paper cites the research by Wyper et al. as a significant piece of evidence proving that MUP is associated with a significant reduction in alcohol related deaths.

The report led public health Scotland to reach an overall conclusion that there was strong evidence that MUP reduced chronic alcohol deaths and hospital admissions caused wholly by alcohol consumption. There was some push back in the consultation but ultimately the policy was extended in 2024.

The estimated mortality reductions and avoided hospital admissions suggest substantial benefits from minimum unit pricing. Consider that:

- The average age of a death in Scotland from alcohol-related causes is 58.7 years for females and 60.0 years for males[2];
- Life expectancy in Scotland is 80.7 years for females and 76.5 years for males, implying average years of life saved of 22 years for females and 16.5 years for males[3]; and
- A recommended value for a Quality Adjusted Life Year (QALY) of £70,000.[4]

This suggests an upper bound of a value per avoided death from an alcohol-related cause of £1.3 million for females and £1.0 million for males, after applying a 1.5 percent annual discount rate as suggested in the Green Book.[5] Assuming males account for two-thirds of avoided alcohol-related deaths (i.e. their share of current deaths[6]), and based on 156 lives saved annually as reported above, the annual gross benefit from lives saved by minimum unit pricing amounts to around £170 million.

We were unable to find a reliable estimate of the average cost per alcohol-related hospital

---

[2] See Alcohol deaths rise to highest level in 14 years

[3] Health and life expectancies: Scotland

[4] See section 9.3 of The Green Book (2022) - GOV.UK

[5] This is an upper bound because it assumes each person that is saved from an alcohol-related death each year goes on to achieve the full additional life years. However, in reality, some people may be saved one year but succumb to an alcohol-related death prior to reaching their full life expectancy.

[6] Alcohol Harms in Scotland

admission but assuming (conservatively) an average cost of £2,000, the 411 fewer admissions per year reported above would mean an annual benefit from avoided hospital admissions of at least £0.8 million. In other words, the vast bulk of benefits of minimum unit pricing relate to prolonging life rather than avoiding hospital admissions *per se*.

We have yet to obtain cost estimates for the ADR UK activity relevant to this case study. Hence, we have not yet estimated a BCR. We note benefit attribution would be challenging in this instance. Although ADR UK data has helped strengthen the case for continuing minimum unit pricing, it is not clear that it was the driving factor behind this decision.

Overall, based on case studies and cost-saving estimates, we can expect significant ROIs from ADR UK activity in terms of social value generated, ranging from between 1.2 and 9.4 for the case studies considered above.

These case studies suggest a very high ROI from selected data linkage projects from ADR UK, ranging from 1.2 to 9.4. Such high BCRs may appear extraordinary but are similar to estimates reported in Lateral Economics' study of the Australian data linkage facilitator Population Health Research Network. This study reported BCRs of 12.7 to 16.5 across various scenarios.

Without thoroughly reviewing every data linkage exercise, we cannot necessarily extrapolate the BCRs we have estimated to the full range of ADR activities. **Nonetheless, we expect significant ROIs from ADR UK activity generally, as reflected by both these case studies and the (highly conservative) overall BCR estimation.**

Indeed, if we were to include the total projected impact of the 6 case studies in scope into the BCR, the programme's ROI would rise even further to 6.52 (see illustrative chart below).
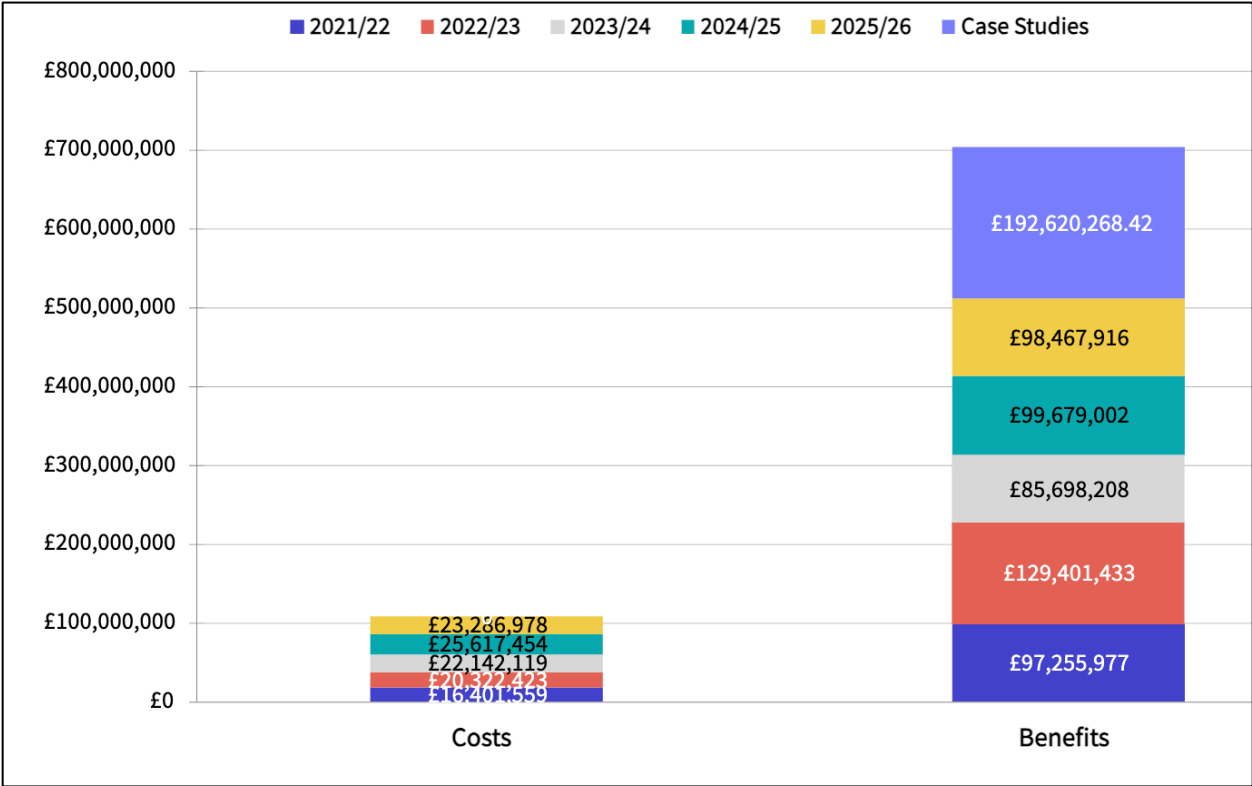
7. Technical annex

7.1 Evaluation framework and Theory of Change

Below are the evaluation framework and the Theory of Change which underpin this interim evaluation.

The Theory of Change illustrates the logical pathway through which the program is expected to achieve its desired outcomes. It maps out the sequence of inputs, activities, outputs, outcomes, and long-term impacts, highlighting the underlying assumptions and external factors that may influence success.

The evaluation framework, outlined in the accompanying table, serves as a structured guide for systematically measuring ADR UK's progress. It defines the key objectives of the partnership, indicators for tracking progress against them and the relevant data sources which can be used for measurement.

Together, the evaluation framework and Theory of Change look to provide a robust foundation for understanding the program's rationale, monitoring progress, and, ultimately, evaluating its success in achieving its intended goals.

Output indicators

Output area	Output	Indicator	Type (qual/quant)	Data source
Funding	New research projects funded by ADR	Number of accredited research projects funded by ADR	Quantitative	ONS reporting to ADR UK PMO - Quarterly
Data	New and existing linked and de-identified datasets are ready for research	Number of new linked datasets made available as a direct result of ADR UK funding	Quantitative	DI partners reporting to ADR UK PMO - Quarterly
		The number of existing datasets hosted on ADR infrastructure	Quantitative	DI partners reporting to ADR UK PMO - Quarterly
Data	Number of researchers with access to research-ready data via secure research services	Number of accredited users accessing the SRS	Quantitative	ONS SRS reporting to ADR UK PMO - Monthly
Data	Number of flagship data sets	Number of flagship datasets available via ADR enabled Secure Research Services	Quantitative	ADR UK PMO
People	Researchers and civil servants trained in the use of administrative data	Number of academics attending training events organised by ADR UK to increase knowledge of how to analyse relevant data sources	Quantitative	Tracked by the ADR-UK PMO, with input from partners. Quarterly
		Number of civil servants trained in the use of ADR data	Quantitative	Data from ADR UK PMO

		Number of PhDs funded by ADR UK	Quantitative	Data from ADR UK PMO
People	Quantity of training materials available for future use	Number of training materials on ADR data available to researchers and policymakers for future use		ADR training and capacity building team
People	Collaborations between government and academic institutions (joint projects, events etc)	ADR UK led stakeholder engagement events	Quantitative	ADR UK PMO / partners, tracked Quarterly
		Number of Whitehall departments & devolved governments embedding data sharing on an on-going basis	Quantitative	ADR UK data infrastructure partners, tracked Quarterly
		ADR UK champions in place	Quantitative	ADR UK PMO / partners, tracked Quarterly
Overarching	High quality research publications using ADR data	Number of peer reviewed publications and publications in academic journals or reports	Quantitative	ADR UK PMO / partners, tracked Quarterly
		Number of publications outside academic journals (wider publication of research; e.g. on policy-related websites)	Quantitative	ADR UK PMO / partners, tracked Quarterly

Outcome indicators

Outcome area	Outcome	Indicator (priorities in bold)	Type (qual/quant)	Data source
Research access and support	Better access to administrative data across the UK	Increase in number of users/requests for using linked datasets	Quantitative	Data from trusted research environments
		Increase in researcher interactions with linked data (sessions/logins)	Quantitative	Data from trusted research environments
		Increase in researcher satisfaction with ease of access	Qualitative and quantitative	Survey to researchers / Interviews
		Reduction in time it takes for users to access to linked data (Survey estimations)	Quantitative	Survey to researchers / Interviews
		Reduction in time it takes for users to access to linked data (TREs)	Quantitative	Data from trusted research environments - only SAIL could provide
	More secure mechanisms for sharing and accessing administrative data	Evidence of breaches to the secure research services being resolved	Qualitative and quantitative	Safe pod network, Interviews

		Increased satisfaction of data security	Qualitative and quantitative	Survey to government data owners, Interviews
	Improved support services for researchers seeking to access administrative data	Improved satisfaction of support available amongst researchers	Qualitative and quantitative	Survey to researchers, Interviews
Research for public good	Increased contribution of administrative data to academic and public bodies of knowledge around major societal challenges (new data and research)	Evidence of more research tackling major societal problems / aligned with government need (funded directly by ADR)	Qualitative	Case studies and interviews
		See also overarching output indicators on total numbers of reports and publications	Qualitative	ADR UK PMO / partners, tracked Quarterly
	Increased contribution of administrative data to academic and public bodies of knowledge around major societal challenges (existing data and research)	Evidence of more research tackling major societal problems / aligned with government need (funded indirectly by ADR)	Qualitative	Case studies and interviews
		See also overarching output indicators on total numbers of reports and publications	Qualitative	ADR UK PMO / partners, tracked Quarterly
Trust and sustainability	Increased public commitment from government regarding sharing administrative data for research	Increase in department's public support related to the commitment to admin data sharing to support research (statements/speeches/social media comms on R&D)	Quantitative and qualitative	Tracked by ADR UK PMO
		Increase in department's public support related to the commitment to admin data sharing to support research (case studies)	Qualitative	Interviews and case studies

		Increase in the number of governments that support ADR (Whitehall departments/devolved governments/public service/policy organisations engaged with ADR UK research)	Quantitative	ADR UK PMO stakeholder mapping and statements of support
	A more sustainable long term research resource is created, producing evidence to inform continued investment	Linked datasets are updated more regularly by government departments (survey)	Quantitative	Survey with government data owners
		Number of individual datasets that are updated according to planning	Quantitative	Data from Trusted Research Environments
	Public acceptance of administrative data sharing and perseverance for research is maintained	Increase in the number of projects conducting meaningful public engagement (e.g. having a community representative panel which meets at least twice a year, with positive feedback)	Qualitative and quantitative	ADR PMO quarterly reporting and Interviews
		Evidence of maintenance / improvement in public understanding and acceptance of using administrative data for research (case studies)	Qualitative	Case studies and interviews
Available data for research	Better availability of administrative data for research	Increase in the number of administrative datasets available to researchers	Quantitative	ADR UK PMO quarterly reporting
		Improved researcher satisfaction of data availability	Qualitative and quantitative	Survey to researchers and interviews

	Increase in the quality of administrative data which is available for research	Improved researcher satisfaction of data quality	Qualitative and quantitative	Survey to researchers and interviews
	New datasets are created which align with government research priorities and problem areas	More available data directly linked with government priorities	Qualitative	Case studies and interviews
Increase in ADR research acting as evidence informing government policy, strategy and practice		Evidence that ADR UK-enabled research has informed government/public policy	Quantitative / Qualitative	Surveys, Interviews, Case studies, ResearchFish data and bibliometrics
		Increase in number of government users of ADR data	Quantitative	Data from trusted research environments
		Increase in government interactions with ADR data (survey on number of sessions)	Quantitative	Survey with government analysts
		Evidence of an increase in linked datasets being used by the public sector for policy formulation	Quantitative / Qualitative	Data provided by Trusted Research Environments where possible, Interviews, Case studies
		Number of documents for policy formulation that used research outputs funded by ADR UK	Quantitative / Qualitative	Interviews, data collected by ADR UK PMO where possible
		Number of briefings for policymakers produced by ADR partners/Number of requests received for expert advice on certain policy proposals or programmes	Quantitative	Survey to policymakers and researchers, data collected by ADR UK PMO where possible

Programme cost savings (increased efficiency)	Savings associated with time taken for researchers to access linked data	Quantitative / Qualitative	Survey to researchers and interviews
	Savings associated with reduction in government time taken to make administrative data available for research purposes	Quantitative / Qualitative	Survey to government data owners and interviews
	Savings associated with government time taken to create linked datasets	Quantitative / Qualitative	Survey to government data owners and interviews

Impact indicators

Impact	Indicator	Approach	Type (qual/quant)	Data source
Improved access to high-quality public services	Increase in the efficiency of public service delivery	Approach through interviews with government policy makers	Quantitative/ qualitative	Interviews / case studies
	Increase in the effectiveness of policy in achieving desired outcomes	Approach through interviews with government policy makers	Qualitative	Interviews / case studies
	Improved attitudes towards different public services	Potentially could be approached through case studies although unlikely to be much evidence of this long-term impact to date	Qualitative	
Inclusive and sustainable local economic growth	Additional jobs and Gross Value Added (GVA) if ADR does stimulate growth.	Unlikely to be observed at the point of interim evaluation	Quantitative	N/A
Improved welfare population (particular focus on ADR UK's flagship research themes)	Civic/democratic benefit of people understanding their society and economy and the operations of government better	Approach through interviews with government policy makers	Qualitative	Interviews and case studies
	Wellbeing of the population with positive welfare outcomes across the following areas - Children and Young People; Climate and Sustainability; Crime and Justice; Growing Old; Health and Wellbeing; Housing and Communities; Inequality and Social Inclusion; and World of Work.	Approach through interviews with government policy makers	Quantitative/ qualitative	Interviews / existing case study information

Theory of Change

Inputs
Resources needed to operate the programme

Activities
How resources will be used

Outputs
The products resulting from the activities

Outcomes
Short/medium-term effects of outputs - such as new or improved products, processes or public policies

Impact
The demonstrable contribution that excellent research makes to society and the economy

Funding

- UKRI funding
- External co-funder funding

Fund research projects selected for their potential to produce high quality, impactful research

Number of new research projects funded by ADR

Data

Individual administrative data from devolved administrations and government departments

- Acquisition, cleaning/analysis
- Cataloguing data and making it easier to find
- Providing infrastructure to link and securely host rich devolved administrative datasets
- Enable safe and open access to accredited researchers, policymakers and other customers

- Number of new and existing linked and de-identified datasets that are ready for research
- Number of flagship datasets
- Number of researchers with access to research-ready data via secure research services

People

- Strategic Hub and ADR UK leadership
- Academic partner time, expertise and salaried roles
- Civil servant time and expertise and salaried roles
- Solid partnerships across nations

- Provide training and capacity building support to access and use administrative data
- Foster engagement with government and devolved administrations and promote influencing activities to ensure buy-in
- Public engagement activities (public panels, focus groups etc.)

- Number of researchers and civil servants trained in the use of administrative data
- Number of training materials available for future use
- Number of collaborations between government and academic insitutions (joint projects, events etc.)

High quality research publications and reports using ADR data

Research access and support
- Better access to administrative data across the UK
- More secure mechanisms for sharing and accessing administrative data
- Improved support services for researchers seeking to access administrative data

Research for public good
- Increased contribution of administrative data to academic and public bodies of knowledge around major societal challenges (new data and research)
- Increased contribution of administrative data to academic and public bodies of knowledge around major societal challenges (existing data and research)

Trust and sustainability
- Increased commitment from government regarding sharing administrative data for research
- A more sustainable long term research resource is created, producing evidence to inform continued investment
- Public acceptance of administrative data sharing and perseverance for research is maintained

Available data for research
- Better availability of administrative data for research
- Increase in the quality of administrative data which is available for research
- New datasets are created which align with government research priorities and problem areas

SHORT-TERM

Increase in ADR research acting as evidence informing government policy, strategy and practice

Programme cost savings (increased efficiency)

MEDIUM-TERM

- Improved access to high-quality public services
- Inclusive and sustainable local economic growth
- Improved welfare population (particular focus on ADR UK's flagship research themes)

Assumptions

- Availability of administrative data and government incentive to share data
- Effective partnership working between ADR UK Strategic hub and the ONS
- Underpinned by the Digital Economy Act, supporting data sharing/linkage across departments
- Academic partners and civil servants have the time and expertise to participate in the programme
- Research and data needs of Whitehall departments and devolved administrations are accurately identified

- Targeting and stimulating demand among researchers
- Effective engagement with researchers
- Effective public engagement activities lead to public acceptance, e.g., on data privacy
- Effective co-operation with Whitehall departments and devolved administrations

- Research publications are successfully released
- Access to research-ready data is successfully granted to accredited researchers
- Training materials are fit for purpose
- Effective collaborations between government and academic institutions
- Effective and secure infrastructure in place

- Cultural change leads to on-going joint-working between government, admin data experts and academics
- Effective co-operation with Whitehall departments & public service providers to disseminate research
- Effective data linking that delivers new insight
- Research is aligned to government needs and adopted into policy and decision-making
- Research aligned to the public interest
- Access to linked administrative data generates cost savings for researchers and civil servants

- Changes in policy, strategy and practice lead to tangible improvements in outcomes and quality of life
- Changes in policies lead to improved socio-economic outcomes
- Unintended negative consequences are minimised
- Policy changes predicated on ADR research contribute to improving population welfare

7.2. Challenges and mitigations

Challenge	Mitigation
Representativeness of survey sample - response rates to the survey were initially low, and in the case of data owners, analysts and policymakers remained so. In discussion with ADR UK, we agreed this is likely since the total sample sizes of individuals well-acquainted with the ADR UK programme are relatively limited (particularly in the case of data owners, for example).	We applied a convenience sampling approach for researchers to obtain meaningful survey responses quickly (wary that the questions required interviewees to be well acquainted with the partnership's work). We used a snowball sampling technique and cast the net wider in the case of policymakers, data owner and analyst contacts, asking at the end of interviews for extra contacts to send the survey to. All respondents received at least 3 reminders, including a reminder sent from ADR UK's Director (on the logic that some respondents might be more likely to reply to a contact they already know) and a personalised reminder addressing them directly. We also created a broader survey for data analysts, circulated through the Government Economic and Social Research network, to get responses from those not acquainted with ADR UK, and understand the overall demand for linked administrative data amongst analysts.
Difficulties pinning down policymakers to interview - within the first weeks out outreach we had particularly low response rates from policymakers	We conducted desk research activities and used Overton to identify additional names of policymakers to interview and worked with ADR SHub stakeholders to expand our initial list. We sent out three rounds of interview reminders, including one round facilitated by ADR UK, to policymakers in our contact list. This worked well, and we ultimately exceeded our target (5), interviewing 8 policymakers
Both interviewees and survey respondents have often been either unable or hesitant to provide quantitative estimations of how long things take - We heard multiple times that processes such as providing access to data, getting access to data and linking data will vary significantly based on the dataset in question	Where estimates have been provided, we have combined them conservatively to support cost saving analysis. Elsewhere in the socioeconomic analysis we have again made conservative assumptions about the influence of ADR UK outputs on policy outcomes, supported by interview insights and desk research. Given that interviewees were hesitant to provide quantitative assumptions themselves here, we also reached out and presented these assumptions back to participants, using the expertise of those closest to a project to sense, check and adjust our analyses.

Delays in accessing TRE data - ONS data came through 2-3 weeks after it was originally anticipated due to unplanned annual leave and resourcing constraints on the ONS side. SAIL data is expected imminently (w/c 22nd July) and NISRA and eDRIS data has only recently been received.	We established communication channels with TREs representatives (ONS, NISRA, SAIL, eDRIS) at the end of Phase 1 / early in Phase 2 to discuss the types of data they could provide in line with the timeline of the evaluation. Despite the early engagement we still experienced delays in receiving TRE data due to busy schedules and unexpected absences on the TRE's side. To mitigate this, we prioritised the other streams of analysis to begin with (interviews, surveys, and bibliometrics) and dedicated time to analysing TREs data in the latter part of Phase 2. Since ONS data was received first, we conducted the analysis on that dataset to begin with, incorporating data from SAIL, NISRA and Scotland's National Safe Haven in Phase 3.
Inconsistencies in QHR reporting - Not all partners respond to the QHRs consistently - some do not answer every question, and data is provided in a range of formats	Where we have found the data included in the QHRs to be inconsistent (e.g. reported in a blend of qualitative / quantitative responses) we have looked to standardise it by counting qualitative responses and by removing values where partners have erroneously recorded metrics cumulatively instead of by quarter.

7.3. Limitations

Despite the mitigations outlined above, there remain limitations and caveats associated with the findings in this report. Whilst these limitations must be acknowledged, we do not believe that they compromise the validity of headline findings and recommendations. Key limitations are outlined below:

1. **Survey sample sizes have implications for confidence levels in survey-based findings.**

As part of this evaluation, we conducted four main surveys to gather views on the effectiveness of programme delivery and estimates of metrics (principally regarding how long it takes to access/release administrative data through the partnership) from academic researchers, data owners, data analysts, and policymakers. While these surveys provided valuable insights, several limitations must be considered when interpreting the results.

The survey of researchers was the only survey with a sufficiently large sample to be considered statistically significant. The margin of error for this group was calculated at ±10.6% with a 95% confidence level, meaning that there is a 95% probability that the true value lies within 10.6% of

the reported value (calculated using $z \times (\sigma \div \sqrt{n})$ where z = z-score, σ = population standard deviation and n = sample size).

Survey group	Population size*	Responses received (sample size)	Response rate	Margin of error (at 95% confidence level)
Academic researchers	281	68	24.1%	10.16%
Government data owners	32	8	25%	30%
Government data analysts	41	12	29.2%	24%
Government policy makers	22	12	54.5%	22%
Government Economist and Social Researchers survey	Unknown	12	N/A	N/A

* Note that the population sizes here refer to the total number of stakeholders the survey was circulated amongst, as opposed to the total population of potential beneficiaries in each stakeholder group. Because surveys asked specific questions targeted at those familiar with the programme, not all academics or government stakeholders would have been able to provide meaningful responses, making total population sizes lower.

Given lower confidence intervals, surveys across other stakeholder groups are not generalisable when considered alone. However, they still provide insights which enrich the overall findings of the evaluation by highlighting potential trends and areas for further focus. To account for the limitations discussed above, survey results have always been interpreted in conjunction with results from other methods, such as interviews and TRE data analysis when generating overarching findings.

2. A lack of consistent data across TREs inhibits comparisons across devolved nations.

We are grateful to TRE stakeholders for taking the time to provide data requested for the evaluation. However, a further limitation is the data collected from across TREs varies in quality and coverage. This inhibits this evaluation's ability to make comparisons across the four nations when it comes to indicators such as number of logins or sessions. A full breakdown of the data, which was provided by TREs, highlighting such gaps, is included below:

Metric	ONS	SAIL	NISRA	EDRIS
Number of datasets	Yes	Yes	Yes - see QHRs for split over time	Yes - see QHRs for split over time
Number of accredited users	Yes	Held by ONS - SAIL also provided Welsh share	Held by ONS	Held by ONS
Number of users on ADR UK projects	Yes	No	No	Yes - but not split over time
Number of users using ADR enabled infrastructure (beyond ADR UK funded projects)	Yes	No	No	No - not available
Number of logins/ sessions	Yes, but low quality with gaps	Yes - but not split over time	Yes	No - not available
Number of government users	Yes	Yes - but not split over time	Yes	Yes - but not split over time
Number of academic users	Yes	Yes - but not split over time	Yes	Yes - but not split over time
Datasets updated according to planning	No - not available	Yes	No - not available	No - not available
Evidence of an increase in linked datasets being used by the public sector for policy formulation	Yes	No - not available	No - not available	No - not available

3. The use of Overton.io helps to build a picture of ADR UK and ADRN's impact on policy at large but is not exhaustive.

We used Overton.io to search at scale for instances where ADR UK (and ADRN) enabled research has appeared in policy documents. Whilst this is a very efficient means of tracking policy impact (which we suggest ADR UK adopts going forward) the software nonetheless comes with some caveats.

Firstly, not all policy documents appear in Overton's database. Overton acknowledges that some older (or brand new) documents may not be indexed yet and that other documents may simply not be publicly available and hence are absent from the database. Their data notes suggest that as a rule of thumb, using Overton to search for references in policy documents dating back to 2015 is fine, but beyond this, the database might not be adequately representative. Whilst this limitation

will be less relevant moving forward, we nonetheless draw attention to it, particularly when looking at data from the first two years of the ADRN partnership (from 2013 and 2014).

Overall, however, the results returned by Overton are highly accurate. Overton.io prioritises accuracy in its matching system by carefully adjusting score thresholds to balance accuracy and recall (how often references are missed). While a trade-off exists between being extremely accurate and capturing all references, Overton opts to minimise errors, even if it means occasionally missing a reference. The platform targets a minimum accuracy of 98% and a recall of at least 80% for scholarly documents, though recall often exceeds 95% for English-language policy sources citing journal articles ([source](#)).

7.4. Methodological notes

For this evaluation, we used a mixed methods approach, combining surveys, interviews, case studies and bibliometric analysis to collect both qualitative and quantitative data about the effectiveness of the ADR UK partnership to date. We then drew on this data to conduct a preliminary economic analysis of the partnership's costs and benefits. A **mixed-methods approach** was favoured due to the need to combine quantitative and economic findings with more qualitative assessments of the effectiveness of ADR UK's delivery model (meeting Objectives 1 and 2 of the evaluation). Below we provide more detail on the rationale and data underpinning each method employed.

ii.   Surveys

Over the course of the evaluation, we circulated 5 surveys targeting policymakers, data owners, data analysts and academic researchers respectively. We decided to conduct surveys to:

- Broaden the sample of stakeholders who can be reached;
- allow us to collect broad estimations of ADR's value across various indicators (e.g. time saved, number of times data is accessed); and,
- provide a way of seeking counterfactual estimates (for those with ADRN experience).

We received **109 survey responses** from:
  b. 68 researchers
  c. 8 data owners
  d. 9 data analysts
  e. 12 policymakers
  f. 12 Government Economic and Social Research network stakeholders

Whilst surveys were useful in collecting feedback from those directly involved in the partnership at

scale, response rates remained low during the initial response period, despite each potential respondent having received at least 3 reminders, including one reminder sent by ADR UK's director. We found that directly addressing respondents in personalised emails had a positive impact on response rates. Moreover, upon receiving limited responses from government data analysts we created a broader survey to circulate on the Government Economic and Social Research network mailing list. Here we sought to supplement the data we received from the original analyst survey with responses from a broader pool of analysts not directly engaged by ADR UK, to understand general demand for linked administrative data for analysis within government.

More detail on total population sizes and the limitations associated with response rates is included in the section of this technical annex on Limitations.

Below we outline the questions that were put forth to each set of stakeholders.

Introduction (included on all surveys)

The ADR UK (Administrative Data Research UK) programme seeks to transform public sector data into valuable research resources and actionable policy insights.

ADR UK enables this transformation by joining up the extensive administrative data generated by government and public bodies across the UK and providing accredited researchers with secure access to these de-identified datasets. This initiative enables essential research that could enhance policymaking and optimise public services, in areas such as education, healthcare, and crime prevention. If you are keen to understand more of ADR UK's work, you can read about their mission here.

We would like to know how successful ADR UK has been in making public sector data securely available for essential research, policymaking and optimising public services. As an important stakeholder, your views can help us assess the success of ADR UK and identify areas for improvement. Please fill out the following survey to provide your views.

Note on language: 'ADR UK-enabled research' refers to:

- all research funded by ADR UK
- all research using linked datasets funded by ADR UK
- all research taking place in the Office for National Secure Research service, which has been expanded and improved with ADR UK funding, and equivalent ADR UK trusted research environments in Northern Ireland, Scotland and Wales.

Find out more about ADR UK datasets and ADR UK projects.

*Please note that any mention of 'administrative data' refers to all data derived from government systems, including health data.

ADR UK Researcher Survey

1. **To what extent do you think the ADR UK programme is on track to achieve its objectives?** [Mandatory]
1-5 Likert scale

Extremely Unlikely – Unlikely – Neutral – Likely – Extremely Likely – Unsure

1.1. Please explain your selection. [Optional]

Free text for explanation

2. **Are there any areas in which you think the programme is particularly successful? Please select the three most relevant.** [Mandatory]

Multiple choice + 'Other' option
- Building public trust and acceptance of administrative data sharing.
- Prioritising and creating high-value research assets and tools for reuse.
- Enabling research that addresses evidence gaps to support local, regional and national public policymaking.
- Raising awareness and encouraging adoption of the Digital Economy Act (DEA) as a suitable legal framework to permit research use of administrative data and streamline sustainable mechanisms for research access.
- Increasing UK analytical capacity to the level needed to produce high-impact research from ADR UK data.
- Nurturing the administrative data research community and enabling future opportunities for conducting impactful research.
- Maintaining and enhancing accessible research assets for long term use.
- Enabling unique contributions to existing bodies of knowledge in support of public good.
-

2.1. Please explain your selection. [Optional]

Free text for explanation

3. **Have you encountered any barriers in terms of accessing and using administrative data effectively?** [Mandatory]

Multiple choice, option to select <1 + 'other' option
- Limited availability of data (e.g. lack of coverage needed)
- Issues with data format
- Issues with data quality (e.g. incomplete fields)
- Lack of suitable metadata or supporting documentation
- Lack of support services
- Data takes too long to be made available
- Data is difficult to access via trusted research environments
- Other (free text)

3.1. Please explain your selection. [Optional]

Free text for explanation

4. **Have you used administrative data for research prior to becoming involved with ADR UK, either through the Administrative Data Research Network (ADRN) or other means?** [Mandatory]

- I was involved in the Administrative Data Research Network (previous iteration of ADR UK).
- I have not used data through the Administrative Data Research Network (ADRN), but I have accessed government administrative data through other means.
- I have never had access to administrative data before encountering ADR UK.

5. **To what extent are you satisfied with how easy it is to access data through the ADR UK trusted research environments (TREs)?** [Mandatory]

1-5 Likert scale

Not at all satisfied - Slightly satisfied - Neutral - Very satisfied - Extremely satisfied – Not sure

5.1. Please explain your selection. [Optional]

Free text for explanation

5.2. [if 'Yes' to Q5]. In comparison with ADRN or other ways of accessing administrative data, how easy is it to access administrative data via ADR UK trusted research environments (TREs)? [Mandatory]

1-5 Likert scale

Significantly harder, slightly harder, no change, slightly easier, significantly easier – Not sure

5.3. Please explain your selection. [Optional]

Free text for explanation

6. **How long does it take you to access linked administrative data to support a research project using ADR UK trusted research environments (TREs) from the point of starting your application to access the data?** [Mandatory]

Multiple choice

- Less than 1 month
- 1 to 3 months
- 4 to 6 months
- More than 6 months
- More than 1 year
- I have not received project specific funding.

6.1. From your most recent experience, p**lease indicate the number of weeks or months it takes you to access linked administrative data using ADR UK trusted research environments (TREs) from the point of starting your application to access the data.** [Mandatory]

Free text

7. **How long would it take you to access administrative data without ADR UK (either through ADRN or other means) from the point of starting your application to access the data?** [Mandatory]

Multiple choice + 'Other' option

- 1 week to 1 month
- 1 to 3 months
- 3 to 6 months
- More than 6 months
- More than 1 year

7.1. Please indicate the number of weeks or months it would take you to access administrative data without ADR UK (either through ADRN or other means) from the point of starting your application to access the data. [Mandatory]

Free text

8. **To what extent are you satisfied with the support available for researchers from the ADR UK-enabled trusted research environments?** [Mandatory]

1-5 Likert scale
Not at all satisfied - Slightly satisfied - Neutral - Very satisfied - Extremely satisfied – Not sure

8.1. Please explain your selection. [Optional]
Free text for explanation

8.2. In comparison with ADRN or other ways of accessing administrative data, how satisfied are you with the support services offered by ADR UK-enabled TREs? [Optional]

1-5 Likert scale
Significantly less satisfied, slightly less satisfied, no change, slightly more satisfied, significantly more satisfied – Not sure

9. **To what extent are you satisfied with the research support materials available (i.e. user guide, metadata, etc.)?** [Mandatory]

1-5 Likert scale
Not at all satisfied - Slightly satisfied - Neutral - Very satisfied - Extremely satisfied – Not sure

9.1. Please explain your selection. [Optional]
Free text for explanation

9.2. In comparison with ADRN or other ways of accessing administrative data, how satisfied are you with the research support materials available? [Optional]
1-5 Likert scale
Significantly less satisfied, slightly less satisfied, no change, slightly more satisfied, significantly more satisfied, Not sure

10. **Thinking about your most recent project application, to what extent do you agree with the statement: 'The ADR UK datasets I require for my research are accessible in a timely way'.** [Mandatory]

1-5 Likert scale
Strongly disagree -Disagree - Neither agree nor disagree - agree - strongly agree – Not sure

10.1. Please explain your selection. [Optional]
Free text for explanation

10.2. In comparison with ADRN or other ways of accessing administrative data, how accessible is ADR UK-enabled administrative data?
1-5 Likert scale
Significantly less data accessible, slightly less data accessible, no change, slightly more data accessible, significantly more

data accessible. – Not sure

11. **To what extent do you agree with the statement:**
'The ADR UK datasets are up to date for the required research'? [Mandatory] Up to date for the required research
1-5 Likert scale
Strongly disagree -Disagree - Neither agree nor disagree - agree - strongly agree – Not sure

11.1. Please explain your selection. [Optional]

Free text for explanation

11.2. In comparison with ADRN or other ways of accessing administrative data, how up to date is   ADR UK-enabled data?

1-5 Likert scale

Significantly less up-to-date data, slightly less up-to-date data, no change, slightly more up-to-date data, significantly more up-to-date data. – Not sure

12. **To what extent are you satisfied with ADR UK data quality?** [Mandatory]
1-5 Likert scale
Not at all satisfied - Slightly satisfied - Neutral - Very satisfied - Extremely satisfied – Not sure

12.1. Please explain your selection. [Optional]
Free text for explanation

12.2. In comparison with ADRN or other ways of accessing administrative data, how satisfied are you with ADR UK data quality?
1-5 Likert scale
Significantly less satisfied, slightly less satisfied, no change, slightly more satisfied, significantly more satisfied – Not sure

13. **To what extent has the research you have produced under ADR UK informed government policy and practice?** [Mandatory]
Multiple choice. Select 1
Not at all, Somewhat, Strong evidence of influence, Not yet but likely to do so in next 2 years, Unsure

13.1. Please explain your selection. [Optional]
Free text for explanation

13.2 Please provide the number of research outputs that have been used for policy and practice development. [Mandatory]

Free text

13.3. In comparison with ADRN or other ways of accessing administrative data, to what extent would you say ADR UK research has been able to inform government policy and practice?

1-5 Likert scale
Significantly less influence on policy, slightly less influence on policy, no change, slightly more influence on policy, significantly more influence on policy – Not sure.

14. **Have you ever received requests for expert advice on policy proposals or programmes, or successfully submitted evidence to government inquiries, in relation to ADR UK-supported research/research using ADR UK data?** [Mandatory]

yes/no

14.1. If yes: Please provide the number of requests you have received and the number of submissions you have made over the last year. [Mandatory]
Free text field for number of submissions
Free text field for number of requests for advice.

ADR UK Government policymakers survey

1. Are you aware of ADR UK's work to enable the use of linked administrative data to inform the development of government policy and practice? [Mandatory]

Yes/no

a. 1.1. Do you recognise any of the following datasets, which were enabled by ADR UK? [Mandatory]

Multiple choice, select more than 1

- ECHILD (Education and Child Health Insights from Linked Data)
- LEO (Longitudinal Education Outcomes)
- The Ministry of Justice: 'Data First datasets
- ASHE-Census (Annual Survey of Hours and Earnings linked to Census 2011)
- None of the above

2. **To what extent do you think the ADR UK programme is on track to achieve its objectives?** [Mandatory]
1-5 Likert scale
Extremely unlikely – Unlikely – Neutral – Likely – Extremely likely – Not sure

2.1. Please explain your selection. [Optional]
Free text for explanation

3. **Are there any areas in which you think the programme is particularly successful?**

Multiple choice (max 3)
- Building public trust and acceptance of administrative data sharing.
- Prioritising and creating high-value research assets and tools for reuse.
- Enabling research that addresses evidence gaps to support local, regional and national public policymaking.
- Raising awareness and encouraging adoption of the Digital Economy Act (DEA) as a suitable legal framework to permit research use of administrative data and streamline sustainable mechanisms for research access.
- Increasing UK analytical capacity to the level needed to produce high-impact research from ADR England data
- Nurturing the administrative data research community and enabling future opportunities for conducting impactful research.
- Maintaining and enhancing accessible research assets for long term use.
- Enabling unique contributions to existing bodies of knowledge in support of public good.

3.1. Please explain your selection. [Optional]

Free text for explanation

4. **Are you aware of ADR UK's work to create sustainable data resources and linked datasets that are updated and available to use to address areas of research interest for government departments?** [Mandatory]

Yes/no

5. **To what extent do you believe ADR UK-enabled projects are adding to the body of research addressing major societal problems and/or government needs?** [Mandatory]

Likert scale
Not at all - Very little - Neutral - Somewhat - To a great extent – Not sure

5.1. Please explain your selection. [Optional]
Free text for explanation

6. **How important is the research enabled by ADR UK in terms of supporting policy and practice development within your department?** [Mandatory]

1-5 Likert scale
Not Important at all - Of little importance - Of average importance - Very important - Absolutely essential – Not sure

6.1. Please explain your selection. [Optional]
Free text

7. **To what extent do you agree with the following statement:**
'My department uses ADR UK-enabled research and/or data to inform policy and practice development?' [Mandatory]

1-5 Likert scale
Strongly disagree - Disagree - Neither agree nor disagree - Agree - Strongly agree – Not sure

7.1. Please explain your selection. [Optional]

Free text for explanation

8. **How do ADR UK-enabled research, data and/or researchers inform the development of policy and practice for your department? [Mandatory]**

Multiple choice. Select <1 + 'Other' option
- Provides evidence which is cited in policy documents
- Informs ministerial briefings
- Informs circulars and/or advice
- Informs ministerial/organisational briefings
- Contributes to national, regional or local consultations
- Participation in guidance/advisory/ select committees
- Informs the development of new policy interventions
-

9. **Have you encountered any barriers in terms of using ADR UK-enabled research and data to inform policy and practice? [Mandatory]**

multiple choice, option to select <1 + 'other' option
- Limited awareness of relevant research and data
- Lack of contact with researchers
- Data / research outputs are not directly relevant to policy/ practice development
- Data / research outputs are not available quickly enough to inform policy/ practice
- There are issues with data quality
- Other (free text)

10.1. Please explain your selection. [Optional]

Free text for explanation

10. **How often have you been sent or encountered any policy briefings or publications from ADR UK-enabled research projects which were used to inform** policy and practice development**? [Mandatory]**

1-5 Likert scale
Never – Rarely – Sometimes – Always – Often – Not sure

11.1. How many times have you used policy briefings or publications from ADR UK-enabled research projects to inform policy and practice development **over the last year?** [Mandatory]

Free text.

11. **Have you ever requested expert advice from ADR UK-enabled researchers to inform** policy and practice development**? [Mandatory]**

Yes/no/ not sure

12.1. If yes: How many times have you requested expert advice from ADR UK-enabled researchers to inform policy and practice development over the last year? [Optional]

Free text.

12. **Looking forward, how likely are you to request expert advice from ADR UK-enabled researchers to inform policy and practice development over the next year?** [Mandatory]

1-5 Likert scale

Extremely Unlikely – Unlikely – Neutral – Likely – Extremely Likely

13.1. Please explain your answer. [Optional]

Free text for explanation

ADR UK Government Data Analysts Survey

1. **To what extent do you think the ADR UK programme is on track to achieve its objectives?** [Mandatory]

1-5 Likert scale

Extremely Unlikely – Unlikely – Neutral – Likely – Extremely Likely – Not sure

1.1. Please explain your selection. [Optional]

Free text for explanation

2. **Are there any areas in which you think the programme is particularly successful?**

Multiple choice (max 3)
- Building public trust and acceptance of administrative data sharing.
- Prioritising and creating high-value research assets and tools for reuse.
- Enabling research that addresses evidence gaps to support local, regional and national public policymaking.
- Raising awareness and encouraging adoption of the Digital Economy Act (DEA) as a suitable legal framework to permit research use of administrative data and streamline sustainable mechanisms for research access.
- Increasing UK analytical capacity to the level needed to produce high-impact research from ADR England data
- Nurturing the administrative data research community and enabling future opportunities for conducting impactful research.
- Maintaining and enhancing accessible research assets for long term use.
- Enabling unique contributions to existing bodies of knowledge in support of public good.

2.1. Please explain your selection. [Optional]

Free text for explanation

3. **To what extent do you believe ADR UK-enabled projects are adding to the body of research addressing major societal problems and/or government needs?** [Mandatory]

Likert scale

Not at All - Very Little - Neutral - Somewhat - To a Great Extent – Not sure

3.1. Please explain your selection. [Optional]

Free text for explanation

4. **How often do you access ADR UK–enabled linked data and research for analysis?** [Mandatory]

Multiple choice
- Weekly or more
- Monthly
- Quarterly
- Yearly
- Less than once a year

4.1 Depending on your previous answer, p**lease indicate** the number of **times you access ADR UK-enabled linked data and research for** analysis per week/ month/ quarter year**.** [Mandatory]

Free text

5. **To what extent do you agree with this statement?** [Mandatory]

'ADR UK has increased the department's interaction with administrative data (i.e. the number of times linked administrative data is accessed)'?

1-5 Likert scale
Strongly disagree - Disagree - Neither agree nor disagree - Agree - Strongly agree – Not sure

5.1. Please explain your selection. [Optional]
Free text for explanation

6. **Have you encountered any barriers in terms of accessing and using linked administrative data effectively?** [Mandatory]

Multiple choice, option to select <1 + 'other' option
- Limited availability of data (i.e. the right data sets are unavailable)
- Low quality of data (i.e. I can't trust the data)
- Lack of access to useful data (e.g. the data are highly aggregated, not detailed enough, too randomised, or top-coded/censored/truncated, etc.)
- Insufficient documentation or metadata
- Insufficient support
- Cost of using a trusted research environment (where applicable)
- Other (free text)

6.1. Please explain your selection. [Optional]
Free text for explanation

7. **How important is the research enabled by ADR UK in terms of supporting policy and practice development within your department?** [Mandatory]

1-5 Likert scale
Not Important At All - Of Little Importance - Of Average Importance - Very Important - Essential - Unsure

7.1. Please explain your selection. [Optional]

Free text

8. **How often does your department use ADR UK-enabled research and/or data to aid in policy/ practice development? [Mandatory]**

Multiple choice + Other

- Weekly or more
- Monthly
- Quarterly
- Yearly
- Less than once a year
- Other

9. **Depending on your previous answer, please indicate the number of times per week/ month/ year your department consults ADR UK-enabled research and/or data to aid in policy/ practice development.** [Mandatory]

Free text

ADR UK Government Data Owners Survey

1. **To what extent do you think the ADR UK programme is on track to achieving its objectives?** [Mandatory]

1-5 Likert scale

Extremely Unlikely – Unlikely – Neutral – Likely – Extremely Likely – Not sure

1.1. Please explain your selection. [Optional]

Free text for explanation

2. **Are there any areas in which you think the programme is particularly successful?**

Multiple choice (max 3)

- Building trust and addressing the needs of those at the heart of public policy and practice.
- Prioritising and creating high-value research assets and tools for reuse.
- Enabling research that addresses local, regional and national public policy, practice and wider societal needs.
- Raising awareness and encouraging adoption of the Digital Economy Act (DEA) as a suitable legal framework to permit research use of administrative data and streamline sustainable mechanisms for research access.
- Increasing UK analytical capacity to the level needed to produce high impact research for public good from ADR England data.
- Nurturing the administrative data research community and enabling future opportunities for conducting impactful research.
- Maintaining and enhancing accessible research assets.
- Enabling unique contributions to existing bodies of knowledge.

2.1. Please explain your selection. [Optional]

Free text for explanation

3. **Why do you share data via the ADR UK programme?** [Mandatory]

Free text

4. **To what extent are you satisfied with data security when it comes to ADR UK?** [Mandatory]

1-5 Likert scale

Not at all satisfied - Slightly satisfied - Neutral - Very satisfied - Extremely satisfied – Not sure

4.1. Please explain your selection. [Optional]

Free text for explanation

5. **How often are datasets created through ADR UK funding updated?** [Mandatory]

Multiple choice, 1 selection

- Quarterly (i.e. every 3 months)
- Every 6 months
- Every year
- Every 2 years (or less frequently)
- Other (free text)

5.1 Please indicate the number of times ADR UK-enabled datasets are updated per week/month. [Mandatory]

Free text

6. **In a hypothetical situation where ADR UK did not exist, how often would you update administrative data for research purposes?** [Mandatory]

Multiple choice + 'Other' option

- Every 6 months
- Every year
- + 2 years
- Other (free text)

6.1 Please indicate the **number of times** per week/ month you would update administrative data for research purposes without ADR UK. [Mandatory]

Free text

7. **Have you encountered any barriers in terms of providing researchers with access to data through ADR UK's trusted research environments (TREs)** [Mandatory]

multiple choice, option to select <1 + 'other' option

- Issues with data quality
- Issues with data availability
- Lack of departmental support
- Security concerns
- Concerns around reputational risk
- Concerns around public acceptance of sharing data
- Lack of internal resource or capacity
- Lack of TRE resource or capacity
- Low departmental priority
- Other (free text)

7.1. Please explain your selection. [Optional]

Free text for explanation

8. How much time does it take you to make administrative data available for research applications (e.g. signing data sharing agreements, removing personally identifiable information) for ADR UK-enabled research purposes? [Mandatory]

Multiple choice

- Less than 3 months
- 4 - 6 months
- 7 months - 1 year
- Over 1 year
-

8.1 Please indicate the number of weeks/ months it takes you to make administrative data available for research applications. [Mandatory]

Free text

9. **How much time would you estimate it would take** to make administrative data available for research applications (e.g. signing data sharing agreements or removing personally identifiable information) *without* ADR UK (e.g. during the ADRN period)? [Mandatory]

Multiple choice

- Less than 3 months
- 3-6 months
- 6 months – 1 year
- Over 1 year
- Other

9.1 Please indicate the number of weeks/ months it would take you to make administrative data available for research applications **without ADR UK.** [Mandatory]

Free text

ADR UK – Government Economic and Social Research Network Survey

1. **Have you ever heard of Administrative Data Research UK (ADR UK) before?** [Mandatory]
- Yes, I've worked with ADR UK enabled data / research before
- Yes, I'm familiar with ADR UK and its aims, but have never worked with ADR UK enabled data / research
- Yes, I've heard of ADR UK in passing but I'm not familiar with its aims
- No, I've never heard of it before

1**.1. Please explain your selection.** [Optional]

Free text for explanation

If you have worked with ADR UK enabled data and research before, we ask that you answer the following questions only in relation to ADR UK specifically. If not, please answer in reference to the use of linked administrative data more broadly.

2. **To what extent do you believe linked administrative datasets are adding to the body of research addressing major societal problems and/or government needs?** [Mandatory]

Likert scale
Not at All - Very Little - Neutral - Somewhat - To a Great Extent – Not sure

    2.1. Please explain your selection. [Optional]
Free text for explanation

3. **How often do you access linked administrative data and research for analysis?** [Mandatory]
Multiple choice
- Weekly or more
- Monthly
- Quarterly
- Yearly
- Less than once a year

3.1 Depending on your previous answer, please indicate **the number of times you access linked administrative data and research for** analysis per week/ month/ quarter/ year. [Mandatory]
Free text

4. **To what extent do you agree with this statement?** [Mandatory]

    'There is a strong demand for linked administrative data within my department / organisation'?

1-5 Likert scale
Strongly disagree - Disagree - Neither agree nor disagree - Agree - Strongly agree – Not sure

    4.1. Please explain your selection with reference to the department if possible. [Optional]
Free text for explanation

5. **Have you encountered any barriers in terms of accessing and using linked administrative data effectively?** [Mandatory]
Multiple choice, option to select <1 + 'other' option
- Limited availability of data (i.e. the right data sets are unavailable)
- Low quality of data (i.e. I can't trust the data)
- Lack of access to useful data (e.g. the data are highly aggregated, not detailed enough, too randomised, or top-coded/censored/truncated, etc.)
- Insufficient documentation or metadata
- Insufficient support
- Cost of using a trusted research environment (where applicable)
- Other (free text)

5.1. Please explain your selection. [Optional]

Free text for explanation

6. **How important is the research enabled by administrative data in terms of supporting policy and practice development within your department?** [Mandatory]

1-5 Likert scale
Not Important At All - Of Little Importance - Of Average Importance - Very Important - Essential - Unsure

6.1. Please explain your selection. [Optional]

Free text

7. **How often does your department use administrative data to aid in policy/ practice development? [Mandatory]**

Multiple choice + Other

- Weekly or more
- Monthly
- Quarterly
- Yearly
- Less than once a year
- Other

7.1 Depending on your previous answer, please indicate the number of times per week/ month/quarter/ year your department consults administrative data or research using administrative data to aid in policy development. [Mandatory]

Free text

ii.   Interviews

To complement the breadth, and focus on quantitative estimations offered by surveys, we conducted a series of key informant interviews. Interviews were aimed at collecting more nuanced qualitative insights on the effectiveness of the ADR partnership and understanding what has worked and has not worked well over the past four years.

Overall, we held a total of 30 key informant interviews with:

- 8 researchers
- 4 data owners
- 5 TRE stakeholders
- 5 ADR SHUB stakeholders

- 8 policymakers

Given the broad geographic spread of interviewees, we conducted interviews remotely. Interviewees signed a consent form, indicating their preferences regarding their interview recorded, transcribed and the use of anonymous quotes in evaluation outputs. Interviews were semi-structured, to allow the discussion of interesting outcomes which might not have been originally accounted for in discussion guides. Nonetheless, core discussion guides are included below.

<div style="border:1px solid #000; padding:1em;">

Academic researchers interview discussion guide

1. Do you think the ADR UK programme is on track to achieve its intended goals and why?
   a. Have you seen any results which have exceeded or not met the original expectations? Why do you think that is?
2. What barriers - if any - have you encountered in terms of accessing and using administrative effectively and how did they impact your project?
3. How likely do you think it is that the benefits of the programme will be sustained in the long term, beyond this initial period of implementation which runs to 2026? What factors might influence or limit this?
4. What elements of ADR UK's process and implementation have worked well in helping your research outputs to inform policy and how?
5. What elements of ADR UK's process and implementation have not worked well in informing policy and why?
6. What research have you produced as part of the ADR UK partnership? How can this aid understanding of tackling major societal problems?
7. Have you used administrative data for research prior to becoming involved with ADR UK, either through ADRN or other means?
8. How satisfied are you with how easy it is to access data through ADR UK Trusted Research Environments?
   a. If a previous ADRN user *(established at beginning of interview)*: How does the current level of ease of access compare to ADRN?
   b. If not a previous ADRN user: How does the current level of ease of access compare to how you would look to access administrative data without ADR UK's TREs?
9. Can you talk us through how long it takes you to access linked data through ADR UK Trusted Research Environments (TREs)?
   a. If ADRN user: How much time did it use to take you to access data using ADRN?
   b. If not a previous ADRN user: How much time did it take you to access data before/when you first started accessing data to TREs?
10. How satisfied are you with the data availability through ADR UK Trusted Research Environments (TREs) (e.g. how much data is available, the data being linked, level of granularity, and how often it is updated)?
    a. If ADRN user: How do you think ADR UK data availability compares to previous data services, like ADRN?
11. How satisfied are you with the quality of linked datasets enabled by/funded by ADR UK?

</div>

a. <u>If ADRN user</u>: How do you think the quality of linked datasets enabled by/funded by ADR UK compares to previous data services, like ADRN?

12. How satisfied are you with the support provided for researchers by ADR UK Trusted Research Environments customer support teams? Is there anything here that could be improved?
    a. What about the support offered by the ADR UK Strategic Hub?
    b. <u>If ADRN user</u>: How would you compare the support provided by ADR UK to previous services, like ADRN?

13. Has the research you have produced with support from ADR UK informed government and/or public policy, practice, or process or has it led to any real-world changes? If so, how has ADR UK facilitated this?
    a. Is there anything more that could be done by ADR UK to better ensure that research informs policymaking or real-world positive impact?

14. Can you point us to any specific documents used for policy formation which cite your research outputs?
15. Can you recommend any policymakers who might be appropriate to contact regarding this research?

Government policymakers interview discussion guide

1. Could you describe your role within [this government department] and your level of involvement with ADR UK?
2. Have you ever used other data services, like ADRN?
3. Do you think the ADR UK programme is on track to achieve its intended goals?
4. Have you seen any results which have exceeded or not met the original expectations?
5. Why do you think that is?
6. What barriers - if any - have you encountered in terms of accessing and using the data effectively? What about in terms of the consistent availability of administrative data?
7. How likely do you think it is that the benefits of the programme will be sustained in the long term, beyond this initial period of implementation which runs to 2026? What factors might influence or limit this?
8. How easily have you been able to access evidence from ADR UK funded work to inform policy?
9. What elements of ADR UK's process and implementation have worked well in informing policy and how?
10. What elements of ADR UK's process and implementation have not worked well in informing policy and why?
11. Has the ADR UK programme/ this project increased the amount of data you can draw on in [this policy area]?
12. How does the current data available compare with the situation before ADR UK?
13. To what extent do you believe ADR UK funded projects and any contributing evidence are addressing major societal problems and/or government needs? Are there any datasets / analysis you would like to have access to but don't at the moment?
14. How has research enabled by ADR UK informed any government policies, practice, or public initiatives?
15. Similarly, has the department done any analysis using the new dataset internally which has informed policy development?
16. Thinking back, do you think there might have been other instances when it would have been beneficial for the department to have used ADR UK-enabled data for policy?
17. Can you point us to any specific documents used for policy formation which cite research outputs funded

by ADR UK?

18. Has this project/the work of ADR UK resulted in increased public commitment from the department to sharing administrative data for research purposes? If so, how has this support been expressed?

19. Has the project / the work of ADR UK started to impact the way in which the department delivers public services / is there any evidence that it will in the coming years?

20. Is there any evidence that the project / the work of ADR UK has informed more effective policy / is there any evidence that it will in the coming years?

21. Has the project / the work of ADR UK influenced public attitudes towards public services / if not, how likely is it to do so?

22. Has the project / the work of ADR UK had any positive impacts on people's lives (and if not, is it set to do so?)

Government data owners interview discussion guide

1. Do you think the programme is on track to achieve its intended goals? Have you seen any results which have exceeded or not met the original expectations?

2. What barriers - if any - have you encountered when looking to share departmental admin data through ADR UK?

3. How likely do you think it is that the benefits of the programme will be sustained in the long term, beyond this initial period of implementation which runs to 2026?
   a. What factors might influence or limit this?

4. Have you shared administrative data for research prior to becoming involved with ADR UK, either through ADRN or other means?

5. How satisfied are you with the data security measures put in place by ADR UK (i.e. TREs and the shared commitment to ONS' Five Safes)?
   a. How would you compare that to sharing data by other means (such as ADRN, if you were involved in ADRs previous iteration)?

6. Is it quicker to link data across government departments with the support of ADR UK than without ADR (or during the ADRN period)?
   a. If so, how much time would you estimate ADR UK saves the department in terms of linking data?
   b. If a previous ADRN user (established at beginning of interview): How does the current amount of time it takes to link data across government departments with the support of ADR UK compared to the time it would have taken via ADRN?

7. Is it quicker to provide researchers with access to admin data via ADR UK TREs as opposed to other means (including ADRN)?
   a. If so, how much time would you estimate ADR UK saves you in terms of providing access to data securely?
   b. If a previous ADRN user: How much time would it have taken you to provide researchers with access to admin data via ADRN?

8. Has the ADR UK programme resulted in increased public commitment from the department to sharing administrative data for research purposes? If so, how has this support been expressed?

9. How has the ADR UK partnership affected your openness towards sharing data?
   a. How has ADR UK contributed to building your confidence that data sharing will be acceptable to

the public?

10. What would you change about ADR UK to allow you to better share administrative data?

ADR UK / TRE stakeholder interview discussion guide

1. Could you describe your roles within ONS and your level of involvement with ADR UK?

2. Have you worked with administrative data for research prior to becoming involved with ADR UK, either through ADRN or other means?

3. Do you think the ADR UK programme is on track to achieve its intended goals?

4. Have you seen any results which have exceeded or not met the original expectations?

   a. Why do you think that is?

5. How likely do you think it is that the benefits of the programme will be sustained in the long term, beyond this initial period of implementation which runs to 2026? What factors might influence or limit this?

6. How does the current data available compare with the situation before ADR UK?

7. What do you think about the process of accrediting researchers and government analysts and the application of approval to access public data?

8. How do you think ADR UK's work contributes to a potential shift in data owners' perception of public understanding of using administrative data for research?

9. Has the ADR UK programme resulted in increased public commitment from the department to sharing administrative data for research purposes? If so, how has this support been expressed?

10. Has the ADR UK programme influenced public attitudes towards public services / if not, how likely is it to do so?

11. Is there anything you would change about how ADR UK operates?

Government data analyst interview discussion guide

1. Do you think the programme is on track to achieve its intended goals? Have you seen any results which have exceeded or not met the original expectations?

2. What barriers - if any - have you encountered when looking to share departmental admin data through ADR UK?

3. How likely do you think it is that the benefits of the programme will be sustained in the long term, beyond this initial period of implementation which runs to 2026?

   a. What factors might influence or limit this?

4. Have you shared administrative data for research prior to becoming involved with ADR UK, either through ADRN or other means?

5. How satisfied are you with the data security measures put in place by ADR UK (i.e. TREs and the shared commitment to ONS' Five Safes)?

   a. How would you compare that to sharing data by other means (such as ADRN, if you were involved in ADRs previous iteration)?

6. Is it quicker to link data across government departments with the support of ADR UK than without ADR (or during the ADRN period)?

   a. If so, how much time would you estimate ADR UK saves the department in terms of linking data?

   b. If a previous ADRN user (established at beginning of interview): How does the current amount of time it takes to link data across government departments with the support of ADR UK compare to the time it would have taken via ADRN?

7. Is it quicker to provide researchers with access to admin data via ADR UK TREs as opposed to other means (including ADRN)?

   a. If so, how much time would you estimate ADR UK saves you in terms of providing access to data securely?

   b. If a previous ADRN user: How much time would it have taken you to provide researchers with access to admin data via ADRN?

8. Has the ADR UK programme resulted in increased public commitment from the department to sharing administrative data for research purposes? If so, how has this support been expressed?

9. How has the ADR UK partnership affected your openness towards sharing data?

   a. How has ADR UK contributed to building your confidence that data sharing will be acceptable to the public?

10. What would you change about ADR UK to allow you to better share administrative data?

iii.   Case study selection

Case studies were used to demonstrate progress against some of the evaluation's more qualitative interviews and to begin to explore economic impacts, where ADR enabled research has informed policy making. We selected case studies with ADR UK stakeholders to ensure alignment with the following criteria:

- Spread across ADR partners (ensuring coverage across England, Wales, Scotland and Northern Ireland);
- spread across the eight ADR UK core strategic research themes; and,
- evidence of positive impacts on policy and potential to meet the partnerships targeted impacts, including improving wellbeing and stimulating economic growth.

Case studies selected were as follows:

1. Data First research within the MoJ using criminal courts linked data*
2. ADR Wales' analysis of vaccinations rates in schools*
3. Research on policing the pandemic in Scotland
4. Research on the mental health trajectories of care leavers in Northern Ireland*
5. Local data spaces: supporting local authorities during COVID-19*

Case studies marked with an asterisk (*) were identified as being particularly suitable for economic analysis, due to the nature of their impact on policy and the wider economic literature available in their policy area. In addition to the case studies originally identified, we also included an example encountered in the bibliometric analysis, where research using the ONS SRS influenced the continuation of Minimum Unit Pricing in Scotland, due to its potential for economic analysis.

iv.   Bibliometric analysis

Bibliometric analysis allowed us to analyse the different ways in which ADR UK funded and facilitated research appears in policy documentation. To facilitate this, we used Overton.io, an online platform that tracks where research is mentioned in a global database of policy documentation.

The analysis in Overton can be broken down into two strands. Firstly, **Overton allowed us to search and quantify how many times key words associated with the programme appear in policy over time.** Given that this analysis was illustrative, and a number of more generic project names such as 'Data First' returned results which were not related to the partnership, we limited key word searches to "ADR UK" "Administrative Data Research UK" "Administrative Data Research Wales", "ADR Wales", "Administrative Data Research Scotland" "ADR Scotland", "Administrative Data Research Northern Ireland" and "ADR NI". This could then be compared against a keyword search of "Administrative Data Research Network" and "ADRN".

Secondly, **we also inputted DOIs associated with the ADR UK partnership (as drawn from ResearchFish grant report and QHRs) into Overton to track how many times they were cited in policy documentation**. This was compared against citations of DOIs listed in the ADRN end of grant reports.

Whilst there are limitations associated with Overton.io, it functioned as an effective way of evaluating ADR UK's presence in policy documents at scale. To get a deeper understanding of *how*

ADR UK DOIs were being cited, with ESRC support **we also conducted a set of 40 'deep dives',** **taking a random sample of DOI matches from Overton and reading the policy document**. Citations were then categorised into the following groups: use in a literature review, informing a policy change, evidencing an investment, or submitting evidence to Parliament.

v.   Trusted research environment Data Analysis

To support the measurement of indicators relating to data access and availability in particular, we sought out data from trusted research environments. Data was provided by the ONS, SAIL, Scottish National Safe Haven and NISRA, but at varying levels of coverage and granularity due to differing data collection practices across TREs. A full breakdown of data provided, and gaps, is available in the [limitations](#) section of this technical annex.

We then conducted a straightforward analysis of this data, taking averages and producing graphs on key metrics, such as numbers of users, over time. Due to these gaps in the data each TRE was able to provide, it was not always possible to amalgamate data on all indicators to make direct comparisons between TREs. We acknowledged these gaps explicitly in our analysis and made recommendations for ADR UK Strategic Hub to promote the standardisation of metrics tracking across trusted research environments going forward.

vi.   ADR UK PMO Quarterly Hub Report Analysis

We also drew data from ADR UK's Quarterly Hub Reports – templates which are circulated amongst ADR UK partners by the Strategic Hub once a quarter to collect information for monitoring and evaluation purposes. Where possible, we sought to standardise it, for example by converting qualitative responses into quantitative totals where some partners had provided a list of publications instead of a running total (as documented in [Challenges and mitigations](#)).

Once standardised into a quantitative format, we performed straightforward analysis of QHR data, for example to document the number of datasets directly enabled by the partnership over time.

vii.   Economic analysis

Benefit-cost ratio

To calculate the benefit-cost ratio, we first outlined which indicators within the outputs, outcomes, and impacts sections laid out in the Theory of Change were monetisable. We developed different methods for estimating each of these monetisable indicators and will outline below the assumptions on which each calculation relies.

We broke out the estimated monetary benefits to establish a year-on-year cash flow that we have inflation adjusted to the end of FY23/24 according to [government GDP deflators.](#) Given that we have been working with GDP deflators and these are to year-end, we are adjusting from the end of the

relevant financial year. We recognise that benefits will be realised over an entire year, so an alternative method may be to use a measure of inflation and take the midpoint of the year. We have chosen GDP deflators as the benefits and costs of a project like this are influenced by more factors than standard measures of inflation—that is, by more than just consumption. The same holds true for the costs incurred.

There are, ultimately, four BCRs that we have calculated, all using the inflation-adjusted figures:
- a year-to-date BCR based on our mid-point assumptions;
- a year-to-date upper bound BCR;
- a year-to-date lower bound BCR; and
- a project-long BCR based on mid-point assumptions.

The rest of this section of the technical annex will detail the assumptions for each relevant indicator from section 6 of the main report.

Output area: Data

Relevant indicators:
- **Number of new linked datasets made available as a direct result of ADR UK funding**
- **The number of existing datasets hosted on ADR infrastructure**

Rationale for measuring the value of linked data
Valuing data is notoriously difficult and the subject of academic debate and research. There are a number of ways of valuing data and the value of linking data. We considered:

- market valuation;
- willingness to pay studies; and
- cost of comparable survey

Below, we will discuss each in turn, establishing why we decided upon the methodology that we employed in this BCR calculation.

Market based methods
A [Frontier Economics paper](#) on behalf of DCMS from 2021 suggests that "the application of market-based methods to data is […] limited but could be used to assess the value of:

- data which is exchanged through market transactions;
- data which has relatively close comparators that are exchanged through market transactions; and
- data assets held by data-intensive organisations, from market valuations."

ADR UK data does not fit any of these criteria.

Nonetheless, we have previously considered assessing linked datasets' value by attempting to use this market value approach to **find the value of similar datasets**. This, we determined, would necessitate two main things:

- Developing a set of criteria that allowed us to find genuinely comparable datasets, in terms of the number of records, type of content, the sensitivity of data, etc.; and
- Finding figures of public transactions of such data to determine market value.

Finding comparable data
Administrative data is quite unique: not only can relevant datasets vary greatly in size (both in number of records i.e., no. of rows and data fields i.e., no. of columns) but also in sensitivity, no. of linkages, specificity, and a whole host of other criteria.

We would, therefore, need to develop a complex set of criteria beyond simply a rough, average size—which, as mentioned, varies greatly both in terms of how many records there are in a dataset and how detailed that data is about each record. This would risk being arbitrary at best and misleading at worst.

Public transactions
There is little chance of finding examples of private companies' interaction with these datasets outside of, for example, a consultative project. It is not readily sold. Unlike data generated through private companies like 23andMe, which one might argue reflects a similar *kind* of data to administrative data, there are no obvious private buyers who would engage in exchanges that demonstrate this market value. So, while we can rely on GlaxoSmithKline to indicate the value per record for 23AndMe data ($60), we do not have an equivalent marketplace or stakeholder to do the same for admin data. If we were to take something like this as indicative of administrative data—it is unclear that we could argue that, except perhaps in the case of similar NHS data—then we would increase the value of a single data sevenfold.

What about willingness to pay studies?
This may initially seem the most accurate way of assessing the value of a dataset: asking people who have used the data what they would have paid to do so. There are some examples of this being done; for example, [a Bennett Institute paper](#) investigating WtP for the currently open-access World Development Indicators dataset. Using conjoint.ly software to model, they found a willingness to pay of $6.19k for national-level data.

There are a few takeaways from this Bennett Institute paper. We might assume, improperly likely, that this is comparable data with a similar WtP: it does, at least, look at national and subnational data that is at least orthogonally related to ADR UK data. Alternatively, we could calculate the per-record value. Given there are 217 economies, this would amount to a per-record value of $28.53.

Another [paper from Harvard](#) uses Facebook as an example of how to value data when there is no obvious market (as is the case with administrative data):

> "In one recent large-scale survey, researchers estimated compensation required for individuals to forgo certain data-intensive applications, such as email, maps, and social media. They estimated, for example, that a typical U.S. user of Facebook might require $48 per month to forgo that data (Brynjolfsson et al., 2019).'"

Therefore, we perhaps have a WtP of $48 per record.

Both WtP figures per record would give extremely high values if we were to include them in our BCR calculations. They would increase the value of a single dataset about fivefold.

Why, even if we could conduct a survey to derive figures like these, might it still not work in the case of ADR UK?

Firstly, we found that academics were frequently unwilling to give estimates of time saved by linking data and we assume they would have been similarly reticent when faced with an estimate of how much they would have been willing to pay. It is also not clear that many academics *would* pay for this data in any meaningful way because that is not straightforwardly how their budgets work. Many suggested that they would simply find a different research question or use publicly available data from a different country if ADR UK data were not available.

Therefore, not only would it be unlikely that we get sensible responses, or any responses at all, on an operational level. It is also not clear that WtP applies in the same way to administrative data and academics as it does in other contexts.

Why use the opportunity cost of conducting a survey?
There are three main reasons we chose this approach:

- the inadequacy/inappropriateness of market value in this context;
- interviewee responses; and
- reflections from the DAERA/NISRA case study.

The first point has been elaborated on above. To extend the analysis, an opportunity cost of surveys slightly reduces some of the problems with dataset size. There is perhaps less difference in cost between a complex and simple survey; one still distributes the survey. There are differences in cost depending on the number of questions, as is our experience working with survey companies, but there are similar fundamental costs. A cost-per-record approach for a survey, then, mitigates some of the problems around dataset size.

Secondly, the implication from a number of interviewees is that the alternative to this kind of data linkage is, in fact, conducting a bespoke survey to collect the relevant data. Many referenced this in terms of how much cheaper it is to do the data linkage compared to the costs of conducting a survey—alongside the problems with ensuring appropriate responses to the survey from research participants. A number of interviewee excerpts can be found below:

- **Interviewee 25:** "*cheaper than doing surveys*"
- **Interviewee 20:** "*the value of linked data administrative data is great comparatively with a standard survey*"
- **Interviewee 15:** "*can do surveys all you want but doesn't give you the stocks and flows [that linked data does]*"
- **Interviewee 9:** "*they were looking at potentially sending out a survey*"
- **Interviewee 4:** "*there were plans to undertake a survey which would have cost more money and resources*"

The [NISRA case study refers](#) to a project linking data from the national census with that of the agricultural census. This was estimated to save the Department of Agriculture and Rural Development (DAERA) around £350,000. This was estimated as the potential cost of a survey to collect the data relevant to the new, linked dataset that DAERA needed. We saw this information as supporting the idea that this was a sensible way of thinking about what the alternative to administrative data was. It is not simply that researchers would use existing datasets and try and cobble things together; a survey is the agreed-upon alternative.

<u>Methodology</u>

Our upper bound statistic to calculate a mean comes from this report from [the UNECE](#). It provided estimates for the cost of a census in various EU member states with the value of a single record in the UK census being €6.2. This would amount to £7.22 adjusted to 2024 GBP.

The [relevant NISRA work refers](#) to a project linking data from the national census with that of the agricultural census. This was estimated to save the Department of Agriculture and Rural Development (DAERA) around £350,000. This was estimated as the potential cost of a survey to collect the data relevant to the new, linked dataset that DAERA needed. This dataset had a maximum of 49,200 records (the number of farm workers from the [2018 agricultural census](#)). This meant an average cost per record of £8.63 when adjusted for inflation (using GDP deflators).

For our primary calculation, based on our survey approach, we used the UNECE number as a lower bound and the NISRA data as an upper bound. We then calculated an average price per record for each administrative dataset of £7.93; this was simply the mean of the two other numbers.

As referenced in the section, to estimate the value of an average dataset we needed to determine the average number of records for an ADR UK dataset. Using the mean of the standard flagship datasets did not seem appropriate to include in this as they are significantly larger than the average ADR

dataset, almost all by orders of magnitude. Instead, we used the median and cross-referenced this with an estimate based on similar (administrative) datasets from other countries such as the [Australian Taxation Office's Individual sample files](#)[7] to confirm it was in the right ballpark. This gave us an average dataset size of 234,125. The exact calculation can be found in the BCR spreadsheet

This assumption is also supported by the fact that any particular subset of a dataset of this size would contain thousands of records, so one is unlikely to face large sampling errors in datasets of this size.

The calculation is then fairly simple: the average value of a dataset is simply the average price per record multiplied by the average number of records. This amounts to a single ADR dataset being worth £1,941,500. To derive the benefits per financial year, we simply multiplied this number by the number of datasets produced within the financial year—data found in the QHRs and by manually reviewing grant reports on ResearchFish.

Output area: People

Relevant indicators:
• **Number of civil servants trained in the use of ADR data**
• **Number of PhDs funded by ADR UK**

We note in section 6.3 that the wage premium evidence for men is likely influenced by a selection effect. That is, we think the high-achieving men analysed in the report are opting out of a finance or engineering career, for example, to pursue an academic career. They are therefore effectively taking a pay cut, which is reflected in the negative wage premium. This therefore doesn't point us to the additional skills they may gain from undergoing training—those that are rewarded and come, in this case, as a result of ADR UK-funded PhDs.

Relevant indicator: ADR UK led stakeholder engagement events

To derive the minimum WtP for an ADR event, we divided the total ticket revenue by the number of attendees multiplied by the number of hours. Total ticket revenue was £118,660; the number of attendees was 381; and the number of conference hours was 20. This resulted in a minimum WtP per hour of ADR conference of £15.57. Some attendees may have had a higher WtP for the tickets, but we cannot estimate that based on available data.

As noted in section 6.3, we had to account for the opportunity cost of attending. To calculate the hourly wage of civil servants, we followed ONS guidance [here](#), dividing salary by number of hours worked in a week multiplied by 52.2 (weeks in a year). Given the [median salary of a civil servant](#) is

---

[7]The ATO Individual samples files data set comprises a 2 percent sample of Australian taxpayers. With 13.6 million Australian taxpayers, according to a recent [Australian Government estimate](#), a 2 percent sample corresponds to 272,000 individuals.

144

£33,980 and civil servants work 37 hours a week, this results in a median hourly wage of £17.59. Meanwhile, Talent.com suggests that an early career researcher has an hourly wage of £18.67. Assuming a roughly 50:50 split for ADR events overall—though the Conference was heavily academia-skewed—the average opportunity cost per hour is £18.13.

We also must consider that employers are willing to forego this so the average WtP must include this opportunity cost; it effectively becomes net zero. This means that each event amounts to a small net monetary gain of £15.57 if every participant had the minimum WtP, but we expect many attendees valued attending the event much higher than the minimum WtP of £15.57. We assumed that around 75 participants attended each event, based on QHR data.

> **Relevant indicator: Number of training materials on ADR data available to researchers and policymakers for future use**

Ultimately, we determined it is difficult to assign a value to these resources, partly due to a lack of data to quantify them. However, the evaluation did look to estimate the value of ADR UK-supported courses, using a market-based approach. Taking data from the ADR UK-Supported Training Courses - Registration Tracker, we found that a total of 248 people from across government, academia, the voluntary sector, and the private sector attended ADR training events. Using figures from the National Centre for Research Methods (NCRM), we were able to find an illustrative cost for these events from an online training event around the flagship Growing up in England dataset. Multiplying the numbers from the registration tracker by the illustrative NCRM costs, **we were able to estimate that ADR UK training courses generated £21,875 during the financial year 2023/24.**

Output area: Publications

> **Relevant indicator: Number of peer reviewed publications and publications in academic journals or reports.**

By manually reviewing data from QHRs and grant reports in ResearchFish we found that ADR UK funded teams had produced publications with DOIs (largely journal articles) from the start of the investment to June 2024. Inputting this data in Overton.io, we found that these journal articles had been cited at least 149 times (see Outcome area: Informing government policy, strategy and practice for further analysis).

To calculate this, we estimated the average time taken to complete an average ADR journal article (as a fraction FTE) and multiplied it by the average salary of a researcher involved in producing such an article. Using data from SAIL, we determined that the average team cost for the production of a single paper **was £71,291.10**. This is based on the following assumptions (full calculations found on the tab titled 'Academic Papers' in the BCR spreadsheet):

- Annual full-time salary of a main researcher: £45,561
- Cost-of-living Adjustment: £1, 628
- NI superannuation: £11,601
- Additional academic support (at 0.1FTE):
    - Salary: £125,011
    - FTE Adjusted: £12,501.10

Each team had an estimated annualised output of:

- 5 Academic papers;
- 3 Data Insights;
- 3 Blogs; and
- 2 Conference presentations.

We then noted that it was not sensible to assume an equal amount of time spent on each of these outputs, so we estimated the following split across output groups:

- Academic papers–60%
- Data Insights–25%
- Blogs–10%
- Conference presentations–5%

To calculate the cost of a single academic paper then, we multiplied the total team time by the percentage of time taken on academic papers overall and subsequently divided that number by the average number of papers produced. This results in an average minimum gross benefit/production cost of £8,554.93.

Not all of these are ADR-funded/produced, however. In order, therefore, to ensure that this zeroes out with the cost line—as we are calculating the minimum gross benefit to be the cost of production—we must account for the proportion of this funded by ADR-UK. We estimated this to be 30%. This was due to the fact that flagship datasets—those wholly funded by ADR—make up around 10% of total datasets (20/204) and we assume they are used around 3 times as frequently as others in producing work.

To estimate the value of a single citation, we took the average amount of time that a researcher spends on reading/citing papers—estimated at 15.20%. This number was derived from survey data in this paper around criminology academics. Extra detail can be found in the spreadsheet calculating the BCR. We then multiplied that by the average value of an article (as estimated above) and divided that by the total number of references (that is the number of things cited) in the average ADR journal article. We estimated the final of these by running a script calling the CrossRef API on DOI data from ADR's QHRs. We adjusted this for any errors—cases where the script

turned up a 0 or could not match, but upon random spot check we found that this was incorrect and a fault in the script. This resulted in an average citation value of £30.41.

To find the total value of publications, then, we multiplied the number of publications by the average publication value and the number of citations by the average citation value. This resulted in an average yearly monetary benefit of £178k based on YTD figures.

Outcome area: Programme cost savings

Relevant indicator: Savings associated with government time taken to create linked datasets

Ranges for dataset linkage times were taken from a number of interviewee and survey responses. One interviewee (interviewee 12) indicated that it takes between '[a few] months to a year', while survey responses vary between 6-12 months (respondent 6) and 6-18 months (respondent 2). We decided to use the widest estimate to capture this variability in linkage time for different datasets and ensure we were capturing the breadth of dataset types.

The interview and survey results suggest that, without ADR UK, linking datasets from scratch could take additional years. This was, in large part, due to the time burden on people doing the linking and data agreements rather than the technical process of linking. We therefore focused on operational cost savings that arise from increased efficiency through dedicated, streamlined teams.

Responses to question 22 in the survey where responses suggested that it could take multiple years without ADR (as respondent 8 suggested it had in the past) or that it simply would not be possible. This led us to conservatively estimate that it would take around 50% more time to link sets because of the lack of dedicated resources. Civil servants would have to do things by themselves while juggling additional responsibilities and there would not be a dedicated ONS team to do it; there also wouldn't be the wider ADR apparatus to help out so they couldn't quickly draw on existing resources/agreements.

This amounts to an additional 6 months chronologically. As mentioned, those teams would likely be juggling lots of additional tasks and spending chunks awaiting approval, so we estimate that a task like this would account for maybe half of their work, so an extra 3 full months of work. Research from interviews also suggested that it would take around twice as many people than in the dedicated ONS team for the reasons mentioned above.

In terms of savings, we need to consider the current dedicated ONS linkage team, which consists of 1 grade 7, 4 SEOs, 2 HEO. Their wages are as follows:

- Grade 7 National salary: £51,055
- Senior Executive Officer (SEO) Specialist National salary: £39,188
- Higher Executive Officer (HEO) Specialist National salary: £31,555

As above, we estimate that it would take 25% longer (an additional 3 months), using 2x the resource compared to the dedicated team. This amounts to savings per linkage of £135,458.50. This is calculated by multiplying the amount of additional resource by the additional time taken and the salaries of the relevant teams. A full breakdown of this calculation can be found in the BCR spreadsheet.

viii.   Sensitivity analysis

Conducting sensitivity analysis gives us a deeper understanding of the breadth of the potential benefits of the ADR programme. It allows us to test how our model reacts to changes in particular assumptions. As can be seen on the graph below, cash flow and BCR vary depending on these assumptions. We report **a year-to-date (YTD) BCR of 5.05 with the range of this YTD BCR having a lower bound of 4.56 and upper bound of 21.20.**
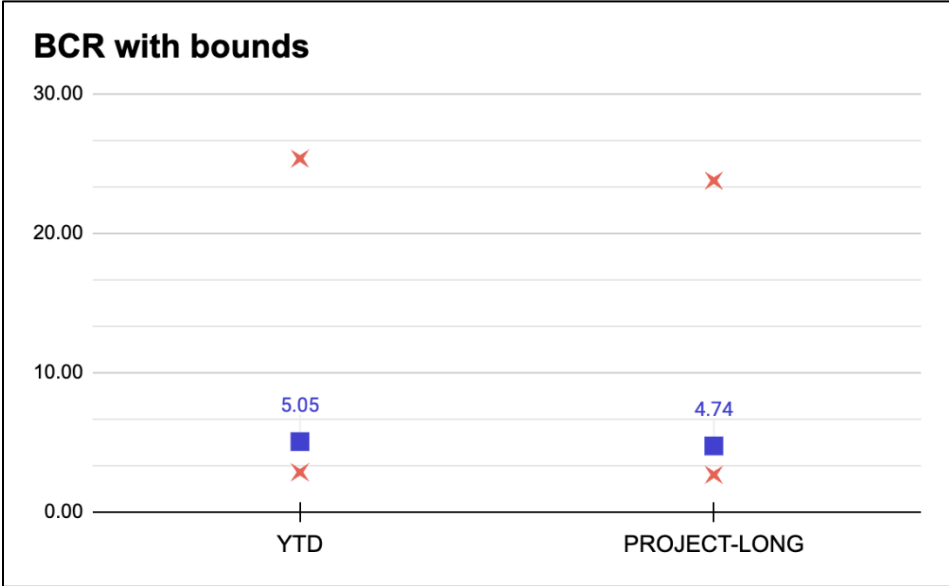
We have chosen to focus on particularly critical assumptions, such as operational costs and dataset size —which have strong influences on the BCR — and those where we have relied on a single source such as the average time researchers spend on citing. The rest of this section will detail each relevant assumption, the changes we made, and why we have made them. It will follow the descriptions laid out in the BCR spreadsheet. Please refer to this alongside the following section.

Calculation: Operational saving per improved linkage due to dedicated team

Assumption: Savings per data set
This assumption is based on the sheet 'BENEFITS—OPERATIONAL SAVINGS' within the aforementioned spreadsheet. We have a number of assumptions laid out in the above section of the technical annex that detail how we arrived at the average time spent linking a dataset or FTE

148

equivalent civil servants spend on linking compared to a dedicated linkage team. Without additional qualitative research, amending these assumptions individually felt arbitrary. Instead, we have decided to apply a flat ±20% to the overall savings per data linkage. This allows for variation in each of the assumptions without arbitrarily deciding which. This resulted in **a lower bound of £108,366.80 and upper bound of £162,550.20** for savings per data set.

Calculation: Benefits of new and existing linked and de-identified datasets are ready for research

Assumption: Average cost of administrative survey per person
From our research, we found two sensible estimates for the average cost per record. For our calculations we took the mean of these two. We therefore determined that it would be sensible to use them as the lower and upper bounds.

The first of these comes from a UNECE paper. Given this was the lower of the two estimates, we took this as the lower bound—£7.22. To demonstrate how conservative our methodology is, we used an upper bound estimate based on WtP estimates. We used an average of the three estimates mentioned above in the technical annex and converted them to GBP using a conversion rate of 0.77 to get an upper bound of £35.04 per record.

Assumption: Average no. of records in an ADR UK dataset
For our primary estimate, we took the median of the 20 flagship datasets. We decided that the mean would be skewed by the fact there are a number of datasets that are many orders of magnitude higher than what we expect the average dataset to have. We corroborated this with similar datasets from other countries as mentioned above. For our sensitivity analysis, we varied only the price of an individual record and held constant the number of records.

Together, these assumptions resulted in **a lower bound of £1,690,372.28 per dataset and an upper bound of £8,204,372.14.**

Another potential approach might be to assume that most datasets were around 2.5 times the size of an average research dataset; that is, around 2–3 datasets are, on average linked to produce an ADR UK dataset so an average dataset is about 40% the size of linked dataset. This then allows us to calculate the additional value produced by an ADR dataset. If we assume a researcher would otherwise only be able to realise the benefits from one of these smaller datasets then they would only get 40% of the benefits. So, to calculate the difference, we subtracted these two values from one another. In practice, this means that we took a lower bound estimate of size that was 0.6*average number of datasets. This resulted in a lower bound of 140,475 records.

To calculate an upper bound, one might assume that the median might be off by around 20%, so assumed an upper bound of 280,950 records which is 1.2*median calculated above.

(A note: We requested exact numbers from ONS but we were informed that they did not hold information on dataset size so we could not accurately estimate interquartile ranges, which we would have otherwise ideally used.)

Calculation: Value of collaborations between government and academic institutions (joint projects, events etc.)

Assumption: Average cost per person-hour of ADR event (estimated from conference data)
As noted above, this is calculated from the ADR conference data. This represents a minimum willingness to pay from those who attended. Therefore, unlike other assumptions, the figure we have used in the primary BCR reflects the lower bound: £15.57. The exact calculator of this figure can be found in the relevant spreadsheet. We then assumed that there may be sufficient demand to account for a WtP 50% higher than our current estimate from ADR conference data. This puts our upper bound at £23.36.

Importantly, this would entail that ADR events provide a modest monetary benefit—as opposed to the cost currently represented in the BCR—of £5.23 per event.

We assumed that there were around 75 attendees per event, based on data from the QHRs. For our upper and lower bounds, we assumed this could vary by ±25 people, providing a lower bound of 50 attendees and an upper bound of 100 attendees.

Overall, this results in a **yearly lower bound of -£5,285.47 and upper bound of £21,585.61.**

Value of high-quality research publications using ADR data

Assumption: Proportion attributable to ADR
We initially estimated this to be 30%. This was due to the fact that flagship datasets—those wholly funded by ADR—make up around 10% of total datasets (20/204) and we assume they are used around 3 times as frequently as others in producing work. We conducted sensitivity analysis by altering the assumption of how much more frequently flagship datasets are used compared to standard datasets. As a lower bound, we set this as twice as likely—so a lower attribution bound of 20%—and, as an upper bound, we set this as four times as likely—an upper attribution bound of 40%. Keeping all other assumptions the same, this results in a **lower bound of £7,129.11 per publication and an upper bound of £9,980.75 per publication.**

Assumption: Share of time spent researching/citing

This assumption was based on a single source: a paper which surveyed criminology researchers. The exact calculation for arriving at our estimate of 15.2% can be found in the spreadsheet. Our lower bound for this was 10% lower than the estimate found in this paper—13.68%—and our upper bound was 10% above—16.72%. This results in **a lower bound estimate of £22.80 for the value of a citation and £39.02 as the upper bound.**