

# Office for National Statistics (ONS) Understanding administrative data collection quality, inclusivity and representativeness at source

**Dr Karina Williams**

Principal Methodologist

Methodological Research Hub

ONS: Methodology and Quality

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# Background

- What is administrative data in the UK
- How ONS aim to use administrative data
- Exploring quality at source for statistical purposes using innovative methods
- What we are researching administrative data at source
  - Statistical quality
  - Inclusivity
  - Representativeness
- To understand more about these for our statistical purposes at ONS.
- The UK's National Statistician's 2023 recommendations
- The UK's National Statistician's Inclusive Data Taskforce implementation plan: IDTF.

# Research project 1: Gaining public insight

- How the public interact with and complete questions about themselves when registering for public services
  - **We are not collecting their actual data. We're just collecting how they do it, to understand data entry quality.**
- Qualitative: collection through a cognitive interviewing approach.
- Explore the impact of questions and the way the information is collected at source to have an understanding of this for our statistical purposes.
- We find out from the public:
  - Whether they are likely to register their information.
  - How they register their information (we are not collecting their actual data).
  - We present example questions as an elicitation aid to facilitate discussion.
- Collect similar information on group representatives to provide insight on their community.

# Research project 2: Administrative data case studies

- Electoral Roll administrative data in England and Wales.
  - Purpose: to gain an understanding of the data collection, processing and updates to Electoral Roll data over time - to understand the data journey of electoral register information for statistical purposes.
  - Qualitative research strands to research to gain insight into administrative data quality for our statistical purposes. The three strands are:
    - Research with Electoral Roll administration teams and Electoral Roll Registration Officers
    - Research with members of the public - to assess how they complete their Electoral Roll information (we are not collecting their actual data)
    - Research with colleagues at ONS who receive and use the data – to explore their processing, their methods and how they communicate with data suppliers on data quality.
  - We have reported on these findings.
  - This is a case study example and we have applied the findings to inform a conversation toolkit we are developing (more information on the next slide)
  - We are applying this methodology to other administrative data case study examples.
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# Research project 3: Development of toolkits – The conversation toolkit

- From the Electoral Roll research we have developed a conversation toolkit.
- This provides questions that analysts will use as aids when communicating with data suppliers to understand more about the data quality at source for statistical purposes.
- Progress - we are:
  - designing the questions.
  - conducting an internal expert review of the question designs and applying feedback.
  - cognitively testing some of these questions using the Electoral Roll supply as the case study.
- We are continuing to develop and cognitively test the conversation toolkit - with different administrative data case study examples in the future.
- We are building guidance on:
  - how to use the toolkit for our statistical purposes.
  - what information is needed from data suppliers as part of understanding data quality for statistical purposes: including what mode the data was collected in.
  - how to carry out desk-based research on the administrative data.

# Research project 4: Development of toolkits – The Administrative Data Quality Framework

- The Administrative Data Quality framework is an accessible way to walk government organisations through core quality assessments when they are using administrative data for statistical purposes.
- The framework is organised around two main phases, input quality and output quality,
  - The input quality phase focuses on the data you are using; how suitable is it for what you want to do with it?
  - The output quality phase focuses on the statistics or analysis you have produced; how well does it meet you and your users' needs?
- Each of these phases contains:
  - A description of each quality dimension (eg accuracy, relevance).
  - Some context around what issues you might face with each quality dimension in an administrative data context.
  - Some questions and tools to help you decide the relative importance of each quality dimension for your purpose.
  - Some first steps to think about when assessing the data against each dimension, with further links to more in-depth methods and resources.
- Completed prototype publications and received international NSI and government feedback.
  - Looking to publish the full version this Autumn/Winter 2022/2023.
  - Exploring applying the principals to a methodology section in the Framework.
  - Applying more testing and feedback in the future; post publication.

# Next steps

1. Carry out more inclusivity and representativeness research using qualitative techniques with members of the public to understand more about administrative data quality for our statistical purposes.
2. More in depth qualitative research looking at the administrative data journey with different administrative data as case study examples to understand more about administrative data quality for our statistical purposes.
3. Apply what we have learnt from our research to further develop and test our toolkits.
4. Assess how best to integrate our qualitative research findings with our quantitative research development.
5. Continue to develop quantitative research methods to assess administrative data quality for statistical purposes.
6. Develop standardise qualitative methods for assessing administrative data quality for statistical purposes.



# Feedback from presenting to the UNECE

1. Is the type of research I have presented today something you are interested in carrying out similarly at your institute / organisation?
  - If it is, which aspects?
2. Would you like to collaborate and/or keep in touch going forwards?
3. If you have carried out something similar how do your research methods compare?
4. Is there any feedback you would like to give regarding the methods and pieces of research we have carried out and presented on?
5. At ONS I'm setting up a working group on this topic with similar methods: would you like to be part of this?

# Conclusion

- Qualitative methods to understanding administrative data quality for our statistical purposes does add greater insight and context alongside assessing quality through usual quantitative approaches.
- Qualitative approaches can provide further insights on both how to ensure and communicate quality when producing statistics.
- There are some new approaches to quantitative research that we are also wanting to explore and are in the process of publishing these pieces of research (contact me if you would like to know more on these).
- As we are at the analysis stage for our inclusivity and representative research we will be reporting on the findings in due course. We will be presenting on these findings across ONS and across government and we will be continuing to drive IDTF implementations.
- We are continuing to carry out innovative research on, and placing importance in, collecting and assessing administrative data input quality, inclusivity, and representativeness at source to understand administrative data quality at the start of the data journey for our statistical purposes at ONS.

# Thank you

## Do you have any questions please?

For more information or queries please email:  
[Methods.Research@ons.gov.uk](mailto:Methods.Research@ons.gov.uk)