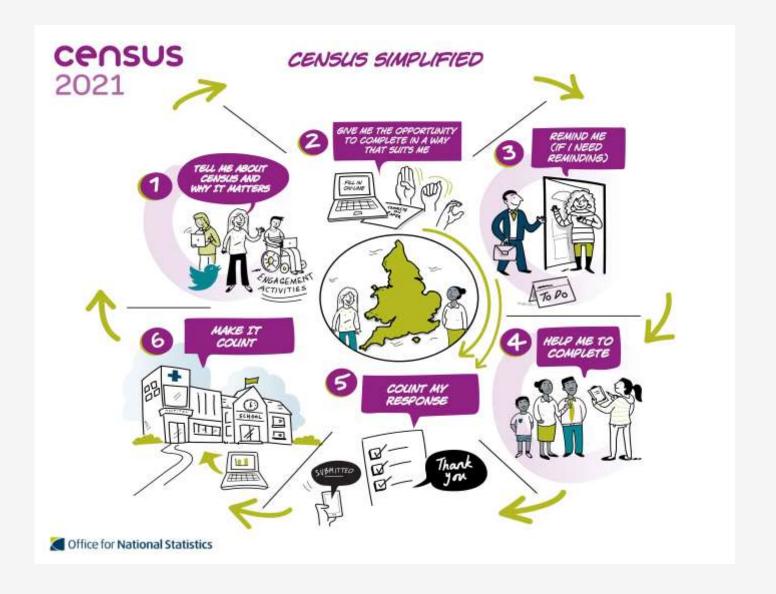
Census 2031 Design & Innovation – early thinking

Orlaith Fraser
Census 2031 Taskforce
Statistical Design

21 July 2025



Building on success of 2021





The Challenge

Producing high quality outputs in an increasingly challenging respondent environment



The Opportunity

Capitalising on advancements in technology and alternative data quality and availability to target resources, reduce burden and drive up data quality



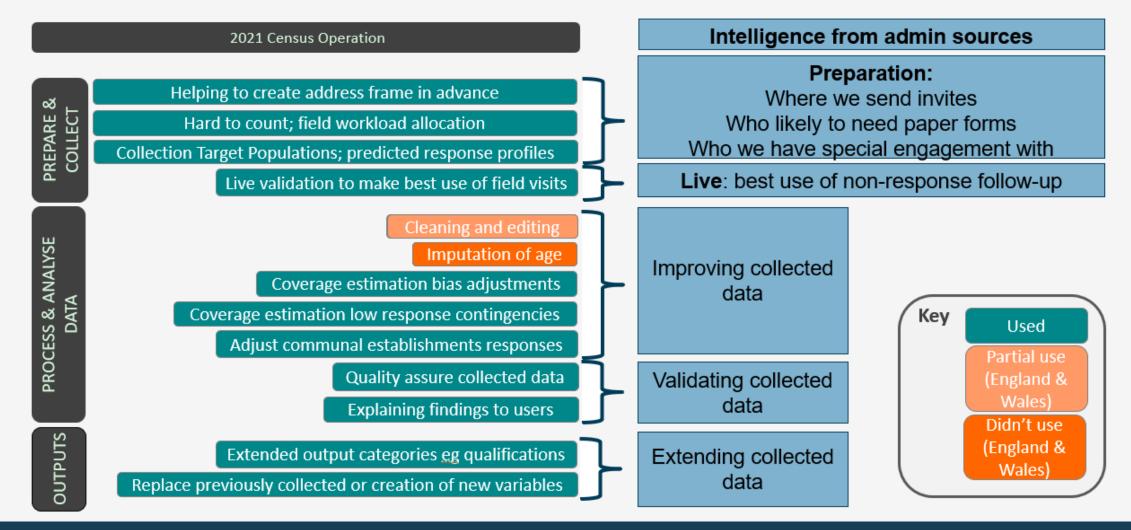
The Approach

Surface as many ideas, potential innovations and improvements as possible now before narrowing down the options to inform the 2031 design

Potential Areas for Innovation

- Making the most of administrative data to improve operational efficiency and data quality, and reduce costs and respondent burden
- Reducing reliance on paper questionnaires
- Enumeration of communal establishments

Use of admin data in Census 2021



Potential areas for further admin data usage in 2031

Prepare & Collect

Process & Analyse

Outputs

Address frame improvements

Identification of vacant addresses
Classification of communal establishments



Predicting patterns of response
Reducing bias by minimising response variability

Adaptive & Responsive design



Potential areas for further admin data usage in 2031

Prepare & Collect

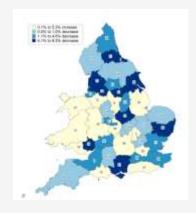
Statistical contingencies for low response

Process & Analyse

Outputs

Quality assurance

Coverage assessment & adjustment, particularly to enhance the Census Coverage Survey



Potential areas for further admin data usage in 2031

Prepare & Collect

Process & Analyse

Outputs



Question replacement and reduction

Reducing burden where we have other data sources

Additional content through integrated outputs
Better meeting user needs by producing estimates
for variables not collected on the census



Paper questionnaires

- 89% of households completed online in 2021
- 11% of households were sent paper questionnaires as initial contact
 - Significant variation by area 50% in Wales
 - o Areas targeted based on predicted digital propensity and expected patterns of response



Scotland approach – no paper questionnaires sent as initial contact but all non-responding households received paper by end of the operation. 89% of households responded online.



Northern Ireland approach – 20% of households sent paper as initial contact using address and area level targeting. Areas with low digital propensity and households aged 65+ sent paper, except where households had engaged with government services online. 80% of households responded online.

2031 Aim: To reduce paper where possible to reduce processing time, operational complexity and cost, while ensuring everyone can still take part



Communal Establishments

- Addressing was a challenge in 2021, especially for students
- Challenging to chase responses without knowing who hasn't responded
- Communal establishments comprise a very broad range of establishment types with a very varied range of respondent needs
- Further work to do to understand data quality and user needs
 - E.g. clear user need to understand prisoner characteristics but responses are often of poor quality
 - E.g. Care home residents do we/can we ask fewer questions of this group?
- How can we capitalise on admin data available for particular CE population groups?

Many other potential areas of innovation

Agentric AI for public support or translation?

Statistical
Disclosure Control
methods

Methodology for Edit & Imputation

Targeted campaign messaging



Modelling and simulation for design validation

Al in questionnaire or coding?

Field staff support model

Next steps

