GSS Methodology Advisory Service

Methodology Advisory Service

What we do

The Methodology Advisory Service (MAS) is one of the UK's leading providers of expert methodological advice, support and training available to the Government Statistical Service (GSS) and wider public sector.

With the expert knowledge of its many specialists, MAS aims to improve the quality and value for money of statistical outputs, and promote best practice for the greater public good. MAS offers advice and guidance to projects across the GSS covering a wide variety of topics including:

Methodology reviews	Statistical analysis
Seasonal effects	Quality assurance
Time series analysis	Imputation
Data cleaning & editing	Index numbers
Data collection	Disclosure control
Data quality	Sample design & estimation
Classification & harmonisation	Evaluation of sources
Demographic methods	Small area estimation

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Why use MAS

MAS has both breadth and depth of experience and expertise, and is part of an organisation with a reputation for delivering high quality statistics.

MAS sits in the GSS Best Practice and Impact Division, which also includes the Good Practice Team, Quality Centre and Harmonisation Team.

Our strengths include:

- the quality of service on offer, delivering real expert solutions to both simple and complex problems.

- an emphasis on effective knowledge transfer in all we do.

- having extensive networks of contacts across the GSS and academia.

- ONS's reputation for producing world class statistics built upon sound, robust methodology.

- thorough knowledge of the Code of Practice for Statistics, UK Statistics Authority assessment procedures, GSS and Eurostat standards, and the wider government statistical framework.

Our offer

MAS operates flexibly with departments, providing support and advice where it is needed. It can provide advice before work starts, interim reviews part-way through, or full reports at completion.

Our expertise is spread across three sites: Newport (South Wales), Titchfield (Hampshire) and London. We can travel to discuss requirements, findings and results with clients. We can also make use of video conferencing facilities, or work on-site if that best fits the needs of your department or organisation.

Get in touch

For more information, or to arrange a meeting to discuss requirements, please email: mas@statistics.gov.uk

Case studies

Case study 1: Weighting pooled sources (NISRA)

The Northern Ireland Statistics and Research Agency (NISRA) identified a need to produce more sub-regional and sub-group headline statistics from household surveys. Normally this requires dramatic increases in sample sizes entailing prohibitive costs. NISRA therefore wanted to produce a 'pooled' dataset combining data from a number of surveys to generate more accurate estimates.

MAS assisted NISRA with technical weighting and imputation issues involved the creation of the pooled dataset. These are complex topics even outside the context of a pooled dataset. MAS and NISRA collaboratively agreed a robust methodology to maximise precision for key estimates.

NISRA implemented this strategy and as a result can produce more reliable statistics at a sub-group level on religion, ethnicity, education and the labour market, with notable reductions in standard errors.

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Case study 2: Reviewing rail fare indices (ORR)

The Office of Rail and Road (ORR) asked MAS to review the methodology they used to generate the rail fares index.

Following a short review, MAS provided recommendations including:

- A move to probability sampling

- Using average fares for Advance Tickets

- Re-weighting of sub-indices to include revenues from low-usage routes

As a result of this work:

- There was a reduction in the resources and time involved in producing the fares index.

- Publication of results is more timely.

- Resources freed up were used to improve the quality though better treatment of outliers.

Case study 3: Social Housing letting outputs

The Department for Communities and Local Government wanted to improve the quality, coherence and commentary around data published on lettings of social housing.

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There were three strands to the work:

1) produce options and a recommendation to address item non-response of key data on tenant characteristics, and deliver a working system

2) review the current methodology for weighting social lettings data

3) recommend ways to improve the presentation and coherence

The main recommendations were:

- to use donor imputation to replace missing values for demographic variables

- imputation for general needs and supported housing to be done separately

- to adjust incomplete administrative data to population totals for publication purposes

- to replace existing publications on social housing which are source-based with topic-based reports.