



Government
Actuary's
Department

We are GAD

Professional, reliable and trusted

We're financial risk professionals and modelling experts. Our skills can help government in complex areas around long-term risk and uncertainty. We apply these specialist skills in insurance, investment, data science, modelling, quality assurance, pensions and social security.

We're proud to be accredited under the Institute and Faculty of Actuaries' Quality Assurance Scheme, a voluntary accreditation scheme which recognises organisations' commitment to quality actuarial work.

Quality assurance

Analytical models allow users to combine potentially large sets of information, expert views about the future and logical representations of real-world interactions to help chart a route to better outcomes.

All business-critical models in government should have appropriate quality assurance of their inputs, methodology and outputs in the context of the risks their use represents. GAD has been at the forefront of developing current guidance on producing quality analysis for government. We led on the publication of the Aqua Book which provides advice on how to produce and quality assure analysis.

We add value by providing objective review and quality assurance of these models and the processes surrounding them.

How we can help you

As actuaries, we are often involved in complicated modelling of financial costs and risks. We have therefore applied this expertise in financial, statistical and demographic principles to challenges across government.

We can help by:

- identifying best practice
- highlighting areas of risk
- suggesting and delivering appropriate solutions and mitigations



Case study: Identifying improvements

Analysing business-critical spreadsheet models

We identified cross-cutting issues and improvement opportunities in 9 business-critical spreadsheet models from the Department for Transport (DfT) and we:

- helped DfT understand how new departmental guidance was being adopted and how this could be best addressed
- identified ways to improve current practice and raise overall quality of spreadsheet models

The Government Internal Audit Agency had commissioned the work from GAD. We worked flexibly with several analytical modelling teams at DfT and provided the department with:

- key findings and recommendations for each model reviewed
- quick-win recommendations for the DfT modelling community, covering documentation, governance, training and culture

This project shows how we worked flexibly and collaboratively. We came up with an alternative approach for efficient model audit, given limited time and budget, and many models to review.

Case study: Assessing roadworks costs

GAD's independent review of Ofgem's methodology

GAD undertook a quality assurance review of methodology used by the regulator Ofgem, the Office of Gas and Electricity Markets. In the [Specified Street Works Costs Reopener assessment](#) we examined how Ofgem assessed funding claims from utility companies.

Funding requests are based on expenditure that utility companies incur or expect to incur when they carry out road works such as removing, repairing and replacing cables.

GAD's quality assurance review focused on the calculations and method that Ofgem used when working out the level of funding requests. We made 5 recommendations which included:

- retaining one source of data for benchmark calculations
- using a weighted average to calculate benchmarked average unit costs
- splitting out component parts of costs

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