

CAREERS THROUGH MATHS: POLICY ANALYST



Policy Analysts use mathematics to solve complex problems and drive innovation. (Image Source: Unsplash)

JOB OVERVIEW

A Policy Analyst is a professional who researches, analyses, and evaluates the effects of existing or proposed government policies. Their primary role is to provide robust, evidence-based recommendations to policymakers, helping to shape legislation and public services that affect millions of people across the UK. A typical day might involve scrutinising datasets from the Office for National Statistics (ONS), building a cost-benefit model for a new infrastructure project, drafting a briefing paper for a Minister, or liaising with stakeholders from organisations like the NHS Confederation or the Confederation of British Industry (CBI). The work environment is typically office-based within organisations such as UK government departments (e.g., HM Treasury, Department for Work and Pensions), devolved administrations (e.g.

KEY MATHS APPLICATIONS

Primary Areas:

- **Statistics and Data Analysis:** This is the cornerstone of policy analysis. Analysts use descriptive statistics to summarise large datasets from the ONS or NHS Digital, and inferential...
- **Cost-Benefit Analysis (CBA) and Microeconomics:** Before any major public project is approved, a detailed CBA is required. This involves forecasting all the costs (e.g.
- **Economic Modelling:** Policy Analysts frequently build models to simulate the impact of policy changes. This can range from simple Excel-based forecasting models to complex...

ESSENTIAL SKILLS & TOOLS

SKILL	APPLICATION
Microsoft Excel (Advanced)	The workhorse tool for most analysts.
Statistical Software (R & Python)	Used for more advanced, reproducible statistical analysis and data visualisation.
Stata/SPSS	Commonly used in government and academia for statistical analysis of social survey data,...
SQL	Essential for querying and extracting specific data from large, structured government...

TYPICAL PATHWAY

A strong academic foundation in a quantitative or social science subject is essential. Most entrants hold at least a 2:1 undergraduate degree, with common subjects being Economics, Mathematics, Politics, or Social Policy.

INDUSTRY DEMAND

Demand for Policy Analysts remains steady, with a particular emphasis on those with strong quantitative and data science skills. The UK government's "Data Science Campus" and the push for evidence-based policy across all departments...

REAL-WORLD IMPACT

Policy Analysts have a profound impact on British society and the economy. Their mathematical work underpinned the modelling used by SAGE (Scientific Advisory Group for Emergencies) to inform the UK's COVID-19 response, directly...

QUICK FACTS

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