

CAREERS THROUGH MATHS: ECONOMIST



JOB OVERVIEW

Economists analyse data, research trends, and evaluate economic issues to understand how resources are produced, distributed, and consumed. They work across government departments (like the Treasury and Bank of England), financial institutions, consultancies, and research organisations. Their core responsibilities involve building mathematical models to forecast market trends, advising on policy impacts, and conducting cost-benefit analyses to guide strategic decision-making for businesses and public bodies.

The role is fundamentally quantitative, requiring the application of advanced statistical and econometric techniques to test hypotheses about economic behaviour. Economists translate complex real-world scenarios into mathematical frameworks to predict outcomes of policy changes, interest rate adjustments, or market shocks, providing evidence-based recommendations that shape national and corporate strategy.

KEY MATHS APPLICATIONS

Primary Areas:

ESSENTIAL SKILLS & TOOLS

SKILL	APPLICATION
Stata/R/Python	For advanced statistical analysis, econometric modelling, and data visualisation.
Time Series Analysis	To model and forecast economic variables like GDP, inflation, and unemployment over time.
Economic Modelling	Building theoretical and empirical models (e.g., DSGE) to simulate the economy under different scenarios.
Cost-Benefit Analysis	A quantitative framework for evaluating the financial and social merits of a proposed policy or project.

TYPICAL PATHWAY

A strong A-level background in Mathematics is essential, often followed by a bachelor's degree in Economics or a joint honours degree like Economics and Mathematics. Progression typically involves a master's or PhD in Economics for research or senior policy roles. Key qualifications can include graduate schemes with government bodies (the Government Economic Service) or financial institutions, with many economists attaining professional status through experience.

INDUSTRY DEMAND

Demand for economists in the UK remains stable, particularly within government, banking, and consultancy sectors. The UK Government Economic Service is a major employer. Growth is driven by the need for robust analysis in policy-making, regulatory compliance, and strategic business planning. Expertise in data science and machine learning is increasingly valued, enhancing traditional economic skill sets.

REAL-WORLD IMPACT

Economists have a profound impact on society by informing critical decisions on monetary policy, taxation, healthcare spending, and climate change mitigation. Their analyses help governments design policies that promote economic stability and growth, assist businesses in navigating market risks, and contribute to solving some of the most pressing social challenges through evidence-based research.

QUICK FACTS

- **Growth:** Positive industry outlook
- **Career:** Professional role requiring analytical skills
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