

## Sir Bernard Silverman FRS

A pioneer of both the practical and theoretical aspects of computational statistics, with research collaborations widely across the disciplinary range. Recognised as a world leader through ratings and awards. Wide experience within government, as chair or member of boards and committees and as a departmental chief scientific adviser, with specialist expertise in national security, modern slavery, official statistics, etc. Senior management and leadership within government, academia and the third sector. Chair of trustees of several charities. Consultant in many areas of industry, commerce, law, and government. Knighthood 2018 “for Public Service and services to Science”.

## Current Portfolio

**Methodological Assurance Panel, ONS:** Founding chair of panel to advise the National Statistician on transforming the census, and on many other aspects of ONS methodology.

**Parliamentary Office of Science and Technology.** External board member; POST provides accessible and authoritative “notes” and briefings on science and technology relevant to parliamentary business.

**Childlight:** Founder chair of the Technical Advisory Board of this charity, which works to understand the nature and scale of child sexual abuse and exploitation.

**Royal Society Digital Assistive Technologies:** Chair of Royal Society project to assess the role of data and digital technologies for the needs of people living with disabilities.

**UK-China Transparency:** Founder treasurer. This charity aims to increase the transparency of UK-China relationships, especially in the academic sphere. Setting up the charity required detailed attention to charity law and practice.

**Economic and Social Research Council (ESRC):** Member of ESRC Council, which works with the Executive Chair to shape the ESRC’s strategy and to support the overall mission of UK Research and Innovation (UKRI) to maintain the UK’s world-leading position.

## Recent portfolio

**Academy of Mathematical Sciences:** Founder member of the executive committee. This new Academy aims to be an authoritative voice for the whole of the mathematical sciences.

**Geospatial Commission, Chair (2021-2024):** The Commission provided strategic oversight of the UK’s geospatial ecosystem. Notable achievements ranged from the launch of the National Underground Assets Register to greatly improved working with the partner bodies: British Geological Survey, Coal Authority, UK Hydrographic Office, HM Land Registry, Ordnance Survey and Valuation Office Agency.

**Modern slavery, research and policy:** My work on quantifying the scale of Modern Slavery, using bespoke statistical techniques, was a keystone of the Government’s Modern Slavery Act 2015 and received wide public attention. Roles have included the Prime Minister’s Task

Force, the advisory board to the Independent Anti-Slavery Commissioner, and advice to the UN and to the Walk Free Foundation.

**Technology Advisory Panel, Investigatory Powers Commissioner, Chair (2017-2022):** This statutory panel (Investigatory Powers Act 2016) gives classified advice to the Commissioner on any scientific matter related to their oversight of public authorities. I established the panel and working methods from scratch.

**UK Research Integrity Office, Chair (to 2019):** In addition to doubling its membership and revenue, the Office worked with stakeholders to gain far more recognition and traction, establishing Research Integrity as a central concern within the UK research environment.

Chief Scientific Adviser, Home Office (full time, 2010-2017)

The post had several interconnected aspects:

- independent scientific advice to the Home Secretary, Ministers, and officials on the entire range of topics relevant to Home Office business. I built close relationships with the Home Secretary and with Ministers in many different areas, and regularly gave evidence to Select Committees. It was crucial to assimilate and present scientific evidence in a clear, authoritative, and succinct way appropriate to the audience.
- membership of the Home Office Board, and leadership of Home Office Science, a division of about five hundred scientists and social scientists supporting Home Office policy and operations in crime/policing, migration/borders, and counterterrorism.
- application of personal scientific expertise to important problems. (Much of the work was classified.) Some unclassified examples: Modern Slavery Act 2015; assurance to Lord Chief Justice about the DNA database; dental approaches to age assessment; the retention periods for DNA profiles in the Protection of Freedoms Act 2011; queueing problems at the border around the 2012 Olympics; a simple and more robust forecasting approach for passport demand.
- leadership of international collaborations and relationships, notably with US Department of Homeland Security, and on national security issues more broadly, such as horizon scanning on biological terrorism and strategic considerations of the detection of radioactive materials at the border.
- participation in the cross-government network of Chief Scientific Advisers and giving advice across Government, for example taking a lead on distributed ledger technology (blockchain) and on the methodology of the National Risk Register.

## Academic career

2003-	University of Oxford (Titular Professor then Emeritus Professor)
2017-2022	University of Nottingham (Professor of Modern Slavery Statistics, 20%)
2003-2009	St Peter's College, Oxford (Master)
1993-2003	University of Bristol (Professor of Statistics)
1978-1993	University of Bath (full Professor from 1984)

## *Academic Research*

My core statistical research hit the “sweet spot” of the continual increase in computer power from the 1970s presaging the later big data revolution; my approach of building methodology with strong theoretical underpinning and wide practical applicability has been extremely influential worldwide. In parallel, I have undertaken a wide range of collaborative applied work, both with academic colleagues and as a consultant. My research collaborations span the range of disciplines in the social, physical and life sciences. Areas of consultancy have ranged from nuclear energy and oil exploration to stockbroking and advertising, as well as legal cases both financial and forensic.

Honours and awards include American COPSS President’s award (generally regarded as one of the highest honours in the field of statistics), Fellowship of the Royal Society at an early age, the European Academy, and the Academy of Social Sciences, four honorary doctorates, and a ScholarGPS ranking in the top 0.03% of scholars across all disciplines. I am past President of the Royal Statistical Society and the (US) Institute of Mathematical Statistics.

Research-related activity has included membership of the ESRC and AHRC and the Emerging Technologies Group of Innovate UK. I had long involvement with the Research Excellence Framework through membership and chairmanship of assessment panels for several cycles. I also led on the Hong Kong RAE, which was closely modelled on our own.

## *Management and governance*

Senior academic management roles have included the Mastership of St Peter’s College, overseeing a generational change in the College’s general attitude and approach. Fundamental improvements in financial management and investment strategy doubled the endowment, and in the succeeding decade these foundations enabled the endowment to double again.

Simultaneously, I took a leading role in the governance of Oxford University, mirroring similar roles at Bristol and Bath. I was a Trustee and sat on several senior committees. I led an enquiry into the Staff Pension Scheme. I served on the main Animal Experimentation ethics committee, which involved delicate and difficult decisions.

My wider portfolio up to 2009 included being a trustee of the Royal Society, and university advisory and assessment boards in the UK, USA, Hong Kong, and Singapore. Before taking up the Home Office role, my government service included: non-executive directorship of the MoD analytical services agency, the GM Science Panel chaired by Sir David King, the Anderson Inquiry into the handling of the Foot and Mouth Epidemic in 2001, advice to the Statistics Commission on census adjustment following the 2001 census, and panel chairmanship for the Department for Transport on the Project for the Sustainable Development of Heathrow.

**Links:** [Web site](#), [detailed CV](#), [publications](#).