Professor Sir Bernard Walter Silverman FRS

Email: bernard.silverman@icloud.com Web:www.bernardsilverman.co.uk

1970–73Undergraduate, Jesus College, Cambridge1973–74Graduate Student, Jesus College, Cambridge1974–75Research Student, Statistical Laboratory, Cambridge1975–77Research Fellow of Jesus College, Cambridge1976–77Calculator Development Manager, Sinclair Radionics Ltd1977–78Junior Lecturer in Statistics, Oxford University and1977–78Weir Junior Research Fellow of University College, Oxford1978–80Lecturer in Statistics, University of Bath1981–84Reader in Statistics, University of Bath1984 & 1992–93Head of Statistics Group, University of Bath1988–91Head of School of Mathematical Sciences, University of Bath1993–2003Professor of Statistics Group, University of Bristol1999–2003Head of Statistics Group, University of Bristol1999–2003Henry Overton Wills Professor of Mathematics, University of Bristol2000–03Provost of the Institute for Advanced Studies, University of Bristol
1975–77Research Fellow of Jesus College, Cambridge1976–77Calculator Development Manager, Sinclair Radionics Ltd1977–78Junior Lecturer in Statistics, Oxford University and1977–78Weir Junior Research Fellow of University College, Oxford1978–80Lecturer in Statistics, University of Bath1981–84Reader in Statistics, University of Bath1984 & 1992–93Head of Statistics Group, University of Bath1984–93Professor of Statistics, University of Bath1988–91Head of School of Mathematical Sciences, University of Bath1993–2003Professor of Statistics Group, University of Bristol1999–2003Head of Statistics Group, University of Bristol
1976–77Calculator Development Manager, Sinclair Radionics Ltd1977–78Junior Lecturer in Statistics, Oxford University and1977–78Weir Junior Research Fellow of University College, Oxford1978–80Lecturer in Statistics, University of Bath1981–84Reader in Statistics, University of Bath1984 & 1992–93Head of Statistics Group, University of Bath1988–91Head of Statistics, University of Bath1988–91Head of School of Mathematical Sciences, University of Bath1993–2003Professor of Statistics, University of Bristol1993–97 & 1998–99Head of Statistics Group, University of Bristol1999–2003Henry Overton Wills Professor of Mathematics, University of Bristol
1977–78Junior Lecturer in Statistics, Oxford University and1977–78Weir Junior Research Fellow of University College, Oxford1978–80Lecturer in Statistics, University of Bath1981–84Reader in Statistics, University of Bath1984 & 1992–93Head of Statistics Group, University of Bath1984–93Professor of Statistics, University of Bath1988–91Head of School of Mathematical Sciences, University of Bath1993–2003Professor of Statistics, University of Bristol1993–97 & 1998–99Head of Statistics Group, University of Bristol1999–2003Henry Overton Wills Professor of Mathematics, University of Bristol
1977–78Weir Junior Research Fellow of University College, Oxford1978–80Lecturer in Statistics, University of Bath1981–84Reader in Statistics, University of Bath1984 & 1992–93Head of Statistics Group, University of Bath1984–93Professor of Statistics, University of Bath1988–91Head of School of Mathematical Sciences, University of Bath1993–2003Professor of Statistics Group, University of Bristol1999–2003Head of Statistics Group, University of Bristol
1978–80Lecturer in Statistics, University of Bath1981–84Reader in Statistics, University of Bath1984 & 1992–93Head of Statistics Group, University of Bath1984–93Professor of Statistics, University of Bath1988–91Head of School of Mathematical Sciences, University of Bath1993–2003Professor of Statistics, University of Bristol1993–97 & 1998–99Head of Statistics Group, University of Bristol1999–2003Henry Overton Wills Professor of Mathematics, University of Bristol
1981–84Reader in Statistics, University of Bath1984 & 1992–93Head of Statistics Group, University of Bath1984–93Professor of Statistics, University of Bath1988–91Head of School of Mathematical Sciences, University of Bath1993–2003Professor of Statistics, University of Bristol1993–97 & 1998–99Head of Statistics Group, University of Bristol1999–2003Henry Overton Wills Professor of Mathematics, University of Bristol
1984 & 1992–93Head of Statistics Group, University of Bath1984–93Professor of Statistics, University of Bath1988–91Head of School of Mathematical Sciences, University of Bath1993–2003Professor of Statistics, University of Bristol1993–97 & 1998–99Head of Statistics Group, University of Bristol1999–2003Henry Overton Wills Professor of Mathematics, University of Bristol
1984–93Professor of Statistics, University of Bath1988–91Head of School of Mathematical Sciences, University of Bath1993–2003Professor of Statistics, University of Bristol1993–97 & 1998–99Head of Statistics Group, University of Bristol1999–2003Henry Overton Wills Professor of Mathematics, University of Bristol
1988–91Head of School of Mathematical Sciences, University of Bath1993–2003Professor of Statistics, University of Bristol1993–97 & 1998–99Head of Statistics Group, University of Bristol1999–2003Henry Overton Wills Professor of Mathematics, University of Bristol
1993–2003Professor of Statistics, University of Bristol1993–97 & 1998–99Head of Statistics Group, University of Bristol1999–2003Henry Overton Wills Professor of Mathematics, University of Bristol
1993–97 & 1998–99Head of Statistics Group, University of Bristol1999–2003Henry Overton Wills Professor of Mathematics, University of Bristol
1999–2003Henry Overton Wills Professor of Mathematics, University of Bristol
2000 02 Provest of the Institute for Advanced Studies, University of Pristel
2000–05 Flovost of the institute for Advanced Studies, Oniversity of Bristor
2003–09 Master of St Peter's College, Oxford
2010–17 Chief Scientific Adviser to the Home Office
2018–22 Professor of Modern Slavery Statistics, University of Nottingham ¹

I have also held senior/professorial fellowships at the Smith School of Enterprise and the Environment and the Wellcome Trust Centre for Human Genetics at Oxford; and honorary/visiting appointments at the London School of Economics, Lancaster University, Green Templeton College, and the University of Nottingham. I now have the status of *Emeritus Professor at the Universities of Oxford and Bristol*.

Degrees and qualifications²

1973	Bachelor of Arts, Cambridge (Wrangler)
1974	Master of Mathematics ³ , Cambridge (with Distinction)
1977	Doctor of Philosophy, Cambridge
1989	Doctor of Science, Cambridge
1993	Chartered Statistician, Royal Statistical Society
2000	Bachelor of Theology, Southampton ⁴ (First Class Honours)
2014–17	Honorary degrees listed below

Awards and honours

- 1970 First Prize, International Mathematical Olympiad
- 1974 Mayhew Prize for Mathematical Tripos Part III, Cambridge
- 1976 Smith's Prize, Cambridge University

¹ 20% time.

² I also hold the Cambridge MA degree and, by incorporation, the Oxford degrees of MA, DPhil, and DSc.

³ Degree conferred 2011. Formerly Part III of Mathematical Tripos.

 $^{^{\}rm 4}$ Awarded through Southern Theological Education and Training Scheme, Salisbury.

1984	Royal Statistical Society Guy Medal in Bronze
1985	Special Invited Paper ⁵ , Institute of Mathematical Statistics
1988	Technometrics Special Discussion Paper, American Statistical Association
1991	Presidents' Award of American Statistical Association, Institute of
	Mathematical Statistics, Biometric Society (ENAR and WNAR) and
	Statistical Society of Canada for 'the outstanding statistician under forty'
	(the COPSS award)
1993	Fulkerson Lecturer, Cornell University
1995	Royal Statistical Society Guy Medal in Silver
1997	Fellow of the Royal Society
1999	Special Invited Paper ⁶ , Institute of Mathematical Statistics
2000 & 2020	Corcoran Lecturer, Oxford University
2001	Member of Academia Europæa
2002	Original Member, Highly Cited Researchers database, ISI ^{® 6}
2003	Honorary Fellow, Jesus College, Cambridge
2010	Honorary Fellow, St Chad's College, Durham
2014	Fellow of the Academy of Social Sciences
2014-	Honorary Doctor of Science, St Andrews (2014), Lancaster (2016),
	Bath (2017), Bristol (2017)
2018	Knighthood "for Public Service and Services to Science"

Past visiting appointments outside UK⁷

1978 & 1979	Department of Statistics, Princeton University
1979	University of Paris VI
1980	Sonderforschungsbereich 123, University of Heidelberg
1981	Mathematics Research Center, University of Wisconsin–Madison
1981	Department of Statistics, Johns Hopkins University
1984	Depts of Statistics and Biostatistics, University of Washington
1984	University of Frankfurt
1985	University of California, San Diego
1985	CSIRO Division of Mathematics and Statistics, Canberra, Sydney,
	Melbourne, and Perth
1987–2005	Department of Statistics, Stanford University ⁸
1991	Mathematical Sciences Research Institute, Berkeley
1997–98	Fellow, Center for Advanced Study in the Behavioral Sciences,
	Stanford, California

⁵ These are now termed 'Institute Medallion Lectures'.

⁶ According to a survey published in the Higher Education Guardian, I was the third most cited British mathematician in the period 1981 to 2000. In the field of mathematics, I had the largest number of 'highly cited' papers (defined as those in the top 1% of cited papers in the field). In 2024 <u>ScholarGPS</u> ranked me in the top 0.03% of scholars across all disciplines.

 $^{^7}$ Almost all these appointments were with some pay and were for periods of 1–3 months in each year shown.

⁸ Frequent visitor (on average for two months every alternate year).

Major Professional Activities and Service

Private and Public Sector and Government

UK Government in addition to work as Home Office Chief Scientific Adviser: GM Science Review Panel, 2002–3. Owner's Advisory Board member (non-executive director) Defence Analytical Services Agency (1998–2009). Consultant to the Statistics Commission, 2003. Consultant to UK Government Inquiry (the 'Lessons Learned' Inquiry) into Foot and Mouth Epidemic, 2002. Chair, Peer Review Panel on the Project for the Sustainable Development of Heathrow, 2005–06. Prime Minister's Task Force on Modern Slavery (2016–19). Technology Advisory Panel, Investigatory Powers Commission (Chair, 2018–22; Member 2022–23). Chair, Geospatial Commission (2021–24) *Chair, Methodological Assurance Panel to the National Statistician, Office for National Statistics (2018–).*

External consultancy and related work: Industrial consultancies in statistics, microelectronics and mathematics for companies concerned with stockbroking, calculator and computer design, aerospace, oil exploration, advertising, railway signalling. A method designed for oil-well log interpretation was patented by the company involved. Consultancy on statistical aspects of legal cases (especially financial and forensic). Statistical advice to the press. Advice to police in criminal cases. Substantial long-term consultancies with Nuclear Electric, National Audit Office, Ministry of Defence, Agilent Technologies, Mass Spec Analytical Ltd. Radio and television programmes on statistics. Interviews with press and radio. Chief Scientific Adviser, PUBLIC. IO (2018–20). Advisory Board, Goodbox Ltd (2019–22).

Learned Societies and Scientific Organisations

Royal Society: FRS (1997). Council (2009–10). Working Group on the State of the Nation in the teaching of Science and Mathematics (2007–10; Chair 2008–10). Wolfson Merit Awards Committee (2006–09). Dorothy Hodgkin Fellowships Committee A (1999–2004; chair 2003). Sectional Committee 1 (1998–2001; Chair 2001). Conference Grants Committee (1998–2001). Research Grants Committee A (1997–2000, Chair 1999–2000). Working Group on eligibility for Fellowship (2016-17). Exhibitor, Summer Science Exhibition, 1999. Organizer, Discussion Meetings, 1988 and 1999. Diversity Committee (2016–20). *Project on Digital Assistive Technologies and Inclusive Data (Chair 2024–25).*

Institute of Mathematical Statistics: President, 2000–01. Fellow (1987). Council (1991–94; 1997–2000; 2007–10.). Special Invited Papers Committee (1986–88). COPSS award nominating committee (Member 1995–97, Chair 1997). Editor, *Annals of Statistics* (2007–09). Many committees and working parties.

Royal Statistical Society: President, 2010. Honorary Secretary (1984–90). Council Member (1982–90). Research Section Committee (1979–82), and numerous other committees and working parties, in particular the 1990 Working Party on Official Statistics. Chair of Research Section (1991–93).

Other bodies: Founding organizer of European Young Statisticians' meeting, 1979. Fellow of International Statistical Institute (1986). Bernoulli Society European Regional Committee (member 1986–92, chair 1988–90). Bernoulli Society Council (1999–2003). Patron, Royal Institution Wessex Mathematics Master Classes. Chair, Joint Mathematical Council of the

United Kingdom (2003–06). Chair, United Kingdom Mathematics Trust (2004–10). British Academy Policy Centre Advisory Group (2010–13). Chair of Trustees, United Kingdom Research Integrity Office. (2014–19). Big Mathematics Initiative, Strategy Board and Implementation Group (Chair). (2019-20). Executive Committee Member, Academy for the Mathematical Sciences (2022–24). *Board Member, Parliamentary Office of Science and Technology. (2017–)*

Research Advisory

Editorial: Editor, Oxford University Press Statistical Science Series (1983–87). Associate Editor, *Annals of Statistics* (1982–85), *Journal of the Royal Statistical Society, Series B* (1980–84). Editor of *International Statistical Review* (1991–96). Editor, Chapman and Hall Monographs on Statistics and Applied Probability (1985–97) and Interdisciplinary Statistics Series (1993–97). Editor, Wiley Statistics Series (1997–2001). Editorial Board, *Inverse Problems* (1998–2000). Editor, *IMS Bulletin* (2002–06). Editor, Cambridge University Press Statistics series (2003–09). Editor, *Annals of Statistics* (2007–09). Founding Editorial Committee, *Annual Reviews of Statistics and Its Application* (2012–17).

UK Research and Funding Councils: SERC Statistics Panel (1990–94). EPSRC Mathematics College (1994–97 & 2000–03). Frequent member and chair of grant awarding panels for EPSRC. Statistics Research Assessment Panel, HEFCE 2001 Research Assessment Exercise. Steering Group, International Review of UK Mathematics, 2003–4. Chair, Subpanel 22 (Statistics) and Member, Panel F (Mathematics), HEFCE Research Assessment Exercise 2008. Emerging Technologies and Industries Steering Group, Technology Strategy Board/Innovate UK (2012–16). Council, Arts and Humanities Research Council (2012–17). *Council, Economic and Social Research Council (2019–25)*

Other national and international bodies: Frequent reviewer for (US) National Science Foundation, NSERC (Canada), Australian Research Council, etc. Scientific Committee, EURANDOM, Netherlands (1997–2003). Scientific Steering Committee, Isaac Newton Institute, 2003–6. Advisory Board, Statistics Department, Carnegie Mellon University (member 2002, academic chair 2006) and National University of Singapore (2010). Convenor, Physical Sciences Panel, Hong Kong Research Assessment Exercise 2014.

Oxford University

Oxford University Committees: Council (2007–10). Educational Policy and Standards Committee (2007–8). Planning and Resource Allocation Committee (2008–10), and member of Budget Subcommittee. Joint Resource Allocation Advisory Board (representing Chair of Conference of Colleges) 2008–09. Supervisory Committee for Permanent Private Halls (2007–10). Chair of Continuing Education Board (2008–10). Nominating committee for external members of Council (2008–10). Frequent review panels (e. g. Department of Mathematics, Oxford Internet Institute) and appointment panels (for both professorial and senior administrative appointments). ICT strategy steering group (representing Conference of Colleges), 2005–06. Distinctions Committee (merit awards for professors) 2006–08.

Publications

Over 160 publications including 5 books and over 100 peer-reviewed articles. A full list is available <u>here</u>.