

# Michael Freeman

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## Research Interests

Management of health care organizations; Service operations management for health service delivery; Managing complexity and variability in service systems; Worker behavior and behavioral operations; Empirical and data-driven operations; Productivity and health economics; Econometric methods.

## Teaching Interests

Operations management; Data analytics and modeling for management; Managing service operations; Health care design and delivery; Statistics and econometrics.

## Education

- 2011-17    **Ph.D. in Management Studies** – Judge Business School, University of Cambridge.  
Subject area: Operations Management; Specialization: Health Care Operations (Empirical).  
Thesis: “*Empirical Investigations into the Operational Factors Impacting on Hospital Performance.*”  
Advisors: Stefan Scholtes (Chair) and Nicos Savva (External).
- 2010-11    **MPhil in Management Science and Operations**, with Distinction – Judge Business School, University of Cambridge.
- 2006-10    **MMORSE** (Combined Masters and Undergraduate Degree in Mathematics, Operations Research, Statistics, and Economics), with First-Class Honors – Department of Statistics, University of Warwick.

## Research Papers

### In refereed journals

- [1]    “Gatekeepers at Work: An Empirical Analysis of a Maternity Unit,” 2016 (with N. Savva and S. Scholtes). Forthcoming in *Management Science*.  
– Finalist, 2014 William Pierskalla Award.

### Working papers / In preparation

- [2]    “Economies of Scale and Scope in Hospital Care.” 2016 (with N. Savva and S. Scholtes). Under review at *Management Science*.
- [3]    “An Empirical Study of Risk-Aversion in Gatekeeping Systems: Evidence from the Emergency Department.” 2016 (with S. Scholtes). Working paper.
- [4]    “Fat-Tails in Hospital Costing: Evidence and Implications for Tariff-Based Hospital Compensation.” (with P. Kattuman and S. Scholtes). In preparation.

## Teaching

### Cambridge Judge Business School

(Evaluations not collected.)

- 2012-13    **Co-lecturer** – *Econometrics I* and *Econometrics II* – **MPhil core** (with P. Kattuman).  
Taught course content and gave in-class tutorials for more than 50 graduate students bi-weekly over sixteen weeks. Assisted with the development of course materials, assignments and exams, held weekly office hours, and carried out all course grading.

- 2012- **Advisor – *MBA Projects* – MBA core.**  
Provided technical support and advice for several MBA student projects.
- 2012 **Teaching assistant – *Strategic Valuation: Uncertainty and Real Options* – MSc elective.**  
Supervised group activities and graded examinations.
- 2011-12 **Teaching assistant – *Econometrics I* and *Econometrics II* – MPhil core.**  
Developed course materials, assisted with in-class demonstrations, responded to students' enquiries, and graded assignments and exams.

## London Business School

- 2015- **Teaching assistant – *Data Analytics for Management* – EMBA (Dubai) core.**  
Ran workshops and computer lab sessions, assisted with course content and exercises during breakout sessions, and helped manage course logistics while in Dubai on three occasions: Sep 2015 (100% positive feedback,  $n = 17$ ), Feb 2016 (100% positive feedback,  $n = 8$ ) and Sep 2016 (awaiting feedback).
- 2014- **Teaching assistant – *Data, Models and Decisions* – MBA core.**  
Supervised groups during breakout sessions and assisted during workshops and computer lab-based training. (Evaluations not collected.)

## University of Warwick

(Evaluations not collected.)

- 2009 **Teaching assistant – *Statistical Computing* – BSc elective.**  
Supervised a weekly lab sessions on applied statistics and data analytics, teaching use of the statistical software package R.
- 2009 **Voluntary tutor.**  
Tutored 5–14 year old schoolchildren with learning difficulties in English and Mathematics.
- 2007-08 **Co-founder – *First Years' Mathematics Workshops* – BSc elective.**  
Set up and ran a series of supplementary workshops for first year statistics undergraduate students to provide additional support outside of lectures on core mathematical methods, e.g. Linear Algebra.

## Conference Presentations and Seminars

### Economies of Scale and Scope in Hospitals

- 2016 INFORMS Annual Meeting, Nashville, TN.
- 2016 Invited Seminar, Erasmus University Rotterdam, NL.
- 2016 London Business School Doctoral Conference, London, UK.
- 2015 INFORMS Annual Meeting, Philadelphia, PA.

### An Empirical Investigation of Risk-Aversion in Gatekeeping Systems

- 2016 INFORMS Annual Meeting, Nashville, TN.

### Gatekeepers at Work: An Empirical Investigation of a Maternity Unit

- 2014 INFORMS Annual Meeting, San Francisco, CA.
- 2013 Cambridge Doctoral Conference, Cambridge, UK.
- 2012 Cambridge Doctoral Conference, Cambridge, UK.
- 2012 INFORMS Annual Meeting, Phoenix, AZ

## Professional Activities and Affiliations

### Reviewer

Ad-hoc reviewer for Manufacturing & Service Operations Management (M&SOM) and Production and Operations Management (POM); Reviewer for MSOM Healthcare SIG (2016).

### Affiliations

- 2014- Health Applications Society (HAS).
- 2012- Institute for Operations Research and Management Sciences (INFORMS).
- 2012- Manufacturing and Service Operations Management Society (MSOM).

## Awards, Grants, Certifications and Honors

- 2016-17 Cambridge Judge Business School Director's Prize.
- 2016 Lyondell Basell Research Scholarship.
- 2016 Lean Six Sigma Green Belt Certification.
- 2015 Economic and Social Research Council Student Internship Award.
- 2014 Finalist, William Pierskalla Award.
- 2014 Teaching and Learning Innovation Fund Grant.
- 2014 Robinson College Top Conference Grant.
- 2011-15 Economic and Social Research Council DTC Doctoral Scholarship.
- 2009 Thomas Bayes Prize for "outstanding performance in examinations."
- 2006 Valedictorian, International School of Stavanger, Norway.

## Institutional Service

- 2013-14 President, Robinson College Graduate Society.
- 2013 Co-organizer, Cambridge Judge Business School Doctoral Conference.
- 2012-13 Vice-president, Robinson College Graduate Society.
- 2011-12 Statistical and empirical methods advisor, for Cambridge Judge Business School doctoral students.
- 2006-07 Student representative, Staff-Student Liaison Committee, University of Warwick.

## Professional and Consulting Experience

- 2016 **Cambridge University Hospitals NHS Foundation Trust**, Cambridge, UK.  
Six month honorary appointment working full-time at the hospital within the strategy division, collecting data and working on projects of mutual interest.
- 2015 **Office for National Statistics**, Newport, UK.  
Awarded competitive government-sponsored scholarship for six month placement at UK government's national statistics agency during doctoral studies in order to improve measures of health and education productivity using large, national data sets.
- 2012- **Various**, Cambridge, UK.  
Collaborated with a number of organizations working in the health care sector during doctoral studies, including Cambridge University Hospitals, Dr Foster Intelligence, the UnitingCare Partnership, the Cambridgeshire and Peterborough Clinical Commissioning Group, and Papworth Hospital.
- 2011 **Tesco PLC**, London, UK.  
Hired as an external consultant to develop, model and test a new product ordering system designed to improve the forecasting and ordering of seasonal products.

## **References**

### **Prof. Stefan Scholtes**

Dennis Gillings Professor of Health Management | Director of the Doctoral and Master of Research Programmes  
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### **Prof. Stylianos (Stelios) Kavadias**

Margaret Thatcher Professor of Enterprise Studies in Innovation and Growth | Director of Research  
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### **Prof. Nicos Savva**

Associate Professor  
London Business School, Regent's Park, Sussex Place, London, NW1 4SA, UK  
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