

Institute of Education



UCL

UCL INSTITUTE OF EDUCATION  
**RESEARCH**

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## Contents

2	A leader in cohort and longitudinal studies
4	Learning, economic competitiveness and social cohesion
6	Advancing learning for all
9	Understanding family life
10	Supporting school effectiveness
12	Knowledge mobilisation for policy and practice
14	Step change for research on higher education
16	Education and international development



## Introduction

As Pro-Director Research and Development at the UCL Institute of Education (IOE) I am delighted to introduce the latest showcase of our research.

This follows an exceptional run for us: for the third year in a row the IOE has been ranked first for education in the QS World University Rankings, and, at home, we have been awarded a Queen's Anniversary Prize. These prizes are the most prestigious form of national recognition open to a UK academic institution, and our award recognises the IOE's 'world leading contribution to the policy and practice of education and innovative social research'.

In this brochure we present a selection of recent and ongoing examples of our research to provide an 'at a glance' picture of what we do.

We are unique in the breadth of our research in education and social science, which encompasses all aspects and stages of education, as well as children and families, health and wellbeing and international development. The richness and concentration of our expertise in these fields creates new synergies that lead to significant advances in understanding. The IOE's merger with UCL is generating exciting opportunities to extend our interdisciplinary approach for tackling major national and international education and social challenges.

The application of our research to questions of policy and practice in this way is an important hallmark of our work. We are proud of our close engagement with external stakeholders, and look forward to building further collaborations with existing and new partners.

### **Professor Alison Fuller**

Pro-Director Research and Development

**1<sup>st</sup>**

in the world

QS Education Rankings  
2016, 2015  
and 2014

**£14.2  
MILLION**

research funding in  
**2014/15**

Awarded over

**1/4**

of all UK research  
funding in  
education

**1<sup>st</sup>**

in education for  
research power

REF 2014

# A leader in cohort and longitudinal studies

Our Economic and Social Research Council funded Centre for Longitudinal Studies is home to three of the UK's four principal birth cohort studies: the 1958 National Child Development Study (NCDS), 1970 British Cohort Study (BCS70) and Millennium Cohort Study (MCS). We also run the Next Steps cohort study, which has followed young people born in 1989-90 since they were age 14. These studies follow a representative sample of people all born at the same point in time throughout their lives. Internationally-renowned, the studies build a complete picture of what it's like to grow up, live and work in the UK.

In addition, we host CLOSER – the Cohort and Longitudinal Studies Enhancement Resources programme – which brings together eight national and regional studies to maximise their use, value and impact, including through cross-study comparisons. CLOSER is funded by the Economic and Social Research Council and the Medical Research Council.

To date, findings from our cohort studies have informed thinking on breastfeeding and child immunisation, through to the challenges in recognising elder care responsibilities in employment and welfare policy.

Our work in developing the studies' content, design and analysis, and surveying the cohort members, has produced highly esteemed datasets that are used worldwide. Increasingly, we are including biosocial data to allow researchers to look at the interaction between biologically-determined traits and environmental stimuli.



## **CLS and CLOSER Principal Investigators**

Lisa Calderwood, Emla Fitzsimons, Alissa Goodman, Alison Park, Alice Sullivan

For more about CLS see [www.cls.ioe.ac.uk](http://www.cls.ioe.ac.uk)

For more about CLOSER and its partners see [www.closer.ac.uk](http://www.closer.ac.uk)





## Project – Trajectories of conduct problems from ages 3-11

About 5% of children suffer from conduct disorder at any one time, with a further 15% demonstrating challenging behaviour. About half outgrow these difficulties, but relatively little is known about the characteristics of those in whom problems persist. Conduct problems in early childhood are associated with poor life chances for the individuals concerned and have wider societal impact. While there is growing consensus on the need for early intervention, effective strategies have proved elusive.

This research is using Millennium Cohort Study data to age 11 to study how conduct problems evolve from an early age, as well as the relative importance of risk and protective factors at different ages. The findings will help to develop principles for the targeting, design and implementation of effective intervention. Funded by the Economic and Social Research Council, the research team will publish their final report in 2017.

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### Principal Investigator

Leslie Gutman

### Research team

Heather Joshi, Ingrid Schoon (IOE), Michael Parsonage (Centre for Mental Health).

## Project – Effective Pre-School, Primary and Secondary Education (EPPSE): outcomes at age 18

Funded by the Department for Education, EPPSE followed over 3,000 children between the ages of 3 and 16 in order to assess the influence of pre-school provision and the home learning environment on later academic and social outcomes. It showed the enduring impact of the early years through primary and secondary schooling.

This high profile study was unprecedented in the UK in scale and scope, and its findings have been used extensively to inform early years policy and practice. It continues to offer insights into the impact of the early years through links to national administrative data.

In 2015 the team reported on a follow-up study to examine the impact of pre-school and early home learning on attainment at age 18 – specifically, outcomes in AS and A-level examinations, the academic pathway to university entry.

The team linked the EPPSE dataset with exam results from the National Pupil Database. This analysis showed how the home learning environment had a continued effect on overall A-level attainment; the effects of pre-school operated largely through boosting students' exam results at age 16 and thereby the chances of taking AS and A-levels.

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### Research team

Iram Siraj, Brenda Taggart (IOE), Edward Melhuish (Birkbeck), Pam Sammons, Kathy Sylva (Oxford).

# Learning, economic competitiveness and social cohesion



## Centre for Learning and Life Chances in Knowledge Economies and Societies (LLAKES)

LLAKES, an Economic and Social Research Council funded centre, investigates the role of lifelong learning in promoting economic competitiveness and social cohesion and in mediating the interactions between the two. It addresses these issues at the level of the individual, regions and sectors in the UK, as well as through comparative analysis across countries. It makes extensive use of major surveys, including the OECD's Programme for International Student Assessment and its Survey of Adult Skills.

Among other findings, its research has demonstrated the complex relationship between classroom diversity and civic attitudes of tolerance, trust and participation. LLAKES has also provided the first integrated, multidisciplinary framework for understanding skills and skilled work in modern society, making the case for the recognition of a sub-discipline of skill studies.

### LLAKES Director

Andy Green

### Partner institutions

Universities of Cambridge, Cardiff, Kent, Roehampton, Southampton; LSE, National Institute of Economic and Social Research.



## Centre for Post-14 Education and Work

In 2015 we established a new research centre – the Centre for Post-14 Education and Work – which brings together our expertise across vocational and adult education. The centre will stimulate debate on the relationship between education, working life and active citizenship. One area of inquiry will be the ways in which further education stakeholders can work together to support economic and social regeneration.

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### Leads

Jay Derrick, Paul Grainger, Ann Hodgson, Tina Isaacs, Lynne Rogers, Ken Spours.

## Project – Does apprenticeship work for adults?

All of the main political parties in the UK support the growth of apprenticeships, especially as a pathway into employment for young people. The challenge is in ensuring quality when expanding these opportunities at scale. IOE research has provided an important framework for thinking about apprenticeships in terms of their ‘expansive’ and ‘restrictive’ features, and generated a ‘toolkit’ to support employers and training providers in developing their apprenticeship programmes.

Most recently, we have conducted the first major piece of research in the UK on ‘adult apprenticeship’ for those aged 25 and over, funded by the Nuffield Foundation. This highlighted limitations in the quality of apprenticeships when organisations use them primarily to accredit the existing skills of their established employees, as well as the need for a range of opportunities to re-train and up-skill adults throughout their working lives.

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### Research team

Alison Fuller, Lorna Unwin (IOE), Gayna Davey, Pauline Leonard (Southampton).



# Advancing learning for all

Our research on teaching and learning encompasses matters of the curriculum, pedagogy and assessment, including in relation to technology-enhanced learning. We also address fundamental questions about the different ways in which people engage with the world and the implications for supporting their development.

## Centre for Holocaust Education

Supported by the Pears Foundation and the Department for Education, the Centre for Holocaust Education provides a unique research-informed programme of professional development for secondary school teachers on teaching the Holocaust. As a result of the programme, an estimated one million pupils have so far experienced a deeper emotional and intellectual engagement with this topic. The materials have been translated into six languages and are used by the UN.

The original programme was based on the centre's 2009 investigation into teachers' practice and perspectives. In 2015, it published the findings of the world's largest study of young people's knowledge and understanding of the Holocaust, drawing on contributions from more than 8,000 pupils aged 11-18. Showing young people's interest in the topic, but also gaps in their knowledge and understanding, this latest survey will help to shape the centre's work and the future of Holocaust education for years to come.



Credit: Emile Holba

### Centre for Holocaust Education Executive Director

Stuart Foster

### Programme Director

Paul Salmons.





## Project – Playing Beowulf

Playing Beowulf is part of a continuum of IOE research starting with ground-breaking work in the 1980s and 1990s on social semiotics and followed by internationally significant work on media education, adventure and role-playing games and multimodal media texts.

In this Arts and Humanities Research Council funded project the researchers developed a game-authoring tool that enables pupils and curators to transform the poem *Beowulf* into a digital game. This built on an earlier application developed by the same team around the story *Macbeth*. Used by schools worldwide, the tools have encouraged more creative approaches to the English and media curriculum. They have achieved this by expanding thinking about games as an art form and children's ability to understand their structures, as well as highlighting the possibilities in combining the pedagogies of the book arts and of computer science.

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### Principal Investigator

Andrew Burn

### Research team

Michael Anderson, Theodora Bryer, Jane Coles, Alison Gazzard, Morlette Lindsay, Alexandra Whitfield, Stella Wisdom

### Partner

British Library.

## Project – Integrated Intelligent Learning Environment for Reading and Writing (iLearnRW)

This European Commission funded project has developed new learning technologies that will teach word decoding skills to 9-12 year old children diagnosed with or suspected to have dyslexia. The consortium has created two technologies, a learning game and an assistive reader, both of which target children's individual linguistic difficulties with personalised content and activities informed by a learner profile. The game, specifically, employs game tropes from casual games to motivate children to work on literacy skills they typically struggle with.

Deployed in schools across England, Greece and Malta, the game was played by children during small group literacy interventions. It was found to change the learning culture of interventions leading to self-directed, collaborative and playful forms of learning, whilst providing children with a language to talk about both learning successes and failures.

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### IOE lead

Asimina Vasalou

### Partner institutions

University of Malta, National Technical University of Athens, Technological Institution of Epirus, Lucian Blaga University of Sibiu, Dolphin Computer Access, Dyslexia Action

### Partner schools

Brandlehow Primary School, Dulwich Hamlet Junior School, Rye Oak Primary School.

# Advancing learning for all cont...

## Project – UnLocke: learning of counterintuitive concepts

For the UnLocke project colleagues are developing and testing a computer-based intervention to promote children's cognitive control.

The purpose of the software is to enable children to better 'inhibit' prior contradictory knowledge and therefore deploy the counterintuitive reasoning that is often required when learning mathematical and scientific concepts (for example, to understand that mice and elephants have the same-sized cells, despite their different statures). The project's hypothesis is that this control improves best not through a change in pedagogy but with practice, and through exercises directly related to the subject knowledge in question.

This research is funded through a collaboration between the Education Endowment Foundation and the Wellcome Trust to generate robust evidence for teachers and schools about neuroscience and learning.

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### IOE team

Emily Farran, Sveta Mayer,  
Kaska Porayska-Pomsta, Andrew Tolmie

### with

Denis Mareschal, Michael Thomas, Iroise Dumontheil (Birkbeck), Derek Bell (Learnus).

## Project – Diminished perceptual adaptation, hypo-priors and autism

In this Medical Research Council funded project IOE researchers are using powerful new forms of computer modelling to pinpoint precisely which psychological processes might be different in autism.

A critical new insight has been the team's hypothesis that people with autism have less flexible brain adaptation processes, and that this is because they rely too heavily on what they sense in the 'here and now' to interpret their environment, rather than knowledge that they've accrued with experience. If confirmed, this would offer a new way of thinking about autism, and could inform interventions that enable people with autism to experience the world around them with less distress.

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### Principal Investigator

Liz Pellicano

### Co-investigator

David Burr.

# Understanding family life

We conduct wide-ranging research on family life and children's and young people's health and wellbeing. This includes research on parental leave, parenting support, the childcare workforce, stress and behavioural challenges in children and infants, social pedagogy and services for looked-after children. Here we provide two examples.

## Project – Fathers, work and families in twenty-first century Britain: beyond the breadwinner model?

Part of the Economic and Social Research Council's Secondary Data Analysis Initiative, this project looked in detail at the lives of fathers today, exploring their work patterns, home life, how involved they are in the lives of their children, and how these factors interact. The focus was on the UK, but the study also examined how the realities of fatherhood vary across Europe in order to understand the role that societal-level factors play in shaping fathers' experience.

Linking major national datasets, including Understanding Society and the EU Labour Force Survey, the team found that although the number of fathers working long hours had fallen, the proportion of two full-time working parents had increased, and UK fathers report levels of work-family conflict that are consistently the highest among EU countries.

The researchers developed the Modern Fatherhood website ([www.modernfatherhood.org](http://www.modernfatherhood.org)) to provide a comprehensive source of information about men as fathers, which has become an important resource for policy makers and organisations working with families.

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### IOE lead

Margaret O'Brien

### Partner institutions

NatCen Social Research,  
University of East Anglia.

## Project – Evaluation of an initiative to improve Ealing's social care system for adolescents

The London Borough of Ealing is piloting multi-disciplinary teams – of social workers, psychologists, youth workers, teachers and others – who will work intensively to improve support for children in or on the edge of care and their families. The objective is to reduce the number of children coming into the care system, and to empower those who are in care in decision-making about their care plans.

Funded by the Department for Education, IOE colleagues are evaluating this £3.5m, 15-month programme, to look at what happens during implementation and to assess whether the new approach is effective.

Reflecting the team's extensive experience of research with children and young people, the project will involve care leavers in designing the research tools, interviewing their peers and analysing the data.

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### Principal Investigator

Emily Munro

### Research team

Katie Hollingworth, Veena Meetoo.



# Supporting school effectiveness

Our research on school effectiveness addresses learners, practitioners, classrooms, institutions and systems. Research-led practice, workforce deployment and leadership have been strong themes.



## Project – Making best use of teaching assistants

In 2015 IOE colleagues collaborated with the Education Endowment Foundation (EEF) to publish a free resource for schools on how to make the most effective use of teaching assistants – a segment of the schools workforce that has grown rapidly in England over the past decade. The EEF is an independent grant-making charity dedicated to breaking the link between family income and educational achievement, primarily by generating evidence for schools on effective approaches and interventions.

The teaching assistant guidance follows on from a landmark study at the IOE – The Deployment and Impact of Support Staff – which arrived at the startling finding that the more support a pupil received from a teaching assistant, the less progress he or she made. Subsequent studies by the same team demonstrated the importance of using teaching assistants to complement the role of the teacher rather than replace it, highlighting this as a school leadership issue. The researchers are working with the EEF to pilot new interventions in tandem with the national guidance.

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### **IOE team**

Peter Blatchford, Rob Webster

### **with**

Jonathan Sharples (EEF).

## Project – Understanding the self-improving school-led system

The push for a 'school-led system' and the premise that schools should drive improvement and higher standards of attainment has been a central strand of education policy in England since 2010. This IOE research, funded by the Nuffield Foundation and the Education Development Trust (formerly CfBT Education Development Trust), is the first independent study of responses to that agenda.

It is examining school leaders' views on the policy and the conditions required for school-to-school support to emerge; it is looking specifically at the efficacy of formal structures for collaboration across schools, including trusts and teaching school alliances. The study will also assess the implications of this policy for quality and equity, analysing the impact of the most widespread models of school collaboration on pupil outcomes.

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### Principal Investigator

Toby Greany.



# Knowledge mobilisation for policy and practice



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## Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre)

Established in 1993, the EPPI-Centre has led the use of systematic review – robust summaries of the existing evidence base – beyond the medical field. In particular, it has developed methodologies for the synthesis of qualitative research and mixed-method reviews. Its work spans education, public health, social care, crime and international development.

Through its own reviews the centre has influenced policy deliberation on topics ranging from education for smoking cessation in pregnancy, to micro-finance in Sub-Saharan Africa. Alongside, it has worked with governments across the EU in building capacity in systematic review. It built 'EPPI-Reviewer', a state-of-the-art web application incorporating new data mining tools for managing reviews and analysing the results.

### EPPI-Centre Directors

Ann Oakley, David Gough, Sandy Oliver, Mark Newman,  
Rebecca Rees, James Thomas.



## Department of Health Reviews Facility

One of the longest-running projects in the EPPI-Centre, in place since 1995, is the Department of Health Reviews Facility, funded by the Department of Health Policy Research Programme. This work supports a programme of systematic reviews to provide evidence to underpin UK policy development and implementation across health, public health and social care. The facility provides evidence from its own reviews, as well as maintaining three specialised registers of trials and reviews.

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### Principal Investigator

James Thomas

### Partner institutions

London School of Hygiene and Tropical Medicine, University of York.

## What Works Centres

The EPPI-Centre team has also brought its expertise to four of the UK government's What Works Centres: the National Institute for Health and Care Excellence, Education Endowment Foundation, and the centres for Crime Reduction and Wellbeing. The centres were introduced from 2013 to help ensure that decision-making by policy makers, commissioners and practitioners is shaped by thorough, high quality, independently-assessed evidence.

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### Lead

David Gough.

## Department for International Development Systematic Review Programme

The Department for International Development (DFID) has established a Systematic Review Programme in order to strengthen evidence-informed policy making in its field. With systematic reviews being relatively new to international development a key challenge is to build capacity for this methodology amongst researchers, especially in developing countries. DFID has asked the EPPI-Centre to commission and quality assure the next round of reviews and to provide training and support for the review teams. EPPI is working with DFID to identify the most relevant and suitable topics for review within the following areas: security and justice, commercial agriculture, supporting business and youth and governance. Throughout, EPPI and the review teams will work closely with DFID and other experts to maximise the use of the reviews.

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### Principal Investigator

Sandy Oliver

### Research team

Mukdarut Bangpan, Jeff Brunton, Preethy D'Souza, Kelly Dickson, Claire Stansfield.

# Step change for research on higher education

In February 2016 we launched the Centre for Global Higher Education (CGHE), a major new research centre for the study of tertiary education.

## Centre for Global Higher Education

The first centre of its kind, CGHE is working with partner universities around the world to examine higher education from global, national and local perspectives. It will conduct basic and applied research, build theory and new methods of inquiry, and seek to inform higher education policy in the UK and worldwide. It represents a unique opportunity to transform the field of higher education studies and establish higher education as a topic for social science research.

Funded by the Economic and Social Research Council and Higher Education Funding Council for England over five years, CGHE will run 15 projects across three strands of research:

### Globalisation, UK higher education and the public contributions of higher education institutions

This strand covers issues of financial sustainability, institutional strategies for local and global engagement and strategies for engagement with industry. It also includes a cross-country study to measure higher education's role in advancing the public good.



#### Centre for Global Higher Education Director

Simon Marginson

#### Deputy Directors

Claire Callender, William Locke

#### Partner institutions

Universities of Lancaster and Sheffield, with Australian National University (Australia), Dublin Institute of Technology (Ireland), Hiroshima University (Japan), Leiden University (Netherlands), Lingnan University (Hong Kong), Shanghai Jiao Tong University (China), University of Cape Town (South Africa) and University of Michigan (US).



### **Socio-economic implications of high participation higher education**

Researchers will consider the relationship between higher education and economic growth, equal opportunity and social mobility; there will be studies of graduate labour markets across Europe, and of the impact of student loan debt on graduates' lives.

### **Institutions, people and learning in local/global higher education settings**

This strand will map the UK higher education system, including emerging private sector and online providers, as well as the changing character of student learning and the specific transformative potential of online provision and pedagogies. It will consider the evolving skills needs of the academic workforce in this context.

The findings from CGHE's work will enhance understanding of how the UK sector can be a key contributor to global systems in education and science; how national higher education policy can become better at anticipating its social and economic effects; and how higher education institutions can build stronger relations with their various stakeholders locally and monitor and measure their impact.





# Education and international development

## Project – End Gender Violence in Schools

The aim of this project, a partnership with UNICEF, is to strengthen evidence-based policy and programming in relation to school-related gender-based violence across Ethiopia, Zambia, Cote d'Ivoire and Togo.

School-related gender-based violence (SRGBV) affects girls and boys across the globe, manifested in physical, sexual and psychological acts of violence, and underpinned by norms, stereotypes, inequalities and exclusions. It violates human rights and undermines young people's potential to learn and develop with dignity, confidence and self-esteem as full members of their societies.

These issues have come to increasing recognition internationally, and there has been growing activity in response at regional, national and grassroots levels. Progress, however, has been slow, due in part to gaps in knowledge about effective practice to reduce SRGBV. IOE colleagues have identified the space between national and local policy implementation, as well as the matter of tackling the norms and inequalities at the heart of gender-based violence, as important areas to focus attention.

The research team is working in collaboration with stakeholders in each of the four countries – to understand the local context



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for SRGBV, to design, implement and monitor effective strategies for providing safe learning environments, and then to identify the conditions that influence the success of those initiatives. The next step will be to maximise international learning from the project.


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### Principal Investigator

Jenny Parkes

### Research team

Jo Heslop, Freya Johnson Ross,  
William Nicholas, Elaine Unterhalter,  
Rosie Westerveld.



## Project – Pedagogies for critical thinking: innovation and outcomes in African higher education

New understanding of the ways in which higher education contributes to economic and human development has promoted investment in tertiary education around the world. A central driver is the ability of graduates to think critically about problems and use evidence when making decisions. In many African contexts, however, these outcomes of university study are not being realised.

There is growing recognition of the need for pedagogical change, but progress is being hampered by a lack of empirical evidence about teaching and learning practice in African universities. Although there is a substantial body of literature on the ways in which academic experiences at university can positively influence the development of higher-level skills, much of it rests on research conducted in the UK, USA, Australia and East Asia, and the findings may be less applicable in African institutions.

This IOE project is expanding the evidence base by investigating the impact of locally-generated interventions to develop students' critical thinking – in Kenya, Ghana and Botswana. Funded by the Economic and Social Research Council and the Department for International Development, it runs to 2018.

Working with local researchers, the team are assessing students' critical thinking at different stages of their studies in order to identify which pedagogical practices have the strongest impact. They are also using in-depth case studies to examine the factors that help institutions embed pedagogical change. The findings will provide a resource for stakeholders at institutional, national and supranational levels to support reform efforts in the region.

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### Principal Investigators

Tristan McCowan, Rebecca Schendel

### Research team

Caine Rollerston, Andrew Tolmie.



## Contact us

Alison Fuller  
Pro-Director Research and Development  
UCL Institute of Education  
20 Bedford Way  
London  
WC1H 0AL

Telephone +44 (0)20 7612 6092  
Email [alison.fuller@ucl.ac.uk](mailto:alison.fuller@ucl.ac.uk)  
[www.ucl.ac.uk/ioe/research](http://www.ucl.ac.uk/ioe/research)  
[twitter.com/IOE\\_London](https://twitter.com/IOE_London)