



University of Essex



TRUSTED DATA-DRIVEN SOCIAL SCIENCE



ESSEX FACTS
 In 2017 Essex was awarded UK higher education's most prestigious accolade, a
Queen's Anniversary Prize
 for world-leading social science research

Fuelling change with data

Data-driven social science research is addressing the greatest global challenges of our time.

Our access to an ever-growing number of information sources is allowing us to use quantitative research methods to deliver new insights and solutions. This data-rich approach can help countries around the world address key global issues such as tackling the threat of terrorism, resolving conflict, protecting democratic processes, responding to natural disasters, understanding climate change and dealing with mass migration.

Improving the world we live in

Social scientists at Essex are seeking to know the world by asking critical questions and challenging convention. They are changing the world by providing compelling answers to these profound issues, with robust evidence to back them up.

Our academics are using cutting-edge methodologies and drawing on their extensive global research networks to uncover inconvenient truths, test and refine dominant theories and develop new areas of knowledge.

By engaging beyond academia they are providing answers to how we can best govern ourselves, how we understand society, acquire new languages, conduct business and interact with each other.



Their findings are influencing government policies on everything from childcare to pensions.

Essex: The home of trusted data

Data and the infrastructures that support the collection of large or complex datasets, the storage of those data and their responsible use is essential in this journey and we are world-leaders.

Pioneers such as Richard G Lipsey, David Lockwood and Dorothy Smith have helped us build a global reputation for excellence in quantitative social science research and today our researchers are embracing the fourth industrial revolution, which offers even greater opportunities to access massive amounts of data to make the world a better place.

Our infrastructure, our research relationships and global networks and our expertise makes Essex a world-leading social science university.

We are keen to work with like-minded partners across the globe who want to join us in further developing our work.

Professor Anthony Forster
Vice-Chancellor

Essex quantitative social science eco system

Essex social science is global in scope and internationalist in orientation.

Our strengths stem from our nationally-funded research infrastructure serving researchers around the world, our concentration of social scientists creating critical mass and research power, and the range of our pioneering quantitative research.

Internationally-recognised research infrastructure

- The Institute for Social and Economic Research (ISER) is a globally-recognised centre for authoritative research informing government policies to improve lives.
- The UK Data Archive (UKDA) is a global centre of excellence in acquiring, curating and providing access to social science and humanities data.
- Our Institute for Analytics and Data Science (IADS) connects our expert scholars with businesses and institutions to work on their data needs.

Pioneering quantitative social science

- We provide evidence for how lives change through expert production and analysis of longitudinal data.
- Essex researchers invented EUROMOD, a tax-benefit micro-simulation model which calculates the effects of taxes and benefits.
- We are partners in SOUTHMOD providing a micro-simulation model for countries in Africa and the global south.
- Essex sociologists designed the UK's official socio-economic classification used in surveys.

World-class research

- We were awarded the UK's first and only Regius Professorship of Political Science.
- We received a Queen's Anniversary Prize in recognition of research excellence in ISER.
- Our political science research has been ranked top in the UK since government assessments of research began in 1986.
- We are home to the UNESCO Chair in Analytics and Data Science and to the Chief Scientific Advisor to Essex County Council.

Education

- We have Q-Step Affiliate Status funded by the Nuffield Foundation, the Economic and Social Research Council (ESRC) and Higher Education Funding Council for England.
- The ESRC South East Network for Social Sciences provides doctoral training in quantitative social science.
- We have wide-ranging degrees focusing on interdisciplinary social science.
- We are ranked top 40 for political science and sociology in the QS World University Rankings by Subject, 2018.
- Essex Summer School in Social Science Data Analysis provides pioneering teaching of advanced statistical methods.
- Our Big Data and Analytics Summer School provides expert training in data science and data analysis.
- Our Human Rights and Research Methods Summer School provides training in using quantitative methods.

UK Government research council investments in Essex

- **The ESRC Research Centre on Micro-Social Change (MiSoC)** promotes multidisciplinary collaboration across the social sciences.
- **The ESRC-funded UK Data Service** provides access to the largest collection of social and economic research data in the UK, and best practice advice.
- **The ESRC-funded Human Rights, Big Data and Technology Project** is the UK's first major project exploring human rights in the digital era.
- **Funded by the ESRC, Understanding Society** is one of the world's largest household surveys following the lives of people in 40,000 households over time.
- **The ESRC Business and Local Government Data Research Centre** provides a framework and support for data owners and researchers.
- **The ESRC Impact Acceleration Account** delivers impact-focused social science research.

ESSEX FACTS

Ranked **1st** in the UK for political science research and **5th** for economics and econometrics (REF 2014)

The story of social science at Essex

Our commitment to excellence in social science research was founded in mid-twentieth-century modernism but is more relevant than ever in today's world.

It is a commitment illustrated by the pioneering researchers who have very often influenced policy and practice.

Professor Peter Townsend was a sociologist dedicated to eradicating poverty while Professor Dorothy Smith helped pioneer feminist standpoint theory. Professor David Lockwood's work on affluence and social class was described by Professor Fiona Devine, writing for *The Sociological Review* in 2016, as "the best of British sociology, that is theoretically-informed empirical research undertaken with imagination and flair".

The work of our founding professor of economics, Richard G Lipsey, on links between unemployment and inflation continues to influence public policy today. Professor Albert Bergstrom's research in continuous time econometrics laid the foundations for systematic analysis of macroeconomic fluctuations and policy. Professor Sir Tony Atkinson gave his name to the Atkinson Index which measures inequality, while Professor Tony Shorrocks devised an index of mobility to measure changes in inequality.

Professor Jean Blondel helped define our distinctive approach to political science and Professor Anthony King made a significant contribution to election analysis. Taking over from Oxford, an Essex team led by Professor Ivor Crewe brought sophisticated quantitative analysis to the British Election Study for the first time in 1974 and Professor David Sanders was one of our political scientists whose long-range statistical forecasts confounded pollsters and pundits alike, accurately showing how personal economic expectations swayed public voting in 1983 and 1992.

Professor Holly Sutherland expanded the influential EUROMOD tax-benefit micro-simulation model to cover the whole of the European Union.

These are some of the scholars who helped build the foundations of social science at Essex.

"We need more research in every aspect of modern societies, whether it is education, old age, or economic growth."

**Professor Sir Albert Sloman, founding Vice-Chancellor, 1963
BBC Reith Lectures**



"I was privileged to work with two of the pioneers of quantitative social science at Essex, David Rose and Howard Newby. By the time I arrived at the Economic and Social Research

Council (ESRC) in 2000, Essex was well on the way to establishing itself as one of the leading centres of quantitative social research in Europe."

**Professor Gordon Marshall
Director of the Leverhulme Trust and
former Chief Executive of the ESRC**

Picture courtesy of Rosie Hallam

Our milestones

1967

UK Data Archive is established, initially called the Social Science Research Council Data Bank

1979

Professor Peter Townsend's influential *Poverty in the UK* is published

1989

Essex quantitative social scientists establish the Institute for Social and Economic Research

1991

The British Household Panel Survey starts collecting data

2001

A new national socio-economic classification invented by Essex sociologists is used for the first time in the UK census

2009

Understanding Society starts collecting data

2012

The UK Data Service is launched

2013

Essex is awarded the first and only Regius Professorship of Political Science

2016

Professor Maria Fasli is named the first UNESCO Chair in Analytics and Data Science

2017

Queen's Anniversary Prize is awarded for social science research

Robust quantitative evidence is vital if social scientists are to influence policy and our research infrastructure across the Faculty of Social Sciences enables us to do just that. Our highly trusted status in collecting, storing, analysing and sharing data has helped us build a global reputation.

Survey-driven data on our changing lives

The dynamic and outward-facing Institute for Social and Economic Research (ISER), deploys world-class research data and skills to address concerns around social inclusion.

Our researchers use advanced data analysis and data collection methods to ensure robust findings.

Established in 1989 to house the British Household Panel Survey (BHPS), ISER has grown into a leading centre for the production and analysis of longitudinal studies.

It encompasses the ESRC Research Centre on Micro-Social Change, renowned for almost 30 years for policy-relevant research, and the successor to the BHPS, Understanding Society, a UK household longitudinal study following the lives of over 100,000 people from 40,000 households.

ISER houses the Micro-simulation Unit which developed the tax and benefit model, EUROMOD, creating unrivalled research opportunities for testing economic policies in 48 nation states.

ISER pioneers new scientific work. It combines advanced biological data and genetic information with socio-economic data to track changes to physical and mental health according to life circumstances, analyses big data from administrative sources and advances new methods of collecting data using new technologies.

Setting the gold standard for data curation

Our UK Data Archive (UKDA) is curator of the largest collection of digital data in social sciences and humanities in the UK including government surveys and qualitative and mixed methods data. It has a 50-year reputation for excellence in acquiring, curating and making available thousands of datasets providing a unique and vital national research resource.

It provides secure access to sensitive data and our staff engage in data management and preservation initiatives supported by the ESRC and UK Research and Innovation.

We are international advocates for wider access to data for research and as a key partner of the International Data Access Network we are enabling the sharing of controlled microdata across borders.

With these resources at its heart, our Faculty of Social Sciences and its community of 650 academics across eight departments are using quantitative research to change the world.

"The UKDA is the UK's only nationally-funded research infrastructure for the curation and provision of access to social science data, and our practices, especially around secure access to data and data curation, have been influential across the world."

Professor Matthew Woollard, Director, UK Data Archive and Service

Connecting our data expertise

Our Institute for Analytics and Data Science harnesses our 50-year history as the intellectual home of the world's leading experts in data science. It is a centre of excellence connecting with scholars, businesses, institutions and authorities, to work on their data needs.



OUR DATA EXCELLENCE



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ISER and the UK Data Archive hold ISO 27001 certification, the highest international level for their information security standards

Leading the world in interdisciplinary research

Professor Emily Grundy FBA is a world-renowned expert in population science. She is also Director of the Institute for Social and Economic Research (ISER) one of the world's most prestigious social science research centres. She explains what makes it such a unique centre of excellence, and how it secured a Queen's Anniversary Prize in 2017.

"The Queen's Anniversary Prize is a tremendous honour and remarkable recognition of ISER's reputation for authoritative social and economic research that is improving people's lives.

"It recognised the importance of the household study Understanding Society which collects social, economic and biological data from individuals year-on-year, our globally-important Micro-simulation Unit, and the ESRC Research Centre on Micro-Social Change.

"ISER's international reputation for innovative resources – scientific leadership for developing and improving longitudinal studies, the invention of micro-simulation models – alongside the production of robust substantive quantitative research using large datasets, attracts academics from around the world."

A global team

"Our researchers come from over 22 countries and include sociologists, economists, epidemiologists, demographers, biologists, statisticians, survey methodologists and political scientists.

"Our approach is truly global and we collaborate with academics and institutes worldwide, on a daily basis, hosting workshops and conferences as well as shared

research projects. We also host unrivalled postgraduate study opportunities and a thriving visitor and fellowship programme."

Research that influences policy

"Our work is focused on policy-relevant studies, unpicking the impact of political and social change on people's lives, and the methods behind collecting and understanding large-scale datasets.

"Our recent work has included the impact of racial harassment in the UK after the Brexit referendum, how social media overuse is affecting children's mental health, the factors preventing deaths in childbirth worldwide, how we measure obesity, the rise of the boomerang generation and the impacts on older people's well-being when adult children return home.

"The depth and breadth of our research is outstanding and it's not surprising that our portfolio of work continues to have impact at the highest levels of policymaking in the UK and beyond.

"Our researchers have become adept at sharing findings with practitioners and the public to change policy and practice for the better."

"Our approach is truly global and we collaborate with academics and institutes worldwide"

**Professor Emily Grundy FBA,
Director of ISER**



Good health is a growing concern for individuals and for healthcare providers. As we live longer, how do we ensure that we have more years of good health? How can we get better at preventing illness and in treating disease when it appears?

We know that our social and physical environment impacts our health, but how does it change our biological functioning? Understanding Society, in the Institute for Social and Economic Research, is at the forefront of investigating the links between social environment and biology.

A UK-wide household panel study that has been following the same individuals and households over time, it provides researchers and policymakers with an unprecedented level of information about people's lives in the UK.

As well as completing an annual interview, participants have allowed researchers to collect health information including measures such as height, weight and blood pressure.

They have also given blood samples from which genetic and other information has been extracted. Combining rich socio-economic data with health measures has created a leading-edge research resource.

How environment affects our genes

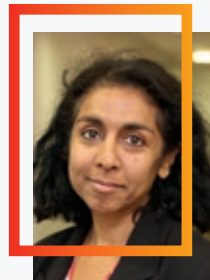
Researchers using Understanding Society have shown that markers on our DNA can change as we age and these changes can be used to assess whether our bodies are ageing prematurely.

Premature ageing is evident in people living in a poor social environment. Stress, financial hardship and persistent life difficulties can alter these measures of ageing, potentially making us more susceptible to disease.

Targeting effective interventions

Knowing that our social environment affects our health helps target treatments for specific diseases, but also provides vital information for reducing health inequalities across the population.

Understanding Society has informed research that shows when and how health inequalities begin, allowing targeted and more effective interventions to be planned.



"Our research is bringing together biology and the social sciences, allowing us to more precisely measure health and illness. Looking at the whole person, their physical body and the social world around

them, helps us understand how diseases can be treated and prevented."

Professor Meena Kumari, Professor of Biological and Social Epidemiology, ISER and Lead on Biosocial Research at Understanding Society

CONNECTING OUR SOCIAL ENVIRONMENT AND BIOLOGY



ESSEX FACTS



social science departments producing world-leading research

TAKING A LONG VIEW TO UNDERSTAND CHANGING LIVES



ESSEX FACTS

Over **£159m/US\$201m**
in external funding for ISER since 2007

Designing large-scale surveys with policy impact in mind is vital if social scientists want to change lives. Experts at the Institute for Social and Economic Research (ISER) are amongst the best survey designers in the world.

A long heritage in longitudinal study design

ISER's history of excellence in panel studies is well established. The huge success of Essex's British Household Panel Survey, which began in 1991, led to a successor, Understanding Society, one of the largest studies of its kind in the world.

The dataset is used by government departments, charities, think tanks and civic planners.

Advising on new studies worldwide

Our experts advise governments, institutions and organisations around the world with the creation of new surveys and on technological innovations in surveying.

We have experts in new scientific breakthroughs in combining biological science with social science, pioneering use of big data and administrative data, and experimental collection methods.

Tracking childhood wellbeing

Our experts are part of a team designing a survey for the first Europe-wide project to track children and young people from birth to 25.

"Our expertise in longitudinal survey design and implementation is important to this ground-breaking project. The EuroCohort adds to ISER's substantial portfolio of cross-national survey research and has the potential for huge impact."

Professor Peter Lynn, Professor of Survey Methodology at ISER and President of the International Association of Survey Statisticians



Surveying living standards

We are leading a major project aiming to transform understanding of living standards.

"Understanding the spending, saving and borrowing of households is critical for assessing the sustainability of economic growth, including whether the current recovery is fuelled by unsustainable consumer spending.



"We are trialling new ways of collecting accurate information about household finances adding enormous policy potential value to panel surveys worldwide and cost-effective data collection methods."

Professor Annette Jäckle, Professor of Survey Methodology and Associate Director of Innovations for Understanding Society, ISER

Understanding Society was commissioned by a consortium of government departments, devolved governments of the UK and the Economic and Social Research Council.

Getting smarter with our data

We want to use data in a better way to transform our public services and we're lucky to be working with partners who share our level of ambition.

Why is this so important? Better use of data helps us make better decisions, target resources and design new services to support our most vulnerable residents, from children at risk to potential victims of domestic abuse.

We are working with Essex County Council and Essex Police to establish the Essex Centre for Data Analytics to set the gold standard for integrating data and predictive analytics across public bodies.

We've been brought together through Essex Partners, the umbrella group for public services in the county, to establish the Essex Innovates programme.

Essex Innovates' aim is simple - to make the county of Essex the national leader for using the power of data science and AI, to the highest ethical standards, to tackle public policy challenges.

Building on success

Our £2.2m Catalyst Project, backed by the UK government, has already shown how this approach can deliver results. Catalyst sees our social scientists joining forces with our data scientists to work with both Essex and Suffolk county councils to predict risk and better target preventative measures and early interventions.

We're also the first university in the UK to embed a Chief Scientific Adviser in a local authority to support Essex County Council to build its technical capabilities and make better use of data.

"The collaborative partnership between Essex County Council, the University of Essex and

Essex Police has put us at the forefront of local authorities using the power of data science and AI to tackle public policy challenges.

"We are investing in shared resources across our organisations to make Essex a place that is an exemplar for integration of data across public bodies and to create the best data science and analytical capabilities in the UK."



Councillor David Finch, Leader of Essex County Council and Chair of Essex Partners

The Essex approach is already attracting attention. The innovation foundation Nesta has cited Essex Innovates as a leading example in the UK of collaborative public services using predictive analytics. Essex Data, the precursor to Essex Innovates, has also been shortlisted for a Digital Impact Award by the *Local Government Chronicle*.

ESSEX FACTS

Over **£240m/US\$304m**
external funding for social sciences
since 2007-08



Conflict research for a more peaceful world

Professor Kristian Skrede Gleditsch, an internationally-renowned scholar in the study of conflict resolution, democratisation and political change, is our Regius Professor of Political Science. He explains why it's so important that the world learns to predict conflict.

"Contrary to popular belief there has been a decline in violent conflict since the end of the Cold War.

"Social scientists can help to understand that decline by investigating its causes and the possible challenges to it.

"My work centres on developing more rigorous conflict prediction, based on systematic statistical models and data."

How can we predict conflict?

"It is difficult, but not impossible, to forecast conflict events, and we can do it better through systematic approaches as opposed to informal expert predictions, which are known to have a poor record in anticipating future events.

"Government agencies and initiatives seeking to receive early warnings of conflict are increasingly interested in approaches that use the best available prediction data.

"I have given presentations on conflict prediction to the UK Cabinet Office and the Federal Foreign Office in Germany."

Considering all factors

"We need to consider who is likely to be involved in a conflict – the specific actors – and what their motivation is, as well as the large geographical variations within countries.

"These are all indicators of situations that may motivate conflict. Focusing on these will not only improve forecasts of where we are likely to see new conflicts, but also when existing conflicts are more likely to become settled and not recur.

"Moreover, considering these alongside real time information from digital news media can prove invaluable in identifying short-term shifts in the risk of conflict and help us make the world a safer place."



"If we are to make the world more peaceful, it will be through knowledge of the kind that Professor Gleditsch has developed."

**Professor Steven Pinker,
Johnstone Family Professor,
Department of Psychology,
Harvard University**

Picture courtesy of Rose Lincoln/Harvard University

"My work centres on developing more rigorous conflict prediction, based on systematic statistical models and data"

**Professor Kristian Skrede Gleditsch,
Regius Professor of Political Science,
Department of Government**



UNLOCKING THE SECRETS OF LEARNING AND LOSING LANGUAGES



ESSEX FACTS

2 social science subjects ranked in the global top 40, politics and sociology (QS World Rankings)

Language is crucial to us all. It ties us to where we were born, to our families, our relationships and our cultures. Without it we lose our identity.

Linguists at Essex have made major breakthroughs in our understanding of how we learn a language and how we can also lose it.

Supporting bilingual children

Dr Claire Delle Luche was part of a team to interview almost 400 families with bilingual children to find out more about language development.

“Parents of bilingual children are sometimes concerned about the language development of their children. Unfortunately, bilingual norms of language development have not been established, making it difficult for health and education professionals to evaluate if children may be at risk of a language delay.



“Our study provides the first tool to help accurate diagnoses of whether a bilingual two-year-old may be behind.”

Dr Claire Delle Luche, Department of Language and Linguistics

What happens when a language is lost?

As a German living in the UK, Professor Monika Schmid has personal experience of first language attrition and made it her mission to raise awareness and understanding of the emotional and cultural consequences of losing your native language.

“For decades it has been assumed that by puberty most people have mastered their native language and will never forget it. I have shown this is not the case, and those exposed to other languages every day find their native language begins to elude them.



“My findings have particular relevance in a society where politicians advocate forcing immigrants to only speak the language of their new country. I have shown this policy is misguided and would damage, rather

than enhance their proficiency in that language.”
Professor Monika Schmid, Department of Language and Linguistics

An internationally-recognised expert in her field, Professor Schmid has used both behavioural measures and experimental methods, including reaction time data, EEG and eye-tracking in her research. She has organised seminars on language attrition and has developed a website to share her findings with other academics and linguistic professionals.

Changing the debate on benefits, incentives and child poverty

A multi-disciplinary approach and commitment to producing policy-relevant research helps researchers from our ESRC Research Centre on Micro-Social Change (MiSoC) influence debate like never before.

The Centre's global community of researchers is exploring individual and family behaviours in a new era of uncertainty and change.

Their work will help the world better understand how individuals and families are affected by and react to changes in their life circumstances, how new members of society – children, young people and new migrants – develop and are integrated into it, and how values, attitudes, expectations, tastes and identity are formed.

A director who leads by example

MiSoC Director Professor Mike Brewer knows how important this work can be. He is an internationally-recognised expert on welfare reform who has changed public debate and understanding of how tax credits and welfare benefits affect incentives to work, and on what causes child poverty in the UK.

His work influenced a comprehensive report on Universal Credit, produced by the Resolution Foundation in 2015. Policy work relating to tax credits and child poverty undertaken by the Child Poverty Action Group (CPAG) during the 1997-2010 Labour government also drew on his findings, as did work relating to poverty undertaken by the Joseph Rowntree Foundation.

Professor Brewer said: "These impacts are based on two long-running strands of research that span my career with both the Institute for Fiscal Studies (until 2011) and at Essex. I've looked at how the tax and welfare system affects individuals' financial

work incentives and labour supply decisions, through understanding past changes in the distribution of living standards, and forecasting future trends given expected economic and policy changes.

"These strands overlap: core to both is the use of microsimulation methods or models running on large representative household datasets."



"He has few peers in how well he effectively combines a commitment to understanding poverty issues through robust research in order to influence policy with a similarly high commitment to methodological rigour."
Chris Goulden, Deputy Director of Evidence and Impact at the Joseph Rowntree Foundation



"Mike Brewer was responsible for the definitive and trailblazing analysis of child poverty through the Labour years. His work on the policy options to reduce child poverty inspired numerous campaigns, policy prescriptions and direct campaigns."
Alison Garnham, Chief Executive, Child Poverty Action Group

► www.iser.essex.ac.uk/misoc



ESSEX FACTS

6

major UK government research investments in social science infrastructure

UNDERSTANDING PRODUCTIVITY ACROSS REGIONS

The most productive area of the UK is three times more productive than the least and the UK economy could grow by over £200 billion if local areas improved productivity. These were the key findings of a 2016 study made possible by Essex's expertise in storing and sharing national data.

The UK Data Service (UKDS) enables researchers to access complex collections of over 7,000 digital datasets held by the UK Data Archive (UKDA). It is the trusted repository of national data resources including surveys conducted by the Office for National Statistics (ONS) and the National Centre for Social Research, as well as census data.

The UKDS provides over 23,000 global users with flexible support, training and access to data.

Some of those users include analysts at McKinsey and Company. They used the Service's Secure Lab to study ONS data and link it to longitudinal business and earnings data held in the Archive, creating a unique level of insight into productivity.

They were able to build a productivity map of the UK to help the Confederation of British Industry (CBI) understand the strengths and weaknesses of each geographical location.

Unlocking regional growth

The resulting CBI report on why variations in productivity and growth exist across the regions and nations of the UK focused on how businesses and government can address the issue.

It revealed how four key changes could significantly reduce differences in regional productivity: transport links that widen access to labour; better management practices; a higher proportion of firms who export and innovate; and educational attainment of young people.

The CBI believes the findings provide an evidence base for local leaders to test and shape their priorities and spending decisions and inform policy.

"Our evidence-based recommendations can help solve the UK's productivity challenge; creating a more prosperous society and improving living standards. By bringing together different datasets we're in a stronger position to shape and implement the industrial strategy, building upon a place's strengths and addressing its challenges."

Jim Hubbard, Head of Regional Policy, CBI



Governance, ethics and confidentiality

UKDA experts provide advice at a national and international level.

They advised the Cabinet Office on the development of the draft ethics framework, influencing the implementation of the Digital Economy Act 2017.

They also led the development of the Five Safes Framework, in collaboration with the ONS to enable secure research access to data while protecting confidentiality.

ESSEX FACTS

£56m/US\$71m external
funding for UKDA over the last ten years

THE TRUTH ABOUT INTEGRATING MIGRANTS

The successful integration of immigrants is a challenge across the globe. Essex research shows how it can be done to benefit both individuals and host countries.

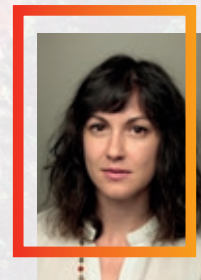
Improving work prospects

Those moving to the UK for work do not take jobs from local people, according to new research.

Essex sociologist Dr Neli Demireva, who leads the Growth, Equal Opportunities, Migration and Markets (GEMM) project took an in-depth look at the jobs market across Europe and came up with recommendations for the successful integration of migrant workers.

“The number of people moving around Europe continues to grow and countries face a challenge in managing numbers and making sure people settle into their new country and are able to use their skills and knowledge to benefit both themselves and the wider community.

“There is little evidence to suggest migration policy is in chaos and having an increased number of migrants is not associated with poor job prospects for the local population.



Dr Neli Demireva, Department of Sociology

“However, there are some worrying trends. To ensure a competitive Europe that fosters innovation and growth, Europe needs a market that capitalises on everyone’s talents and skills.”

The three-year study, funded by EU Horizon 2020, included experiments, interviews and statistical analyses of existing data.

Recommendations include:

- Better education and training, particularly for vulnerable migrants such as refugees.
- Greater efforts to help migrants settle by reducing red tape and speeding up asylum applications.
- Harmonising professional training to make it easier for candidates to transfer qualifications between countries.
- Improved measures to strengthen EU citizenship and expand access to permanent residency and dual citizenship for migrant workers.

Improving health

In a separate project Dr Renee Luthra also set out to understand the paradox of why immigrants’ life expectancy decreases as they become more immersed in their new country.

Dr Renee Luthra’s research used data from Understanding Society and concluded that maintaining links with your ethnic origins is good for your health – an insight which has important implications for immigration policies.



strong links with their cultural, racial and religious backgrounds.”

Dr Renee Luthra, Department of Sociology

“Our research is important not just when we are looking at the health of immigrants, but also for the wider debate about immigrant integration and the potential benefits of people maintaining

ESSEX FACTS

4th in the UK for social science research (REF 2014)

EXPOSING GENDER INEQUALITIES IN THE WORKPLACE

It's the 21st century yet women still earn less than men and face professional discrimination based on their gender. Committed to addressing inequality, our economists are working to uncover how and why this is still the case.

The Pay Gap

In a study that followed over 50,000 German university students, researchers found a year after completing university men were paid 30% more than women on average.

"The single most important proximate factor that explains this gap is the field of study at university. Women are tending to choose fields of study and then employment that is not as highly paid, for example favouring the humanities over STEM subjects.

"These findings illustrate the importance of subject choice amongst students and of the way universities prepare men and women to enter the labour market."

Professor Marco Francesconi,
Department of Economics



The Perception Gap

Our research on how gender bias played out when students were asked to evaluate their university lecturer has led other universities to re-think how teaching evaluations are conducted.

The study took a dataset of nearly 20,000 teaching evaluations where students were randomly allocated female or male instructors.

"Essex offered excellent opportunities to conduct this vital research programme, with facilities such as ESSEXLab - our state-of-the-art experimental laboratory where some of this research agenda is being conducted."

Professor Friederike Mengel,
Department of Economics

This research on gender bias has been discussed in numerous mainstream media outlets, including *The Economist* and the German national newspaper, *Sueddeutsche Zeitung*.

In a separate study the research team found that committee deliberation can sometimes reduce, but also sometimes increase gender bias.



ESSEX FACTS

1 Nobel Prize-winning economics graduate, Professor Sir Christopher Pissarides, Regius Professor of Economics, London School of Economics

A GLOBAL TOOL TO TEST POLICY AND CHALLENGE POVERTY

Poverty ruins lives, blighting families and societies for decades. Failing to understand the impact of government policies can make lives harder still, but policies also have the power to pull people out of poverty.

EUROMOD is a tax benefit micro-simulation model, developed by the Institute for Social and Economic Research, and it's having a huge impact on policies that challenge poverty.

Funded by the European Commission since 1996, it provides a testing ground for comparing the impact of tax and benefit policies for 28 countries in Europe, both within a country and in cross-country comparisons.

Predicting policy impact

Using household income data from individual countries and applying tax and benefit rules, researchers can look at how policies impact households and individuals, predicting changes that policymakers need to understand.

It can test the impact of changes to tax systems within a country, compare hypothetical scenarios, and researchers can even 'swap' policies between countries to see if a policy in one country could make a difference in another.

EUROMOD is used widely by the European Commission to analyse the budgets of each country and to 'nowcast' poverty rates before officially-collected statistical information is available.

Simulating policies for the global community

EUROMOD has been so successful new forms have been developed, based on the Essex model, to test policies beyond Europe.

In 2009 its spin-off for South Africa, SAMOD, was launched and models are now available for 19 further countries, including Australia, Argentina, Ethiopia, Russia, and Vietnam.

EUROMOD's global success cannot be underestimated. It is making a real difference to challenging poverty in 48 nations including developed economies and developing countries and it has received praise from organisations including UNICEF and the World Bank.



"We rely on EUROMOD. It has helped us improve the timeliness of social statistics; including the famous 'nowcasting' simulation of poverty rates and income distribution. This has enriched our analysis of poverty and inequality – two of the EU's

most pressing challenges."
Marianne Thyssen, the European Commissioner for Employment, Social Affairs, Skills and Labour Mobility,

ESSEX FACTS

48

countries using EUROMOD or a EUROMOD-inspired micro-simulation tool

FINANCIAL FORECASTING THAT SAVES LIVES

Essex research has revealed how long-term, large-scale financial forecasting is vital in protecting us from the next global financial crisis, increased poverty, inequality and poorer child health.

Traditional economic models failed to predict the 2007-2009 global financial crisis. Professor Dimitris Korobilis' Financial Conditions Index allows policymakers to monitor financial conditions in real time and before a crisis happens, by providing statistical methods to determine which of a large set of possible financial factors are important.

The model has been used by the International Monetary Fund and has influenced economic research in central banks and institutions across the world.



"Such influential research relies on being able to model big data in finance, hence, this research is inherently interdisciplinary drawing heavily from fields such as machine learning and engineering."
Professor Dimitris Korobilis, Essex Business School

Business School

The impact of one-crop dependency

Professor Neil Kellard's research examines the price movements of commodities such as oil, wheat, maize and gold, and their effects on economic growth and health in developing countries.

Many developing countries depend on the production of one or two major commodities to generate a large proportion of national income. Fluctuations in world prices of those commodities can therefore have an enormous effect on poverty, inequality and child wellbeing.

"Our findings have highlighted a number of issues. Countries that produce raw commodities will potentially become poorer in the long-run and therefore policy initiatives require economic planning over longer periods of time."

"Large price fluctuations increase child mortality in many commodity-dependent countries – although democracies are able to mitigate that negative impact."

Professor Neil Kellard, Essex Business School



Professor Kellard's research has informed policy discussion on food prices at the World Bank and the Food and Agricultural Organisation of the UN.

It's also been employed by central banks such as Colombia in their investigations of price behaviour and by countries such as New Zealand and Australia to inform debates about future prices that have provided the framework for fiscal policy and recommendations for diversifying exports.



ESSEX FACTS

6 subjects ranked in the top 200 in the QS World University Rankings by Subject, 2018, including linguistics, economics, politics and sociology

Stepping up our approach to education

We can transform our understanding of social issues through quantitative research methods so we ensure our students develop the skills they need to evaluate evidence, analyse data, and design and commission research.

These skills are essential to employers across all sectors. We are a Q-Step Affiliate and part of a £19.5 million national programme funded by the Nuffield Foundation, the Economic and Social Research Council and the Higher Education Funding Council for England. Q-Step is designed to promote a step-change in the number of undergraduates engaging with quantitative social science and help them develop the skills essential to employers.

The value of a quantitative approach

Professor Nick Allum, our Q-Step Co-ordinator and a researcher in our Department of Sociology, understands the value of quantitative approaches across a range of fields from the public understanding of science to perception of risk. He is an expert on research methodology and is also a Research Associate at the Institute for Social and Economic Research.

"Our Q-Step Centre is a critical component of our commitment to quantitative social science in the Faculty of Social Sciences.

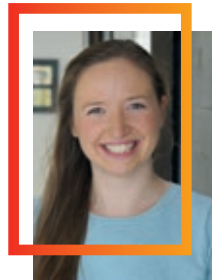
"Undergraduate students in Sociology, Government and Essex Business School who elect to take our specialist Applied Quantitative Methods (AQM) degrees develop skills that are highly valued by employers and help enable them to become the data scientists of the future.

"More than this, almost all of our social science undergraduates are exposed to quantitative data as part of their studies and the Q-Step Centre acts as a beacon that helps to spread the message about the importance of these valuable skills throughout the undergraduate community."

Professor Nick Allum, Q-Step Co-ordinator

Unique insights

Politics graduate Madeleine Leathley was one of our first Q-Step students to take advantage of our specialised degree pathways and work placements. Madeleine, who now works as a Commissioner and Project Manager at the London Borough of Havering, completed her placement at pollsters YouGov.



"I was able to run my own questionnaire on the funding of the public sector. It gave me a fantastic insight into the industry and taught me skills that I could then use in the final year of my degree."

Madeleine Leathley, Essex Q-Step graduate

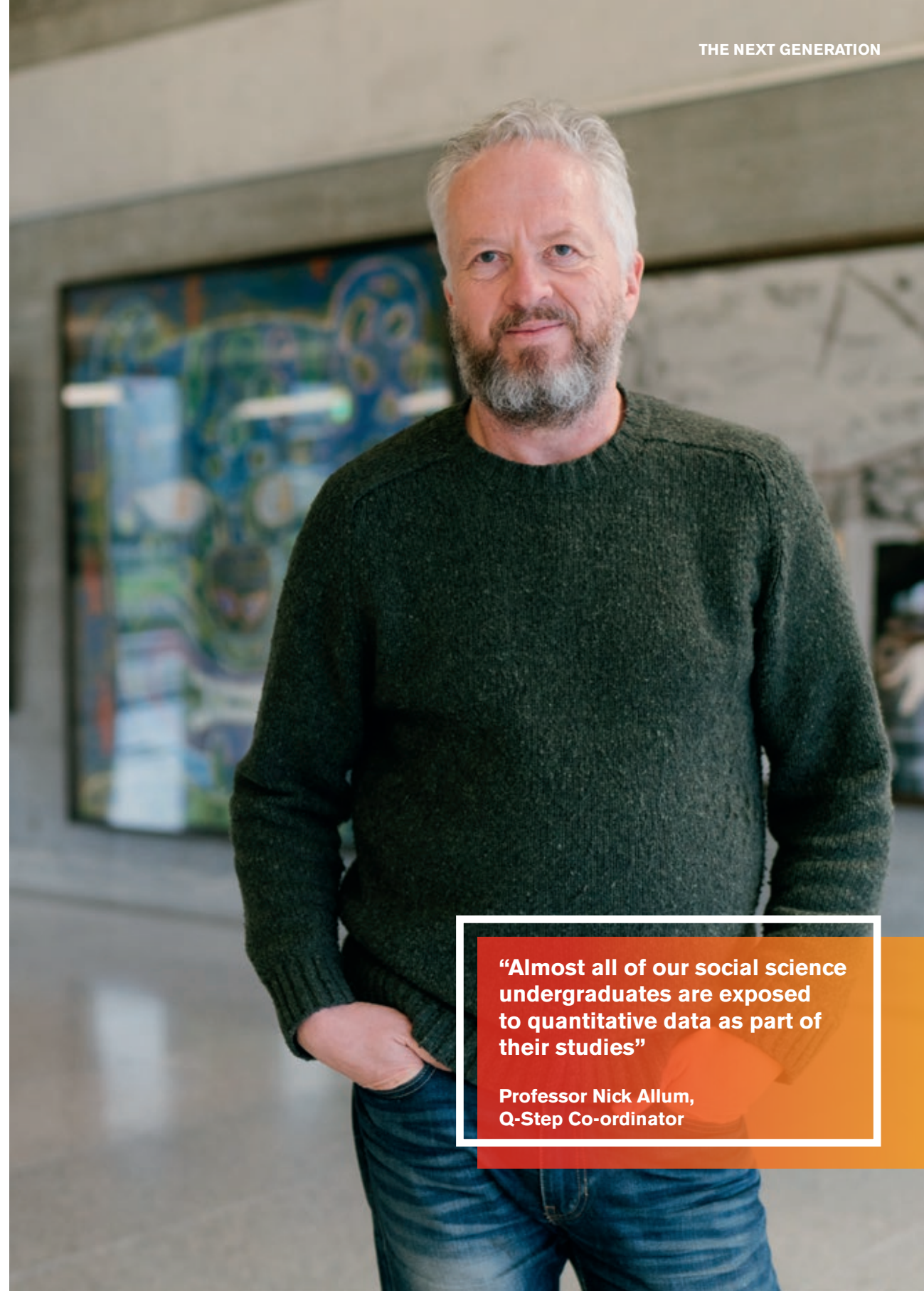
Global focus

For more than half a century our Essex Summer School in Social Science Data Analysis has been bringing researchers from around the world together.

Through classes, lectures and lab work, it offers a chance for leading social scientists to discuss research methods, research design, techniques for data collection and approaches to measurement. We're building on its success through the Essex Big Data and Analytics Summer School which provides a focus for this emerging field.

"Almost all of our social science undergraduates are exposed to quantitative data as part of their studies"

**Professor Nick Allum,
Q-Step Co-ordinator**





“One of the nicest messages that I received, after the award of the Nobel Prize in Economics for my work on unemployment, was from Professor Richard G Lipsey...

the driving force of economics at Essex. ‘Essex strikes again’, he said.”

Christopher Pissarides

Nobel Prize-winning Essex graduate and Regius Professor of Economics, London School of Economics

Please join us in using quantitative social science research to improve lives around the world
www.essex.ac.uk/about/faculty-of-social-sciences

Conversion rates correct - December 2018

THE AWARDS
2018

Winner
University of the Year