

Tell me and I forget,  
teach me and I  
remember, involve me  
and I learn

# Paid internships: quantitative skills from the classroom to the workplace



NOV  
15

## Go Figure!

by University of Manchester Q-Step  
Centre



Q-Step

**A step-change in  
quantitative social  
science skills**

Funded by the  
Nuffield Foundation,  
ESRC and HEFCE

Free

@UoMQStep @JackieCarter

# Q-Step paid (living wage) internships

- **All studied introductory statistics modules**
- Politics & International Relations, PPE, Sociology, Criminology, Linguistics
- New degrees BA Social Science “with QM”
- 8-weeks long work-placements, summer of 2<sup>nd</sup> year
- 190 students in 5 years
- 4 international in 2018
- Public, private, voluntary sector
  - A **data-driven, research project**
- **Don't assess, celebrate**

Where do they go?

UK Data Service



new economy



i-graduate  
INTERNATIONAL INSIGHT



THE BUREAU  
OF INVESTIGATIVE  
JOURNALISM

MANCHESTER  
1824  
The University of Manchester



MANCHESTER  
CITY COUNCIL



Salford City Council



IPPP  
NORTH



STOCKPORT  
METROPOLITAN BOROUGH COUNCIL



Home Office



Education  
Funding  
Agency

GREATER MANCHESTER  
POLICE



College of  
Policing

SOCIAL ACTION  
& RESEARCH  
FOUNDATION

PANKHURST  
TRUST



Department  
for Education



Department  
for International  
Development



National Offender  
Management Service

Coliseum  
THEATRE



Ministry  
of Justice



together trust  
real differences for real lives

THE SUNDAY TIMES



RESPECT  
MEN & WOMEN WORKING TOGETHER  
TO END DOMESTIC VIOLENCE  
Trinity Mirror plc

LGBT  
foundation



Food  
Standards  
Agency



THE  
WORLD  
BANK



Ipsos MORI

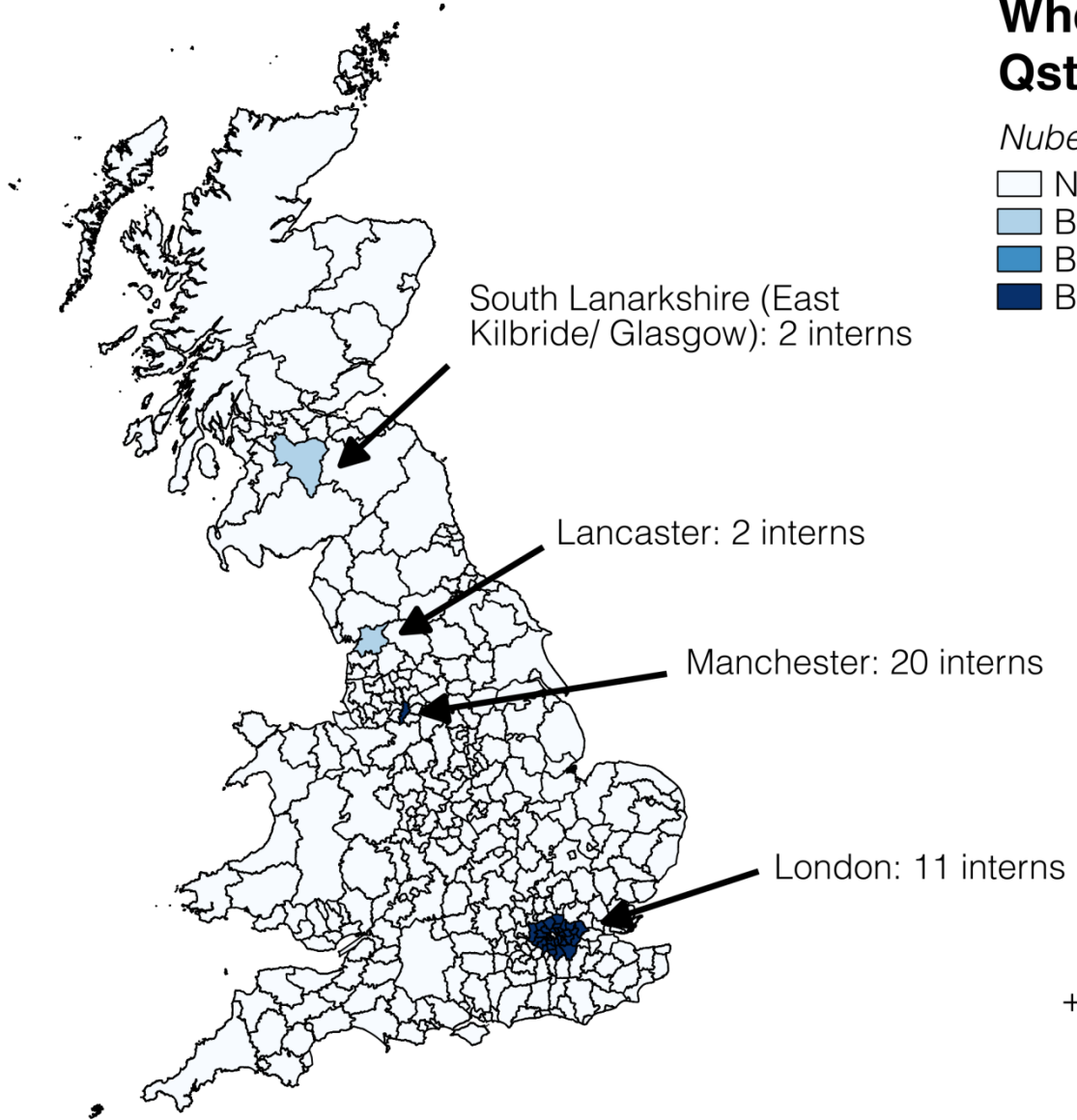
YouGov relate  
What the world thinks the relationship people

upReach

# Where Students are doing Qstep Internships

*Nuber of Students*

- No students
- Between 1 and 5 students
- Between 5 and 10 students
- Between 10 and 20 students



+ 4 International:  
2 in Melbourne  
2 in Washington

What do they do?

What do they do next?



# 2016 stories

Read about the experiences of our students who took part in a Q-Step paid summer internship. Each student's name links to a PDF with more detailed information relating to their internship.

- [Aaliyah Al-Aqel](#) (Politics and International Relations) spent her internship looking at datasets of the British Election Survey.
- [Adrian Almassan](#) (Law with Criminology) spent his internship at the Tyndall Centre looking at trend and drivers of end-use energy demand and the implications for managing energy in food supply chain.
- [Fernanda de Almeida Araujo](#) (Politics, Philosophy and Economics) spent 8 weeks at Audiencenet USA producing reports using consumer profile information in the USA and UK.
- [Kirstie Ashman](#) (Criminology) and [Heidi Mitchell](#) (Politics) worked at Starting Point to find out whether the classes held impacted upon learners of safety and/or their health and wellbeing.
- [Sophie Atherton](#) (Sociology) spent her internship at the University of Manchester looking at the impact of social media on the University of Manchester.
- [Maham Azam](#) (Politics) spent her internship at Trafford with Trafford Council looking at the impact of social media on the Trafford Council.
- [Einass Bakhiet](#) (Politics) spent her internship at the University of Manchester looking at the engagement of Millennials.
- [Jashan Bhullar](#) (Politics) spent her internship at the University of Manchester looking at the Public Attitudes Tracker.
- [Jose Maria Campos Neiva](#) (Politics) spent her internship at the University of Manchester looking at Performance and Intelligence.
- [Leo Carella](#) (Politics) spent her internship at the University of Manchester looking at the State of the North.
- [Jesse Coleman](#) (Politics and Philosophy) worked with the Political and Social Research Team at YouGov in London.
- [Camille Corti-Georgiou](#) (Politics and International Relations) spent her internship at EWERC at the Alliance Manchester Business School.
- [David Dobson](#) (BASS Sociology) looked at ageing, attitudes and sexual concerns at CMIST.
- [Christopher Fox](#) (Politics, Philosophy and Economics) worked at BBC North West Tonight looking at research into homelessness, and NHS trust financial accounts.
- [Mirjana Gavrilovic Nilsson](#) (Criminology) was an intern for the Centre for Criminology and Criminal Justice at the University of Manchester analysing how drug sellers and buyers on online drug cryptomarkets perceive the risk of detection.
- [Lydia Girling](#) (Sociology) spent her internship looking at Post-16 Education Funding at the Education Funding Agency.
- [Lily Graham](#) (Sociology) analysed the experiences and perceptions of young people toward employment and career progression with the RECLAIM project.
- [Tisha Harriott](#) (Criminology) analysed and compiled data on the services available at the Pankhurst Trust Domestic Abuse Project.
- [Firman Hassan](#) (Politics, Philosophy and Economics) evaluated the benefits of a new quantitative research approach Affinity Sutton Housing were using.

- [Lara Johnstone](#) (Criminology) identified what the reasonable predictors of social isolation amongst older people are at Age UK.
- [Ryan Khurana](#) (Philosophy) worked on Royal College Data for the General Medical Council.
- [Jiaqin Lin](#) (Linguistics and Sociology) carried out a postcode analysis of Pantomime Customers for Oldham Coliseum Theatre
- [Nathaniel Lusty](#) (Philosophy and Politics) analysed data for a piece for Times Redbox with The Times and Sunday Times.
- [Guste Matuleviciute](#) (Philosophy, Politics and Economics) undertook an internship in collaboration with the University of Manchester and Rochdale Borough Council focusing on the British Kashmiri population in Rochdale.
- [James Montgomery](#) (Politics and International Relations) analysed Domestic Migration in greater Manchester with New Economy.
- [Robyn Moor](#) (Criminology) spent her internship working in the Crime and Policing Analysis Unit at the Home Office.
- [Joseph Needham](#) (Sociology) investigated how Tableau could be used to visualise the Statistics on International Development dataset at the Department of International Development in Whitehall.
- [Cody O'Connell](#) (Sociology) analysed Corporate Social Responsibility and Consumer Behaviour at the University of Manchester.
- [Kyla Shu Chee](#) (Criminology) did an analysis if the Respect phonenumber and Men's Advice line data.
- [Calum Simmons](#) (Politics and International Relations) worked at new Economy analysing Greater Manchester/North West Economic Trends
- [Elizabeth Smith](#) (Criminology) worked on honour based abuse with Greater Manchester Police.
- [Joanna Sweeney](#) (Politics and International Relations) spent her internship with the Reputation team at YouGov.
- [Sherita Tam](#) (Sociology) examined the changing patterns of ethnic inequalities in older people's health in the UK with CoDE.
- [Becky Tolliday](#) (Politics and Sociology) spent her internship at the Department for Education analysing and researching Children's Services.
- [Viktoriya Trifonova](#) (Social Anthropology and Criminology) completed an internship with the British National Surveys of Sexual Attitudes and Lifestyles.
- [Jeanmiguel Uva](#) (Politics and International Relations) considerably improved his SPSS skills becoming fully proficient whilst also learning how to write syntax code at IPSOS MORI.
- [Hannah Watts](#) (Criminology) spent her internship at the Home Office analysing the factors that increase the likelihood of violence against child victims.
- [Natascha Woolliams](#) (Criminology) spent 8 weeks with the Home Office within the Crime and Policing Analysis Unit.

Student stories at  
<http://www.manchester.ac.uk/q-step/student-stories/>



# Government Departments

# Home Office, DFID, FSA, DfE, College of Policing

### Q-Step Internship - Investigating police demand and priorities (Central analysis and insight team)

Charlotte York, BA Criminology

**Objectives**

- Investigate police demand and priorities
- Identify areas of high demand
- Identify areas of low demand
- Identify areas of high priority
- Identify areas of low priority

**Method**

Used a range of data sources including police demand data, police priorities data, and police performance data.

**Key Findings**

- Police demand is highest in London and the South East.
- Police priorities are highest in London and the South East.
- Police performance is highest in London and the South East.



Home Office

### Centre for Criminology and Criminal Justice: Homicide Landscape

Hannah Thompson, BA Criminology

**Objectives**

- Investigate the homicide landscape
- Identify areas of high demand
- Identify areas of low demand
- Identify areas of high priority
- Identify areas of low priority

**Method**

Used a range of data sources including homicide data, police demand data, and police priorities data.

**Key Findings**

- Homicide is highest in London and the South East.
- Police demand is highest in London and the South East.
- Police priorities are highest in London and the South East.



Home Office

### Q-Step Internship: 'Upbringing As A Driver Of Crime

Sharon D'Lima, BA Criminology

**Objectives**

- Investigate the role of upbringing in crime
- Identify areas of high demand
- Identify areas of low demand
- Identify areas of high priority
- Identify areas of low priority

**Method**

Used a range of data sources including crime data, police demand data, and police priorities data.

**Key Findings**

- Upbringing is a significant factor in crime.
- Police demand is highest in London and the South East.
- Police priorities are highest in London and the South East.



Home Office

### Q-Step Internship: The predictive factors of youths engaging in crimes - Home Office

Marcus Dawkins, BA Criminology

**Objectives**

- Investigate the predictive factors of youths engaging in crimes
- Identify areas of high demand
- Identify areas of low demand
- Identify areas of high priority
- Identify areas of low priority

**Method**

Used a range of data sources including crime data, police demand data, and police priorities data.

**Key Findings**

- Age, gender, and ethnicity are predictive factors of youths engaging in crimes.
- Police demand is highest in London and the South East.
- Police priorities are highest in London and the South East.



Home Office

### Understanding the characteristics of child victims of violence

Hannah Watts, BA Criminology

**Objectives**

- Investigate the characteristics of child victims of violence
- Identify areas of high demand
- Identify areas of low demand
- Identify areas of high priority
- Identify areas of low priority

**Method**

Used a range of data sources including child victim data, police demand data, and police priorities data.

**Key Findings**

- Child victims of violence are most likely to be female and from ethnic minorities.
- Police demand is highest in London and the South East.
- Police priorities are highest in London and the South East.



Home Office

### Q-Step Internship: The Home Office | Police Demands

Bonny Clark, BA Criminology & Sociology

**Objectives**

- Investigate police demands
- Identify areas of high demand
- Identify areas of low demand
- Identify areas of high priority
- Identify areas of low priority

**Method**

Used a range of data sources including police demand data, police priorities data, and police performance data.

**Key Findings**

- Police demands are highest in London and the South East.
- Police priorities are highest in London and the South East.
- Police performance is highest in London and the South East.



Home Office

### The Home Office: Psychoactive Substances Act

Grace Latchford, BA Criminology

**Objectives**

- Investigate the Psychoactive Substances Act
- Identify areas of high demand
- Identify areas of low demand
- Identify areas of high priority
- Identify areas of low priority

**Method**

Used a range of data sources including psychoactive substance data, police demand data, and police priorities data.

**Key Findings**

- Psychoactive substances are a significant problem.
- Police demand is highest in London and the South East.
- Police priorities are highest in London and the South East.



Home Office

### Q-Step Internship: Home Office Crime and Policing Analysis Unit

Rodwyn Moore, BA Criminology

**Objectives**

- Investigate Home Office Crime and Policing Analysis Unit
- Identify areas of high demand
- Identify areas of low demand
- Identify areas of high priority
- Identify areas of low priority

**Method**

Used a range of data sources including crime data, police demand data, and police priorities data.

**Key Findings**

- Crime and policing analysis is a significant area of research.
- Police demand is highest in London and the South East.
- Police priorities are highest in London and the South East.



Home Office

### Q-Step Internship at the Home Office

Victoria Smith, BA Criminology

**Objectives**



- Investigate the Home Office
- Identify areas of high demand
- Identify areas of low demand
- Identify areas of high priority
- Identify areas of low priority

**Method**

Used a range of data sources including Home Office data, police demand data, and police priorities data.

**Key Findings**

- The Home Office is a significant department.
- Police demand is highest in London and the South East.
- Police priorities are highest in London and the South East.



Home Office

### Q-Step Internship: Modern Slavery

Rachael Woodman, BA Criminology

**Objectives**

- Investigate Modern Slavery
- Identify areas of high demand
- Identify areas of low demand
- Identify areas of high priority
- Identify areas of low priority

**Method**

Used a range of data sources including modern slavery data, police demand data, and police priorities data.

**Key Findings**

- Modern slavery is a significant problem.
- Police demand is highest in London and the South East.
- Police priorities are highest in London and the South East.



Home Office

# 5 students, 5 summers, 5 stories

- Sociology (or Sociology with ...)
- Politics and International Relations
- Politics, Philosophy and Economics
- Criminology
- English Language and Linguistics

# Sociology

- Natassia Leefe

Black, K., Geary, R., French, R., Leefe, N., Mercer, C., Glasier, A., Macdowall, W., Gibson, L., Datta, J., Palmer, M., et al (2016). Trends in the use of emergency contraception in Britain: evidence from the second and third National Surveys of Sexual Attitudes and Lifestyles.

*BJOG*, 123(10), 1600-1607.

"<http://dx.doi.org/10.1111/1471-0528.14131>"

- Summer 2014

- UCL

## Tweetable abstract

Despite pharmacy access, only a small rise in emergency contraception use has been seen in Britain over 10 years.

# Sociology

- MSc in Social Research Methods and Statistics
- Academic year 15/16
- “... without the internship I wouldn't have had a dissertation”
- “The Q-Step project had everything to do with me choosing to do a master's in social research methods and statistics.”



Natassia Leefe • 1st  
Research Analyst at GlobalWebIndex  
London, United Kingdom

# Politics, Philosophy and Economics

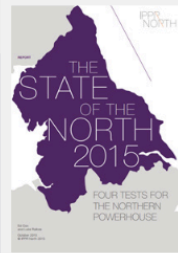
- Marcus Johns
- Summer 2015
- IPPR North

## IPPR North: The State of the North

Marcus Johns: BA Politics, Philosophy, and Economics  
Report authors and mentors: Luke Raikes and Ed Cox



The State of the North aimed to find around four tests for the success of the Northern Powerhouse beyond growth in terms of GVA. It simply aimed to answer the question: How will we know whether the Northern Powerhouse is working?



### Outcome

The report was unveiled on the 27th of October 2015 at Sheffield Town Hall. The day-long event included talks by Dan Jarvis MP, John Prescott, Leader of Sheffield City Council Cllr Julie Dore and other guests taking part in keynote speeches and panels chaired by the Guardian northern editor Helen Pidd. Many northern policy makers, academics, and businesspeople attended the conference.



**Conclusion: 4 tests, 11 benchmarks**

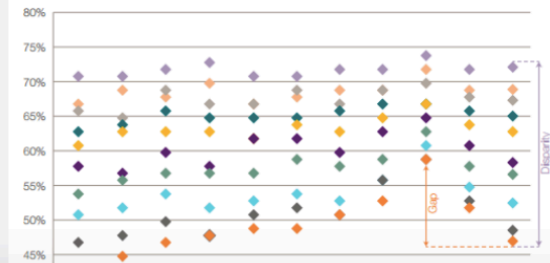


### Methods

Found data from a wide range of sources including the UK Data Service, Nomis, and the Office of National Statistics. Collected and manipulated the data using Excel to find a story line. Planned the list of indicators.

Figure 2.1

Percentage of children achieving a 'good' level of development in their early years foundation stage profile teacher assessments, by decile of the Income Deprivation Affecting Children Index, 2014





# North-South divide hits young children as early as five – IPPR North report

Less than half of children born into the poorest families in the North reach a good standard of development by the time they are five years' old, according to **Northern children 'too often left behind', says commissioner**

The poorest children in London, in a stark 'early good level of development point head start, when

In its annual State of successful northern children of their lives, starting

Closing the gap in early Northern Powerhouse

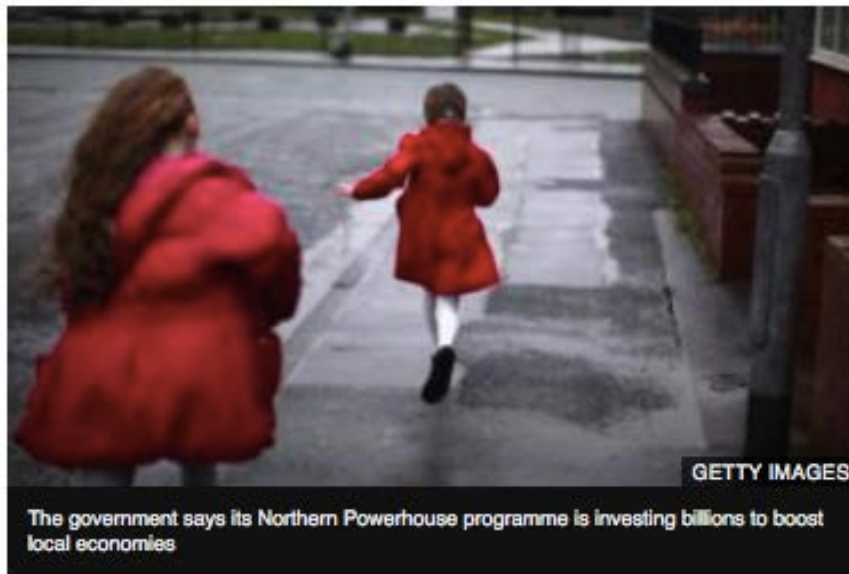
The report also found

- 55 per cent of young and Maths– but this falls

- The North's productivity trails the national average by 10.6 per cent. The report says the North needs to halve the productivity gap between itself and the UK as a whole, rising by £8.50 per hour

© 26 March 2018 | 

 Share



into poverty in the North achieve a 2 percentage

to create a back at all stages

each progress of the in the North.

including English school meals.

Too many children growing up in the north of England are facing the double disadvantage of entrenched deprivation and poor schools, a report warns.

England's Children's Commissioner Anne Longfield says children from poorer homes face an education gap that starts before school and widens over time.



Marcus Johns • 1st

Economic Consultant at Regeneris Consulting

Manchester, United Kingdom



nte & Labo

**Marcus Johns**

@CllrMarcus

@UKLabour & @coopparty Councillor for Deansgate. Work in economics 🐝 🌹 .

@LGBTLabour Prides Officer & NW



# Politics and International Relations

- Leo Carella
- Summer 2016
- Also IPPR North



# Politics and International Relations

## Overall Winner (across all Q-Step subjects)

- Winner: Leonardo Carella (BSocSc Politics and International Relations)
- Dissertation title: Who are the 'Left Behind'? The status stratification of UKIP support
- Supervisor: Professor Colin Talbot

Professor Rob Ford:

*The tailored support provided by the Q-Step programme helped an excellent student with little statistical experience develop his ideas into an outstanding piece of original research.*

*I'm still working with him on turning the dissertation into a journal paper.*



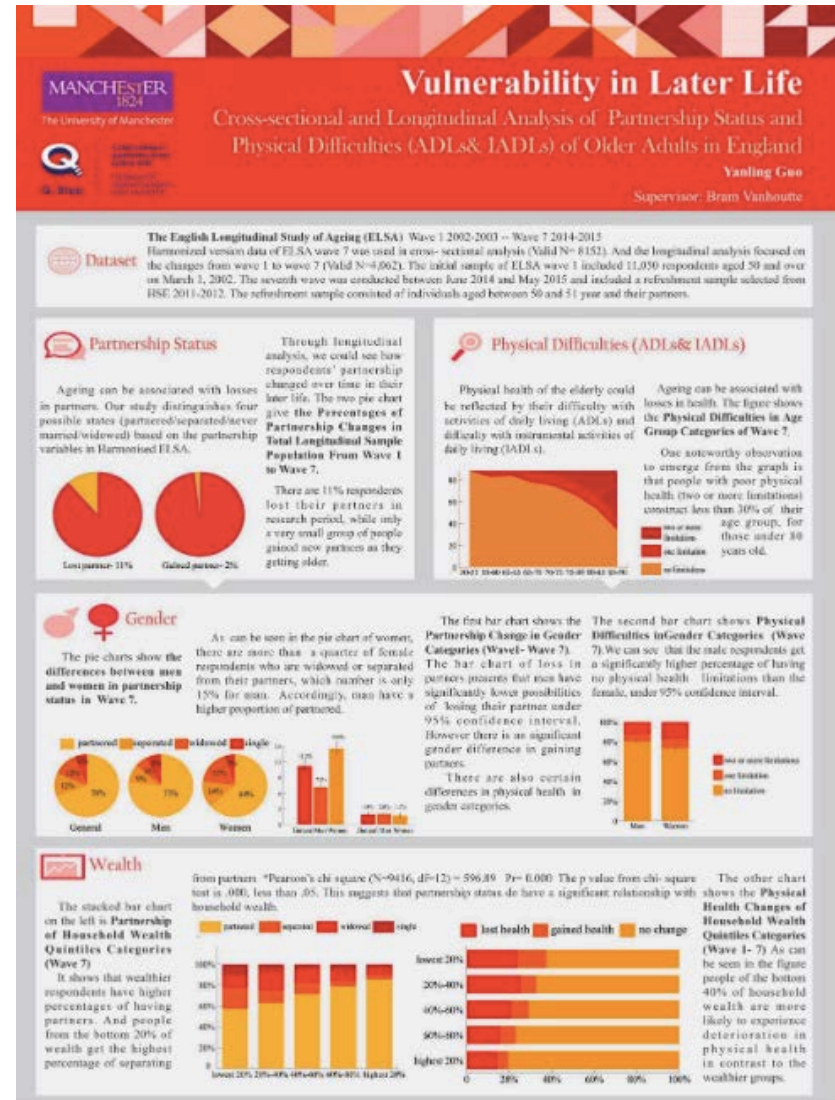
**Leonardo Carella**

@leonardocarella Follows you

MPhil candidate in European Politics at St Antony's College, @UniofOxford.

# Sociology and Linguistics

- Yanling Guo
- Summer 2017
- ELSA research



# Sociology and Linguistics

As the internship raised my interest of adverse events in later life, I decided to **carry on this topic in my final year sociology dissertation**. China's "one-child policy" lasted over 30 years until 2015, so that the families losing their only child led to many social problems—and mostly the parents were elderly people.... I also **chose a quantitative module about demographic data analysis in my last year** to help me with the analysis.

I considered undertaking **a role in academia after graduation**. Through the internship, I experienced the researchers' work in certain ways. This way of working contained constant thinking, but also meaningful discussion with others. My idea of applying for a higher degree was confirmed and programmes related to quantitative research methods were all open for my choice.

# Criminology

- Victoria Smith
- Summer 2015
- Home Office –  
Crime and Policy  
Unit

The image shows a screenshot of a university website. At the top, there is a banner with a colorful, abstract background and the text "FEATURE" in a purple box, followed by the headline "Giant steps for student interns". Below the banner, there is a section with a large letter "B" and the text: "Adding social scientists are seizing the opportunity to make an impact in the real world, thanks to Q-Step - a pioneering programme of work placements." To the left of this section, there is a navigation menu with a button labeled "< HOME". Below the navigation menu, there is a small text block: "Spring 2016 issue", "Words by Akwesi Seford", "Images by", and "©Stockphoto.com/vigarsnise". Below the main text, there is a paragraph: "The University's Q-Step programme is blazing a trail into the workplace for students, connecting them to employers such as the World Bank, the Home Office, the Department for International Development, YouGov, Santander, the BBC, The Times and Sunday Times, and Ipsos MORI." Below this paragraph, there is another paragraph: "Part of a five-year, £19.5 million national programme, Q-Step is transforming the way social science undergraduates are taught. It's teaching them to crunch the data needed to answer research questions of academic and public-policy interest, and enabling them to apply these skills to real-world environments such as social and political research, consultancy, business and marketing." At the bottom of the screenshot, there is a video player. The video title is "Q-Step internships programme". The video shows a woman with long brown hair, identified as Victoria Smith, in a dark top. Below the video, there is a caption: "Victoria Smith Placement : Home Office". The video player has a progress bar at the bottom showing 2:21 / 4:05.



# Criminology

- First class degree
- UK Data Service  
Dissertation Prize
- MRes Criminology  
(Social Statistics)
- Home Office part-time  
statistical officer
- Research officer Sept  
2017 ....
- Q-Step mentor for  
2018

**Provisional title for project:** Analysis to support further work on police reform

**Abstract:**

This project will focus on analysing data on the police service to help shape understanding of the changing demands they face, and ultimately supporting departmental work on police reform.

Analysis could focus on: analysing record level data on police.uk on the distribution of stops / searches; analysing data to better understand demands on the police (e.g. crime incidents, non-crime incidents, mental health, investigative pressures); providing analysis on specific aspects of police efficiency and effectiveness (e.g. the introduction of mobile working) - although the precise focus of the placement will be decided nearer the time.

*Data sources:* police.uk data; police recorded crime and incident data; police outcomes data; Crime Survey for England and Wales; Police Powers and Procedures data.

**Key words:** Policing and police resources; Stop and search; Demands on the police ; Mental health incidents; Investigations; crime outcomes; police effectiveness.

# Anna – the one that nearly got away

## Manchester Q-Step student data-crunches her way to a job

02 Sep 2015

Anna Kiel will join London-based Audiencenet after impressing them during a second year work placement with The University's innovative, data-driven Q-Step programme.



The University of Manchester's Q-Step programme of paid internships has seen its first permanent job





# Royal Statistical Society

**Getting down and dirty with data  
– how Q-Step Centres are training  
students in the workplace**



# Challenges and Opportunities

- How to assess and evaluate?
- 'with QM' degrees – range of skills
- Who pays?  
£3,000 per student, per summer
- Equality of access?
- Creative 'assessment'
- **Pay it forward**
- Curriculum design and advanced QM
- Co-funding, Industrial Strategy Challenge Fund? University (TEF)
- Opening doors

# Contact details

- Prof Jackie Carter [j.carter@manchester.ac.uk](mailto:j.carter@manchester.ac.uk)
- @JackieCarter
- @UoMQStep
- [www.manchester.ac.uk/q-step/](http://www.manchester.ac.uk/q-step/)
- *Work placements, internships and applied research*  
(Carter, Sage, forthcoming (2019))