



**VISUALISING THE DATA: A SNAPSHOT
OF THE RESULTS OF A LANDMARK
LSE STUDY INTO THE IMPACT OF
SOCIAL SCIENCE RESEARCH**

The
IMPACT *of*
THE SOCIAL SCIENCES

HOW ACADEMICS AND THEIR RESEARCH MAKE A DIFFERENCE

SIMON BASTOW · PATRICK DUNLEAVY · JANE TINKLER



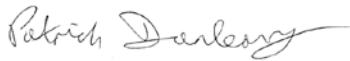
Welcome

In the modern globalized world, some estimates suggest that around 40 million people now work in jobs that 'translate' or mediate advances in social science research for use in business, government and public agencies, health care systems, and civil society organizations. Yet the impacts of university social science continue to be fiercely disputed and relatively under-researched. In the UK context, little is known about the scale, diversity, and overall value of university social science research. This pamphlet gives a taster of research from a new study by a team at the LSE Public Policy Group that has been sponsored by the Higher Education Funding Council of England (HEFCE) and will be published by SAGE later this year as **The Impact of the Social Sciences: How academics and their research makes a difference**. We have sought to put UK-based university social science research in profile, and fill an important gap in our knowledge in this area.

University social science now plays an essential role in the 'human-dominated' and 'human-influenced' systems that are central to our civilization. The empirical focus of the work is mainly on the UK, although our findings will have direct relevance for other major markets in Europe, North America, and internationally. Using in-depth research the authors show how the growth of a services economy, and the success of previous scientific interventions, mean that key areas of advance for corporations, public policy-makers and citizens alike now depend on our ability to understand our complex societies and economies. This is a landmark study in the evidence-based analysis of social science impacts.



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As the publisher of the social sciences, SAGE has passionately advocated for the importance of social science in creating healthy minds and healthy cultures. Since our inception in 1965, we have championed these fields of enquiry through publishing research, stimulating debate through events and partnerships, and advancing these discussions through creating online communities. Research in the social sciences has a significant impact on the world in which we live, informing new policies and practices and helping to evaluate the effectiveness of existing ones. However because of the complex nature of the social sciences, the diverse subject matter and the wide-ranging nature of the issues they seek to address, it is easy for the impact of these disciplines to become diffuse.

The Impact of the Social Sciences: How academics and their research make a difference provides an invaluable insight into how social science affects us all and to see how it supports our economy, our society and so many other areas of our lives.



Ziyad Marar, SAGE
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Join the debate around this important book and find out more about the Impact of Social Science Project at <http://blogs.lse.ac.uk/impactofsocialsciences/book>

The Impact of the Social Sciences

HOW ACADEMICS AND THEIR RESEARCH MAKE A DIFFERENCE

 *a taster from the book*



Number of university academics based in the UK doing research in the Social Sciences



Number of postgraduate students at UK universities doing research in the Social Sciences

£539 MILLION



Value of grants and contracts paid to UK universities for Social Science research



£4.8 BILLION



Total estimated economic value of Social Science research to the UK economy

£850 BILLION



Total estimated gross value added to the UK economy from business and civic services sectors – both sectors with high reliance on Social Science skills and knowledge

Introduction

This publication features data sets from the soon to be published 'The Impact of the Social Sciences'. We present to you a visual taster of our findings.

Throughout we refer to these four groups of disciplines:

The STEM disciplines	Including the (Physical) Sciences (including Medicine), Technology, Engineering and Mathematics
The CAD (Creative Arts) disciplines	Including Design, Art, Film, Drama, some forms of media, and Creative Writing
The Humanities	Including History, Philosophy, Languages and Theology
The Social Sciences	See opposite page for breakdown of disciplines

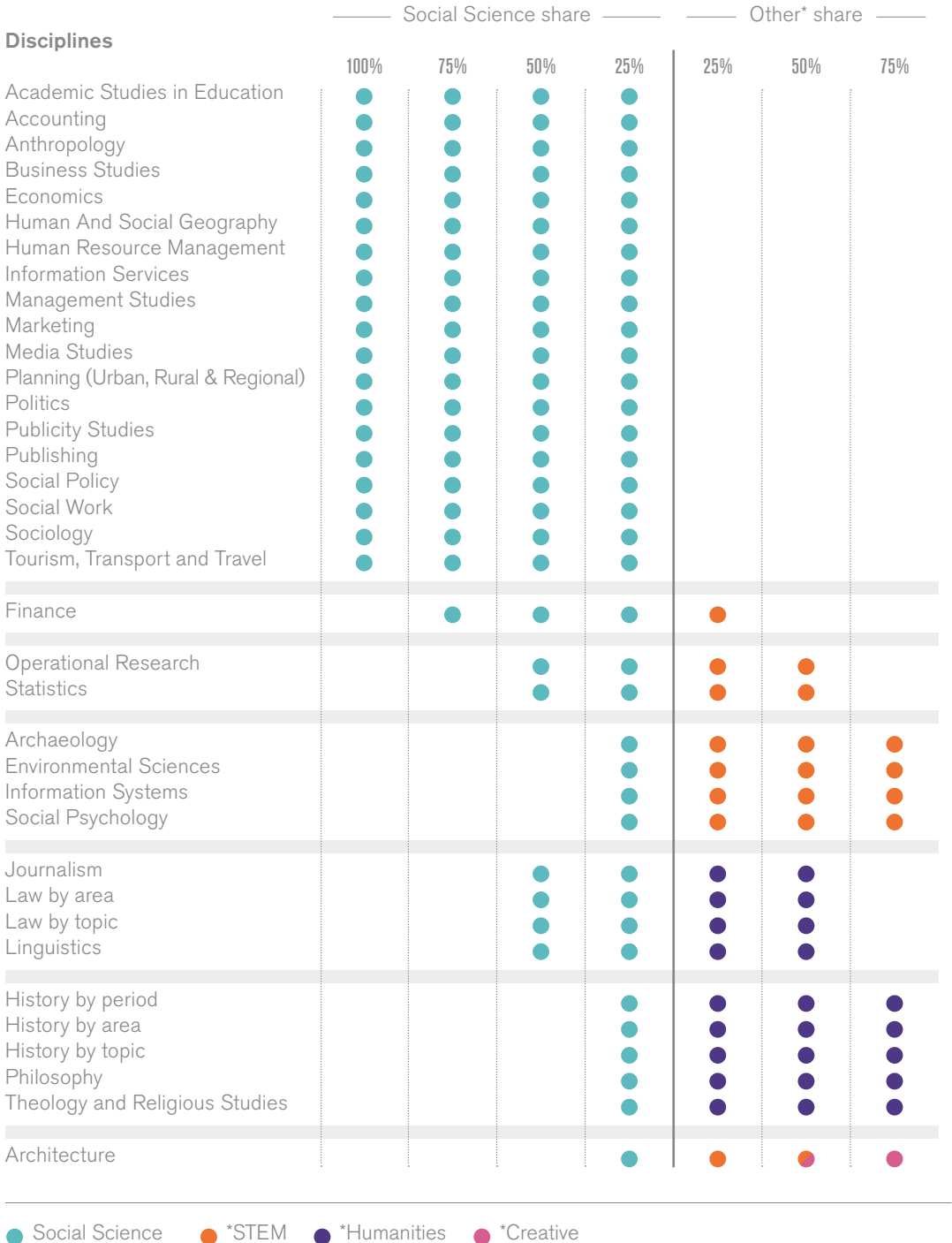
We have estimated the scale and diversity of the Social Sciences, including important areas of crossover with STEM, Humanities, and CAD disciplines.

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LSE PPG analysis of 2010–11 data provided by the Higher Education Statistics Agency (HESA)
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Consultancy carried out by SQW for LSE PPG

Breaking Down the Social Sciences

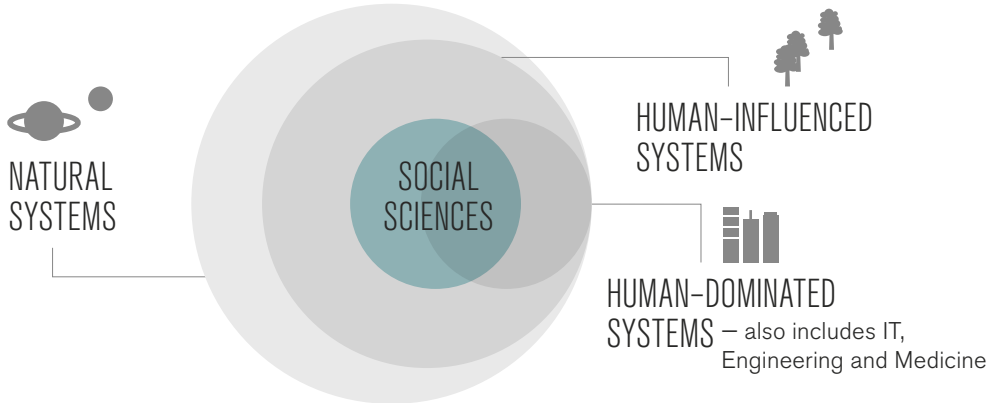
We scoped the Social Sciences to include core disciplines, but also areas of study that combine Social Science traditions with those in STEM, Humanities and Creative Arts. The table below outlines our blueprint of the Social Sciences, the basis for the data in this digest.



● Social Science ● *STEM ● *Humanities ● *Creative

The Social Sciences and Human-Dominated Systems

Current economic and technological trends call into question the contrast between 'natural' or 'physical' or 'hard sciences' with human-focused or 'soft' Social Sciences. Instead the figure below makes a three-fold distinction as follows:



Natural systems are aspects of the physical environment that do not involve and are not significantly affected by human interventions and actions. We would argue that in this sense there are increasingly few systems across the face of the Earth that are completely 'natural' – and consequently that it is only in astrophysics that scientific disciplines exist with a genuinely or fully natural focus.

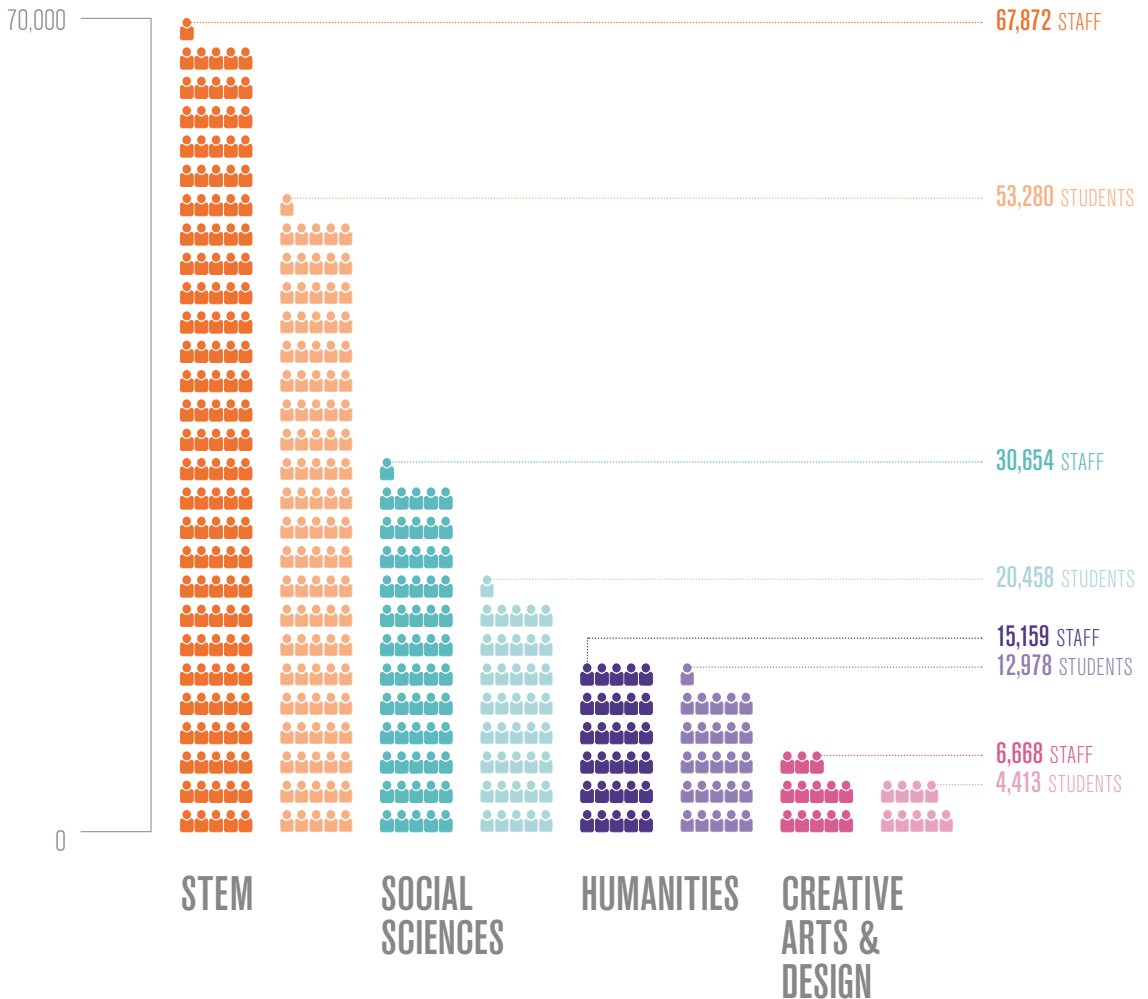
Human-influenced systems are basically erstwhile 'physical' systems on Earth that remain mostly or essentially autonomous in their mode of operation, but where there are nonetheless significant human interventions or efforts at control. The development of knowledge here is often focused on warning or prediction systems and on formulating human responses – as with climate and weather predictions, or efforts to predict or monitor earthquake pressures and to formulate engineering responses.

Human-dominated systems encompass all the numerous artefacts of human civilization (cities, markets, organizations, firms, government institutions, agriculture, transport and infrastructure systems, IT, communications and data systems); all aspects of social and economic organization and issues created; and the human physiology and medical/health sciences interventions.

In these terms, the Social Sciences are primarily centred in the study of human dominated systems, but their coverage also spans across extensively into Human-Influenced Systems. It follows that there is no sharp contrast between the Social Sciences and many STEM subjects - especially medicine and health sciences, IT and information analysis, and engineering and risk management in all their forms.

Number of Research Staff and Postgraduate Students

We estimated the number of university staff and students doing research in the Social Sciences.

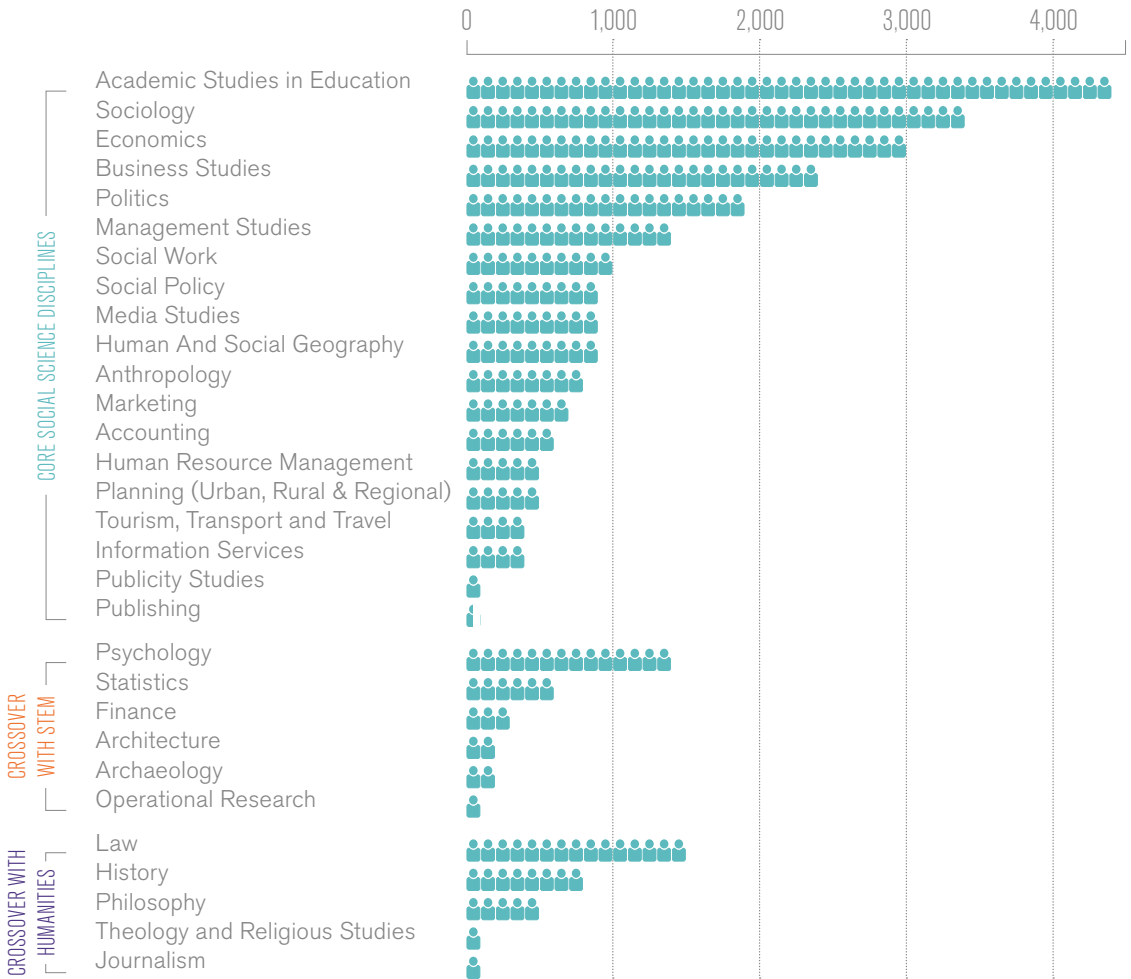


1  = 500 PEOPLE

Research Staff in the Social Sciences

2010 – 2011

We break these figures down by individual subject areas.

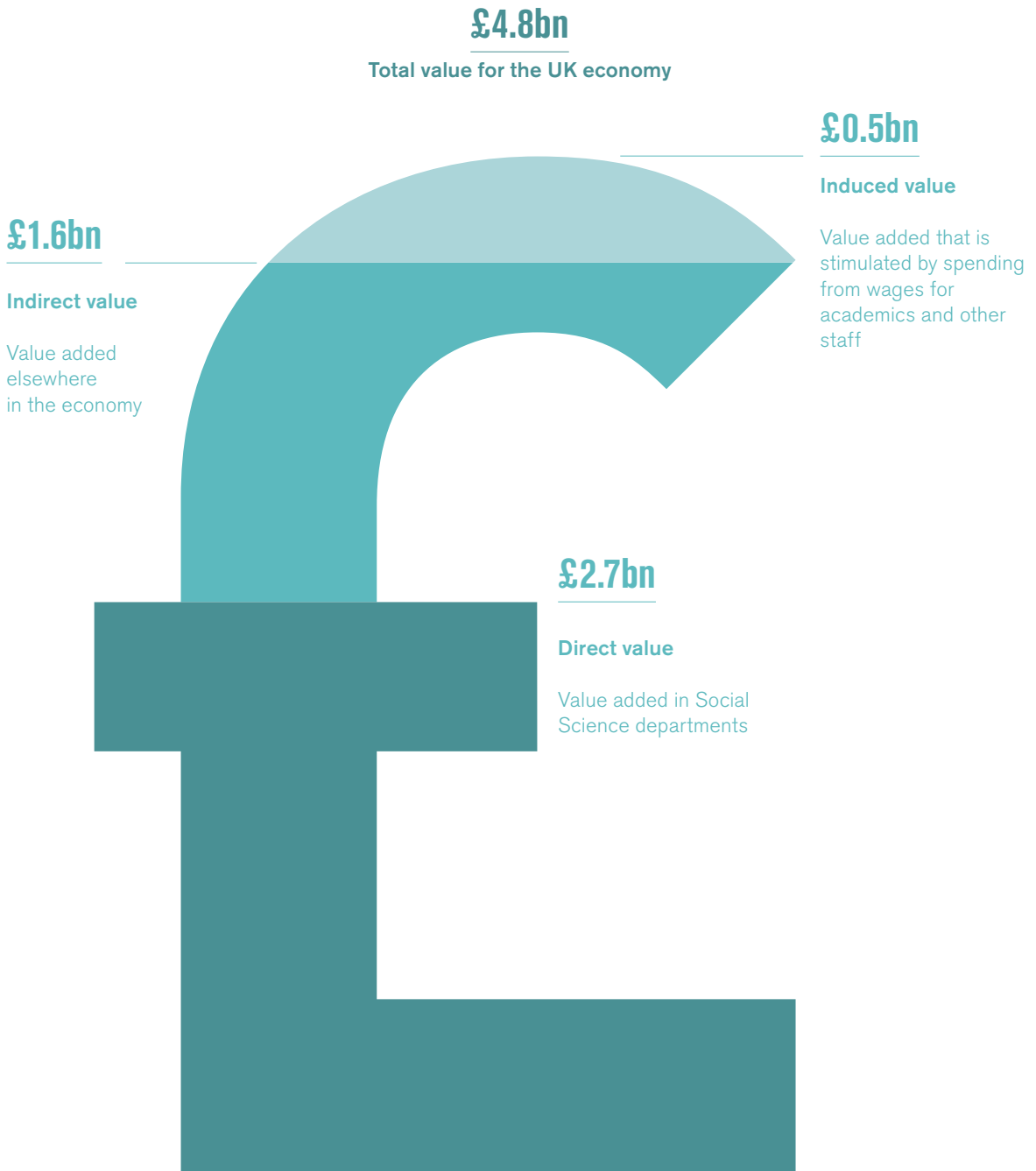


1  = 100 PEOPLE

The Estimated Economic Impacts of UK University Social Sciences

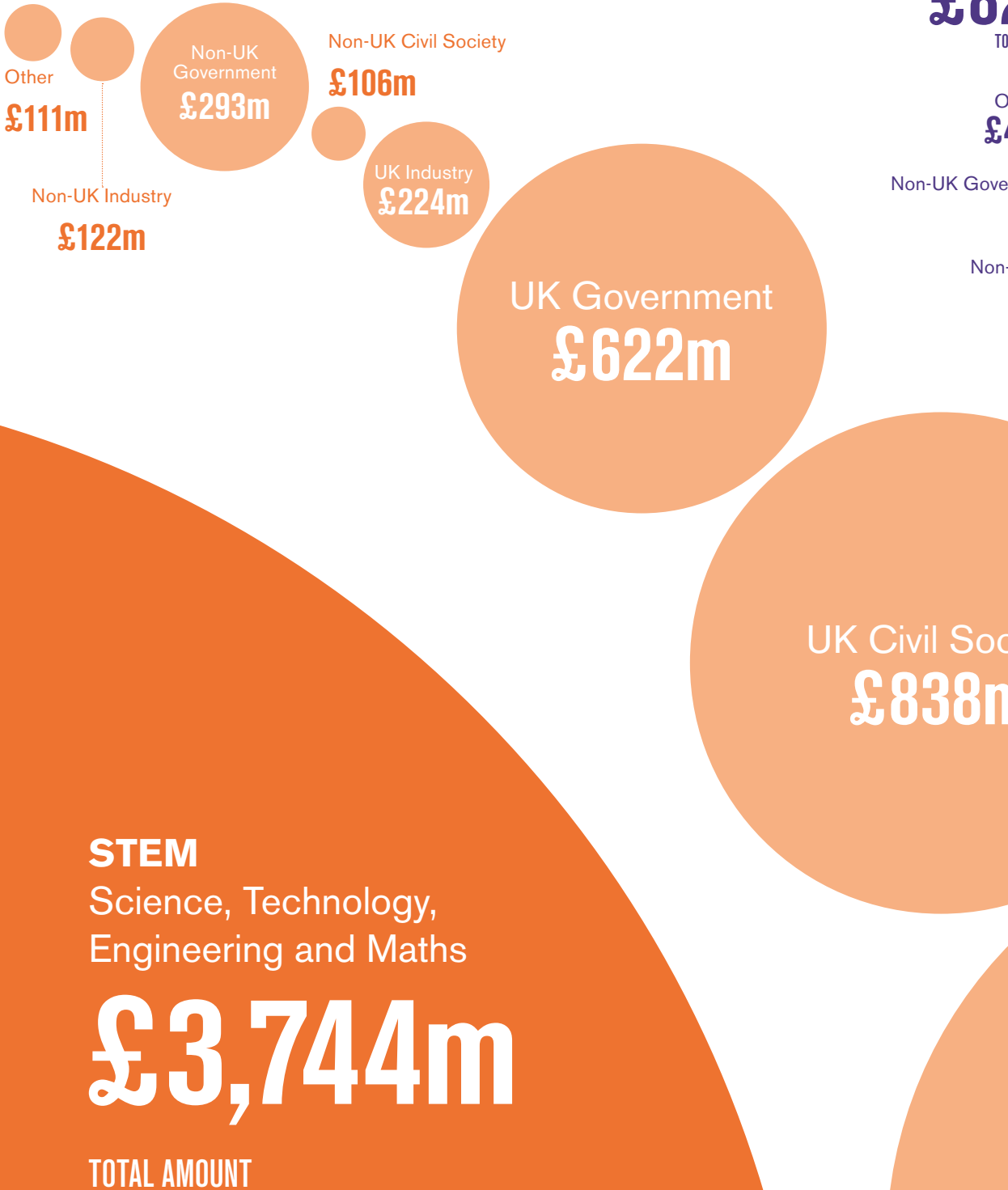
2010 – 2011

We commissioned the consultancy Cambridge Econometrics to estimate the economic impacts of UK university Social Science research. The headline figure was just under £5 billion annually.



Estimated Value of Research Grants and Contracts to UK Universities

2010 – 2011



STEM

Science, Technology,
Engineering and Maths

£3,744m

TOTAL AMOUNT

Human

£82

TO

O

£

Non-UK Gover

Non-

UK Civil Soc

£838m

ities

2m
TOTAL AMOUNT

Other
4m

Government
6m

UK Civil Society
3m

Government Research Councils*
£45m

UK Civil Society
£19m

UK Government
£4m

UK Industry
£1m

Creative Arts & Design

Other
£4m

£32m
TOTAL AMOUNT

Government Research Councils*
£45m

Non-UK Government
£6m

UK Civil Society
£19m

Non-UK Civil Society
£3m

UK Government
£4m

UK Industry
£1m

UK Civil Society
£53m

UK Government
£144m

Government Research Councils*
£138m

UK Industry
£47m

Non-UK Civil Society
£15m

society
n

Social Science
£539m
TOTAL AMOUNT

Non-UK Government
£90m

Non-UK Industry
£15m

Other
£37m

Government Research Councils*
£1,428m

Q Government accounts for approximately one half of the expenditure on all research grants and contracts to UK **Social Sciences**.

1 in every 10 pounds of grants and contract funding of **Social Science** research comes from UK and international industry.

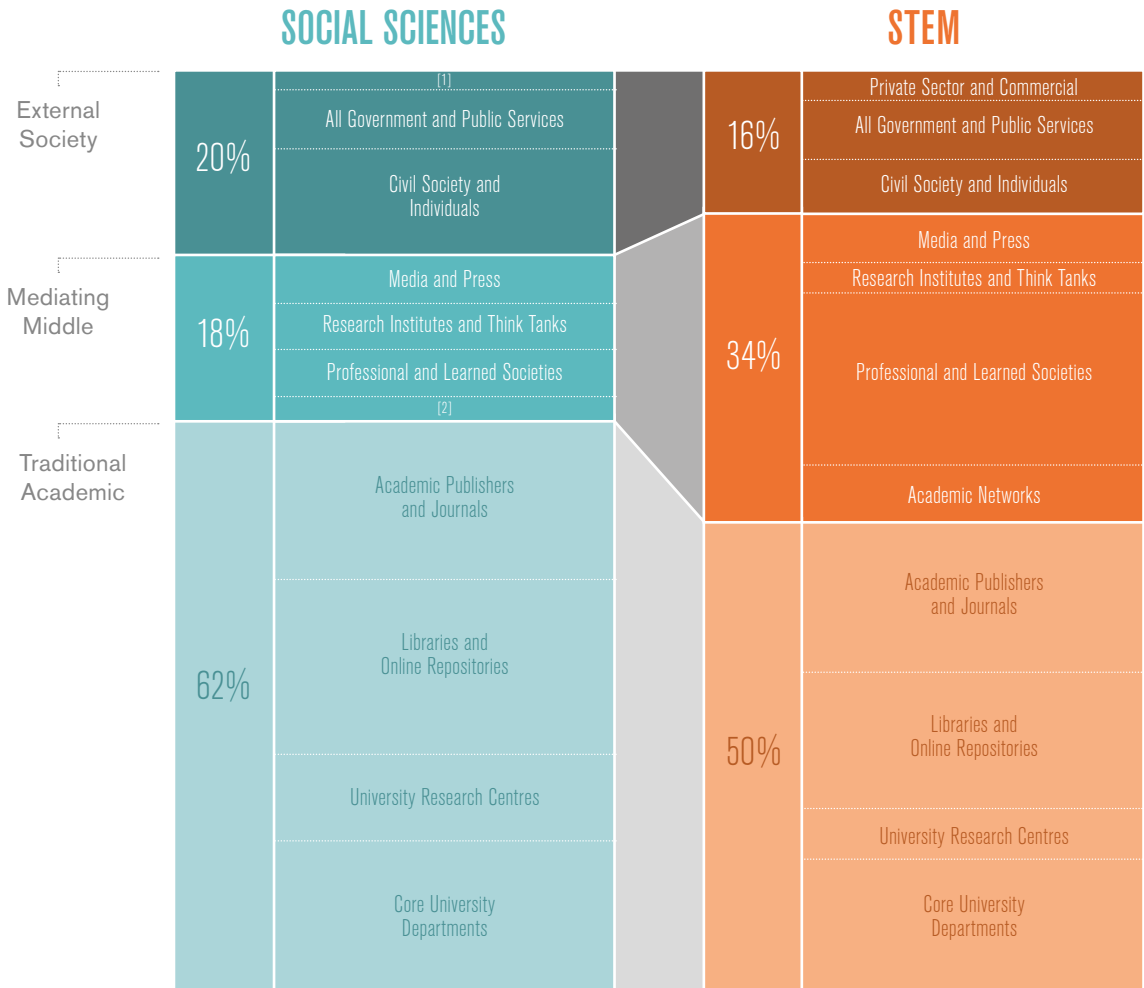
* BIS Research Councils, The Royal Society, British Academy and The Royal Society of Edinburgh

Assessing the Footprint of Social Science and STEM Academics

We randomly sampled 370 research academics based at UK universities, 270 from the Social Sciences, and 100 from the STEM sciences for comparison.

We used the search engine Google to evaluate the extent to which they or their work were mentioned by different types of organisation in the UK and abroad. We recorded all references to our academics, and allocated them into different categories. The breakdown for Social Science and STEM are shown below.

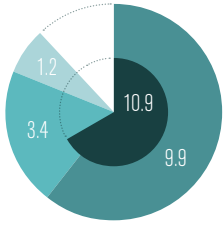
Q In terms of external visibility the picture at the level of individuals is broadly comparable, although **STEM** scientists' work is more intermediated than for **Social Science**. References to **STEM** scientists were twice as frequently found on the websites of mediating bodies such as professional associations and learned societies.



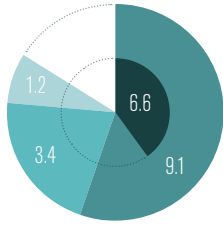
[1] Private Sector and Commercial

[2] Academic Networks

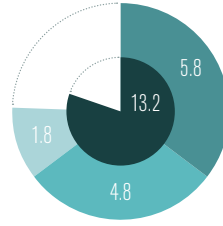
Average Number of 'External Society' and 'Mediating Middle' mentions per academic



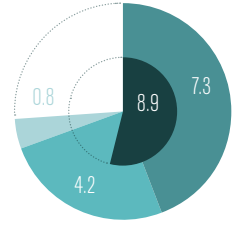
Anthropology



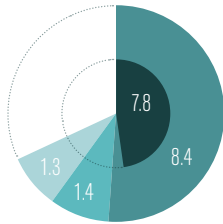
Psychology



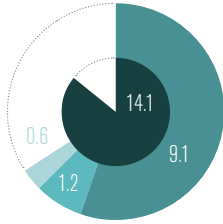
Geography



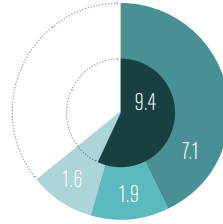
Social Policy



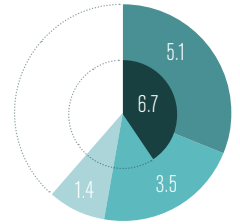
History



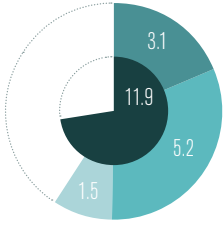
Philosophy



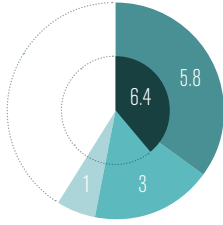
Communications and Media Studies



Sociology



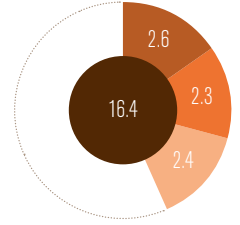
Economics



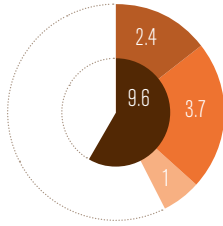
Law



Political Science



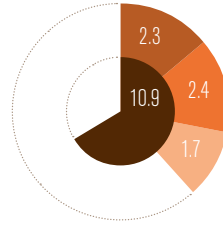
Chemistry



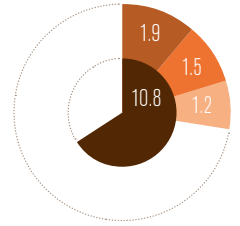
Medicine



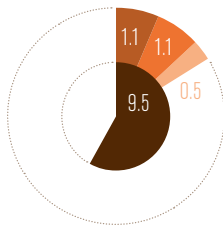
Business and Management



Physics



Engineering



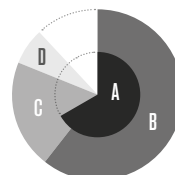
Computer Science

A – Mediating Middle mentions (from)

Professional & Learned Societies, Think Tanks, Research Networks, and Media & Press

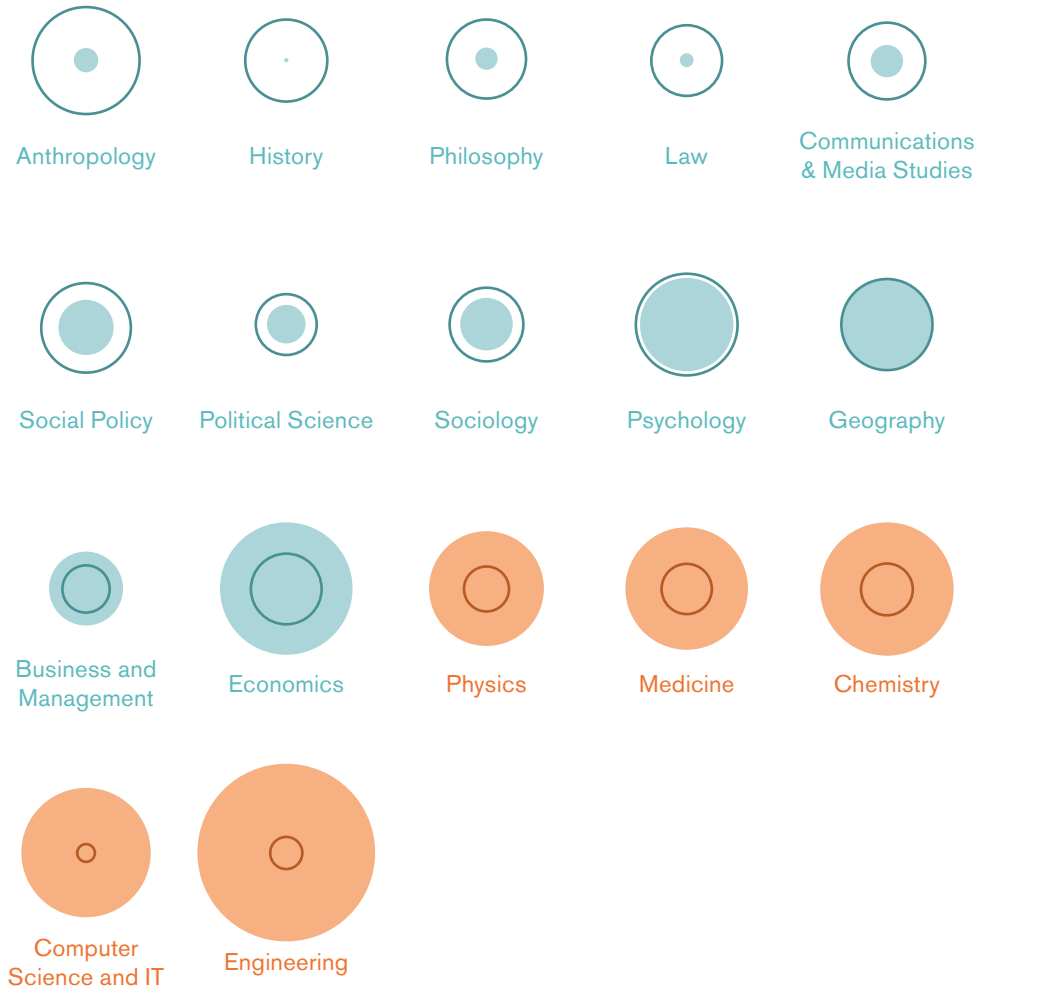
External mentions (from)

- B** – Civil Society and Individuals
- C** – International and UK Government
- D** – Private sector & Trade Associations



How Different Disciplines Balance Academic Outputs and External Visibility

For each of our disciplines, we compared the average number of citations per output with the average number of external mentions. In the top row, we find disciplines in which average external mentions are comparatively larger than academic citations. As we move down the rows, we find comparatively more academic citations than external mentions.



Average number of external mentions per academic



Average number of citations per article



For example, the wider one circle is over the other, the greater the orientation towards academic mention or external citation the discipline appears to be.



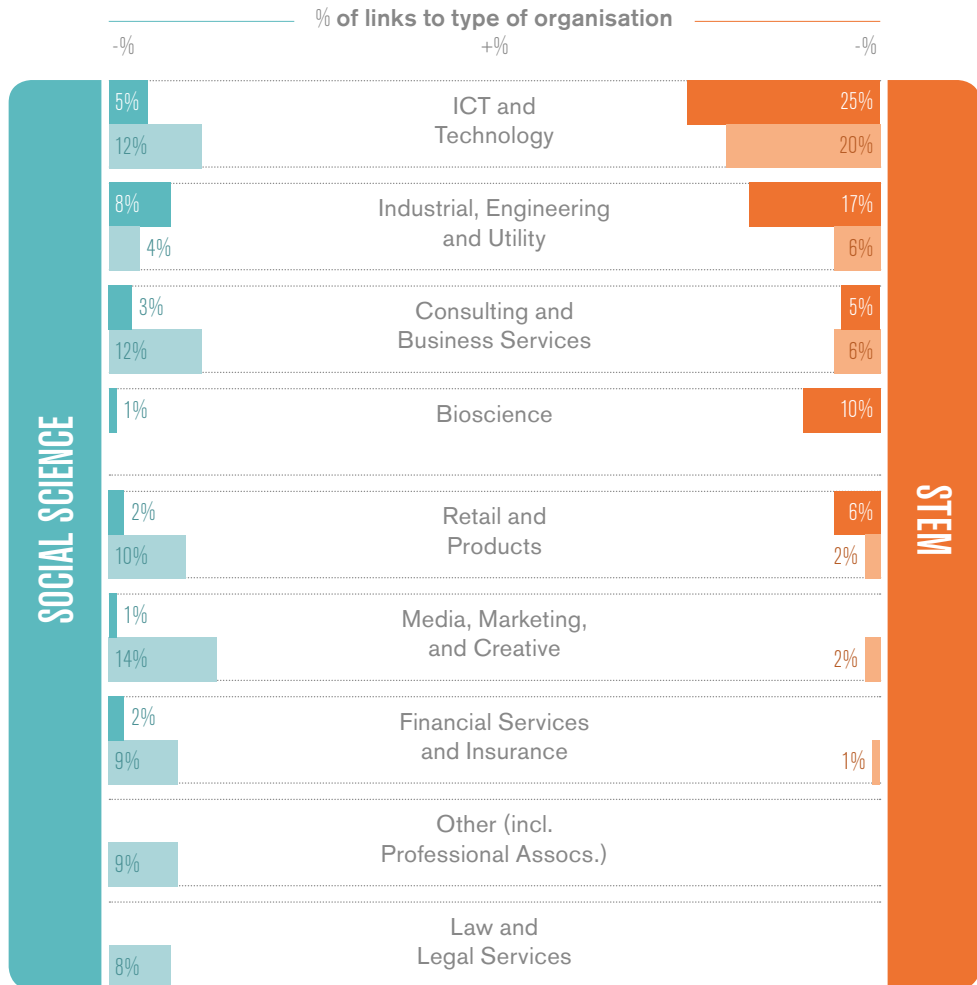
STEM

Social Science

Links between Academic Disciplines and Private Sector Organisations

We commissioned the consultants S&W to review UK University departmental websites, and code all links and references made to external organisations in Business, Government, and Civil Society sectors. We weighted these links according to size and importance, and formulated a picture of interactions between UK University Social Science and external stakeholders in society.

🔍 **Social Science** research links are consistently found across a wide range of Business sectors, Services and Manufacturing. **STEM** research seems more concentrated in particular sectors and areas.



I was chatting to a Social Science academic from the States three or four months ago. He ventured the opinion that one of the issues we have here is that, in the US academics tend to do research with business. In the UK, they do research about business. And that is quite an important distinction.

SENIOR OFFICIAL FROM A UK BUSINESS ASSOCIATION

Sector

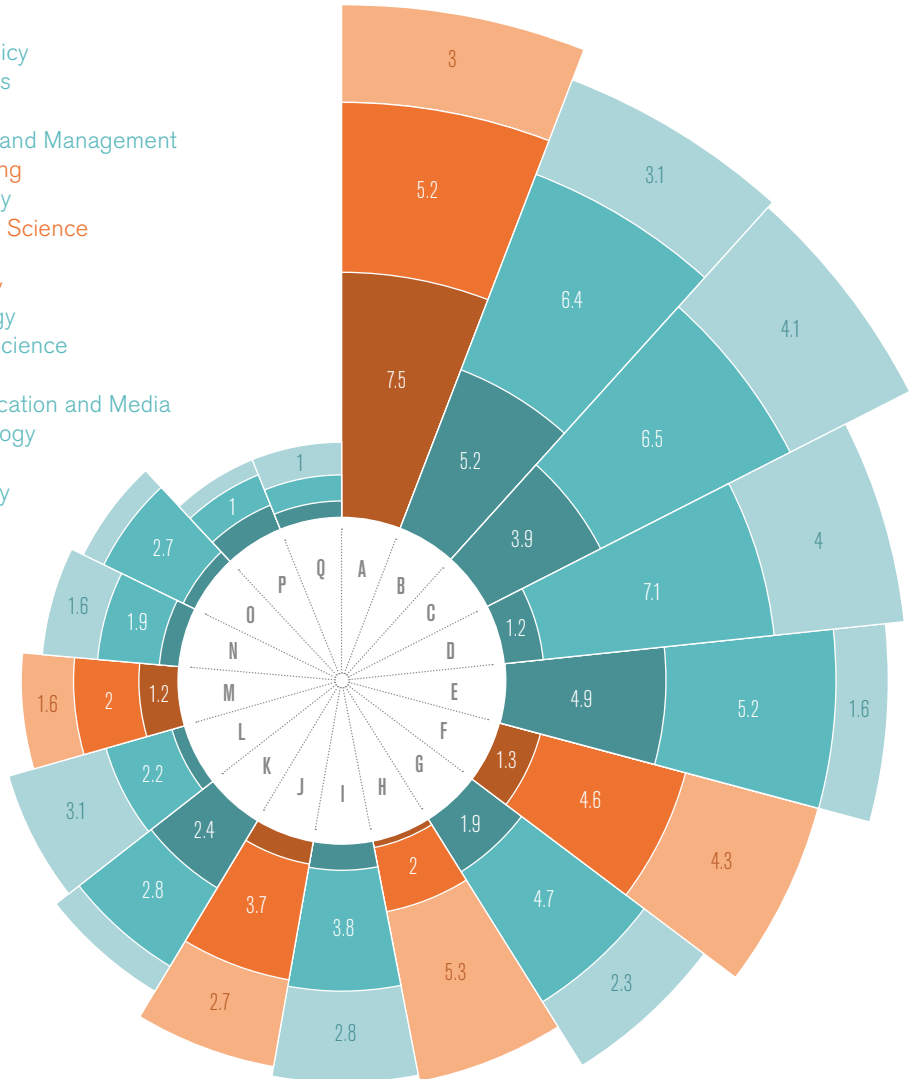
- Primary and Manufacturing
- Services

Review of University Department Websites for Links to Government or Public Sector Organisations

These visualisations display the average number of references found on University departmental websites to different types of organisation and sector. The larger the radius, the greater the average number of references for each discipline.

Discipline

- A Medicine
- B Social Policy
- C Economics
- D Law
- E Business and Management
- F Engineering
- G Geography
- H Computer Science
- I Sociology
- J Chemistry
- K Psychology
- L Political Science
- M Physics
- N Communication and Media
- O Anthropology
- P History
- Q Philosophy



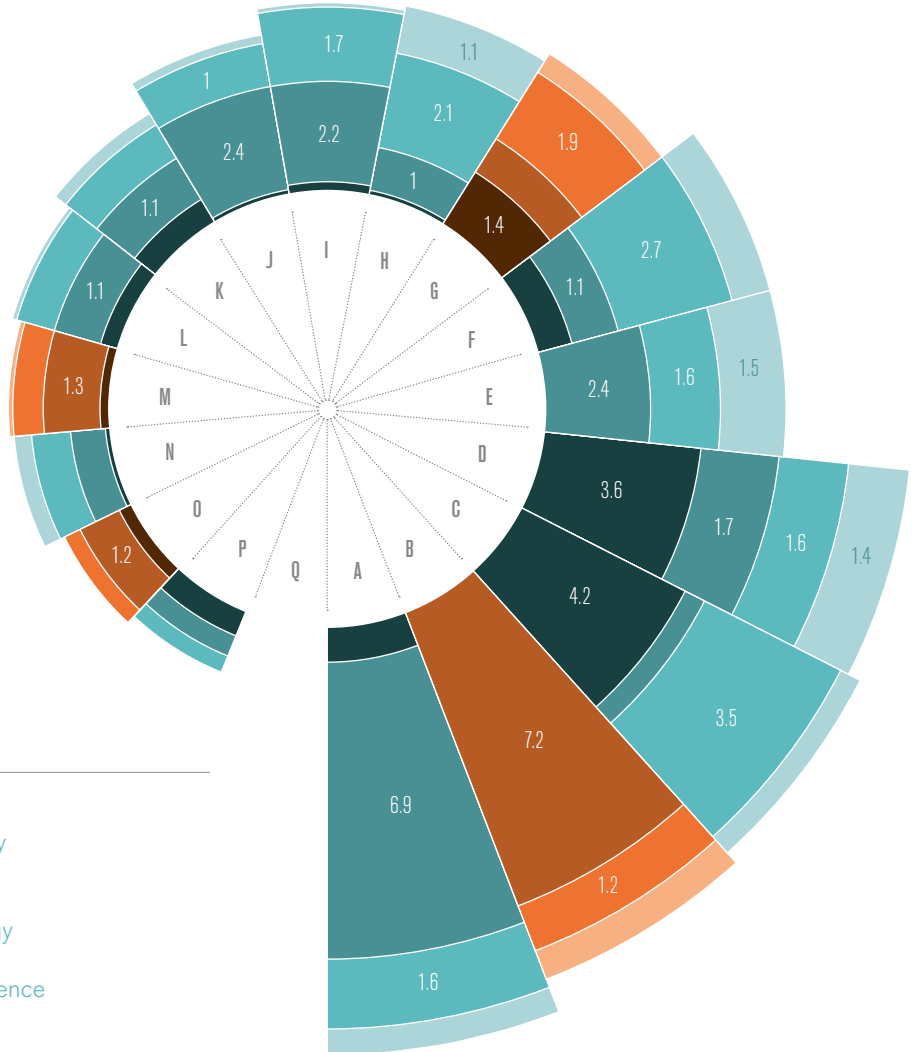
Public Sector Organisations

- Local and Regional UK Government
- Central UK Government
- EU and International Governance





Review of University Department Websites for Links to Civil Society Organisations

I've worked in both policy and campaigning, I totally agree with you, for us the word is credibility, that's why we use academic research and I think we use it in lots of different ways.

INTERNATIONAL NGO RESEARCH DIRECTOR



- Discipline**
- A** Social Policy
 - B** Medicine
 - C** History
 - D** Anthropology
 - E** Law
 - F** Political Science
 - G** Engineering
 - H** Economics
 - I** Psychology
 - J** Business & Management
 - K** Philosophy
 - L** Sociology
 - M** Chemistry
 - N** Geography
 - O** Computer Science
 - P** Communication & Media
 - Q** Physics

- Public Sector Organisations**
-  Cultural and Heritage bodies
 -  Domestic Charities
 -  Research-oriented bodies
 -  Internationally recognised Charities

Join the international social science conversation

Teaching Resources

Podcasts

Blogs

Videos

Imagine if there was a place where you could go as a **social science** researcher or a teacher to **share** issues or challenges, and **engage** in serious **debate**? Read **blogs**, or find teaching **resources**, **video**, **podcasts**, and more? And all this endorsed by some of the world's leading social science associations?

**Social
Science
Bites**

social science **space**

www.socialsciencebites.com

www.socialsciencespace.com

In association with
 **SAGE**

The impact agenda is set to shape the way in which social scientists prioritise the work they choose to pursue, the research methods they use and how they publish their findings over the coming decade, but how much is currently known about how social science research has made a mark on society?

Based on a three year research project studying the impact of 370 UK-based academics on business, government and civil society sectors, this groundbreaking new book undertakes the most thorough analysis yet of how academic research in the social sciences achieves public policy impacts, contributes to economic prosperity, and informs public understanding of policy issues as well as economic and social changes. *The Impact of the Social Sciences* addresses and engages with key issues, including:

- identifying ways to conceptualise and model impact in the social sciences
- developing more sophisticated ways to measure academic and external impacts of social science research
- explaining how impacts from individual academics, research units and universities can be improved.

It will be essential reading for researchers, academics and anyone involved in discussions about how to improve the value and impact of funded research.

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Join the debate around this important book and find out more about the Impact of Social Science Project at <http://blogs.lse.ac.uk/impactofsocialsciences/book>

To order a copy of the book (P&P free) go to www.sagepub.co.uk/impact

