UK Data Service Webinar:
Learning and teaching with data

Engaging Students in Quantitative Methods:
Real questions, Real data

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Social Data from the UK Data Service

A goldmine for teaching quantitative methods

- In traditional ‘methods’ modules
- Embedding QM within ‘substantive’ modules
Poll question...

What’s your experience of using secondary data in teaching?
Methods Teaching

The ‘challenges’ of teaching the Quantitative Methods module....

- The fear of number
- Disconnection from rest of the degree programme
Quantitative Method Disconnected

Substantive Modules

Methods Modules
Engaging students

- Challenge is to show that quantitative data and method has relevance to the topics that inspired them to take a social science degree.

- Learning quantitative method has much more resonance if it is contextualised using real research questions and REAL DATA.

- This approach to teaching much easier now than in the past – we have a huge range of accessible real world data on the topics Social Science students are interested in.
Leading with the data...

The Survey Method in Social Research  (Year 2 Sociology)

Week 1 practical…. Is there any data on my topic?

(Searching the UK Data Service)

- All about showcasing the range of data available
  .........data on topics that interest our students
Discover data

Search and browse our data collections, support guides, case studies and related publications.

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The UK Data Service provides access to over 6,000 digital data collections for research and teaching purposes covering an extensive range of key economic and social data, both quantitative and qualitative, and spanning many disciplines and themes.
Discover

Search and browse our data collections, support guides, case studies, and related publications.

Search for: fear of crime

SEARCH RESULTS

Displaying 1-10 of 183 results

1. [SN 7048 Metropolitan Police Public Attitudes Surveys, 2000-2013](#)
   Metropolitan Police Service: Strategy and Performance
   + Full record...

2. [SN 7084 Metropolitan Police Service User Satisfaction Survey, 2005/06-2012/13](#)
   Metropolitan Police Service: Strategy and Performance
   + Full record...

3. [SN 7210 Opinions and Lifestyle Survey, April 2012](#)
   Office for National Statistics, Social Survey Division
   + Full record...

4. [SN 7252 Crime Survey for England and Wales, 2011-2012](#)
   Office for National Statistics
   + Full record...
Data by theme

**Labour market**
Employment is a fundamental feature of social life. At the macro level, labour costs, employment rates and industrial and occupational patterns have considerable impact on the character and prosperity of nations. At the micro level, individual workers sell labour in markets according to their personal capital and circumstances. In turn, their relationship to the labour market affects their movements, time use, resources available to them, and their well-being. The UK Data Service holds a full range of employment and labour market data from key government and longitudinal surveys to international indicators and qualitative historical interviews.

**Housing and the local environment**
Housing conditions and the quality of the local environment play a large role in quality of life. Health and well-being can be affected by poor housing conditions such as damp or overcrowding and also by factors related to the local area, for example levels of deprivation, access to services, contact with neighbours or the fear of crime. Good quality homes and local surroundings are important factors in ensuring a safe and healthy environment. Many of the data sources held by the UK Data Service contain information on these topics.

**Crime and social control**
'Crime' encompasses a wide range of issues that lie within the remit of several academic disciplines, including sociology, psychology, law and economics. As a theme, crime may cover various topics, ranging from contemporary concerns over youth gangs and anti-social behaviour, through 'white collar' and corporate crime, including crimes against the environment, to serious violence. Crime-related data held by the UK Data Service include not only national crime surveys (which themselves cover diverse issues such as identity theft and alcohol-related disorder in the night-time economy) but also illegal drug use, workers in the criminal justice system, football hooliganism and community policing in Africa.

**Health and health behaviour**
Health and health behaviour covers a wide range of topics and cuts across many academic disciplines. Data have been collected and are made
Making connections..
(some e.g.’s Sociology students)

Attitudes to welfare cuts → British Social Attitudes
Use of social media → Young People's Behaviour and Attitudes Survey,
Youth lifestyle – Drugs and drink → Health Survey for England
Obesity and attitudes to weight loss → British Crime Survey
Fear of crime → Labour Force Survey
Returns on higher education → UEA-MORI Genetically-modified (GM) Food Survey, 2003
Ethnic and gender differences in occupation
Genetically modified Food
I’ve found data. Is it fit for purpose?

- UK Data Service.. More than the data
- User friendly documentation – supports student led and interactive learning (data evaluation is an important but potentially very dry subject)
  - Does it have the right variables? (questionnaires)
  - Is the sample suitable?
  - How do I get hold of the data?
Looking at variables in NESSTAR

Dataset: Health Survey for England, 2011

Variable SayWgt: How views own weight

LITERAL QUESTION
[Self-completion] Given your age and height, would you say that you are... about the right weight

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<th>Categories</th>
<th>N</th>
<th>%</th>
</tr>
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<td>420</td>
<td>75.5%</td>
</tr>
<tr>
<td>2</td>
<td>Too heavy</td>
<td>83</td>
<td>14.9%</td>
</tr>
<tr>
<td>3</td>
<td>Too light</td>
<td>53</td>
<td>9.5%</td>
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<tr>
<td>-9</td>
<td>Refusal</td>
<td>5</td>
<td></td>
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<td>-2</td>
<td>Schedule not applicable</td>
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<tr>
<td>-1</td>
<td>Item not applicable</td>
<td>9883</td>
<td></td>
</tr>
</tbody>
</table>

SUMMARY STATISTICS
Valid cases 556
Missing cases 10061
This variable is numeric

UNIVERSE
Everyone please answer
Assessment

Writing up the process...

Research Question > data search > data evaluation

... makes a great first assignment, prior to moving onto data analysis

(quantitative methods modules often only focus on the latter – this is more like doing real research)
The value of a ‘teaching dataset’

From research question to data analysis…

Ideal World – let students run with their own research questions, and the datasets they’ve found

- More appropriate for a final year dissertation.
- Not practical for a large introductory methods class
- Advantages of a class teaching dataset
  ...off the shelf or make your own
Poll question..

Which sort of teaching datasets are you interested in?
Teaching datasets

"Find data designed for teaching or create your own"

Our collection includes teaching datasets, many of which can be explored online without the need for additional software. However most of the data available through this service can be used by teachers to produce recent, engaging, real-world teaching resources.

Discover teaching data

We have a growing number of datasets designed for teaching, produced both by data services and teachers themselves, which can be accessed through our Discover tool. These include:

- cut down datasets from major surveys
- qualitative teaching files
- file collections for teaching particular topics

Discover our teaching datasets now.
British Social Attitudes (2009)

- Data for a series of 5 weekly SPSS training workshops
- 75 variables (from over 800), all the cases.

Taught using 3 research themes:
- Trust in politicians
- Strivers and shirkers: the welfare debate
- Crime and Punishment

- Students could relate to these topics, interested in how their own views aligned with the UK public
Assessment

- Students develop their own research question (free choice of dependent variable from the BSA dataset)

- Simple exploratory analysis – crosstabs with a control variable and a chi square test

- Assessment structure that teaches data analysis as part of the research process, a foundation for students to use this method in final year dissertations
It’s not all about the methods module

- Using real data can help methods modules to make connections across to the substantive curriculum.

- But real progress when it works the other way too i.e. using REAL DATA as an evidence base to help embed quantitative method into the substantive curriculum.
Quantitative Method re-connected

Substantive Modules

Methods Modules
Embedding QM in Substantive Teaching (Manchester based ESRC project)

Teaching Partnerships
- The Sociology of Personal Life
- Racism and Ethnicity in the UK
- The Sociology of Spiritual Life
- Power and Protest
- Sociology Dissertation
- Work Economy and Society
- Intro to Comparative Politics
- Politics of Policy Making
- Elections and Voters
- The Politics Project
- Politics Dissertation

1. Showing the contribution of QM within the discipline
2. Giving students the skills and confidence to engage with quantitative evidence.
3. Making connections with the methods module
Making Students part of the Dataset
Views of cultural impact of immigration over last 10 years

2011 British Social Attitudes
Self-reported General Health by Ethnic group by sex (% reporting bad health)

Vehicle for addressing multiple QM learning objectives...

- Data sources
- Measurement issues
- Representativeness
- Making comparisons
- Association and causality

Source: Health Survey for England 2004
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