
Key Data: Business data

Welcome to today's webinar

The webinar will begin at 3.00pm

- You now have a menu in the top right corner of your screen
- The red button with the white arrow allows you to expand and contract the webinar menu, in which you can write questions/comments
- There will be opportunities to ask questions
- You will be on mute throughout – we can't hear you



Key data: Business data

UK Data Service



Can you hear us?



UK Data Service



Can you hear us?

If Not:

- Check your volume, and that your speaker/headset is plugged in
- Your invitation also included a phone number; you can call that to listen in



Introductions



Christine Woods
Senior Support
Officer
(Secure Lab)



James Scott
Senior User Support
& Training Officer
(Secure Lab)



What we will cover today

1. Business survey areas and data available
2. Examples of research
3. How to apply to access these data
 - Questions at appropriate points
 - You will be on mute throughout – we can't hear you



Business Microdata

- ONS conducts a range of business surveys
- Majority are collected under statute and are compulsory
- Some data for most business organisations in the UK
- Data are divided into 'reporting units', 'enterprises' and 'local units' (more later)
- Postcode-level, low-level geographies
- Business data can be linked together (more later)



Business survey areas

Innovation,
research and
development

Earnings and
skills

Productivity
and
Employment
relations

International
trade and
foreign direct
investment

Environment

Innovation, research and development

- E-Commerce Survey, 2001-2015
- IIA: Investment in Intangible Assets Survey, 2009-2010
- BERD: Business Expenditure on Research and Development, 1994-2015
- UKIS: UK Innovation Survey, 1994-2014



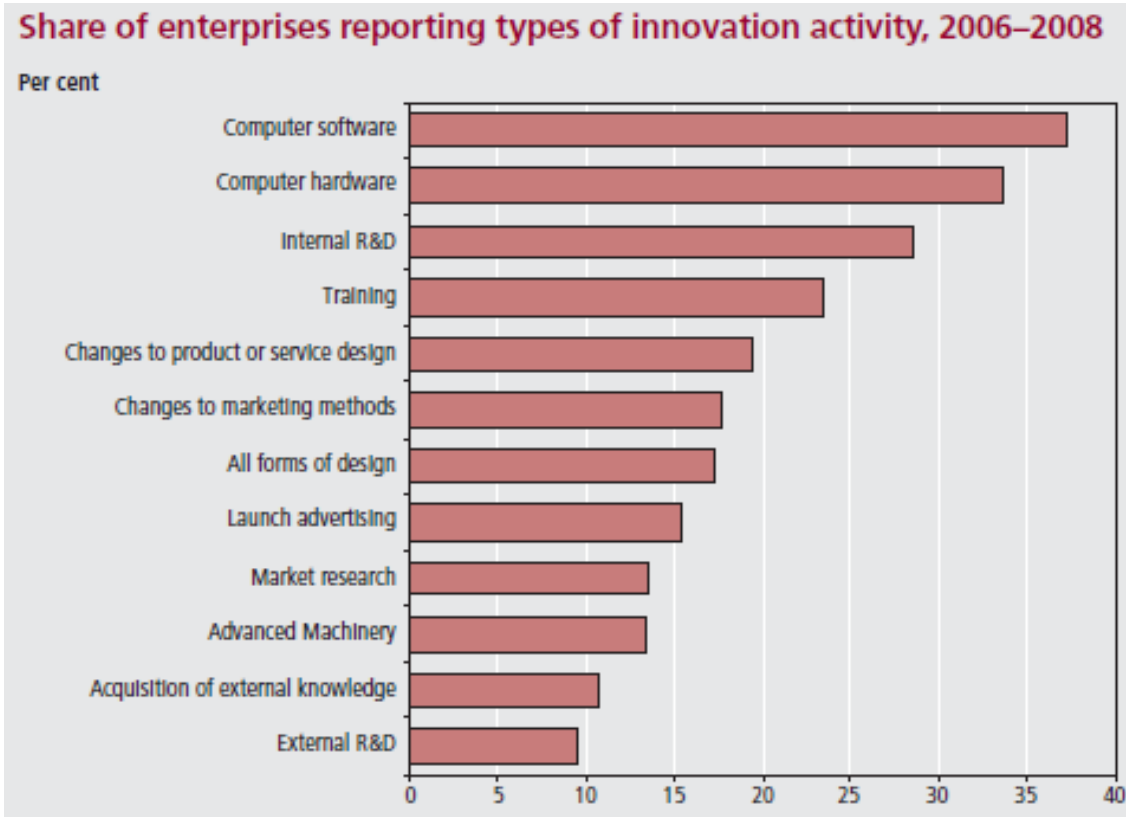
UKIS: UK Innovation Survey, 1994-2014

- Europe-wide Community Innovation Survey
- Main source of information on business innovation in the UK looking at:

‘Major changes aimed at enhancing a firm’s competitive position, performance, know-how, or capabilities’ e.g. new or significantly improved goods, services or processes for making or providing them

- Significant panel of over 4,000 businesses
- Based on firms with more than 10 employees
- Approx. 16,000 enterprises

UK Innovation Survey: types of activity



Source: Robson & Kenchatt, Economic and Labour Market Review, Vol 4, No 3, March 2010



UKIS based research topics

- ***Skilled Immigration and Strategically Important Skills in the UK Economy*** by George, A. et al, 2012
- ***Persistence and Change in UK Innovation 2002-2006*** by Department for Innovation, Universities and Skills, 2008
- ***Is Money All? Financing Versus Knowledge and Demand Constraints to Innovation*** by Pellegrino, G. and Savona, M., 2013
- ***Universities as Sources of Information: Comparing the Role of 'Open Innovation' and Companies' Motivations*** by Volpi, M., 2014
- ***Private and External Benefits from Investment in Intangible Assets*** by Giovanetti, E. and Piga, C., 2014



Earnings and Skills

- New Earnings Survey (1986-2002 / 1975-2014)
- Occupational Pension Scheme Survey 2006-2015
- Monthly Wages and Salaries Survey 2000-2017
- National Employer Skills Survey 1999-2009
- Scottish Employer Skills Survey 2008 - 2010
- Annual Survey of Hours and Earnings 1997-2017



Annual Survey of Hours and Earnings 1997-2017 (ASHE)

- 1% sample of individuals (approx. 140,000 – 185,000) from NI records
- Can construct panel dataset
- Replaced New Earnings Survey which goes back to 1975
- Employer completes so more accurate than some surveys (e.g. Labour Force Survey)



ASHE based research topics

- ***Driving up Wages: The Effects of Road Construction in Great Britain*** by Sanchis-Guarner, R., 2012
- ***Industry Knowledge Spillovers: Do Workers Gain from their Collective Experience?*** by Riley, R., 2010
- ***Incentive Pay: How Important is it and Does it Work?*** by Bryson, A. et al, 2012
- ***Productivity, Investment and Profits During the Great Recession: Evidence from UK Firms and Workers*** by Crawford, C. et al, 2013



Productivity and Employment Relations

- Annual Respondents Database 1973-2008 (ARD) and Annual Business Survey 2008-2016 (ABS)
- Business Structure Database 1997-2017 (BSD)
- Monthly Production Inquiry 1997-2009 (MPI)
- Workplace and Employment Relations Survey 1998-2011 (WERS)



Annual Respondents Database 1973-2008 (ARD) and Annual Business Survey 2008-2016 (ABS)

- Can see differences in productivity between firms with different organisational structures
- Employment, turnover, purchases, capital and other expenditure and income across sectors
- Over 100 key economic variables
- Data in two parts, employment record and financial information (ABS – financial only)
- Various geographies down to postcode



Annual Respondents Database X 1998-2014

- Deposited summer 2016
- Created by researchers at ONS Virtual Microdata Laboratory (VML) and University of the West of England
- Allows users of ARD to continue analysis even though the *Annual Business Inquiry* (ABI) which was used to create ARD ceased in 2008. ARDx contains harmonised variables from 1998 to 2014.
- More information on our website



ARD based research topics

- ***How do Firms' Outward FDI Strategies Relate to their Activity at Home? Empirical Evidence for the UK*** by Simpson, H., 2010
- ***The Impact of the National Minimum Wage on Firm Behaviour During Recession*** by Riley, R. and Rosazza Bondibene, C., 2013
- ***Regional Selective Assistance (RSA) in Scotland: Does it Make a Difference to Plant Survival?*** By Moffat, J., 2013
- ***Migration and Productivity: Employers' Practices, Public Attitudes and Statistical Evidence*** by Rolfe, H. et al, 2013



Business Structure Database 1997-2017 (BSD)

- Employment turnover, SIC, legal status, foreign ownership, birth and death codes
- Data divided into 'enterprises' and 'local units' (more on this later)
- Up to 4 million 'enterprises' and up to 5.5 million 'local units'
- Government Office Regions (GORs) and postcodes



Monthly Production Inquiry 1997-2009 (MPI)

- Turnover, export turnover, employees etc.
- Provides 75.5% of the current price turnover data used in the compilation of Index of Production (IoP)
- Provides over 90% of the data used to estimate the number of employees in the production industries



Employment relations

Workplace and Employment Relations Survey, 1998-2011 (WERS)

- Cross-Section Survey of Managers
- Cross-Section Survey of Employee Representatives
- Cross-Section Survey of Employees



WERS based research topics

- ***Two perspectives on multiskilling and product-market volatility***, by DeVaro J, 2011
- ***Disability and earnings: are employer characteristics important?*** , by Jones M and Latreille P, 2010
- ***Workplace Performance, Worker Commitment and Loyalty***, by Brown S, McHardy J, McNabb R and Taylor K, 2011
- ***Understanding the Gender Pay Gap: What's Competition Got to Do with It?***, by Manning A and Saidi F, 2010



International Trade and Foreign Direct Investment

- Annual Inquiry into Foreign Direct Investment 1996-2015 (AFDI)
- International Trade in Services 1996-2015 (ITIS)



Annual Inquiry into Foreign Direct Investment (AFDI)

- Info on UK companies and their foreign affiliates
- Inward FDI relates to foreign investment into the UK
- Outward FDI relates to investment by UK-based companies overseas
- Approximately 950 – 3,000 enterprises for outward FDI, and 2,000 – 14,000 for inward FDI



Environment

- Quarterly Fuels Inquiry, 1998-2015
- Low Emissions R&D Survey, 2008 (DECC R&D)

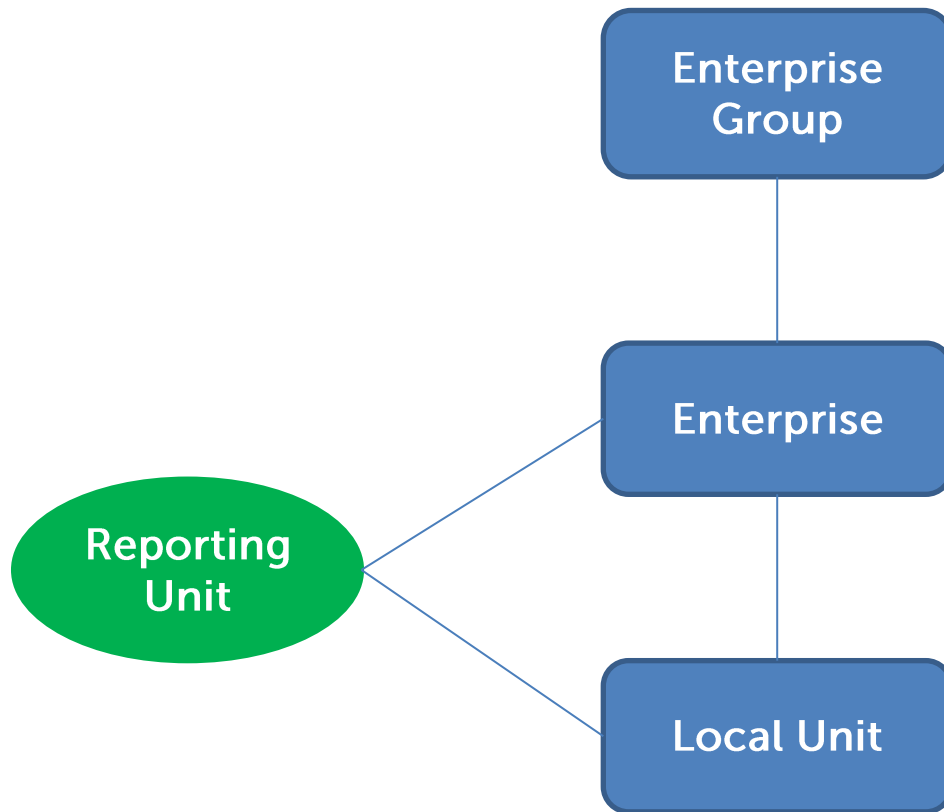


Low Emissions R&D Survey, 2008 (DECC R&D)

- Main focus is on businesses R&D aimed at reducing greenhouse gas emissions
- Expenditure on low emissions R&D, trialling and deploying the material, product, or process in a working environment on a pre-commercial basis
- Support from government incentives
- Lower energy consumption and renewable energy



How are the datasets structured?

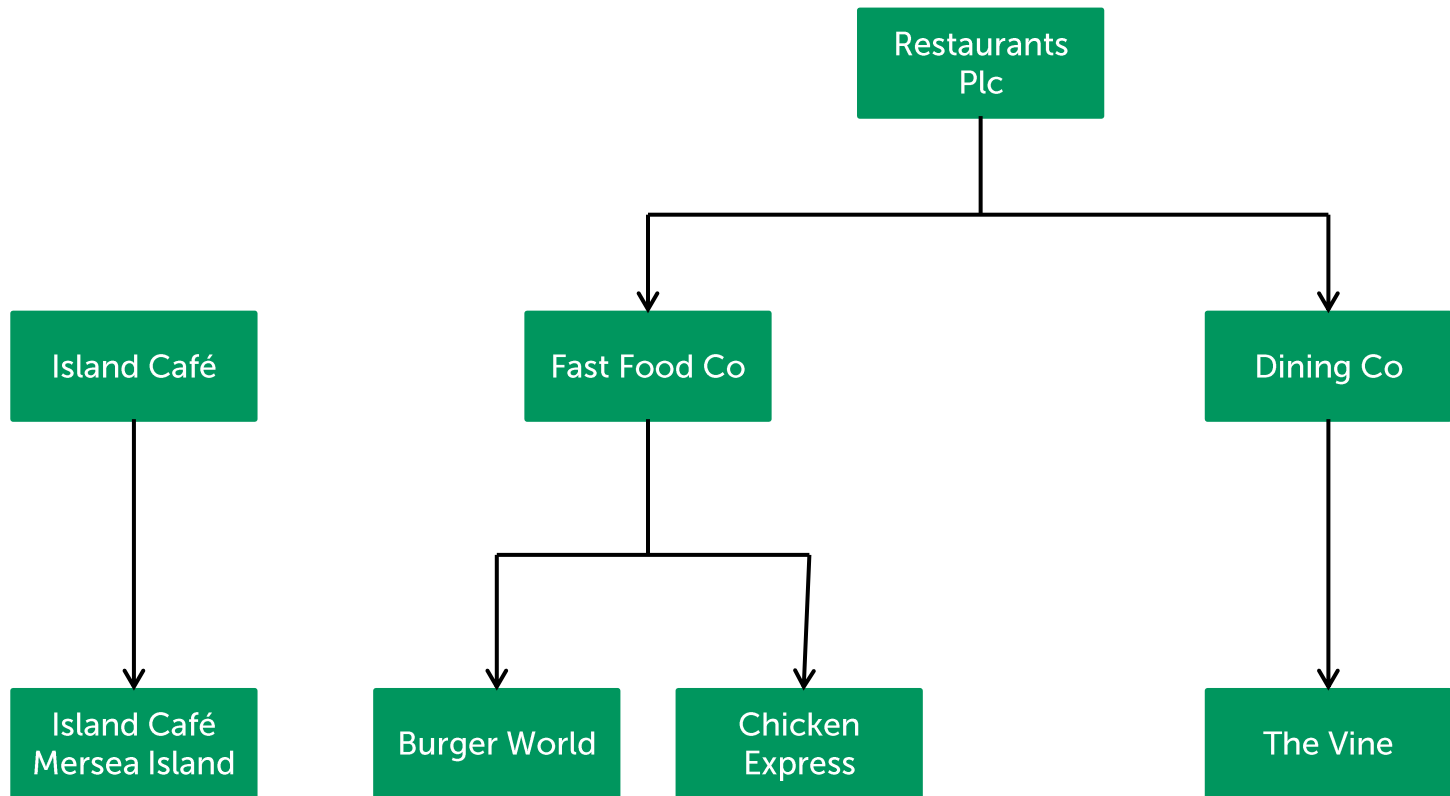


ONS IDBR business data identifiers

Enterprise group

Enterprise

Local units



Fake company data

UK Data Service



Examples of Data Linked

Some of the most common linkages

- Annual Survey of Hours and Earnings (ASHE) to Workplace Employment Relations Survey (WERS)
- Business Structure Database to UK Innovation Survey
- Annual Respondents Database to WERS
- ASHE to Employer Skills Survey

Permission from data owner required to link datasets

UK Data Service



Any questions?



How to Apply



A Four Step Application Process

1. Find the dataset you wish to use
2. Apply for use through UKDS
3. Complete an Accredited Researcher application form
4. Attend a training course



Step 1: Find Your Data (1)

The screenshot shows the UK Data Service Discover website. The browser address bar displays 'discover.ukdataservice.ac.uk'. The page has a navigation menu with links for 'About us', 'Get data', 'Use data', 'Manage data', 'Deposit data', and 'News and Events'. A search bar is located at the top right. The main content area is titled 'Discover' and contains a search bar with the text 'Search our data catalogue and related resources'. Below the search bar are filters for 'Type' (Data collections, Case studies, Series, ESRC outputs, Support/how to guides) and 'Refine' (Subject, Date, Data type, Key data, Country, Kind of data, Spatial unit, Analysis unit, Access, Depositor, Teaching data). The search results are displayed in a list format, showing the first three results. Each result includes a title, author, and options for 'Full record...', 'Download', 'DDI/XML', and 'Similar data collections'.

UK Data Service

Discover

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

Search our data catalogue and related resources

Reset filters | Clear search | Auto-complete | Map search to HASSET thesaurus? | Help

Case study | Data collection | Series record | ESRC output | Support guide

Results per page: 10 | Sorted by: Date (latest first)

Displaying 1-10 of 6489 results

SN 851524 Food Practices and Employed Families with Younger Children
Rebecca O'Connell, Institute of Education
+ Full record... | Download | DDI/XML | Similar data collections

SN 851566 UK Higher Education Institution Research Data Management Policies, 2009-2014
Laurence Horton, London School of Economics and Political Science
+ Full record... | Download | DDI/XML | Similar data collections

SN 851570 Understanding Experiences of Hate Crime Victimisation and Expectations of Criminal Justice Responses;
Project Data
Neil Chakraborti, University of Leicester
Jon Garland, University of Surrey
Stevie-Jade Hardy, University of Leicester
+ Full record... | Download | DDI/XML | Similar data collections

SN 851583 Care planning and the role of the independent reviewing officer
Jonathan Dickens, University of East Anglia
+ Full record... | Download | DDI/XML | Similar data collections



Step 1: Find Your Data (2)

The screenshot shows the UK Data Service Discover website interface. The browser address bar displays 'discover.ukdataservice.ac.uk'. The page header includes navigation links: 'About us', 'Get data', 'Use data', 'Manage data', 'Deposit data', and 'News and Events'. The main content area is titled 'Discover' and features a search bar with the query 'business innovation'. Below the search bar, there are filters for 'Type' (Data collections, Case studies, Series, ESRC outputs, Support/how to guides) and 'Subject'. The search results are displayed in a list format, showing details for several data collections, including their IDs, titles, and source institutions. Each result includes a 'Full record...' link and options for 'Download/Order', 'DDI XML', and 'Similar data collections'.

UK Data Service Discover

Site Search FAQ Help Contact

About us Get data Use data Manage data Deposit data News and Events

Discover

Discover

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

Q business innovation GO

Reset filters Clear search Auto-complete Map search to HASSET thesaurus? Help

Case study Data collection Series record ESRC output Support guide

Results per page: 10 Sorted by: Relevance

Displaying 1-10 of 189 results 1 2 3 4 5 >>>

SN 6699 UK Innovation Survey, 1994-2012: Secure Access
Office for National Statistics
+ Full record...
Download/Order | DDI XML | Similar data collections

SN 850468 Innovation in Peripheral Areas
Sara Sian Davies,
+ Full record...
Download | DDI XML | Similar data collections

SN 7083 Understanding Society: Innovation Panel, Waves 1-6, 2008-2013: Special Licence Access
University of Essex. Institute for Social and Economic Research
+ Full record...
Download/Order | DDI XML | Similar data collections

SN 6849 Understanding Society: Innovation Panel, Waves 1-6, 2008-2013
University of Essex. Institute for Social and Economic Research
+ Full record...
Download/Order | DDI XML | Similar data collections

SN 6123 Relational Spaces of Innovation in Architecture Firms, 2007
Faulconbridge. J Lancaster University Department of Geography

UK Data Service



Step 1: Find Your Data (3)

The screenshot shows a web browser window with the URL `discover.ukdataservice.ac.uk/catalogue/?sn=6699&stype=Data catalogue`. The page title is "UK Innovation Survey, 1994-2012: Secure Access". The browser's address bar shows the URL and search icons. The page content includes navigation links for "Documentation", "Related Studies", "Publications", "Download/Order", and "DDI/XML".

QualiBank

UK Innovation Survey, 1994-2012: Secure Access

[Documentation](#) | [Related Studies](#) | [Publications](#) | [Download/Order](#) | [DDI/XML](#)

TITLE DETAILS

SN: 6699
Title: UK Innovation Survey, 1994-2012: Secure Access
Alternative title: Community Innovation Survey, UKIS, CIS
Persistent identifier: [10.5255/UKDA-SN-6699-4](http://dx.doi.org/10.5255/UKDA-SN-6699-4)
Depositor: Office for National Statistics
Principal investigator(s): Department for Business, Innovation and Skills
Office for National Statistics
Northern Ireland, Department of Enterprise, Trade and Investment
Data collector(s): Office for National Statistics
Northern Ireland, Department of Enterprise, Trade and Investment
Sponsor(s): Department for Business, Innovation and Skills

CITATION

The citation for this study is:

Department for Business, Innovation and Skills, Office for National Statistics and Northern Ireland, Department of Enterprise, Trade and Investment, *UK Innovation Survey, 1994-2012: Secure Access* [computer file]. 4th Edition. Colchester, Essex: UK Data Archive [distributor], January 2015. SN: 6699, <http://dx.doi.org/10.5255/UKDA-SN-6699-4>

[Select the text above](#) to add data citation in your outputs.

SUBJECT CATEGORIES

Science and technology
Trade, industry and markets - Industry and management

ABSTRACT

Abstract copyright UK Data Service and data collection copyright owner.

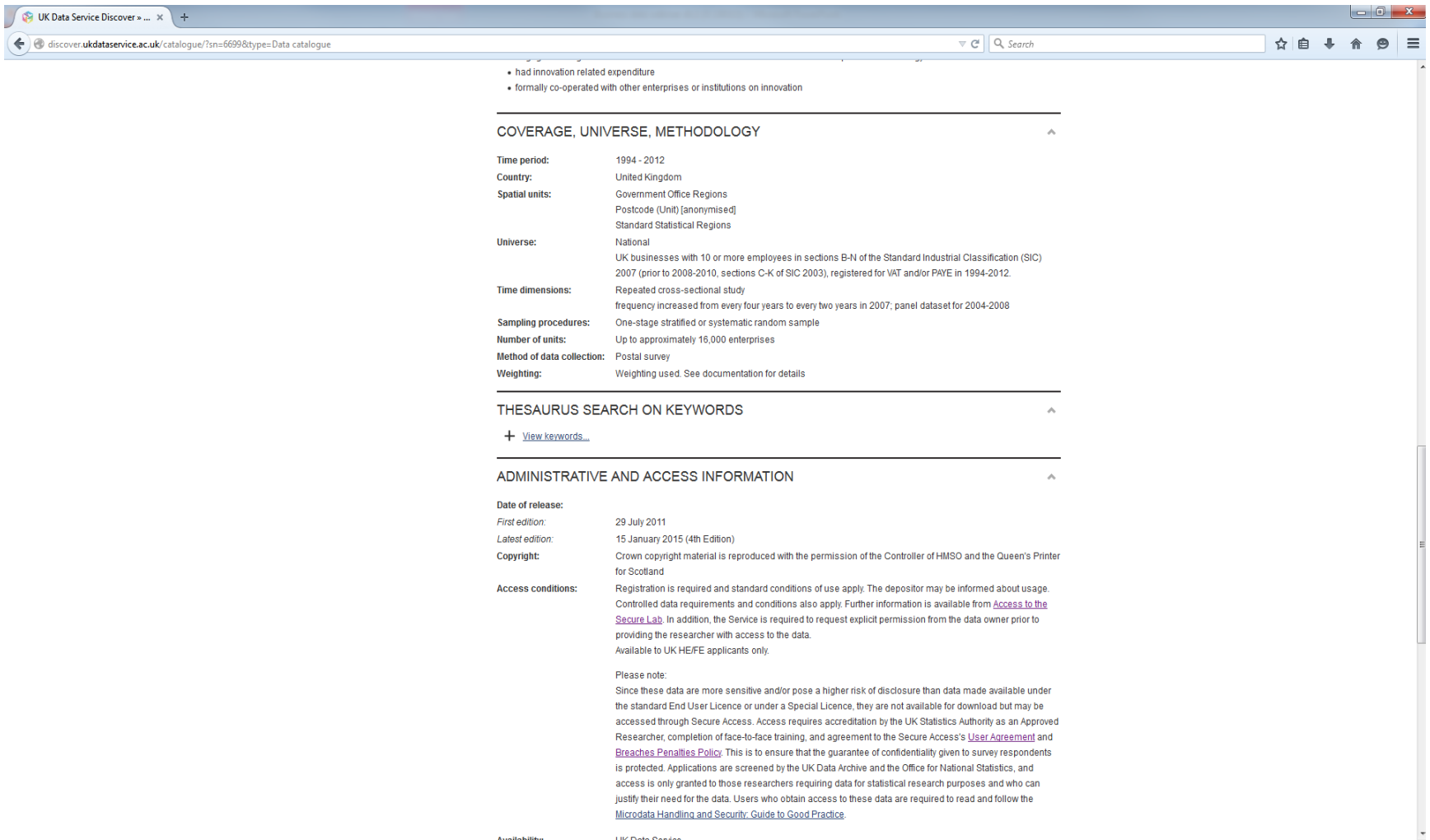
The *UK Innovation Survey* (UKIS) provides the main source of information on business innovation in the UK. The survey data is a major resource for research into the nature and functioning of the innovation system and for policy formation. It is used widely across government, regions and by the research community. The UKIS also represents the UK's contribution to the Europe-wide *Community Innovation Survey* (CIS). Like many innovation surveys across Europe, the UKIS follows general guidelines set out in the Organisation for Economic Co-operation and Development (OECD) publication known as the Oslo Manual (OECD 2005). This manual provides guidelines on the conduct of innovation surveys, including statistical procedures and a review of the range of concepts that fall together under the umbrella term "innovation".

Geographical references: postcodes

The postcodes included in the first edition of these data (i.e. data files prior to 2008-2010) are pseudo-anonymised postcodes. The real postcodes were not available due to the potential risk of identification of the observations. However, these replacement postcodes retain the



Step 1: Find Your Data (4)



UK Data Service Discover » ... x +

discover.ukdataservice.ac.uk/catalogue/?sn=6699&type=Data catalogue

Search

- had innovation related expenditure
- formally co-operated with other enterprises or institutions on innovation

COVERAGE, UNIVERSE, METHODOLOGY

Time period: 1994 - 2012

Country: United Kingdom

Spatial units: Government Office Regions
Postcode (Unit) [anonymised]
Standard Statistical Regions

Universe: National
UK businesses with 10 or more employees in sections B-N of the Standard Industrial Classification (SIC) 2007 (prior to 2008-2010, sections C-K of SIC 2003), registered for VAT and/or PAYE in 1994-2012.

Time dimensions: Repeated cross-sectional study
frequency increased from every four years to every two years in 2007; panel dataset for 2004-2008

Sampling procedures: One-stage stratified or systematic random sample

Number of units: Up to approximately 16,000 enterprises

Method of data collection: Postal survey

Weighting: Weighting used. See documentation for details

THESAURUS SEARCH ON KEYWORDS

+ [View keywords...](#)

ADMINISTRATIVE AND ACCESS INFORMATION

Date of release:

First edition: 29 July 2011

Latest edition: 15 January 2015 (4th Edition)

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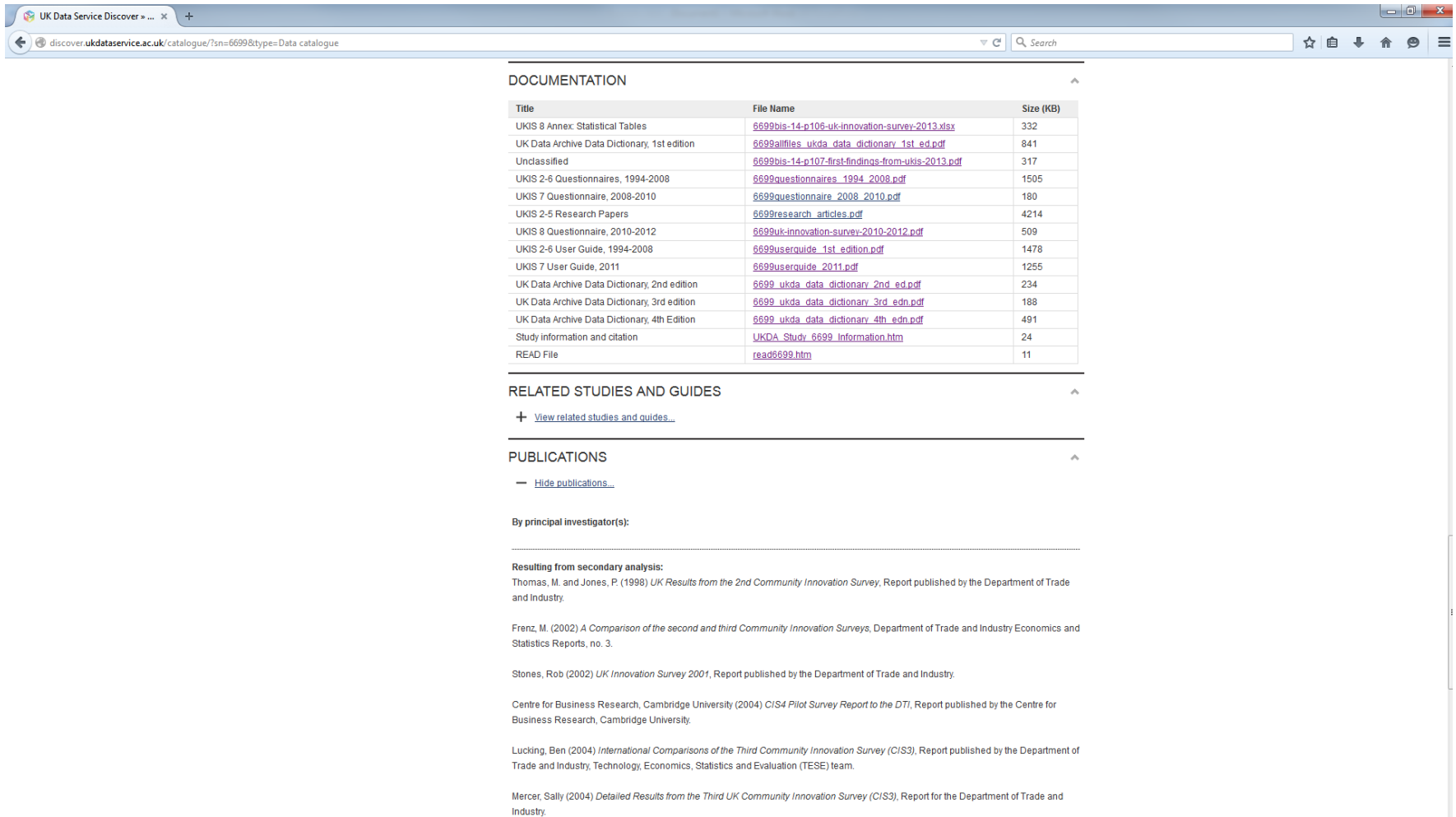
Access conditions: Registration is required and standard conditions of use apply. The depositor may be informed about usage. Controlled data requirements and conditions also apply. Further information is available from [Access to the Secure Lab](#). In addition, the Service is required to request explicit permission from the data owner prior to providing the researcher with access to the data.
Available to UK HE/FE applicants only.

Please note:
Since these data are more sensitive and/or pose a higher risk of disclosure than data made available under the standard End User Licence or under a Special Licence, they are not available for download but may be accessed through Secure Access. Access requires accreditation by the UK Statistics Authority as an Approved Researcher, completion of face-to-face training, and agreement to the Secure Access's [User Agreement](#) and [Breaches Penalties Policy](#). This is to ensure that the guarantee of confidentiality given to survey respondents is protected. Applications are screened by the UK Data Archive and the Office for National Statistics, and access is only granted to those researchers requiring data for statistical research purposes and who can justify their need for the data. Users who obtain access to these data are required to read and follow the [Microdata Handling and Security Guide to Good Practice](#).

Availability: UK Data Service



Step 1: Find Your Data (5)



The screenshot shows a web browser window with the URL `discover.ukdataservice.ac.uk/catalogue/?sn=6699&type=Data catalogue`. The page content is organized into several sections:

- DOCUMENTATION**: A table listing various documents with their titles, file names, and sizes in KB.
- RELATED STUDIES AND GUIDES**: A section with a link to view related studies and guides.
- PUBLICATIONS**: A section with a link to hide publications and a list of publications by principal investigator(s).

Title	File Name	Size (KB)
UKIS 8 Annex: Statistical Tables	6699bis-14-p106-uk-innovation-survey-2013.xlsx	332
UK Data Archive Data Dictionary, 1st edition	6699allfiles_ukda_data_dictionary_1st_ed.pdf	841
Unclassified	6699bis-14-p107-first-findings-from-ukis-2013.pdf	317
UKIS 2-6 Questionnaires, 1994-2008	6699questionnaires_1994_2008.pdf	1505
UKIS 7 Questionnaire, 2008-2010	6699questionnaire_2008_2010.pdf	180
UKIS 2-5 Research Papers	6699research_articles.pdf	4214
UKIS 8 Questionnaire, 2010-2012	6699uk-innovation-survey-2010-2012.pdf	509
UKIS 2-6 User Guide, 1994-2008	6699userguide_1st_edition.pdf	1478
UKIS 7 User Guide, 2011	6699userguide_2011.pdf	1255
UK Data Archive Data Dictionary, 2nd edition	6699_ukda_data_dictionary_2nd_ed.pdf	234
UK Data Archive Data Dictionary, 3rd edition	6699_ukda_data_dictionary_3rd_edn.pdf	188
UK Data Archive Data Dictionary, 4th Edition	6699_ukda_data_dictionary_4th_edn.pdf	491
Study information and citation	UKDA_Study_6699_Information.htm	24
READ File	read6699.htm	11

RELATED STUDIES AND GUIDES

+ [View related studies and guides...](#)

PUBLICATIONS

- [Hide publications...](#)

By principal investigator(s):

Resulting from secondary analysis:

Thomas, M. and Jones, P. (1998) *UK Results from the 2nd Community Innovation Survey*, Report published by the Department of Trade and Industry.

Frenz, M. (2002) *A Comparison of the second and third Community Innovation Surveys*, Department of Trade and Industry Economics and Statistics Reports, no. 3.

Stones, Rob (2002) *UK Innovation Survey 2001*, Report published by the Department of Trade and Industry.

Centre for Business Research, Cambridge University (2004) *CIS4 Pilot Survey Report to the DTI*, Report published by the Centre for Business Research, Cambridge University.

Lucking, Ben (2004) *International Comparisons of the Third Community Innovation Survey (CIS3)*, Report published by the Department of Trade and Industry, Technology, Economics, Statistics and Evaluation (TESE) team.

Mercer, Sally (2004) *Detailed Results from the Third UK Community Innovation Survey (CIS3)*, Report for the Department of Trade and Industry.



Step 2: Apply

The screenshot shows a web browser window with the URL `discover.ukdataservice.ac.uk/catalogue/?sn=6699&type=Data catalogue`. The page title is "UK Data Service" and the breadcrumb is "Discover > Catalogue". The main heading is "Catalogue" with a "SHARE" link. Below this, the record title is "UK Innovation Survey, 1994-2012: Secure Access". There are links for "Documentation", "Related Studies", "Publications", and "Download/Order" (circled in red), along with a "DDI XML" link. The "TITLE DETAILS" section lists various metadata fields such as SN, Title, Alternative title, Persistent identifier, Depositor, Principal investigator(s), Data collector(s), and Sponsor(s). The "CITATION" section provides a citation for the study. The "SUBJECT CATEGORIES" section lists "Science and technology" and "Trade, industry and markets - Industry and management". The "ABSTRACT" section contains the text "Abstract copyright UK Data Service and data collection copyright owner."

UK Data Service Discover » ... x

discover.ukdataservice.ac.uk/catalogue/?sn=6699&type=Data catalogue

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Discover > Catalogue

Catalogue

SHARE

Discover

Variable and question bank

QualiBank

UK Data Service data catalogue record for:

UK Innovation Survey, 1994-2012: Secure Access

[Documentation](#) | [Related Studies](#) | [Publications](#) | [Download/Order](#) | [DDI XML](#)

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ABSTRACT

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Step 3: Become an Accredited Researcher

- Complete the Accredited Researcher form
- UKDS sends your form to the data owner for approval
- Project colleagues should do this too
- REMEMBER: Include as much detail as possible...
 - Professional background (papers, conference presentations)
 - Experience of using micro-data
 - Project description
 - Why you need these data
 - Data linkage



Step 4: Training

- After approval, we'll offer you a range of dates to attend a training course
- Upon successful completion, we'll issue you with Secure Lab account credentials
- Three modules:

Using the
Secure Lab

Your role in
data
protection

Statistical
Disclosure
Control

- Not a 'box ticking' exercise – understanding is crucial.

Any questions?

