

NETWORK

News from the Administrative Data Research Network

First research underway

After only a year, the Administrative Data Research Network has over 50 projects at different stages of development, more than 20 approved, and 3 which have data in hand and are proceeding.

The Administrative Data Research Centres have new buildings and secure facilities, and we have established an Administrative Data Service to coordinate the Network and act as the first point of contact for researchers.

These are the first tangible signs of the results expected from the Economic and Social Research Council's investment in 'big data', first announced in 2013.

Innovation

The Network consists of four Administrative Data Research Centres, one for each country of the UK, and a coordinating Administrative Data Service. It opened its doors to enquiries from researchers in November 2014.

The Network's aim is to bring the UK to the forefront of innovative social and economic research, by making de-identified, linked administrative data available to accredited researchers.

We support intelligent research that can benefit society and improve the quality of life of everyone in the UK.

Case study

This is an example of research completed before the Network was established, which shows the potential of linked administrative data research.

It matters when you are born

Research shows that children born at the end of the academic year tend to do less well at school than those born at the start of the year.

There is also evidence that the month in which a child is born can affect other aspects of their life, including:

- ▶ how likely they are to be assessed as having special educational needs
- ▶ self-esteem
- ▶ confidence in their own ability.

These differences can cause short-term problems for a child's well-being and have consequences throughout their lives.

The size of the problem

This research, by Lorraine Dearden for the Institute of Fiscal Studies, used linked data from a number of sources, including administrative data. It brought together information from:

- ▶ National Pupil Database
- ▶ Millennium Cohort Study
- ▶ Avon Longitudinal Study of Parents and Children
- ▶ Longitudinal Study of Young People in England
- ▶ Labour Force Survey
- ▶ Understanding Society

The research found:

- ▶ large differences in educational attainment between children born at the start and end of the academic year in England
- ▶ these differences decrease as they get older
- ▶ but the gap is still significant at the end of school when young people are starting to make choices about further and higher education.

Lorraine also found that the age at which children take tests and exams is the main factor explaining differences between them. So, children born in August tend to get worse results than those born in September, simply because they are 11 months younger when they sit the exams.

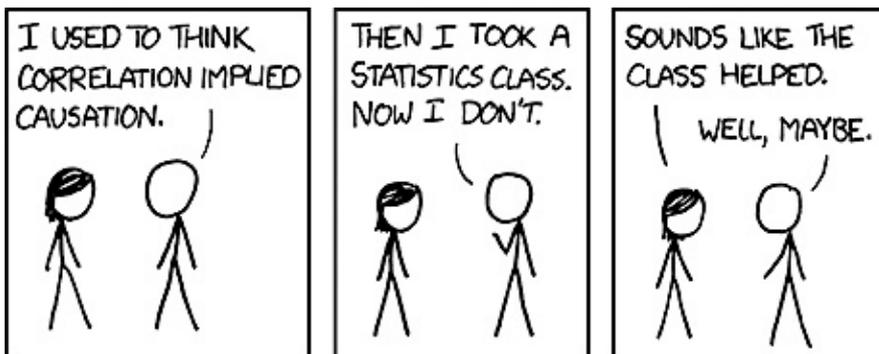
Education policy

The report recommended a number of ways to tackle these inequalities, including:

- ▶ test scores should be age-adjusted
- ▶ these age-adjusted scores should be used to calculate school league table positions
- ▶ schools, teachers and parents should be made more aware of the potential disadvantages that children born later in the academic year may face.

Source: *When you are born matters: evidence for England*, Institute for Fiscal Studies, May 2013

www.ifs.org.uk/comms/r80.pdf



We plan to feature a data-related cartoon in each issue of our newsletter. You can see more like this at xkcd.com

The Network's first year

The ESRC announced its funding for the Network in October 2013, and by November 2014, we were ready to receive our first enquiries from researchers.

Administrative Data Service

The Administrative Data Service – with its accreditation training, policies for maintaining data safety and strategy for public engagement – has been established since the spring of 2014.

The Service is a researcher's first stop in their quest to use administrative data for research. Our team helps researchers prepare their project application, which is then considered by the Approvals Panel. The Service also establishes contact with data custodians to gain secure access to specific data, and coordinates public engagement and communications across the Network.

In its first year, our Administrative Data Service's achievements included:

- ▶ Establishing a bespoke service for researchers
- ▶ Developing policies and procedures to manage a lawful, secure and efficient pathway for researchers
- ▶ Building the Network's website to inform stakeholders about us and help researchers begin using data
- ▶ Creating a national accreditation training programme
- ▶ Appointing lay members to the Project Approvals Panel to make sure the public's voice is heard
- ▶ Producing two animations for the public and the research community to explain our work and security procedures.



England

The Administrative Data Research Centre England officially opened on 4 July 2014, celebrating its first anniversary this summer.

The Centre is led by the University of Southampton, in collaboration with University College London, the London School of Hygiene and Tropical Medicine, the Institute for Fiscal Studies and the Office for National Statistics.

Professor David Martin, the Centre's Deputy Director, says: "Accessing administrative data for social research has always been difficult. We've built a complete infrastructure which carries the researcher and their research proposal all the way through the process, and that's something that just hasn't been done before for social science research."

During the first 12 months, we have created the Centre's infrastructure: building secure laboratory facilities in Southampton and London, employing new staff to complement the ADRN, and setting up processes for the Network to operate safely and securely. Since November 2014, we have seen the first research proposals being approved, and the Centre currently has 9 active projects investigating a broad range of questions including:

- ▶ Evaluating linkage between children's health, education and social care data
- ▶ The residential mobility of mental health service users.

We have delivered a successful training programme for 2014-15, with positive reviews and many over-subscribed courses. A comprehensive programme for 2015-16 starts in October, including courses such as 'Introduction to Hospital Episode Statistics' and 'Handling Missing Data in Administrative Studies'. Our courses are open to all.

We are looking forward to some high profile events and the results of research findings during the coming year.

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Northern Ireland

The Administrative Data Research Centre Northern Ireland brings together Queen's University Belfast and Ulster University, who have previously worked together on Action Research Knowledge and the Centre of Excellence for Public Health Northern Ireland. This expertise is the Centre's backbone, strengthened by the extensive knowledge and skills of experts from the Northern Ireland Statistics and Research Agency.

In December 2014, we held a showcase event at the Stormont Parliament Buildings in Belfast. We introduced the Centre not only to politicians, senior policy developers and academics, but also to the community, voluntary and social enterprise sector. Proactively engaging this sector has been a special feature of our first year's work.

Our emphasis on engaging these different sectors – academics, policy makers and the community, voluntary and social enterprise sector – has resulted in us submitting 4 studies for approval: 2 led by academia, and 2 from government:

- ▶ Factors associated with decreased representation in higher education
- ▶ Public Policy and 'Peace' Walls in Belfast: establishing baseline indicators
- ▶ Migrants: Using linked data to obtain accurate population estimates of migrants in Northern Ireland and their needs for, and use of, mental health and social care services
- ▶ Socio-demographic characteristics, educational attainment and self-reported health status of farmers in Northern Ireland.

In April 2015, we held our first research seminar. Dr Anne Kouvonen, a co-investigator, spoke at Queen's University Belfast about the Finnish experience of using administrative data for research for 50 years, and the potential benefit of similar research for Northern Irish society. We have also established an Administrative Data Forum to engage with local data custodians.

Scotland

The Administrative Data Research Centre Scotland was founded at the end of 2013. It built on the solid foundations of health informatics research partnerships between leading universities across Scotland and NHS Scotland, which led to an innovative Scotland-wide collaboration with the Farr Institute and Scottish Government to create a fully integrated public sector data linking service.

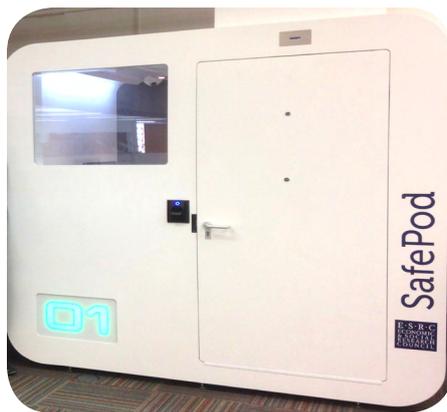
A core team of linkage experts, working as part of the Centre at National Records Scotland, provide exceptionally high quality data linkage in a secure, trusted environment.

In our first year, our calendar has been packed full of training events, local Network meetings and discussions with data custodians.

Highlights include:

- ▶ Successfully installing the first Safe Pod at the University of St. Andrews – the first stage of a national programme of safe settings
- ▶ Leading software development to create synthetic versions of some sensitive data for statistical disclosure control
- ▶ Reports and academic papers, including the Nuffield Council on Bioethics report (Feb. 2015)
- ▶ Statistical training and workshops in collaboration with the Applied Quantitative Methods Network
- ▶ Fruitful discussions with data custodians such as the Energy Savings Trust, the DWP, the Scottish Children's Reporter Administration and Scottish Census data
- ▶ Training almost 50 researchers and staff locally, including accreditation training
- ▶ Visit from collaborator Professor Peter Christen from the Australian National University, who led a one day workshop on record linkage
- ▶ Researchers Chris Playford and Roxanne Connelly have the Centre's first approved projects.

"Building on our acknowledged reputation for the safe and trustworthy use of complex social data, the Administrative Data Research Centre Wales will be the focal point for data-related research in Wales, and be a major player in UK-wide efforts to transform research and policy."



The St. Andrews SafePod is the first of a national programme of safe settings led by the Scottish Centre © ADRC S



An artist's impression of the new Data Science Building in Swansea © ADRC W



Statistical Methodological Officer Dr David Wright is investigating the health of farmers in Northern Ireland ©ADRC NI



Popular data game devised for Key Stage 2 children by the Administrative Data Research Centre England © ADRC E

Wales

The Administrative Data Research Centre Wales is led by Swansea University in partnership with Cardiff University. The Centre builds on existing expertise, using cutting-edge technology to efficiently link and analyse de-identified administrative data that have the ability to inform social, economic, environmental and health related research in the UK.

Professor David Ford, the Centre's Director, says: "Building on our acknowledged reputation for the safe and trustworthy use of complex social data, the Administrative Data Research Centre Wales will be the focal point for data-related research in Wales, and be a major player in UK-wide efforts to transform research and policy."

In March 2015, we held an event at Swansea for academia, the community and voluntary sector and government officials. It gave us an opportunity to showcase the richness and benefits of previous research using linked Welsh data and to give them examples of the new research we can carry out.

We have worked with researchers from a variety of academic disciplines to develop project applications that aim to address a wide range of research questions. So far, we have seen 16 projects developed, with almost half approved and several more in the final stages of development. A number of the projects directly consider the effectiveness of policy interventions, emphasising the importance of the impact of our research to the people of Wales.

We aim to be the focal point for data-related research in Wales, and to be a major player in UK-wide efforts to transform research and policy.

Our new, world-class Data Science Building at Swansea University will be a hive of interdisciplinary innovation, allowing researchers and staff from a range of organisations to work together on cutting edge data science, while protecting privacy.

The Centre aims to give researchers the best possible service to make sure their projects produce excellent academic results with high policy impact. We foster collaborations with partners, data custodians, and stakeholders to inform and develop the work of the Centre and the Network as a whole.

National training

Before they can access data via the Network – or indeed any other major UK data services – researchers have to undertake the National Training for Accreditation of Researchers, including passing a post-training test.

The training has been developed by a consortium of UK data services:

- ▶ Administrative Data Research Network
- ▶ HMRC Data lab
- ▶ ONS Virtual Microdata Laboratory
- ▶ UK Data Service (Secure Lab).

Other data services are expected to join the programme in the future.

Trust in researchers is essential, so the programme has been designed to make sure they behave safely and responsibly when accessing detailed data.

With this in mind the training covers two main areas:

- ▶ The **legal responsibilities** (and expected behaviour) of researchers accessing detailed data. They learn about the 'five safes' – **safe researchers, safe projects, safe settings, safe outputs, and safe data** – as well as the legal and procedural background to UK data access and their role and responsibilities in data protection.
- ▶ **Output disclosure control**. In this module researchers learn about Statistical Disclosure Control, how a disclosure might happen and how to avoid disclosive outputs.



Safely
Lawfully
Ethically
Securely

Public engagement

The Network has produced a number of videos to explain its work, including one this year which explains how we protect privacy.

It follows the journey of a researcher, Annabel, as she negotiates her way through the approvals process – demonstrating the potential public benefit of her research and being trained to use data safely, lawfully, ethically and securely.

It goes on to explain the process of de-identifying data.

It's just one of a number of videos the Network has produced, including:

- ▶ an interview with Professor Peter Elias on the idea of the Network and how it operates
- ▶ an interview with David Martin, Deputy Director of the Administrative Data Research Centre England, celebrating their first anniversary
- ▶ a TEDx talk 'Stories are just data with a soul' about how data can tell us stories which can inform government policy.

You can see these and more [on our website](#).

Events

All the Administrative Data Research Centres have been engaging their local communities through launches, science festivals and other events.

The England Centre, for example, devised a data game for schoolchildren to introduce them to the concept of data analysis, and had queues all day at their stand at the Southampton University Science and Engineering Festival.

Next year, the Network will be a partner in the International Population Data Linkage Conference, 24-26 August, with FARR, SAIL and Swansea University. [Find out more on the website](#).

Social media

The Administrative Data Service and each of the four Centres are active on social media to engage the public and raise the profile and understanding of our work.

Follow us on:

[@ADRN_UK](#)
[@ADRC_E](#)
[@ADRC_NI](#)
[@adrc_scotland](#)
[@ADRCWales](#)



The Administrative Data Research Network provides a free, safe, secure and transparent service to accredited researchers who want to use administrative data for social and economic research. We protect individual privacy and make sure the research benefits the public. The Administrative Data Research Network is funded by the Economic and Social Research Council. Learn more at www.adrn.ac.uk

This newsletter was produced by the Public Engagement and Communications team at the Administrative Data Service: comms@adrn.ac.uk