



Datacise
Open Learning

Precision training for data
science in **research**

Integrating Precision Training for Building a Sustainable National Data Infrastructure in Wales:

A Datacise Open Learning (DOL) Based Case Study



Lead author & presenter: Dr Ting Wang

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Adam Chee, Jon Smart, David Ford.

In affiliation with



Swansea University
Prifysgol Abertawe

Population Data Science
Research & Innovation Institute

Gwyddor Data Poblogaeth
Sefydliad Ymchwil ac Arloesi



Supported by



What is Datacise?

Funded by ADR UK, Datacise is an integral part of ADR Wales' training and capacity-building programme of work, forming the training and capacity arm of ADR Wales.

Datacise Open is a learning platform for the data science and research community designed to upskill those working across the health and administrative 'big data' landscape and equip them to access and use the data more effectively.

Datacise offers courses, informational resources, videos and podcasts from experts who use the data, themed workgroups, and internship opportunities.



Datacise
Open Learning

[Dataciseopenlearning.org](https://dataciseopenlearning.org)



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Award Winning ADR Wales Training and Capacity Building Team

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The training programme is developed in partnership with



SAIL DATABANK



Swansea University
Prifysgol Abertawe

Population Data Science
Faculty of Medicine, Health & Life Science

Gwyddor Data Poblogaeth
Y Gyfadran Meddygaeth, Gwyddor Iechyd a Bywyd



NUS
National University of Singapore

Saw Swee Hock
School of Public Health



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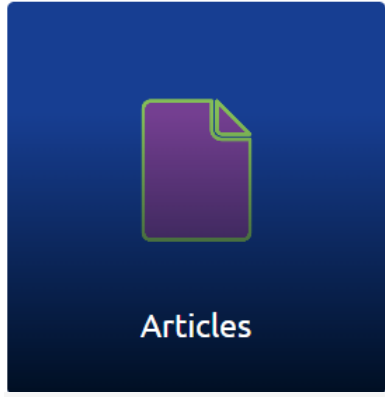


Outreach

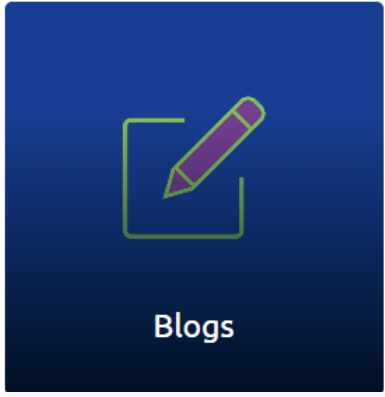


Administrative Data

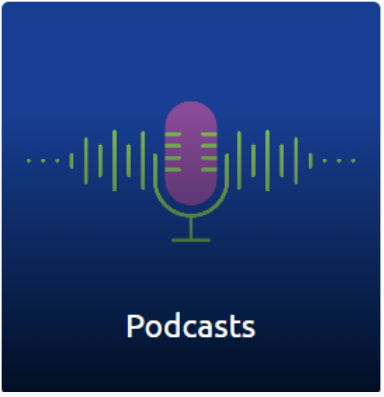
Resources



Articles



Blogs



Podcasts



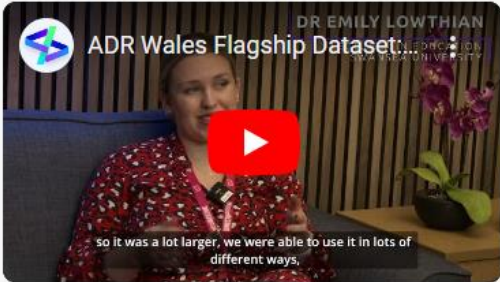
Videos

Featured datasets

Children Looked After Datasets Wales

Data First: Family Court – Cafcass

Welsh Environmental Dataset



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SAIL Databank TRE User Training



Note

To access the SAIL Databank TRE training courses, learners must register and create a profile on the LMS platform. Although the training courses are free, registration is necessary to attend the self-paced course online. After attending each course, learners will be issued a statement of participation.



SAIL Databank Induction

Learn to access and use the SAIL Databank: Gain access to project data and how to get help with your project and any technical issues you may face in this self-paced learning module. Contains must-know information for all new SAIL users.

Self paced

Free

Online



Introduction to the SAIL Gateway

You now have access to the SAIL gateway, but what it looks like? and how it is working? You must have so many questions, look no further, here is your one stop shop answer (hopefully) to guide you at this first stage of your adventure.

Self-paced

Free

Online



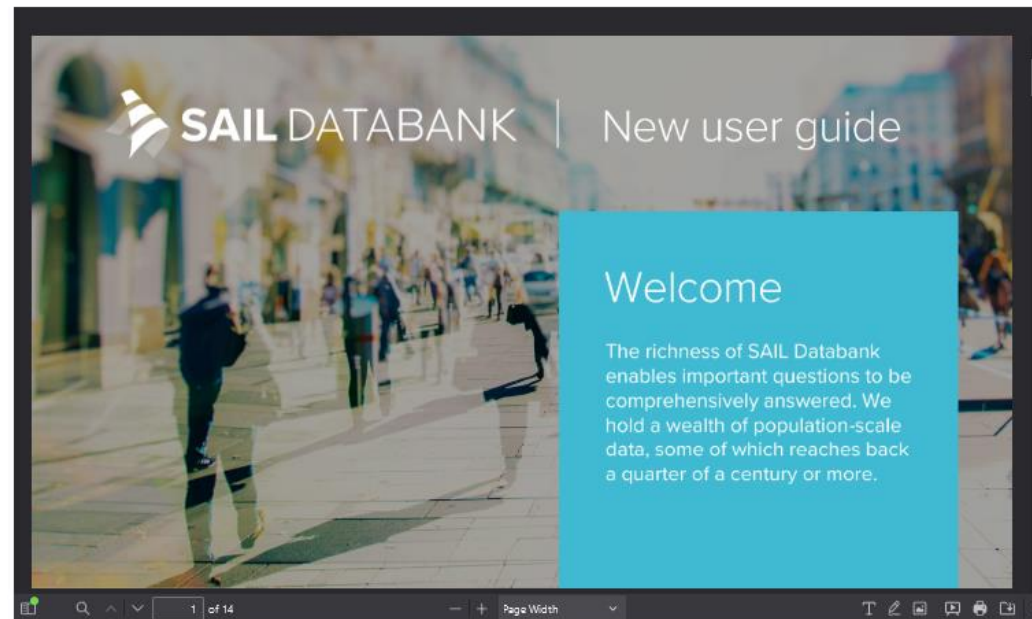
Git for Data Science Research

A self-paced course that will cover Git for Research: What is Git? The purpose of a version control system like Git? Git repositories & cloning. Git commands. Staged changes. Branching. Pushing local commits. And much more.

Self-paced

Free

Online



SAIL Databank Showcase Webinar Series

The Secure Anonymised Information Linkage (SAIL) Databank Showcase Webinar Series is a great opportunity to hear from guest speakers about the research they're undertaking and to get all the latest information and ask questions across the SAIL Databank team and group leads, including infrastructure, analytical services, data resources and documentation, public engagement, business and other developments and updates.



Olivier Y Rouquette - Senior Data Scientist, Swansea University Medical School, UK

Population Psychiatry Suicide and Informatics (PPSI) From Robust Research to High Impact

June 2024



Dr Anna Moore - Assistant Professor of Child Psychiatry & Medical Informatics, University of Cambridge - Lead of NIHR Bio-resource's D-CYPHER - UKRI Future Leaders Fellow

Towards Early Identification of Children's Mental Health Problems

June 2024



Dr Emily Lowthian - Lecturer in Education, Researcher Officer & Data Scientist, Swansea University, UK

Maternal Mental Health and Children's Development: A Bi-directional Relationship?

June 2024

In affiliation with



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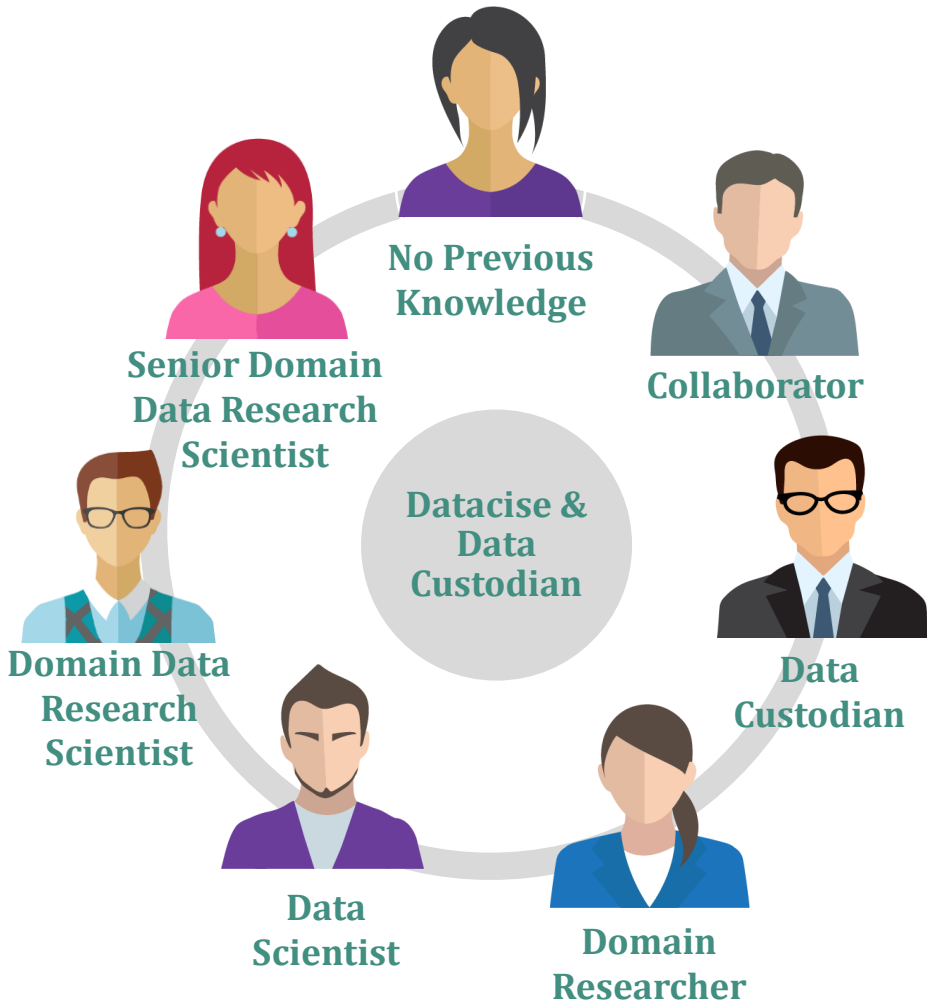
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To become a Competent TRE User



MoJ Data First Datasets User Training delivered with Ministry of Justice and SAIL Databank

These are interactive sessions where participants will have opportunities for discussion with panel members. Participants need to register to attend one, two or all three of the sessions individually.

Datasets

- Data First: Family Court, Magistrates, Crown Court, Probation, and Custodial

Enrolment closed for 2024



Themed Workgroup: Courts & Justice

How to access Ministry of Justice (MoJ) datasets via SAIL Databank

🕒 1 hour 30 mins

£ Free

🌐 Live online - Zoom link to be shared with participants who have enrolled for the course closer to date

Enrolment closed for 2024



Themed Workgroup: Courts & Justice

Developing your application for linked Ministry of Justice (MoJ) datasets

🕒 1 hour 30 mins

£ Free

🌐 Live online - Zoom link to be shared with participants who have enrolled for the course closer to date

Enrolment closed for 2024



Themed Workgroup: Courts & Justice

Understanding linked Ministry of Justice (MoJ) datasets

🕒 1 hour 30 mins

£ Free

🌐 Live online - Zoom link to be shared with participants who have enrolled for the course closer to date

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Accreditation Pending Courses

Data linkage

Registration open Sept 2024



Advanced analysis of linked health data

Advanced principles of health care epidemiology are combined with hands-on practical exercises in the implementation of computing solutions.

- ⌚ 5 days
- £ Paid course
- 🌐 Study live online or in person

Registration open Sept 2024



Introductory analysis of linked health data

Registration for the next run of this course opens in July 2024. This course introduces the topic of linked health data analysis at an introductory to intermediate level.

- ⌚ 5 days
- £ Paid course
- 🌐 Study live online or in person

Text mining

2 & 3 Dec 2024



Text Mining for Administrative Data Analysis

Developed by the National Centre for Population Health research team, this course offers comprehensive insights into text mining methods for analysing unstructured administrative data.

- ⌚ 2 days
- £ Paid course
- 🌐 Live online

Data visualisation

Enrolment closed for 2024



An introduction to data visualisation using administrative data

This course will enable learners to effectively use contemporary visualisation tools to produce output from research activities, particularly using administrative data.

- ⌚ 2 days
- £ Paid course
- 🌐 In person only

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Patient Privacy

Coming Sept 2024



Protecting Patient Privacy in AI for Responsible Sharing & Deployment

To release AI models from secure environments, researchers need to demonstrate their models protect the privacy of the individuals used to train their model.

 Self-paced

 Free

 Online

Co-production

Registration open Sept 2024



Navigating co-production with linked data

This course will enable learners to understand and define co-production principles and values within the context of data linkage. Designed for learners with no prior knowledge of co-production.

 2 days

 Paid course

 In person only

Accreditation Pending Courses



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“It has given me a clearer understanding of how the data is linked and what data sets are available and the process to applying to use the data for research”



“Got a better picture of how core health-related SAIL datasets are structured.”

“Highlighted research that can be done using the data”

“The event provided knowledge and understanding. It has enabled me to ask pertinent questions.”

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YDG
CYMRU

ADR
WALES

Supporting evidence-based policy making by capitalising on administrative data

Stephanie Howarth

Chief Statistician, Welsh Government
Co-Director, ADR Wales



ADR Wales partnership operates as one team



Includes 25 Welsh Government staff

- mix of social researchers, statisticians, data scientists, and business administrators

Part of Knowledge and Analytical Services

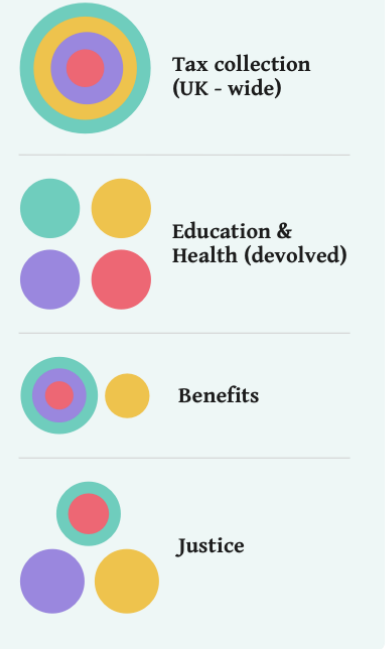
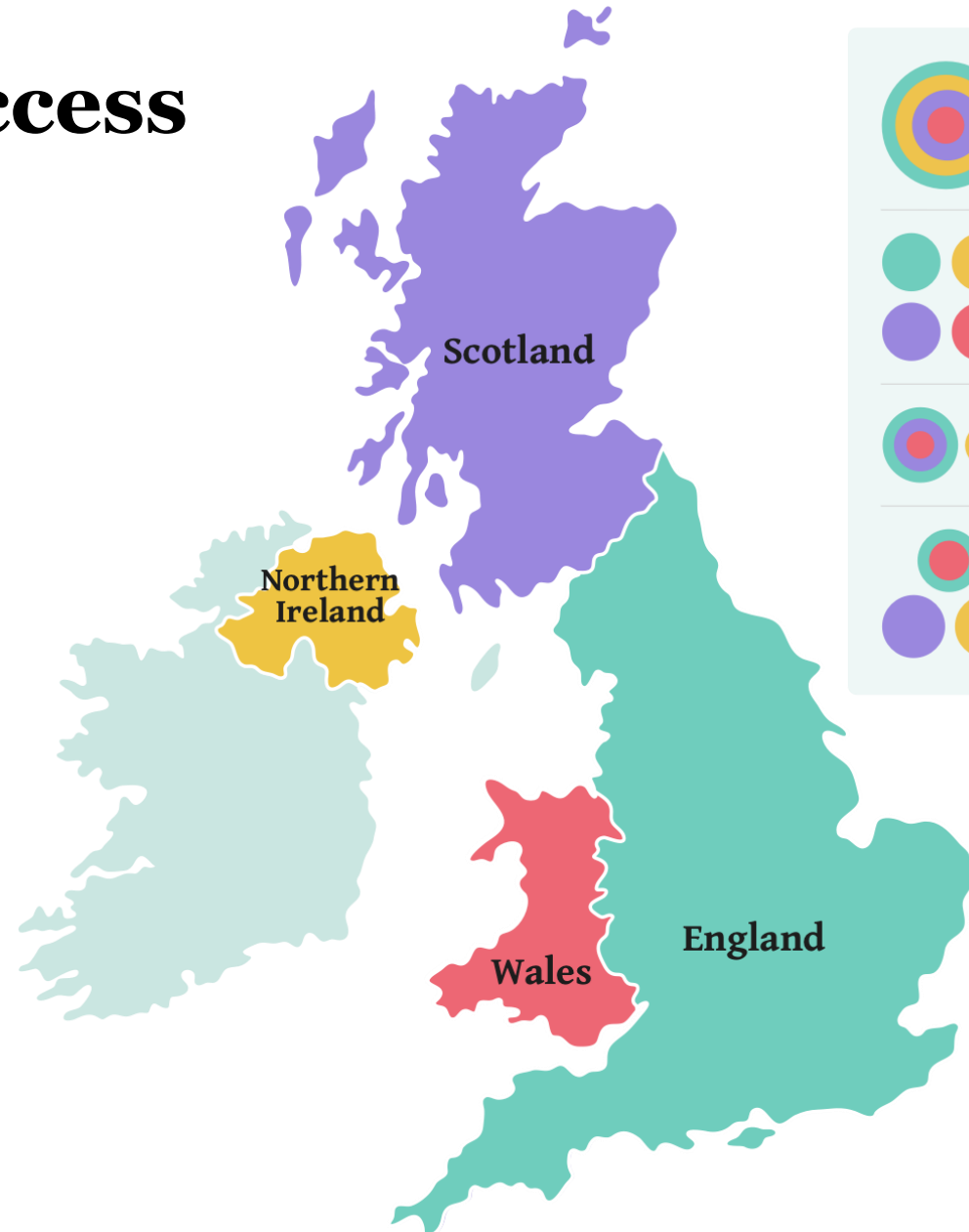
Based in the Statistical Services Division

We help researchers access administrative data

Welsh Government data e.g.

- Looked After Children
- Children Receiving Care and Support
- Pupil Level Annual School Census (PLASC)
- Lifelong Learning Wales Record
- School Workforce Annual Census
- Children and Family Court Advisory and Support Service (CAFCASS) Wales

ADR UK helps facilitate access to other data owners



ADR Wales research programme is aligned to Government priorities



“We are blessed with a wide range of home-grown and made-in Wales cutting-edge data analysis techniques and research excellence, together with the world-renowned SAIL Databank – which allows the delivery of robust, secure and informative research.”

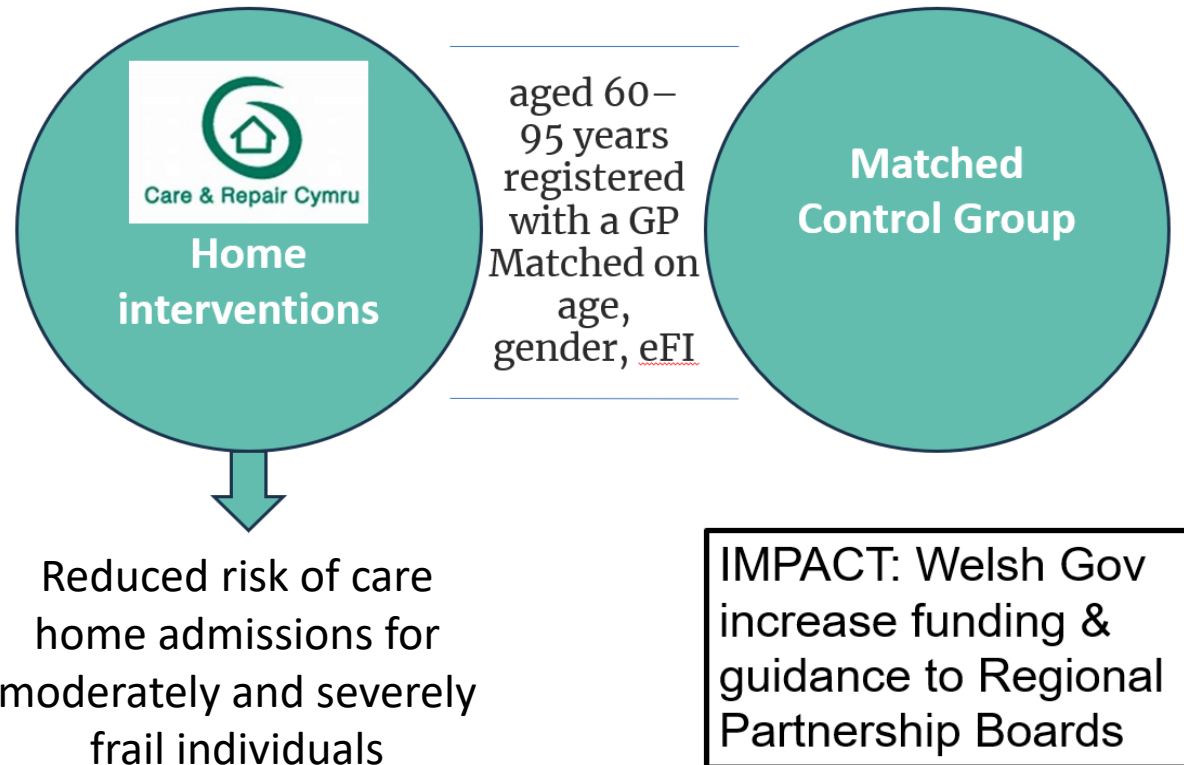
Eluned Morgan MS – First Minister

1 Dec 2022



ADR Wales evidence is helping inform decision making

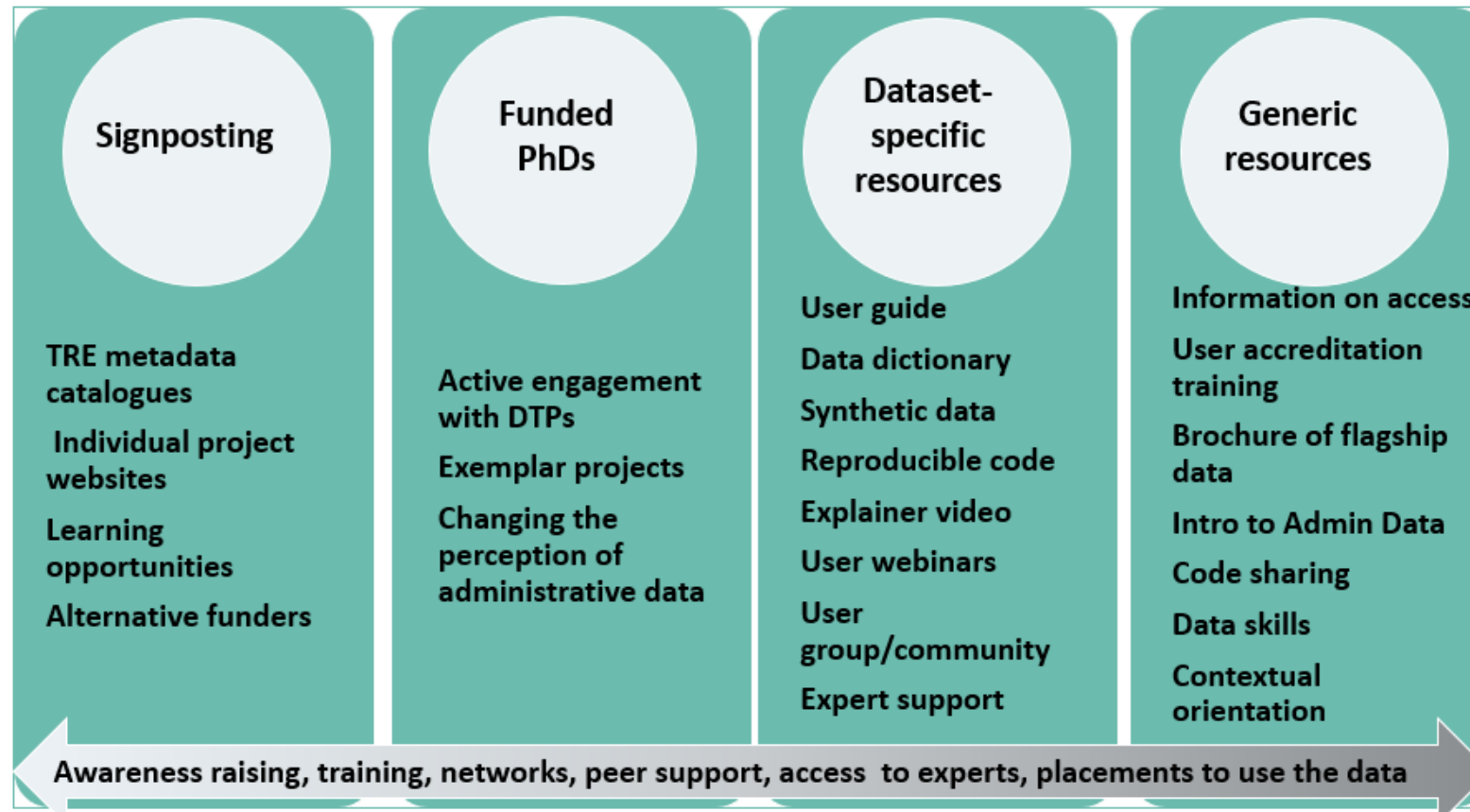
An example:



Joe Hollinghurst, Richard Fry, Ashley Akbari, Alan Watkins, Neil Williams, Sarah Hillcoat-Nallétamby, Ronan A Lyons, Andrew Clegg, Sarah E Rodgers. Do home modifications reduce care home admissions for older people? A matched control evaluation of the Care & Repair Cymru service in Wales. *Age and Ageing*, Volume 49, Issue 6, November 2020, Pages 1056–1061.

Support for PHD students

The front door to linked administrative data



ADR UK 2025 Conference

From records to research: Harnessing administrative data to enhance lives

16-18 September 2025, Cardiff, Wales

Call for abstracts now open. Closes 28 February 2025.

Announcing our PhD members of the conference Scientific Committee....



Lijie Zeng
Tomiris Gilazh



**Administrative data is
an invaluable resource for
public good.**

We're using it.





Newid Cadarnhaol mewn
Gofal Cymdeithasol

Positive Change
in Social Care



Llywodraeth Cymru

Swyddfa Genedlaethol Gofal a Chymorth

Welsh Government

National Office for Care and Support

Trosolwg o swyddogaeth y swyddfa genedlaethol parthed data ac ymchwil gofal cymdeithasol

Overview of the National Office Social Care data and research function

Joseph Wilton

Pennaeth Dadansoddi ac Arloesi / Head of Analysis and Innovation

Swyddfa Genedlaethol Gofal a Chymorth / National Office for Care and
Support



Yr hyn rydym yn ei wneud - data

Casglu a chyhoeddi data

- Mae'r ALI yn anfon data am y bobl sydd â chynllun gofal a chymorth, neu sydd wedi derbyn unrhyw gymorth gan eu hadran gwasanaethau cymdeithasol
- Mae data yn cael ei ddilysu, ei ddadansoddi a'i gyhoeddi ar StatsCymru
- Gweithio gydag Awdurdodau Lleol a rhanddeiliaid i gadw canllawiau'n ddefnyddiol a pherthnasol

Datblygu polisi a goruchwyllo

- Gosod cyfeiriad cenedlaethol ar gyfer defnyddio a chasglu data
- Gweithio gyda sefydliadau eraill i ddatblygu cyfeiriad strategol
- Rhoi cyllid i awdurdodau lleol a sefydliadau eraill i gefnogi casglu a darparu data
- Gweithio'n agos gyda Gofal Cymdeithasol Cymru ar eu Dull Strategol ar gyfer Data

What we do - data

Collect and publish data

- LAs send in data about the people who have a care and support plan, or who have received any support from their social services department
- Data is validated, analysed and published on StatsWales
- Work with LAs and stakeholders to keep guidance useful and relevant

Develop policy and oversight

- Set national direction for the uses and collection of data
- Work with other organisations to develop strategic direction
- Issue funding to local authorities and other organisations to support the collection and provision of data
- Work closely with Social Care Wales on their Strategic Approach for Data



Yr hyn rydym yn ei wneud - ymchwil

Ymchwil y Comisiwn

- Comisiynu prosiectau ymchwil i helpu i ddatblygu neu werthuso polisi neu ddeddfwriaeth genedlaethol
- Cefnogi timau polisi i gynnal ymchwil
- Ceisio defnyddio'r argymhellion o ymchwil i wneud gwelliannau i bolisi

Cefnogi'r sector ymchwil

- Gweithio gyda sefydliadau ymchwil cenedlaethol i'w cysylltu â thimau polisi
- Dod ag ymchwilwyr at ei gilydd i rannu prosiectau dysgu a pharhaus
- Datblygu rhaglenni ymchwil cenedlaethol i gynorthwyo dealltwriaeth o brofiadau a chanlyniadau pobl

What we do - research

Commission research

- Commission research projects to aid the development or evaluation of national policy or legislation
- Support policy teams to undertake research
- Try to use the recommendations from research to make improvements to policy

Support the research sector

- Work with national research organisations to connect them with policy teams
- Bring together researchers to share learning and ongoing projects
- Develop national research programmes to aid the understanding of people's experiences and outcomes



Casgliadau data ar lefel unigol cyfredol

[Deddf Gwasanaethau Cymdeithasol a Llesiant \(Cymru\) 2014](#)

Cyfrifiad plant sy'n derbyn gofal a chymorth

- Yn cynnwys pob plentyn sy'n derbyn gofal a chymorth
- Archwilio demograffeg, rhesymau dros ofal a chymorth a ffactorau am eu gofal

Cyfrifiad plant sy'n derbyn gofal

- Dim ond yn cynnwys plant â phrofiad gofal (sy'n derbyn gofal ar hyn o bryd a'r rhai sy'n gadael gofal)
- Episodig ac yn canolbwyntio ar leoliadau'r plentyn

Cyfrifiad oedolion sy'n derbyn gofal a chymorth

- Archwilio'r demograffeg a'r gofal sy'n cael ei ddarparu i oedolion sydd â chynllun gofal a chymorth
- Data cyntaf yn cwmpasu 2023/24

Cyfrifiad gofalwyr di-dâl yn derbyn cymorth

- Archwilio'r demograffeg a'r cymorth sy'n cael eu darparu i ofalwyr di-dâl
- Data cyntaf a ragwelir ar gyfer 2025/26

Current individual level data collections

[Social Services and Well-being \(Wales\) Act 2014](#)

Children Receiving Care and Support census

- Covers all children receiving care and support
- Explores demographics, reasons for care and support and factors about their care

Children Looked After census

- Only includes care experienced children (currently looked after and care leavers)
- Episodic and focuses on the placements of the child

Adults receiving care and support census

- Explores the demographics and care being provided to adults with a care and support plan
- First data covering 2023/24

Unpaid carers receiving support census

- Explores the demographics and support being provided to unpaid carers
- Anticipated first data covering 2025/26



Gwerth y data

Deall darpariaeth gofal

- Effaith gyntaf casglu data lefel unigol yw deall yn well y gwahaniaethau unigol rhwng pobl sy'n derbyn gwahanol wasanaethau.
- Er enghraifft, gallwn weld bod nifer y plant sy'n derbyn gofal o gefndiroedd lleiafrifoedd ethnig wedi cynyddu. Yna gallwn archwilio pa wasanaethau y maent yn eu derbyn, beth yw'r ffactorau sy'n arwain at eu gofal a pha leoliadau sydd ganddynt.

Data cysylltiedig

- Er bod y setiau data yn unig yn werthfawr, maent yn dod yn fwy effeithiol wrth eu cysylltu â setiau data eraill, fel iechyd neu addysg.
- Er enghraifft:
 - [Parental risk factors and children entering care – CASCADE](#)
 - [Child Welfare Inequalities in a Time of Rising Numbers of Children Entering Out-of-Home Care | The British Journal of Social Work | Oxford Academic](#)

Value of data

Understanding provision of care

- The first impact of collecting individual level data is to better understand the individual differences between people receiving different services.
- For example, we can see that the numbers of children looked after from ethnic minority backgrounds have increased. We can then explore what services they're receiving, what the factors leading to their care are and what placements they have

Linked data

- While the datasets alone are valuable, they become more impactful when linked to other datasets, such as health or education
- For example:
 - [Parental risk factors and children entering care – CASCADE](#)
 - [Child Welfare Inequalities in a Time of Rising Numbers of Children Entering Out-of-Home Care | The British Journal of Social Work | Oxford Academic](#)



Casgliadau data gofal cymdeithasol cyfanswm cyfredol

Cod Ymarfer ar gyfer Perfformiad a Gwella

Fframwaith Perfformiad a Gwella – data gweithgarwch a pherfformiad

- Blynyddol
- Yn cwmpasu'r ystod o weithgarwch gwasanaethau Cymdeithasol
- Wedi'i gynllunio i archwilio perfformiad awdurdodau lleol, nid canlyniadau unigol
- Cyhoeddwyd ar StatsCymru

Checkpoint Gwasanaethau Cymdeithasol

- Misol. Heb ei gyhoeddi
- Archwilio capasiti a galw ar awdurdodau Lleol
- Ar gael i staff awdurdodau lleol a rhanddeiliaid cenedlaethol dethol

Current aggregate social care data collections

Code of Practice for Performance and Improvement

Performance and Improvement Framework – activity and performance data

- Annual.
- Covers the range of social services activity
- Designed to explore local authority performance, not individual outcomes
- Published on StatsWales

Social Services Checkpoint

- Monthly. Unpublished
- Explores capacity and demand on local authorities
- Accessible to local authority staff and selected national stakeholders



Bylchau data ac ymchwil cenedlaethol

Atal

- Mae nifer y bobl sy'n cael eu cyfeirio at wasanaethau fel Gwybodaeth, Cymorth a Chyngor yn cael eu cofnodi, ond nid yw'r nifer sy'n manteisio a'r canlyniadau yn.... Nid yw'r rhain yn cael eu casglu ar systemau data awdurdodau lleol.
- Nid yw rôl y trydydd sector yn hysbys oherwydd yr heriau o gael set ddata genedlaethol gyson.

Hunangyllidwyr

- Nid yw pobl sy'n trefnu ac yn ariannu eu gofal eu hunain yn cael eu casglu yn unrhyw un o gasgliadau data Llywodraeth Cymru
- Nid yw unrhyw ofal nad yw'n cael ei gomisiynu gan Awdurdodau Lleol yn hysbys
- Gellir amcangyfrif y niferoedd drwy gymharu setiau data eraill a gyhoeddir gan Arolygiaeth Gofal Cymru.

Profiadau a Chanlyniadau

- Mwy na pha wasanaethau sy'n cael eu darparu, ond pa effaith y mae'r gwasanaethau hyn yn ei chael ar bobl
- Mae ymgysylltu ac ymchwil lleol yn helpu i gwrdd â rhywfaint o'r bwlch hwn
- Mae cynlluniau ar waith i weithio gydag awdurdodau lleol a darparwyr i gasglu'r data hwn yn flynyddol.

National data and research gaps

Prevention

- The number of people signposted to services such as Information, Assistance and Advice are captured, but the take-up and outcomes are not. These are not captured on local authority data systems.
- The role of the third sector is not known due to the challenges of having a consistent national dataset.

Self-funders

- People who arrange and fund their own care are not captured in any of the Welsh Government data collections
- Any care not commissioned by Local Authorities is unknown
- Numbers and demographics can be estimated by comparing other datasets published by Care Inspectorate Wales.

Experiences and Outcomes

- More than just what services are provided, but what impact do these services have on people
- Local engagement and research helps meet some of this gap.
- Plans are in place to work with local authorities and providers to collect this data annually.



Gyda phwy rydym yn gweithio

Gofal Cymdeithasol Cymru

- Partner allweddol wrth gasglu data'r gweithlu, cefnogi mynediad at ddata a datblygu'r sector.
- Helpu i lunio'r strategaeth ddata trwy ddeall heriau ac aeddfedrwydd y sector.

Awdurdodau lleol

- Y brif ffynhonnell ddata am bobl sy'n derbyn gofal a chymorth.
- Bydd yn gyfrifol am sicrhau bod data'n cael ei gasglu drwy ymarfer rheng flaen

YDG Cymru

- Rhannu data i alluogi cysylltu
- Helpu i gefnogi ceisiadau a blaenoriaethau ymchwilwyr

Arolygiaeth Gofal Cymru

- Rhannu data gyda nhw i lywio gweithgarwch arolygu.
- Cyhoeddi data am ddarparwyr gwasanaethau trwy eu gweithgaredd rheoleiddio a'u ffurflenni blynyddol.

Who we work with

Social Care Wales

- A key partner in collecting workforce data, supporting access to data and developing the sector.
- Help shape the data strategy by understanding sector challenges and maturity.

Local authorities

- The main source of data about people receiving care and support.
- Will be responsible for making sure data is collected through front-line practice

ADR Wales

- Share data to enable linking
- Help support researcher applications and priorities

Care Inspectorate Wales

- Share data with them to inform inspection activity.
- Publish data about service providers through their regulatory activity and annual returns.



Ymchwil drwodd i ymarfer

Llawer o enghreifftiau yn y llenyddiaeth

- Mae sefydliadau ymchwil cenedlaethol (CASCADE, CARE, HCRW) yn gweithio gydag ymchwilwyr ac ymarferwyr i ddatblygu ymchwil i ymarfer
- Blaenoriaethu pynciau gan ddefnyddio mewnbwn polisi, cefnogi ceisiadau am gyllid, datblygu capasiti mewn meysydd blaenoriaeth, rhannu canfyddiadau, gweithio gydag ymarferwyr ac ymgorffori mewn polisi cenedlaethol
- Partner allweddol Gofal Cymdeithasol Cymru yn hyn: [Gofal Cymdeithasol Cymru - Ymchwil, data ac arloesi - Gofal Cymdeithasol Cymru - Ymchwil, data ac arloesi](#)

Astudiaeth Achos - [Gwerthusiad o Ddeddf Gwasanaethau Cymdeithasol a Llesiant \(Cymru\) 2014 | LLYW.CYMRU](#)

- Ariannwyd a chefnogaeth gan Lywodraeth Cymru
- Gwerthusiad aml-ddulliau dros bedair blynedd gyda Phrifysgol De Cymru
- Rhoi rhai canfyddiadau heriol a 'chwestiynau prawf' i'r sector fynd i'r afael â nhw
- Eiriolwr dros ddull newydd o ymdrin â gofal cymdeithasol, megis sefydlu gwasanaeth gofal cenedlaethol
- Cefnogi drafftio adroddiad [Sefydlu gwasanaeth gofal a chymorth cenedlaethol](#)
- Wedi arwain at sefydlu'r [Swyddfa Genedlaethol Gofal a Chymorth](#)

Research through to practice

Many examples in the literature

- National research organisations (CASCADE, CARE, HCRW) work with researchers and practitioners to develop research into practice
- Prioritise topics using policy input, support funding bids, develop capacity in priority areas, share findings, work with practitioners and embed into national policy
- Social Care Wales key partner in this: [Social Care Wales - Research, Data & Innovation - Social Care Wales - Research, Data & Innovation](#)

Case Study - [Evaluation of the Social Services and Well-being \(Wales\) Act 2014](#)

- Funded and supported by Welsh Government
- Multi-methods evaluation over four years with University of South Wales
- Gave some challenging findings and 'test questions' for the sector to address
- Advocated for a new approach to social care, such as the establishment of a national care service
- Supported the drafting of the [Towards a National Care and Support Service for Wales](#) report
- Led to establishment of the [National Office for Care and Support](#)

Dadansoddi ac Arloesi

Analysis and Innovation



Newid Cadarnhaol mewn
Gofal Cymdeithasol
Positive Change
in Social Care



Llywodraeth Cymru
Swyddfa Genedlaethol Gofal a Chymorth
Welsh Government
National Office for Care and Support





Newid Cadarnhaol mewn
Gofal Cymdeithasol
Positive Change
in Social Care



Llywodraeth Cymru
Swyddfa Genedlaethol Gofal a Chymorth
Welsh Government
National Office for Care and Support

**Unrhyw
gwestiynau?**



**Any
questions?**



SwyddfaGenedlaethol@llwy.cymru

NationalOffice@gov.wales



Creating an Evidence-led Criminal Justice System

Rachel Allen: Criminal Justice Board Coordinator
Annemarie Newbury: Research Associate – Cardiff
University

Cyfiawnder
Troseddol
yng Nghymru

Criminal
Justice
in Wales





1. Setting the scene

- What does the criminal Justice system look like?

2. How does the Criminal Justice System use 'data and evidence'

- How is data currently used to shape service delivery
- How can this be improved

3. How can we have impact with our Research

Setting the scene – The Justice System



Discussion: Thinking about the above governance landscape..

What are the policy and legislative opportunities and challenges for research in the justice system?

How the Criminal Justice System use 'data and evidence'



How we use data currently..

- As Individual organisations
- Cross System :e.g. via LCJBs and CJBfW: Set priorities, monitor performance, hold to account and monitor trends

The Future for Data

- Public health approaches (e.g., serious violence)
- Linked data- (e.g., SAIL, BOLD)
- More targeted interventions/ approaches
- Common data issues / pitch falls.

EXERCISE - Snapshot of rape data...

Q. What does the data suggest about the performance of the forces?

Q. What further insight/information might senior leads want to understand?

Metric Name	LCJB	Q1 Jan-Mar 2022	Q2 Apr-Jun 2022	Q3 July-Sept 2022	Q4 Oct-Dec 2022	Q1 Jan-Mar 2023	Q2 Apr-Jun 2023	Q3 July-Sept 2023	Q4 Oct-Dec 2023	Q1 Jan-Mar 2024	Q2 Apr-Jun 2024	Quarterly increase/decrease (%)	Each regions rolling Average
Number of suspects the police refer to the CPS for early advice or for a charging decision	1	20	10	20	11	22	18	7	17	8	12	50.0%	15
	2	13	17	18	21	26	17	15	18	14	18	28.6%	18
	3	20	13	12	12	14	18	21	10	11	10	-9.1%	14
	4	25	55	49	45	44	45	30	38	51	62	21.6%	44
Number of suspects authorised to be charged by the CPS	1	1	0	0	4	3	5	4	2	3	5	66.7%	3
	2	4	7	5	6	8	3	10	8	11	5	-54.5%	7
	3	3	6	3	1	4	6	8	2	3	4	33.3%	4
	4	4	16	18	18	16	13	10	18	15	18	20.0%	15
Number of receipts at the Crown Court	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A		
	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A		
	3	1	6	3	3	4	3	6	0	NA	N/A		3
	4	10	20	22	29	25	21	22	25	NA	N/A		22

How can you have 'impact' with your Research?



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**Criminal
Justice
in Wales**

Engage with services providers, service users, stakeholders from the start to:

- Co-develop research questions- they know which areas of practice need change.
- Work with professionals to understand your data and the systems.
- Interpretate data- data caveats and findings that are significant/new.
- Translating learning into recommendations/ practice
- Champion changes in services
- What next?- further areas to develop.

EXERCISE - Where has Research changed policy?



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Justice
in Wales**

Discuss –

1. Give one example of one area of research that was implemented and has made a difference to people's lives?
2. What factors helped to land the research with policy makers who implemented it and made the changes needed?

Thanks

Any questions?



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**Criminal
Justice
in Wales**



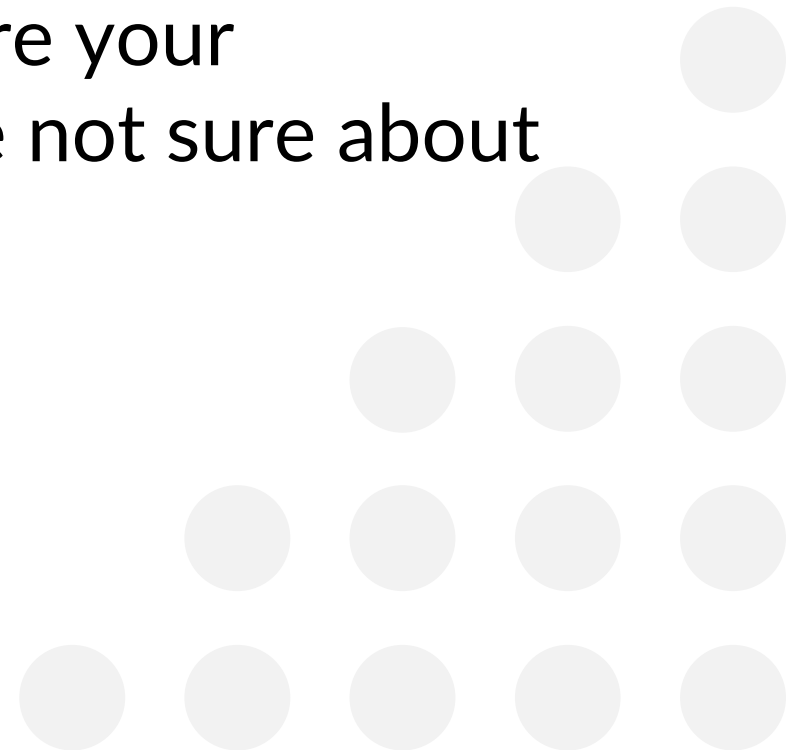
Public engagement and team building

Shayda Kashef
Senior Public Engagement Manager,
ADR UK Strategic Hub
Shayda.Kashef@escr.ukri.org



Housekeeping

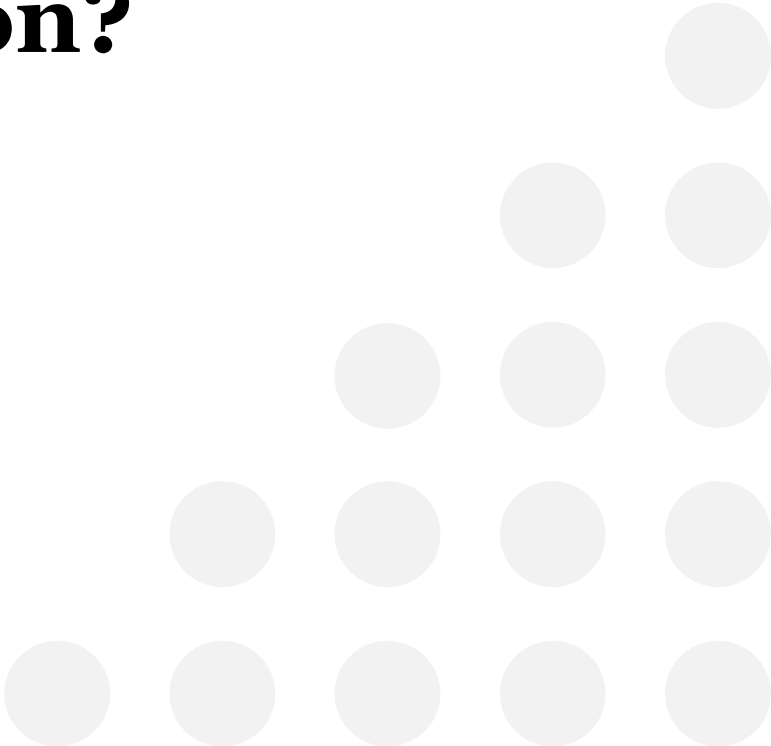
- This workshop is an informal space designed to discuss problems and share ideas.
- There are no stupid questions! Please share your thoughts, even (or especially when) you're not sure about them.



1. Introduction: Why public engagement?

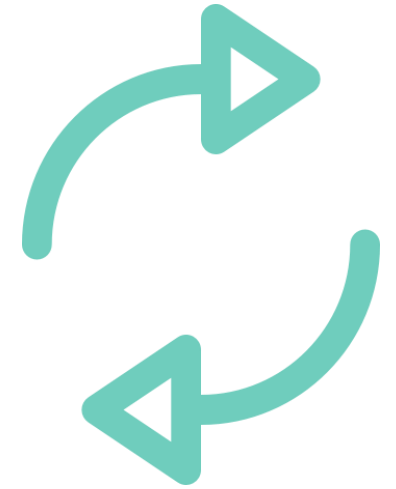


Ice breaker: What is something you are a informal 'expert' on?



What do we mean by ‘public engagement’?

Public engagement is a **purposeful set of activities designed to promote an ongoing dialogue with the public about administrative data research, driven by active listening and responding.**

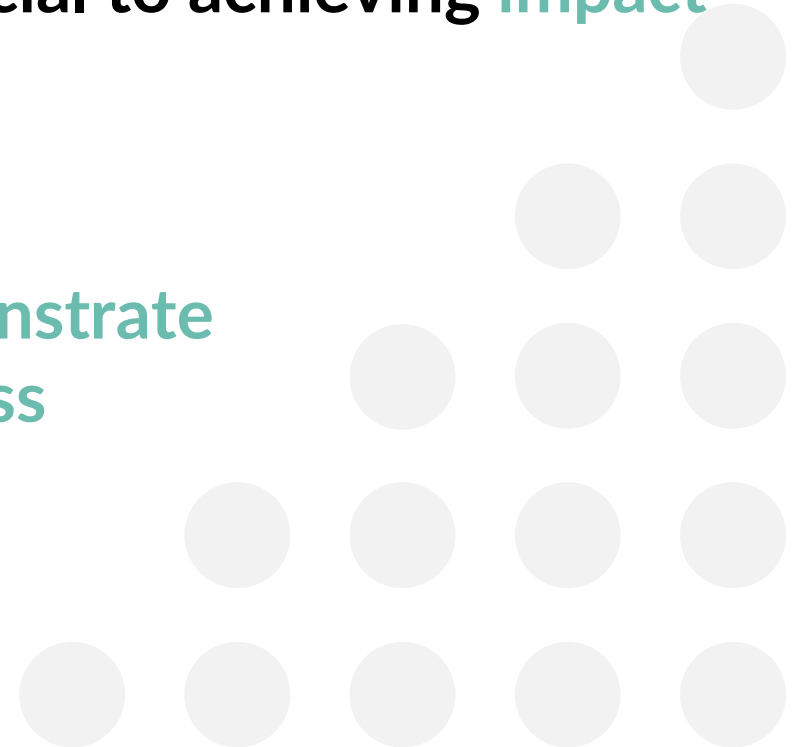


Why public engagement is important:

1. It's the **right thing** to do

2. It's crucial to achieving **impact**

3. It can **demonstrate trustworthiness**

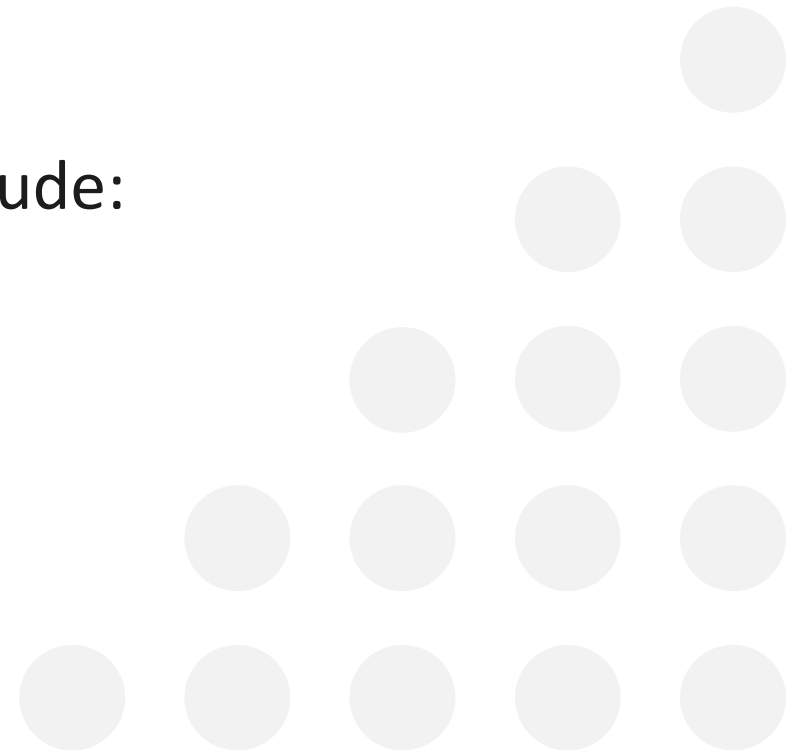


Methods of public engagement

Across the partnership, ADR UK's public engagement activities will involve various methods, each of which can be characterised as either '**inclusion**' (actively involving and/or engaging people in shaping an endeavour) or '**dialogue**' (asking people their views, sometimes in a formal process).

Some methods of inclusive or dialogic engagement include:

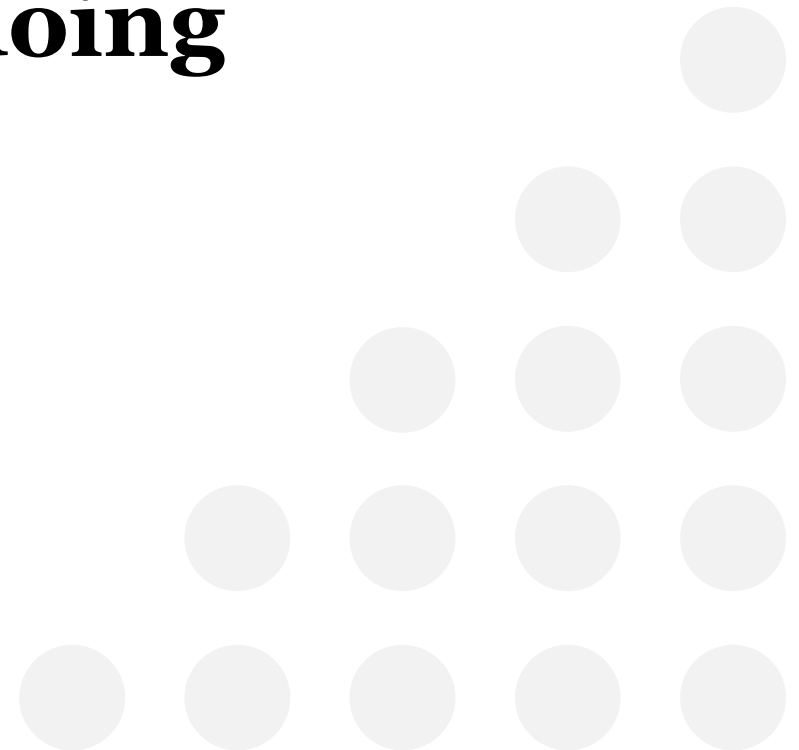
- Public, community or advisory panels
- Public events
- Workshops/focus groups



2. Addressing public engagement challenges



Brainstorm: What are some of the perceived challenges of doing public engagement?



When to engage?

How can I do it well?

How to engage?

Why engage?

Who to engage?

Who is 'the public'?



When to engage...As early as possible and across your project lifecycle.

Why engage...What do you want to learn? What impact do you hope to achieve?

Who to engage...Who do you need to speak to? How do you reach them?

How to engage...What do you want to achieve? Accessibility, inclusion.

How to do it well...Be purposeful, transparent, accountable.

Who is 'the public'...Not academics or policymakers.

Acknowledgement:

It can take time.

It is under-resourced.

It can be resource-intensive.

But it's worth it.



A place to start...

University of Edinburgh

King's College London

Swansea University

University of Exeter

University of Liverpool

University of Nottingham

University of Cambridge

University of Birmingham



A place to start...

[University of Bristol](#)

[UCL](#)

[University of Southampton](#)

[University of Reading](#)

[LSE](#)

[ADR UK Learning Hub](#)

[Datacise Open Learning](#)

[PEDRI](#)

[NCCPE](#)



3. Building a partnership with the public from scratch



Why do we want to engage?

Who are we engaging? How do we reach them?

How do we engage?





ADR UK
Data-driven change

Thank you

Find us at adruk.org
or on Twitter
[@ADR_UK](https://twitter.com/ADR_UK)





Insights from linked education and justice data

School performance and criminal offending

Dr Alice Wickersham
Academic Lead, CAMHS Digital Lab, King's College London
Lecturer, Mental Health Sciences, University College London

Ministry of
Justice

Department for
Education



Justice data including...

- Offence convictions and cautions
- Court appearances
- Prison population, discharges, and receptions



Education data including...

- Attainment
- School absence
- School exclusion
- Sociodemographic characteristics
- Social care



Changes in school performance and involvement in the criminal justice system

Author: Dr Alice Wickersham

Date: April 2024

This Data Insight investigates changes in school performance and subsequent involvement in the criminal justice system during young adulthood. The research draws on England-wide de-identified data from the National Pupil Database and Police National Computer, made available by the Ministry of Justice and Department for Education as an [ADR UK flagship dataset](#).

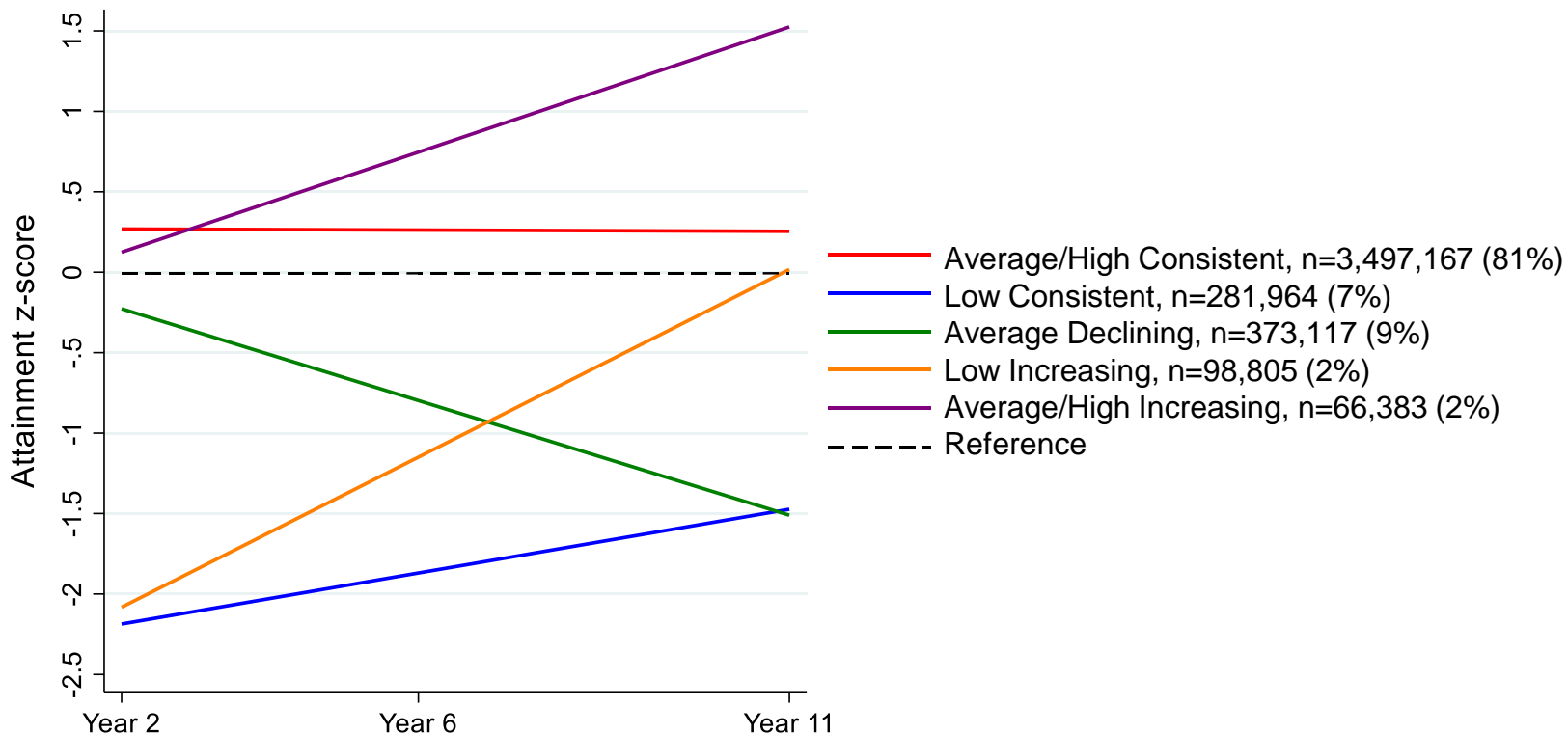
Background

Understanding factors that increase or decrease risk of criminal offending is a key research priority to help shape crime prevention policies¹. We already know that educational attainment, school and local community have a powerful relationship with whether young people enter the criminal justice system². For example, a low proportion of young offenders achieve expected school performance levels in Year 6 and Year 11. Meanwhile, high proportions are eligible for free school meals, are looked after children, and have special educational needs (SEN)³.

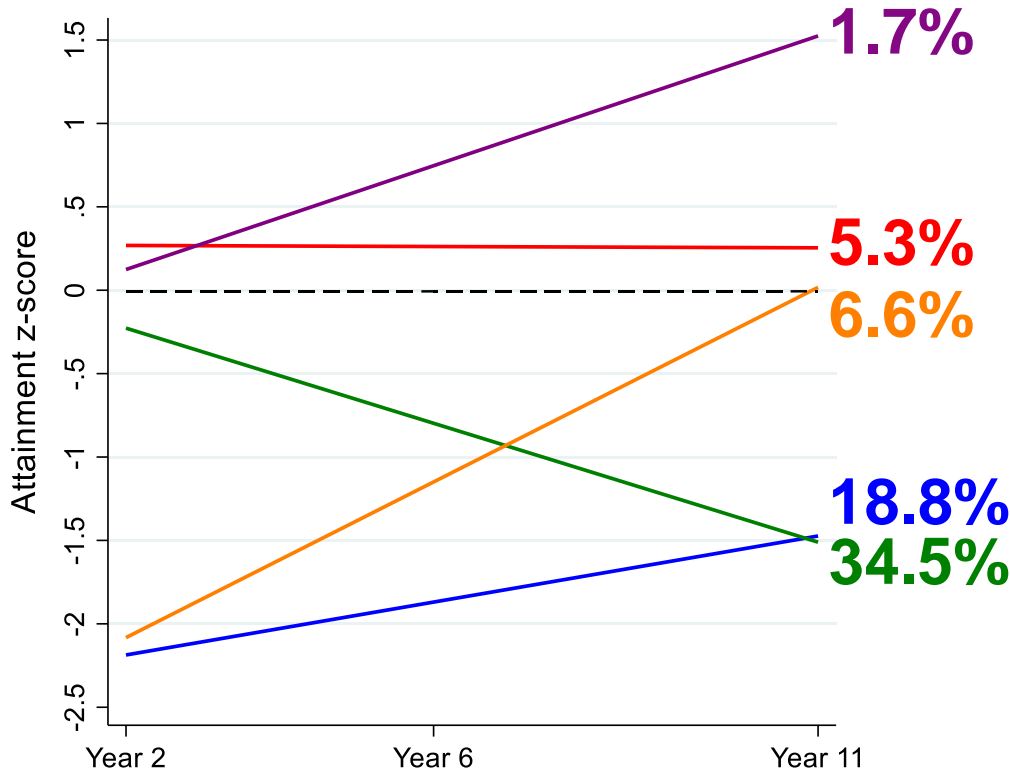
However, little is known about how changes in school performance throughout school might be associated with subsequent criminal offending. It is also unknown whether certain school performance patterns might either exacerbate or mitigate criminal offending risk among groups already known to be at higher risk of this outcome, like those from deprived backgrounds, looked after children, and pupils with SEN. If changes in school performance are associated with increased risk for criminal offending, then tracking school performance could help provide an early indication that pupils might be struggling and in need of additional support. Therefore, we aimed to investigate these relationships using an existing data linkage between the National Pupil Database and Police National Computer.



Pupils can generally be described as following one of five possible school performance trajectories



% who receive a first conviction or caution for any criminal offence *before the end of Year 11*

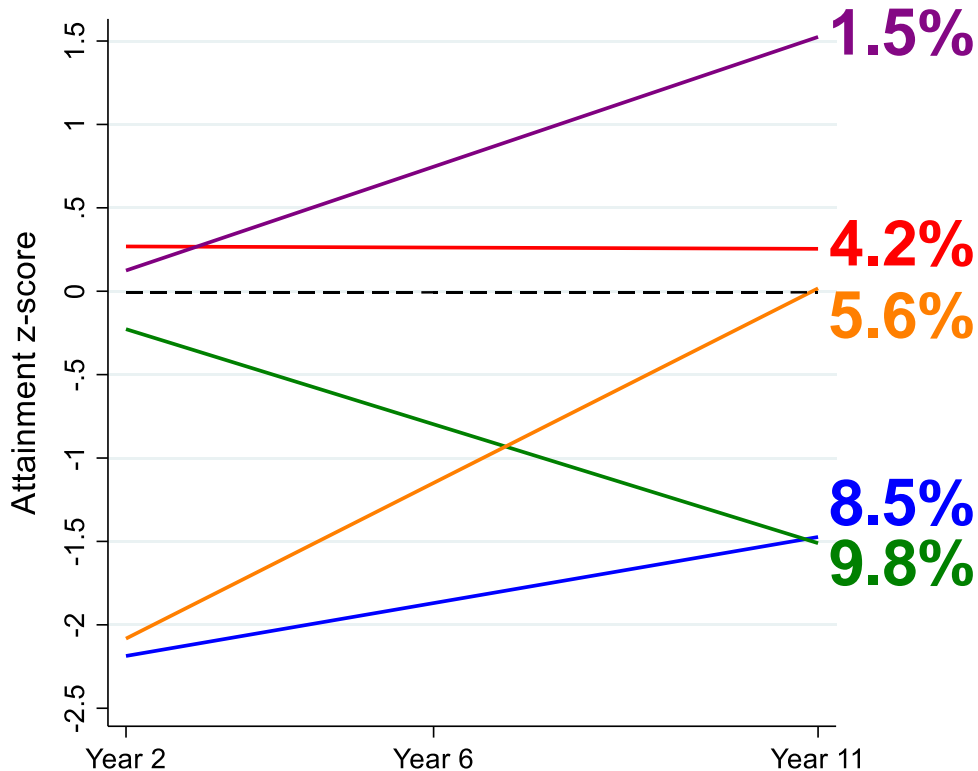


1 in 3 pupils



with declining school performance received a first conviction or caution before the end of Year 11

% who go on to receive a first conviction or caution for any criminal offence *after Year 11 and up to age 21*



1 in 10 pupils



with declining school performance received a first conviction or caution during young adulthood

Implications

Declining performance throughout the school career appears to be most strongly associated with increased risk for later offending

We should **pay attention** to early indicators, like declining school performance, that pupils might be in need of support



Top Tips

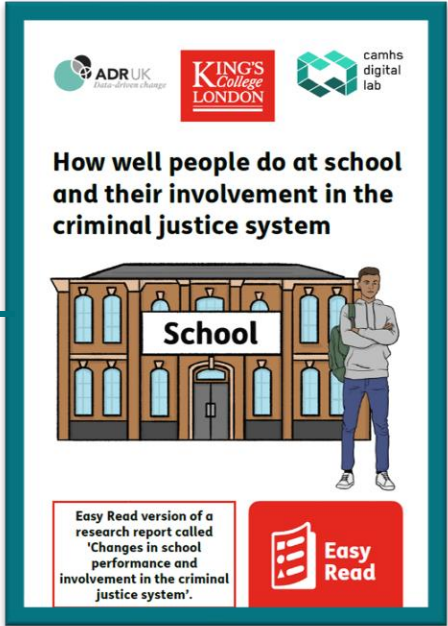
- **Maintain open lines of communication with ADR UK and with the data owners**
They are invested in your work
- **Re-use and share code**
Don't reinvent the wheel
- **Think creatively about engagement beyond academia**
Remember that what we do is in the public interest



Video summarising administrative data for children and young people

Easy Read version of final report for those with learning disability or reading difficulties

Learning resource for consulting advisory groups





With thanks to Dr Johnny Downs, Professor Stephen Scott, and Dr Rosie Cornish

This work is supported by ADR UK (Administrative Data Research UK), an Economic and Social Research Council (ESRC) investment (part of UK Research and Innovation). [Grant number: ES/W002531/1]

This work was produced using statistical data accessed via the ONS Secure Research Service. The use of this data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets which may not exactly reproduce National Statistics aggregates.



alice.wickersham@kcl.ac.uk



@AliceWickersham

Exploring the nexus between immigration, integration and labour market outcomes*

ADR UK PhD Students Annual Gathering 2025
January 16-17, 2025

Ezgi Kaya, Cardiff Business School, Cardiff University

**This work is based on data from the Annual Survey of Hours and Earnings (ASHE) linked to 2011 Census – England and Wales, produced as a collaboration between ADR UK (Administrative Data Research UK), the Office for National Statistics (ONS) and the Wage and Employment Dynamics (WED) project team. Digital Object Identifier (DOI): Office for National Statistics, released 03 July 2023, ONS SRS Metadata Catalogue, dataset, Annual Survey of Hours and Earnings linked to 2011 Census - England and Wales, <https://doi.org/10.57906/80f7-te97>. This work contains statistical data from ONS which is Crown Copyright. The use of the ONS statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets which may not exactly reproduce National Statistics aggregates. The analysis was carried out in the Secure Research Service (SRS), part of the ONS. This work is supported by ADR UK (Administrative Data Research UK), an Economic and Social Research Council (ESRC) investment (part of UK Research and Innovation). [Grant number: ES/Y00010001/1].*

Motivation

- Migration flows and the share of the foreign-born population have increased substantially in recent decades, including the UK
 - In 2021, 10 million people residing in England and Wales were born outside of the UK - an increase of 2.5 million from 2011
- The increasing diversity of the population has made the labour market performance and integration of immigrants a prominent topic in political and public discussions
- Considerable academic interest has been almost exclusively confined to analyses of household survey data
 - e.g. Bell 1997; Dustmann and Fabbri 2005; Clark and Lindley 2009; Drinkwater *et al.* 2009; Ruiz and Vargas-Silva 2018

This project

Aim: To provide new and high-quality evidence on the labour market performance and integration of immigrant workers in England and Wales

Data: The ASHE linked to the 2011 Census, which offers rich and accurate information for building a comprehensive evidence base

- Provides detailed and accurate information on labour market variables of employees from payroll records
 - has a large sample size with a linked employee-employer structure
 - tracks the same de-identified individuals over time (2011-2018)
- Includes a rich set of personal and family characteristics from the Census
 - country of birth to distinguish between UK-born and non-UK-born employees
 - information on language proficiency, years of residence, year of arrival, holding a UK passport and national identity

This project

Research questions (RQs):

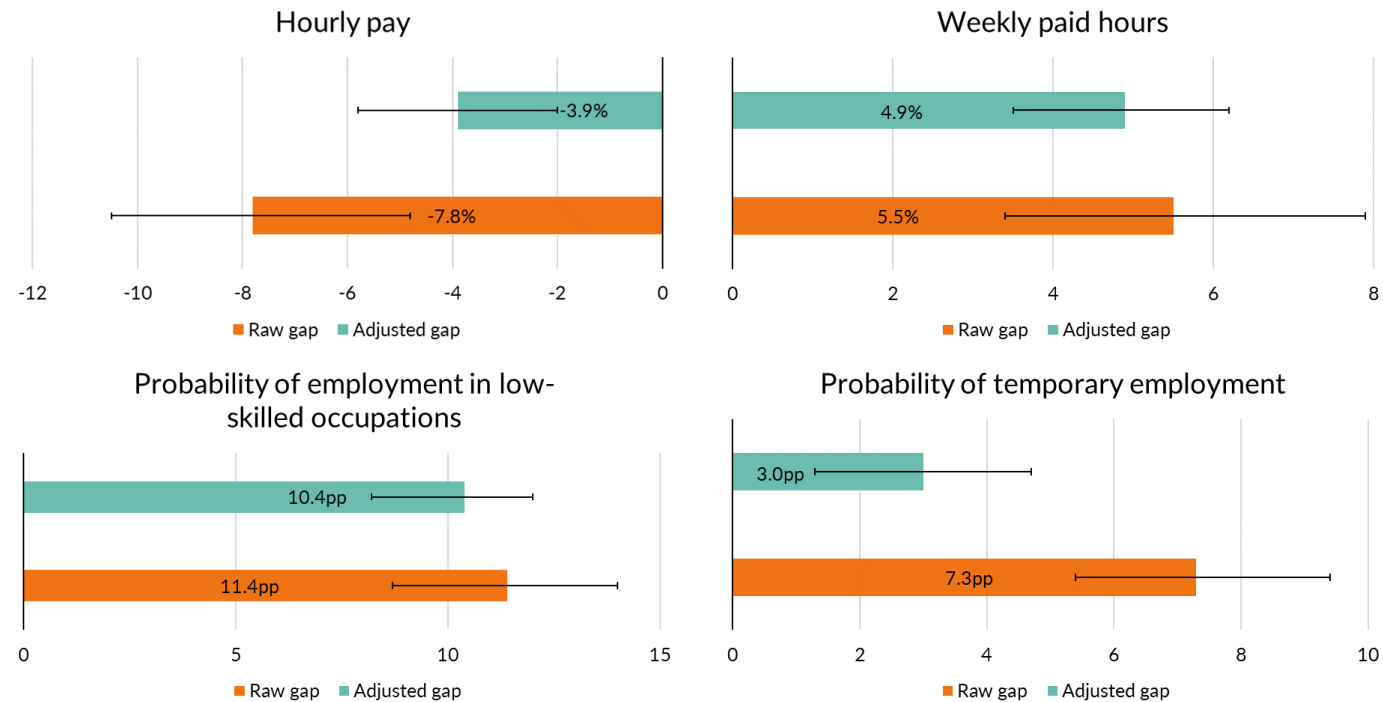
1. How do labour market outcomes, including pay, hours of work, occupational skill level and type of employment contract, differ between UK-born and immigrant (non-UK-born) employees?
2. What are the main drivers of any differences in labour market outcomes, and what is the influence of other characteristics, or the role played by individual employers?
3. Does the labour market performance of immigrants vary by factors related to immigration and integration (e.g., language proficiency or national identity)?
4. How do labour market outcomes of immigrant employees progress over time, and how do the labour market dynamics of immigrants compare to those born in the UK?

Methodology:

- Established econometric methods (regression analysis and decomposition methods)
- Exploits both the cross-sectional (RQs1-3) and longitudinal (RQ4) nature of the data

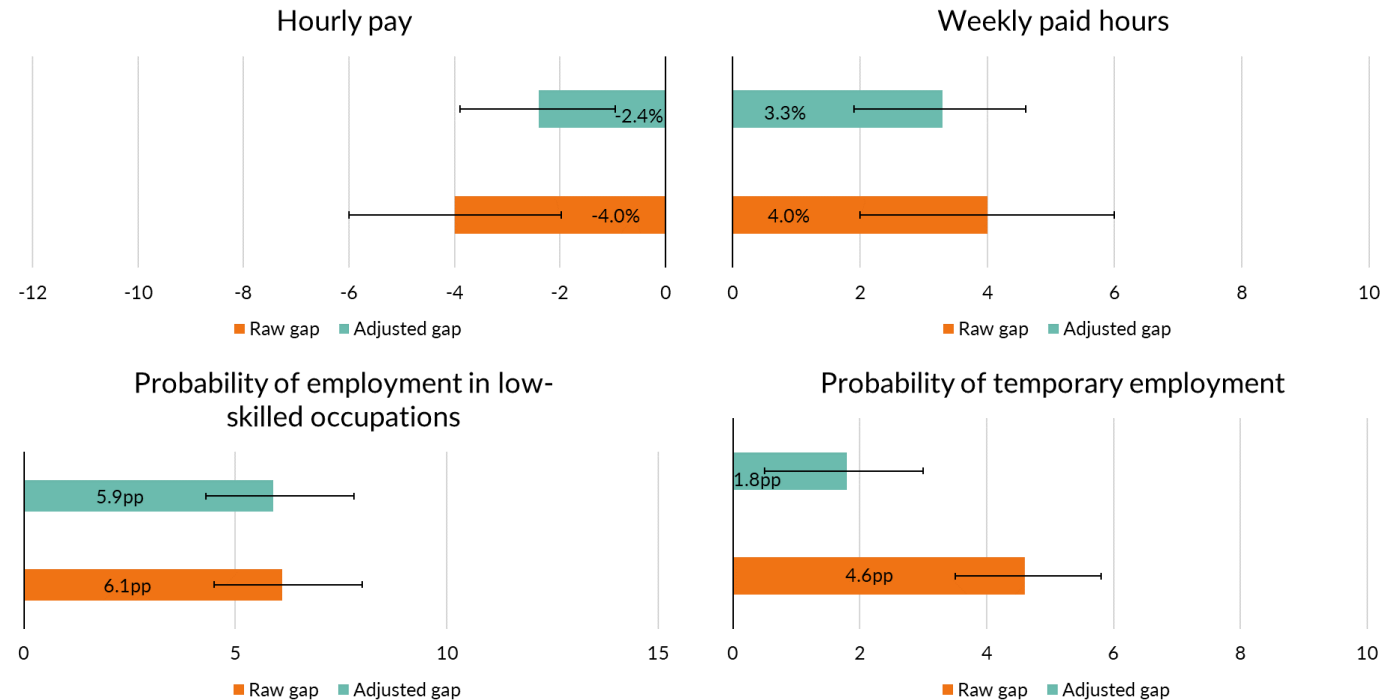
Differences in labour market outcomes between UK-born and immigrant employees

- Immigrants (with less than 10 years of residence), earn less on average, work longer hours, and are more likely to hold low-skilled or temporary jobs compared to UK-born employees
- When adjusted for differences in productivity-related characteristics among employees, these gaps narrow
- Despite the narrowing, significant adjusted gaps persist in all labour market outcomes considered



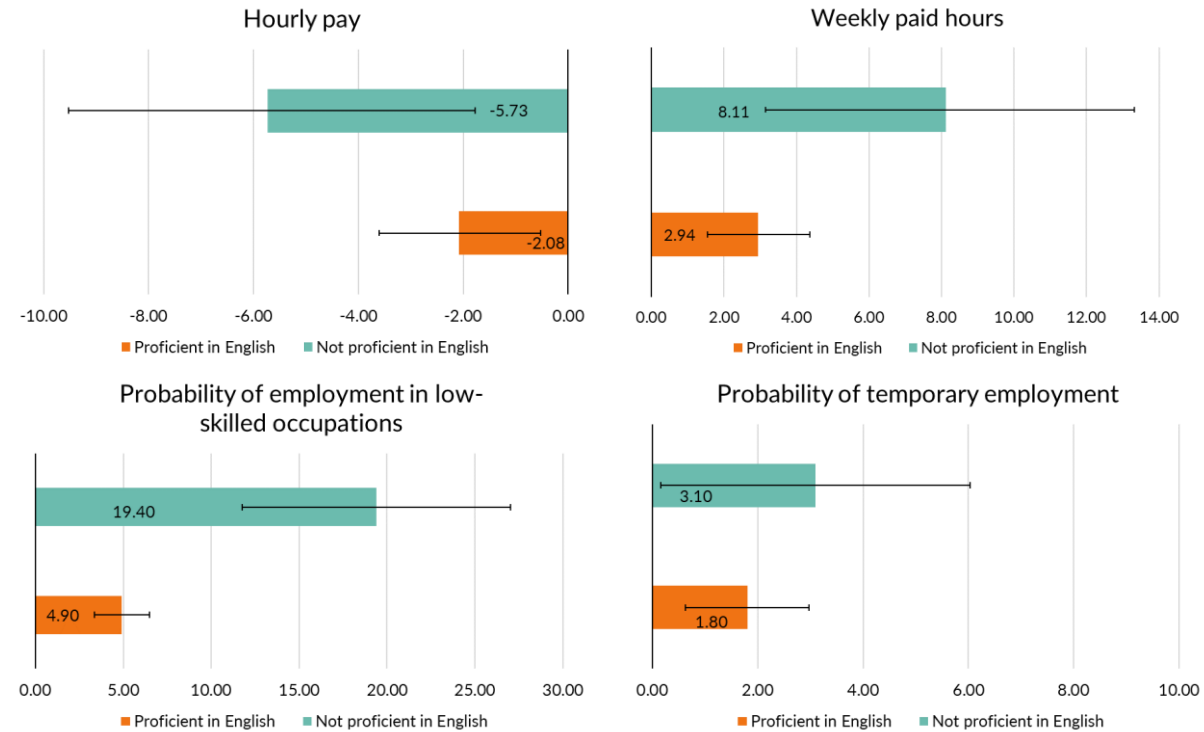
Within-employer differences in labour market outcomes

- Part of the observed gaps can be attributed to differences in where immigrant and UK-born employees work
- However, inequalities within individual employers also play a role
- Significant within-employer gaps exist between comparable UK-born and immigrant co-workers in all labour market outcomes considered



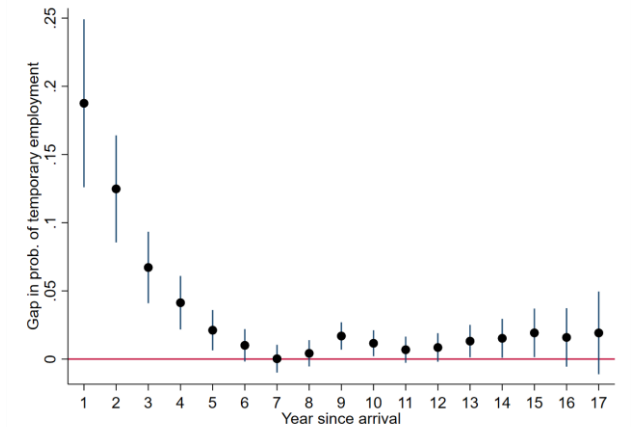
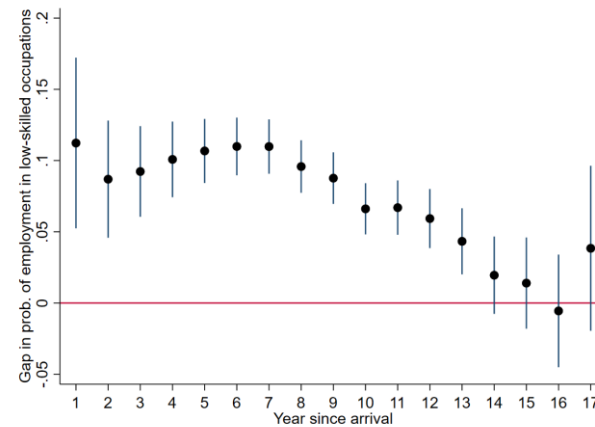
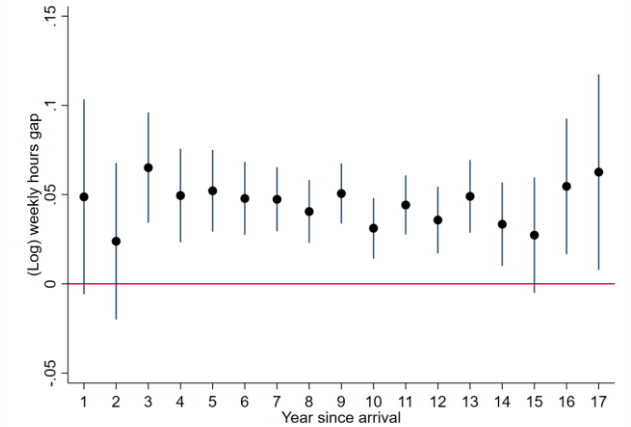
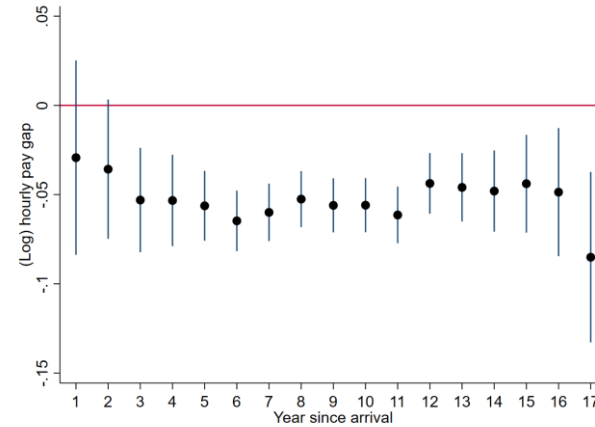
The role of factors related to immigrant integration

- In most cases, gaps between UK-born and immigrant employees are narrower for immigrants who
 - are proficient in English compared to those who are not
 - hold a UK passport compared to those who do not
 - identify as British nationals compared to those who do not
- However, significant gaps relative to comparable UK-born employees still persist for all these groups, both across and within individual employers



Gaps in labour market outcomes over time

- Immigrants' probability of employment in low-skilled or temporary jobs tend to converge to that of UK-born employees from the year of their arrival
 - However, the convergence is relatively slow
- There is limited evidence of convergence in terms of hourly pay and weekly hours, with the gap remaining substantial even after 10 years since arrival



Impact and engagement activities

- The project has provided a comprehensive evidence base to understand the labour market performance and integration of immigrant workers in England and Wales
 - Evidence-based insights for policymakers
 - Contribution to the existing academic literature through insights from a novel dataset
- Throughout the project, we maintained continuous collaboration with various stakeholders, fostering knowledge exchange and broader impact
 - Project advisory board of leading UK organisations
 - Presentations at academic and policy-oriented events
 - Establishing networks through the organisation of events
- The project also demonstrated the potential of these data in a policy-relevant area, as well as providing practical guidance for data owners and potential users

Thank you!

Dr Ezgi Kaya
KayaE@cardiff.ac.uk

For more details about this project and further findings, see:

- Project Page - [Research Fellows using ADR England flagship datasets - ADR UK](#)
- ADR UK Blog - [Migration research: What can we learn from linked administrative data?](#)
- GLO Discussion Paper, No. 1418 - [Labour market performance of immigrants: New evidence from linked administrative data](#)
- ADR UK Blog - [Labour market performance of immigrants: New evidence from linked administrative data](#)
- ADR UK Data Insight - [Labour Market Differences between Immigrant and UK-Born Employees: What is the Role of Employers?](#)
- ADR UK Data Explained - [Exploring the nexus between immigration, integration and labour market outcomes](#)



Economic
and Social
Research Council



Cardiff Business School
Ysgol Busnes Caerdydd



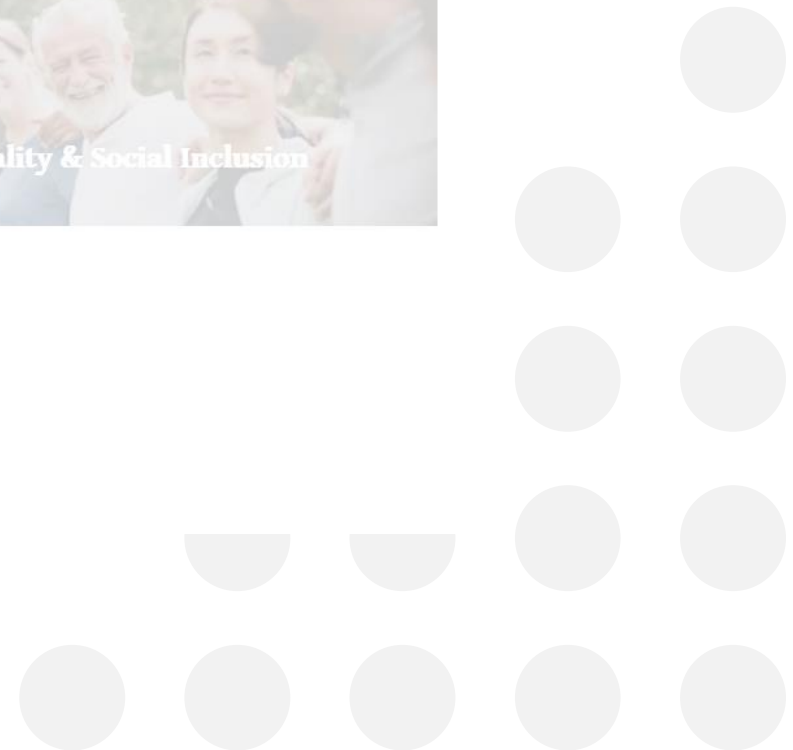
ADR UK PhD Students Annual Gathering: Workshop 1

January, 2025

Justin C Yang, University College London



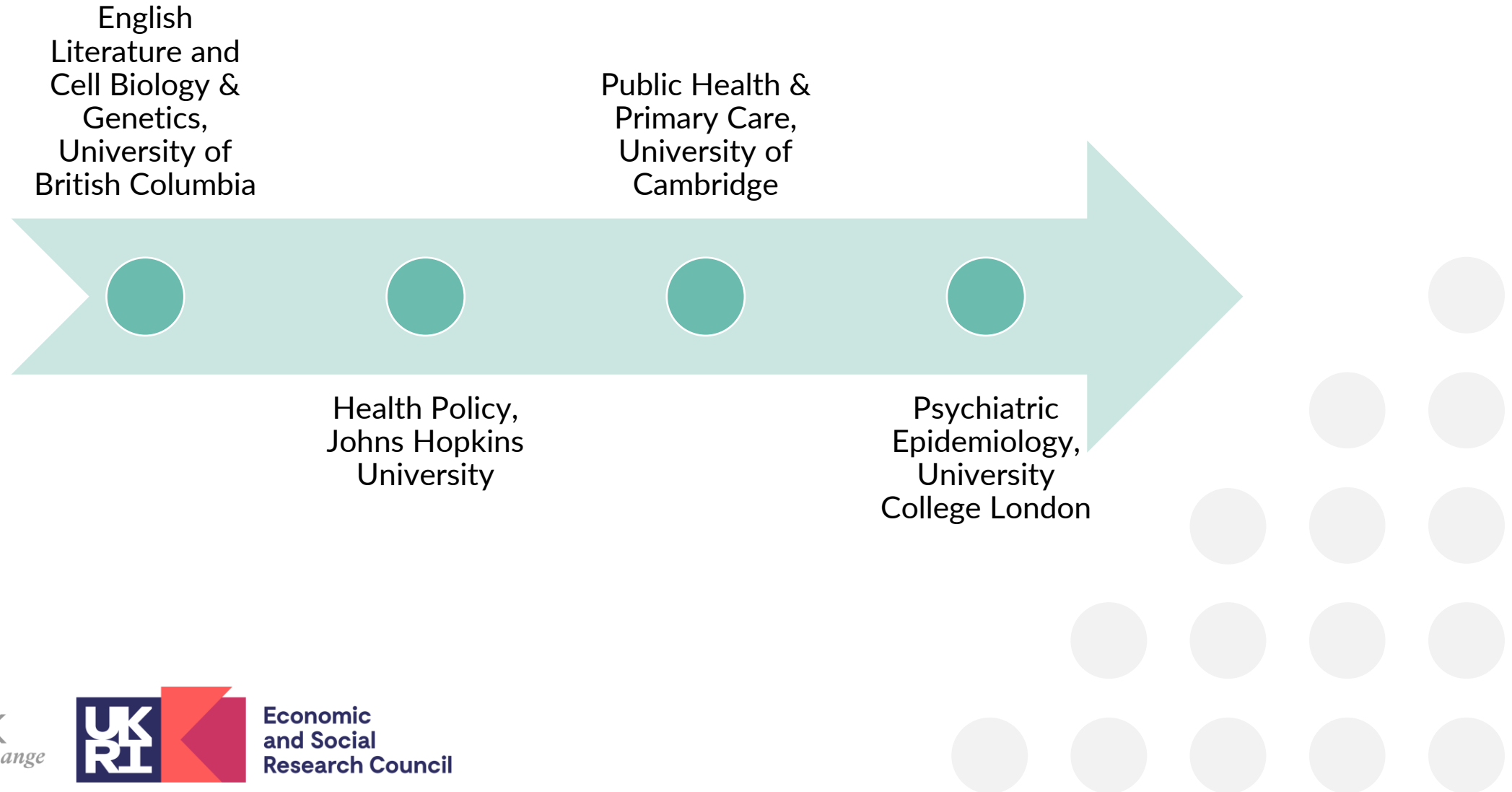
Our areas of work



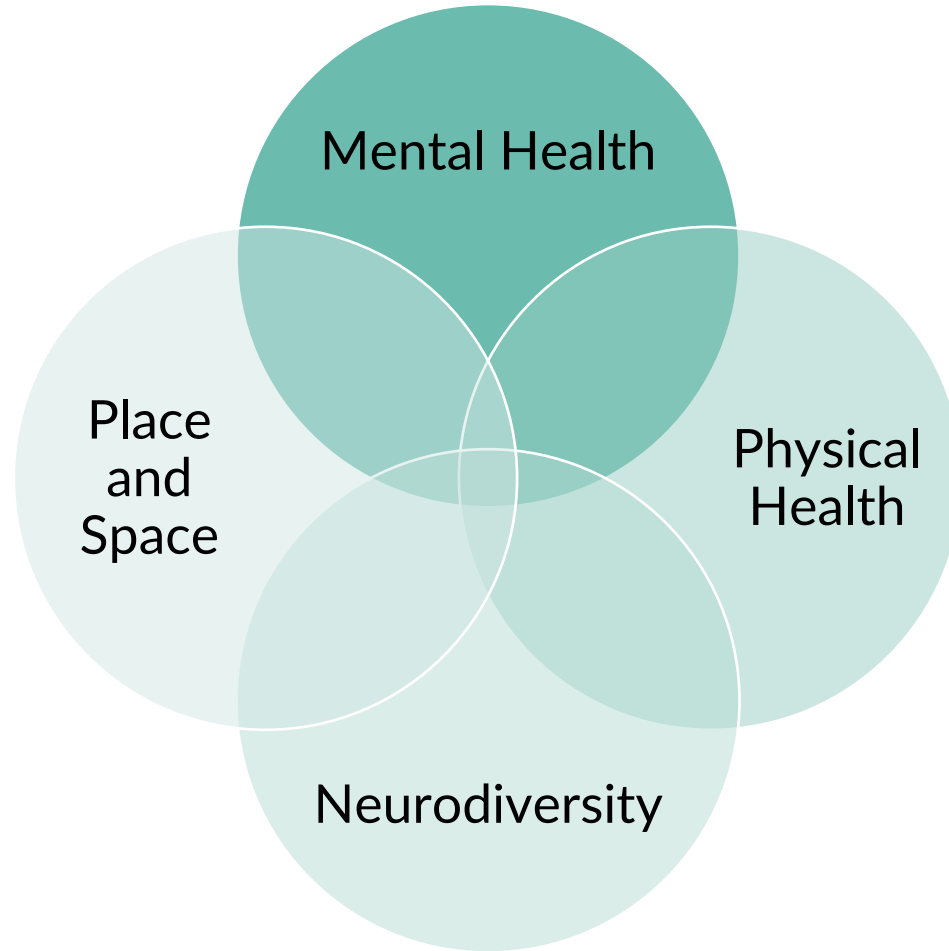
Research Overview



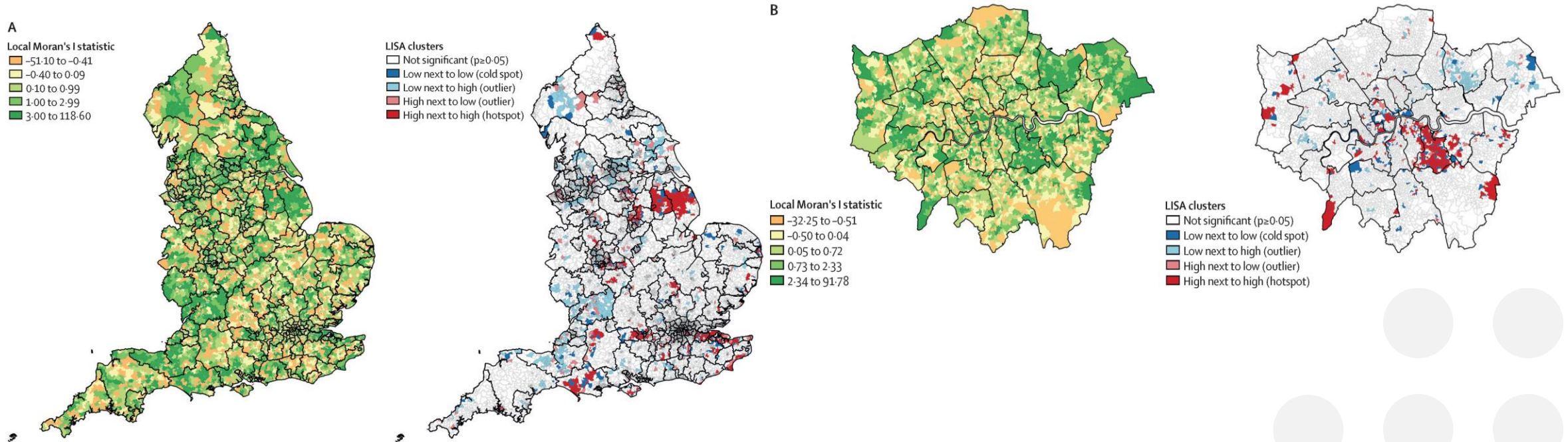
Vitae



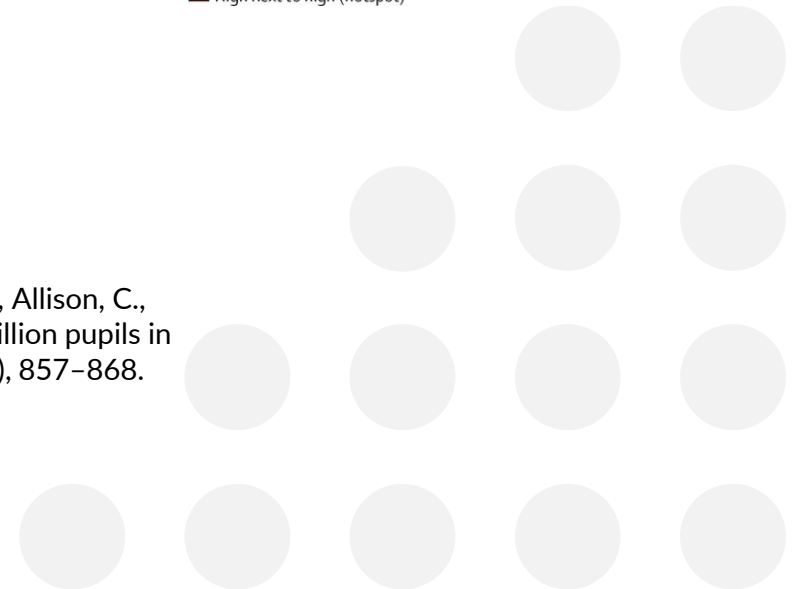
Areas of Interest



Spatial Autocorrelation of Incident Autism SEN

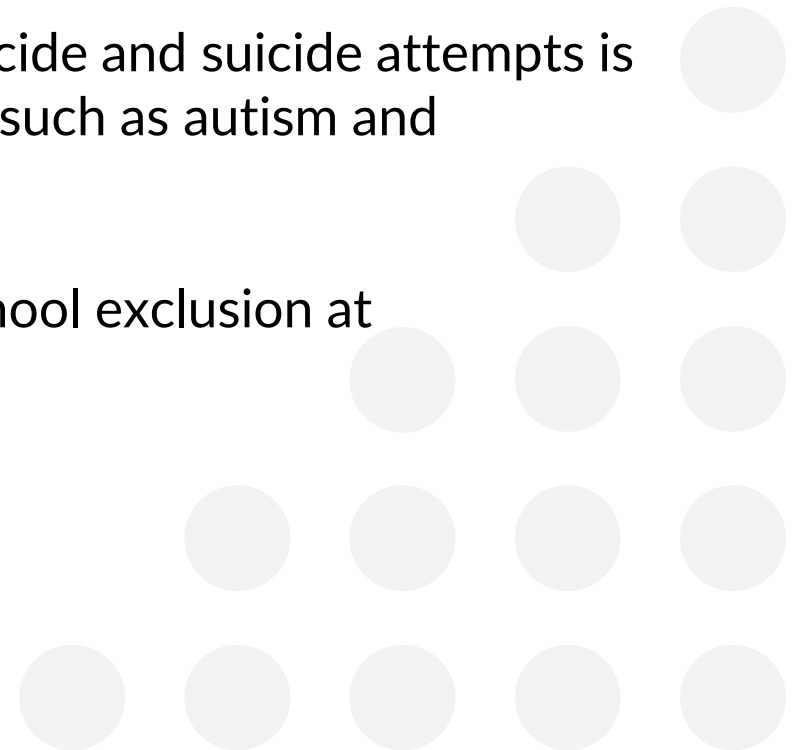


Roman-Urrestarazu, A., Yang, J. C., van Kessel, R., Warriar, V., Dumas, G., Jongsma, H., Gatica-Bahamonde, G., Allison, C., Matthews, F. E., Baron-Cohen, S., & Brayne, C. (2022). Autism incidence and spatial analysis in more than 7 million pupils in English schools: a retrospective, longitudinal, school registry study. *The Lancet. Child & Adolescent Health*, 6(12), 857–868. [https://doi.org/10.1016/s2352-4642\(22\)00247-4](https://doi.org/10.1016/s2352-4642(22)00247-4)



Background

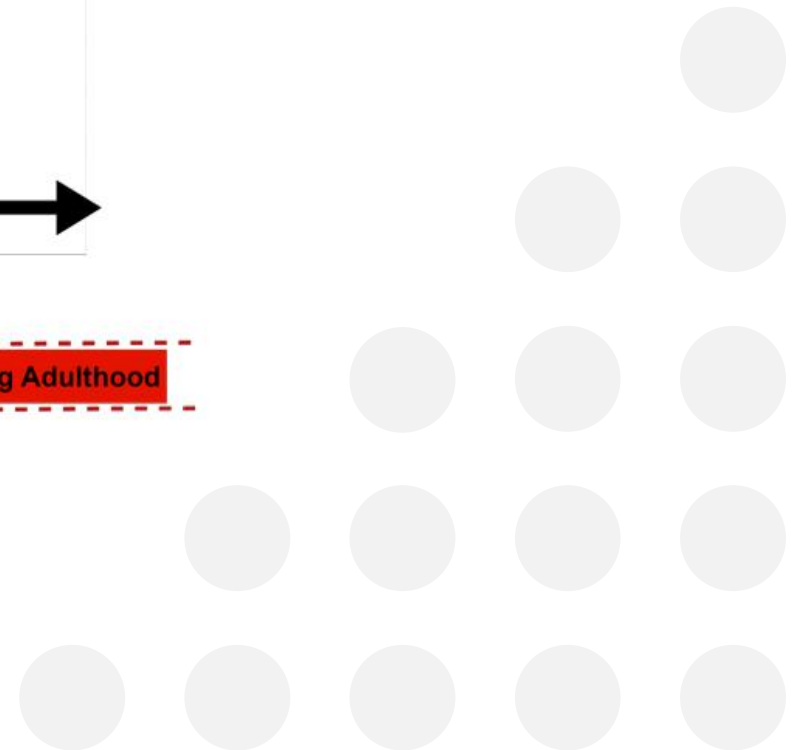
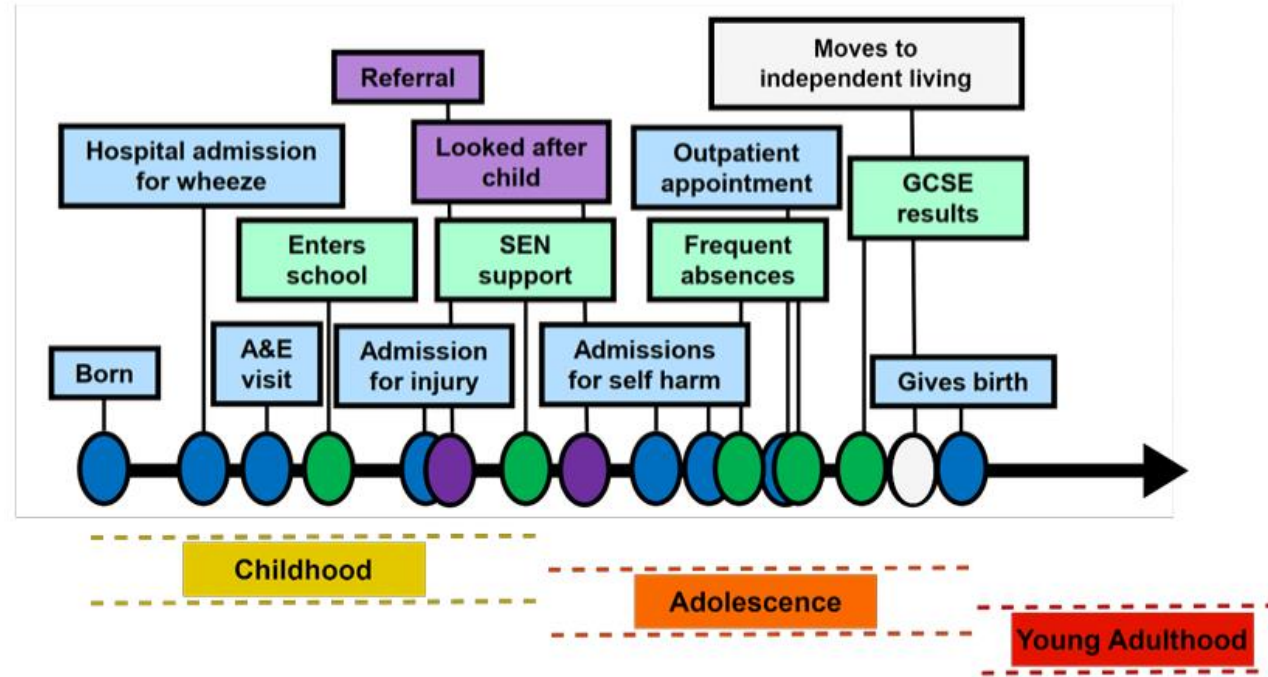
- During the 2022-23 academic year, over 1.5 million English pupils were reported as having special educational needs, following a trend of increases since 2015
- Pupils with SEN shower higher rates of absenteeism than their peers without SEN
- Past or present SEN is a risk factor for self-harm, and risk of suicide and suicide attempts is higher among pupils with specific types of neurodivergent SEN such as autism and attention deficit hyperactive disorder
- Pupils with SEN attend alternative provision and experience school exclusion at disproportionately higher rates



Flagship Datasets



Education and Child Health Insights from Linked Data (ECHILD)



Health Outcomes, alternative Provision, and Exclusion among pupils with neurodivergent Special Educational Needs (HOPE-SEN)



Medically-
Related
Absenteeism,
Self-Harm,
and Suicide



Alternative
Provision and
Formal
School
Exclusion



Target Trial
Emulation



Spatial
Disparity
Analysis



Strategic Engagement



Young People



Families and Carers



Education and SEN Professionals



Local Authorities



Hints and Tips



Data analysis is a marathon, not a sprint

- Delays to data analysis are the rule, not the exception
- Plan contingencies so you can keep making progress in spite of delays
- Know that you aren't alone in dealing with these problems and rely on your support networks
- Developing adaptability and resilience early on in your career will serve you well



Your network is a strength

- Develop meaningful relationships within the research community and set up opportunities to meet new people
- Develop a strong sense of identity and build clarity of communication
- You are only a few degrees of separation from potential collaborators/experts who can help you
- You are an expert in something! Share your expertise widely and generously



Everyone wants you to succeed

- There are so many people who are ready to help you if you just ask: data owners, other researchers, administrative staff, everyone!



Key Insights



Securing data access is a lengthy process

- Applying through the ONS SRS required several rounds of back-and-forth. Be patient and understand while you are the subject matter expert on your own project, the ONS staff need to balance their responsibilities against a wide range of subject domains – things that are clear to you may not be clear to them
- Navigating complex university procedures can be daunting but there are always people who can help you



Team up with others

- Following the fellows' induction, the ECHILD fellows realised our projects shared many similarities and we could combine efforts for PPIE
- Shayda has helped us organise a public engagement event where we will all have a chance to present and share our work together
- We've set up our own informal communications channels to provide mutual support (shared training materials, etc)



**Administrative data is an
invaluable resource for
public good.**

We're using it.



RESEARCHING ETHNIC DISPARITIES IN THE CRIMINAL JUSTICE SYSTEM: INSIGHTS FROM MINISTRY OF JUSTICE DATA FIRST DATASETS

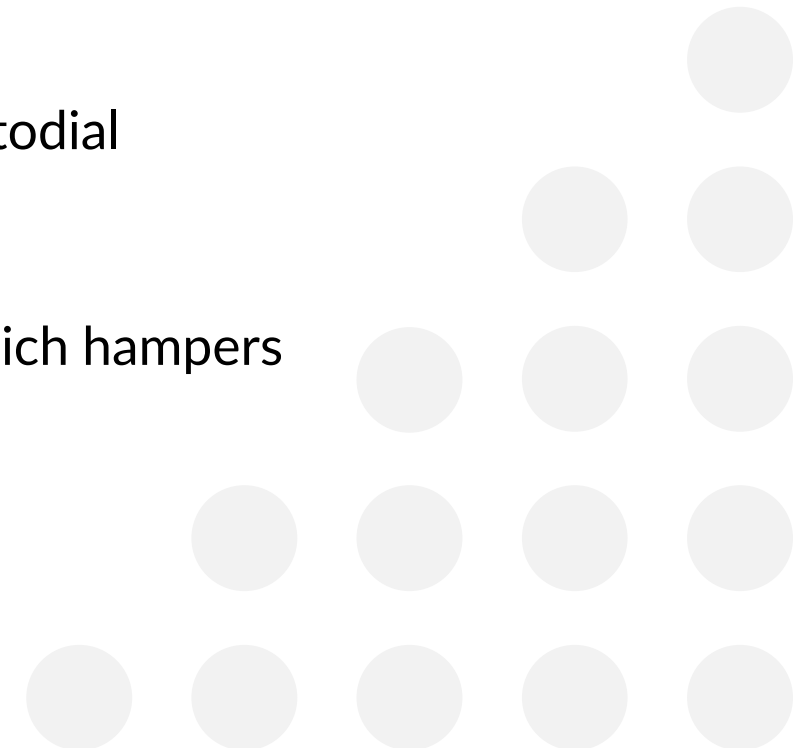
ADR UK PHD gathering, Cardiff, January 16, 2025.

Kitty.Lymperopoulou@plymouth.ac.uk

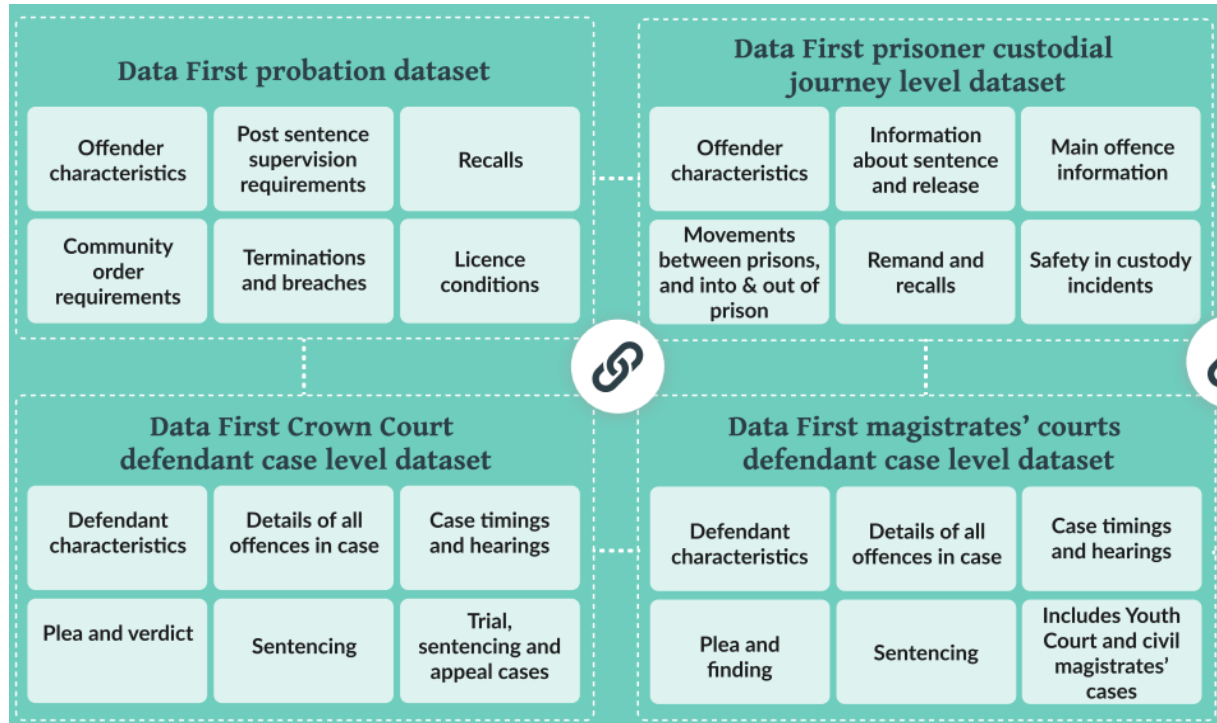


Background

- Ethnic minority people make up 27% of prisoners compared to 13% of the general population (Sturge 2023).
- Ethnic disproportionality evidenced across different stages of the CJS including arrest, sentencing and imprisonment (Lammy, 2017).
- Persistent ethnic disparities for young people in arrests and custodial sentences; and for drugs offences (MoJ, 2017, MoJ 2024).
- Limited understanding about the causes of ethnic disparities which hampers policy responses to effectively address them.



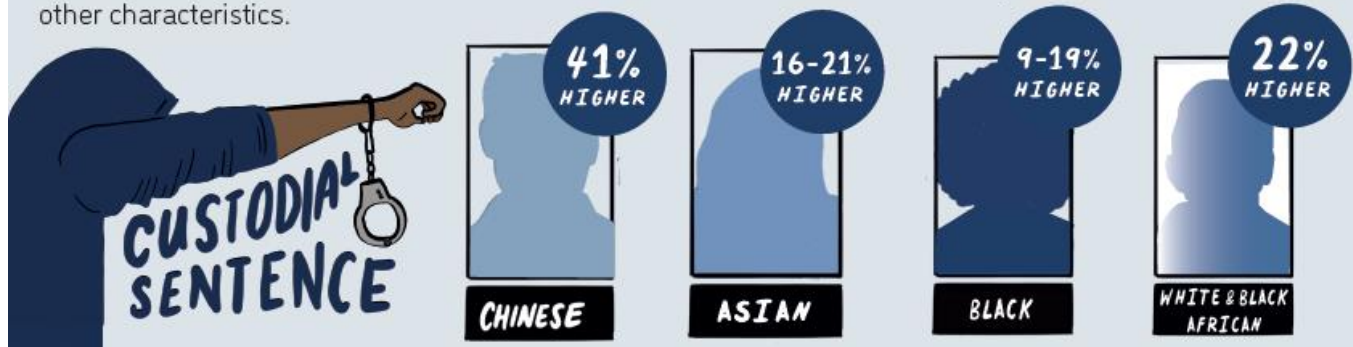
Ministry of Justice Data First Datasets



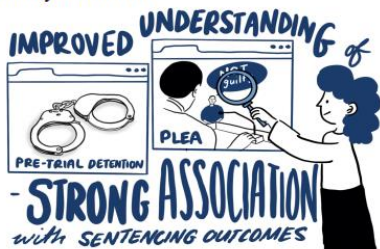
- Pioneering data-linking programme led by the Ministry of Justice; linked de-identified data at person level to enable analysis of justice system users, their pathways, outcomes and interactions with other jurisdictions.
- Unique opportunity to understand the factors underlying ethnic disparities and outcomes at different decision points in the justice system and interactions with justice institutions including, criminal courts, Probation, and prisons.

Ethnic Inequalities in the Criminal Justice System (CJS)

A custodial sentence is **41% more likely** for Chinese defendants, and **between 16% and 21% more likely** for defendants from Asian groups, compared with White British defendants. Similarly, a custodial sentence is **between 9% and 19% more likely** for defendants in the Black groups, and **22% more likely** for White and Black African defendants than White British defendants after adjusting for other characteristics.

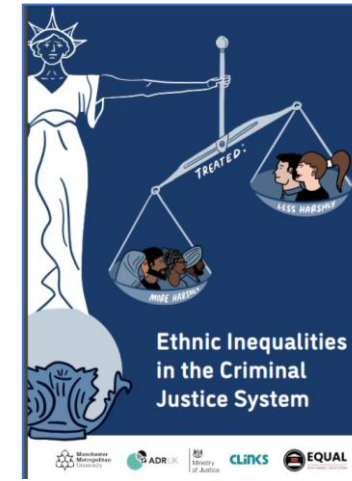


There is a need for **improved understanding of factors such as plea and pre-trial detention**, and specifically the processes by which plea and pre-trial detention decisions are made, which are shown to hold a **strong association with sentencing outcomes** and have a **disproportionate impact on ethnic minority defendants**.



“The findings demonstrate the existence of unwarranted ethnic disparities in the criminal justice system. Ethnic disparities in remand and imprisonment cannot be fully explained by legally relevant defendant and case factors raising concerns about unequal, discriminatory and biased treatment of people from ethnic minorities by police and the courts.

<https://ethnicityandcriminaljustice.co.uk>

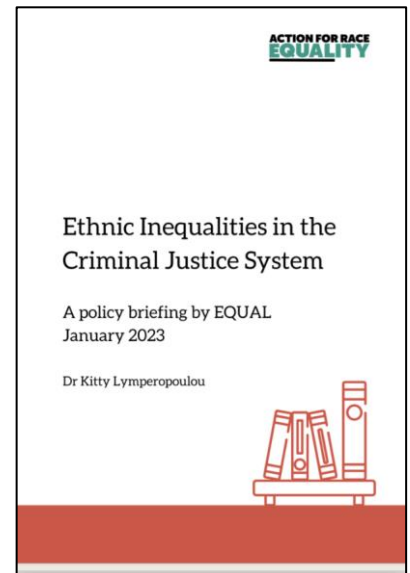


Minority ethnic groups 'still dealt with more harshly at courts' new research finds

EXCLUSIVE
 Josh Layton
 Friday 20 Jan 2023 4:41 pm



Submission to the United Nations Committee on the Elimination of all forms of Racial Discrimination



Disclaimer

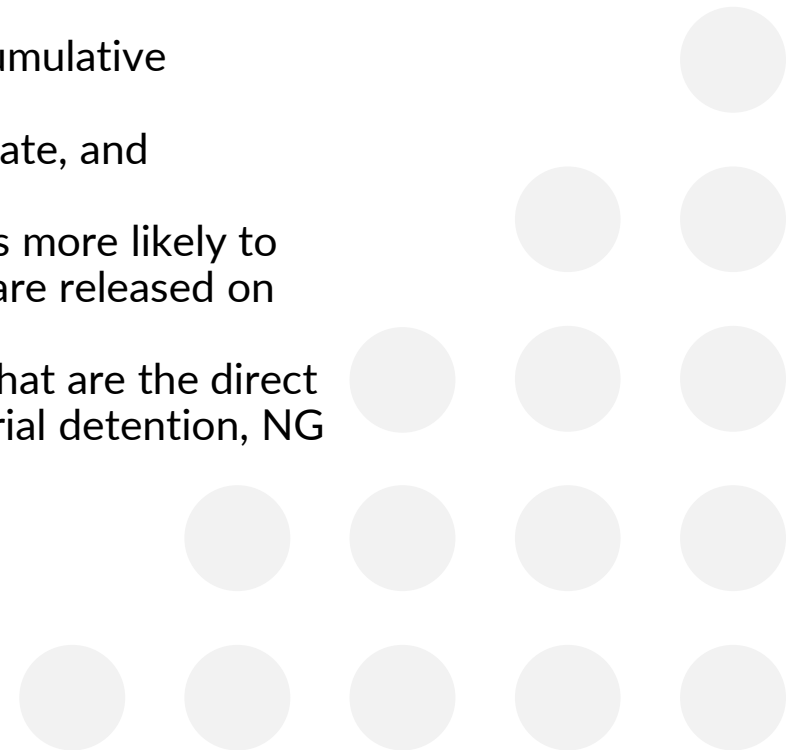
This work was produced using administrative data accessed through the ONS Secure Research Service. The use of the data in this work does not imply the endorsement of the ONS or data owners (e.g. MoJ and HM Courts and Tribunals Service) in relation to the interpretation or analyses of the statistical data. This work uses research datasets which may not exactly reproduce National Statistics aggregates. National statistics follow consistent statistical conventions over time and cannot be compared to Data First linked datasets.

Ethnic disparities and cumulative disadvantage in the CJS

The project aims to generate evidence about how different forms of disadvantage combine and accumulate across different stages of the criminal justice system, and the ways they contribute to ethnic disparities.

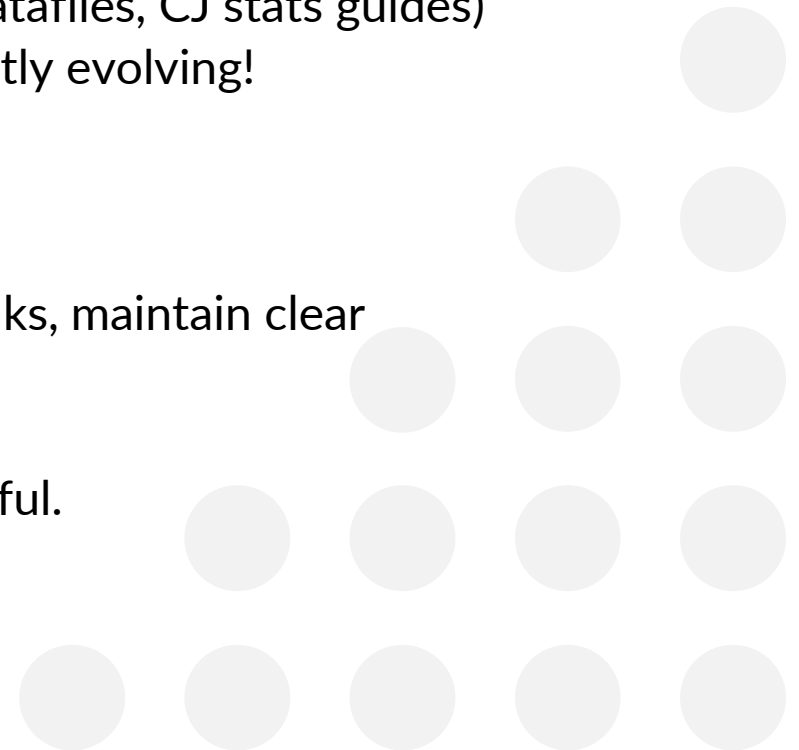
Research questions:

- How do individual and case characteristics intersect to create experiences of cumulative disadvantage within the CJS?
- Do earlier decision points in the CJS including plea and pre-trial detention mediate, and potentially compound disparities at sentencing?
- Do ethnic disparities persist post-sentencing? Are people from ethnic minorities more likely to serve longer sentences in prison and are they more likely to be recalled if they are released on licence compared to the White British?
- Are cumulative disadvantages more pronounced for ethnic minority groups? What are the direct effects of ethnicity, on imprisonment, time served and reimprisonment via pretrial detention, NG plea, and prior justice involvement?



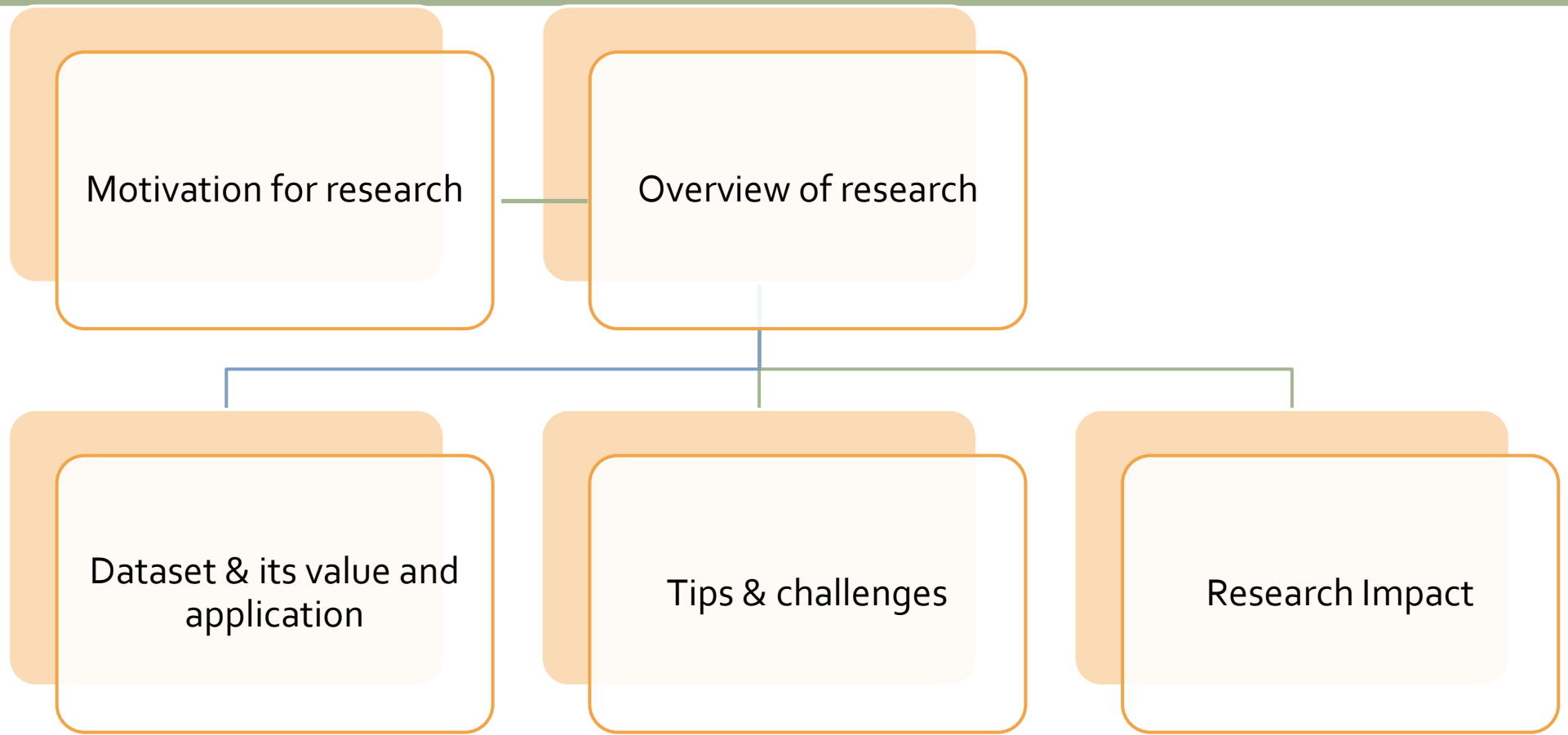
Tips for approaching similar research

- Administrative data so expect data quality issues and insufficient metadata. Get to know the data.
- Ethnicity coverage varies across datasets. Check how missing ethnicity relates to variables of interest.
- Make use of available data resources (ADR UK Data Explained, meta-datafiles, CJ stats guides) and link-up with other researchers, the learning environment is constantly evolving!
- Be prepared to modify your research questions and methods.
- Deriving variables requires multiple steps break it down to smaller chunks, maintain clear documentation.
- Engage with stakeholders to ensure the research is relevant and impactful.



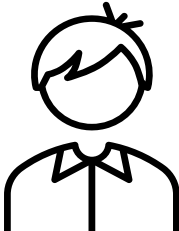
THE TRAJECTORIES OF EXCLUDED SCHOOL PUPILS INTO (AND OUT OF) THE CRIMINAL JUSTICE SYSTEM

Dr Vickie Barrett
Senior Lecturer,
University of
Huddersfield

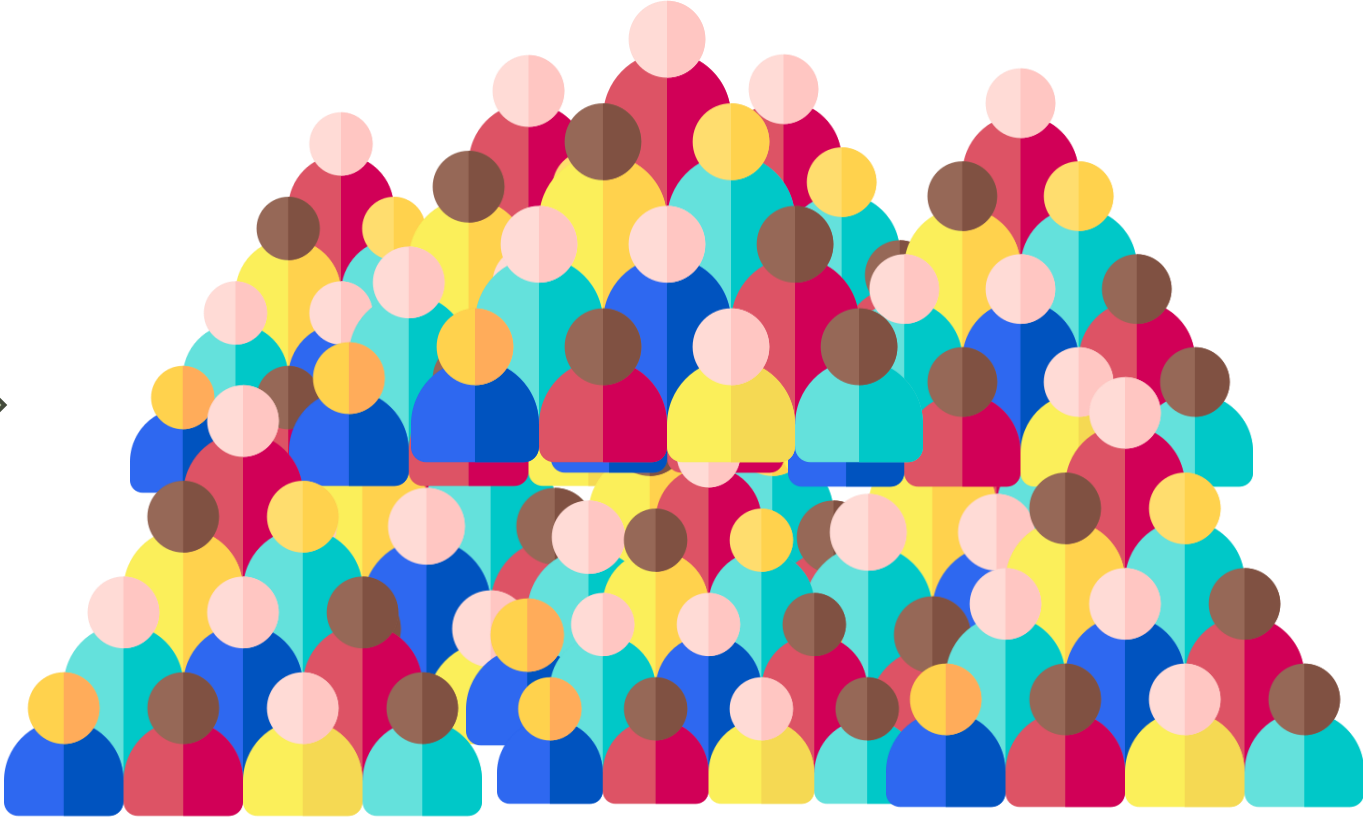


The trajectories of excluded school pupils into (and out of) the criminal justice system

Motivation for research



Jack



Freepik

The trajectories of excluded school pupils into (and out of) the criminal justice system

Ministry of Justice
&
Department for
Education
Linked Dataset

Value

- Using data that reflects the experiences of excluded children.
- Involves individuals across different experiences.
- Longitudinal analysis using a large cohort.

Research Questions

1) How do different types (temporary or permanent) and frequency of school exclusions relate to offending trajectories?

- Group based trajectory modelling: socio-demographic factors; school related variables; contact with the criminal justice system (CJS) (i.e. age of first criminal justice contact, offending types).

2) Are there differences in the offending trajectory of excluded school pupils based on geographical location?

- Individual-level analytical approach (ordinal logistic regression): The predictors of level of involvement with the CJS (none, caution, non-custodial, custodial); socio-demographic factors; school related variables; contact with the CJS.

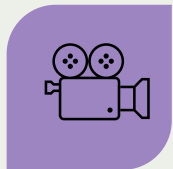
Research Questions

3) Are there differences in offending severity and offending rates between those who remain in mainstream education following permanent school exclusion compared to those in a Pupil Referral Unit?

- This analysis will take an individual-level analytical approach (binary logistic regression): socio-demographic factors; criminal justice interactions; exclusion related variables.



Partners, Leaders Unlocked and Calderdale Youth Justice Service – planned workshop to co-produce a piece of work with young people



Short animation

**Engagement
&
Impact**

Challenges

- Engaging with people in practice (particularly public sector)
- Data access
- Awaiting access for University Secure Room
- Working in the SafePod

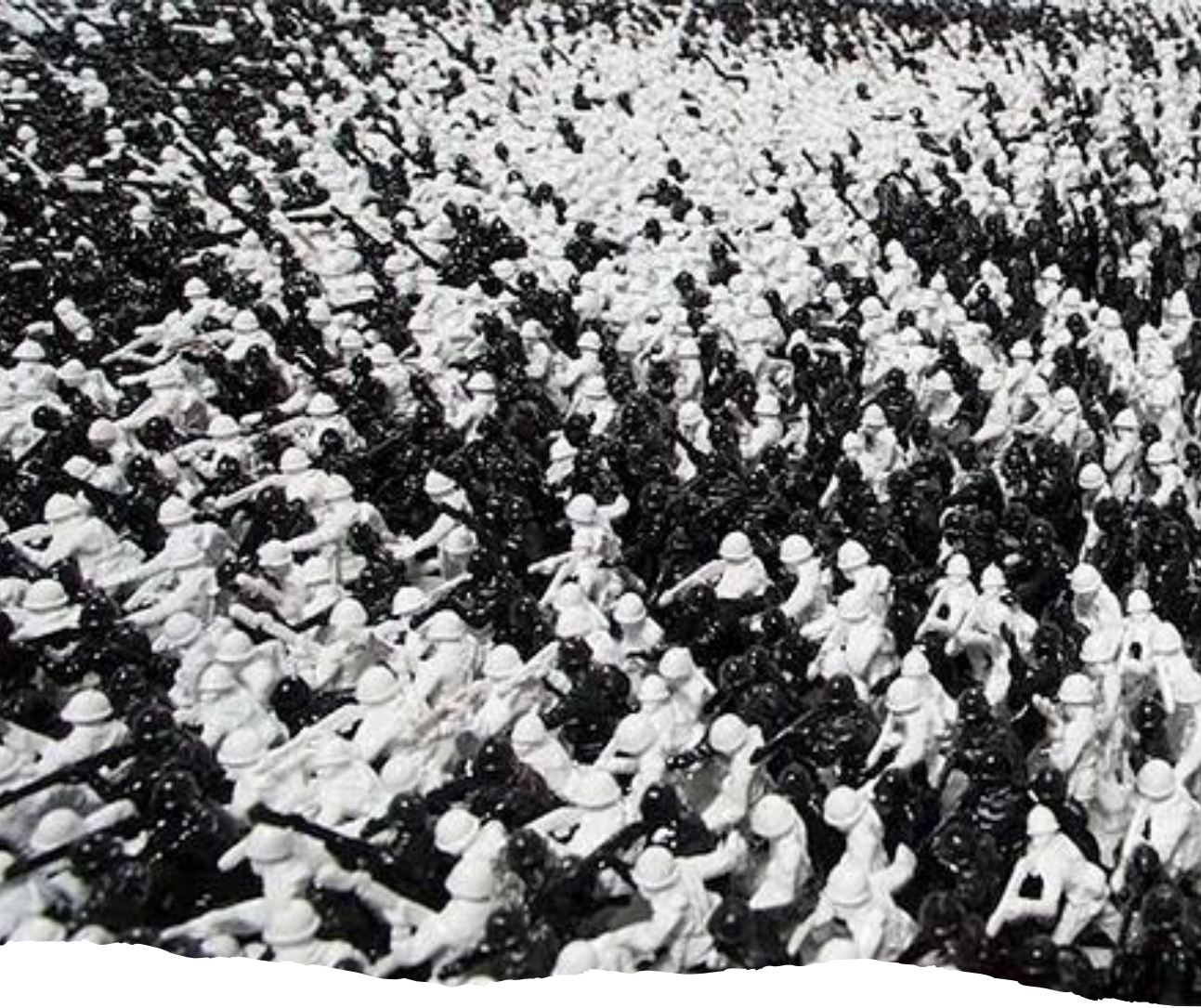
Tips

- Talk to others – try and draw on their expertise and experience, and of course share yours too!
- Ask for help/support
- Attend PhD supervision with a plan of what you would like covered/need support with/ask for sign posting
- Be patient!

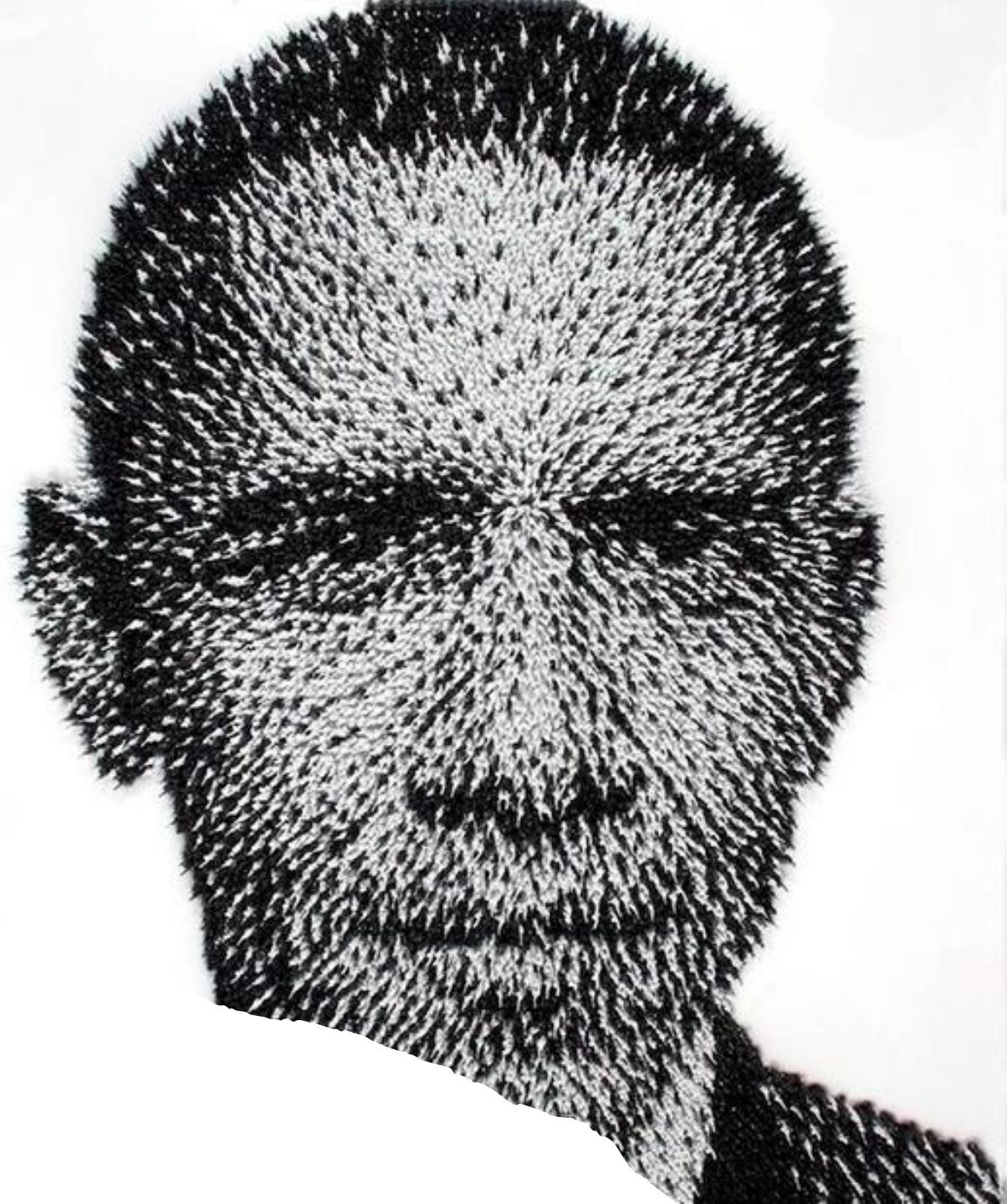
Challenges & Tips



ADR UK PhD
cohort 2025



Big picture



Disability in the household and children's attainment (Liije)

Special educational needs/disability and environmental predictors of education (Ziging)

Special educational needs and school absenteeism (Vanessa)

Care experience children and prison (Ella)

Predicting outcome for children in Care (Richmond)

Outcomes of care experienced children (Bethany)

Education and looked after children in Boarding schools (Louise)

Air pollution and mental health (Ella C)

Drug trafficking network disruption (Wenyue)

Special educational needs and criminal justice system (Linxuan)

Inequality (including care) and criminal justice system (Zachary)

Female re-offending trajectories (Christy)

Access the higher education (Marta)

Apprenticeships vs uni (Sabreena)

Student background and labour market outcomes (Tomiris)

Early labor market experiences and earnings (Josephina).

Educational pathways and cost of living (Giada)

Financial education and impact on Youth Employment (Cassandra)

English as an additional language and academic performance (Yu)

Care worker employment journeys (Ramakrishan)

Rural working (Amelia)

Pension age and women (Yifan)

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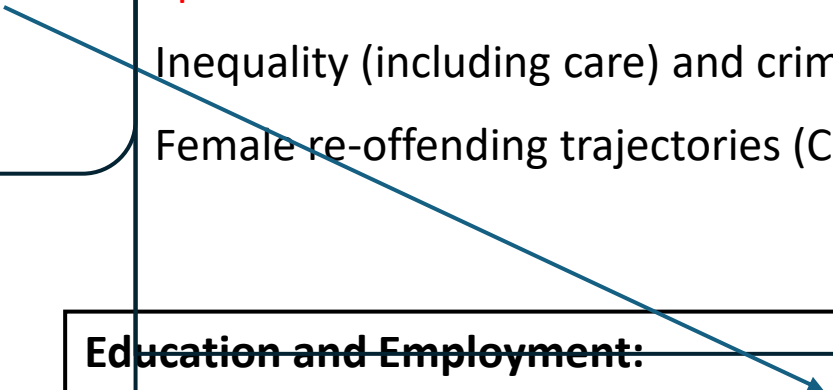
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Hear from the research fellows working in your area

- Dr Kaya – the Education and Employment group
- Dr Vickie and Dr Lymperopoulou – the criminal justice group
- Dr Yang – Environment
- Dr Wickersham – Children and young people group



Understanding how to make a difference

- Rachel Allen from the Criminal Justice Board for Wales and Annemarie from the police
- Joseph Wilton from Social care Wales



Most importantly

- Lunch, Dinner

To build yourself a connected community and stay in touch for trouble shoot and share experiences in this field.



AI Plans for public services

- Your skills are needed for the new data centres
- You are the next generation taking this forward in the UK, you are the experts in this field
- This is about the big picture of how we can work together to build and utilize the AI revolution.



How we work
together to
see the big
picture



A low-angle, upward-looking photograph of a diverse group of graduate students in black academic regalia. They are all smiling and looking upwards, creating a sense of joy and achievement. The background is filled with lush green trees, suggesting an outdoor campus setting. The text "Experiences of PhDs in this field" is overlaid in the center in a white, sans-serif font.

Experiences of PhDs in this field

Donkey

-just keep plodding

- forwards is forwards it
doesn't matter the speed



Success is going from failure to failure without losing enthusiasm

Academia comes with a lot of 'feedback' or reviewers comments or rejection

Peer review is basically where your mates deliberately completely slate you to your face



My donkey also has a Unicorn horn as what you are doing is genuinely pioneering and unique

The skills you learn do make you a unicorn



Why is it uniquely hard in this field
Why do you need a
community/your tribe

- Academia in general – slow, through developing understanding, evaluation, feedback, repeat, learning, no quick fix (something in 3 years but it won't be definitive and probably need more research).
- The people you want to influence need something now, timing matters (review/policy), opinion matters not just evidence, how it is implemented REALLY matters.
- These are two tribes that need to talk

Or we have research waste



Moorfield's Eye



Moorfields
Eye Hospital
NHS Foundation Trust



Google deepmind has been working with Moorfield Eye Hospital since 2016 –using AI to read the eye scan (OCT imaging) to the same level as doctors, faster diagnosis. Technology can do 1000's of scans a week but doctors can't read 1000s a week, if AI could read them then we can start treatment earlier and save sight.

It works, it can read the scans to the same level as a doctor, faster understanding of eye disease. Can detect a wide range of diseases in the scans at the same level as an expert doctor. And provide information and review and can make sure the right decision is made for the patients, prioritizing patients who need rapid treatment.

- [Google DeepMind - Moorfields Eye Hospital](#)

But not one patient has benefited yet

The internet isn't good enough in hospitals

It is too slow and slows down clinics

It doesn't currently reduce waiting lists (in fact makes them longer than the clinician having a look at the scan when the patient is in clinic).

So doesn't have approval yet until the IT systems catch up with the AI technology

The research is out of this world, but implementation is a bit harder.



So what's your roll as the academic

- Document, record decisions, have an evidence base, work methodically
- Observe, explore, do not prejudge or assume, ask could it be explained differently, ask questions, consider there may be several answers
- Find order in complexity, categorize, map, visualize, make links
- Discover and head for the unknown, try things differently, try a variety of techniques, but learn from the past
- Trust your subconscious that's where the best ideas come from
- Persevere, but learn what you are good at
- Do things thoroughly and well, it is not to rush





Advise from someone who has just done his Viva:

- Ask questions, check, ask for help
- Be careful of disappearing down rabbit holes e.g. with the literature review, with adding variables, different versions of different analysis, don't leap down holes without checking the direction
- Keep of log of what new skills you have learned, might not gain much in 3 months but have learned loads
- The journey is more important in a PhD, not the destination, but do make a map



And very much Co-produce and talk to the other ‘tribes’

- Work with the people who should benefit from your research (the young people, families, individuals), make sure its doing what they want
- Work with organizations (the policy makers, schools/work places, businesses) who should use your research. Make sure it can be translated.
- Communicate, attend science festivals, send to charity newsletters, write to The Conversation.
- Be a unicorn donkey rhino and do what you are good at and work with others on what they are good at



Some tips in how to co-produce or do public involvement

- Work with charities or those who have a relationship with the people you want to work with.
- Be flexible to enable people to be involved
- Be clear how decisions are made and what difference people can make.
- Feedback on what you did with the information you have been given.
- People matter in your findings being taken forward.



Some tips in working with organizations

- Find out what their timelines are and if feasible try to deliver (high quality) by the timelines.
- Find out their needs and their agenda, what do they need to report on and what matters to them (e.g. cost, manpower, public/stakeholders opinion)
- Find out how findings could be implemented, can the implementation be sustained, how would it be sustained in theory.



But most important,
surround yourself with
people on the same
mission as you and that
includes the people here
today

