



Annual Survey of Hours and Earnings linked to PAYE and Self-Assessment data – England, Scotland and Wales

Dataset briefing

Research Fellowship 2025

Thursday 30 October 2025



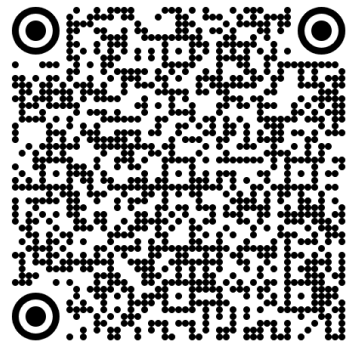
ADR UK Research Fellowship funding opportunity - 2025

Overview

- **Unlock policy impact** by enabling research that addresses real-world challenges using ADR England flagship datasets.
- **Ensure trusted, high-quality evidence** through data underpinned by the ADR UK flagship dataset framework.
- **Empower new users** with guidance and resources to confidently work with ADR England datasets.
- **Open to all researchers** eligible for accreditation – successful applicants will need to become accredited under the Digital Economy Act before accessing data.
- **Build on proven success** of previous ADR UK Research Fellowships, amplifying their outcomes and creating lasting benefits for policy and society.

**Inspire the use of ADR UK flagship data, and
drive research that benefits society**

[Pre-announcement: Funding opportunity coming soon for ADR UK Research Fellowships - ADR UK](#)



Research Fellowships 2025 – why these Flagship Dataset webinars matter

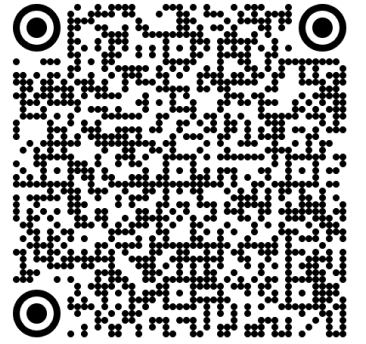
Understand the scope of RF2025 – focused on ADR England flagship datasets.

Discover the unique research opportunities each dataset offers.

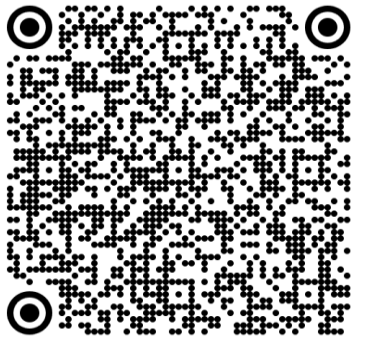
Get practical insights to shape strong, feasible proposals.

Engage with data experts and partners who can answer your questions.

In this webinar we will hear from **Dr Van Phan** who is part of the Wage and Employment Dynamics team. Van's work centres on the topics of gender differences in human capital, and in the labour market.



[Pre-announcement: Funding opportunity coming soon for ADR UK Research Fellowships - ADR UK](#)



[Flagship datasets Education and Child Health Insights from Linked Data - England](#)

ASHE-HMRC PAYE & SA

ASHE

- Annual Survey of Hours and Earnings
- 1% sample of PAYE jobs in GB
- Sample drawn from PAYE register in January of each year
- Survey reference date in mid-April of each year
- Conducted by ONS

HMRC

- 1% of employees in the UK represented in the ASHE sample

PAYE

- Pay As You Earn (PAYE) real time information
- Data for all those who have employee jobs or occupational pensions
- Details of employment spells (by PAYE scheme)
- All payment records (payslips) submitted by employer to HMRC
- Time coverage: tax year 2015-2019

SA

- Self Assessment
- Those who made self-assessment returns
- Details of self-employment income, employment income, other types of income
- Time coverage: tax year 2011-2018

ASHE



PAYE
& SA



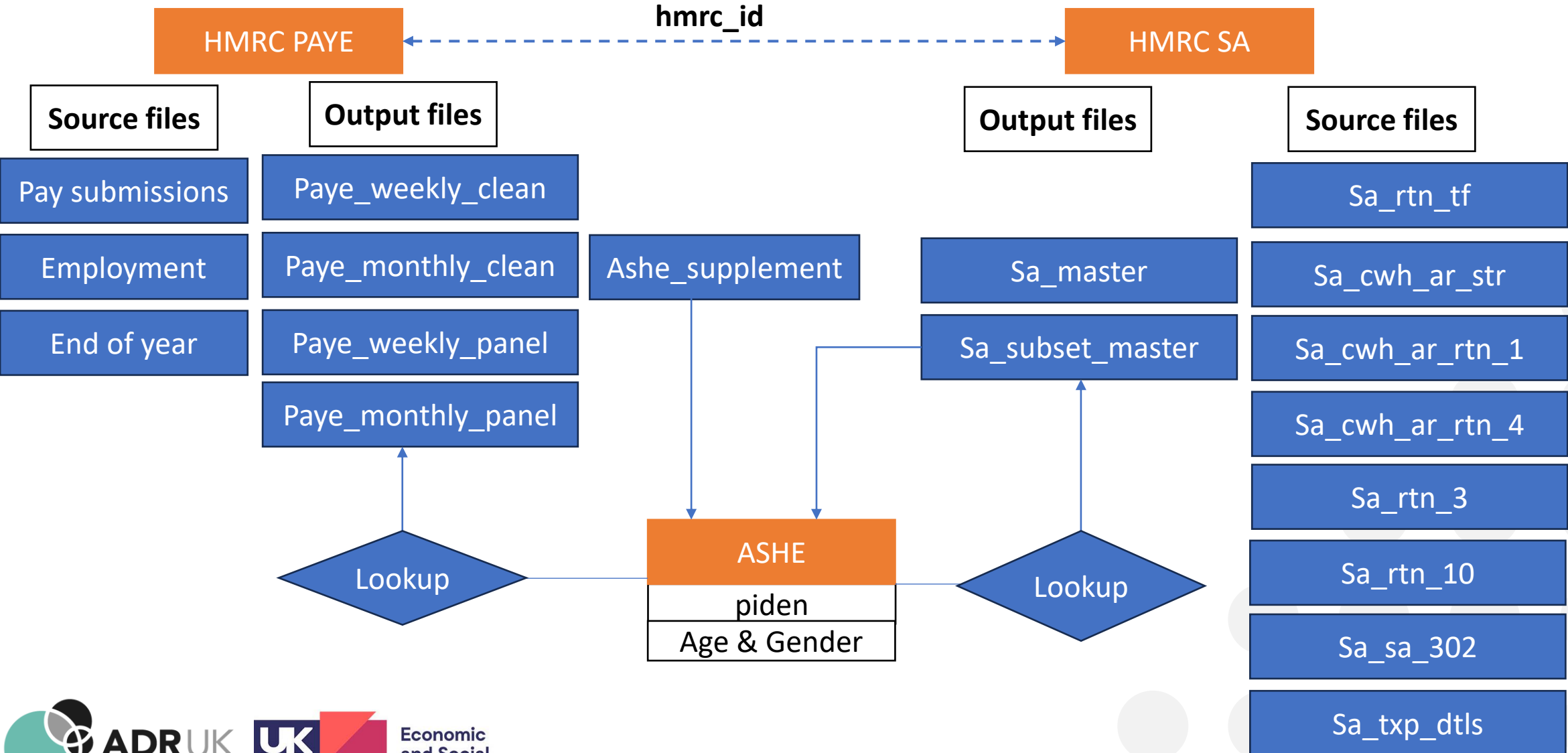
ASHE-
PAYE
& SA

- Personal information
 - Age
 - Gender
 - Home postcode
- Employment information
 - Wage
 - Working hours
 - etc
- Employer information
 - Work location
 - Legal status
 - Size

- PAYE:
 - Point-in-time employment
 - Point-in-time payment
- SA:
 - Income from self-employment
 - Income from employment
 - Income from other sources

- Personal characteristics
 - Age/Gender/Home location
 - ...
 - Whether working at all in current (previous) tax year
 - Whether working on the ASHE survey reference date
 - Whether employment in PAYE or SA system
- Job characteristics
 - Number of jobs
 - Working hours
 - Occupation
 - Proportion of time working
 - Average weekly pay
 - Income from SA
- Employer characteristics
 - Size/ industry/legal status/size

Combining ASHE and HMRC data

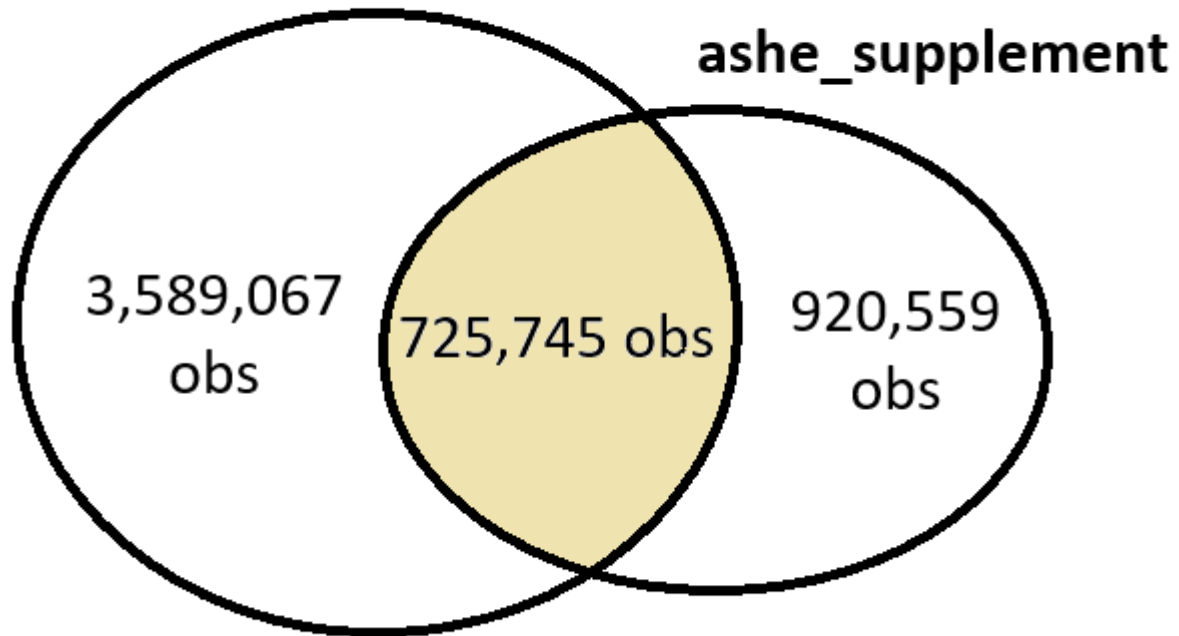


Distinct individuals in HMRC dataset

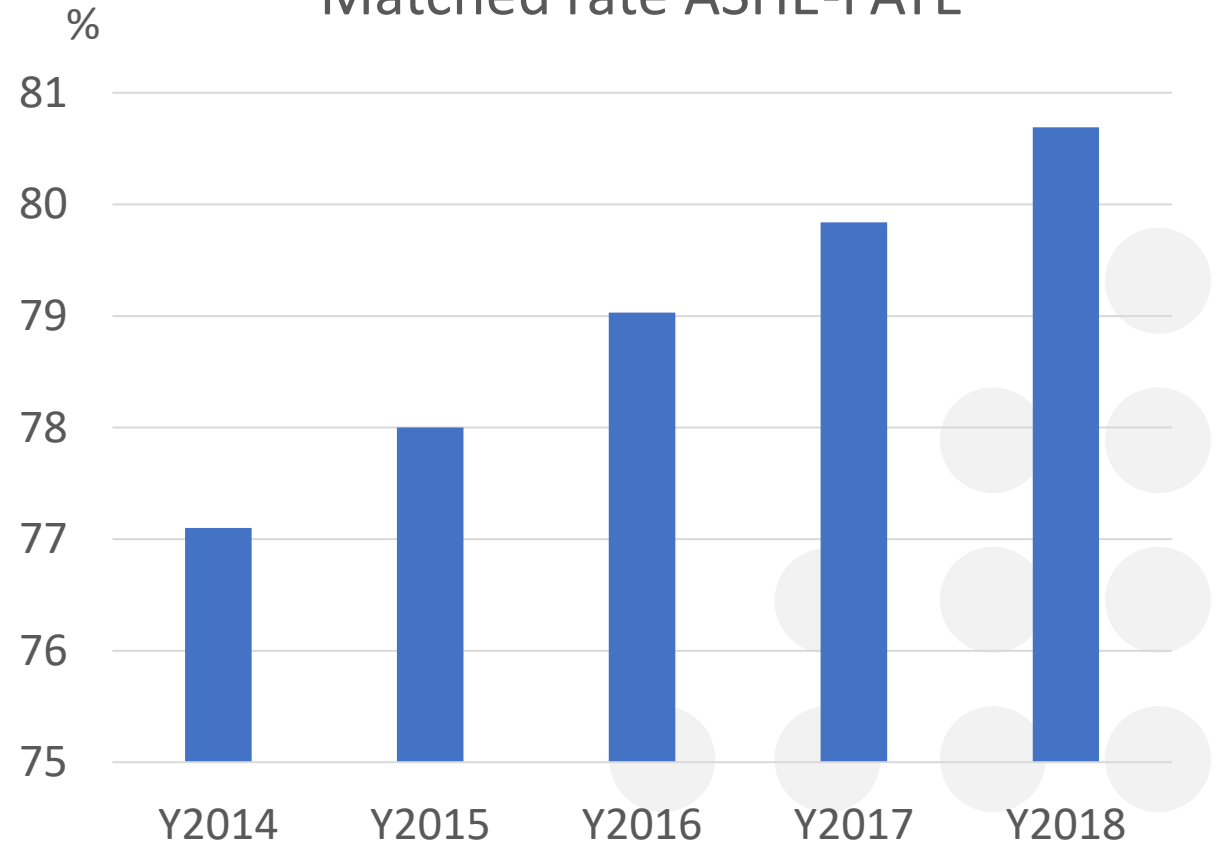
Tax year	weekly paid	monthly paid	Combined (panel)	SA
2011	--	--	--	92,062
2012	--	--	--	91,344
2013	--	--	--	97,119
2014	--	--	--	100,823
2015	102,919	279,327	345,171	102,563
2016	103,856	287,193	352,217	104,243
2017	103,001	293,295	357,826	106,093
2018	102,973	297,975	361,131	104,180
2019	100,154	301,100	361,777	

ASHE-HMRC PAYE

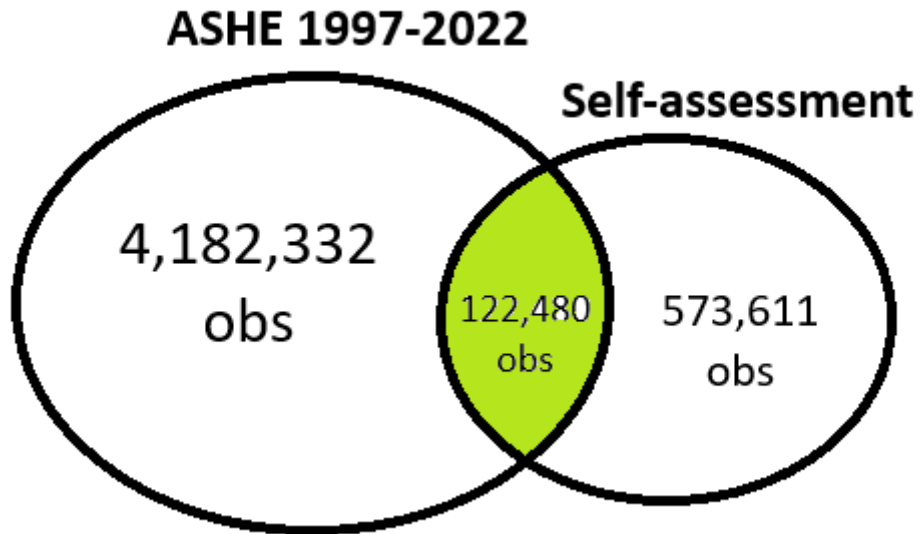
ASHE 1997-2022



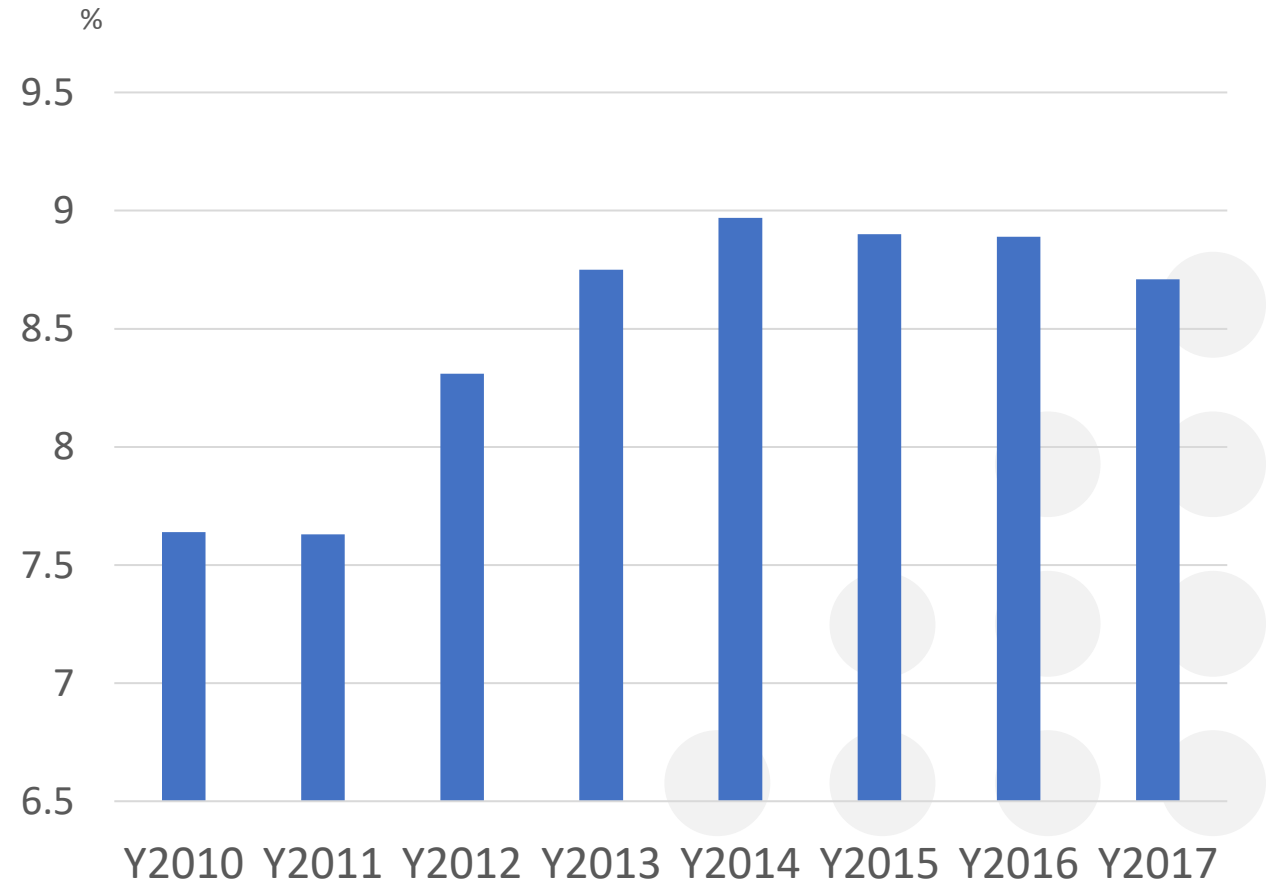
Matched rate ASHE-PAYE



ASHE-HMRC SA



Matched rate ASHE-SA



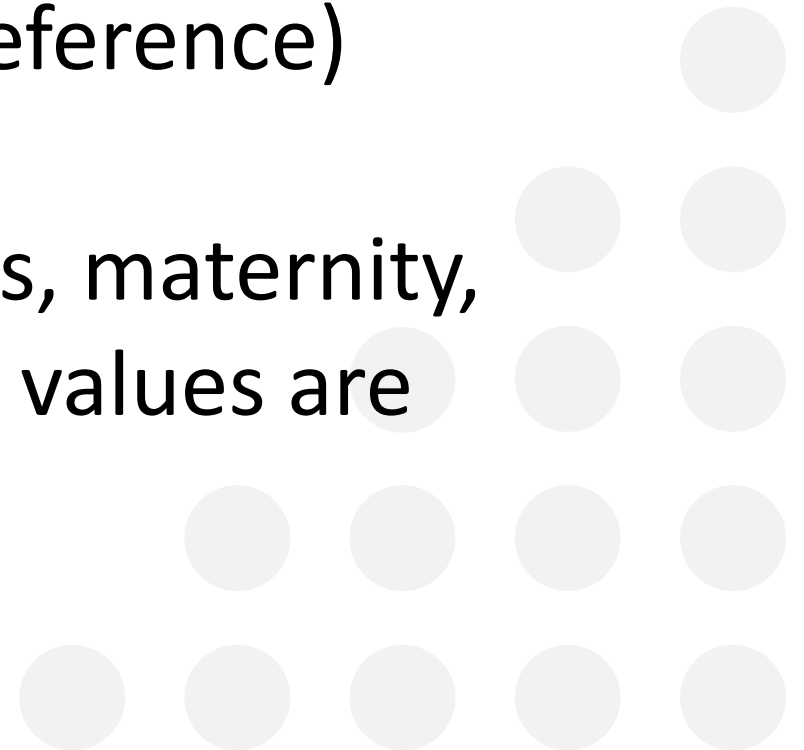
Documentations

- ❑ Documentation
 - ❑ [User guide](#)
- ❑ Data dictionary can be found on
 - [ADR data catalogue](#)
 - [ONS data catalogue](#)



Limitations

- PAYE & SA different time coverage
- Lots of empty variables (other pay)
- Lots of key links missing (enterprise reference)
- some positive surprises (student loans, maternity, paternity, benefit markers), BUT their values are largely missing



How to access the data?

- Data is available through the ONS Secure Research Service
- Code (for reference) is available on www.wagedynamics.com
- How to access the data
 - Apply to become an accredited researcher
 - Apply for an accredited research project
 - Access data securely through SRS (Safe rooms, SafePod, AOC)

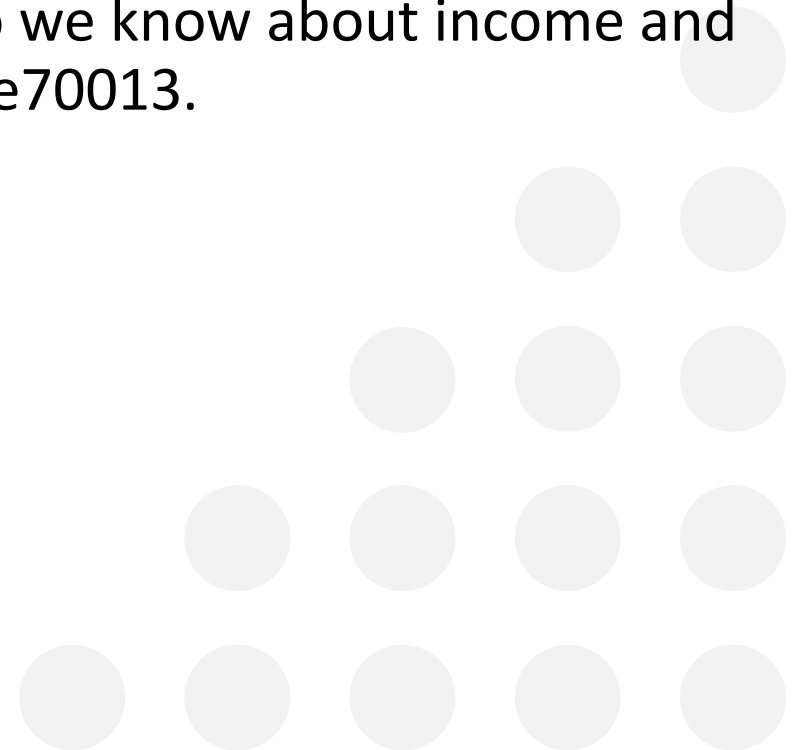
[Annual Survey of Hours and Earnings linked to PAYE and Self-Assessment data – England, Scotland and Wales - ADR UK](#)

HMRC data output

- HMRC files will be given:
 - PAYE
 - paye_weekly_clean: File with people with weekly pay
 - paye_monthly_clean: File with people with monthly pay
 - paye_weekly_panel: combination of people with weekly & monthly pay & convert their pay into weekly
 - paye_monthly_panel: combination of people with weekly & monthly pay & convert their pay into monthly
 - paye_ashe_supplement: file with summary information from RTI data, which is ready to merge with ASHE files
 - SA:
 - sa_master: file with all returns form
 - sa_subset_master: file with summary information from SA data, which is ready to merge with ASHE files
- ASHE files

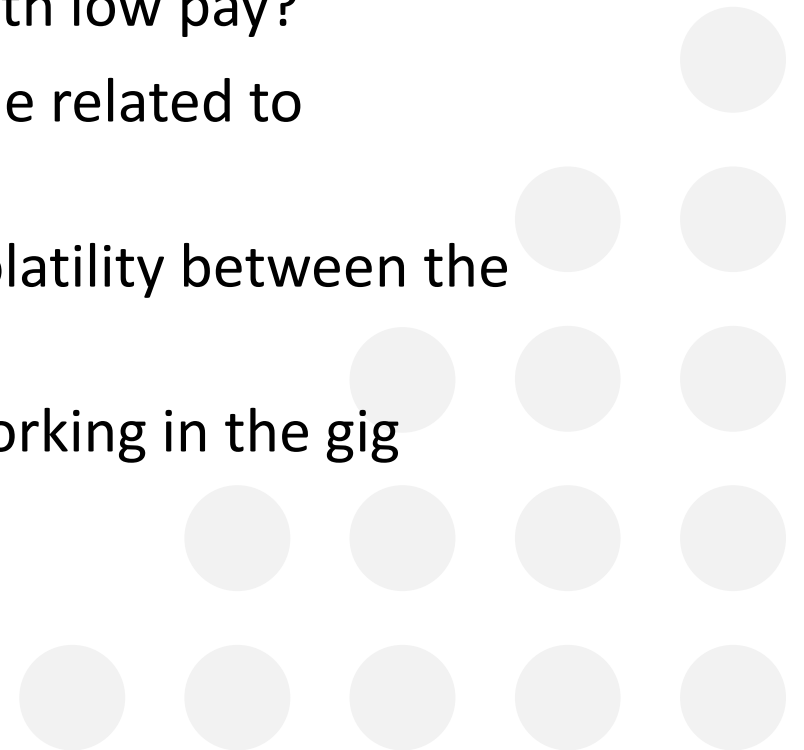
Research using ASHE-HMRC

- Data Insight #1: [How many jobs, how much earned?](#)
- Data Insight #2: [New evidence on gender pay gaps in GB](#)
- Brewer, M., Cominetti, N., & Jenkins, S. P. (2025). What do we know about income and earnings volatility?. *Review of Income and Wealth*, 71(2), e70013.



Key research priorities

- How much do self-employment and employment income substitute for each other?
- How large is the gender wage gap in all earned income?
- Is greater variation in wages through time associated with low pay?
- Is the volatility of changes in employment and/or income related to location/region?
- What are the differences in income and employment volatility between the weekly and monthly paid?
- Does having a student loan increase the likelihood of working in the gig economy?



Identify research objectives

- Define clear research questions
 - Explore the advantage of the ASHE (employer-employee dataset)
 - Explore the advantage of the HMRC PAYE & SA
- Assess data suitability



Support

- Website - www.wagedynamics.com
- Documentation/ code/ research
- SRS code repository
- Enquiries desk - wagedynamics@uwe.ac.uk
 - Submit your query
 - Get feedback
- Knowledge Hub (Peer to peer support) - [WED Research Group - \(khub.net\)](http://khub.net)
- Access to Stakeholder Groups (Academic, Government & Public Sector)
- Community of interest
 - PhD & Fellowship Research Events
 - Conference Special Sessions
 - ONS & WED Research Symposium
 - Blogs
- One to one support

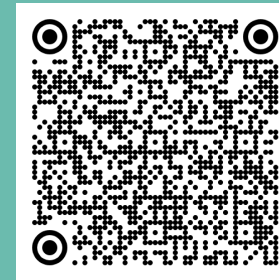
Q&A

wagedynamics@uwe.ac.uk

www.wagedynamics.com



Date and time	Title of webinar
Thursday 23 October 1 3:00 - 14:00	Opportunity briefing
Wednesday 5 November 12:00 - 13:00	Writing a good funding application
Thursday 13 November 12:00 - 13:00	Community catalyst research agendas
Thursday 23 October 1 3:00 - 14:00	Opportunity briefing Video on our website
Thursday 9 October	ASHE-Census 2011 - England Video on our website
Monday 13 October	Education and Child Health Insights from Linked Data (ECHILD) - England Video on our website
Wednesday 15 October 12:00 - 13:00	Ministry of Justice & Department for Education linked dataset - England Video on our website
Tuesday 28 October 13:00 - 14:00	Grading and Admissions Data for England (GRADE) Video on our website
Thursday 30 October 12:00 - 13:00	Annual Survey of Hours and Earnings (ASHE) linked to PAYE and Self-Assessment data - England, Scotland and Wales
Tuesday 4 November 12:00 - 13:00	Nursing and Midwifery Council Register linked to Census 2021 - England and Wales
Tuesday 4 November 13:00 - 14:00	Longitudinal Education Outcomes (LEO) - England
Thursday 6 November 12:00 - 13:00	Annual Survey of Hours and Earnings (ASHE) linked to Migrant Workers Scan - England, Scotland and Wales
Friday 7 November 12:00 - 13:00	Data First: Family Court linked to Cafcass and Census 2021 - England and Wales
Monday 10 November 13:00 - 14:00	Administrative Data Agricultural Research Collection - England and Wales:
Wednesday 12 November 10:00 - 11:00	Data First: Cross-Justice System - England and Wales:
Tuesday 18 November 12:30 - 13:30	RAPID: Population interactions with employment, benefits and pensions - UK



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adrfellowsips@esrc.ukri.org