YDG CYMRU | ADR WALES

Data Insight

Does it pay to speak Welsh? The impact of language and migration on the early careers of Welsh students

Authors: John Poole, Rhys Davies and Katy Huxley

Date: March 2026

Summary

This Data Insight explores the influence of the Welsh language and migration on the earnings of Welsh domiciled graduates around six months following graduation. Using linked administrative data combined with information from the Destinations of Leavers from Higher Education survey, we find that those who either remain or return to Wales following graduation earn less than those who work elsewhere. However, among those who work in Wales, earnings are higher for those who are fluent in Welsh. Among fluent Welsh speakers who remained in Wales to study, this is more so the case among those who were taught through the medium of Welsh. Opportunities to learn through the medium of Welsh represent advantages that prospective entrants to university may wish to explore.

Background

There is a paucity of recent evidence that examines the relationship between Welsh language skills and earnings. Available empirical studies based upon statistical analysis of survey data appear to suggest that, whilst Welsh speakers earn more than those who do not, a majority of this differential can be explained by factors such as higher levels of educational attainment among Welsh speakers or differences in occupations held. Using data from the 1999 British Household Panel Survey, Henley and Jones (2005) estimate a positive earnings differential of between 6-8%. Using data from the 2001 Labour Force Survey, Blackaby et al. (2006) estimate smaller differentials of just 2% and 3% for men and women, respectively. Available research therefore suggests the presence of a small premium in pay associated with being able to speak Welsh.

For graduates, earnings will generally be higher among those who are able to secure positions that could be regarded as 'graduate jobs'. The likelihood of securing such positions will be influenced by a variety of factors such as degree classification or the study of subject areas where there are recognized skill shortages, for example such as those commonly referred to as STEM (Science, Technology, Engineering and Maths). Attendance at higher tariff or more prestigious universities can also be used by employers as a signal of the abilities of job applicants (Elias and Purcell, 2013).

Gaining a foothold on the graduate career ladder through geographical mobility may also be associated with increased levels of earnings. Most obvious in this respect are those graduates who move to 'escalator regions' that provide greater opportunities for career advancement, such as London and the South East (Gordon et al. 2015). There is a path dependance to graduate mobility; those who move away from home to attend university are more likely to move again for work (Hoare and Corver, 2010). Those students who remain close to home are therefore less likely to subsequently operate in the national graduate labour market (Furlong and Cartmel, 2005). The Futuretrack study of 2005/06 entrants to higher education confirms that those respondents who lived at home during the course of their studies were less likely to be working in a job that was mainly undertaken by graduates compared to those who had moved away from home (Artess et al, 2014).

Within Wales, the public sector represents a particularly important source of employment for graduates. Recent ONS estimates indicated that almost a quarter (24%) of those in employment in Wales were working in the public sector; higher than that observed across any other part of Great Britain (18%) (ONS, 2025). Analysis of graduate employment also reveals that half of employed graduates in Wales work in public administration, education and health - again the highest figure observed across Great Britain. Furthermore, these sectors account for over half (55%) of employment within graduate positions in Wales (ONS, 2024). Within Wales, the public sector is therefore relatively important in terms of providing opportunities for leavers from HE to enter graduate jobs.

The importance of the public sector in Wales has implications in terms of the value attached to bilingual skills. In 2016 Welsh Language Standards were introduced in Wales to ensure that public bodies (including contracted third parties) treat the Welsh language no less favourably than English and that Welsh speakers have the right to use the language when dealing with these organisations (Welsh Language Commissioner, 2016). Public bodies are therefore required to assess the Welsh language requirements of new posts in their recruitment activities. Whilst there are many ways that organisations can address their language needs, "the quickest and most reliable way……is to recruit new staff with the necessary Welsh language skills" (Welsh Language Commissioner, 2020).

The Welsh Language Standards have therefore increased demand for bilingual skills within a sector that is an important source of graduate employment in Wales. Whilst the standards do not apply to the private sector, many businesses have also sought to improve their ability to offer their services to clients through the medium of Welsh. This Data Insight explores whether fluency in Welsh has an influence on the earnings of Welsh graduates who remain in or return to Wales and examines how their earnings compare to those who have moved away.

What we did

Through the Secure Anonymised Information Linkage (SAIL) Databank (Lyons et al., 2009), we linked administrative records of two successive cohorts (2010/11 and 2011/12) of Key Stage 4 learners within the National Data Collection (NDC)[1] with data from the Post-16 Data Collection and the Lifelong Learner Wales Record (LLWR). We linked these records to data from the Higher Education Statistics Agency (HESA) for students who entered university between 2013/14 and 2014/15. This linked dataset was subsequently linked with two cohorts of data from the HESA Destinations of Leavers from Higher Education (DLHE) survey for the years 2016/17 and 2017/18. The DLHE survey aimed to contact graduates six months after qualifying from university to collect information about the employment that they were engaged in. Our data records the destinations of over 11,000 Welsh-domiciled learners. We also linked these records to data from the 2011 Census, which allowed us to account for family socio-economic background in our analysis.

Annual earnings

In terms of capturing earnings, respondents to the DLHE survey were asked "What was your approximate gross pay for your main employment, before tax?" Respondents can report their salary in one of a variety of timeframes including annually, monthly, weekly and hourly. HESA uses this information to derive an annual salary for each leaver.

Other variables pertinent to our analysis are as follows:

Measures of Welsh language ability

Data collected by schools provides information on pupils' Welsh ability, as assessed mainly by their parents or guardians. Using records for pupils held at Year 11, we can identify whether pupils were reported to be 'Fluent

[1] The National Data Collection (NDC) is the term given to annual pupil level collection of statutory teacher assessment data in Wales.

in Welsh', or that they could 'Speak Welsh but not fluently', or if they 'Cannot speak Welsh'. This school-based data is used in preference to that held by HESA as higher education (HE) institutions outside of Wales are not required to collect data on Welsh language ability.

Tuition through the medium of Welsh

For those students attending university in Wales, the HESA data records the number of credits studied through the medium of Welsh in any academic year. In the UK, 120 credits typically represent one year of full-time undergraduate study. In this report we identify those students who are fluent in Welsh and who have studied at least 40 credits through the medium of Welsh during any academic year that we are able to observe them attending university.

Migration: 'Stayers', 'Leavers' and 'Returners'

To examine migration patterns in Welsh-domiciled students, we divide graduates into three groups which we term 'Stayers', 'Leavers' and 'Returners'. They are defined as follows:

- Stayers: those who studied at a Welsh university and subsequently gained employment within Wales
- Leavers: those who found work elsewhere in the UK, outside of Wales[2]
- Returners: those who studied elsewhere in the UK but subsequently returned to Wales for work

We differentiate between Stayers, Leavers and Returners who are either fluent or not fluent in Welsh, as well as those who studied some of their university degree courses through the medium of Welsh. We also distinguish between Leavers who, at the time of the DLHE survey, are living within London or the South East of England as opposed to those who are living elsewhere in the UK.

What we found

Figure 1 provides a summary of annual graduate earnings by migration status and fluency in Welsh. Highest average earnings are found amongst those who found work outside of Wales (£20,083), over £4,000 a year more than the average for Stayers (£15,890) and Returners (£15,787). This finding is not surprising as the decision of graduates to remain or move away from Wales in the months following graduation may well be associated with gaining a role that is worth leaving for.

The earnings of those who attended university in Wales and remained are comparable to those who attended university elsewhere and returned. If leaving Wales to attend university provides students with a wider array of options, the benefits of this are not apparent in the earnings of graduates who are working in Wales at six months following graduation. Figure 1 also shows that those who leave Wales following graduation earn more than those who remain - irrespective of where they live. The higher earnings of those who leave Wales are therefore not simply driven by those who move to London and the South East.

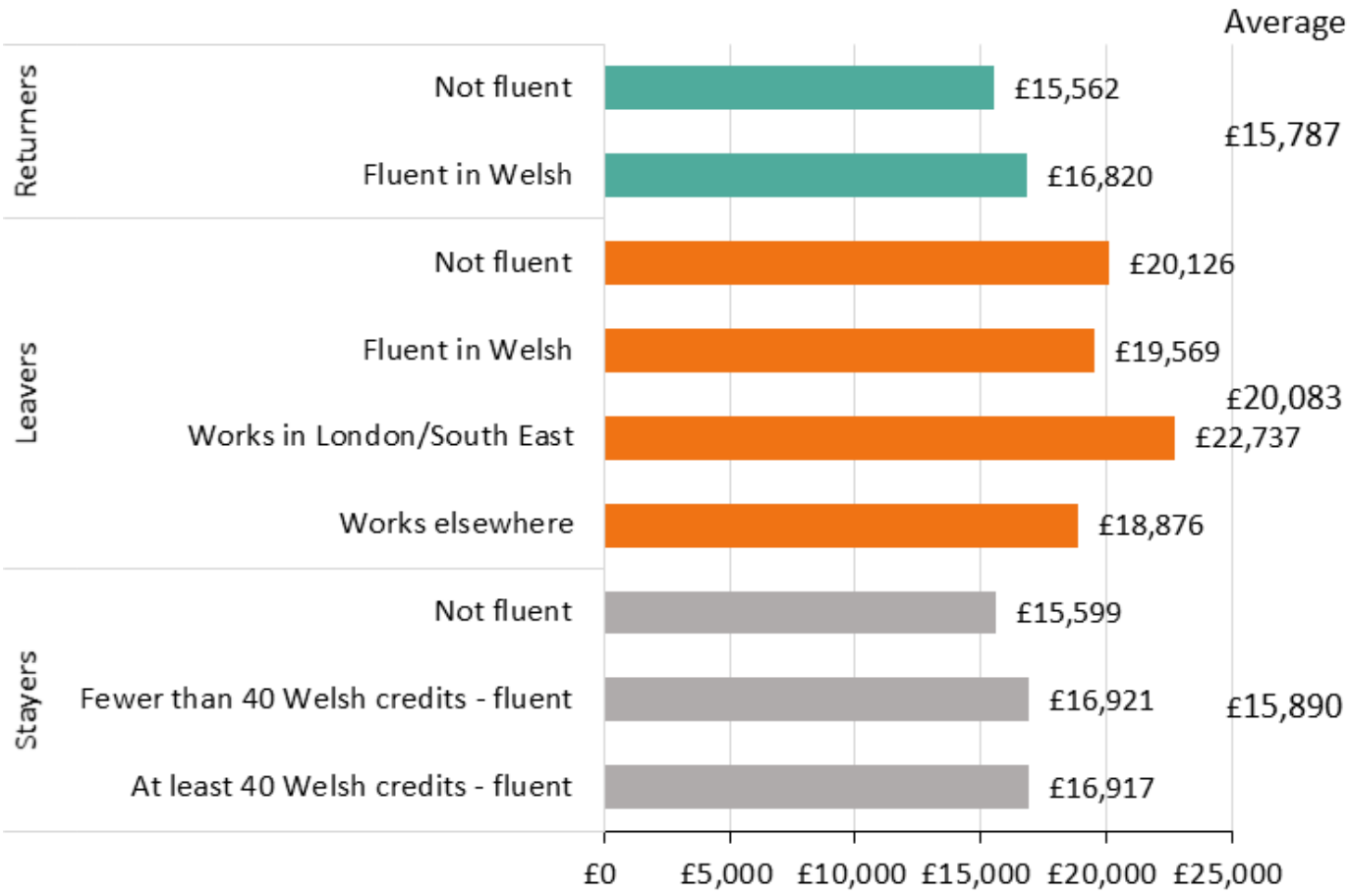
Figure 1 also reveals that fluency in Welsh appears to mitigate the reduced earnings associated with living in Wales following graduation. Among both stayers and returners, being fluent in Welsh is associated with an increase in earnings of around £1,300 compared to those who are not fluent.[3] At first glance however, among those who attended university in Wales, receiving tuition through the medium of Welsh does not appear to influence the subsequent earnings of Welsh speaking graduates.

---

[2] Whilst some Leavers in our sample chose to study at a Welsh university before migrating elsewhere, most had already chosen to study elsewhere in the UK.

[3] This 'Not fluent' group consisting of both those who cannot speak Welsh and those who can speak Welsh but not fluently. Additional analysis revealed that there was no difference in earnings between these 2 groups and so we have therefore grouped them together.

Figure 1: Average annual earnings of Welsh-domiciled graduates by Stayers, Leavers, and Returners by Welsh fluency



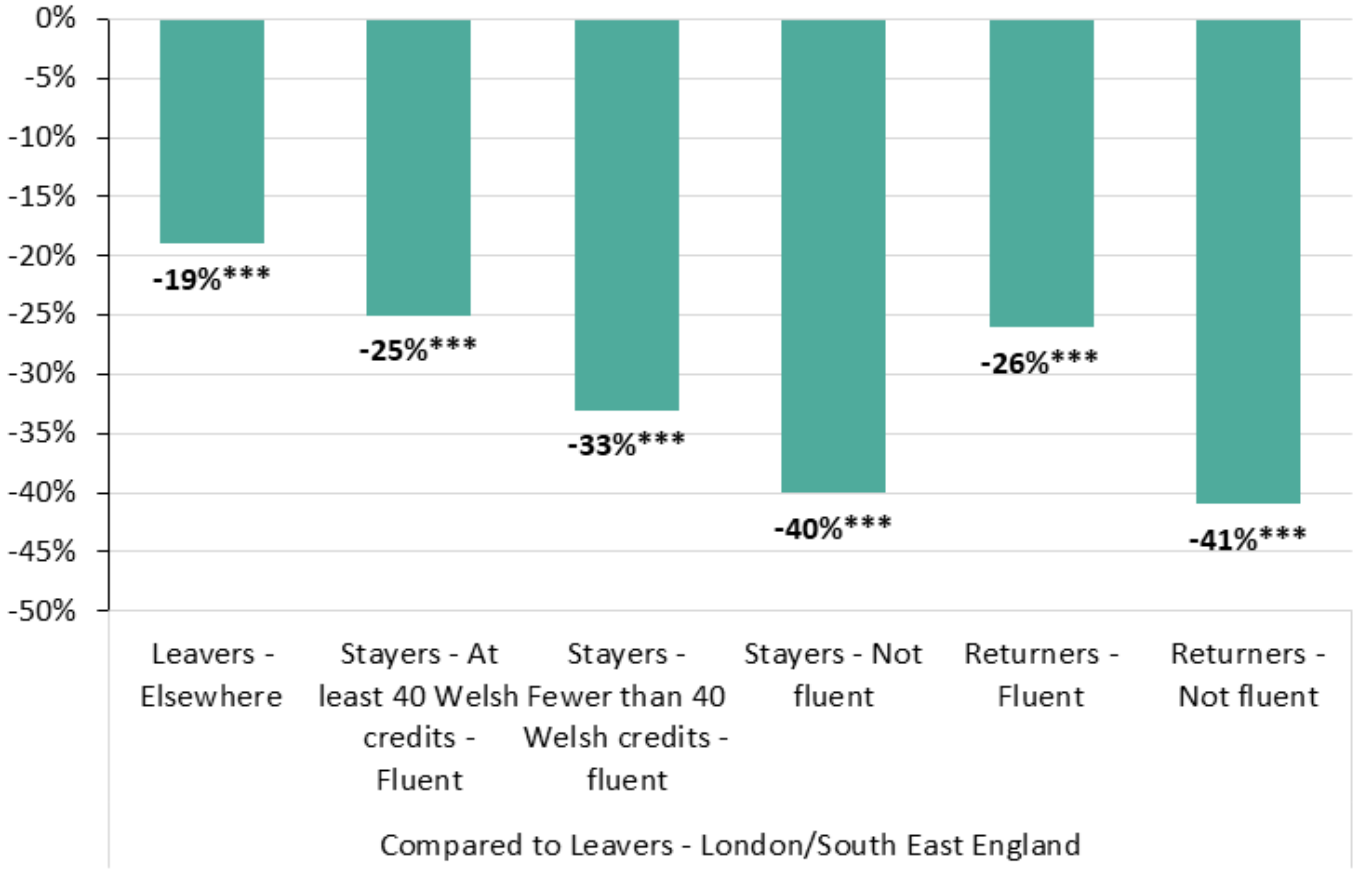
Differences in earnings between these various groups will, in part, reflect differences in the characteristics of graduates. For example, higher levels of pay among graduates who are fluent in Welsh could simply reflect the higher attainment levels or socio-economic backgrounds of this group rather than representing the economic returns to speaking Welsh. Likewise, those who attend university in Wales have lower levels of educational attainment than those who move elsewhere to study at potentially higher tariff or more prestigious universities. The higher earnings of Leavers can therefore not simply be attributed to the benefits of geographical mobility. Differences in the opportunities to study through the medium of Welsh by subject may also confound simple comparisons of earnings. For example, provision of Welsh language tuition is generally lower across STEM subject areas (Medr, 2025), the study of which has been associated with improved employment outcomes (Elias and Purcell, 2013).

To overcome these issues, we use multivariate regression techniques. Regression analysis allows us to simultaneously control for the characteristics of graduates so that the separate and additional effect of migration and fluency in Welsh on graduate earnings can be quantified. At the outset it must be acknowledged that regression analysis can only control for characteristics that are contained with our linked dataset. Otherwise, unobserved personality traits - such as motivation, ambition, or career-mindedness - can only be controlled for as far as that they are captured by measurable items in our data such as educational attainment.[4] Such issues are likely to be important determinants of the decision to leave Wales to attend university or find a graduate job afterwards.

[4] The controls we include in our regression models are GCSE points quintiles, A-level points quintiles, HE degree classification, HE subject area, gender, ethnicity (white or other), eligibility for Free School Meals, whether registered as having Special Educational Needs (now referred to as Additional Learning Needs), household deprivation, socio-economic background, local authority, and year.

Figure 2 summarises the results from our regression model. For this analysis, the reference category[5] against which the earnings of other groups of graduates are compared is those who work in London and the South East of England. First, Leavers who find work in London and the South East are the highest earners, with all other graduates earning less than this group. We estimate that, after controlling for other characteristics, at approximately six months following graduation the annual earnings of those who find work in Wales and are not fluent in Welsh are 40% less than those who find work in London and the South East. There are no differences in the earnings of Welsh Returners and Welsh Stayers who are not fluent in Welsh.

Figure 2: Regression model estimating the effects of study and work locations and Welsh language fluency upon annual earnings



Confidence levels: ***1%, **5%, *10%

Although graduates who leave Wales tend to earn more on average at six months following graduation, the analysis also highlights benefits for those who speak Welsh fluently. Among graduates who choose to stay in Wales or return after studying elsewhere, being fluent in Welsh is associated with higher earnings compared to graduates who are not fluent. Among those who stayed in Wales, being taught - at least in part - through the medium of Welsh appears to further strengthen the earnings prospects of Welsh speaking graduates. The analysis suggests that fluency in Welsh and studying through the medium of Welsh combine to mitigate against the lower earnings that other graduates living in Wales generally receive. Abstracting from both the arguably unique employment opportunities and financial costs associated with working in London and the South East, upon controlling for the characteristics of graduates the annual earnings of those who live in Wales and who are fluent in Welsh are similar to those who have chosen to live and work in other parts of the UK.

[5] This choice of reference category is arbitrary. For ease of exposition, it is common to choose a category which has the lowest or highest value so that all other categories can be represented as being higher or lower relative to the reference group.

Why it matters

The decisions of where to study, where to work, and how skills in the Welsh language may affect one's employment outcomes following graduation are of increasing importance to Welsh-domiciled learners. The last three decades witnessed significant changes to the ways in which HE in the UK is funded and how students receive financial support while attending university. The effect of these changes has been to place an increasing financial strain on students and their families. Increasing competition for graduate jobs combined with the high costs of HE attendance naturally generates discussions around whether going to university is still worth it. Today's entrants to HE therefore need to carefully consider the financial returns of going to university and how choice of course, language medium, and institution can maximise the rate of return on their investment.

The ambitious targets to increase the number of Welsh speakers as set out in Cymraeg 2050 implies the need to create an employment market in Wales that is attractive to Welsh speakers (Welsh Government, 2018). This is to be achieved in part through measures that increase the perceived prestige of the Welsh language and by ensuring that the ability to speak Welsh is a valuable skill to have. Welsh Language Standards provide a clear practical example of how public policy can increase the demand for bilingual skills within a sector that is of particular importance to the graduate labour market in Wales.

Our findings suggest that Welsh language skills—especially when combined with academic experience through the medium of Welsh – may act as a positive signal to employers and provide a competitive advantage to graduates as they seek to gain a foothold in the Welsh labour market. In a context where demand for bilingual skills is increasing, proficiency in Welsh may contribute to enhanced employment opportunities. Being a Welsh speaker and having the opportunity to receive tuition through the medium of Welsh could therefore have real bearings on the decisions of prospective entrants to university

References

Artess, J., McCulloch, A. and Mok, P. (2014) Learning from Futuretrack: studying and living at home. BIS Research Paper 167. London: Department for Business, Innovation and Skills.

BBC News (2023). Is it still worth going to university? Available at: https://www.bbc.co.uk/news/uk-wales-66951306

Blackaby, D., Latreille, P., Murphy, P, O'Leary, N. and Sloane, P. (2006). The Welsh Language and Labour Market Inactivity. Report for the Economic Research Unit, Welsh Assembly Government. Department of Economics, University of Wales Swansea and WELMERC.

Elias, P. and Purcell, K. (2013). Classifying graduate occupations for the knowledge society. Working Paper 5, Institute for Employment Research, University of Warwick.

Furlong, A. and Cartmel, F. (2005). Graduates from Disadvantaged Families: Early Labour Market Experiences. Bristol: Policy Press.

Gordon, I., Champion, T. and Coombes, M. (2015). Urban escalators and interregional elevators: the difference that location, mobility, and sectoral specialisation make to occupational progression. Environment and Planning A, 47, pp.588-606.

Henley, A. and Jones, R.E. (2005). Earnings and Linguistic Proficiency in a Bilingual Economy. The Manchester School, 73(3), pp.300-320.

Hoare, A. and Corver, M. (2010). The Regional Geography of New Young Graduate Labour in the UK. Regional Studies, 44(4), pp.477-494.

Lyons R.A., Jones K.H., John G., Brooks C.J., Verplancke, J-P., Ford D.V., Brown G., Leake K. (2009) The SAIL databank: linking multiple health and social care datasets. BMC Med Inform Decis Mak. 2009 Jan 16;9:3.

Medr (2025). Welsh Language in Higher Education 2022/23. Available at: https://www.medr.cymru/en/News/sta-medr-08-2025-welsh-language-in-higher-education-2022-23/

Office for National Statistics (2024). ONS Local: Employment in graduate and non-graduate roles by qualification and sector by UK region, 2023. Available at: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/adhocs/2492onslocalemploymentingraduateandnongraduaterolesbyqualificationandsectorbyukregion2023

Office for National Statistics (2025). Public sector employment. Available at: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/publicsectorpersonnel/datasets/publicsectoremploymentreferencetable

Welsh Language Commissioner (2016). Welsh Language Standards. Available at: https://www.welshlanguagecommissioner.wales/regulation/welsh-language-standards

Welsh Language Commissioner (2020). Recruitment: Good practice advice document. Available at: https://www.welshlanguagecommissioner.wales/media/mkqdpi4w/20210923-dogfen-gyngor-arferion-da-recriwtio-saesneg.pdf

Welsh Government (2018). Cymraeg 2050: A million Welsh speakers. Available at: https://www.gov.wales/sites/default/files/publications/2018-12/cymraeg-2050-welsh-language-strategy.pdf

Acknowledgements

This Data Insight has been produced by the ADR Wales Skills and Employability research team. It provides a snapshot of informative research currently underway at ADR Wales but is not intended to provide a complete picture of work undertaken within this field or the ADR Wales programme of work. The information presented in this Data Insight has been reviewed by ADR Wales colleagues with expertise within this thematic area and is accepted to be accurate at the point of publication. Views expressed in this Data Insight are those of the researchers and not necessarily those of ADR Wales partner organisations.

Produced by ADR Wales

Website: ADRUK.org
X: @ADR_Wales

ADR Wales unites specialists from Swansea University Medical School and the Wales Institute of Social and Economic Research and Data (WISERD) at Cardiff University with specialist teams within the Welsh Government. The cutting-edge data analysis techniques and research excellence developed, along with the world-renowned SAIL Databank – which is an accredited processor under the 2017 Digital Economy Act (DEA) – allow the delivery of robust, secure and informative research that can inform future policy decisions in Wales. The ADR Wales programme of work is aligned to the priority themes as identified in the Welsh Government's Programme for Government. ADR Wales is part of the Economic and Social Research Council (part of UK Research and Innovation) funded ADR UK (grant ES/W012227/1).

For further information please contact
Cathrine.E.Richards@Swansea.ac.uk

ADR Wales Partners

Cardiff University
Prifysgol Caerdydd

Swansea University
Prifysgol Abertawe
Medical School
Ysgol Feddygaeth

Llywodraeth Cymru
Welsh Government

SAIL DATABANK

WISERD
Sefydliad Ymchwil Cymdeithasol ac Economaidd a Data Cymru
Wales Institute of Social and Economic Research and Data

ADR UK
Data-driven change

UKRI Economic and Social Research Council