

# What can data tell us about wages in the Western Gateway Area?

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**This Data Insight explores labour market dynamics in the Western Gateway Area (WGA). The article focuses on pay, and considers the extent to which the WGA's priority sectors influence earnings. It presents findings by exploring deidentified data from the Annual Population Survey<sup>1</sup> (APS) and the Annual Survey of Hours and Earnings<sup>2</sup> (ASHE).**

## Summary

With the current UK Government focus on driving regional economic growth and creating good jobs for every part of the country, there is a need to better understand the nuances of local labour markets. This paper contributes new evidence on the WGA's labour market by examining de-identified data from the APS and ASHE.

This paper provides insights into regional labour market dynamics, with particular focus on five WGA priority sectors. Notably, the report explores the extent to which these sectors have contributed to levels of pay.

This evidence indicates that there is a raw pay premium of over four per cent for workers in the WGA compared to the national control group, while the priority sectors account for approximately seven per cent of the pay premium. The pay premium is unevenly spread over the region, with workers in Wiltshire experiencing a pay penalty to the national average. At a sector level, workers in the advanced manufacturing and engineering sector in the WGA earn approximately 1.6% more than those working in this sector nationally.

## Background

This research project was completed in support of the launch of the Futures West Foundation.<sup>3</sup>

The intention is that Futures West will play a crucial role in shaping regional development, economic strategies, and public policies across the Western Gateway Area (WGA).

To support the launch of the Foundation, a team of economists at the University of the West of England produced analysis of labour markets and wage dynamics in the WGA, with a focus on the area's priority sectors.

The WGA includes the unitary authorities of Bath and North East Somerset, City of Bristol, North Somerset and South Gloucestershire, Gloucestershire, Swindon, and Wiltshire.

The five priority sectors are: Advanced manufacturing and engineering, finance and insurance services, creative industries, digital industries, and environmental goods and services.

## What we did

We used data from the APS and the enriched ASHE. The enriched ASHE was created as part of the ADR England-funded Wage and Employment Dynamics project, led by the University of the West of England.

This novel dataset enabled a detailed investigation of local differences in wages, while accounting for sector composition.

We analysed trends in the raw data and applied statistical methods (econometric techniques) to analyse how wages changed over time and how they compared to other regions. This approach helped to identify factors driving wages and suggested broad causality. The team then used these findings to derive policy implications.

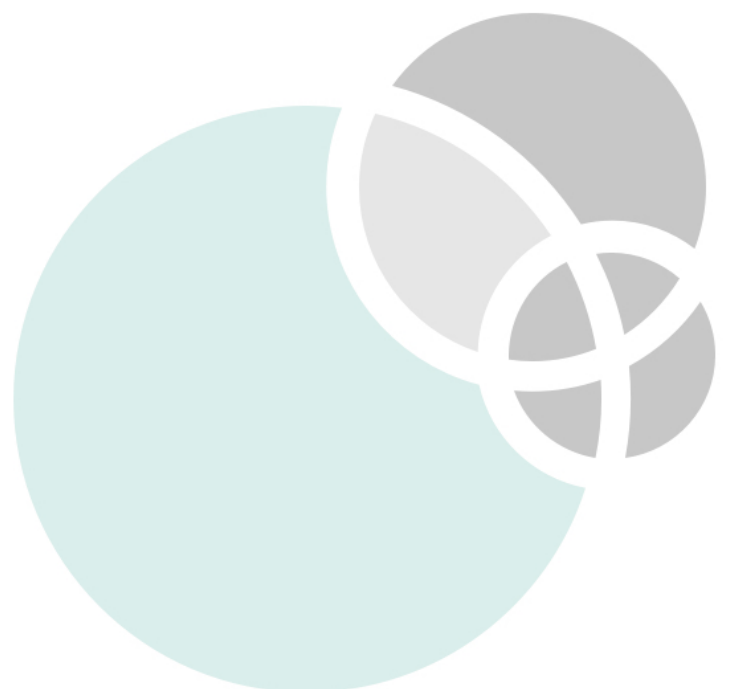
We analysed data from 2004-2022 (panel-data). Our full sample for all years included approximately two million observations (around 100,000 per year).

We used [regression models](#) to compare how wages performed at the national, regional, and local levels of the WGA and its sub-regions. We compared:

- national and regional wage performance with that of the local economies, including the South West, WGA, and its sub-regions
- the proportion of workers earning minimum wage in different areas and how this has changed over time
- whether individuals in the WGA and its sub-regions received higher or lower wages than those nationally (excluding Greater London)
- how wages changed over time, to understand the importance of the priority sectors nationally to the WGA pay premium.

This research created a detailed baseline for wages in the WGA, both on their own and compared to other regions.

In priority sector terms, the research informs discussions of where the WGA performs well and where it lags behind similar regions.



## What we found

### In terms of the descriptive analysis, the report indicates:

- Wages are highest in London and the South East and lowest in the North East of England
- Regional analysis reveals that, between 2004 to 2022, wages rose broadly in line with each other over this period
- The minimum wage has risen faster than the median wage. This indicates that lower-paid workers are receiving a larger share of the overall wage distribution over time, which is going some way to reducing wage inequality
- Since 2014, the proportion of those receiving low pay (defined as earning less than two thirds of the national median wage) has declined sharply
- Wages in the WGA and its sub-regions are generally above the national comparator group (excluding Greater London)
- Individuals in the West of England received consistently higher wages than other areas of the WGA
- In 2022, the average wage was approximately 11% higher in the West of England than in Gloucestershire
- Wages in the West of England are primarily driven by those working in the City of Bristol and South Gloucestershire.

### While the empirical analysis revealed that:

- There is a raw pay premium of working in the WGA compared to the national control group. This is a raw gap of 4.3%, which reduces to 2.3% when controlling for all observable factors
- Priority sectors account for approximately 7% of the WGA pay premium, which suggests supporting these priority sectors has the potential to further drive regional wage increases and economic growth
- Wages in each of the five priority sectors are substantially higher than in other sectors. The reason is beyond the scope of this research, but this is likely to be due to a combination of factors including high demand for skilled labour, specialised qualifications and skills, and higher productivity
- The pay premium is unevenly spread over the region: five of the seven sub-regions receive a pay premium, while North Somerset is in line with the national average. Workers in Wiltshire (excluding Swindon) experience a pay penalty
- The priority sectors contribute to the pay premium for four upper tier local authority areas, but are less important to three of the sub-regions (Bath and North East Somerset, North Somerset and Wiltshire)
- Workers in the advanced manufacturing and engineering sector in the WGA earn approximately 1.6% more than those working in this sector nationally
- Although individuals working in the digital industries sector earn more than other sectors on average, those working in this sector in the WGA are approximately 3.1% below the national average for this sector. The difference may be explained by the regional sub-sector composition, but is worthy of further investigation.

## Why it matters

The analysis supports recommendations around tailoring support for the individual needs of each area, while understanding that there are important benefits – such as higher wages and economic growth – that spillover to the other sub-regions of the WGA.

This report provides evidence to suggest that the priority sectors, as identified by Futures West, are worthy of specific support in an attempt to drive up living standards and productivity growth. These sectors play an important role in the economic health of the region and well-being of its population. As such, ways of supporting and encouraging their future growth should be a priority for regional policymakers.

In addition, policymakers should focus resources on leveraging the strengths of each sector, while also fostering partnerships between sectors to encourage the sharing of knowledge and management practices across regions.

Finally, the research also demonstrates these datasets can be used to better understand regional labour markets. This can contribute to a more robust evidence base for policymaking.

## What next?

Although the report provided new evidence into what is driving wages in the regional economy, the analysis was only partial - partly due to a lack of data. Therefore, to ensure that policy is focused on the appropriate levers, further research is required to fully understand what is driving the pay premiums and pay penalties identified in the WGA and its sub-regions.

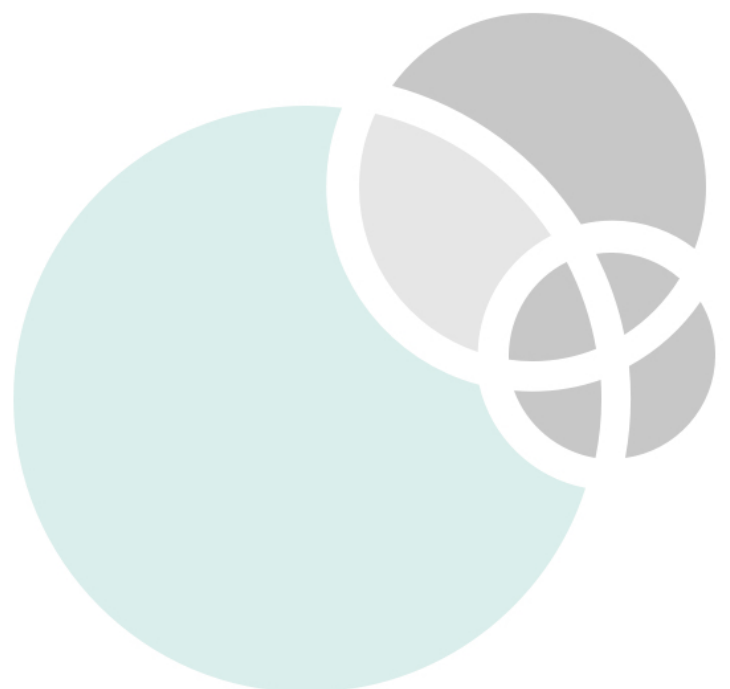
By linking to additional data sources, some of these gaps could be addressed. For example, factors which were not explored in this analysis - but which may be of particular interest - include: capital stocks, industrial structure, skills, innovation, connectivity, agglomeration, and management.

In addition, as the sector analysis was conducted at a relatively high level of aggregation, additional research should be undertaken to identify the key subsectors that are driving (or have the potential to drive) growth in wages and productivity within the region.

Further research is needed to understand the extent to which the advanced manufacturing and engineering pay premium is a result of sub-sector and firm characteristics (e.g. high value, research and development intensive), versus having to pay a premium to attract talent to the region due to skill shortages. Research should also be undertaken to better understand why the digital industries sector in the WGA pays relatively less well than the national average. This should include examining the impact of different sub-sectors to identify any specific barriers or challenges they face.

## References

1. Office for National Statistics, released 13 October 2023, ONS SRS Metadata Catalogue, dataset, Annual Population Survey Longitudinal - UK, <https://doi.org/10.57906/bkfh-rr61>
2. Office for National Statistics, released 11 May 2023, ONS SRS Metadata Catalogue, dataset, Annual Survey of Hours and Earnings Longitudinal - UK, <https://doi.org/10.57906/nz2h-kc10>
3. The Futures West Foundation was created to bring business leaders, academics and policy makers together to tackle long-term regional challenges to raise productivity, growth and innovation.
4. For an overview of the WED project see <https://www.wagedynamics.com/>.



## Acknowledgements

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## About ADR UK

ADR UK (Administrative Data Research UK) is a partnership transforming the way researchers access the UK's wealth of public sector data, to enable better informed policy decisions that improve people's lives. By linking together data held by different parts of government and facilitating safe and secure access for accredited researchers to these newly joined-up and de-identified data sets, ADR UK is creating a sustainable body of knowledge about how our society and economy function – tailored to give decision makers the answers they need to solve important policy questions. ADR UK is funded by the Economic and Social Research Council (ESRC), part of UK Research and Innovation.

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