Annex A

Socio-economic overview in Wales

Welsh Government consultation on UK Local Growth Funding in Wales

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Introduction

- 1. This socio-economic analysis provides a brief overview of data and research relevant to the investment priority areas covered in our consultation document on UK local growth funding in Wales. It is intended to offer insights into factors and trends that are of importance to the Welsh economy (and the UK economy with which it is deeply integrated), as well as providing an underlying strategic basis for UK local growth spending in Wales. A more detailed socio-economic analysis will be published in 2026 alongside our UK Local Growth Investment Plan for Wales.
- 2. The four investment priority areas highlighted in the consultation document are:
 - More productive and competitive businesses
 - Supporting people into work and increasing skills
 - Green infrastructure and energy efficiency
 - · Local infrastructure driving regional economies
- 3. Before providing an overview of evidence relevant to the proposed investment priority areas a summary of headline economic metrics is provided to help better understand the current Welsh economic context.

Welsh Economic Context

Output, productivity, and economic welfare

Gross Domestic Product (GDP)

- Economic output as measured by GDP is amongst the metrics that have the greatest public interest given its use as an indicator of national economic performance. GDP refers to the total value of all final goods and services produced within an area's borders over a specific time period.
- In 2023, Wales' GDP was £92.8 billion, equivalent to 3.4% of total UK GDP 5. (£2,702 billion). Relative to Wales' population in 2023 of 3.2 million, GDP per head stood at £29k.1 This was 26% lower than the same figure for the UK (£39k per head).

Gross Value Added (GVA)

- While GDP is the most cited metric of economic performance, **GVA** is typically 6. preferred when seeking to measure the *productive* output of the economy.² For example, GVA is also more commonly used when seeking to provide measurements of productivity within an economy. This is explored in more detail in the next section of this report.
- 7. In 2023, Wales' GVA was £81.5 billion, with the 72.7% generated by the services sector (£59.2 billion), 21.0% generated by the production sector (£17.1 billion), and 6.4% generated by the construction sector (£5.2 billion).³ Welsh GVA per head in 2023 was £25,742, equivalent to 72.2% of the UK figure (£35,661).4 While Wales' GVA per head figure is the second lowest of the 12 UK nations and English regions, as Figure 1 shows, Welsh GVA per head has broadly followed the same pattern as the rest of the UK (once London is excluded) over the past two decades of available data.

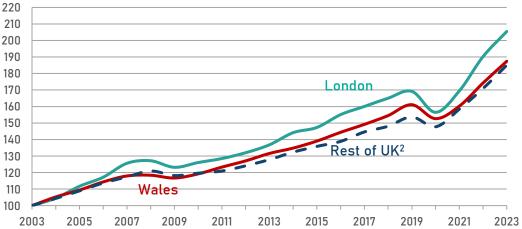
¹ Office for National Statistics (2025). Regional economic activity by gross domestic product, UK: 1998 to 2023

² GVA represents output minus intermediate consumption and, unlike GDP, does not account for net taxes (adding taxes and negating subsidies).

³ StatsWales (2025). <u>Gross Value Added in Wales by industry</u>. [Data accessed 13 August 2025]

⁴ StatsWales (2025). Gross Value Added (£ per head) by area and year. [Data accessed 13 August 2025]



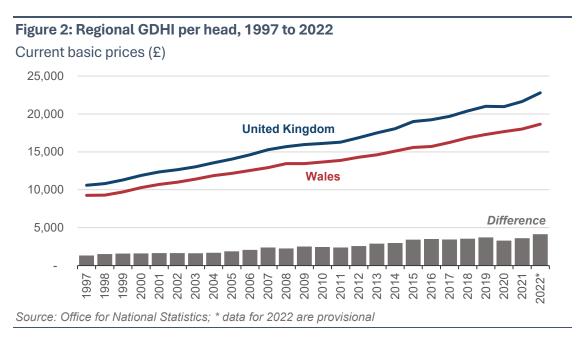


Notes: 1- based on current basic prices (not adjusted for inflation) calculated using a balanced approach 2: UK average once London and Wales have been removed; * data for 2023 are provisional Source: Welsh Government analysis using ONS data

Gross Disposable Household Income (GDHI)

- 8. Neither GDP nor GVA per head can solely be used as an indicator for the economic welfare of inhabitants within a particular region of the UK as income generated within one region may not necessarily be retained within that same region. **GDHI** provides useful insights into the material welfare of the household sector, given that it calculates how much money this sector has to spend after income distribution measures have been accounted for (most notably the tax and benefit system).
- 9. Welsh GDHI per head was £18,652 in 2022, 18.2% below the figure for the UK (£22,789).⁵ Since 1997, Welsh GDHI has gradually diverged from the UK figure (both in absolute and relative terms) see **Figure 2**. When compared with other UK nations and English regions, this trend is not specific to Wales only and does, as with other headline figures, reflect the UK figure being elevated by the performance of London and the South East of England over the same period.

⁵ Office for National Statistics (2024). <u>Regional gross disposable household income: all International Territorial Level (ITL) regions</u>

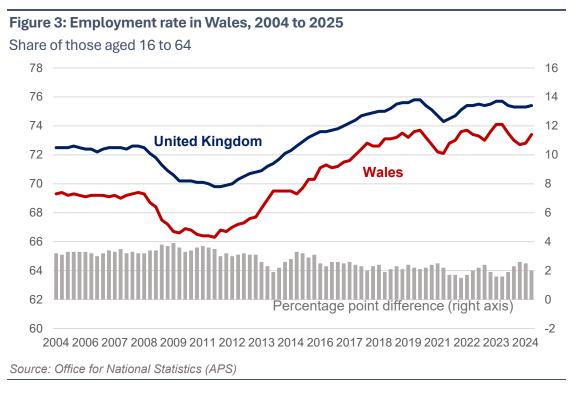


Labour market overview

Labour market participation (employment, unemployment, and inactivity)

10. According to the Annual Population Survey (APS), the employment rate for those aged 16 to 64 was 73.4% in the year ending March 2025; this was 2.0 percentage points lower than the same figure for the UK which stood at 75.4%. Long-term changes in the employment rate are amongst the most positive economic developments in Wales over recent decades, where the employment rate has generally been converging with the UK figure (see Figure 3). The employment rate in Wales was higher for males (76.2%) than for females (70.5%) for the latest period of data, although this gap is also lower than that seen two decades ago.

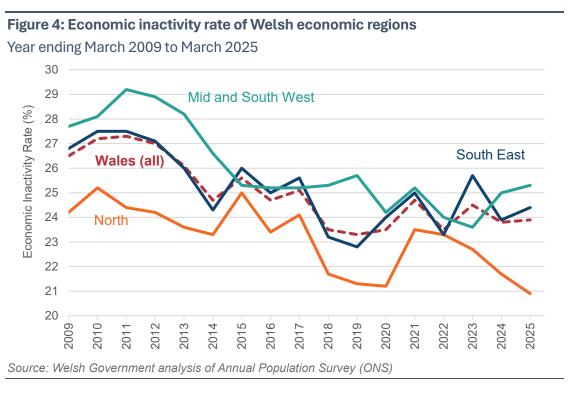
⁶ Welsh Government (2025). <u>Labour market statistics (Annual Population Survey): April 2024 to March 2025</u>



- 11. The **unemployment rate** for those aged 16 and over in Wales for the latest period (year ending March 2025) was 3.5%, approximately 0.3 percentage points lower than the same figure for the UK (3.8%).
- 12. It is the **economic inactivity rate** which largely explains the difference in employment rates between Wales and the UK.⁷ In the year ending March 2025, the economic inactivity rate for those aged 16 to 64 was 23.9% in Wales, approximately 2.3 percentage points higher than the UK figure (21.6%). When looking across Wales' economic regions the economic inactivity rate was highest in Mid and South West Wales (25.3%) and lowest in North Wales (20.9%) see **Figure 4**.

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⁷ Economically inactive people are those without a job who have not actively sought work in the last four weeks, and/or are not available to start work in the next two weeks.

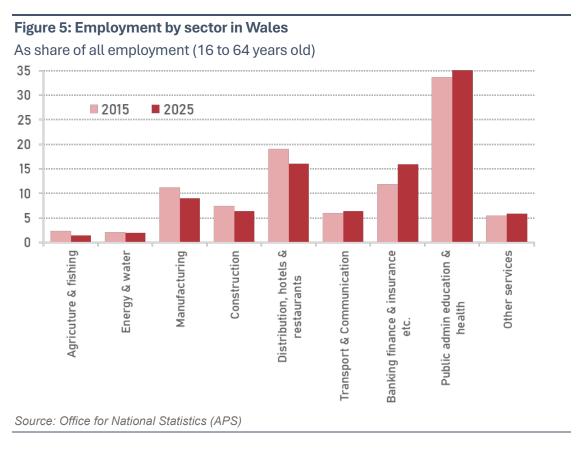


- 13. As for the UK, there are notable differences in the economic inactivity rate in Wales by gender. The economic inactivity rate for females aged 16-64 years old was 27.2%; the same figure for males was 20.5%, approximately 6.7 percentage points lower.⁸ Predominant reasons for economic inactivity given by both males and females are due to long-term sickness (36.1% of all economically inactive males and 31.5% of economically inactive females).
- 14. The youth employment rate (for those aged 16-24 years old) in Wales for the year ending March 2025 was 52.5%, 1.6 percentage points higher than the figure for the UK of 50.9%.

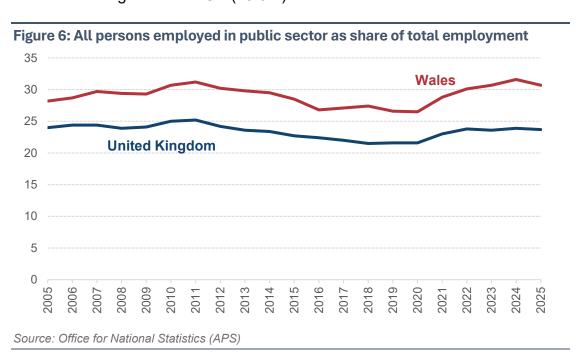
Employment by sector

15. The distribution of Welsh employment by sector is shown in **Figure 5**, comparing 2025 with 2015. As with trends seen in many developed countries, the share of employment in those industries associated with the services has increased over the ten-year period shown. The sector which has seen the greatest increase in its share of overall employment in Wales is *Banking*, *Finance*, *and Insurance* increasing from 11.7% to 15.8% of employment (an increase of 4.1 percentage points). As is the case for the UK, the sector which has seen the greatest fall in its share of overall employment is *Distribution*, *Hotels*, *and Restaurants* where the sector's share of overall employment has fallen from 19.1% to 16.1% (a fall of 3.0 percentage points).

⁸ StatsWales (2025). Economic inactivity rates (including students) by Welsh local area and year.

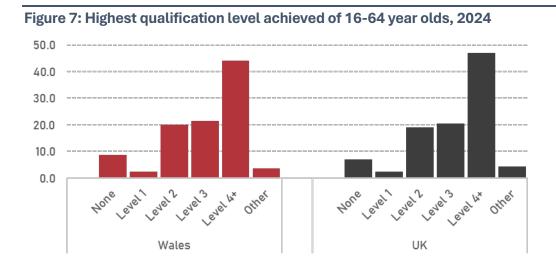


16. The public sector is a much more prominent employer in Wales than for the UK as a whole. As shown in **Figure 6**, the share of all people in employment who work in the public sector has been consistently higher in Wales than the UK as a whole over the past two decades. In 2025, 30.5% of people in employment in Wales were working in the public sector, this was 6.9 percentage points higher than the same figure for the UK (23.6%).



Educational attainment of workforce

17. In 2024, the highest qualification level of almost half (44.0%) of those in Wales of aged 16-64 years old was RQF level 4 or above, i.e. higher education level, equivalent to at least a foundation degree or above; this figure is 3.1 percentage points lower than the same figure for the UK (47.1%). As shown in **Figure 7**, there is a 'long tail' in the distribution of educational attainment, with the majority (52.4%) of the Welsh workforce's highest qualification level below RQF4; the same figure for the UK is 48.6%.

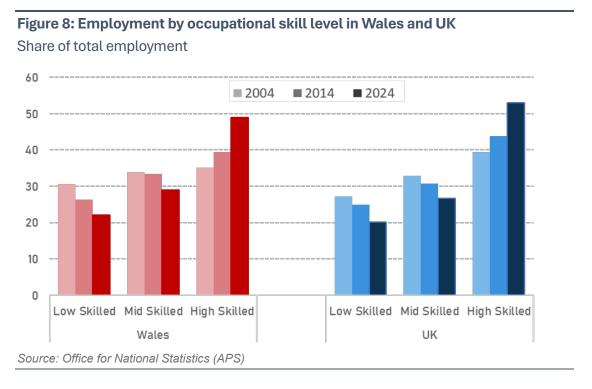


Source: Office for National Statistics (APS)

- 18. When comparing educational attainment by gender, 46.8% of working-aged women in Wales' highest educational level is RQF level 4 or above, 5.6 percentage points higher than the same figure for men, which was 41.2%.
- 19. In line with UK trends, there continues to be a shift in the share of the Welsh workforce employed in jobs categorised as high skilled.⁹ In 2024 the share of the Welsh workforce working in high skilled occupations was 48.2%, 13.1 percentage points higher than it was in 2004 (when it was 35.1%) see **Figure 8** for more detail. This figure is still lower than the figure for the UK as a whole, with 52.6% of the workforce in high skilled occupations (a 4.3 percentage point difference).¹⁰

⁹ Occupational skill levels are defined using SOC2010 (standard occupational classification) codes which use job titles as an indicator of the skill level needed to do jobs, and is one of the better indicators available to calculate the skills profile of labour market demand. More information on the methodology used is available from the Office of National Statistics.

¹⁰ For years ending December from the Annual Population Survey; ONS



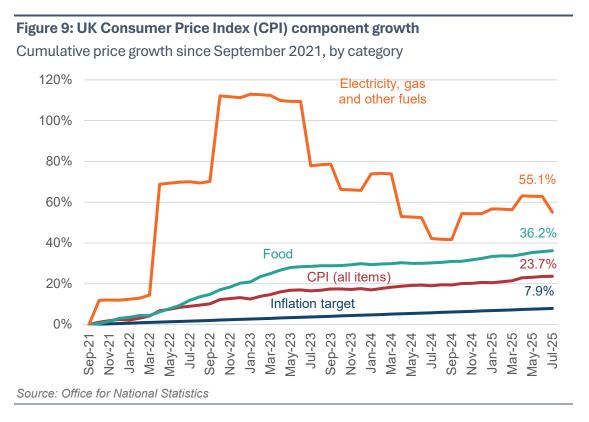
Earnings and Inflation

- 20. Average gross weekly earnings in Wales were £674.50 in 2024, below the UK average of £728.30. This has also been the case historically. However, growth in average gross weekly earnings has grown faster in Wales than the UK average in recent years. It grew by 41% in Wales between 2011 and 2023, compared with 38% in the UK as a whole.
- 21. This growth was split fairly evenly between the periods before (2011-2019) and since (2019-2023) the pandemic.
- 22. However, nominal pay growth doesn't account for the effects of inflation on purchasing power. Inflation has been high in recent years. Although the rate has now fallen, it remains above the Bank of England's 2% target and is expected to stay there for some time. The fallout of it all has been prices settling at higher levels some disproportionately so impacting poorer households, as well as the future anchoring of inflation expectations.
- 23. This has contributed to 'real' growth in regular pay (which takes inflation into account) in the UK being negative between the periods October to December 2021 and March to May 2023. However, real regular pay has been positive since then.

Daily Essentials

24. Goods and services that are considered 'essentials' such as food and energy have been some of the most affected by inflation in recent years. This can have

a disproportionate impact on lower income households, as they tend to spend a higher proportion of their incomes on these essentials.



- 25. By the CPI measure of inflation, the price level has risen by 23.7% since September 2021 compared to 7.9% if inflation rose by the Bank of England's 2% target. The CPI rate was above 10% in the UK between July 2022 and March 2023.
- 26. The price level for food has increased by 36.2% since September 2021 and electricity has increased by 55.1% over the same period in the UK.

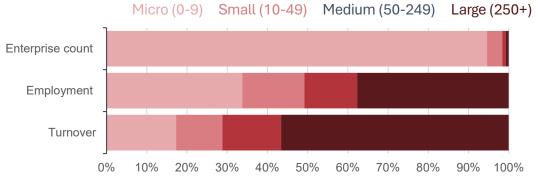
Industry/business structure

27. As shown in **Figure 10**, in 2023 Small and Medium-sized businesses (SMEs)¹¹ in Wales accounted for 99.3% of enterprises, 62.3% of employment, and 43.4% of turnover. SMEs account for the majority of enterprises and employment in the UK because they are numerous and often locally embedded, but they typically have lower turnover than large firms due to their smaller scale of operations, limited market reach, and resource constraints.

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¹¹ SMEs includes micro businesses that employ 0 to 9 people.

Figure 10: Share of enterprises, employment, and turnover in Wales by Business Size* (2023)



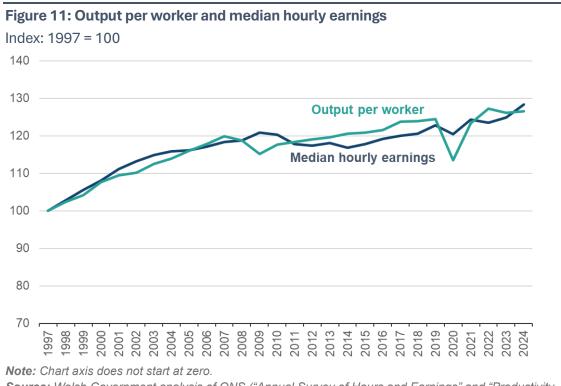
Note: * Business size refers to number of people employed

Source: StatsWales

More productive and competitive businesses

What is productivity and why is it important?

- 28. Assessing economic productivity involves measuring how efficiently inputs are used in the production of goods and services. It is typically quantified as the amount of output produced per unit of labour input for example, Gross Value Added (GVA) per hour worked or per worker. In part, this approach is utilised as labour is readily measurable as an input of production.
- 29. Making productivity gains has been a key driver in improving living standards historically, as such improvements allow for increased output in existing industries as well as freeing up resources that can be used by other (potentially new and emerging) industries. The close trend between productivity and median hourly earnings suggests this relationship continues to be of importance see **Figure 11**.



Source: Welsh Government analysis of ONS ("Annual Survey of Hours and Earnings" and "Productivity Flash Estimate")

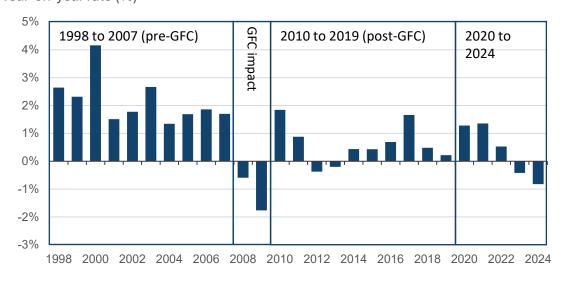
30. Contrary to what was typically observed in the years leading up to the Global Financial Crisis (GFC), ONS research indicates that much of the UK's post-GFC economic growth has been driven more heavily by increases in the

- number of hours worked in the economy relative to rising productivity (output per hour worked). 12
- 31. Achieving productivity gains is crucial for businesses seeking to achieve and maintain business competitiveness, as more productive businesses will be better able to price their output competitively in both local/global markets and attract workers with higher skill levels with higher wages.

Trends in UK and Welsh productivity

32. Concerns regarding productivity performance has been an increasing issue since the global financial crisis of 2007-09. **Figure 12** shows year-on-year productivity growth between 1998 and 2024. In the nine years leading into the GFC (1998 to 2007) the average annual growth rate was approximately 2.2%. After the negative shocks in output overall and productivity in 2008 and 2009, the following ten years saw the average annual growth rate fall to 0.6%, less than a third of that seen before. Even more concerning is the productivity growth rate for the UK observed since the beginning of the COVID-19 pandemic has been even weaker, with the average annual growth rate seen between 2020 and 2024 equivalent to 0.4%.

Figure 12: UK Output per hour worked growth rate, 1998 to 2024 Year-on-year rate (%)

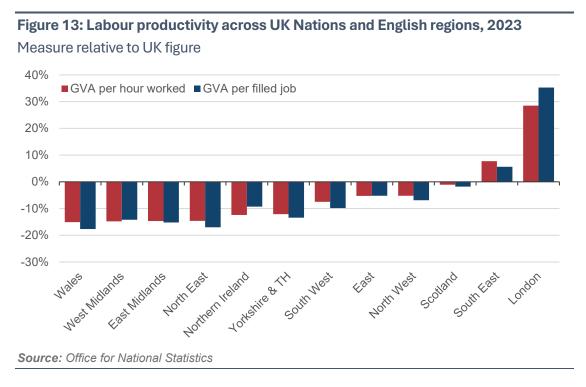


Source: Office for National Statistics

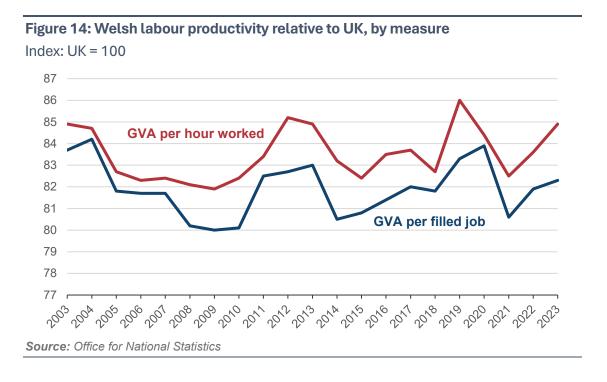
33. Wales' relative performance relative to the rest of the UK for the two main measures of labour productivity (*GVA per hour worked* and *GVA per job filled*) is shown in **Figure 13**. On both measures Wales ranks bottom of the UK's Nations and English regions, with GVA per hour worked 15.1% lower than the

¹² Office for National Statistics (2025). <u>Productivity flash estimate and overview, UK: January to March</u> 2025 and October to December 2024

UK figure and GVA per filled job 17.7% lower. While most nations/regions of the UK have below average productivity – due to the extremely strong performance of London and the South East of England – seeking to improve Wales' productivity performance is clearly critical given its wider importance.



34. It is important to note Wales' performance (using both headline measures of labour productivity) has remained relatively stable for the past 20 years of available data, reflecting the long-term challenges the Welsh economy faces in improving labour productivity – see **Figure 14**. Understanding how to influence that performance is touched on in the following subsections.



Drivers of productivity performance

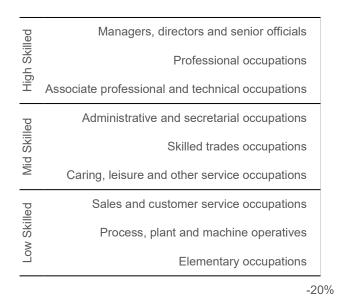
Human Capital

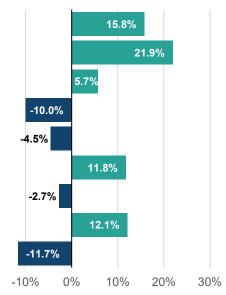
- 35. The relationship between skills and labour productivity is well established in economic theory, with higher skill levels thought to increase the efficiency and quality of worker output (by enabling workers to make better use of new and existing technology, for example), as well as fostering innovation and entrepreneurial activity.
- 36. Recent research suggests that educational attainment has continued to be a key factor contributing to productivity and wage growth in the UK (and indeed Wales) over the last few decades. ¹³ Formal education qualifications provide important signals regarding skills level, but underlying adult skills of importance are fundamental skills such as literacy, numeracy, and problem solving. Research produced by the Organisation for Economic Co-operation and Development (OECD) using international skill survey data suggests a convincing positive correlation between labour productivity and average adult skills levels in the private sector. ¹⁴

¹³ Gavin Conlon, Greta Dohler, Su-Min Lee, and Pietro Patrignani (2023). <u>Skills and UK productivity Estimating the contribution of educational attainment to productivity growth</u>. For the Department for Education (UK Government).

¹⁴ Dan Andrews, Balázs Égert, and Christine de La Maisonneuve (2025). <u>Adult skills and productivity:</u> <u>New evidence from PIAAC 2023</u>. OECD Working Paper.

Figure 15: Labour market occupation and skills growth projections in Wales 2020 to 2035





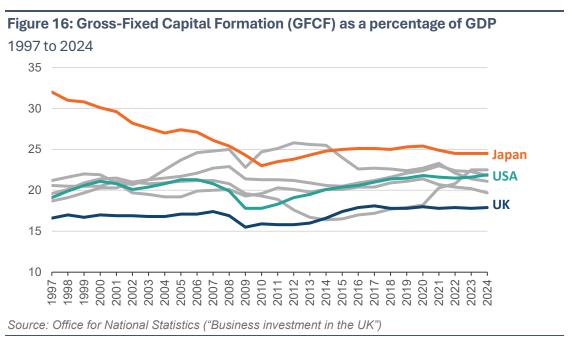
Source: UK Government (Department for Education)

37. As laid out in the section on Wales' economic context within this overview, the share of the workforce whose highest level of educational attainment is equivalent to NVQ level 4 or above is lower in Wales than for the UK, while the share of the workforce with no qualifications is higher. **Figure 15** shows Wales' occupation growth projections by occupational skill level between 2020 and 2035. As has been the case in Wales' recent history (see **Figure 8**), these projections suggest the occupational classifications that will see the greatest growth will be those associated with higher skill levels – particularly those within *professional occupations*. ¹⁵ Ensuring the Welsh workforce has the skills to realise this future will be crucial.

Investment

38. As well as investing in skills and education, there has been concern that the UK economy has been suffering from continued chronic underinvestment. Investments in capital goods and infrastructure are often cited as being crucial to enabling productivity growth and increasing the productive capacity of the economy as a whole. **Figure 16** shows whole-economy investment as a share of national GDP for the G7 nations since 1997; as can be seen, the UK has had a consistently lower share of national product directed towards investment over this period.

¹⁵ Professional occupations primarily includes those working in a profession within the science, IT, health, teaching, legal, and other sectors.

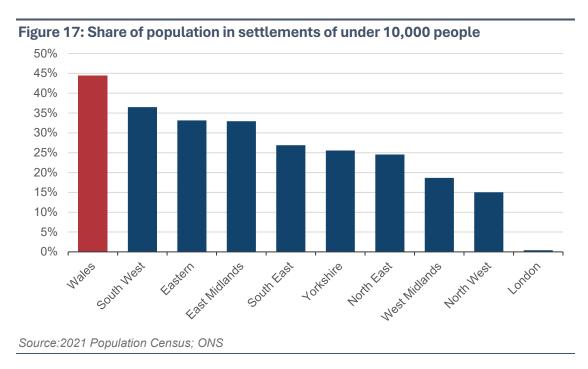


Agglomeration

- 39. A key source of productivity growth, particularly for firms within the services sector, are the benefits that accrue from agglomeration. Agglomeration refers to how economic activity is geographically concentrated and is often considered in terms of actual density (activity within an area) or effective density (activity within a specific travel time within an area).
- 40. The benefits accruing from agglomeration often cited are those that derive from:
 - Resource Sharing: with businesses and firms better able to make use
 of facilities and infrastructure within an area (increasing the productivity
 return from the supply of amenities).
 - **Firm/employee matching:** with firms better able to match with suitable suppliers/buyers and employees having greater opportunity to fill roles which make the best use of their skill sets.
 - Knowledge spillovers: with greater diffusion of knowledge and acquisition of skills enabled by increased interactions amongst the local workforce – both within and between firms.
- 41. While there is differing evidence as to the magnitude of agglomeration benefits, international evidence generally supports that such agglomeration effects exist and contribute to higher levels of productivity in areas of greater density and/or with greater transport connectivity. ¹⁶ With such a large share of the Welsh population living in more rural areas of lower population density (see **Figure**

¹⁶ Daniel Graham and Stephen Gibbons (2019). <u>Quantifying Wider Economic Impacts of agglomeration for transport appraisal: Existing evidence and future directions</u>. Economics of Transportation.

17), one factor often considered to act against these areas is the difficulty they have in leveraging the benefits that can come from agglomeration.



Research, Innovation, and Development

- 42. As research and innovation are fundamental to the development and diffusion of new technologies they are logically considered an important component of improving productivity. The business sector in Wales continues to play a leading role with regards to R&D expenditure (60.1% in 2022). This compares to shares of 36.8% for Higher Education bodies and 2.8% for Government/Research Councils. 17 In the UK, the business sector conducts the highest relative share of R&D in every nation and English region, and in 2023 just under half of UK business R&D expenditure was carried out by companies under foreign ownership. 18
- 43. While the links between R&D and productivity are still not fully understood, ¹⁹ innovation (the process of turning ideas from research, for example into processes and product) is necessary for firms seeking to gain a competitive advantage. There is some evidence to suggest this has been a recent area of weakness in Wales. **Figure 18** shows weighted survey data which suggests a smaller share of Welsh businesses are innovation active than in the UK. A

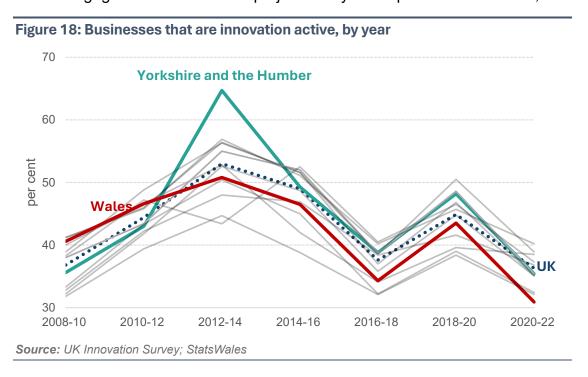
¹⁷ Office for National Statistics (2024). <u>UK gross domestic expenditure on research and development</u> (designated as official statistics)

¹⁸ ONS (2024). Business enterprise research and development, UK: 2023. UK Office for National Statistics.

¹⁹ Richard A L Jones (2023). <u>Productivity, Innovation and R&D</u>. Productivity Institute.

business is innovation active if any of the following activity has taken place over the survey period:

- The introduction of a new or improved product (goods or services);
- Business processes used to produce or supply all goods or services that the business has introduced, regardless of their origin. These innovations may be new to business or new to the market;
- Engagement in innovation projects not yet complete or abandoned;



Sector Mix

- 44. Given certain sectors of the economy have higher productivity than others (for example, finance & insurance in the UK has a higher labour productivity than accommodation & food services) movements in employment from low to high productivity sectors could theoretically increase labour productivity levels. However, the last ONS regional productivity data by industry (published in 2019) suggested Wales productivity performance was informed more by withinsector productivity differences as opposed to between-sector differences. For most sectors of the economy, productivity was lower in Wales than the UK average (even when removing London from the figure).
- 45. It is important to note, however, the effect of between-sector productivity differences can be more apparent when looking at lower levels of geography than the UK nations and English regions.²⁰ Certain local authorities will have

²⁰ ONS (2019). <u>Understanding spatial labour productivity in the UK;</u> R Harris & J Moffat (2021). <u>The geographical dimension of productivity in Great Britain, 2011–18: the sources of the London productivity advantage;</u> and, A Stansbury & others (2023). <u>Tackling the UK's regional economic inequality:</u> Binding constraints and avenues for policy intervention

markedly different sectoral make-ups with relatively high shares of employment in low productivity industries.

Business Demography

- 46. One explanation of factors contributing to Wales' productivity performance has been the higher share of employment in SMEs in Wales relative to the UK. Evidence suggests (for most sectors of the UK economy) there is a positive relationship between firm size and labour productivity. Larger firms are more likely to be able to utilise 'economies of scale', for example, being able to spread a firm's fixed costs relative to their output or allow for greater worker specialisation (whereby workers can more appropriately be matched with tasks for which their skills are suited). It is worth noting this relationship is not observed in all sectors of the economy and, according to ONS research, only 30% of the variation across businesses they observed could be accounted for due to size, location, and sector.²¹
- 47. In Wales, SME employment is generally higher in areas with lower population density (see **Figure 19**). Possible explanations for this include the specific sectoral mix more prevalent in rural communities (for example, in agriculture or tourism, where SME employment is typically more prevalent) and the limited presence of large corporations seeking to benefit from agglomeration effects.

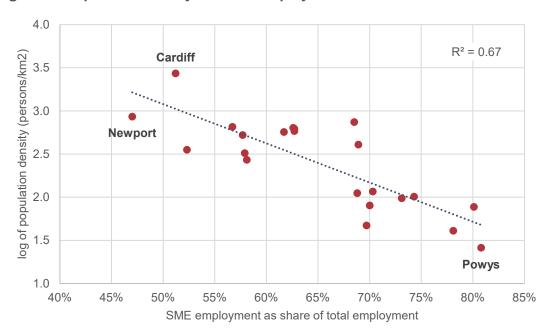


Figure 19: Population density and SME employment in Welsh Local Authorities

Note: due to rounding errors SME figures may be marginally inaccurate; **Source:** Welsh Government analysis of StatsWales

²¹ see Office for National Statistics (2022). <u>Firm-level labour productivity measures from the Annual Business Survey, UK: 1998 to 2019</u>

Trade

- 48. Trade plays a crucial role in boosting productivity. By participating in open trade, firms encounter greater competition, which drives them to innovate and improve efficiency. Open markets also provide access to a broader customer base, allowing companies to benefit from economies of scale. Latest evidence from the ONS finds that firms that engaged in international trade between 2011 and 2022 were 35.4% more productive than firms that did not.²²
- 49. Wales is a relatively trade intensive nation with international goods exports accounting for around 23% of output (GDP) in 2023. This is consistently higher than any other UK nation and region, and well above the UK (15%). Whilst this has brought opportunities to the Welsh economy, it has also brought risks, with Wales perhaps being more exposed to negative economic shocks from changes in goods trading relationships than elsewhere in the UK. According to the Office for Budget Responsibility (OBR), changes in the UK's trading relationship with the EU implemented from 2021 are expected to result in UK productivity being 4% lower than it would have been otherwise, with the full impact realised over 15 years.²³
- 50. Wales continues to be deeply embedded in the UK economy, however there are some key differences in the composition of trade. Wales' trade composition remains dominated by goods, which accounted for around two thirds (67%) of total Welsh exports in 2023, compared to the UK where goods exports accounted for closer to half (46%).

²² in terms of output per worker.

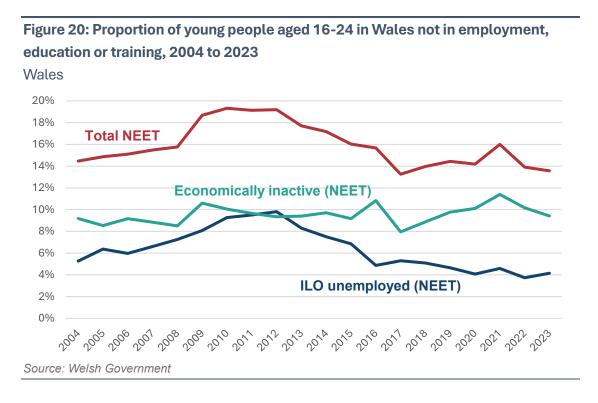
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²³ See OBR (March 2024). Economic and fiscal outlook – March 2024

Supporting people into work and increasing skills

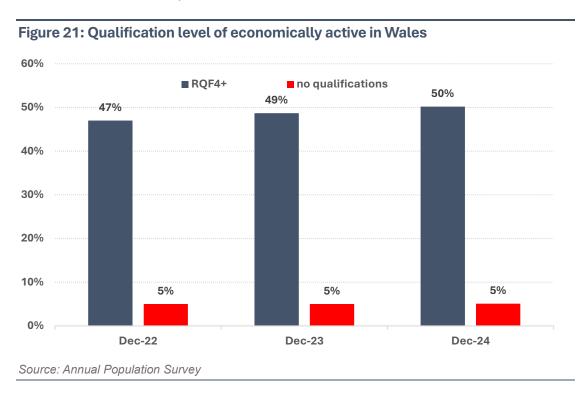
Economic inactivity

- 51. As explained in the Labour Market Overview section, Wales has a higher economic inactivity rate than the UK average. The difference is also driven predominantly by long-term health issues across the age demographic. As explained later in the Health section, having a disability can place individuals at greater risk of being in relative income poverty. How we can support people into work is therefore a crucial issue for the people of Wales.
- 52. Final estimates for 2022 indicate the proportion of 16-24 year olds who were not in education, employment or training (NEET) decreased from 16.0% in 2021 to 13.9% in 2022. Provisional estimates suggest this proportion continued to decrease to 13.6% in 2023.
- 53. Since 2012, the proportion of NEETs who were unemployed (meaning they were actively seeking work) has followed a downward trend. However, the proportion who are economically inactive has followed an upward trend between 2017 and 2021, but has fallen since.
- 54. There is some evidence that the increases we have seen in economic inactivity rates across Wales have been driven predominantly by rising rates of ill health. This trend is being seen in younger people as well as older. This trend appears to have begun prior to the pandemic.



Skills

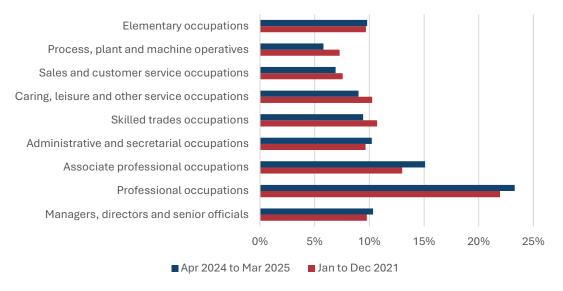
- 55. The proportion of 16-64 year olds in Wales who are economically active and have RQF4+ level qualifications (a qualification above A levels or equivalent) has risen over the last two years from 47% in the year ending December 2022 to 50% in the year ending 2024. A more highly-educated workforce should contribute positively towards productivity. However, it is also important the workforce can attain skills and qualifications that match up with the demand for labour in the most productive businesses.
- 56. However, while the proportion with RQF4+ level qualifications has risen, the proportion who have no qualifications has remained stable over the last three years at 5%. Having no qualifications is associated with lower earning potential over the course of one's career. This could contribute to growing inequality between those with no qualifications and the rest of the workforce.



- 57. The composition of the Welsh workforce has remained similar over the last few years, but there have been some noteworthy changes. The proportion of people in employment in Wales who are in professional, associate professional and manager/director/senior official occupations has increased between the year ending December 2021 and the year ending March 2025. There have also been increases in elementary occupations and administrative/secretarial occupations.
- 58. There has been a decrease in skilled trade occupations, sales and customer service occupations, process, plant and machine operatives, and caring, leisure and other service occupations.

59. This could suggest employment in Wales is shifting towards more high-paid occupations on average, and towards jobs that either require higher skill/qualification levels, or occupations that support those jobs.

Figure 22: Proportion of total employment by occupation in Wales, years ending January 2021 and March 2025



Source: Annual Population Survey

Measuring Inequality and Recent Developments

Link between inequality and economic growth

- 60. Inequality limits economic growth by reducing potential human capital and can give rise to a society with lower levels of education and worse health. If citizens are unable to access or obtain higher levels of education and health (be it from the care they receive or their ability to remain healthy given their lifestyles) then they, as workers, are less productive and acquire less experience. This can be either because they are less skilled, and/or due to them being in work for less time (through increased absence and/or earlier retirement than otherwise had been the case).
- 61. A healthier, more educated workforce is more productive, and one which can work for longer. Increased outputs allow for higher wages and living standards, and a more active labour force reduces state demand for welfare-related support, with resources able to be directed towards more productive and growth-inducing policies.
- 62. Income is an important determinant of education and health, and so reducing such inequalities is key for our future workforce and prosperity.

63. On the whole, aggregate income inequality in the UK is largely unmoved since the mid-1990s; however, this overlooks changes seen within sub-groups of the population – be it by income decile, housing tenure or personal characteristics.

Gini Coefficient

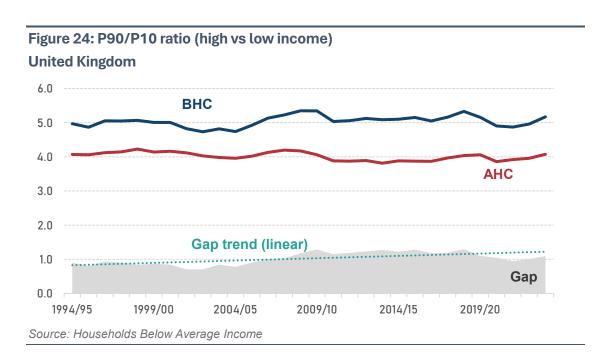
- 64. The Gini Coefficient has remained stable since the 1990s. Since 1990, its value before housing costs (BHC) has remained between 0.332 and 0.356. (A reminder: on its scale of 0-1, values closer to zero represent lower levels of inequality). However, this followed a period of sustained growth where, in the two decades prior, the coefficient grew by 0.082 points, and its new higher level has persisted ever since²⁴. The more recent value (0.348 for the FYE 2023/24) is above the EU27 average of European member states (0.294 in 2024) which reflects historic trends.
- 65. The chart also demonstrates how housing has become a key source of income inequality. Similar to the measure BHC, the measure after housing costs (AHC) also experienced an increase through the 1980s but then continued growing at a faster rate to BHC, creating a larger difference between the two measures that has persisted through to this day (with few periods of falling rates, including since 2016-17 albeit from a relatively higher level). AHC measure has been at least 0.040 points higher since the Global Financial Crisis (2008-09).

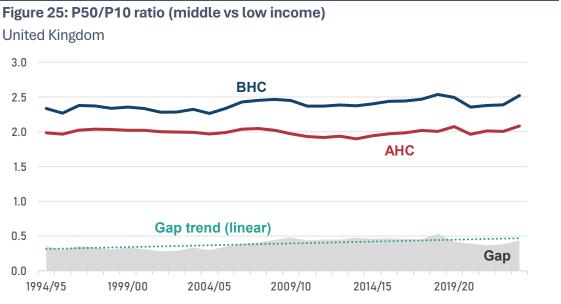


²⁴ Up until 1994/95, the Gini Coefficient was measured on a GB basis – not the UK

Income Ratios

- 66. As with the Gini Coefficient, income ratios have seen relatively little change since the 1990s. Before housing costs: high-income earners have earned an average of four-times that of low-income earners, and around double that of middle-income earners. Middle-income earners earned double that of low-income earners.
- 67. Nevertheless, there is evidence housing costs are widening inequalities. The gap between the AHC and BHC ratios for high and low-income earners has increased from a low of 0.71 in 2002/03, up to 1.29 in 2018/19, before falling back somewhat to 1.10 in 2023/24 with nearly all the increase down to an increase in the AHC ratio. Similarly, for middle and low-income earners, the same gap (and for the same periods) has increased from 0.29 to 0.53 and is now at 0.44. These ratios have maintained their relative positions across the data period (i.e., the ratio between high and low values has always been greater than between medium and low, which in turn is greater than between high and medium), but the difference is now more pronounced.

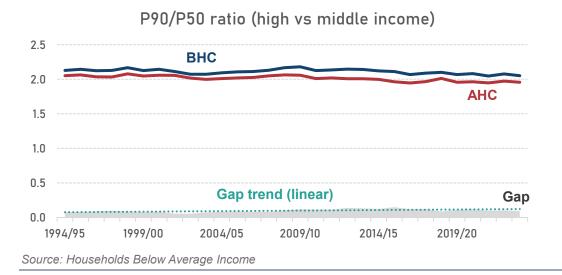




Source: Households Below Average Income

Figure 26: P90/P50 ratio (high vs middle income)

United Kingdom



Green infrastructure and energy efficiency

- 68. Investment in green technologies and improvements will be vital so Wales can meet its legislated climate targets. Decarbonising energy grids, enhancing public transportation systems, and improving the energy efficiency of existing and new building stock are all essential components in reducing territorial greenhouse gas emissions and supporting the transition to a low-carbon economy. Infrastructure investments must also be resilient to the impacts of climate change, ensuring physical assets can withstand more frequent extreme weather events and shifting climate patterns.
- 69. Energy efficiency measures represent a cost-effective strategy for both immediate and long-term emissions abatement. Implementing high-efficiency technologies ranging from heat pumps and smart meters to industrial automation and demand-side management can unlock significant energy savings and lower operational costs.
- 70. The following subsections attempt to provide some context regarding the need for intervention in this area.

Economy-wide emissions and climate obligations

- 71. In 2023, Wales emitted an estimated 34.9 megatonnes of gross carbon dioxide equivalent (MtCO2e) greenhouse gases (GHG), ²⁵ or 11.0 tonnes per person a 43.2% drop from 19.1 tonnes per person in 1999.
- 72. Perhaps unsurprisingly given Wales' deep industrial history, per capita emissions in Wales have long exceeded those of the OECD and EU, although the gap has narrowed significantly especially since 2016. In 1999, per capita emissions in Wales of 19.1 tonnes were markedly higher than both the OECD (11.0 tonnes) and the EU (9.1 tonnes).²⁶ By 2011, the figure for Wales stood at 14.4 tonnes per person, compared to 10.0 for the OECD and 7.5 for the EU. By 2023, Welsh emissions had fallen to 10.8 tonnes per capita, converging closer to the OECD's 8.0 tonnes and the EU's 5.6 tonnes. Overall, Wales' 43.2% per capita decrease outpaced reductions in both the OECD (26.9%) and the EU (32.4%).²⁷

²⁵ Gross emissions refer to total emissions emitted and do not account for carbon sequestration (or carbon capture – either technological or natural).

²⁶ Per capita figures (and any total figures used to contextualise them) in this section exclude Land Use, Land-Use Change, and Forestry (LULUCF) sector to align with World Bank cross-country comparison standards. Other statistics (when looking at Welsh emissions in isolation), unless stated, include LULUCF.

²⁷ World Bank (2024). <u>Carbon dioxide (CO2) emissions excluding LULUCF per capita (t CO2e/capita)</u>. Online database.

- 73. The trajectory of Welsh territorial emissions since the latter part of the 20th Century has been one of consistent decline, albeit not at a steady pace. Since the base year, total 'net' emissions have dropped by 38.4%,²⁸ falling from 55.4 MtCO2e to 34.1 MtCO2e. Notably, the rate of reduction has accelerated in recent years: whereas the annual average observed decrease was just 0.3 MtCO2e between 1990 and 2015, between 2016 and 2023 this has hastened to around 2.0 MtCO2e each year.
- 74. Since 2020, more ambitious emission targets have been set to reflect the Welsh Government's increased ambition in reducing territorial emissions. In 2021, Wales committed by law to reaching Net Zero emissions by 2050, a significant increase in ambition on the 80% reduction target set in 2016. The table below provides a detailed breakdown of how interim and 2050 targets have changed.

Table 1: Legislated Welsh emission targets agreed by Senedd Cymru

	Previous emission targets (agreed 2016)	Net Zero emissions by 2050 (agreed 2021)
2020	27%	~
2030	45%	63%
2040	67%	89%
2050	(At least) 80%	(At least) 100%

Source: Welsh Government

- 75. Emissions must continue to decline at the post-2016 rate if the current 2030 target is to be met. Achieving a 63% reduction relative to the baseline (down to 20.5 MtC02e) will require an annual decrease of around 1.9 MtCO2e. This differs from the 2.2 MtCO2e annual reduction set-out in the Climate Change Committee's (CCC) balanced pathway towards 2050 Net Zero (which sees emissions fall to 18.9 MtCO2e) equal to a 66% reduction so Wales remains on track to hit this final target. At the post-2016 annual reduction rate of 2.0 MtCO2e, Wales' emissions would reach 63.9% below baseline by 2030, exceeding the statutory target but falling short of the CCC's pathway.
- 76. The 38.4% reduction in emissions seen in 2023 since base year means Wales had achieved nearly 58% of the total reduction required over this period to meet the 2030 target. That does, however, still leave a significant amount of decarbonisation effort which needs to be delivered in order to meet the 2030 goal.

²⁸ Net emissions refer to total emissions net any emissions sequestered.

Figure 27: Greenhouse Gas Emissions in Wales, by sector

Note: Emissions data is not provided in NAEI dataset for years 1991-1994 and 1996-1997 Source: National Atmospheric Emissions Inventory

Sectors

77. In 2023, industry (40%) and transport (17%) were the two largest contributors to Welsh CO2 emissions on a by-sector basis. Although actual transport emissions have declined, they have come to represent a growing share of total Welsh emissions, primarily caused by a relatively faster decline in emissions seen within the power sector. Power (14%) remains a notable source of emissions ahead of buildings (11%) and waste (3%). The Land Use, Land-Use Change, and Forestry (LULUCF) sector acts as a carbon sink that captures net -0.8 MtCO2e (and has therefore been excluded when calculating sector shares).

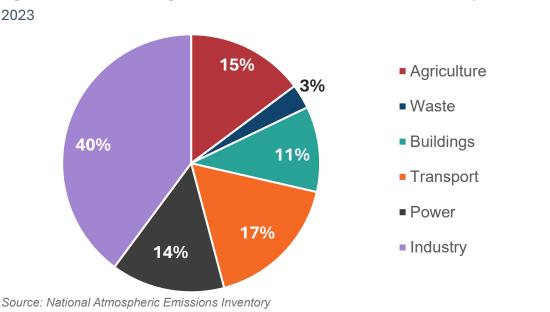


Figure 28: Share of total 'gross' Greenhouse Gas Emissions in Wales, by sector 2023

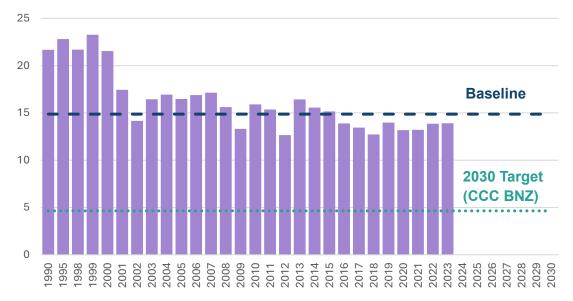
- 78. The sectoral targets referenced in the following sections are based on calculations from the CCC. Their 'balanced pathway analysis' lay out their view on the necessary emissions reduction contributions required by each sector to meet economy-wide emission targets. The balanced pathway accounts for sectoral differences in decarbonisation potential, given available technologies and economic feasibility, to ensure the reductions proposed are feasible and consider stakeholder impacts.
- 79. The CCC's balanced pathway differ to the Welsh Government's targets. The latter, set as statutory targets in 2021, are legally binding, whilst the CCC's figures are advisory (although the Welsh Government's targets are based on evidence, including work done by the CCC).

Industry

80. The industry sector²⁹ was the largest source of national emissions in Wales in 2023. The sector has recorded the greatest reductions since the baseline year both in absolute and relative terms. However, despite this progress, significant emissions reductions are needed to meet the sector's own 2030 target. Given its significant share in the balanced pathway, further reductions in industry are critical to meeting overall emissions goals.

²⁹ The industry sector, as described here, is defined as the TESS 'Industry' plus 'Fuel Supply' sectors respectively.

Figure 29: Emissions contribution of the industry sector in Wales GHG Emissions (MtCO2e), 1990 to 2023



Note: Emissions data is not provided in NAEI dataset for years 1991-1994 and 1996-1997 Source: National Atmospheric Emissions Inventory

- 81. In 2023, industry emissions totalled 13.9 MtC02e, accounting for 40% of Wales' total more than double that of any other sector. At this level, emissions were 35.3% below the baseline, in large part due to the reductions seen between 1999 and 2002. Since then, progress has slowed from available data, but emissions are expected to fall sharply when 2024 data is published, as the impact of both blast furnaces closing at Port Talbot to install an electric arc furnace at the site should be reflected in the figures. In 2023, Tata Steelworks in Port Talbot was the single biggest emitter in Wales within the UK's Emission Trading Scheme (UK ETS) with emissions totalling 5.7MtCO2e.³⁰
- 82. A relatively large fall in emissions will be required for the industry sector to hit its 2030 target. A reduction of 66.6% will see the sector meet its 4.6MtCO2e target a reduction only exceeded by the power and waste sectors (although, as industry's emission levels are higher, to what extent it is successful in meeting its contribution i.e. whether it achieves such a reduction, or not, and by how much will have a greater impact on the overall total).
- 83. The CCC anticipate the bulk of emissions reductions achieved by the sector into the early 2030s will need to be delivered by further adoption of electrification to replace existing industrial processes (including combustion used for heating). This would involve the proportion of industrial energy needs being met using electricity increasing from 13% in 2022 to 30% in 2033.³¹ As

³⁰ UK Government (2025). UK ETS Public Reports: Compliance Report – Emissions and Surrenders.

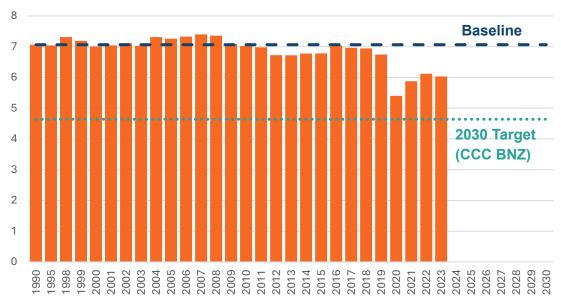
³¹ UK Climate Change Committee (2025). <u>Wales' Fourth Carbon Budget: Advice for Welsh Government</u>.

mentioned above, a large part of this increasing electricity demand will occur once the electric arc furnace at the Port Talbot steelworks becomes operational.

Transport

84. Transport³² is the second largest contributor to overall emissions, representing 17% of Wales' 2023 emissions. Emissions from the transport sector were estimated to be 6MtCO2e in 2023 – 14.6% below its baseline. While 2020 saw a reduction to 5.4MtCO₂e (10.4% below that year's target of 6.0MtCO2e), this probably was largely attributable to pandemic restrictions in place during this period with levels having since reverted somewhat. Nonetheless, emissions post-2020 have remained below the 1990-2019 7MtCO2e average. If the CCC's balanced pathway was followed, emission reductions by the transport sector would represent 7% of economy-wide abatement achieved between the base year and 2030.





Note: Emissions data is not provided in NAEI dataset for years 1991-1994 and 1996-1997 Source: National Atmospheric Emissions Inventory

85. To meet its 2030 CCC balanced pathway target, emissions will need to fall by 21.3% from their 2023 levels – a comparatively modest reduction relative to other similarly sized sectors. However, progress in this sector has historically been slower, with 57% of the required reduction from baseline still to be realised. To date, transport has contributed just 5% of total emissions reductions, below the 7% projected for 2030 in the CCC's balanced pathway.

³² The transport sector, as described here, is defined as the TESS 'Domestic Transport' plus 'International Aviation and Shipping' sectors respectively.

86. As with industry, the majority of the abatement needed in the transport sector for Wales to meet its climate targets will be increased electrification over time of Wales' surface transport stock. According to the CCC, the majority (89%) of new car sales in 2030 will need to be electric vehicles as opposed to the less than one in ten sales they represented in 2023. Enabling this transition will mean ensuring there is the necessary infrastructure and legislation in place to make electric vehicles both viable and attractive for consumers – for example, by continuing to roll out fast-chargers country-wide. 34

Buildings

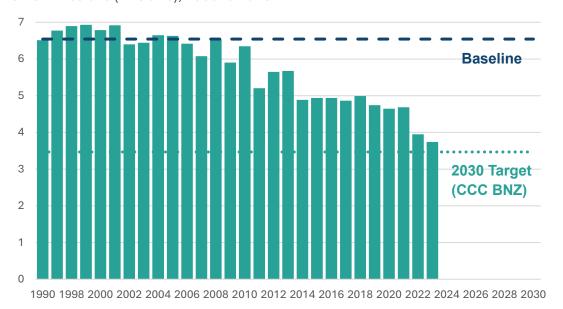
- 87. In 2023, buildings³⁵ emissions were 3.7MtCO2e, equal to 11% of total emissions. The sector has reduced emissions by 42.9% from the base year, with notable declines in 2011 and 2022, whilst changes in levels have otherwise been small. A downward trend has re-emerged since 2021.
- 88. While building emissions represented over 10% of overall emissions in 2023, the sector has come to represent a smaller proportion of total emissions over recent periods as emissions have declined at a faster rate than for the economy as a whole. Although the sector missed its 2020 target, it is relatively closer to meeting its 2030 target than most other sectors (see Figure 31: Emissions contribution of the building sector in Wales).

³³ UK Climate Change Committee (2025). <u>Wales' Fourth Carbon Budget: Advice for Welsh Government</u>.

³⁴ Welsh Government (2021). <u>Electric Vehicle Charging Strategy for Wales</u>.

³⁵ The Buildings sector, as described here, used the TESS 'Buildings and Product Uses' sector.

Figure 31: Emissions contribution of the building sector in Wales GHG Emissions (MtCO2e), 1990 to 2023



Note: Emissions data is not provided in NAEI dataset for years 1991-1994 and 1996-1997 Source: National Atmospheric Emissions Inventory

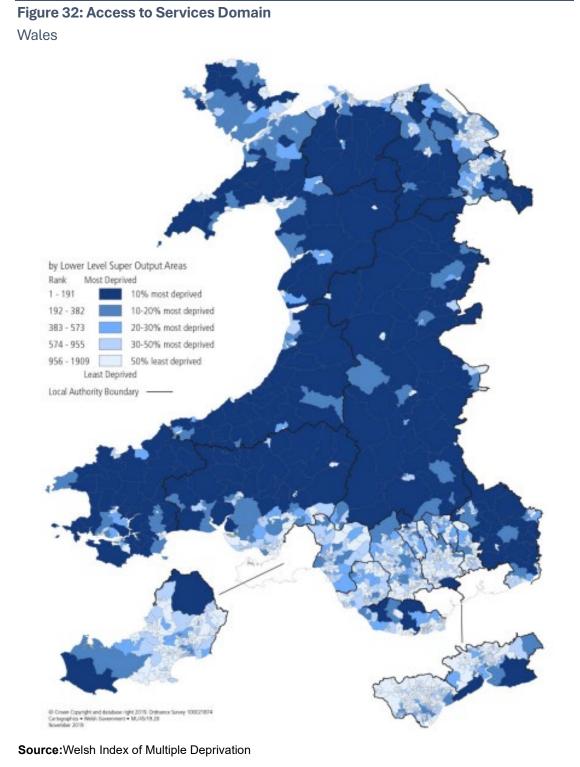
89. The bulk of emissions reductions by the building sector (residential and non-residential) should be delivered primarily by a combination of energy efficiency measures and the installation of low-carbon heating systems – namely heat pumps. 36 It will be important to ensure low-carbon heating systems are economically viable and accessible for households and firms alike, especially given high upfront capital costs associated with the technology (which can be a barrier to adoption).

³⁶ UK Climate Change Committee (2025). <u>Wales' Fourth Carbon Budget: Advice for Welsh Government</u>.

Local infrastructure driving regional economies

More connected communities

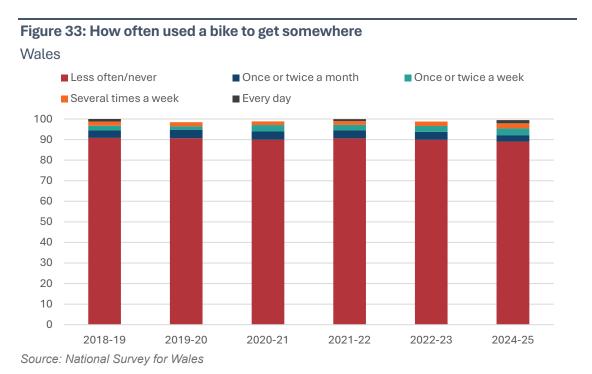
- 90. Ensuring rural communities have reliable access to essential local services such as healthcare, education, transport, and digital infrastructure is fundamental to health equity and social inclusion. Without such services, rural residents can face significant barriers to employment, lifelong learning, and timely medical support, impacting the physical, mental, and economic wellbeing of such communities.
- 91. The Access to Services Domain map of Wales from the Welsh Index of Multiple Deprivation below shows how much of the geographic area of Wales is covered by the 10% most deprived lower super-output areas (LSOAs) areas in dark blue. This shows how much of an issue access to services is for rural parts of Wales where the population density is lower and, therefore, the LSOAs cover larger areas.



Active travel

92. Active travel, such as walking and cycling, plays a crucial role in enhancing both physical and mental health. By incorporating movement into daily routines – whether commuting to work, travelling to school, or running errands – individuals increase their levels of physical activity, which reduces their risk of chronic diseases and supports cardiovascular health. Moreover, choosing

- active travel reduces emissions originating from the transport sector and contributes to cleaner air and aids environmental sustainability.
- 93. Data from the National Survey for Wales shows around 10% of the population use a bike for active travel purposes at least once or twice a month, which has remained fairly stable in recent years. However, while the proportion of respondents who report walking for active travel purposes is much higher, there appears to have been a drop off since the onset of the pandemic which hasn't fully recovered, with a smaller proportion of respondents reporting walking every day to get somewhere. There was an increase in the proportion who say they never do so, or less than once or twice a month in 2020-21. While the proportion reporting that has fallen each year since, it has yet to reach the level reported before the pandemic.



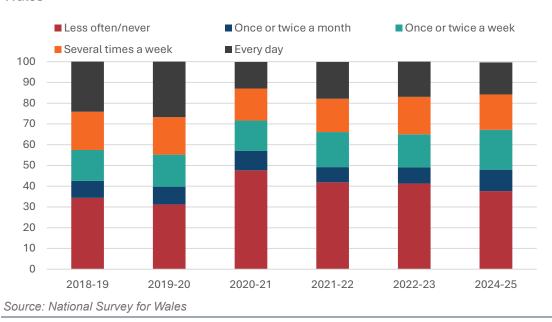
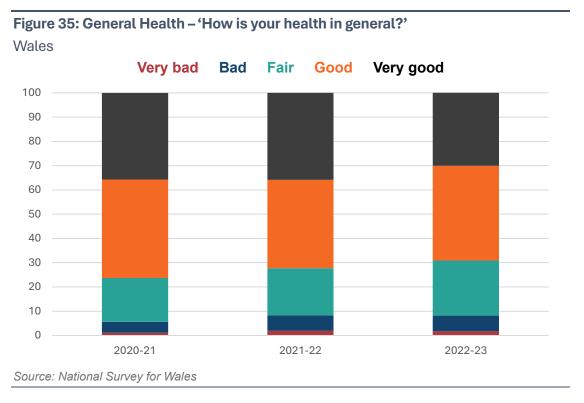


Figure 34: How often walked (10+ minutes) to get somewhere Wales

Health and Well-being

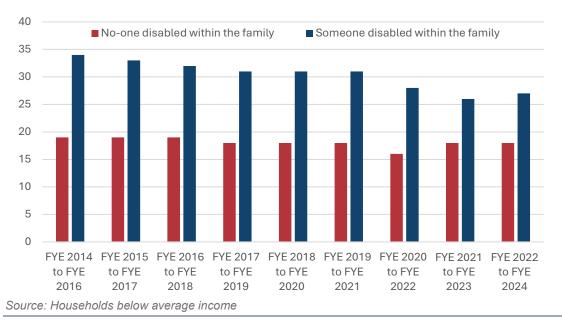
- 94. Improving the well-being of communities in Wales can have wide ranging impacts across a number of policy areas. It can enable individuals to live longer lives and a greater number of years in good health.
- 95. This can also provide numerous economic benefits. For example, improved levels of health across the population can enable a greater number of people to be able to work. With long-term disability or ill health being one of the most common primary reasons for economic inactivity, it follows that an improvement in the population's health could reduce its incidence. It may also enable those who are working, but suffering from ill health, to work more hours if desired. This would have a positive effect on Wales' total economic output and help reduce income inequalities.
- 96. It could also reduce the level of burden on public services such as the NHS. This will be particularly important as Wales' population ages. This could enable further investment in other areas of the economy.
- 97. Improving physical well-being across Wales is essential for reducing health inequalities and fostering a more active, resilient population. By promoting accessible healthcare, nutritious diets, and opportunities for physical activity, we lay the groundwork for healthier generations to come.
- 98. Data from the National Survey for Wales shows that in recent years, around three quarters of respondents have indicated their health is either 'good', or 'very good', with just under 10% saying it was 'bad' or 'very bad'.



99. Figures from the 'households below average income' release show that households with someone disabled within the family are much more likely to be in relative income poverty than those who don't. While there appears to have been a downward trend in recent years in the proportion of households with someone disabled within the family being in relative income poverty, there is still a clear distinction between them and households who don't. This gives an indication of the financial impact having a disability can have.

Figure 36: Working age adults in Wales in relative income poverty by whether there is disability within the family (Equality Act definition)

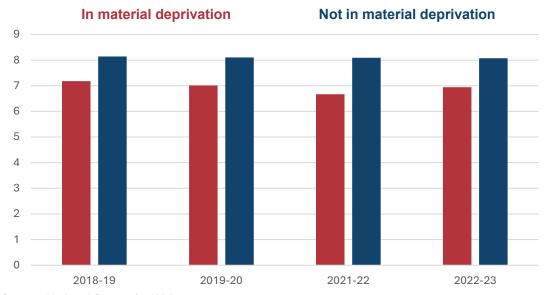




- 100. Recognising and addressing mental health needs across demographics is vital for building a society that is both productive and cohesive. Supporting the mental wellbeing of individuals can better enable them to reach their full potential and participate more fully in social and economic life.
- 101. Figures from the National Survey for Wales indicate that those who are in material deprivation report having a lower sense that the things they do in life are worthwhile than those who are not in material deprivation. This could indicate that being in material deprivation is associated with worse mental health.

Figure 37: Overall, to what extent do you feel that the things you do in life are worthwhile?

Wales



Source: National Survey for Wales