Llywodraeth Cymru
Welsh Government

Distributional analysis of devolved public spending in Wales

November 2026

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Distributional Analysis of Public Spending in Wales: November 2026 Draft Budget

Introduction

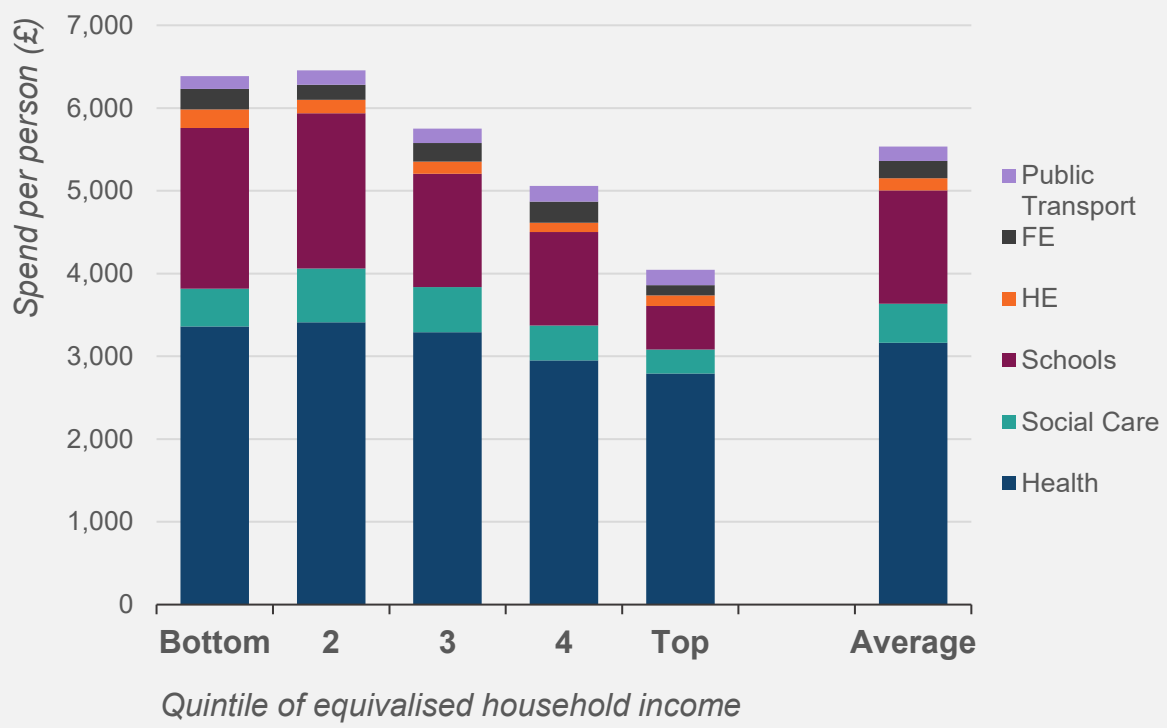
1. This report presents analysis of the distributional impact of devolved resource public spending in Wales for 2027-28. It shows how spending on public services impacts on different parts of the household income distribution.

2. The programmes covered by the analysis represent the majority of the overall budget. The analysis shows that devolved resource spending is generally progressive across the income distribution, but with some variation across the different areas of spending.

Findings

3. Figure 1 below presents the analysis in full. Spending is generally progressive with respect to income, but not uniformly so across the income distribution.

Figure 1: Devolved resource spending in Wales by main service area, 2027-28



Note: FE = Further education; HE = Higher education
Source: Welsh Government analysis using the Family Resources Survey (FRS - DWP), National Survey (NS), Patient Episode Database Wales (PEDW) and UKMOD

The results presented here are based on UKMOD version B2026.05. UKMOD is maintained, developed and managed by the Centre for Microsimulation and Policy Analysis at the Institute for Social and Economic Research (ISER), University of Essex. The results and their interpretation are the Welsh Government's sole responsibility.

4. The analysis covers health, education, transport, and the majority of adult social care spending. This accounts for around £20bn of devolved resource spending in Wales, representing over 70 per cent of the total. The numbers presented in

Figure 1 above relate to the latest spending plans for 2027-28, as shown in the Draft Budget, published 17 November 2026.

5. Separate analyses for the public service areas included in **Figure 1** above are available in the **Annex** to this report.

Methodology

6. The analysis makes use of UKMOD - a tax-benefit microsimulation model - which is used to estimate and project individuals' incomes after taxes and benefits to 2027-28[1]. UKMOD's input data are derived from the Department for Work and Pensions (DWP) Family Resources Survey (FRS)[2], which contains detailed information about individuals' incomes, as well as other characteristics. The FRS input datasets are pooled over three years to help improve the robustness of the analysis[3].

7. Once individuals' incomes after taxes and benefits (but before housing costs) have been estimated using UKMOD, they are then equivalised[4]. The analysis combines data on individuals' equivalised household incomes with information on their use of public services, which allows devolved resource spending to be assigned to individuals across the income distribution.

8. The focus of the analysis is on resource spending, i.e. day-to-day expenditure on public service provision, as there is often a reasonably direct link between this type of expenditure and the benefit to the individual receiving the service. Capital expenditure, e.g. on buildings or machinery, has been excluded from the analysis, as the link between that type of expenditure and benefit to a specific individual is generally less clear.

9. The analysis adopts one of three methods to help identify an individual's use of public services. In some cases, service use can be observed directly via data gathered as part of the FRS survey, such as education for school age children, for example. In other cases, where public service use cannot be observed directly, it is estimated using an out-of-sample prediction method. This method uses other data sources (predominantly the National Survey for Wales) to help examine the characteristics of those individuals who use the service of interest. A statistical model is then used to link that information back to those persons or households which have the same characteristics in the FRS data, which also contains data on their income. This statistical model is then used to estimate individuals' use of a public service, and public spending on those services is allocated accordingly. Finally, for some areas of health, administrative data are used to attribute use according to age and gender.

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[1] UKMOD - Centre for Microsimulation and Policy Analysis.
[2] For more details see https://www.gov.uk/government/collections/family-resources-survey--2
[3] The pooled years include 2022-23, 2023-24 and 2024-25.
[4] Equivalisation is a process whereby household incomes are adjusted based on household size and composition, which helps to allow living standards to be compared across different types of households in Wales.

10. The distributional analysis implicitly assumes that the benefit to the individual recipient of a public service is equal to the average cost of providing it. This may not be equal to the true value to the recipient, nor to society more generally. However, it may represent a value close to what recipients of the service would otherwise have to pay. On that basis, it shows how public spending affects households across the income distribution in Wales.

11. An earlier Distributional Analysis of Devolved Public Spending in Wales publication explored these methodological and conceptual issues in more detail.

Uses

12. The main use of this form of distributional analysis is to show broad patterns, rather than precise estimates of financial impacts of public spending across the income distribution. It can help to provide a backdrop to strategic thinking about broader spending priorities.

13. As the analysis employs a 'top-down' approach regarding the measurement of both public spending and service use by individuals (focusing primarily on the 'average' service user), it is less well suited to examining the impacts of individual policies or looking at specific changes between budgets. This is because the 'average' service user assumed in the analysis might well differ under a new policy or programme.

14. The analysis is also not well suited to certain types of spending policy or programme, for example those that focus on preventative spending or target certain groups or geographic areas. For the first of these, the goal might be to reduce spending in the future, making it less clear who the beneficiaries are. For the second, targeting certain populations or geographic areas might make it difficult to reliably estimate service use due to the data limitations involved. This is demonstrated in the example given in paragraph 16.

Updates

15. This year's analysis uses an updated three-year pooled dataset from the FRS, which now covers 2022-23, 2023-24 and 2024-25. When public service use is estimated rather than observed in the analysis, the National Survey for Wales (NS) for 2022-23 is used (as this includes the latest relevant data). Data from the Patient Episode Database Wales (PEDW) is for 2025-26.

16. Additional policies were considered in the production of this iteration of the analysis, but due to data or methodological limitations none have been explicitly included. As an example, the impact of the childcare offer has been explored[5]. However, in the three year pooled dataset only 50 households reported receiving

[5] Childcare Offer for Wales | Help With Childcare Costs Wales | GOV.WALES

government funded childcare. This is too few households to enable robust analysis.

Future plans

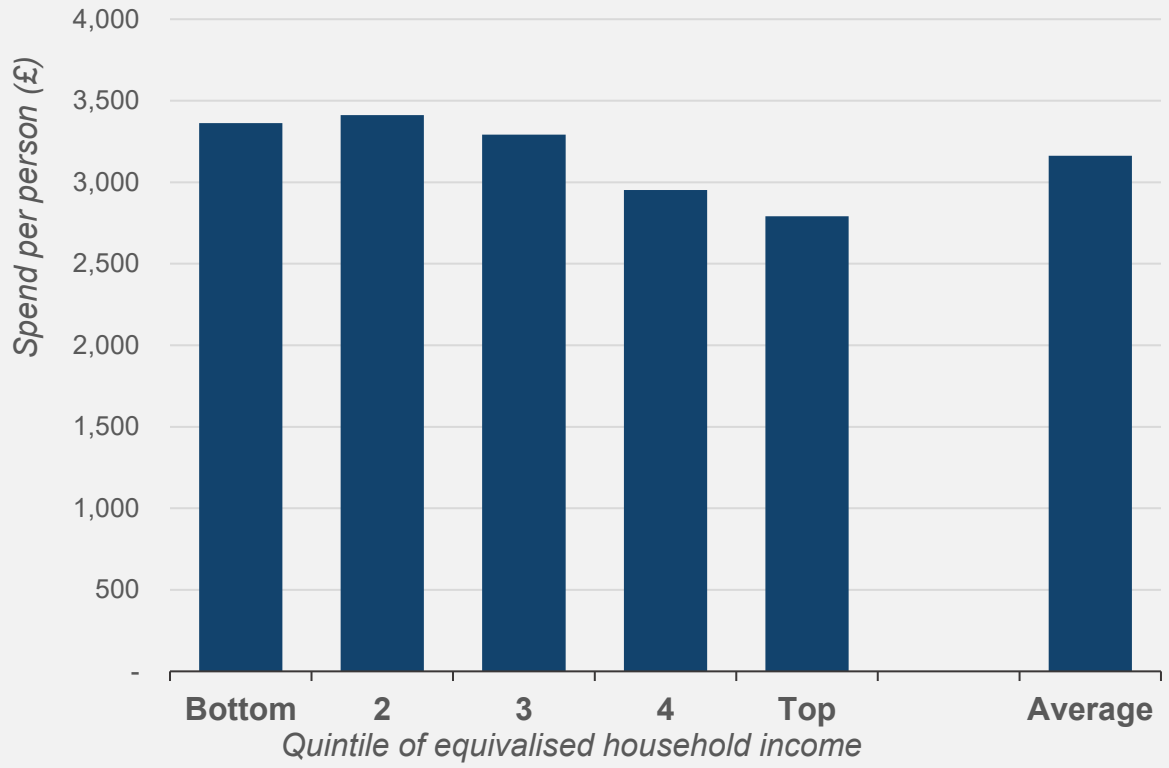
17. This publication will be updated alongside the Draft Budget on an annual basis using the latest budget figures. The methodology will be kept under review and alternative data sources will be considered. For example, the new Wales National Travel Survey may provide data on bus and train use in the future.

18. Opportunities surrounding the analysis more generally will continue to be explored, as there may be occasions to explore new data linking methods. Developments in equivalent distributional analyses published by the UK Government and other Devolved Governments will also be monitored, with a view to incorporating any future improvements where feasible.

Annex

1. Resource spending on health is estimated to be broadly progressive with respect to income (see Figure A1 below). More resource spending on health is attributed to people in the lowest income quintiles than average and higher income quintiles. Spending in the lowest income quintile is around six per cent higher than average and spending in the highest quintile is around 12 per cent lower than average.

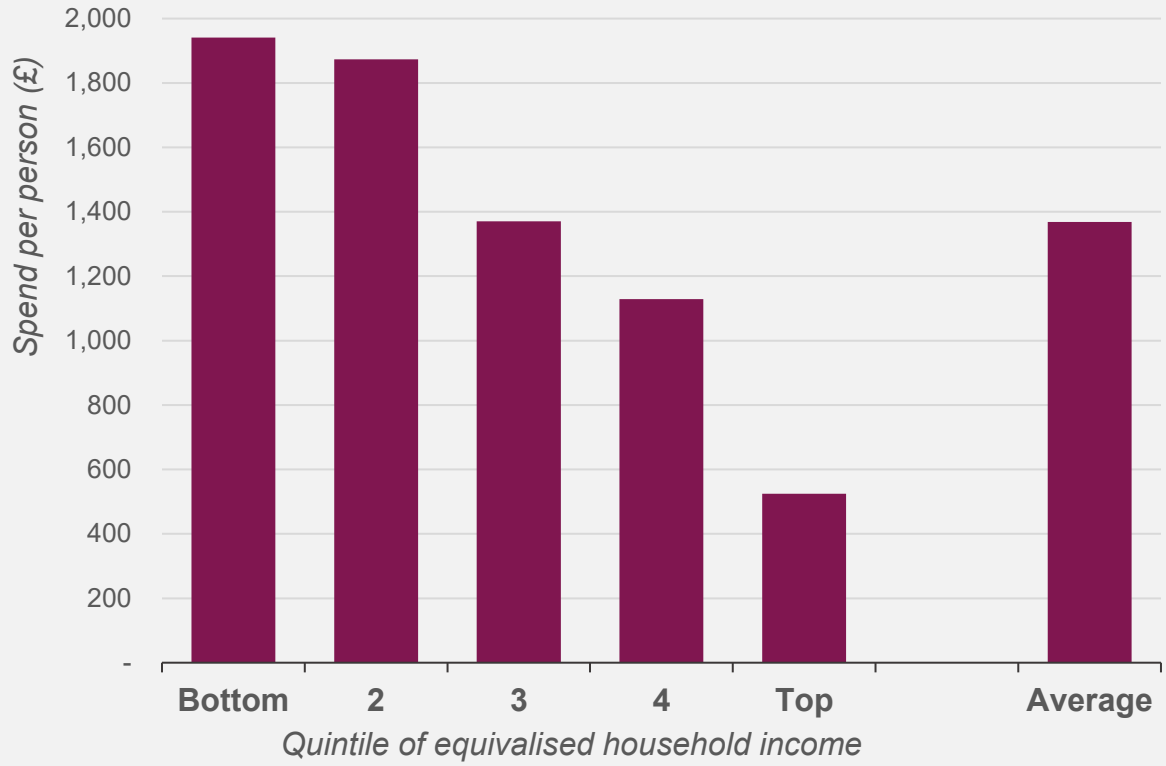
Figure A1: Health resource spending in Wales by household income, 2027-28



Source: Welsh Government analysis using the FRS (DWP), NS, PEDW and UKMOD

2. School resource spending is also found to be progressive with respect to income (Figure A2)[6]. Spending per person is 42 per cent higher than average in the lowest income quintile. This is because, on average, more children of school age are in the first and second quintiles. Spending per person in the top quintile is only 38 per cent of the average. This is because relatively few school age children are observed in high income households.

Figure A2: Schools resource spending in Wales by household income, 2027-28



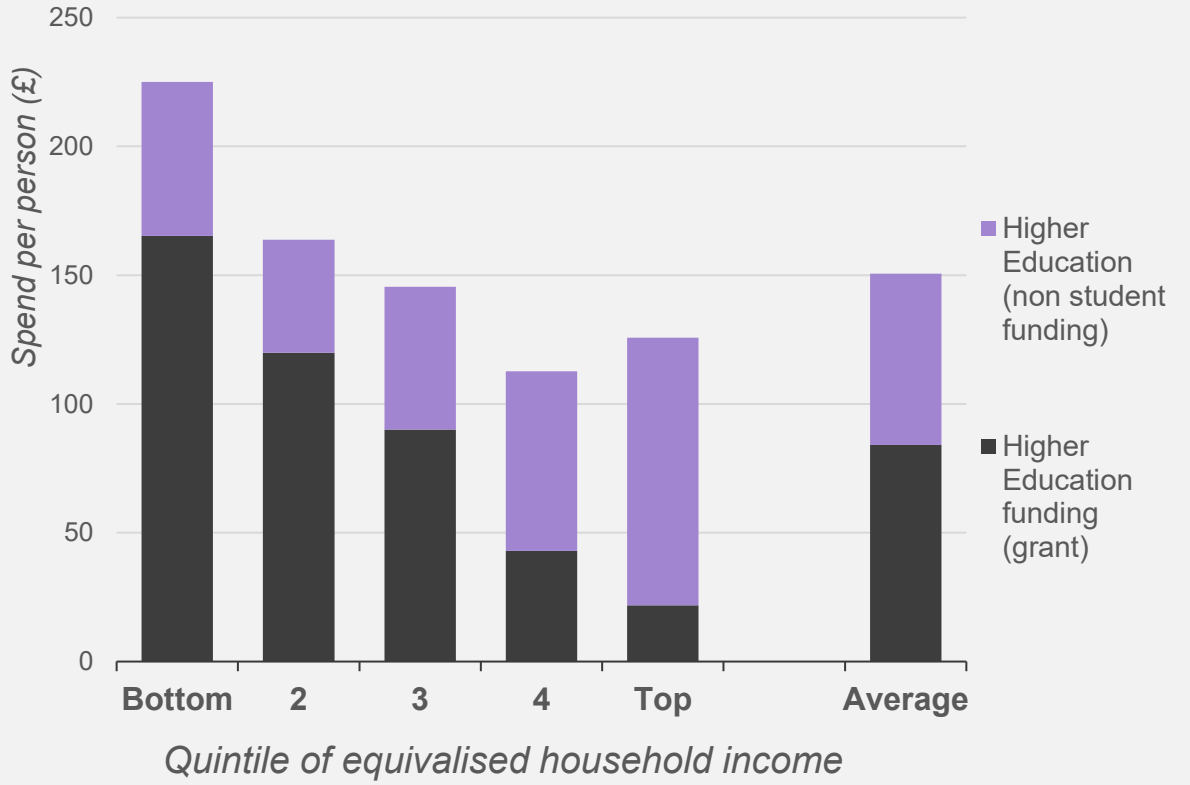
Source: Welsh Government analysis using the FRS (DWP), NS and UKMOD

[6] School spending includes expenditure on primary schools, secondary schools, free school meals and the pupil deprivation grant.

3. Spending on higher education is estimated to be mainly progressive with respect to income. However, the top quintile receives more funding than average. The analysis includes funding for higher education institutions and student grant funding. This result reflects two factors: people who attend higher education tend to be from higher income households, but this effect is largely offset by the means-tested grant funding, which provides more to those who come from lower income households.

4. These findings exclude all forms of student loans, part of which are classified as public expenditure. It is deemed unlikely that all student loans will be repaid in full, as the terms for repayment are income contingent and time-limited. The element that is not repaid is counted as public expenditure and estimated at the time the loans are made. The distributional impact of that public expenditure element is difficult to estimate and, for individual loans, will depend on the future incomes of today's students rather than the incomes of their current domicile.

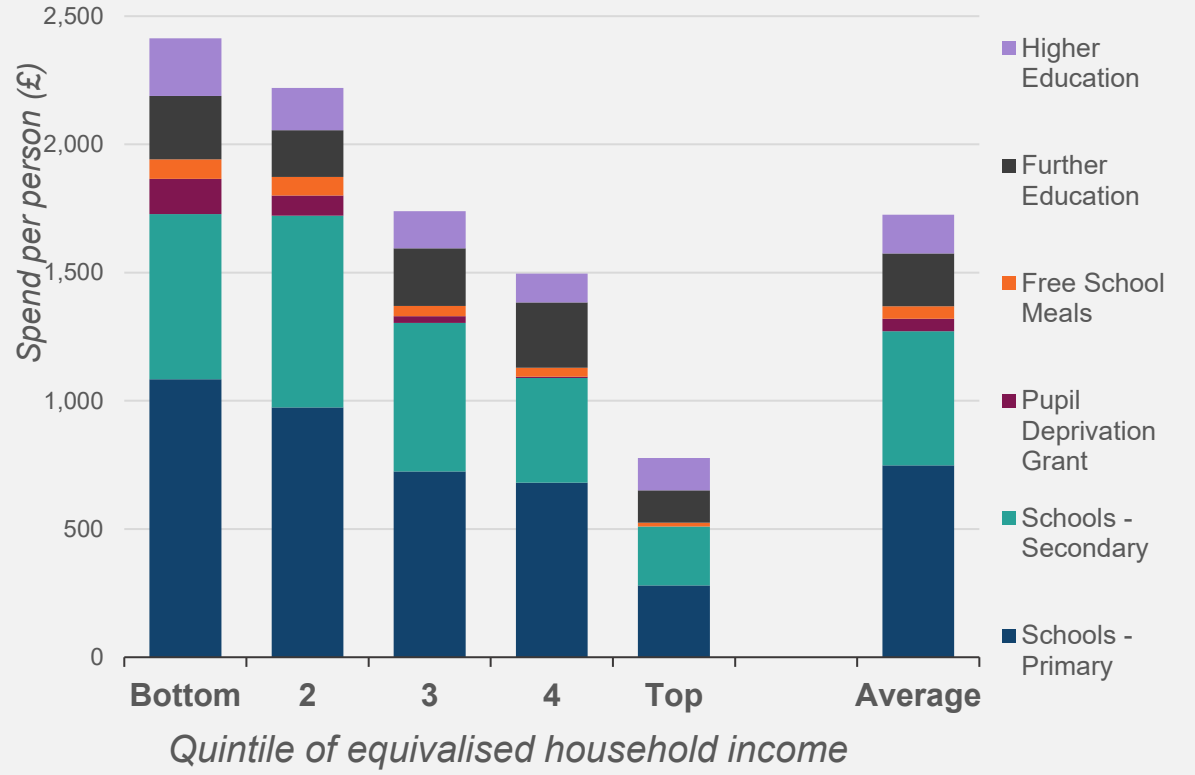
Figure A3: Higher education resource spending in Wales by household income, 2027-28



Source: Welsh Government analysis using the FRS (DWP), NS and UKMOD

5. Figure A4 below shows devolved resource spending in Wales on education combined. Given the distribution of all the elements shown above, in particular for schools, which constitutes over two-thirds of education spending, overall education spending is found to be highly progressive.

Figure A4: Devolved education resource spending in Wales by household income, 2027-28



Source: Welsh Government analysis using the FRS (DWP), NS and UKMOD

6. The results for public transport spending (Figure A5 below) suggest that resource spending overall is slightly regressive with respect to household income. Spending on bus services is somewhat progressive, but rail subsidies are not. This is broadly consistent with the findings by the ONS for UK public spending on bus and train fare subsidies[7].

7. This analysis only captures spending on those predicted to use the service, consistent with the other service areas. It does not capture any of the potential wider societal benefits that might be associated with any form of public spending. These elements are much harder to capture in this form of analysis and are not included here, consistent with all other versions of distributional analyses in the UK to date. It is also worth noting that the rail usage information employed in this analysis is not limited to those services which are devolved in Wales. It may be that the income profile of those using devolved services is different from those using non-devolved services.

[7] Available from: Effects of taxes and benefits on UK household income - Office for National Statistics

Figure A5: Devolved transport resource spending in Wales by household income, 2027-28



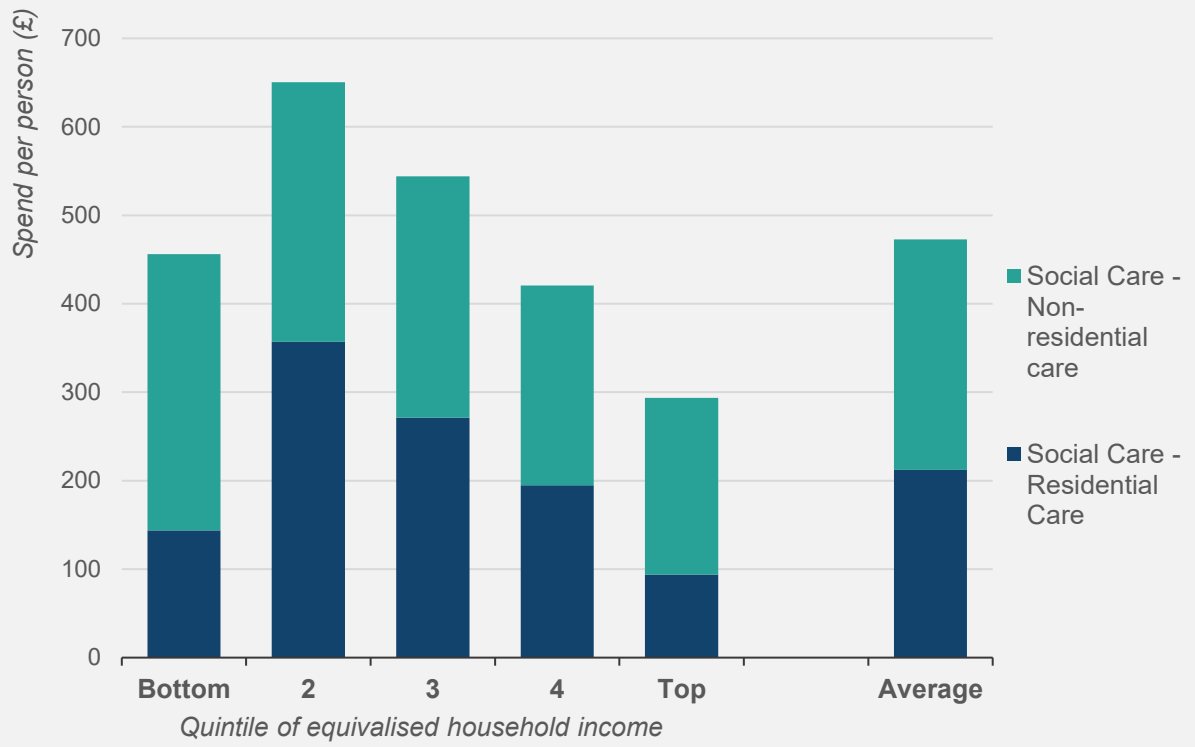
Source: Welsh Government analysis using the FRS (DWP), NS and UKMOD

8. Resource spending on social care for adults is found to be broadly progressive with respect to income (see Figure A6 below). Spending per head in the lowest income quintile is slightly below the average, and spending in the second income quintile is 38 per cent above the average. Spending per head in the highest income quintile is only 62 per cent of the average.

9. The relationship with income is not uniform for residential social care for older adults, with spending per head highest in the second income quintile. The predicted use of older adult residential care is highest in the second and third income quintiles, but public spending is focused lower down the income distribution via the application of the capital and income means tests for residential care in Wales[8].

[8] Charging for social care | GOV.WALES

Figure A6: Social care for adults resource spending in Wales by household income, 2026-28*



*Note: Residential care only modelled for older adults due to data limitations.
Source: Welsh Government analysis using the FRS (DWP), NS and UKMOD