



HM Treasury

Impact on households:
**distributional analysis to
accompany Spring Budget
2024**

March 2024

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Chapter 1

Distributional analysis of tax, welfare and public service spending decisions

1.1 This document sets out estimates of the impact of tax, welfare and public service spending decisions on household incomes, across the household income distribution. It contains the following charts:

- Figure 1.A illustrates the cumulative impact of decisions announced from Autumn Statement 2022 onwards, in 2024-25
- Figure 1.B illustrates the cumulative impact of decisions (including departmental spending settlements) announced from Spending Round 2019 onwards, in 2024-25
- to provide context beyond the impact of recent government policy decisions, Figure 1.C shows how the overall level of welfare and public service spending received, and tax paid, is distributed across households

1.2 The analysis contained in this document generally only considers measures with a direct impact on benefit income, tax paid or the benefits-in-kind received through public services by UK residents. The analysis excludes the impact of business taxes, changes to regulation (including the National Living Wage), the impact of government borrowing, and the impact of measures on non-UK residents (a range of other exclusions are set out in more detail in Chapter 2). The analysis also does not capture the impact of supply-side growth policies that may indirectly impact households, for example through increases in employment or higher wages.

1.3 Figures 1.A to 1.C in this document include the impact of the following Spring Budget 2024 announcements:¹

- National Insurance contributions (NICs): 2 percentage point cut to the main rate of Class 1 employee NICs from 6 April 2024

¹ A list of the modelled measures from previous fiscal events can be found in the corresponding “Impact on Households” document for each event

- National Insurance contributions (NICs): 2 percentage point cut to the main rate of Class 4 self-employed NICs from 6 April 2024
- High Income Child Benefit Charge: increase income threshold to £60,000 and taper range to £60,000 to £80,000 from 6 April 2024
- Fuel Duty: 12 month extension to the 5p cut in rates and no RPI increase in 2024-25
- Alcohol duty: freeze rates until 1 February 2025
- Capital Gains Tax: cut higher rate for property from 28% to 24% from 6 April 2024
- Multiple Dwellings Relief: abolish from 1 June 2024
- Starting Rate for Savings: maintain at £5,000 for 2024-25
- National Insurance contributions (NICs): freeze Class 2 and 3 rates for 2024-25
- Council tax: implications of referendum principles for specific authorities
- Additional NHS funding for 2024-25

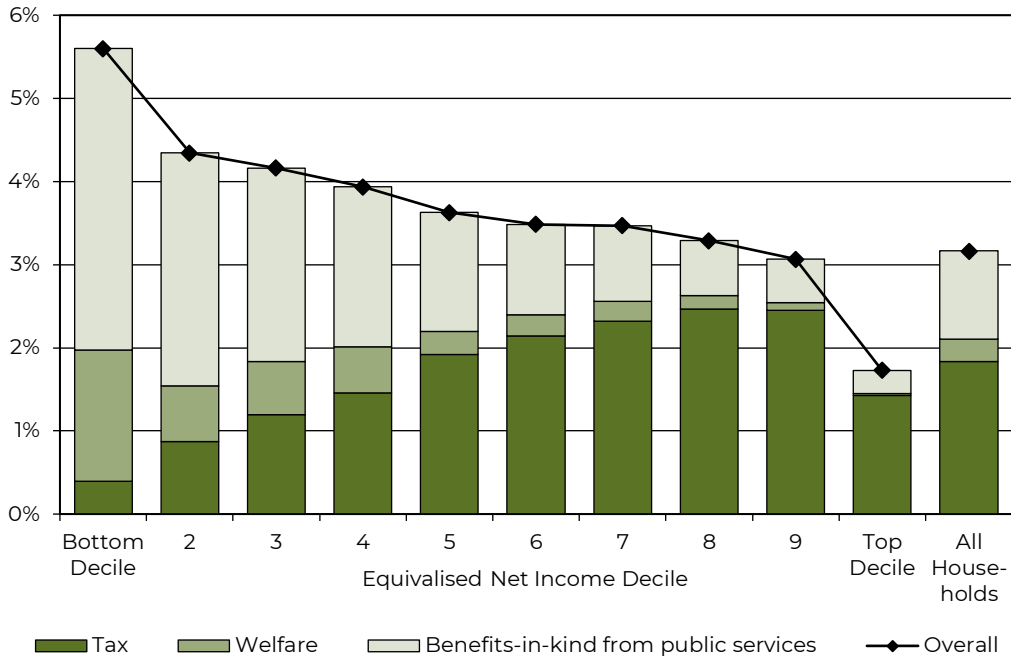
1.4 All charts show the impact of government decisions in 2024-25 only and therefore do not reflect decisions that might only have an impact in later years. For example, from 2025-26 we expect changes to the current tax system for non-UK domiciled individuals will impact some households at the top end of the distribution. Of the decisions which are included here, many will also have ongoing impacts in later years, such as cuts to employee and self-employed National Insurance contributions.

Analysis of decisions on household incomes in 2024-25

1.5 Figure 1.A sets out the cumulative impact of decisions announced from Autumn Statement 2022 onwards on household incomes in 2024-25, while Figure 1.B sets out the cumulative impacts of decisions announced from Spending Round 2019 onwards (also in 2024-25). The impact of Spring Budget 2024 measures set out in paragraph 1.3 are included in these charts, alongside measures from previous relevant fiscal events. Both charts show the average impact on households, as a percentage of net household income, compared to a hypothetical world in which the modelled policies were not introduced.

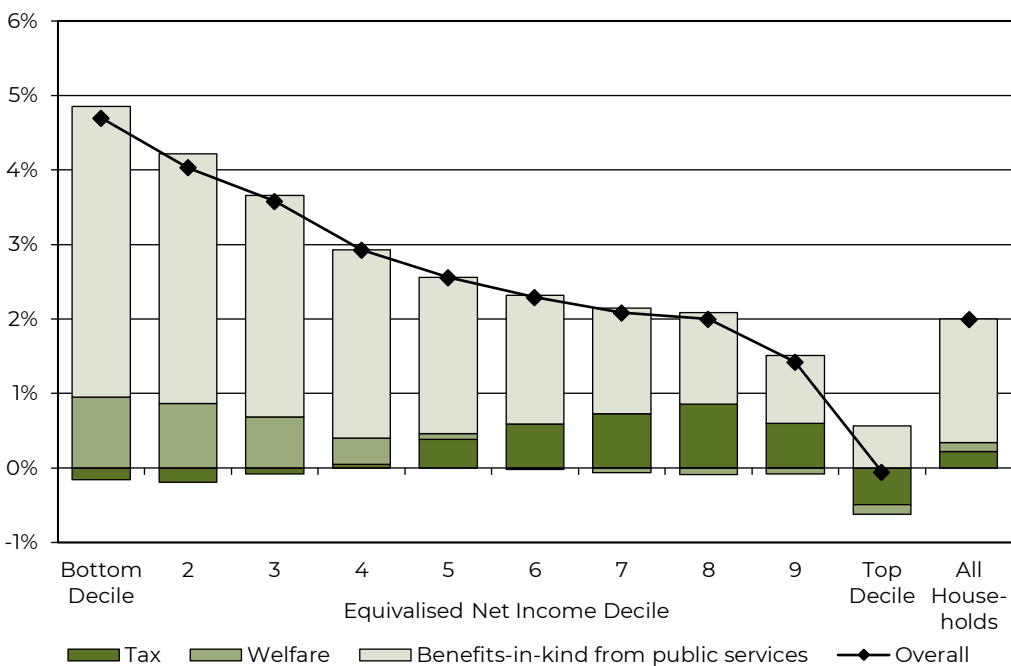
1.6 The charts show that policy decisions announced from Autumn Statement 2022 and Spending Round 2019 onwards have had a progressive impact across the income distribution and, on average, households in the lowest income deciles will benefit the most in 2024-25 as a percentage of net income.

Figure 1.A Impact of decisions announced from Autumn Statement 2022 onwards on households in 2024-25, as a percentage of net income, by income decile



Source: HM Treasury distributional analysis model

Figure 1.B Impact of decisions announced from Spending Round 2019 onwards on households in 2024-25, as a percentage of net income, by income decile



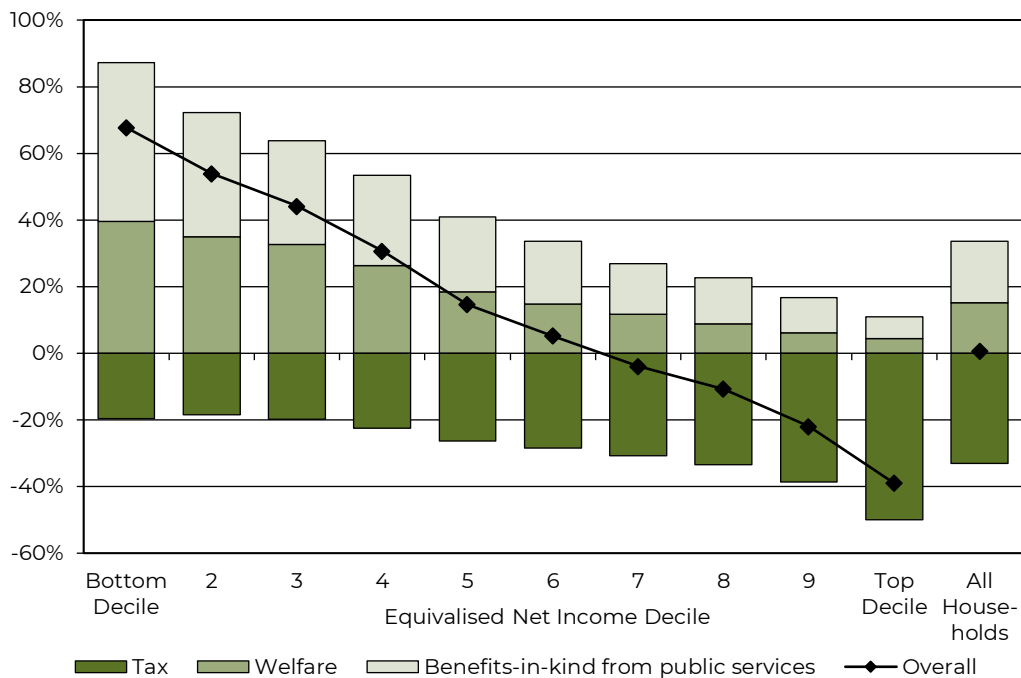
Source: HM Treasury distributional analysis model

Overall level of tax, welfare and public service spending

1.7 To provide context beyond the impact of recent government policy decisions set out in Figures 1.A and 1.B, Figure 1.C shows the estimated overall level of welfare and public service spending received, and tax paid, by households across the income distribution. The chart shows that government policy continues to be highly redistributive, and that in 2024-25 we estimate that:

- on average, the bottom and middle of the income distribution – 60% of all households – will receive more in public spending than they contribute in tax²
- on average, households in the lowest income decile will receive over four times as much in public spending than they pay in tax

Figure 1.C Overall level of public spending received, and tax paid, as a percentage of net income (including households' benefits-in-kind from public services), by income decile, in 2024-25



Source: HM Treasury distributional analysis model

² Households will usually move between income deciles over time, and may therefore make net contributions in some years while being net beneficiaries in other years.

Chapter 2

Data sources and methodology

Table 2.A Data sources for charts

Figure	Source
1.A to 1.C	Internal HM Treasury modelling. See 2.1 to 2.28

Table 2.B Data sources for statistics

Paragraph	Statistic	Source
2.5	Income movements	DWP, Income Dynamics: Movements between quintiles: 2010 to 2021, March 2023
2.6	Expenditure distribution	Internal HM Treasury modelling

Constructing Figures 1.A to 1.C

Policies in scope

2.1 Figure 1.A illustrates the cumulative impact of tax, welfare and public service spending decisions announced from Autumn Statement 2022 onwards (up to and including Spring Budget 2024), while Figure 1.B includes the cumulative impact of tax, welfare and public service spending decisions announced from Spending Round 2019 onwards. All charts show impacts in 2024-25 and are relative to a counterfactual of no policy changes over the relevant period.

2.2 Figure 1.C shows estimates of the overall level of welfare and public service spending received, and tax paid, by households in 2024-25 across the household income distribution. The chart accounts for those modelled measures announced at Spring Budget 2024.

2.3 Throughout, measures are only included if they have a clear first-order impact on the benefit income, tax paid, or the benefits-in-kind received through public services by UK residents. The following policy impacts are therefore outside the scope of this analysis:

- the impact of changes to regulation, for example the National Living Wage, which are not direct changes to the distribution of tax or public spending
- the behavioural impacts of measures

- impacts resulting from reduced fraud, error or debt in the welfare system, as full compliance with the rules of the welfare system is assumed throughout the modelling
- impacts resulting from reduced tax evasion, as full compliance with the rules of the tax system is assumed throughout the modelling. Anti-avoidance measures are captured where they result in a change in tax liabilities in the year being analysed
- impacts of decisions made by devolved administrations
- impacts of taxes where the incidence of the tax does not fall directly on households, for example employer National Insurance contributions. We exclude such taxes from this analysis as we are unable to determine the distributional consequences of how they are passed through to households
- the impact of measures without a direct impact in 2024-25
- the impact of supply-side growth policies that may indirectly impact households, for example through increases in employment or higher wages

2.4 Additionally, smaller measures are routinely excluded from this analysis where there is insufficient data to robustly model the distributional impacts.

Defining household living standards

2.5 The analysis in this document uses household income as the measure of household living standards. While this is considered a standard approach, income may not always best represent some households' general standard of living, as some households may finance their expenditure using wealth rather than income, or experience periods of low income temporarily (for example households containing students, the temporarily unemployed, or the self-employed). The most recent analysis by the Department for Work and Pensions (DWP) has shown that, of those surveyed in 2020-21, 54% of those in the bottom quintile in 2015-16 were in a higher income quintile in 2020-21.

2.6 An alternative approach to approximating household living standards is to use household expenditure. While there is a strong correlation between income and expenditure, there are many households with both low income and high expenditure (and vice versa) – approximately 20% of households in the bottom income decile are in the top half of the expenditure distribution, for example. Due to a lack of data on expenditure in some of the datasets used in this analysis, an expenditure-based approach is not used here. However, the impact of government decisions on low-income households should be considered in the context of these methodological choices.

Defining income and ranking households

2.7 This distributional analysis uses equivalised net household income, before housing costs, as the main indicator by which to rank households from lowest income to highest income. This indicator is comprised of several components:

- 'Equivalised': equivalisation is a process that adjusts a household's net income to take into account the fact that larger households will require a higher net income to achieve the same standard of living as a household with fewer members. The equivalisation factors used in the analysis are the modified OECD factors (as also used in DWP's Households Below Average Income publication)
- 'Net': household incomes are ranked after deductions from direct taxes, and after additions from welfare benefits. Deductions from indirect taxes, or additions through benefits-in-kind from public services, are not used to rank households
- 'Household': incomes are assessed in aggregate at the household, not individual level. Comparing household, rather than individual, incomes reduces the subjectivity of this analysis, ensuring that no assumptions are made about how incomes or expenditure are shared between separate individuals within the household
- 'Before housing costs': housing costs such as rent or the cost of servicing a mortgage are not deducted from household incomes

2.8 The household income distribution is created by ranking households from the lowest equivalised net income to the highest equivalised net income, and then dividing this ranking into ten equally sized groups called deciles, across which the analysis is produced.

2.9 To provide an approximation of where different households might be found in the income distribution, Table 2.C below shows estimated median *gross* incomes (pre-tax private income including earnings, private pensions, savings and investments, plus benefit income) within each decile. This is a less precise estimate of a household's position in the income distribution than *net* income, but is easier to understand because many people think about their incomes or salaries in gross rather than net terms.

2.10 For example, if a household consisting of two adults has a gross income of £29,800 per year between them, there is a high likelihood that this household will be found in the third income decile. However, this is not guaranteed, as different gross household incomes can result in different net household incomes, depending on how many earners there are in the household, the size of the household, and for which benefits the household qualifies.

Table 2.C Median gross income for each decile (£ per year, 2024-25) for different household compositions³

Median gross income of households in decile	1 adult	1 adult and 1 child	2 adults	2 adults and 1 child	2 adults and 2 children
Top decile	87,400	-	123,700	168,100	216,600
Ninth decile	56,400	-	82,400	109,500	135,800
Eighth decile	44,800	-	66,200	87,300	108,400
Seventh decile	37,500	51,800	55,600	71,800	88,900
Sixth decile	32,600	45,600	47,600	63,000	75,700
Fifth decile	27,700	37,000	40,900	54,000	64,700
Fourth decile	23,300	30,400	35,100	45,100	54,900
Third decile	19,700	25,900	29,800	38,600	46,700
Second decile	16,300	21,600	25,100	32,100	37,400
Bottom decile	11,700	15,400	17,900	22,000	26,000

Source: HM Treasury distributional analysis model

Tax, welfare and public service spending methodology

Tax and welfare

2.11 Where possible, tax and welfare policy changes are analysed using HM Treasury's Intra-Governmental Tax and Benefit Microsimulation model (IGOTM), which is underpinned by data from the ONS's Living Costs and Food (LCF) survey. The sample size of the LCF means that in order to produce robust analysis three years of data have been pooled together, specifically 2017-18 to 2019-20. This data is then projected forward to reflect the financial year being modelled, using historical Annual Survey of Hours and Earnings data on earnings growth at different points across the income distribution as well as the latest Office for Budget Responsibility average earnings and inflation forecasts. The model makes no changes to the underlying demographics, employment levels or expenditure patterns in the base data.

2.12 Not all measures can be reliably modelled using IGOTM due to data and/or modelling constraints. Tax and welfare changes that cannot be modelled using microsimulation modelling are, where possible, apportioned to household equivalised net income deciles. This

³ Categories with insufficient underlying sample sizes have been left blank.

is done according to the Exchequer costs or savings from the measures, applied to analysis on where the impacts are likely to fall.

2.13 Within the tax system, the main taxes microsimulated in this analysis generally include: Income Tax, employee and self-employed National Insurance contributions, Council Tax, VAT, Insurance Premium Tax, Fuel Duty, Alcohol Duty, Tobacco Duty, Stamp Duty Land Tax, and Air Passenger Duty.

2.14 Within the welfare system, the most significant welfare benefits microsimulated in this analysis generally include: the State Pension, Pension Credit, Winter Fuel Payments, Attendance Allowance, Jobseeker's Allowance, Employment and Support Allowance, Housing Benefit, Universal Credit, Child Benefit, Disability Living Allowance, Personal Independence Payment and Tax-Free Childcare.

2.15 Not all households take up all the benefits to which they are entitled. HM Treasury's microsimulation modelling takes this into account when calculating the effects of policy changes by using information on the take-up of benefits in the underlying survey data. This methodology provides a more accurate estimate of the impact of welfare changes on households.

2.16 Modelling of tax and welfare measures in IGOTM takes into account the devolution of decisions in some areas from the UK government to devolved administrations. UK government decisions are modelled as applying only to households directly affected by the measure, while decisions taken by the devolved administrations are not included as policy impacts.

2.17 All charts in Chapter 1 assume for simplicity that Universal Credit has been fully rolled out and claimants are no longer claiming benefits under the older legacy system.

Public service spending

2.18 The analysis of public service spending is aimed at quantifying the benefit that frontline public services provide to households. This covers services provided by the Department of Health and Social Care, the Department for Education, the Department for Work and Pensions, the Department for Transport, the Ministry of Justice, the Department for Culture, Media and Sport, and some services delivered by local government in England.

2.19 The analysis excludes:

- administrative spending
- capital spending and the depreciation of capital assets
- spending policies where funding has not yet been allocated
- spending on public goods where it is not possible to identify the direct benefits from these areas of spending for specific households

2.20 To align with the definition of income used in DWP's Households Below Average Income publication, the analysis of spending on public services also includes financial transactions through student loans. To account for this source of income, estimates of student loan outlay in a given financial year are counted as household income from public spending. Likewise, estimates of student loan repayments in that same financial year are reflected as a loss to households, again through the public spending bars.

2.21 For Figure 1.B, the analysis of public service spending compares forecast spending in 2024-25 to a counterfactual of actual spending in 2019-20, projected to 2024-25 in line with both the GDP deflator and population growth (to account for both price and population pressures on real per capita spend received). Therefore, the impacts presented in Figure 1.B reflect the impact on households of all in-scope public service spending measures from Spending Round 2019 onwards.

2.22 For Figure 1.A, the analysis of public service spending compares a policy scenario including announced measures with a counterfactual where those policy announcements are not implemented. Because both the counterfactual and policy scenario are in the same fiscal year, it is not necessary to account for price or population pressures on spending in this analysis.

2.23 Charts are presented on a UK basis, though any public service spending that is the responsibility of the devolved administrations is not reflected in this analysis. This has two effects. First, any changes to devolved spending – whether positive or negative – have no impact on this analysis. Second, where change is expressed as a proportion of household income, the income denominators which underpin this calculation do not include any income from devolved spending.

2.24 The analysis of the benefits-in-kind provided by public service spending is, like with tax and welfare measures, derived from HM Treasury's IGOTM model. However the modelling approach taken for public services is slightly different.

2.25 Where the use of a public service is reported in the LCF, no additional data is required and the approach is similar to that used for most tax and welfare modelling. The spending on a particular public service is allocated between all those households who are expected to use this public service, in proportion to each household's expected use of the service.

2.26 Where information about the use of a service is not available in the LCF, additional data sources are required. This additional data is used to identify characteristics associated with the use of the service and then used to derive probabilities of service use conditional on these characteristics. The cash value spent on public services is converted into an identical cash gain to households and distributed to households based on the probability that any given household uses the service.

Continuous improvements to modelling and analysis

2.27 The modelling underpinning our analysis of tax, welfare and public service spending is under continuous improvement, to enable us to provide the best estimate (subject to time, resource, and data constraints) of how households are impacted by the cumulative tax, welfare and public service spending decisions made by the government. We also aim to capture the most comprehensive and up-to-date record of where government spending is directed to inform this analysis, noting this will continue to evolve as departments decide on final budget allocations. As such, the charts in Chapter 1 represent our best estimates of impacts at the time of publishing. However, whilst we expect these updates to refine our estimates slightly, we do not expect the distributional narrative to be substantively different.

2.28 Finally, the analysis shown in our charts is based on the latest available Office for Budget Responsibility forecast which is updated at every fiscal event. For these reasons, as well as those set out above, charts published at consecutive fiscal events are not directly comparable.

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This document can be downloaded from www.gov.uk

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