

# Resolution Foundation

## Briefing Note: *Locating the middle*

Intuitively, producing a figure for the average or ‘middle’ income in the UK appears straightforward. Yet a wide range of figures are commonly quoted, stemming from a range of – equally valid – approaches. This briefing note provides clarity by detailing the relative merits and drawbacks of each approach, and setting out the associated figures.

Section A (pages 1-3) sets out six distinctions that need to be made when defining average or ‘middle’ income: earnings versus income; net versus gross; individuals versus households; the inclusion or exclusion of retired households; adjustment for household size (‘equivalisation’); and the inclusion or exclusion of housing costs.

Section B (pages 4-5) sets out the figures that arise from those choices. It shows that legitimate definitions of ‘middle’ income range from £7,000 (median net earnings among all adults) to £43,000 (mean gross income among working-age households).

Section C (pages 6-7) concludes with a brief summary of the relationship between income and social class. It shows that perceptions of class correspond fairly weakly to income.

### **(A) The middle of what? Distinctions involved in defining the middle**

Any definition of average or ‘middle’ income rests on six main distinctions.

#### *Earnings and income*

While many commentators use the two terms interchangeably, income comprises more than just earnings from employment: returns on investments and savings, occupational pensions and state transfers – both means-tested and universal – form a large proportion of overall UK income. A focus on earnings can teach us important lessons about the distribution of labour rewards, in particular trends in wage inequality, but in order to analyse relative standards of living it is important to focus more broadly on incomes.

#### *Net and gross*

Gross *earnings* measure pay packets prior to deductions for income tax and National Insurance, while gross *incomes* add on other sources of pre-tax income, including state benefits. *Net* earnings and incomes describe the situation after these direct taxes are paid, and therefore better capture the income that is available for spending and saving. Gross figures though are often easier to capture than post-tax data.

#### *Individuals and households*

In relation to earnings, comparisons are typically made at the individual level, but for comparisons of wider incomes, the household is often a more useful basis. From a financial perspective, many families operate as single units, and as a result the standard of living enjoyed by each individual member depends on the combined household income.

In particular, a focus on the household level better captures the situation of low-income individuals such as students and stay-at-home spouses, who live in higher income households. It also better captures the true impact of certain state benefits (such as Child Benefit and Child Tax Credit), which are paid directly to mothers within families, and are often shared within the household.

### *Age*

Any approach based on earnings is likely to focus only on those of working-age, or those of any age who find themselves in work. Incomes change dramatically at retirement – both in size and composition – and so this decision can have a quite dramatic effect on the level of average earnings.

### *Household size: equivalisation*

As noted above, any attempt to plot an income distribution that compares living standards needs to take account of the income (rather than just the earnings) of all members of a household (rather than just the individual). However, incomes are only part of the living standards story; cost of living also matters. The same level of income is likely to stretch much further in a single-person household than it will in one comprising a couple and three children. By weighting income to account for the size and the composition of households, statisticians can account for such differences in expenditure needs.

This process of ‘equivalisation’ inflates the incomes of smaller households and deflates the incomes of larger ones. (A number of methods of equivalisation exist, but figures in this note are based on the modified-OECD scale used by DWP in its *Households Below Average Income* (HBAI) publication. The scale allocates weights of 0.67 to the first adult in each household, 0.33 to all subsequent adults and children aged 14 years and over and 0.2 to children aged under 14. As such, equivalised household incomes relate to a ‘base’ of a couple with no children (i.e.  $0.67 + 0.33 = 1$ ))

While equivalisation is a useful (and sometimes essential) statistical technique, the disadvantage of this approach is obvious: it is complex, and makes it difficult for households to place themselves within the distribution without understanding the equivalising weights that have been used.

### *Housing costs*

Because of the impact of variations in local costs on standards of living, the failure to account for housing costs in net income figures can make regional comparisons problematic. However, deducting housing costs from incomes creates another layer of complication and is in any case not always possible.

The DWP sets out arguments for and against inclusion of housing costs in its *HBAI* publication:

*It could be argued that the costs of housing faced by different households at a given time do not always match the true value of the housing that they actually enjoy, and that housing costs should therefore be deducted from any definition of disposable income. However, any measure of income defined in this way would understate the relative standard of living of those individuals who were actually benefiting from a better quality of housing by paying more for better accommodation. Income growth over time would also understate improvements in living standards where higher costs reflected improvements in the quality of housing.*

*Conversely, any income measure which does not deduct housing costs may overstate the living standards of individuals whose housing costs are high relative to the quality of their accommodation (for example, some residents of London). Growth over time in income Before Housing Costs could also overstate improvements in living standards for low-income groups in receipt of Housing Benefit, and whose rents have risen in real terms. This is because Housing Benefit will also rise to offset the higher rents (for a given quality of accommodation) and would be counted as an income rise, although there would be no associated increase in the standard of living. A similar effect could work in the opposite direction for pensioners: if a shift from renting to owning their housing outright leads to a fall in Housing Benefit income, because fewer low-income pensioners are paying rents, then changes in income Before Housing Costs may understate any improvement in living standards.<sup>1</sup>*

Given the various advantages and disadvantages, the DWP presents data on both a before (BHC) and an after (AHC) housing cost basis.

#### *Mean and median*

Whichever of the above approaches is taken, a definition of average 'middle' income can be expressed in terms of *mean* or *median*. Typically, 'average' income refers to the mean. This is the level of income that each member of the population would have if total income was divided equally. However, it is the median – which exactly divides the population into two – that best captures the real middle: half of the population have higher than median income and half have lower.

It is often useful to take the two measures together. If the mean is substantially higher than the median that suggests that income is not very evenly distributed, with a small number of individuals with very high incomes pulling the average up.

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<sup>1</sup> DWP, *Households Below Average Income 2009*, pp3-4

## (B) Identifying the middle

### Average incomes

Based on the approaches set out above, Table 1 presents a range of legitimate definitions of middle income. The results range from £7,000 (median net earnings among all adults) to £43,000 (mean gross income among working-age households).

**Table 1: Average incomes in the UK: 2008 - 2010**

	Gross		Net	
	Mean	Median	Mean	Median
<b>All individuals</b>				
Earnings	£15,000	£7,000	£11,000	£7,000
Income	£21,000	£15,000	£15,000	£12,000
<b>Working-age individuals</b>				
Earnings	£19,000	£14,000	£14,000	£12,000
Income	£23,000	£17,000	£16,000	£13,000
<b>Working individuals</b>				
Full-time earnings	£32,000	£26,000	:	:
Part-time earnings	£11,000	£9,000	:	:
All earnings	£27,000	£21,000	:	:
<b>All households</b>				
Earnings	£27,000	£20,000	£20,000	£15,000
Income	£37,000	£29,000	£28,000	£23,000
Equivalised income (BHC)	£35,000	£26,000	£26,000	£21,000
Equivalised income (AHC)	:	:	£23,000	£18,000
<b>Working-age households</b>				
Earnings	£36,000	£30,000	£27,000	£23,000
Income	£43,000	£35,000	£31,000	£27,000
Equivalised income (BHC)	£39,000	£30,000	£28,000	£23,000
Equivalised income (AHC)	:	:	£24,000	£19,000

Notes: Figures rounded to nearest £1,000. All figures are for 2008-09 except 'working individuals' earnings data, which is for April 2010.

Net income figures are net of income tax, NICs, domestic rates/council tax, contributions to occupational pension schemes, maintenance and child support payments, parental contributions to students living away from home and student loan repayments. For individuals, non-employment-related deductions (e.g. council tax) are assumed to be shared equally within families. Equivalised data uses modified-OECD equivalisation scale.

Sources: ONS, *Annual Survey of Hours and Earnings 2010*

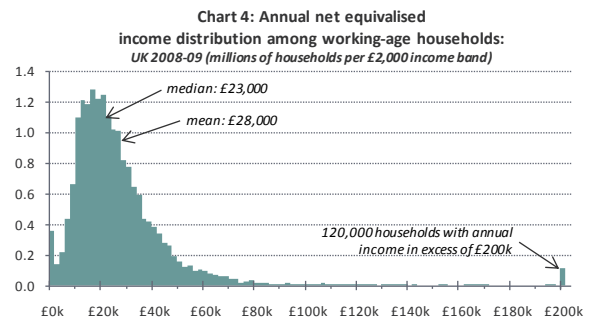
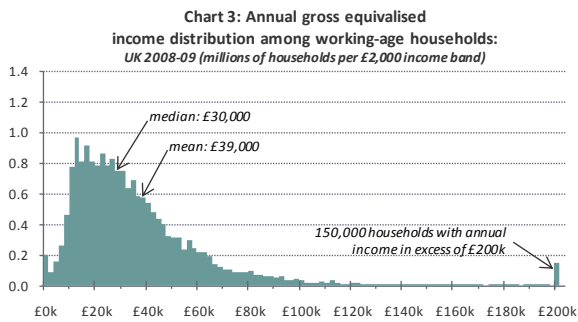
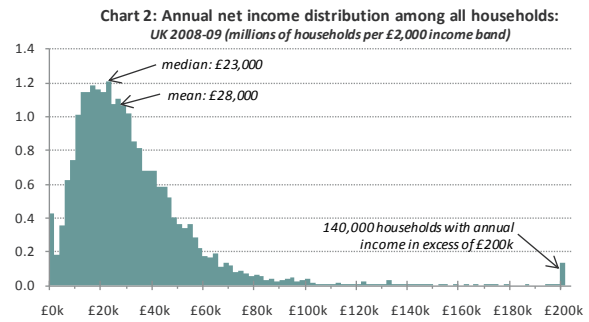
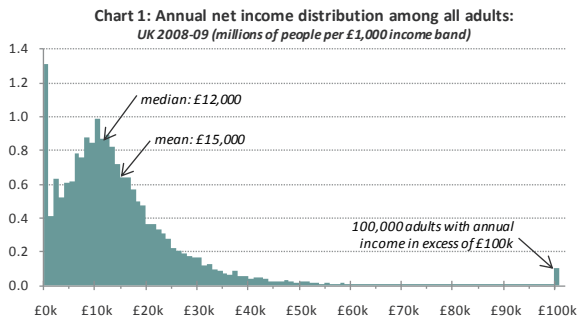
RF analysis of DWP, *Family Resources Survey 2008-09*

RF analysis of DWP, *Households Below Average Income 2008-09*

### Income distributions

Charts 1-4 describe the distribution of various measures of income in more detail. The basic shape in each case is broadly similar – most adults and households are clustered around the middle and each chart shows a small number of very high income cases producing long tails – but the numbers in each income band differ from chart to chart.

In each instance, the mean is higher than the median, reflecting the uneven distribution of earnings and incomes in the UK. However, the progressive nature of the direct tax system means that the net income distribution in Chart 4 is more tightly bunched than the gross income distribution in Chart 3, though the long tail remains.



### Equivalised incomes and the middle

Table 2 looks in more detail at the impact of ‘equivalising’ incomes. It sets out the range of unadjusted gross household incomes that correspond to an equivalised income of £30,000 for a selection of household compositions. For example, a couple with two children and an income of £49,000 has a broadly equivalent standard of living to a single person with no children on an income of £20,000. Table 2 shows that, depending on the circumstances, households with gross incomes as high as £50,000+ can be considered part of the middle.

**Table 2: Gross household incomes corresponding to equivalised UK median**

	£	Weekly	Annual
Single no children		380	20,000
Single with one (younger) child		500	26,000
Single with two children (one younger, one older)		680	36,000
Single with three children (two younger, one older)		800	41,000
Couple with no children		570	30,000
Couple with one (younger) child		680	36,000
Couple with two (older) children		940	49,000
Couple with three children (one younger, two older)		1,060	55,000
Three adults, no children		760	39,000
Four adults, no children		950	49,000
<b>Equivalised income</b>		<b>570</b>	<b>30,000</b>

Note: Equivalised incomes calculated using modified-OECD scale.

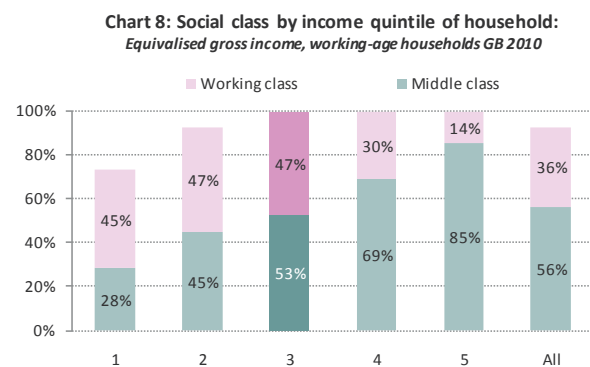
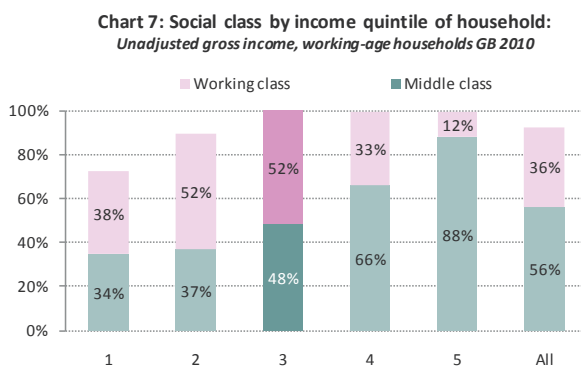
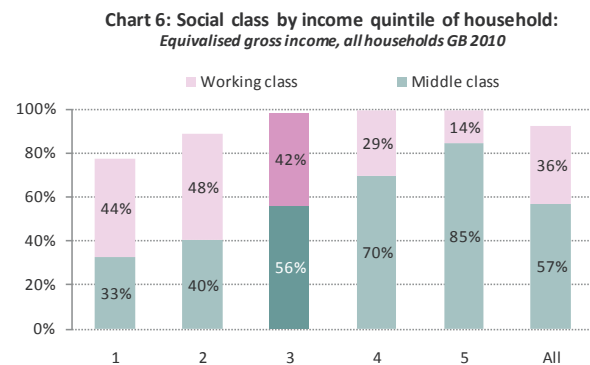
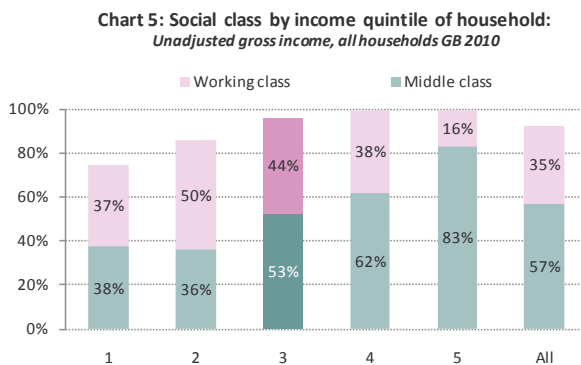
### (C) Class and income

This note has sought to clarify the various measures of ‘middle’ income. In light of its salience in the debate about ‘middle incomes’, the below analysis looks briefly at the relationship between class and income.

Charts 5-8 detail the split between working- and middle-class among households in income quintiles based on a number of different measures of gross income. Chart 5 shows the distribution among all households ordered on the basis of unadjusted income. In quintile 3 – the income band which straddles the middle of the distribution – 53 per cent of households are considered middle-class and 44 per cent are working-class. Equivalising the household income (Chart 6) increases slightly the proportion of households in quintile 3 that are categorised as middle-class.

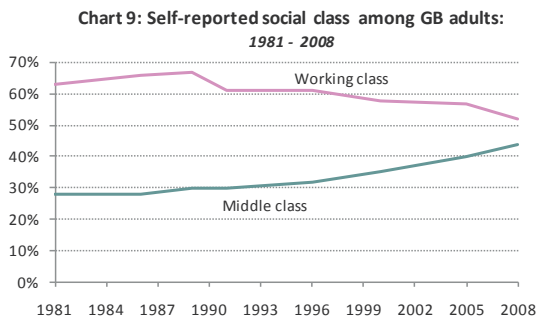
Charts 7 & 8 repeat the analysis for working-age households. In quintile 3, the proportions considered middle-class fall slightly on both unadjusted and equivalised income bases, although they continue to account for around half of the income group.

While the share of households considered middle-class rises with income, around one-third of those in the poorest 20 per cent of the population are categorised as middle-class, highlighting the loose correlation between middle income and the middle of society.



Notes: Classes are derived from the occupation of the chief income earner in the households and are allocated according to the definitions used by the Institute of Practitioners in Advertising. ‘Working class’ corresponds to social classes C2 (‘Skilled Working Class’) and D (‘Working Class’). ‘Middle class’ comprises members of social classes A (‘Upper Middle Class’), B (‘Middle Class’) and C1 (‘Lower Middle Class’). Numbers do not sum to 100 per cent because members of social class E (‘Those at the lowest levels of subsistence’) are omitted.

Source: RF analysis of Bank of England, 2010 NMG survey, Sep 2010



Notes: Base: c600-1,000 GB adults.  
 Source: Ipsos MORI, *Perceptions of social class (trends)*, 19 March 2008

Chart 9 shows how adults' self-perception of class has changed in Britain over time. The proportion considering themselves middle-class increased from 28 per cent in 1981 to 44 per cent in 2008, with the steepest growth occurring from the mid-1990s. Conversely, the proportion calling themselves working-class fell, from 63 per cent to 52 per cent. There are many reasons for these shifts – from changing labour market trends to increased home ownership – highlighting the broad base of the 'middle'.

## The Resolution Foundation and the middle

The Resolution Foundation works to improve outcomes for *low-to-middle earners*, a group that we define as being too rich to rely heavily on state support, but too poor to flourish in the market economy.

In creating an upper income threshold for the group, we use an equivalised household median. This allows us to locate households that can be expected to experience broadly similar standards of living. We do not take account of housing costs, however, as we wish to consider households that fall on the wrong side of means-tested benefits and this support is based on national-level income thresholds. We focus our attention on the working-age population because the reduced outgoings of retired households mean that their standards of living cannot be directly compared with working-age households with the same equivalised level of income. The Resolution Foundation therefore uses an equivalised working-age household income of £30,000 to define its 'middle' (penultimate row of Table 1).

At the lower end of our low-to-middle earner group, our threshold sits at the boundary between decile 1 (the poorest ten per cent of working-age households) and decile 2 (the next poorest ten per cent). As such, the 11 million members of this group live in households with equivalised gross incomes in the range £12,000-£30,000.

## Conclusions

Middle income is not necessarily the same as middle Britain, but it remains a useful measure for researchers and others wishing to understand the experiences of the not-rich, not-poor. This note shows that legitimate definitions of average or 'middle' income range from £7,000 (median net earnings among all adults) to £43,000 (mean gross income among working-age households).

There is no definitive answer to the question of which one of these options is the 'best' – that depends on the analysis being undertaken. A focus on households and the use of equivalisation methods is important when comparing living standards, while a focus on the distribution of individual earnings among workers is likely to be more appropriate when looking at wage inequality.

## **The Resolution Foundation**

The Resolution Foundation is an independent research and policy organisation. Our goal is to improve the lives of people with low-to-modest incomes – who we refer to as low-to-middle earners (LMEs) – by delivering change in areas where they are currently disadvantaged. We do this by:

- + undertaking research and economic analysis to understand the challenges facing LMEs;
- + developing practical and effective policy proposals; and
- + engaging with policy makers and stakeholders to influence decision-making and bring about change.

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