

Annexes

Annex C

Detailed outlines of real wage and income trends

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Different points in the wage distribution

Labour income – earnings from employment and self-employment – forms the bulk of gross income in most working-age households. Low-to-middle income households have seen both a growing disparity in the distribution of earnings in recent decades (a relative squeeze), followed by a more recent stagnation in pay for many ordinary workers (an absolute squeeze). Figure A shows trends in gross weekly pay among full-time employees in the period 1984 to 2011. It highlights the fanning out of the earnings distribution that has occurred. For example, while full-time earnings at the 90th percentile increased from £662 a week in 1984 to £1007 a week in 2011, wages at the 10th percentile grew from just £218 to £279 over the same period.

Figure A: Trends in gross weekly wages at different points in the earnings distribution: GB 1984 – 2011

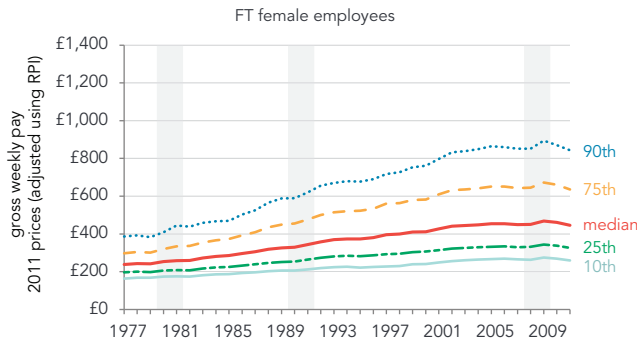
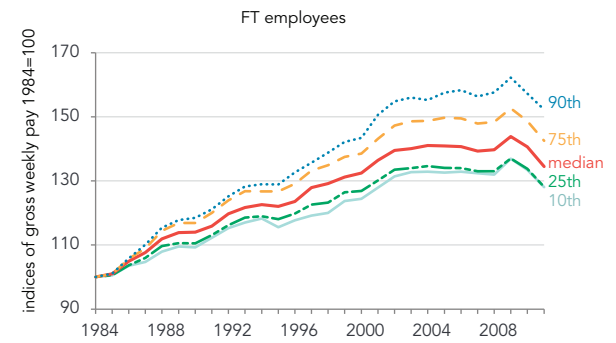


Figure B: Indices of gross weekly wages at different points in the earnings distribution: GB 1984 – 2011



Notes: There are two methodological breaks in the series, in 2004 and in 2006, but the changes have little bearing on the results shown here. 2011 data is provisional. Figures have been deflated using the RPI. Source: ONS, Annual Survey of Hours and Earnings (ASHE) and New Earnings Survey

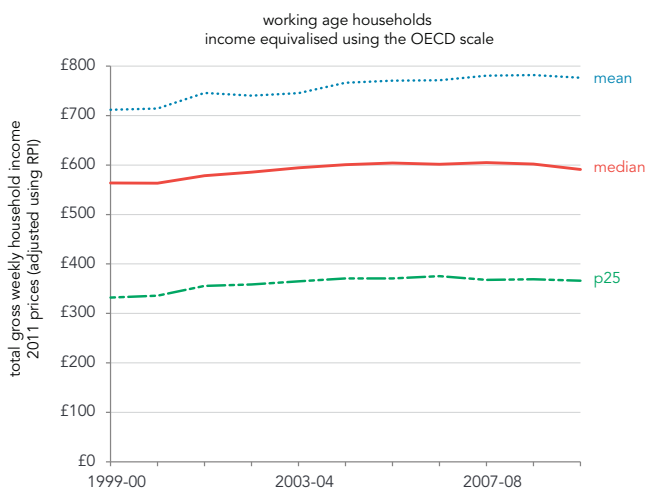
Figure B makes this trend clearer by setting out earnings at each point in the form of an index. It shows that pay increased more quickly at the top of the distribution than at the median and below.

Different points in the income distribution

Trends in incomes vary at different points in the distribution. Figure C below shows trends in the mean, median and 25th percentile for total gross household income over the period 1999-00 to 2009-10, whilst Figure D shows trends for total net household income.

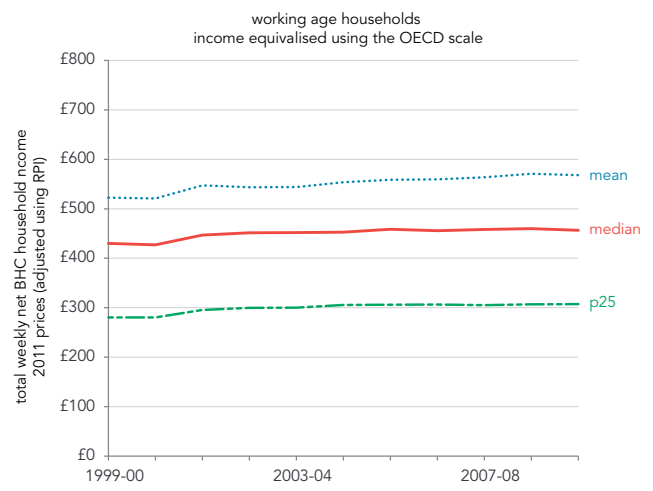
For all measures, the mean has increased more than the median over the period, indicating increasing inequality. However, the growth at the 25th percentile was in some cases higher than the median, indicating compression in the lower half of the income distribution.

Figure C: Trends at key points in the income distribution (gross): UK 1999-00 to 2009-10



Notes: Gross income includes all sources of household income including all social security benefits and tax credits. Source: DWP, Households Below Average Income (HBAI).

Figure D: Trends at key points in the income distribution (net): UK 1999-00 to 2009-10



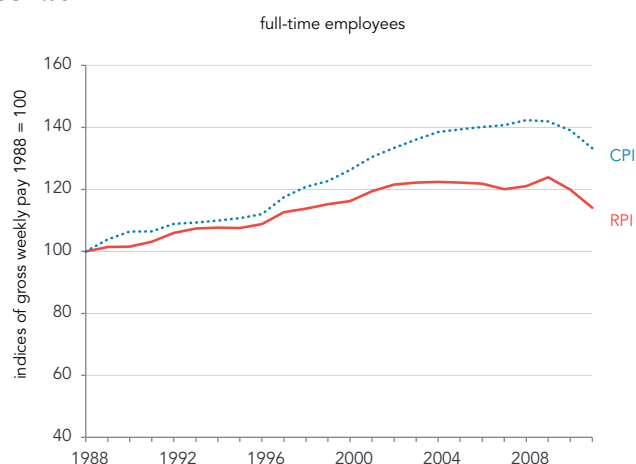
Notes: Net income is before housing costs (BHC) and is equal to gross income net of all taxes and national insurance contributions (NICs), pension contributions, maintenance & child support payments, parental support of students and student loan repayments. Gross income includes all sources of household income including all social security benefits and tax credits. Net BHC incomes have been inflation-adjusted using modified RPI series that exclude council tax. Source: DWP, Households Below Average Income (HBAI).

Inflation

The use of different inflation measures to adjust nominal wage and income measures produces differing real terms (i.e. inflation-adjusted) measures. Most Resolution Foundation analysis uses the Retail Prices Index (RPI), but the government is increasingly using the Consumer Price Index (CPI), most notably for uprating benefits and tax thresholds. RPI is a more appropriate inflation measure for the analysis of wage and income trends, but may in some cases overstate inflation. This is because the RPI calculation method implicitly does not allow for consumers to substitute between alternative products in response to price changes (referred to as the 'formula effect').^[1]

Nonetheless, while RPI-based inflation adjustment may overstate real wage stagnation, CPI is less appropriate for other reasons. CPI is primarily a measure of macroeconomic inflation pressures rather than the actual costs faced by households. Its most crucial limitation is that it currently excludes the costs of owner occupied housing, due to the fact that the CPI calculation method must comply with a set methodology specified by the EU to ensure comparability across countries.^[2] The figure below shows that the choice of inflation index has a big effect on the trend rate of wage increases in the late 1990s but less so in more recent years.^[3]

Figure E: Indices of median wages under alternative inflation measures: GB 1988 - 2011



Notes: There are two methodological breaks in the median wage series, in 2004 and in 2006, but the changes have little bearing on the results shown here. Source: ONS, Annual Survey of Hours and Earnings (ASHE) and New Earnings Survey.

Hourly, weekly and annual wages

The largest and most reliable survey of employee wages is the Annual Survey of Earnings and Hours (ASHE). ASHE collects pay information for a random sample of employees each year. The information is collected directly from employers and covers a variety of alternative pay measures, including gross hourly, weekly and annual wages which are the focus here. Hourly and weekly wages in practice understate annual bonuses and other performance incentive salary components. In terms of capturing total wage remuneration, annual rather than hourly or weekly wage measures are more accurate. The limitation with annual wages is that a consistent time series is only available back to 1999.

Figure F below shows that the trend is very similar whether annual, weekly or hourly wages are used. Median gross annual wages increased just 0.5 per cent over the 2003-08 period, compared to a rise of 0.1 per cent and 0.4 per cent for weekly and hourly wages respectively.^[4]

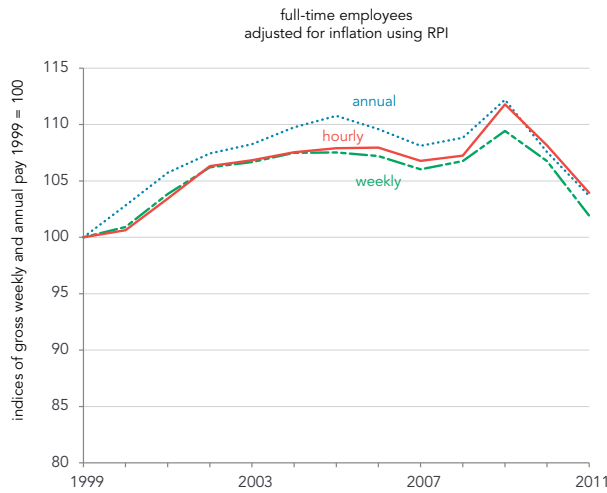
[1] See 'RPI versus CPI - The Definitive Account', Significance Magazine (www.significancemagazine.org). Jill Leyland, Vice President, Royal Statistical Society and Chair, RSS National Statistics Working Party, August 2011.

[2] Note that the ONS are in the process of producing a variant of the CPI (CPIH) which will include housing costs. The ONS are also, in collaboration with the Royal Statistical Society, undertaking a review of variations between RPI and CPI stemming from differences in how they are calculated (the formula effect). The Royal Statistical Society are in addition reviewing the scope for producing multiple cost of living indices that reflect the variation in consumption patterns at different points in the income distribution.

[3] The figure plots the time series back to 1988 because this is the first year for which the CPI is available. The data relates to GB only because UK-wide data on median weekly wages for full-time employees is only available from 1997 onwards.

[4] The reason for the difference between the 0.1 per cent increase in median gross weekly wages and the -0.2 per cent figure quoted in the previous section is that the former relates to the UK and the latter to Great Britain.

Figure F: Indices of median gross weekly and annual wages: UK 1999 - 2011



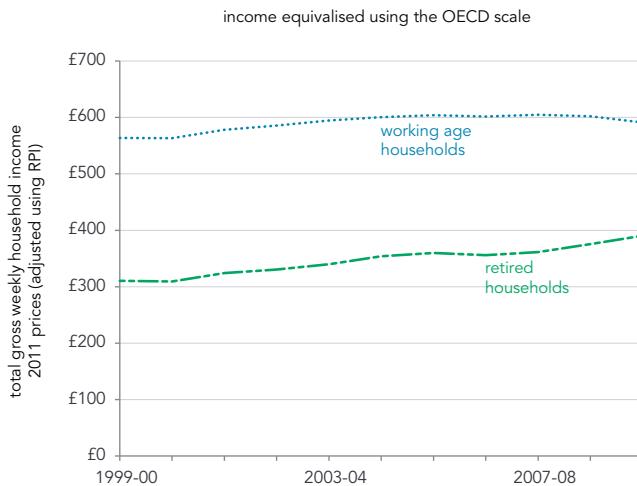
Notes: There are two methodological breaks in the median wage series, in 2004 and in 2006, but the changes have little bearing on the results shown here.
 Source: ONS, Annual Survey of Hours and Earnings (ASHE) and New Earnings Survey.

Generational differences

When looking at incomes there are also important differences between working age and retired households (those containing at least one retired adult). Figure G and Figure H below show trends in median total gross and net household income for working-age and retired households over the period 1999-00 to 2009-10. Income growth is slower among working-age households. Retired households experienced stronger growth in both gross and net income.

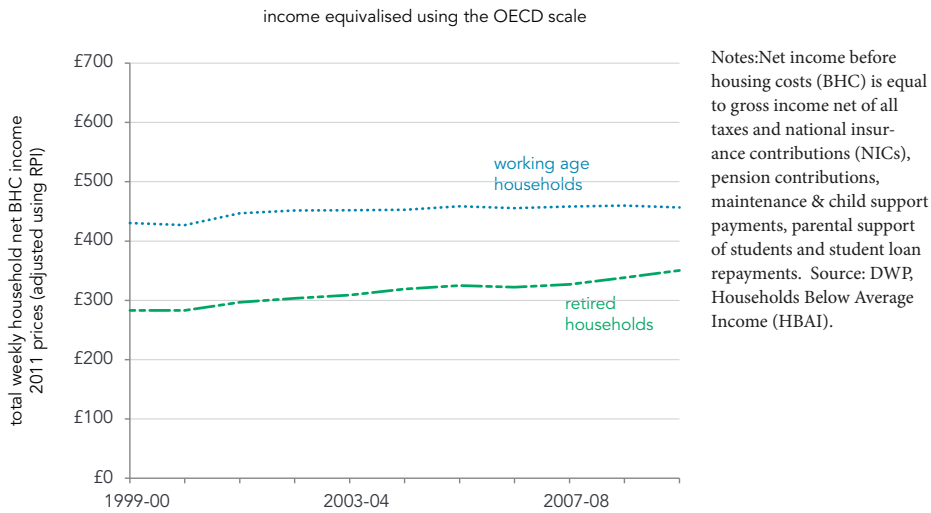
While retired households have seen continued growth in their incomes, on average their incomes are still lower than non-retired households. It should be noted that incomes are a poorer measure of living standards for pensioners, not capturing the ability of a household to draw down their assets and lower housing costs arising from home-ownership.

Figure G: Trends in median total gross household income for working-age and retired households: UK 1999-00 to 2009-10



Notes: Gross income includes all sources of household income including all social security benefits and tax credits. Source: DWP, Households Below Average Income (HBAI).

Figure H: Trends in median total net household income for working-age and retired households: UK 1999-00 to 2009-10



Male and female wages

Both males and females experienced a relative slowdown in wage growth from 2003, with stagnation particularly marked for males. However, focusing on full-time employees ignores the growth of part-time work, as well as the variability in number of hours worked across part-time workers.

Figure I below compares trends in median gross annual wages for full-time employees and all employees (i.e. both full- and part-time combined). The trend for all employees is very similar to those for full-time workers only, with median annual wages having increased by 0.3 and 0.5 per cent respectively under each of these alternative measures during the period 2003-08.

Figure I: Trends in median gross annual wages for male and female employees: UK 1999 – 2011

