

Living standards, poverty and inequality in the UK: 2020

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Preface

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Data from the Family Resources Survey were made available by the Department for Work and Pensions, which bears no responsibility for the interpretation of the data in this report. The Households Below Average Income data prior to 1994–95 were constructed from the Family Expenditure Survey. These data are available from the UK Data Service.

The UK Household Longitudinal Study is an initiative funded by the Economic and Social Research Council and various government departments, with scientific leadership by the Institute for Social and Economic Research, University of Essex, and survey delivery by NatCen Social Research and Kantar Public. The research data are distributed by the UK Data Service.

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Contents

Key findings	5
1. Introduction	7
2. Living standards and income inequality	9
2.1 Changes in household incomes in the UK	9
2.2 Inequality	13
3. Poverty	19
3.1 Poverty trends	20
3.2 Poverty among workless households	26
4. Conclusion	30
Appendix A. The Households Below Average Income (HBAI) methodology	31
Appendix B. Additional results	37
References	42

Key findings

- The COVID-19 crisis hit at a time when income growth had already been extremely disappointing for some years. Median (middle) household income was essentially the same in 2018–19 (the latest data) as in 2015–16. This stalling itself came after only a short-lived recovery from the Great Recession. The combined effect had been a decade of unprecedented poor improvements in living standards, with average income before housing costs having grown less than over any other 10-year period since records began in 1961.
- The main culprit for the latest choking-off of real income growth had been a rise in inflation from 2016. This was partly due to the depreciation of sterling following the Brexit referendum.
- For people aged 60 or over, median income was 12% higher in 2018–19 than before the previous recession in 2007–08, while among the rest of the population it was only 3% higher. However, in recent years, income growth had stalled for old and young alike.
- Trends among low-income households had been worse still – they had experienced five years of real income stagnation between 2013–14 and 2018–19. This was entirely due to falls in income from working-age benefits and tax credits, which offset growth in employment incomes. Working-age benefits were frozen in cash terms, so the rise in inflation from 2016 reduced their value in real terms by 5%.
- Overall relative poverty (using incomes measured after housing costs are deducted (AHC)) was 22% in 2018–19, and it has fluctuated little since the early 2000s. For particular groups, though, we have seen more change. Relative poverty among working-age adults without children has fallen since 2011–12, while relative child poverty has increased by 3 percentage points – the most sustained rise in relative child poverty since the early 1990s.
- Absolute AHC poverty was 20% in 2018–19 – virtually unchanged over the last two years. The recent lack of progress in reducing absolute poverty is disappointing: it only fell by 1.4 percentage points between 2010–11 and 2018–19 whereas reductions over an equivalent period in previous decades were around 5–6 percentage points on average.
- Workers whose livelihoods look most at risk during the COVID-19 crisis already tended to have relatively low incomes, and were relatively likely to be in poverty, prior to the onset of the crisis. Employees working in ‘shut-down sectors’, such as hospitality, were already almost twice as likely to be in poverty as other employees, and poverty rates were higher still for self-employed people working in these sectors. Cleaners and hairdressers stand out as groups with higher poverty rates than other workers who are unlikely to be able to work from home.

- **In 2018–19, only 12% of non-pensioners lived in households with no one in paid work, down by a third from 18% in 1994–95. This progress is highly likely to be undermined by the COVID-19 pandemic.**
- **Despite temporary increases in benefits announced in response to the pandemic, the benefits system in 2020 provides less support to out-of-work households than in 2011. Average benefit entitlement among workless households is 10% lower in 2020–21 than it would have been without any policy changes since 2011, and among workless households with children it is 12% lower. These cuts in generosity are mainly due to the ‘benefits freeze’ and the introduction of universal credit; without the temporary increases, they would have been 15% and 16% respectively.**

1. Introduction

This report examines how living standards – most commonly measured by households' incomes – were changing in the UK up to approximately the eve of the current COVID-19 crisis, using the latest official household income data covering years up to 2018–19. We particularly focus on how this differed for different groups, and what this meant for poverty and inequality. It gives us a comprehensive account of where we stood before the current crisis, including for groups who we now know have subsequently had their economic lives turned upside down.

The analysis in this report is chiefly based on data from two UK household surveys. The first is the Family Resources Survey (FRS), a survey of around 20,000 households a year, which contains detailed information on different sources of household incomes. We use household income variables derived from the FRS by the UK government's Department for Work and Pensions (DWP). These measures of incomes underlie the DWP's annual statistics on the distribution of income, known as 'Households Below Average Income' (HBAI). The FRS/HBAI data are available for the years from 1994–95 to 2018–19. They are supplemented by HBAI data derived from the Family Expenditure Survey (FES) for the years from 1961 to 1993–94. In addition, we draw on data from Understanding Society: the UK Household Longitudinal Study (UKHLS) to hone in on what was happening to poverty amongst groups who are likely to be particularly vulnerable to the COVID-19 pandemic in terms of potential employment losses or reductions in earnings. UKHLS is a household panel survey that contains detailed information on household income and individual characteristics, such as the industries that individuals work in and the occupations that they undertake.

The economic implications of the COVID-19 pandemic will mean a reduction in household incomes as workers lose their jobs, earnings fall, and plummeting share prices and interest rates lead to lower incomes from savings and investments. Unfortunately, post-COVID data from the headline FRS/HBAI data on which official income statistics are based will not be available for some time.

The focus of this report is somewhat different: using the FRS/HBAI data that we do have up to approximately the eve of the current crisis to understand in detail where we were as it hit, and how this reflects the direction of travel – and of policy – over the years since the last recession in the late 2000s. The intention is that this provides important context for what we are seeing now.

The main outcomes of interest in this report are measures of household income. We use the measure of income that is used in the HBAI statistics. Further details regarding the methodology of HBAI can be found in Appendix A, but a few key points are worth summarising here:

- We conduct our analysis at the individual level, meaning that we look at poverty, inequality and differences in living standards between individuals, not between households. However, income is measured at the household level, i.e. as the total income of all individuals living in the same household. A household for these purposes is not the same as a family, which is defined simply as a single adult or couple and any dependent children they have. For instance, young adults living together (other than as

a couple) would be classified as being in the same household but not in the same family.

- Income is rescaled ('equivalised') to consider the fact that households of different sizes and compositions have different needs.
- Income is measured after deducting income tax, employee and self-employed National Insurance contributions, and council tax, and it includes income from state benefits and tax credits.
- Income is measured both before housing costs have been deducted (BHC) and after they have been deducted (AHC).
- All cash figures are presented in 2018–19 prices and all income growth rates are given after accounting for inflation. We adjust for inflation using measures of inflation based on the Consumer Prices Index, which are the same measures as are used by DWP in the government's official HBAI statistics.¹
- Throughout this report, many statistics will be presented for the whole of the UK; however, for those series looking at longer-term trends, we present statistics for Great Britain (GB) only, as Northern Ireland has only been included in the HBAI data since 2002–03.

As noted above, in this report we also draw on data from the UK Household Longitudinal Study. Although it is derived from a different survey, household income in the UKHLS is measured in broadly the same way as in the HBAI data.

Since all the analysis is based on a sample from the population, all estimated statistics are subject to sampling error. We frequently test whether estimated changes are 'statistically significant'. In our analysis, being 'statistically significant' implies that an estimate is statistically significantly different from zero at the standard 5% significance level.

The rest of this report proceeds as follows. Chapter 2 examines changes in average incomes in the UK, and how average income growth differs among people aged 60 or over and the rest of the population. It then considers how incomes have changed towards the top and bottom of the distribution, and the consequences for income inequality. Chapter 3 analyses changes in poverty, and the living standards of poorer households in general. It additionally examines trends in poverty amongst individuals who are likely to be particularly economically affected by the coronavirus pandemic, as well as for workless households – a group that is growing in size as a result of COVID-19.

¹ Further information on the adjustments that DWP makes for inflation can be found in Department for Work and Pensions (2020a). A series of the deflators that we use in this analysis can be found in IFS's Living Standards, Poverty and Inequality spreadsheet, https://www.ifs.org.uk/tools_and_resources/incomes_in_uk.

2. Living standards and income inequality

This chapter analyses trends in average incomes and income inequality among the UK population. We also explore the determinants of trends in income growth and how they have evolved over time, on average and for different groups. In particular, we look at trends in the incomes of people aged below 60 and those aged 60 and above, to examine whether the household incomes of children and people of prime working age have fared differently from those of older individuals.²

Unless otherwise stated, all figures in this chapter relate to ‘net’ income, which measures total household income after income tax, National Insurance contributions and council tax have been paid and after state benefits and tax credits have been received. Household incomes can be measured either before or after housing costs have been deducted (referred to respectively as ‘BHC’ and ‘AHC’). Unless otherwise stated, we report incomes in this chapter on a BHC basis.

2.1 Changes in household incomes in the UK

Figure 2.1 shows median household income in the UK between 2002–03 and 2018–19 for the population as a whole and distinguishing between people aged below 60 and those aged 60 and above. The median for each group represents the level of household income that is higher than the household incomes of 50% of the group as a whole and, while there is a lot of variation in income across the population, it provides a measure of average living standards.³ The figure shows that median household income across the entire population in 2018–19 was £514 per week (around £26,800 per year), when expressed as the equivalent income for a childless couple.⁴ Average income among those aged under 60 in 2018–19 was slightly higher than in the overall population, at £528 per week (around £27,500 per year), whereas among those aged 60 and over it was lower, at £478 per week (around £24,900 per year).

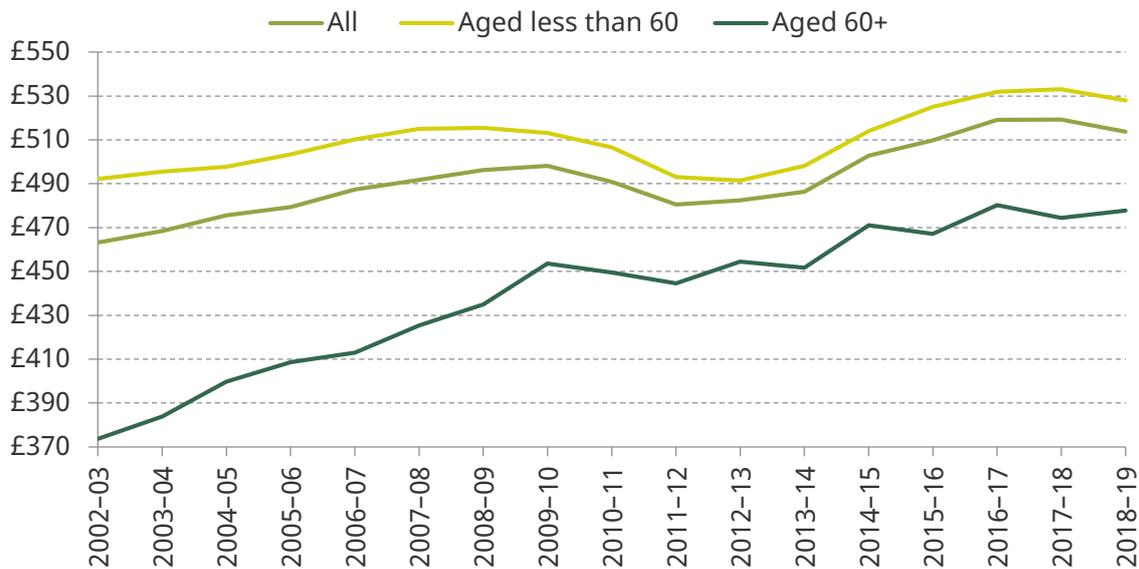
When one accounts for housing costs, however, the difference in average income across age groups disappears. This can be seen in Figure 2.2, which shows that in 2018–19 median AHC incomes among those aged younger or older than 60 were essentially the same as the median in the whole population (of £447 per week, or around £23,300 per year). Average income is much more similar between the older and younger age groups after deducting housing costs because older people are much more likely to own their homes outright, and to have no housing costs as a result.

² We use age 60 as a threshold to ensure that pensioners are excluded from the younger age group throughout, since the female state pension age was 60 until April 2010. This gives us figures for the younger-age group that are easier to interpret – in the sense that this group is below the state pension age throughout the period – at the expense of figures for the older group that are a little more complicated to interpret since the state pension age for this group changes over the period considered.

³ This variation can be seen in Appendix Figure B.1, which shows the whole income distribution in 2018–19. We discuss it further in Section 2.2.

⁴ Appendix Table B.1 shows the different levels of unequivalised income that different types of household would require to reach the median, and other percentiles, of the 2018–19 income distribution.

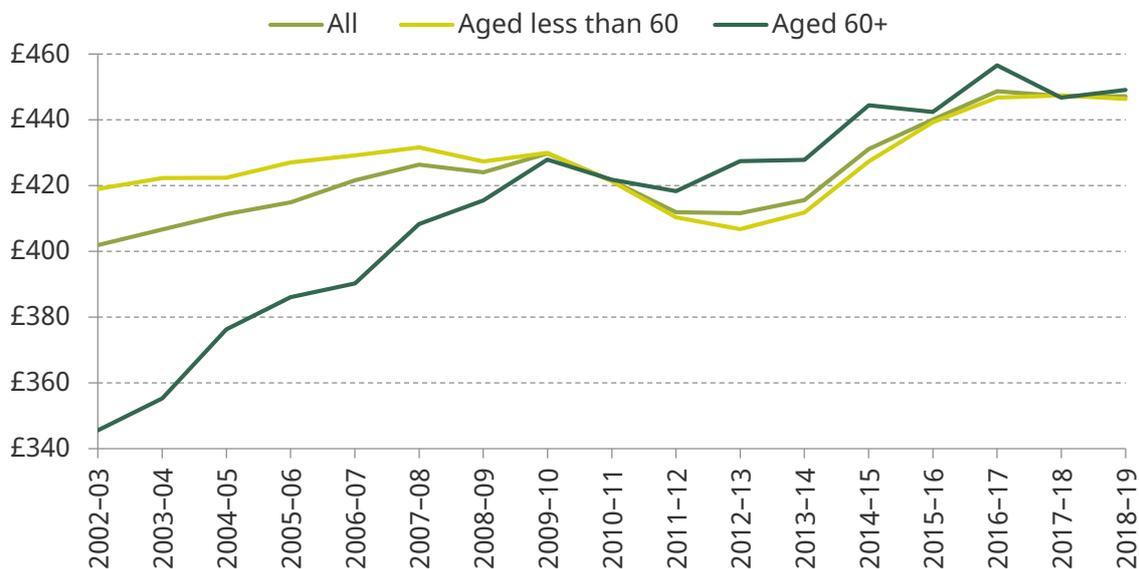
Figure 2.1. Median net household income (before housing costs) since 2002-03, overall and by age group



Note: Incomes have been measured net of taxes and benefits but before housing costs have been deducted and are expressed in 2018-19 prices. All incomes have been equivalised using the modified OECD equivalence scale and are expressed in terms of equivalent amounts for a childless couple.

Source: Authors' calculations using the Family Resources Survey, 2002-03 to 2018-19.

Figure 2.2. Median net household income (after housing costs) since 2002-03, overall and by age group



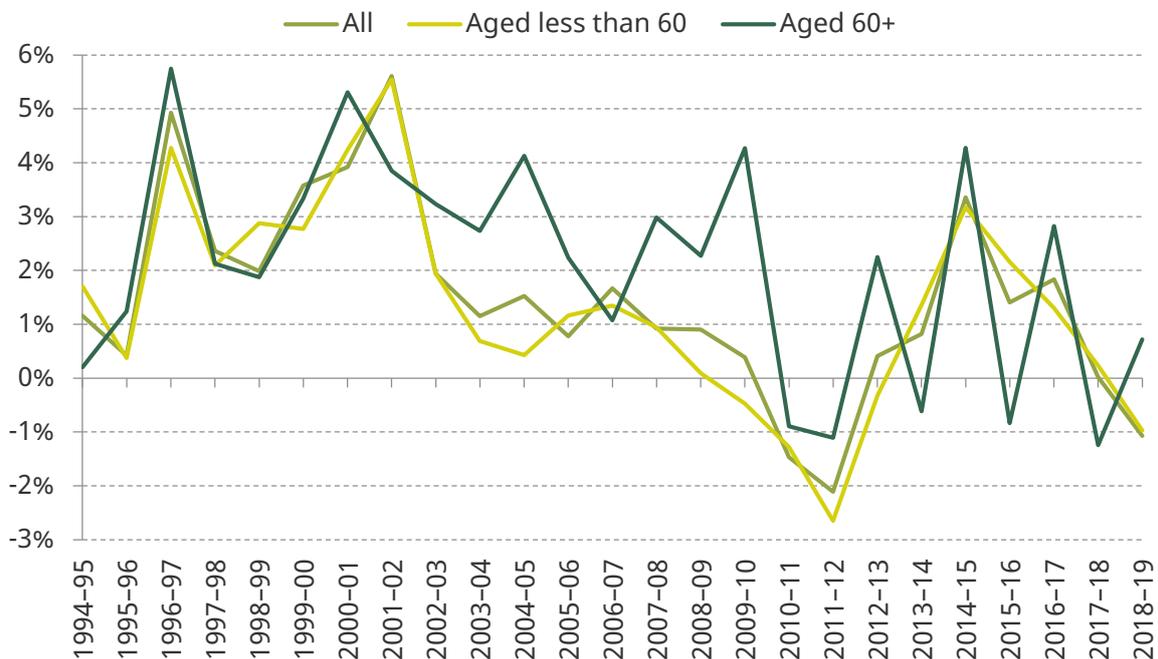
Note: Incomes have been measured net of taxes and benefits and after housing costs have been deducted. Figures are expressed in 2018-19 prices. All incomes have been equivalised using the modified OECD equivalence scale and are expressed in terms of equivalent amounts for a childless couple.

Source: Authors' calculations using the Family Resources Survey, 2002-03 to 2018-19.

In the middle of the last decade, we had finally seen a few years of moderate growth in median income, after a prolonged slump following the Great Recession. But this was cut short quickly with median income failing to grow in either 2017–18 or 2018–19. Median income growth stalled over these years both for those younger than 60 and for those older, both before and after housing costs. The result is that, on the eve of the COVID-19 crisis in 2018–19, overall median BHC income stood no higher than three years earlier in 2015–16. It was only 4% higher than it had been on the eve of the previous recession in 2007–08, and 16% below where it might have been had the 40-year trend in median income growth up to 2008 continued. Figure 2.3 illustrates how poor this is by historical standards, showing the annual growth rate in median income since 1994–95.

Figure 2.4 shows that this amounts to a decade of unprecedented poor improvements in average living standards in the population as a whole. Average BHC income grew at an annualised average rate of just 0.3% per year between 2008–09 and 2018–19, which is the slowest growth in average BHC income over any 10-year period since the 1970s (when records began). The average incomes of people aged younger than 60 have fared even worse, growing at an annualised average rate of 0.2% between 2008–09 and 2018–19, whereas the median income of people aged 60 or over grew at an annualised average rate of 0.9%. Among both age groups, however, the last decade has been one of dismal income growth by historical standards. Appendix Figure B.2 shows that trends on an AHC basis look similarly weak.

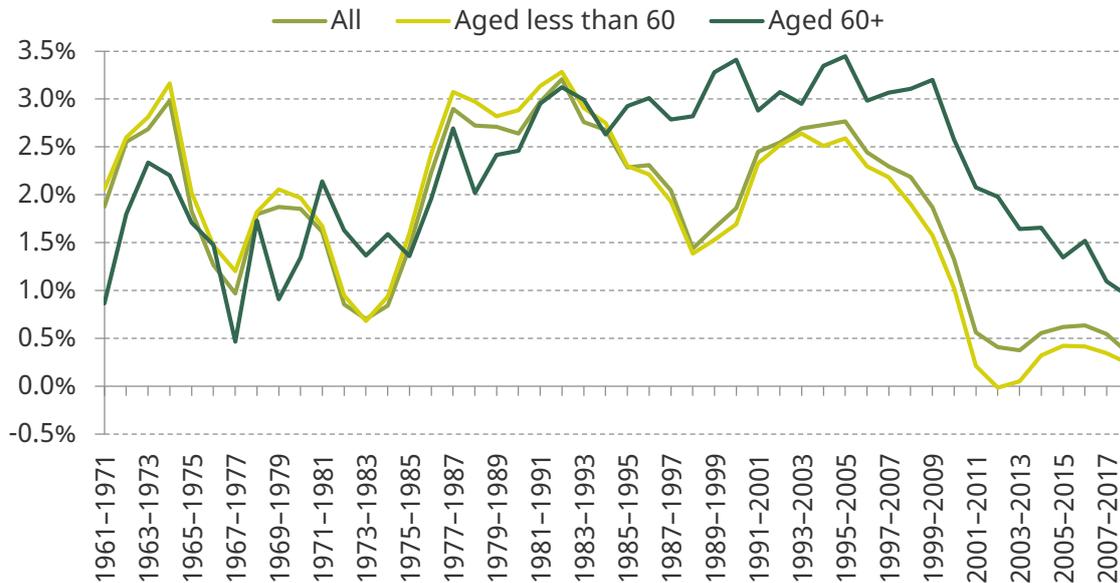
Figure 2.3. Annual growth in median household income (before housing costs), overall and by age group



Note: Incomes have been measured net of taxes and benefits but before housing costs have been deducted. Data are representative of households in Great Britain between 1994–95 and 2001–02 and of households in Great Britain and Northern Ireland from 2002–03 onwards.

Source: Authors' calculations using the Family Resources Survey, 1994–95 to 2018–19.

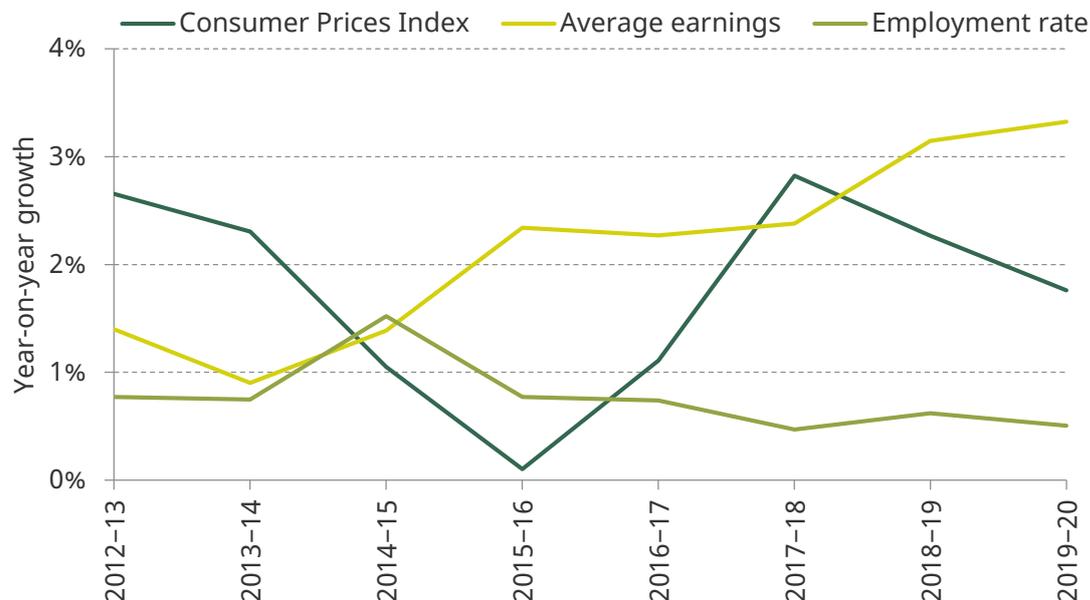
Figure 2.4. Average annual growth in median income (before housing costs) over 10-year periods, overall and by age group



Note: Incomes have been measured net of taxes and benefits but before housing costs have been deducted. Years refer to calendar years up to and including 1992 and to financial years from 1993-94 onwards. Data are representative of households in Great Britain between 1961 and 2001-02 and of households in Great Britain and Northern Ireland from 2002-03 onwards.

Source: Authors' calculations using the Family Expenditure Survey, 1961 to 1993, and the Family Resources Survey, 1994-95 to 2018-19.

Figure 2.5. Growth in prices, earnings and employment



Source: Office for Budget Responsibility, 'Economic and fiscal outlook: March 2020', supplementary economy tables; ONS EARN01 Average Weekly Earnings - regular pay (series KAI7).

What choked off the eventual recovery from the Great Recession? Figure 2.5 shows that nominal earnings grew robustly in 2017–18 and 2018–19 while employment continued to increase. The factor that changed in an unhelpful direction was the rate of inflation, which was in part due to the depreciation of sterling following the Brexit referendum of 2016.⁵ The figure also shows that inflation fell back in 2019–20 (beyond the period covered by the latest HBAI data) while earnings and employment continued to grow. This suggests that average incomes may have experienced modest growth in the most recent financial year – another mini-revival, perhaps, just before the latest economic crisis set us back once more.

2.2 Inequality

So far, we have focused on median income as a measure of average living standards. Figure 2.6 plots each percentile point of the income distribution in 2018–19, which shows that there is a great deal of variation in income around this median. The 10th percentile, for example, shows that 10% of the population in 2018–19 had an income lower than £256 per week (around £13,300 per year). At the other end of the distribution, the 90th percentile shows that 10% had an income greater than £1,035 per week (£54,000 per year), while the 99th percentile shows that 1% had an income greater than £2,745 per week (£143,100 per year).⁶ In this section, we examine how incomes at different points along the distribution have grown over recent years and how measures of income inequality have changed as a result. An important limitation of our analysis is that we are not able to explore income inequality *within* the highest-income 1%, as the HBAI data do not include detailed information on how incomes vary within this group.

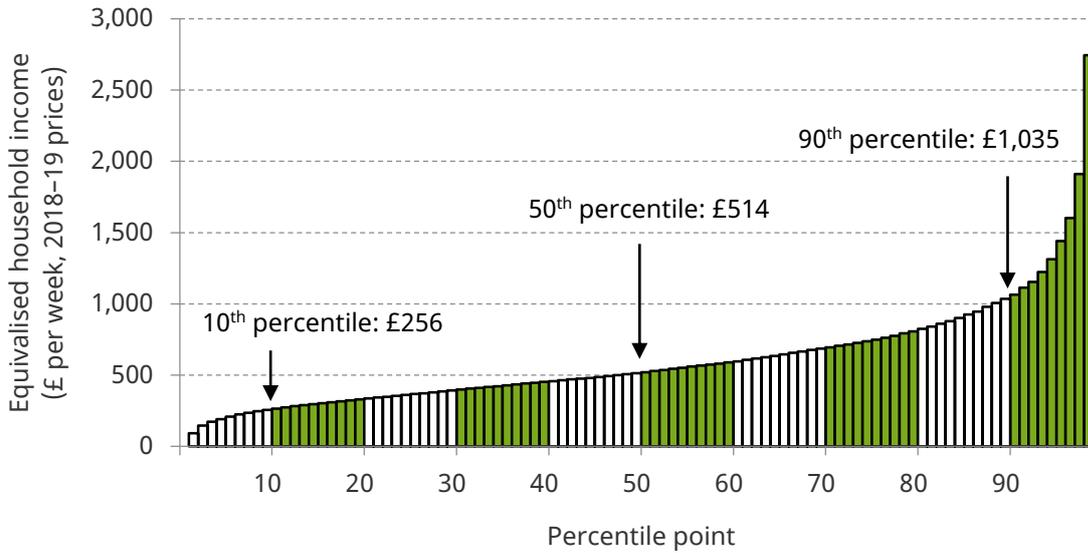
Figure 2.7 shows how different points of the BHC income distribution have changed since 2007–08.⁷ This shows that, across much of the distribution, incomes in 2018–19 were about the same as they were three years earlier in 2015–16: we saw earlier that this was true at the median, and Figure 2.7 shows it to also be true at the 25th and 75th percentiles. Towards the two ends of the distribution, we see somewhat different, and contrasting, developments. At the 10th percentile, income growth has been even more sluggish than around the middle, with no growth overall for approximately five years between 2013–14 and 2018–19, due to real falls in income since 2016–17. At the 90th percentile, however, incomes have grown by 6% over the same five-year period. Figure 2.8 shows that the pattern of growth in higher incomes outpacing that of lower incomes in the recent years is even more pronounced looking at incomes after deducting housing costs. On this measure, the 10th percentile was, for the first time in the decade, further behind the 90th percentile than it was before the Great Recession.

⁵ See Breinlich et al. (2020).

⁶ These figures are all expressed as the equivalent for a childless couple. Appendix Table B.1 shows the different levels of unequivalised income members of different types of household would require to reach various percentiles of the 2018–19 income distribution.

⁷ Trends in the income percentiles of people aged younger than 60 are very similar to the trends shown in Figures 2.7 and 2.8. Appendix Figures B.3 and B.4 show a slightly different picture for those aged 60 or over. Falls in the 10th percentile of the income distribution among this older age group have been sharper over recent years than the falls seen in the population as a whole, although previous analysis suggests this may be due to under-recording of private pension income in the HBAI data rather than any real deterioration in the living standards of low-income pensioners (Bourquin et al., 2019).

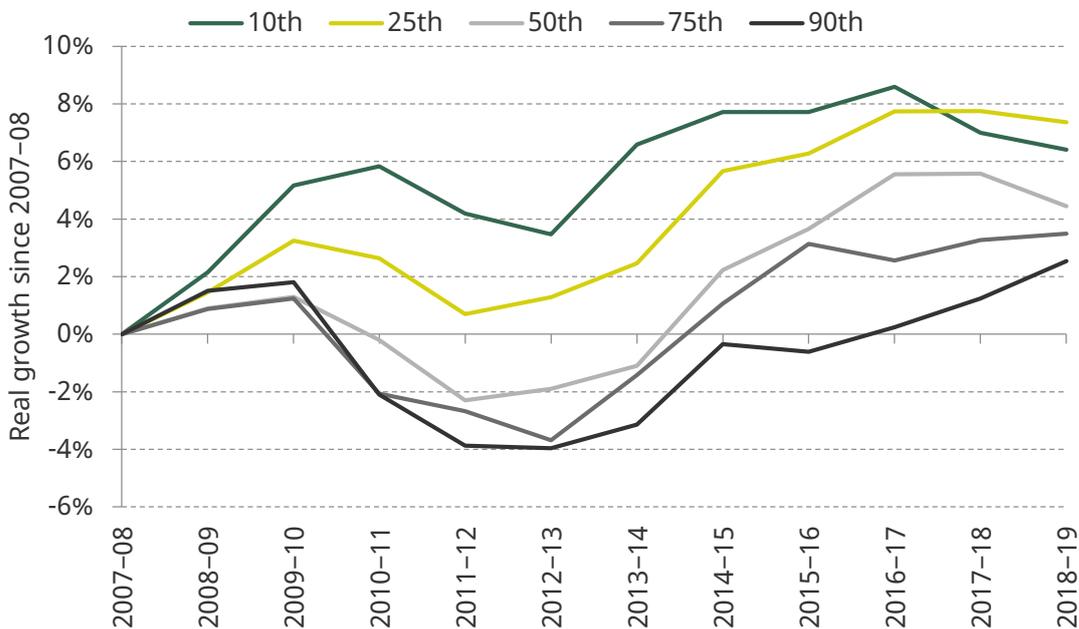
Figure 2.6. Weekly net equivalised household income at each percentile point in 2018-19



Note: Incomes have been measured net of taxes and benefits but before housing costs have been deducted. Cash figures are equivalents for a childless couple.

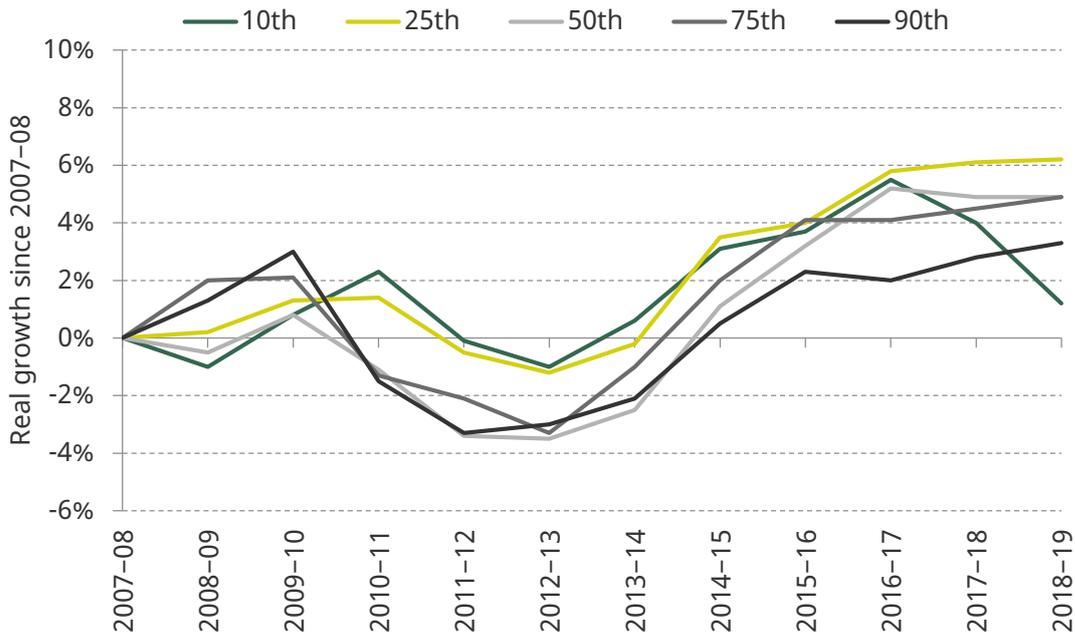
Source: Authors' calculations using the Family Resources Survey, 2018-19.

Figure 2.7. Real growth since 2007-08 in percentiles of household income (BHC)



Note: Incomes have been measured net of taxes and benefits but before housing costs have been deducted and have been equivalised using the modified OECD equivalence scale.

Source: Authors' calculations using the Family Resources Survey, 2007-08 to 2018-19.

Figure 2.8. Real growth since 2007–08 in percentiles of household income (AHC)

Note: Incomes have been measured net of taxes and benefits, after housing costs have been deducted, and have been equivalised using the modified OECD equivalence scale.

Source: Authors' calculations using the Family Resources Survey, 2007-08 to 2018-19.

As we have seen, low-income households saw essentially no change in their living standards over the five-year period between 2013-14 and 2018-19 because income falls since 2016-17 have wiped out gains made between 2013-14 and 2016-17. Figures 2.9-2.11 shed light on the drivers of this, by showing how different income sources have contributed to (mean) income growth among groups of households at various points along the BHC income distribution.

Figure 2.9 shows that increases in employment income caused average household income among people in low-income households (specifically those in the bottom fifth of the income distribution) to grow by 7% between 2013-14 and 2016-17. Over this period, employment increased from 58.8% to 60.6%, and real average earnings rose by 3.8%. Rising employment income over this period had a similarly large impact on income growth among people in middle-income households (those in the middle fifth of the income distribution), but only a 1% impact on income growth among people in high-income households. For low-income households, however, the positive impact of growth in employment income was offset by a 7% real fall in working-age benefits and tax credits, which reduced their average income by 3%.

Note and source for Figures 2.9-2.11

Note: The numbers relate to a subsample of households in HBAI that excludes those with negative incomes and excludes those whose incomes have been adjusted by the SPI (see Appendix A for details). All incomes have been equivalised and are measured at the household level and before housing costs have been deducted. 'Net pensioner benefits' are defined as benefits received by households containing at least one pensioner. This will include some benefits that can also be received by working-age people (e.g. housing benefit) and some benefits actually received by working-age individuals who live with pensioners.

Source: Authors' calculations using the Family Resources Survey, 2013-14, 2016-17 and 2018-19.

Figure 2.9. Contributions to mean net income growth by quintile, 2013-14 to 2016-17

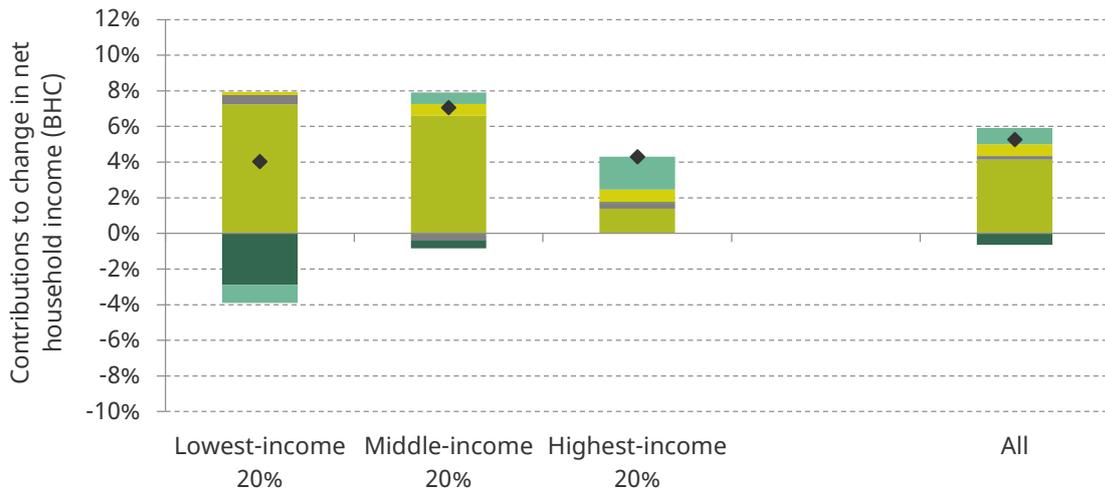


Figure 2.10. Contributions to mean net income growth by quintile, 2016-17 to 2018-19

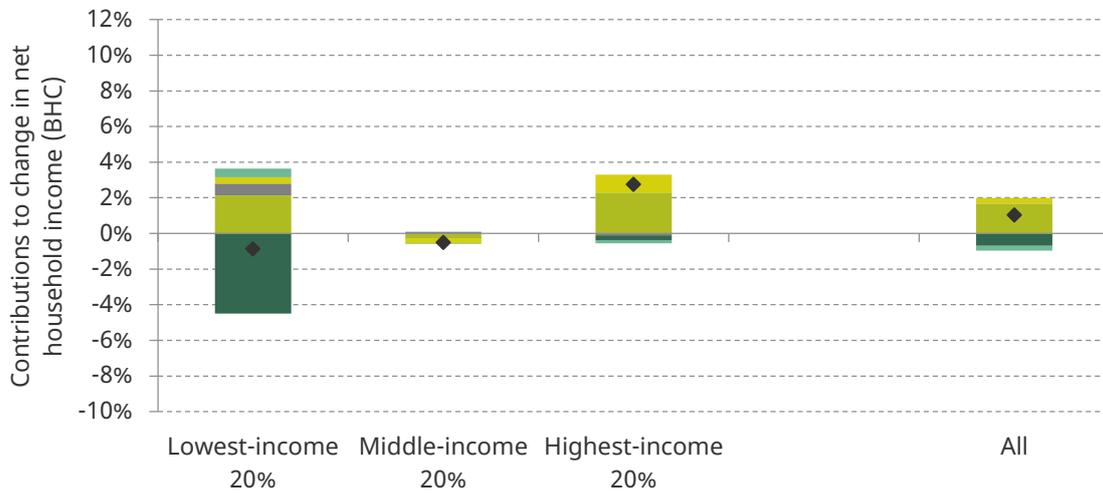
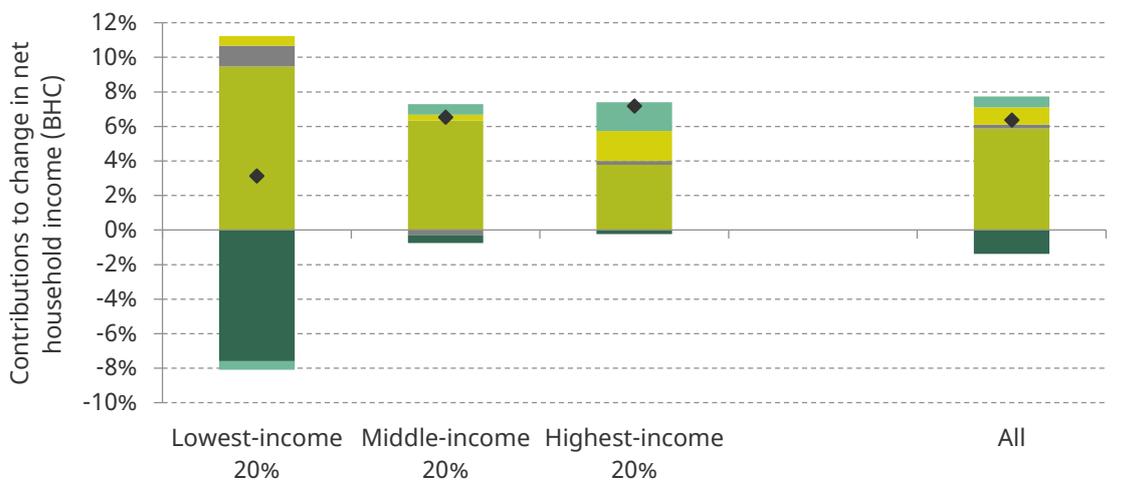


Figure 2.11. Contributions to mean net income growth by quintile, 2013-14 to 2018-19



- Other net income and deductions
- Net working-age benefits and tax credits
- Net employment earnings
- Net savings, investments and private pensions
- Net pensioner benefits
- ◆ Total net income growth

Between 2016–17 and 2018–19, however, we have already seen that real earnings growth was choked off by the rise in inflation from 2016. We see the impacts of this in Figure 2.10, with a considerable reduction in the contribution of employment income to income growth across the board (although for the top quintile it did increase very slightly, consistent with earnings for high earners doing better than those for low and middle earners⁸). For low-income households, this was compounded by a large drag on incomes from the falling real value of working-age benefits and tax credits. Rising inflation was again key to this, since working-age benefits had been frozen in advance, making them vulnerable to changes in inflation in a way that they normally are not.

The combined result of all this is shown in Figure 2.11. It is clear that poor income growth between 2013–14 and 2018–19 among low-income households is due to changes in their income from working-age benefits and tax credits. While falls in this source of income are partly due to rising employment income, which will have reduced families' entitlements to means-tested benefits, policy changes have had a large effect: we estimate that entitlements to working-age benefits and tax credits were around 6% lower in 2018–19 than they would have been if no policy changes had been made since 2013–14.⁹ The result is that falls in income from working-age benefits and tax credits contributed an 8% reduction in net incomes among low-income households over the five-year period, almost entirely offsetting the impact of rising income from employment, which boosted their net incomes by 9%.

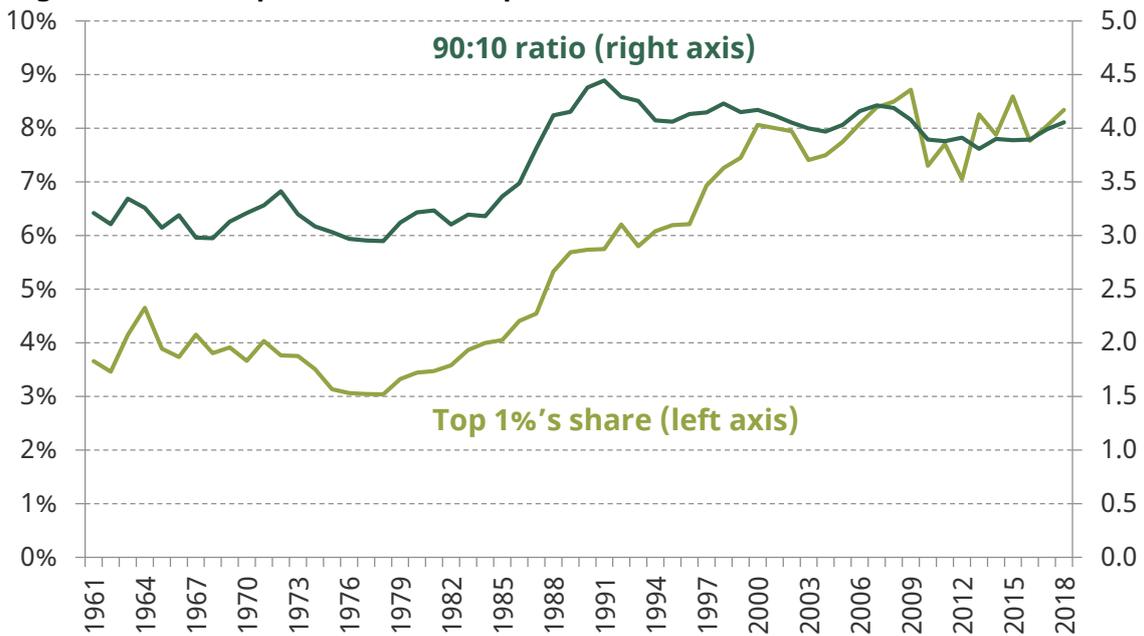
The lack of income growth among low-income households, along with faster income growth among high-income households, has caused income inequality to tick up slightly since 2016–17. For example, Figure 2.12 shows that the 90:10 ratio – which represents how many times larger income at the 90th percentile is compared with income at the 10th percentile – increased from 3.9 to 4.1 between 2016–17 and 2018–19, although this change is not statistically significant.

As is typically the case, recent changes in income inequality up to 2018–19 are small when placed in the context of longer-term trends, and especially the sharp rises in inequality that occurred during the 1980s. Since the early 1990s, the broad trend has been flat or falling income inequality among the majority of the population. The main exception is the highest-income 1%, who continued to pull further away from the rest throughout the 1990s and most of the 2000s until the onset of the financial crisis and subsequent recession (as can be seen from their increasing share of disposable income shown by the 'top 1%'s share' series in Figure 2.12). The combined effect of these two trends is that the Gini measure of income inequality, which captures changes in inequality at all points of the income distribution, has been roughly unchanged since the 1990s. This can be seen in Figure 2.13, which shows that the Gini coefficient in 2018–19 stood at 0.35, compared with 0.34 in 1990 and 0.26 in 1980.

⁸ See Office for Budget Responsibility (2019) and Giles (2019).

⁹ Our estimate relates to working-age benefit and tax credit entitlements paid to households containing no one aged above 62 (the female state pension age in 2013). We impose this sample restriction to abstract from the effect of the increase in the female state pension age on entitlements to working-age benefits. Source: Authors' calculations using the Family Resources Survey 2018–19 and TAXBEN, the IFS tax and benefit microsimulation model.

Figure 2.12. The top 1%'s share of disposable income and the 90:10 ratio in GB



Note: Incomes have been measured net of taxes and benefits and before housing costs have been deducted and have been equivalised using the modified OECD equivalence scale. Years refer to calendar years up to and including 1992 and to financial years from 1993–94 onwards. Figures relate to GB households.

Source: Authors' calculations using the Family Expenditure Survey, 1961 to 1993, and the Family Resources Survey, 1994–95 to 2018–19.

Figure 2.13. The Gini coefficient of income inequality in GB, 1961 to 2018–19



Note: Incomes have been measured net of taxes and benefits but before housing costs have been deducted and have been equivalised using the modified OECD equivalence scale. Years refer to calendar years up to and including 1992 and to financial years from 1993–94 onwards. Figures relate to GB households.

Source: Authors' calculations using the Family Expenditure Survey, 1961 to 1993, and the Family Resources Survey, 1994–95 to 2018–19.

3. Poverty

The previous chapter examined living standards and income inequality across the entire population. We now focus specifically on low-income households by looking at the prevalence of income poverty and recent changes in poverty rates. We also look at poverty trends amongst groups of individuals whose incomes are likely to suffer the most during and in the aftermath of the COVID-19 crisis, as well as among workless households – a group likely to grow considerably in size as a result of current events.

There are several ways of measuring poverty. Throughout this chapter, we refer to two main measures that identify poverty based on individuals' household income. The first is the 'absolute poverty rate', which measures the fraction of the population who have a household income below a fixed (in real terms) 'poverty line'. We follow DWP's official HBAI statistics in defining the absolute poverty line as 60% of median income in 2010–11. As with all income amounts referred to in this report, we uprate the absolute poverty line in line with a measure of inflation based on the Consumer Prices Index (CPI). The second income-based measure of poverty is the 'relative poverty rate'. This measures the fraction of individuals whose household income is lower than 60% of median income in the same year. Generally speaking, a rise in real incomes among the poor will lead to a fall in the absolute poverty rate, but their incomes need to rise faster than median income for a reduction in relative poverty to be recorded.

It is useful to track how both relative and absolute poverty have changed over time. Because society's view about what is an acceptable standard of living evolves over time, we judge it particularly appropriate to use a relative poverty measure when looking at long-run trends. In the short run, however, there is less reason to think that social norms change in real time with year-to-year volatility in median income, and there is often more interest in whether people are getting better or worse off in absolute terms. We therefore tend to focus on absolute poverty when looking at short-run trends and on relative poverty when examining how poverty has changed over several decades. When using the UKHLS, though, it is not possible to robustly calculate absolute poverty according to the official definition, so we stick to relative measures.¹⁰

There are several reasons why incomes after housing costs have been deducted provide more reliable indicators of poverty and we therefore focus on AHC measures.¹¹

In addition to income-based poverty measures, we also examine 'material deprivation' as an alternative indicator of low material living standards. The measure of material deprivation used here involves asking families whether they can afford a range of items (for example, warm winter coats for any children in the household) and activities (for example, taking children to a regular leisure activity). A family is classified as materially deprived if it is unable to afford a certain number of these items, with more weight given to items that most families already have. We report separate measures of material

¹⁰ This is because income data from the UKHLS are known to be less reliable in 2010–11 (the year that the official absolute poverty line is defined with reference to) than in later years (Fisher, 2016).

¹¹ These reasons are explained in Appendix A.

deprivation for children and pensioners, which are based on different lists of items to reflect the needs of each group and so are not comparable.¹²

As in the rest of this report, incomes are adjusted ('equivalised') to account for differences in the size and composition of different households. This reflects the idea that larger households need more income than smaller households to enjoy a comparable standard of living. To give a sense of monetary amounts, in 2018–19 the relative poverty line (after housing costs) for a single person was £156 per week, compared with £376 a week for a couple with two young children. Relative and absolute poverty lines (AHC and BHC) for different family types are shown in Appendix Table B.2.

3.1 Poverty trends

Figure 3.1 shows the relative (AHC) poverty rate over the last two decades, both overall and for different demographic groups. The share of the population in relative poverty has remained stable at around 22% since the early 2000s. Although relative poverty rates in 2018–19 were very similar to their pre-recession levels across all demographic groups, trends in the intervening years are more varied. Relative poverty among working-age adults without dependent children has fallen since 2011–12,¹³ while relative child poverty has increased from 27% in 2011–12 to 30% in 2018–19. This is due to rises in relative child poverty between 2011–12 and 2016–17, followed by essentially no change between 2016–17 and 2018–19. Although relative child poverty increased more sharply between 2004–05 and 2007–08, this was then reversed in the following years. Overall, the increase in relative child poverty since 2011–12 is the first increase sustained over such a substantial period since the 1990s.

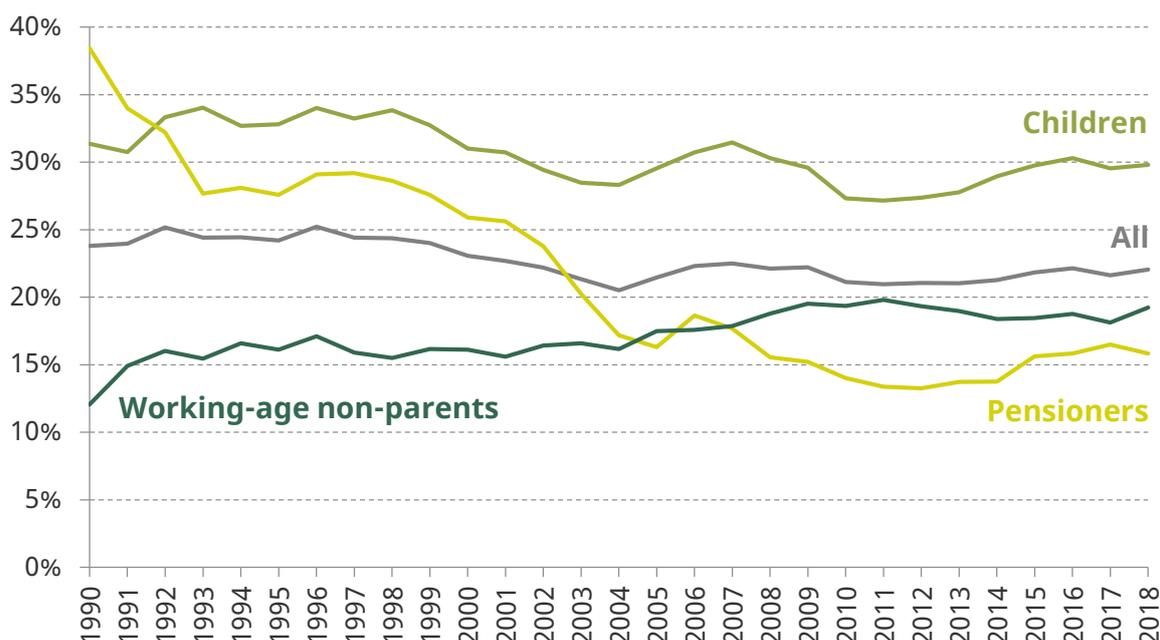
Poverty rates among pensioners have fallen markedly over the last two decades, from around 28% in the mid 1990s to around 16% in more recent years. Although relative poverty among pensioners has risen slightly since 2014–15, previous IFS analysis¹⁴ cast some doubt on whether changes in pensioner incomes picked up in recent years of the survey data reflect a real trend. Either way, pensioners remain less likely to be in poverty than other groups of the population, particularly children.

Figure 3.2 shows recent trends in absolute poverty. After small declines in the first half of the decade as we emerged from the Great Recession, it changed very little between 2016–17 and 2018–19. The stability of absolute poverty rates since 2016–17 might look surprisingly benign, given that Section 2.2 showed the incomes of low-income households to have fallen in recent years (particularly on an AHC basis). The reason this has not led to an increase in absolute poverty is that those falls in income occurred at income levels below the poverty line – in other words, there appears to have been a deepening of poverty recently, without a change to the headline rate. For example, although Figure 2.8 shows that the 10th percentile of the AHC income distribution fell by 4% between 2016–17 and 2018–19, the 25th percentile remained essentially unchanged.

¹² Interested readers can find more details on the construction of these measures in chapter 6 of Cribb, Joyce and Phillips (2012) and chapter 5 of Belfield et al. (2015).

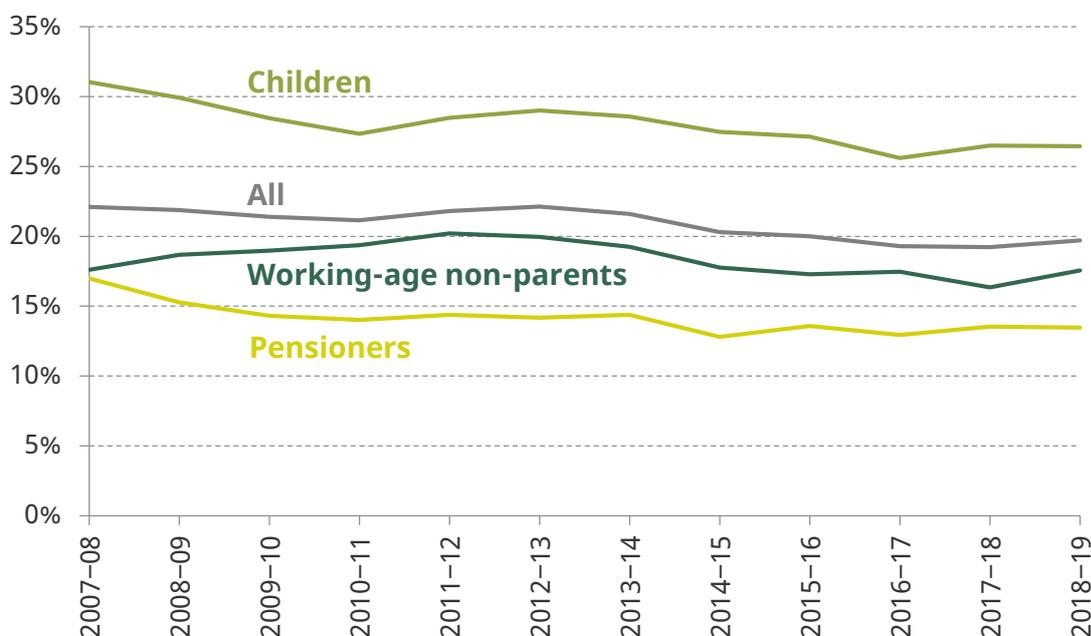
¹³ We use the shorthand 'working-age non-parents' to mean working-age adults without dependent children.

¹⁴ Bourquin et al., 2019.

Figure 3.1. Relative poverty rate (AHC) by demographic group

Note: Incomes have been measured net of taxes and benefits, after housing costs have been deducted, and have been equivalised using the modified OECD equivalence scale. The relative poverty line is defined as 60% of median AHC income in each year. Years refer to calendar years up to and including 1992 and to financial years from 1993–94 onwards. Figures relate to UK households from 2002–03 onwards and to GB households for earlier years.

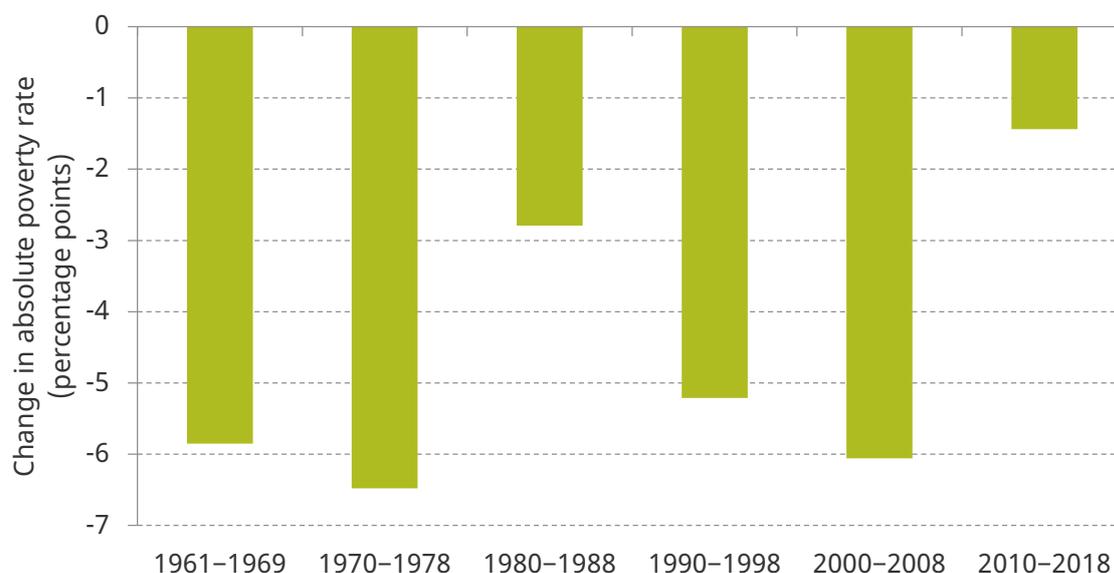
Source: Authors' calculations using the Family Expenditure Survey, 1990 to 1993, and the Family Resources Survey, 1994–95 to 2018–19.

Figure 3.2. Absolute poverty rate (AHC) by demographic group

Note: Incomes have been measured net of taxes and benefits, after housing costs have been deducted, and have been equivalised using the modified OECD equivalence scale. The absolute poverty line is defined as 60% of median AHC income in 2010–11.

Source: Authors' calculations using the Family Resources Survey, 2007–08 to 2018–19.

Figure 3.3. Percentage point change in absolute poverty (AHC) over eight-year periods



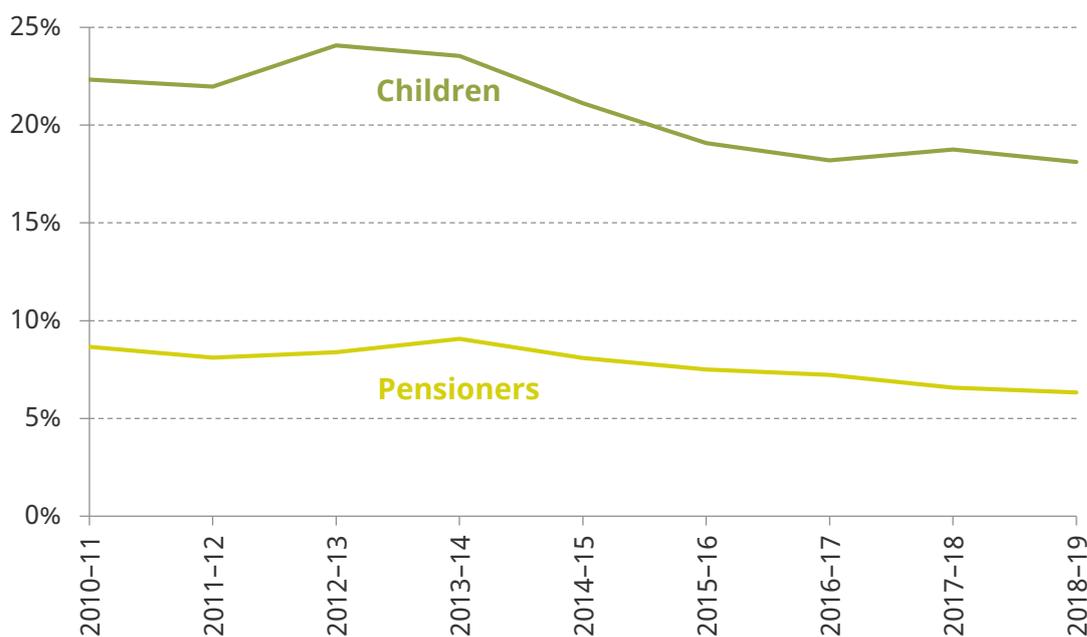
Note: Years refer to calendar years up to and including 1992 and to financial years from 1993–94 onwards. Figures are presented for GB up until 2001–02 and for the whole of the UK from 2002–03 onwards. The absolute poverty line is defined as 60% of median income in the initial year of each eight-year period.

Source: Authors' calculations using the Family Expenditure Survey, 1961 to 1993, and the Family Resources Survey, 1994–95 to 2018–19.

Absolute poverty has changed very little since 2010–11. Normally – in times when some real income growth can be relied upon – it has been a measure of poverty that falls steadily over time, as illustrated by Figure 3.3. During the 1960s, 1970s, 1990s and 2000s, rates of overall absolute poverty typically fell by about 5–6 percentage points over a period of eight years, with reductions during the 1980s being slightly lower at around 3 percentage points. Between 2010–11 and 2018–19, however, absolute poverty fell by only 1.4 percentage points. Appendix Figure B.5 shows that the most recent period has seen a particularly radical slowdown in reductions of absolute poverty among pensioners. Despite this and as is the case with relative poverty, pensioners are still less likely to be in absolute poverty than other demographic groups, particularly children.

Such small reductions in absolute poverty in recent years reflect that income growth among low-income households has been far slower than in previous decades. Nonetheless, there has been a slight fall in absolute poverty since 2010–11, which is mirrored by slight reductions in material deprivation over the same period.¹⁵ Figure 3.4 shows that 18% of children and 6% of pensioners lived in materially deprived households in 2018–19, down from 22% and 9% in 2010–11. Unfortunately, we cannot place these reductions in historical context as consistent measures of material deprivation are not available for such long periods.

¹⁵ As explained in the introduction to this chapter, families are classified as materially deprived if they feel they cannot afford a certain number of items or activities, with greater weight assigned to items that most families already have. The child and pensioner material deprivation measures are not exactly comparable because different lists of items are used to measure material deprivation for each group.

Figure 3.4. Child and pensioner material deprivation rates

Note: The figure refers to material deprivation only, not the government's combined measures of relative low income and material deprivation.

Source: Authors' calculations using the Family Resources Survey, 2010-11 to 2018-19.

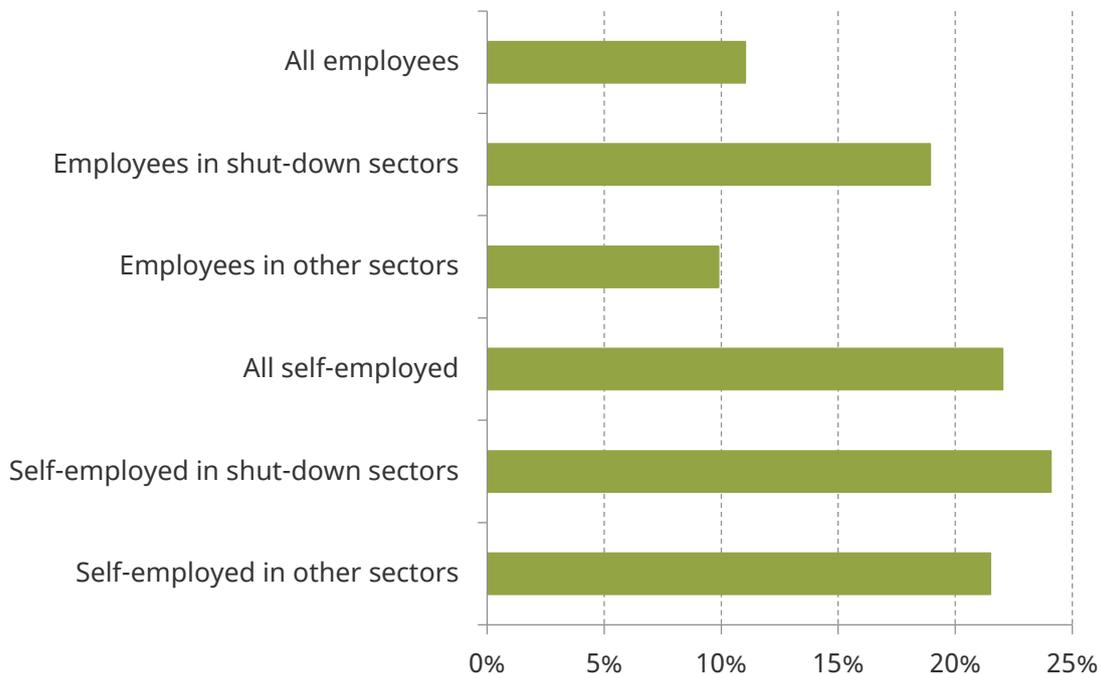
The economic impact of the COVID-19 pandemic is likely to lead to reduced household incomes and increases in absolute poverty in the coming years. The measures that have been taken to limit the spread of the virus also mean that falls in income are likely to be sharper among certain types of workers and households than others. We now examine the poverty rates already faced by such 'highly exposed' groups on the eve of the crisis. To identify such groups, we need to use the UKHLS rather than the FRS, as the latter data set does not contain information on workers' sectors and occupations at an adequate level of detail. The UKHLS does not contain such reliable income information for 2010-11 and tends to slightly underpredict levels of poverty relative to the HBAI data.¹⁶ We therefore focus on relative poverty and how it compares across different groups of workers for this part of the analysis.

Figure 3.5 shows relative AHC poverty rates for employees and the self-employed, distinguishing between whether they work in sectors that were effectively shut down throughout the initial phase of the lockdown due to social distancing measures.¹⁷ Both employees and self-employed workers in these shut-down sectors were more likely to be in poverty in the years immediately before the pandemic than other workers in the same

¹⁶ On the reliability of 2010-11 income data in the UKHLS, see Fisher (2016). On the comparison of relative poverty measured in the UKHLS and HBAI, see table M.9 of Department for Work and Pensions (2020b).

¹⁷ The sectors classed as being directly affected by the lockdown are (with four-digit Standard Industrial Classification (SIC) codes in parentheses): non-food, non-pharmaceutical retail (4719, 4730-4772, 4776-4799); passenger transport (4910, 4931-4939, 5010, 5030, 5110); accommodation and food (5510-5630); travel (7911-7990); childcare (8510, 8891); arts and leisure (9001-9329 except 'artistic creation' 9003); personal care (9601-9609 except 'funeral and related activities' 9603); and domestic services (9700).

Figure 3.5. Relative poverty rates (AHC) among workers by job characteristics (2015–2018)



Note: Incomes have been measured net of taxes and benefits, after housing costs have been deducted, and have been equivalised using the modified OECD equivalence scale. The relative poverty line is defined as 60% of median AHC income in each wave of the UKHLS survey. The sectors classed as being directly affected by the lockdown are listed in footnote 17.

Source: Authors' calculations using Understanding Society (UKHLS) waves 7, 8 and 9.

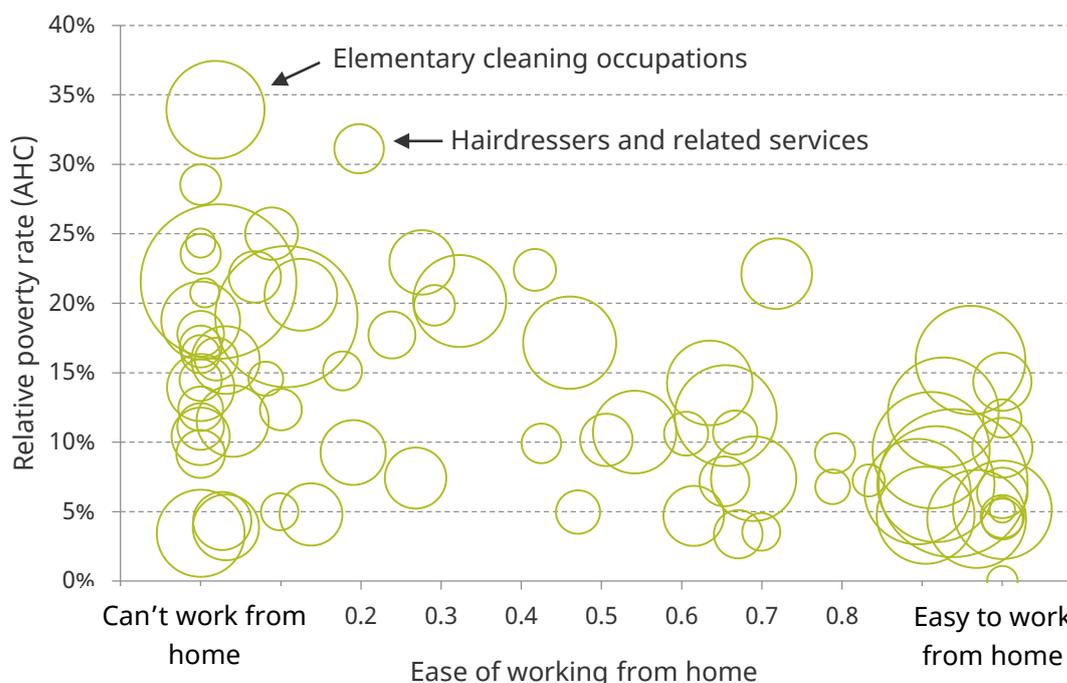
employment category. Relative AHC poverty among employees in these shut-down sectors, such as (non-food, non-pharmaceutical) retail, hospitality and leisure, was 19% during 2015 to 2018 – almost twice as high as the 10% rate for employees in other sectors. Poverty rates among the self-employed are considerably higher, with around 24% of self-employed workers in shut-down sectors in relative AHC poverty, compared with 22% of self-employed workers in other sectors. Some workers in these sectors will benefit from the temporary assistance provided through the Coronavirus Job Retention Scheme (CJRS) and the Self-Employment Income Support Scheme (SEISS), although the latter does not cover people who have been self-employed for less than a year. In spite of these measures, it is reasonable to expect that falls in income are more likely for workers in shut-down sectors (either due to cuts in their earnings or increases in joblessness), and Figure 3.5 shows that many of these workers were already on relatively low incomes.

Another group of workers who are likely to have been adversely affected during the lockdown are those who cannot easily work from home. These workers either will have been unable to work during the initial phase of the lockdown or will have potentially put their health at risk by continuing to go to work. Figure 3.6 shows how easily certain jobs can be done from home, alongside the relative AHC poverty rates among workers in these

jobs over the years in the run-up to the coronavirus pandemic.¹⁸ Each marker represents an occupation category and the size of the marker indicates how many workers are employed in that occupation. Cleaners and hairdressers stand out as relatively large occupations that are infeasible or very hard to do from home and which have some of the highest poverty rates.

Low-paid workers are more likely to be eligible for means-tested benefits than higher-paid workers and therefore stand to benefit more from temporary increases in the generosity of working-age benefits that have been implemented owing to the COVID-19 pandemic, and more generally to find that the benefits system is able to replace more of their earnings when they suffer an employment shock. In the short term, that may well contain what would otherwise be significant pressures acting to increase income inequality during the pandemic. Even if that is the case, though, the longer-term consequences for inequality of the greater career disruption currently being faced by the lower-paid could be substantial.

Figure 3.6. Relative poverty rates (AHC) and ease of working from home, by occupation (2015–2018)



Note: Marker size indicates share of workers in each three-digit occupation in Understanding Society waves 7, 8 and 9. Sixteen out of 90 occupations are not shown owing to inadequate sample size (fewer than 100 observations). Incomes have been measured net of taxes and benefits, after housing costs have been deducted, and have been equivalised using the modified OECD equivalence scale. The relative poverty line is defined as 60% of median AHC income in each wave of the UKHLS survey. Ease of working from home based on Dingel and Neiman (2020).

Source: Authors' calculations using Understanding Society waves 7, 8 and 9 and Dingel and Neiman (2020).

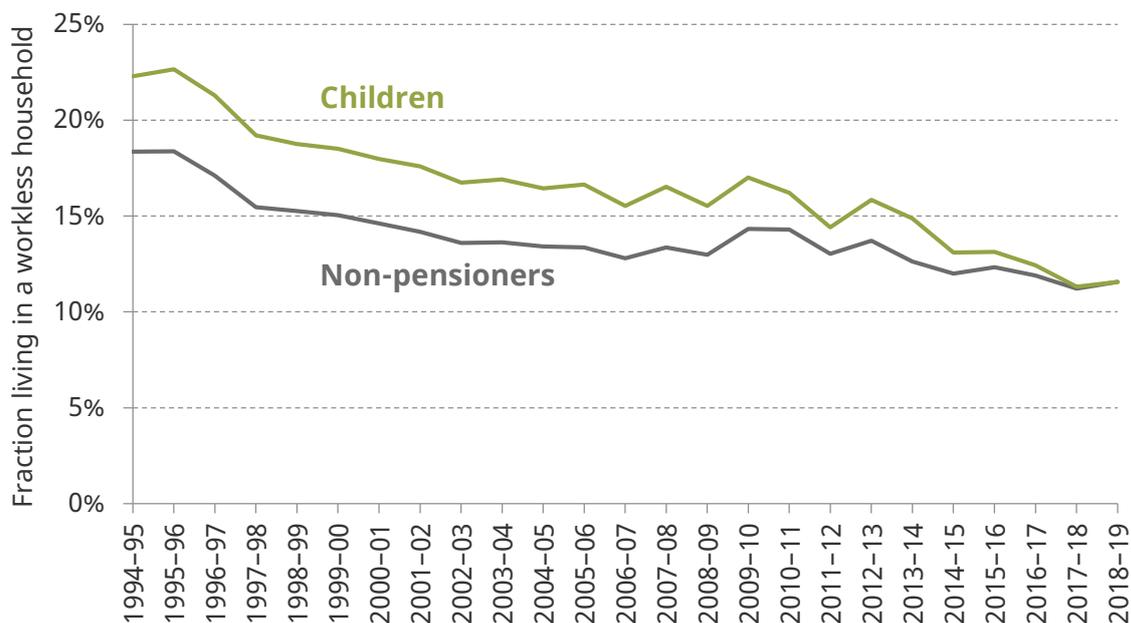
¹⁸ 'Ease of working from home' is measured on a 0 to 1 scale. A value of 1 means that the job can easily be done from home (examples include professionals in IT, telecommunications and media), while a value of 0 means the job cannot be done from home (examples include nurses and midwives and metal manufacturing workers). Intermediate values indicate that some aspects of the job can be done from home, while other aspects cannot. Further information on this measure is provided in Dingel and Neiman (2020).

3.2 Poverty among workless households

The sharp reduction in economic activity due to the COVID-19 pandemic has led to job losses and an increase in the fraction of people living in households with no one in work. This will almost certainly bring to a halt the sustained period of falling household worklessness shown in Figure 3.7, which has seen the proportion of non-pensioners (i.e. children and working-age adults) who live in a workless household fall by a third, from 18% in 1994–95 to just 12% in 2018–19.¹⁹

Hence, while rates of poverty among those out of work have not had a huge amount of attention in recent years – with focus shifting towards poverty among the ever-growing group of working households – the plight of households without paid work may become a far more prominent issue once again. Figure 3.8 shows absolute and relative poverty among non-pensioners (measured on an AHC basis) on the eve of the COVID crisis, distinguishing between the number of workers in the household. Rates of poverty were substantially higher among people in workless households than among others. In 2018–19, absolute (relative) poverty among non-pensioners in workless households was 56% (62%), compared with 32% (36%) among non-pensioners in households with one worker and just 9% (10%) among those in households with at least two workers. These differences are hardly surprising but they highlight the magnitude of the problem we may have if large numbers of households lose work and cannot find it again quickly.

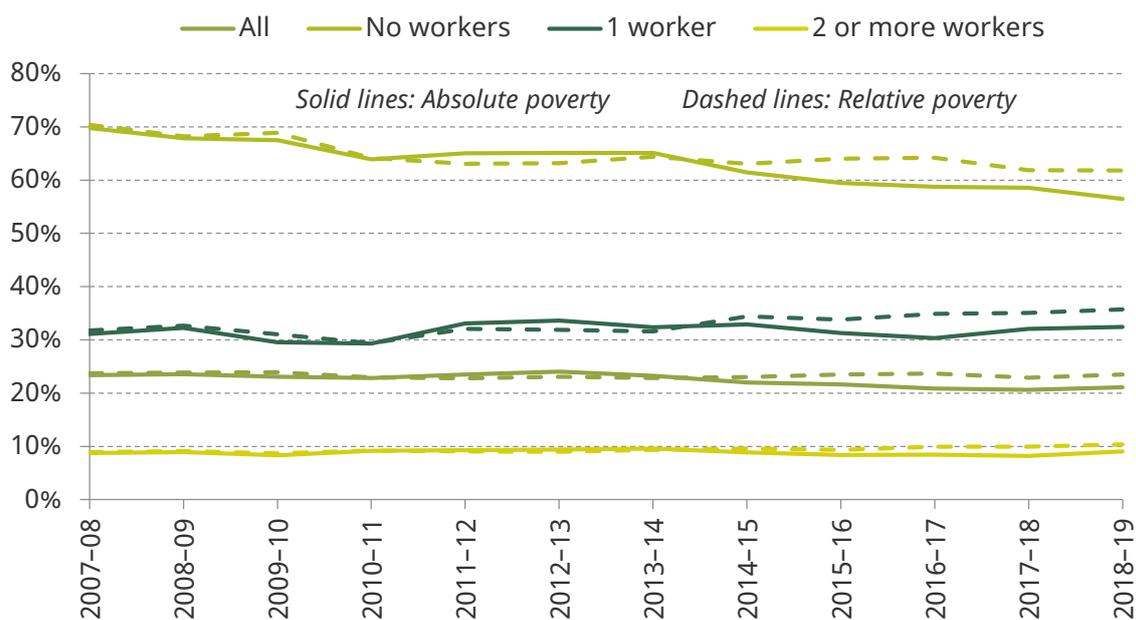
Figure 3.7. Household worklessness



Note: Data are representative of households in Great Britain between 1994–95 and 2001–02 and of households in Great Britain and Northern Ireland from 2002–03 onwards.

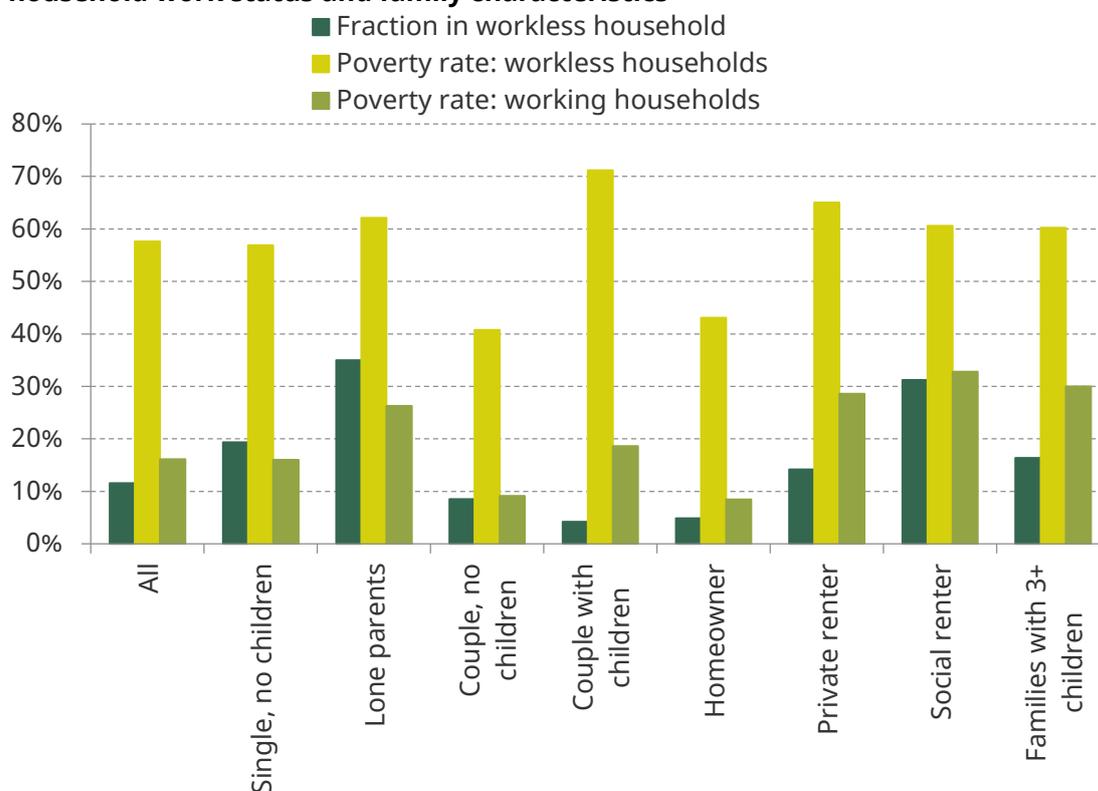
Source: Authors’ calculations using the Family Resources Survey, 1994–95 to 2018–19.

¹⁹ The factors that have caused this substantial and sustained fall in worklessness, as well as the characteristics of individuals who have been brought into the labour market as a result, are explored in greater detail in Bourquin and Waters (2020).

Figure 3.8. Non-pensioner poverty rates (AHC) by number of workers in household

Note: The absolute poverty line is defined as 60% of median income in 2010-11.

Source: Authors' calculations using the Family Resources Survey, 2007-08 to 2018-19.

Figure 3.9. Household worklessness and non-pensioner absolute AHC poverty, by household work status and family characteristics

Note: The absolute poverty line is defined as 60% of median income in 2010-11. To ensure sufficient sample size, the figure shows the mean rate across 2016-17, 2017-18 and 2018-19.

Source: Authors' calculations using the Family Resources Survey, 2010-11 and 2016-17 to 2018-19.

Figure 3.9 examines how vulnerable to poverty different types of households are when out of work.²⁰ It shows the poverty rates for different household types who are in work and out of work and, in dark green, the fraction of people in that household type who are in a workless household. Unsurprisingly, out-of-work households are very vulnerable – about 60% are in poverty – and this does not vary especially widely across household types (and less widely than in-work poverty rates do), due to the fact that most out-of-work households share the characteristic of having little or no income other than what the state provides.

When it comes to state provision for out-of-work households, it is important to note that the government has announced substantial temporary increases in what many of them

Table 3.1. Mean real benefit entitlement among workless households of prime working age (2020–21 prices), by household type

	2011–12	2020–21 (without temporary increases)	Actual 2020–21	Change between 2011 and 2020 (without temporary increases)	Change between 2011 and actual 2020
All workless households	£321	£274	£290	-15%	-10%
All workless households with children	£457	£384	£402	-16%	-12%
Single, no children	£224	£192	£207	-14%	-8%
Lone parent, 1 child	£343	£295	£314	-14%	-8%
Lone parent, 3+ children	£552	£435	£449	-21%	-19%
Couple, no children	£249	£216	£229	-13%	-8%
Couple, 1 child	£417	£363	£380	-13%	-9%
Couple, 3+ children	£637	£507	£522	-20%	-18%
Multi-family households	£367	£334	£359	-9%	-2%

Note: Entitlements give the mean entitlement among workless households in each category observed in the 2018–19 FRS. To focus on households of prime working age, we exclude households including any adults aged 60 or over. Monetary values indicate entitlements if making a new benefit claim, ignore free school meals and are expressed in 2020–21 prices using CPI uprating.

Source: Authors' calculations using the Family Resources Survey 2018–19 and the IFS TAXBEN microsimulation model.

²⁰ Appendix Figure B.6 shows similar information to Figure 3.9 but for relative poverty rather than absolute poverty.

will be entitled to. The basic allowance in universal credit (UC) has been increased by £1,000 per year, while maximum entitlements to housing benefit (and the housing element of UC) for private tenants have been increased to the 30th percentile of rents in a local area (effectively undoing cuts to housing support that had been made and incrementally increased since 2011). Both of these changes will be in place until the end of March 2021. Table 3.1 illustrates the average levels of support that out-of-work households would be entitled to, with and without those temporary increases, and puts this in the context of the impacts of the larger raft of benefit cuts introduced since 2011–12.²¹

The table shows that the temporary benefit increases have unwound some of the cuts to working-age benefits since 2011–12, but only by a small proportion among households with more than two children. This is partly due to relatively high inflation combined with the cash-terms freeze to many benefits claimed by workless households, as well as to reductions in generosity due to the introduction of universal credit (which is assumed to apply to all new claimants under the 2020–21 system).²²

²¹ In Table 3.1, we break with the convention used in the rest of the report and express monetary values in 2020–21 prices to give a more intuitive indication of current benefit values.

²² See Brewer et al. (2019).

4. Conclusion

The COVID-19 pandemic has caused a severe slowdown in economic activity. Despite the considerable support mechanisms put in place by the government, such a dramatic slowdown will undoubtedly have a large negative impact on household incomes over the coming years.

This report has shown that the economic damage due to the pandemic will follow a period when income growth had already been extremely disappointing for some years and that many households were therefore left in a far more precarious position going into this crisis than they would have been if income growth had been stronger. A short-lived recovery in living standards after the Great Recession came to an end in 2016–17 when a spike in inflation caused real income growth to stall. The result is that median (middle) household income was essentially the same in 2018–19 (the latest data) as in 2015–16, while the 10 years up to 2018–19 were a decade of unprecedented poor improvements in living standards.

Recent changes in living standards have been even worse for low-income households. Falls in benefit income since 2016–17 mean the incomes of these households were essentially the same in 2018–19 as in 2013–14, amounting to five years of no overall income growth. Such dismal income growth has left overall rates of absolute and relative poverty virtually unchanged and caused relative child poverty to increase from 27% in 2010–11 to 30% in 2018–19. Even the substantial temporary increases to benefits this year do not unwind the cuts to support for out-of-work households made during the austerity period since the previous recession – especially for households with more than two children.

The long hangover from the previous recession was still with us when the current crisis hit. It provides a timely reminder of how important it will be, when we emerge from this recession, to find a way of limiting its scarring effects in the years to come, while at the same time addressing the challenges that we already had.

Appendix A. The Households Below Average Income (HBAI) methodology

Income as a measure of living standards

Most people would consider that well-being consists of more than a simple measure of material circumstances. However, even if we wanted to, it would be extremely hard to define an objective index of well-being, let alone to measure it. The main approach to measuring living standards taken in the government's HBAI document (and in this report) is to focus solely on material circumstances and to mostly use household income as a proxy for them.

Even as a measure of material living standards, the HBAI income measure has some important limitations. There is some evidence of under-reporting of income in the HBAI data, particularly among those households with extremely low reported incomes.²³ Even for those households whose income is measured correctly, HBAI provides a 'snapshot' measure – reflecting actual, or in some cases 'usual', income at around the time of the Family Resources Survey interview. Measuring income in this way means the HBAI income statistics capture both temporary and permanent variation in income between individuals, but the latter would generally be regarded as a better measure of their relative welfare. For example, having a temporarily low income is unlikely to have severe consequences for current material living standards if individuals are able to draw on previously accumulated wealth. Statistics based upon current incomes will attribute the same level of welfare to people with the same current income, regardless of how much savings or other assets they have, or how much they spend. Consumption would arguably make a better measure of material well-being, but reliable data can be harder and more expensive to collect. Using consumption as the measure of well-being can change our interpretation of who is 'poor' and how rates of poverty have changed over time.²⁴

The treatment of housing costs

The government's HBAI publication provides information on two measures of income. One measure captures income before housing costs are deducted (BHC) and the other is a measure after housing costs have been deducted (AHC). The key housing costs captured in the HBAI data are rent payments and mortgage interest payments, but they also include water rates, community water charges, council water charges, structural insurance premiums for owner-occupiers, and ground rents and service charges. Mortgage capital repayments are not included, on the basis that these represent the accumulation of an asset (they increase net housing wealth) and are therefore better thought of as a form of saving than as a cost of housing. Costs such as maintenance, repairs and contents insurance are also not included.

²³ See Brewer, Etheridge and O'Dea (2017).

²⁴ See Brewer, Goodman and Leicester (2006), Brewer and O'Dea (2012), Brewer, Etheridge and O'Dea (2017) and Office for National Statistics (2018).

When looking at changes in average living standards across the population as a whole, there is usually a strong case for focusing on income measured BHC. This is because most individuals exercise a considerable degree of choice over housing cost and quality, at least in the medium and long term, and for those individuals housing should be treated as a consumption good like any other (i.e. the amount that households choose to spend on it should not be deducted from income). For instance, consider two households with the same BHC income, one of which decides to spend a larger fraction of that income on a larger house in a better neighbourhood, while the other has different preferences and chooses to spend the difference on other things. On an AHC basis, the former household would be considered poorer, but their living standards may be comparable.

There are, however, a number of reasons to focus on income measured AHC in certain circumstances.

First, income measured AHC may provide a better indicator of the living standards of those who do not face genuine choices over their housing, particularly if housing cost differentials do not accurately reflect differences in housing quality. This is likely to be the case for many in the social rented sector, where individuals tend to have little choice over their housing and where rents have often been set with little reference to housing quality or the prevailing market rents.

Second, the existence of housing benefit means that measuring income AHC has an advantage over BHC as a measure of living standards for housing benefit recipients. This is because housing benefit reimburses individuals specifically for their rent. Consider a household with no private income whose rent increases by £10 per week. This might trigger a £10 increase in housing benefit entitlement to cover the rent increase. Hence, AHC income would remain unchanged but BHC income would increase by £10 per week. Therefore, where rent changes do not reflect changes in housing quality – for example, when they simply reflect changes in the rules governing social rents – the subsequent changes in BHC (but not AHC) income can give a misleading impression of the change in living standards of households on housing benefit.

Third, measuring income AHC may be more appropriate than BHC when comparing households that own their home outright (and so pay no rent or mortgage interest costs) with those that do not. On a BHC basis, an individual who owns their house outright will be treated as being as well off as an otherwise-identical individual who is still paying off a mortgage; an AHC measure, though, would indicate that the former was better off.²⁵ This is particularly important when comparing incomes across age groups – pensioners are much more likely to own their homes outright than working-age adults.

Fourth, comparing changes in AHC incomes may provide better information about relative changes in living standards when some households have seen large changes in their housing costs that are unrelated to changes in housing quality. This is particularly relevant when looking at the period between 2007–08 and 2009–10, as rapid falls in mortgage interest rates reduced the housing costs of those with a mortgage significantly, while the housing costs of those who rent their homes (or own them outright) were not directly affected. When incomes are measured BHC, changes over time in the incomes of all

²⁵ A conceptually better solution to this problem would be to impute an income from owner-occupation and add this to BHC income. Unlike the AHC measure, this would also capture the benefits to individuals of living in better-quality housing. See Brewer and O’Dea (2012) for an example of such an imputation procedure.

households are adjusted for inflation using a price index that accounts only for *average* housing costs. This will understate the effect of falling housing costs on living standards for those with a mortgage and overstate it for those without a mortgage. Changes in income measured AHC do not suffer from this issue, since changes in housing costs are accounted for by subtracting each household's actual housing costs from its income. This difference is important to bear in mind when looking at changes in poverty and inequality. Those towards the bottom of the income distribution (around the poverty line), as well as the youngest and oldest adults, are less likely than average to have a mortgage.

Income sharing

To the extent that income sharing takes place within households, the welfare of any one individual in a household will depend not only on their own income, but also on the incomes of other household members. By measuring income at the household level, the HBAI statistics implicitly assume that all individuals within the household are equally well off and therefore occupy the same position in the income distribution. For many households, this assumption provides a reasonable approximation – for example, many couples benefit roughly equally from income coming into the household, no matter who the income is paid to. For others, it is unlikely to be appropriate. Students sharing a house are one probable example. Perfect income sharing is by no means the only 'reasonable' assumption that one could make: for example, one could effectively assume that there is complete income sharing *within* the different benefit units²⁶ of a household but not *between* them, by measuring incomes at the benefit unit level rather than at the household level (and making an assumption about how housing costs are split across benefit units). However, given the data available, perfect income sharing is one of the least arbitrary and most transparent assumptions that could be made.

Comparing incomes across households

Controlling for household size and structure is important when comparing living standards across households. If two households, one composed of a single adult and the other composed of a couple with two children, both have the same total income, the living standard of the couple with children will usually be significantly lower than that of the single adult, as the larger household normally has a greater need for material resources. Therefore, if household income is to reflect the standard of living that household members experience, and if we are to compare these incomes across different household types, then some method is required to adjust incomes for the different needs that different households face.

²⁶ Benefit units are the level at which benefits are paid to people. A benefit unit can be either a single person or a couple, plus any dependent children of that single person or couple. For this reason, a benefit unit is frequently described as a 'family'. However, people living together who are related can be in two separate benefit units. For example, a household composed of a couple living with one of their parents would be two separate benefit units, as would a household composed of two adult siblings living together.

Table A.1. Modified OECD equivalence scales

	BHC equivalence scale	AHC equivalence scale
First adult	0.67	0.58
Spouse	0.33	0.42
Other second adult	0.33	0.42
Third and subsequent adults	0.33	0.42
Child aged under 14	0.20	0.20
Child aged 14 and over	0.33	0.42

The official HBAI income statistics currently use the modified OECD equivalence scale for BHC incomes, and an AHC variant from the Department for Work and Pensions (DWP), both shown in Table A.1. These equivalence scales are used to adjust incomes on the basis of household size and composition. For example, when income is measured before housing costs, the OECD scale implies that a single person would require 67% of the income that a childless couple would require to attain the same standard of living. So, to get the equivalent income of that single person, we divide their actual income by 0.67. This process is referred to as ‘income equivalisation’. Having equivalised household incomes, cash income figures are expressed as the equivalents for a childless couple, i.e. a household’s income is expressed as the amount that a childless couple would require to enjoy the same standard of living as that household.

The modified OECD scale only takes into account the ages and number of individuals in the household, but there may be other characteristics affecting a household’s needs. An important example of these would be the disability or health status of household members. The conventional methodology in HBAI would place a household receiving disability benefits higher up the income distribution than an otherwise-equivalent household without such benefits. But if this higher level of income only compensates the household for the greater needs it has or the extra costs it faces, then the standard of living of this household may be no higher.²⁷

Sample weighting, and adjusting the incomes of the ‘very rich’

The incomes analysed in this report are derived from the Family Resources Survey (FRS) and, prior to 1994–95, the Family Expenditure Survey (FES). These surveys are designed to provide a broadly representative sample of households in Great Britain until 2001–02, and in the whole United Kingdom from 2002–03 onwards. However, because they are voluntary surveys, there is inevitably a problem of households not answering them, and such non-response may differ according to family type and according to income. This ‘non-response bias’ is dealt with in two ways. First, weights are applied to the data to ensure that the composition of the sample (in terms of age, sex, partnership status, region and a number of other variables) reflects the true UK population.²⁸ For example, if there are proportionately fewer lone parents in the sample than there are in the population,

²⁷ See section 5.3 of Brewer et al. (2008).

²⁸ See Department for Work and Pensions (2020a).

then relatively more weight must be placed upon the data from those lone parents who actually do respond.

Second, a special adjustment is applied to correct for the particular problems in obtaining high response rates from individuals with very high incomes and for the volatility in their reported incomes. This adjustment uses projected data from HMRC's Survey of Personal Incomes (SPI) – a more reliable source of data for the richest individuals based on income tax returns.²⁹ Individuals with an income above a very high threshold are assigned an income level derived from the SPI, which is an estimate of the average income for people above that threshold in the population (the threshold and replacement income value are set separately for pensioners and non-pensioners). Note that this procedure will therefore not capture the *inequality* within the very richest section of the population. The weights referred to above are also adjusted to ensure that the number of households containing very high-income individuals in the weighted data is correct. There is no corresponding correction for non-response, or for misreporting of incomes, at the lower end of the income distribution, meaning caution should be used when considering people with the very lowest incomes.

Adjusting for inflation

All of the description of the HBAI methodology so far sets out how we, following the government's HBAI methodology, measure living standards in any one year. However, because of inflation, the same cash incomes do not bring the same purchasing power over time. It is therefore necessary to adjust for inflation and express all figures in real terms, which we do in the prices of the latest year of data (2018–19 in this report).

We account for inflation using variants of the Consumer Prices Index (CPI). For comparing BHC measures of income over time, we use a variant of the standard CPI that includes owner-occupiers' housing costs (mortgage interest payments, and insurance and ground rent for owner-occupiers); for AHC measures, we use a variant of the CPI that excludes all housing costs (including rent and water costs, which are part of the standard CPI). These variants are available from the Office for National Statistics back to 1996 and 2000 respectively.³⁰ Before that, we use an approximation to those indices generated by combining RPI-based indices that are available back to 1961 with an estimate of the historical 'formula effect' (the amount by which the Retail Prices Index overstates inflation).³¹

²⁹ See Burkhauser et al. (2018) for an analysis of the limitations of this adjustment and a discussion of alternatives.

³⁰ See <https://www.ons.gov.uk/economy/inflationandpriceindices/adhocs/009959consumerpriceindicesseriesexcludingrentsmaintenancerepairsandwaterchargesfortheperiodjanuary1996tomarch2019>.

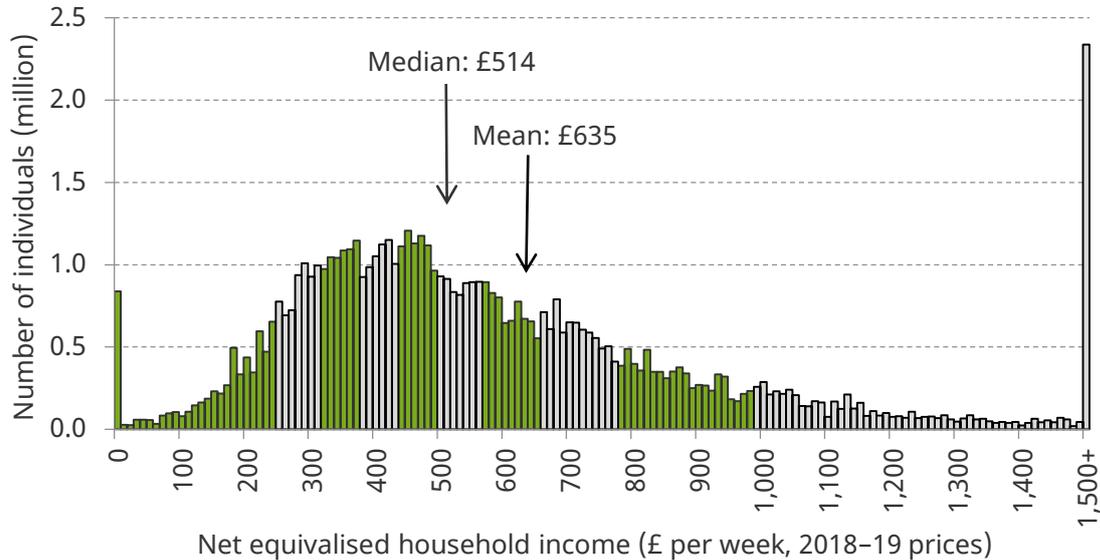
³¹ For more details on the construction of this series, see Department for Work and Pensions (2020a). The resulting 'deflators' are available online at <https://www.ifs.org.uk/uploads/publications/data/Inequality%2C%20poverty%20and%20living%20standards%20data.xlsx>.

The income measure summarised

In the analysis in this report, our main measure of living standards is *household equivalised income after deducting taxes and adding benefits and tax credits*, expressed as the equivalent income for a couple with no dependent children and in average 2018–19 prices. For brevity, we often use this term interchangeably with ‘income’.

Appendix B. Additional results

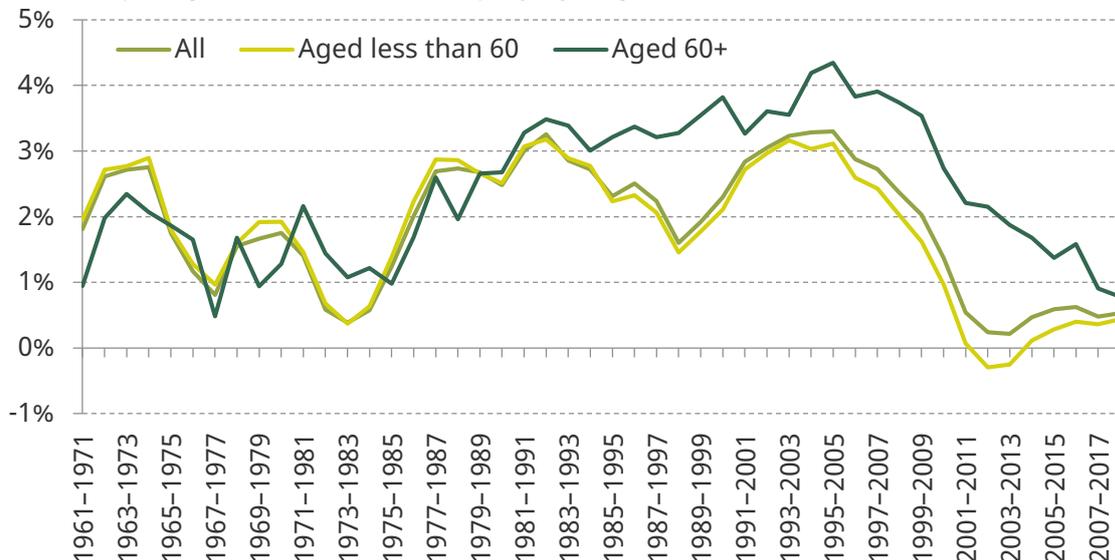
Appendix Figure B.1. The UK income distribution in 2018–19



Note: Incomes have been measured net of taxes and benefits but before housing costs have been deducted and have been equivalised using the modified OECD equivalence scale. All values are expressed in 2018–19 prices in terms of equivalent amounts for a childless couple. The rightmost bar represents incomes of at least £1,500 per week. Bars are coloured alternately green and grey to indicate income deciles.

Source: Authors' calculations using the Family Resources Survey, 2018–19.

Appendix Figure B.2. Average annual growth in median income (after housing costs) over 10-year periods, overall and by age group



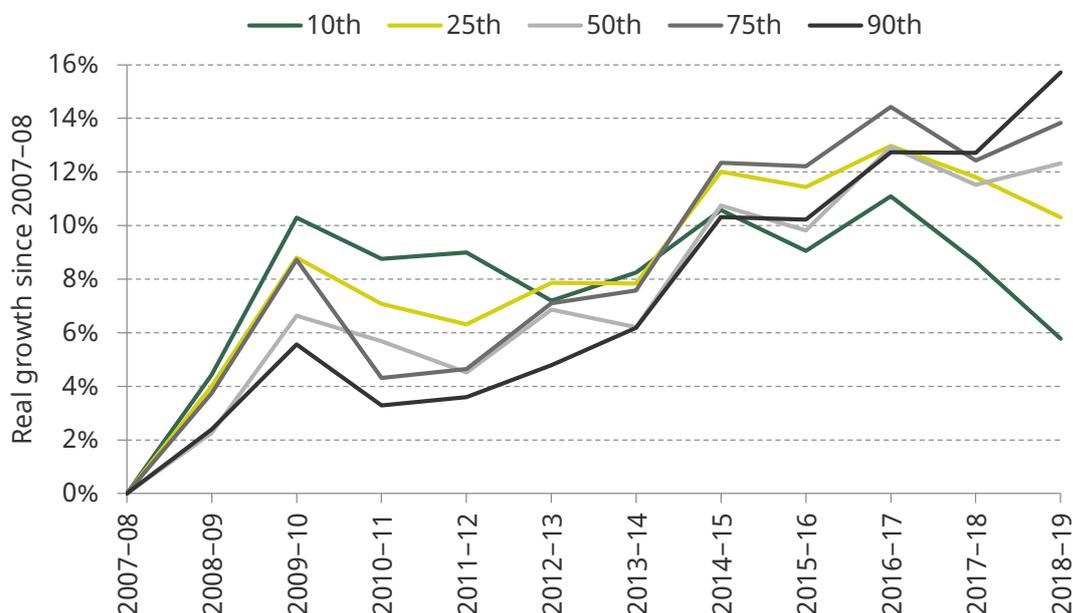
Note: Incomes have been measured net of taxes and benefits and after housing costs have been deducted and have been equivalised using the modified OECD equivalence scale. Years refer to calendar years up to and including 1992 and to financial years from 1993–94 onwards. Data are representative of households in Great Britain between 1961 and 2001–02 and of households in Great Britain and Northern Ireland from 2002–03 onwards.

Source: Authors' calculations using the Family Expenditure Survey, 1961 to 1993, and the Family Resources Survey, 1994–95 to 2018–19.

Appendix Table B.1. Cash values needed to reach various percentiles of the UK income distribution for example families in 2018–19 (£ per week)

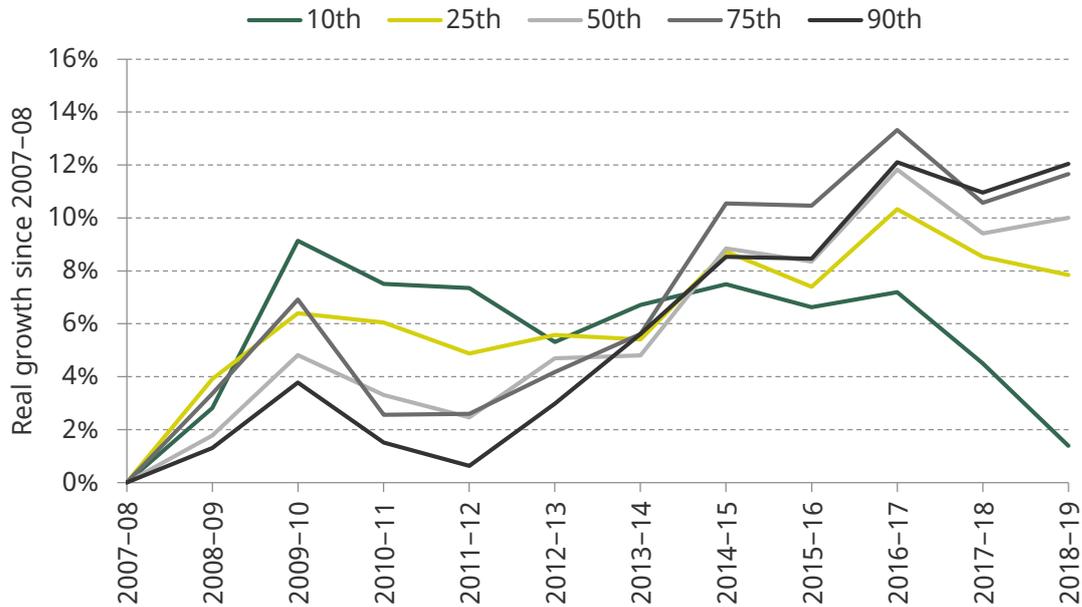
	Childless couple	Single adult	Lone parent, one child	Couple, one child	Couple, two children
10 th percentile (BHC)	256	171	223	307	358
50 th percentile (i.e. median, BHC)	514	344	447	616	719
90 th percentile (BHC)	1,035	693	900	1,242	1,449
99 th percentile (BHC)	2,745	1,839	2,388	3,294	3,843
10 th percentile (AHC)	176	102	137	211	246
50 th percentile (i.e. median, AHC)	447	259	349	537	626
90 th percentile (AHC)	940	545	733	1,128	1,316
99 th percentile (AHC)	2,670	1,549	2,083	3,204	3,738

Note: Incomes have been measured net of taxes and benefits and either before housing costs (BHC) or after housing costs (AHC) have been deducted. The children in these example families are assumed to be aged 13 or younger. For families with older children, the cash values of income needed to reach the various percentiles are slightly higher.

Appendix Figure B.3. Real growth since 2007–08 in percentiles of household income among people aged 60+ (BHC)

Note: Incomes have been measured net of taxes and benefits but before housing costs have been deducted and have been equalised using the modified OECD equivalence scale.

Source: Authors' calculations using the Family Resources Survey, 2007–08 to 2018–19.

Appendix Figure B.4. Real growth since 2007–08 in percentiles of household income among people aged 60+ (AHC)

Note: Incomes have been measured net of taxes and benefits, after housing costs have been deducted, and have been equivalised using the modified OECD equivalence scale.

Source: Authors' calculations using the Family Resources Survey, 2007–08 to 2018–19.

Appendix Table B.2. Cash values of poverty lines for example families in 2018–19 (£ per week)

	Childless couple	Single adult	Lone parent, one child	Couple, one child	Couple, two children
Absolute poverty line (AHC)	253	147	197	303	354
Relative poverty line (AHC)	268	156	209	322	376
Absolute poverty line (BHC)	295	197	256	353	412
Relative poverty line (BHC)	308	206	268	370	431

Note: Incomes have been measured net of taxes and benefits and after housing costs (AHC) or before housing costs (BHC) have been deducted. The children in these example families are assumed to be aged 13 or younger. For families with older children, the poverty lines are slightly higher. The absolute poverty line is defined as 60% of median income in 2010–11 and the relative poverty line as 60% of median income in 2018–19.

Source: Department for Work and Pensions, 'Households below average income: 1994/95 to 2018/19', 2020.

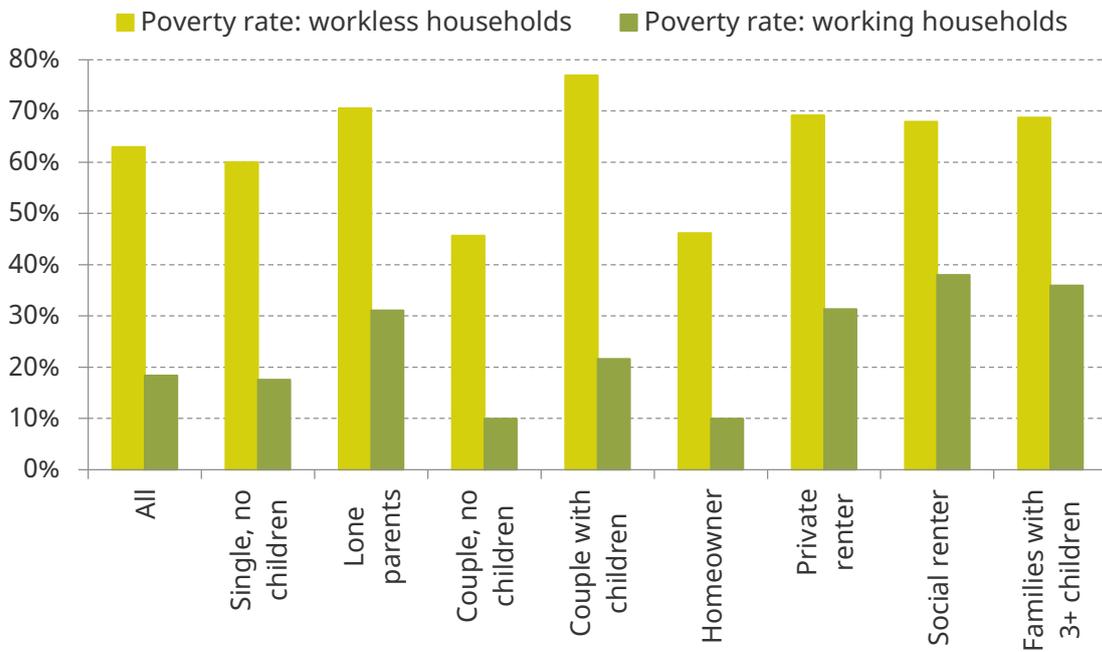
Appendix Figure B.5. Percentage point change in absolute poverty (AHC) over eight-year periods, by demographic group



Note: Years refer to calendar years up to and including 1992 and to financial years from 1993-94 onwards. Figures are presented for GB up until 2001-02 and for the whole of the UK from 2002-03 onwards. The absolute poverty line is defined as 60% of median income in the initial year of each eight-year period.

Source: Authors' calculations using the Family Expenditure Survey, 1961 to 1993, and the Family Resources Survey, 1994-95 to 2018-19.

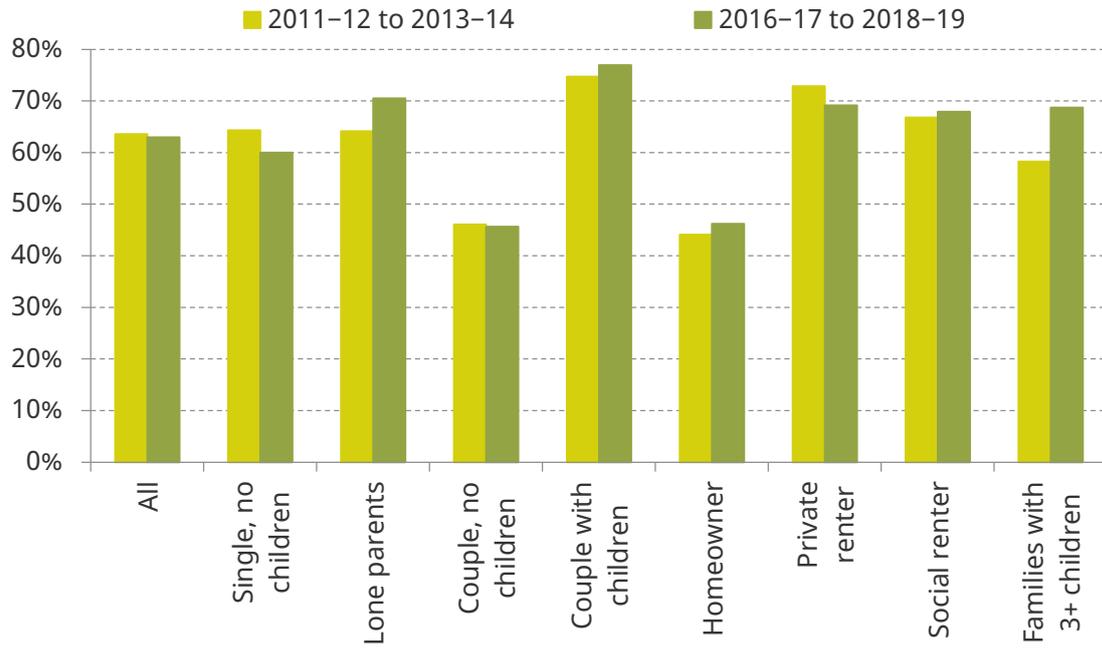
Appendix Figure B.6. Non-pensioner relative AHC poverty, by household work status and family characteristics



Note: The relative poverty line is defined as 60% of median income in each year. To ensure sufficient sample size, the figure shows the mean rate across 2016-17, 2017-18 and 2018-19.

Source: Authors' calculations using the Family Resources Survey, 2016-17 to 2018-19.

Appendix Figure B.7. Non-pensioner relative AHC poverty among workless households, by time period and family characteristics



Note: The relative poverty line is defined as 60% of median income in each year. To ensure sufficient sample size, the figure shows mean rates across 2011-12 to 2013-14 and 2016-17 to 2018-19.

Source: Authors' calculations using the Family Resources Survey, 2011-12 to 2013-14 and 2016-17 to 2018-19.

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