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Research Report

Living standards, poverty and inequality in the UK: 2022

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Institute for Fiscal Studies

IFS Report R215

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Tom Waters
Thomas Wernham
Xiaowei Xu

Living standards, poverty and inequality in the UK: 2022

UKRI Economic and Social Research Council

JRF Joseph Rowntree Foundation

Living standards, poverty and inequality in the UK: 2022

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Preface

The Joseph Rowntree Foundation has supported this project as part of its programme of research and innovative development projects, which it hopes will be of value to policymakers, practitioners and service users (grant reference 210101A). The views expressed in this report are, however, those of the authors and not necessarily those of the Foundation. Neither are the views expressed necessarily those of the other individuals or institutions mentioned here, including the Institute for Fiscal Studies, which has no corporate view. Co-funding from the ESRC-funded Centre for the Microeconomic Analysis of Public Policy at IFS (grant number ES/T014334/1) is also very gratefully acknowledged.

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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Key findings

Household incomes during the pandemic

1 **Median (middle) disposable incomes fell by 1.7% in 2020–21 (the first year of the COVID-19 pandemic) compared with the previous year**, and this is little changed if one measures income after deducting housing costs. This fall is equivalent to about one year's post-Great-Recession income growth – a strikingly muted effect given the scale of economic disruption seen during the pandemic. In large part this is driven by the huge support provided to households in 2020–21 – particularly around £60 billion that year through the furlough scheme, and additional spending on working-age benefits of £11 billion compared with 2019–20.

2 **While average incomes fell, the incomes of poorer households rose in real terms**, by around 3% for the lowest-income fifth of the population. This was due to the nature of the support for households, with large increases to benefits (such as the temporary uplift to universal credit), and to the fact that the poorest suffered less from falls in employment incomes which affected many on middle and higher incomes.

3 **The increases to benefits and tax credits in 2020–21 were substantial and – for families on low or no earnings – on average reversed the cuts to benefits that had been seen since 2011–12.** In 2020–21, a working-age family with no earnings received benefits on average worth £26 per week more than in 2019–20, and the same amount as received by families without earnings in 2011–12. Most of the benefit increases were temporary, however.

4 **Growing incomes for people in poorer households also reduced absolute income poverty**, which fell by 1 percentage point to 17% (after deducting housing costs). This fall was focused on children and pensioners, whose absolute poverty rates both fell by 2 percentage points; working-age adults without dependent children saw little change. For children, this is the largest one-year fall since UK-wide statistics were first published, in 2002–03. Low-income children and pensioners have done particularly well because pensioners were less likely to be exposed to the labour market shock of the

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pandemic, while families with children were more likely to gain from the increase to benefits.

5 **The relative poverty rate (the fraction of people with an income below 60% of the median) fell by 1.7 percentage points – more than the decline in absolute poverty**, reflecting the fall in median income.

6 **Higher income growth for poor households pushed down measures of disposable income inequality, though the changes were not dramatic.** The widely cited Gini coefficient fell from 0.35 in 2019–20 to 0.34 in 2020–21, around the same level that it has been at since the early 1990s, but still far higher than the level seen at the end of the 1970s (around 0.24).

7 **Despite the difficulties in collecting data and producing the official poverty statistics during the pandemic, the official statistics compare well against another source of data on income poverty, the UK Household Longitudinal Study.** The two surveys show very similar changes in relative poverty rates, although – unsurprisingly – they show slightly different results for specific subgroups of the population.

8 **Average incomes are likely to have started to recover in 2021–22 as many people returned to work from furlough.** It is more likely than not that the falls in income inequality in 2020–21 were at least partially reversed in 2021–22, with the expiry of the £20 uplift to universal credit in October, and trends in labour market earnings that suggest high earners saw larger increases in their pay.

9 **Looking ahead to this year (2022–23), inflation rates not seen since the early 1980s are eroding the real value of household incomes.** However, with highly progressive support for households announced by the government, and tax rises (on income tax and National Insurance) which hit higher earners harder, low-income households are likely to see better income growth – or at least, smaller declines – than those on higher incomes this year. It is worth reflecting that to some extent the inflation and cost of living crisis we are now facing is a hangover from the scale of economic support provided during the pandemic, both here and internationally. This should act as a reminder that while governments can shield households temporarily, and support those most in need, they cannot protect all of us forever from the negative effects of economic shocks.

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Trends in child poverty and material deprivation prior to the COVID-19 pandemic

1 **In 2019–20, the last year before the pandemic, 25% of children were in absolute poverty** – which for a two-parent family with two young children is defined as having a weekly income below £363 after deducting housing costs. This was down from 28% in 2013–14. The fall in absolute child poverty over this six-year period (3 percentage points) was similar to the fall in poverty in the six years during and immediately after the Great Recession, and far smaller than the fall in poverty in the six years from 1997–98 (16 percentage points).

2 **Relative child poverty – defined as having an income of less than 60% of median income after deducting housing costs – rose in the years leading up to the pandemic.** It increased from 27% in 2013–14 to 31% in 2019–20, the same level as in 2007–08. This means that low-income families with children slipped further behind those on average incomes during the recovery from the Great Recession. In 2019–20, 4.3 million children were in relative income poverty, compared with 3.7 million in 2013–14.

3 **The share of children in families in which at least one adult was in work rose from 82% in 2013–14 to 88% in 2019–20.** Coupled with a partial recovery in earnings after the Great Recession, this led to a large increase in income from employment for low-income families with children. However, **the rise in employment income was mostly offset by a fall in income from benefits**, due to a series of cuts to the real value of working-age benefits. One in five children in working families had incomes below the absolute poverty line in 2019–20, the same as 17 years earlier in 2002–03.

4 **The absolute poverty rate for children in families with three or more children, who make up around 30% of all children, was 38% in 2019–20 – double the rate for only children and those with only one sibling (19%).** Low income growth for poor larger families meant that absolute child poverty for this group was no lower in 2019–20 than it was 16 years earlier in 2003–04. Reductions in the real value of working-age benefits since 2010 were larger for families with more children, who are more reliant on benefits.

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5 **Absolute poverty rates for black (43%) and Asian (41%) children were nearly twice as high as for white children (22%) in the years leading up to the pandemic.** Absolute child poverty fell for children from all broad ethnic groups between 2013–14 and 2019–20, with black children seeing the largest fall, of 7 percentage points. However, children from all broad ethnic groups saw small rises in relative poverty over the same period, as their incomes did not keep up with those on middle incomes.

6 **In contrast to income measures of poverty, child material deprivation fell rapidly in the years leading up to the pandemic.** The share of children who are materially deprived – defined as those in families unable to afford common items and activities – fell from 24% in 2013–14 to 18% in 2019–20. This is the largest fall seen since the measure was introduced in 2004–05, and much larger than the fall in absolute poverty.

7 **The ability for low-income families with children to afford many common items and activities has increased in the years running up to the pandemic.** That is, for a given level of income, they seem to be less materially deprived. It is not completely clear what has driven this. One reason could be falling real prices of some essentials over that period, such as gas. There is also some evidence that some poor families may be able to support themselves slightly better through periods of low income: the fraction of families with children in the lowest fifth of household incomes who have at least £2,000 of savings, adjusting for inflation, rose from 22% in 2010 to 33% in 2013 and 38% in 2019.

8 **Inflation in 2022 is higher for lower-income families.** The government's package of support for energy bills is highly progressive, benefiting poorer families more than middle- or high-income families. However, the decision to offer a flat rate of support for families on means-tested benefits, rather than uprating benefits with inflation, provides less support for children in large families. While reductions in material deprivation in recent years have been partly driven by families' increased ability to keep their homes warm enough (from 78% in 2013–14 to 88% in 2019–20), higher energy prices could mean fewer can now afford heating and other essential items, pushing up material deprivation.

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1. Introduction

This report examines how material living standards – most commonly measured by households' incomes – have changed for different groups in the UK, and the consequences that these changes have for income inequality and for measures of deprivation and poverty. This is the 22nd annual report published by IFS authors on living standards, poverty and inequality in the UK since the annual reports started in 2001. In this report, we focus on two particular issues. First, we look at how the distribution of household income changed during the first year of the COVID-19 pandemic. Second, we use pre-pandemic data on child poverty and material deprivation to examine the situation facing poor families with children prior to the pandemic.

The analysis in this report is chiefly based on data from the Family Resources Survey (FRS), a survey of around 20,000 households a year, which contains detailed information on different sources of household incomes. However, due to surveying difficulties in the pandemic, the sample size in 2020–21 was much lower, closer to 10,000. 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 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 2020–21. They are supplemented by data derived from the Family Expenditure Survey (FES) for the years from 1961 to 1993–94.

In addition, in Chapter 2, we also make use of data from Understanding Society: the UK Household Longitudinal Study (UKHLS), a household panel survey that usually surveys sampled households once a year, with the latest data covering up to the end of 2020.

A key outcome of interest through the report is 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 it is worth noting that when we refer to household income, we specifically mean 'net equivalised household income'. 'Net' indicates that we are looking at incomes measured after direct taxes (including council tax) are paid, and after benefits and tax credits are received. 'Equivalised' means that incomes are rescaled to account for the fact that households of different sizes and compositions have different needs. 'Household income' means that we add up the income (from all sources) of each person in the household. We sometimes term this measure of income 'disposable income'. Although we measure household incomes, 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.

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All cash figures are presented in 2020–21 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 FRS data since 2002–03.

The rest of this report proceeds as follows.

Chapter 2 examines changes in the distribution of household incomes in the UK during the first year of the COVID-19 pandemic, 2020–21, using the HBAI microdata. The chapter considers how average incomes have changed, and how that has differed across the income distribution, with consequences for measures of income inequality and poverty. In this chapter, we examine changes in different income sources in 2020–21, which sheds light on the drivers of the evolution of household incomes. We also make comparisons with the recovery from the Great Recession (2011–12 to 2019–20) to show how different income growth is now from that in the pre-pandemic period. Finally, we provide some evidence on whether the restrictions of the pandemic affected data collection, by comparing patterns in the HBAI data and those seen in an alternative data source, the UK Household Longitudinal Study.

Chapter 3 focuses on changes in living standards for children in the run-up to the COVID-19 pandemic. We focus on the pre-pandemic data because they give a baseline understanding of the situation facing children that is not affected by the exceptional circumstances of the pandemic (and the support provided by the state in that period). We examine changes in measures of child poverty in the run-up to the pandemic and for which groups there have been larger or smaller increases. Given the importance of state support for poor families with children, we also examine changes in benefit incomes between 2011 and 2019 in particular. Finally, we study changes in child material deprivation, which measures the extent to which families with children cannot afford particular items or activities, and which had fallen substantially in the run-up to the pandemic.

In addition to the chapters in this report, we have written an IFS Working Paper, which is part of this project but published separately. 'Living standards of working-age disability benefit recipients in the UK', by Jonathan Cribb, Heidi Karjalainen and Tom Waters, examines the

[1] Further information on the adjustments that DWP makes for inflation can be found in Department for Work and Pensions (2022a). 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.

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material standard of living of working-age disabled people, and in particular of those receiving disability benefits.

Cribb, Karjalainen and Waters (2022) examine a variety of measures of low living standards for disability benefit recipients, comparing them with those for other disabled people not receiving those benefits as well as for the wider working-age population. They look in detail at the period from 2012–13 to 2019–20, during which most disability benefit recipients were moved from the old benefit 'disability living allowance' to a new benefit 'personal independence payment'. The authors also examine data on the health of people receiving disability benefits, looking at the type of conditions people have, and the extent to which benefits have become more targeted on those in poorer health. Finally, they examine how employment, income (including income poverty) and financial difficulties change when people experience reductions in their disability benefits.

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2. Household incomes during the pandemic

Key findings

1 **Median (middle) disposable incomes fell by 1.7% in 2020–21 (the first year of the COVID-19 pandemic) compared with the previous year**, and this is little changed if one measures income after deducting housing costs. This fall is equivalent to about one year's post-Great-Recession income growth – a strikingly muted effect given the scale of economic disruption seen during the pandemic. In large part this is driven by the huge support provided to households in 2020–21 – particularly around £60 billion that year through the furlough scheme, and additional spending on working-age benefits of £11 billion compared with 2019–20.

2 **While average incomes fell, the incomes of poorer households rose in real terms**, by around 3% for the lowest-income fifth of the population. This was due to the nature of the support for households, with large increases to benefits (such as the temporary uplift to universal credit), and to the fact that the poorest suffered less from falls in employment incomes which affected many on middle and higher incomes.

3 **The increases to benefits and tax credits in 2020–21 were substantial and – for families on low or no earnings – on average reversed the cuts to benefits that had been seen since 2011–12.** In 2020–21, a working-age family with no earnings received benefits on average worth £26 per week more than in 2019–20, and the same amount as received by families without earnings in 2011–12. Most of the benefit increases were temporary, however.

4 **Growing incomes for people in poorer households also reduced absolute income poverty**, which fell by 1 percentage point to 17% (after deducting housing costs). This fall was focused on children and pensioners, whose absolute poverty rates both fell by 2 percentage points; working-age adults without dependent children saw little change. For children, this is the largest one-year fall since UK-wide statistics were first published, in 2002–03. Low-income children and pensioners have done particularly well because pensioners were less likely to be exposed to the labour market shock of the

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pandemic, while families with children were more likely to gain from the increase to benefits.

5 **The relative poverty rate (the fraction of people with an income below 60% of the median) fell by 1.7 percentage points – more than the decline in absolute poverty**, reflecting the fall in median income.

6 **Higher income growth for poor households pushed down measures of disposable income inequality, though the changes were not dramatic.** The widely cited Gini coefficient fell from 0.35 in 2019–20 to 0.34 in 2020–21, around the same level that it has been at since the early 1990s, but still far higher than the level seen at the end of the 1970s (around 0.24).

7 **Despite the difficulties in collecting data and producing the official poverty statistics during the pandemic, the official statistics compare well against another source of data on income poverty, the UK Household Longitudinal Study.** The two surveys show very similar changes in relative poverty rates, although – unsurprisingly – they show slightly different results for specific subgroups of the population.

8 **Average incomes are likely to have started to recover in 2021–22 as many people returned to work from furlough.** It is more likely than not that the falls in income inequality in 2020–21 were at least partially reversed in 2021–22, with the expiry of the £20 uplift to universal credit in October, and trends in labour market earnings that suggest high earners saw larger increases in their pay.

9 **Looking ahead to this year (2022–23), inflation rates not seen since the early 1980s are eroding the real value of household incomes.** However, with highly progressive support for households announced by the government, and tax rises (on income tax and National Insurance) which hit higher earners harder, low-income households are likely to see better income growth – or at least, smaller declines – than those on higher incomes this year. It is worth reflecting that to some extent the inflation and cost of living crisis we are now facing is a hangover from the scale of economic support provided during the pandemic, both here and internationally. This should act as a reminder that while governments can shield households temporarily, and support those most in need, they cannot protect all of us forever from the negative effects of economic shocks.

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This chapter examines recent trends in household disposable income, with a particular focus on the immediate impact of the COVID-19 pandemic in the financial year 2020–21, and how it compares with the patterns seen since the beginning of the recovery from the Great Recession (2011–12).

We begin by reviewing trends in incomes and income inequality in recent years, and consider the broad impact of the pandemic on the household income distribution, assessing how the huge disruption to the labour market and significant policy interventions to support household incomes ultimately fed through to the distribution of disposable income. We then analyse the sources of the changes in income for different parts of the distribution, quantifying the role played by labour market disruption and increases to benefits. Finally, we turn our attention to income poverty and incomes at the bottom of the distribution, digging deeper into the impact of the pandemic on this group's material living standards in the context of recent trends.

We primarily rely on the Households Below Average Income (HBAI) statistics, which are available up to 2020–21. The HBAI data are derived income variables calculated from the Family Resources Survey which is collected by the Department for Work and Pensions (DWP). As in the rest of this report, incomes are adjusted ('equivalised') to account for differences in the size and composition of different households, reflecting the idea that larger households need more income than smaller households to enjoy a comparable standard of living. All incomes are deflated using a measure of inflation based on the Consumer Prices Index (CPI) and expressed in 2020–21 prices.

Household incomes can be measured before or after housing costs are deducted (BHC or AHC respectively). There is an element of choice in many people's spending on housing, and the BHC measure ignores differences in spending on housing in much the same way as we do not assess poverty by looking at incomes after spending on other specific items (such as food purchases). However, variation in housing costs may not reflect differences in housing quality, especially in the social rented sector. Further, the BHC measure includes housing benefit as income but does not deduct rent. An increase in rent covered by housing benefit shows up as an increase in BHC income, which makes households appear better off even though their disposable income remains unchanged. In this chapter, we largely focus on BHC incomes but note, where important, the equivalent statistics for AHC incomes.

There are several points to note regarding income measurement during the pandemic.

First, the closure of large parts of the economy during the pandemic created difficulties in calculating the rate of inflation, and also made it worse as a measure of the changing cost of living (Blundell et al., 2020). This affects our measure of 'real-terms' incomes, although because

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a single inflation rate is used for the whole income distribution, it does not affect measures of inequality or differences in growth rates across the distribution.

Second, the measurement of self-employment incomes in the HBAI data is likely to be considerably less precise in 2020–21 than usual. The income of most self-employed people is measured as their profit in the last full year of accounts – i.e. 2019–20, before the pandemic. Thus, any disruption to their business from the pandemic will not show up in their measured income. A minority of self-employed individuals report their regular self-employment income over the previous 12 months (rather than the previous tax year), which, especially for those surveyed in the latter part of 2020–21, will include some of the pandemic – though still not necessarily be representative of their income in the pandemic year as a whole. These practices have implications for the measurement of income from the Self-Employed Income Support Scheme (SEISS) – one of the government's major income maintenance programmes. SEISS grants, of which there were three tranches in 2020–21, will not appear in incomes at all for those who report their profits from the previous tax year. They should in principle appear in the incomes of those who report regular self-employment income over the previous 12 months, though of course will not include any SEISS payments that occur after the person is interviewed.[2]

Third, the collection of the Family Resources Survey data themselves – usually done via in-person interviews – was made considerably more challenging by the pandemic. DWP moved to telephone interviewing, which reduced the sample size of the survey and affected its composition. In response, DWP has taken various additional measures to preserve the representativeness of the HBAI data, including controlling for the number of people of different education levels when constructing weights to summarise the income distribution.

To examine the reliability of the HBAI statistics in 2020–21, we compare results from HBAI with those calculated from the UK Household Longitudinal Study (UKHLS), another survey which collects detailed income data but, unlike HBAI, is a panel – i.e. it interviews the same people each year. This offers a potential advantage: although UKHLS data collection was impacted as HBAI was, those who were *not* reached by UKHLS were sampled in a previous wave. That means much more is known about those who did not respond to UKHLS than is known about those who did not respond to HBAI, potentially allowing for the creation of more precise weights to address non-random non-response. To explore how the pandemic may have affected the HBAI data, below we compare some key statistics in HBAI and equivalents in UKHLS. We measure, in both data sets, the change between the last three quarters of 2019 and

[2] This point is discussed in more detail in Department for Work and Pensions (2022b).

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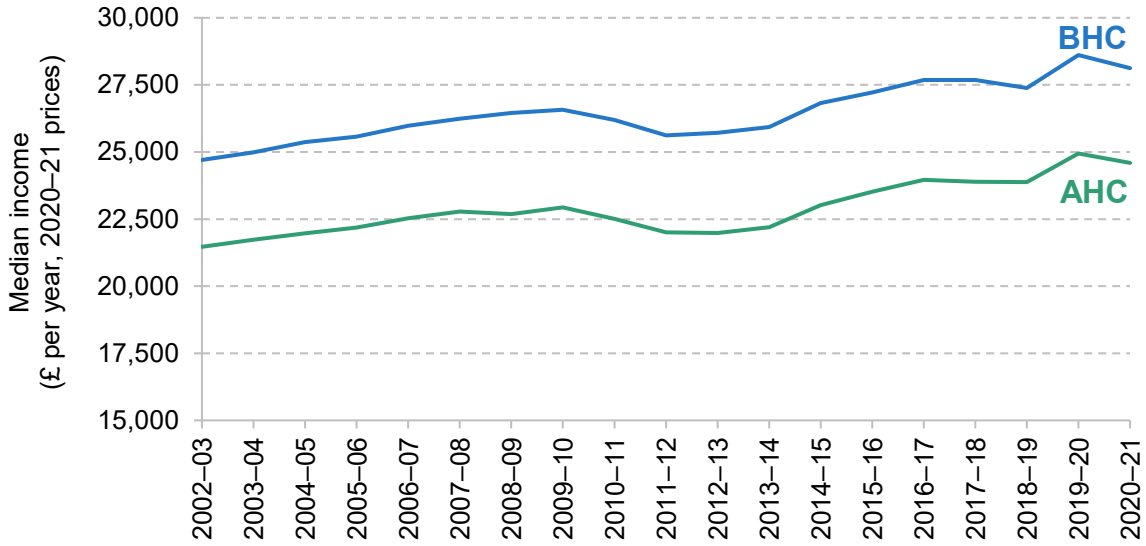
the last three quarters of 2020 – the period of overlap between the latest releases of the two data sets.

2.1 Trends in the overall income distribution

Recent trends in median disposable household income, before and after deducting housing costs, and after adjusting for inflation, are shown in Figure 2.1. The figure shows that median income (equivalised and expressed as the equivalent income for a childless couple) was around £28,100 in the first pandemic year, a reduction of 1.7% on the previous year's estimate. After deducting housing costs, median income was £24,600 in 2020–21, representing a slightly smaller fall of 1.4% on the previous year.

Figure 2.1. Median disposable household income measured before (BHC) and after (AHC) housing costs are deducted, 2002–03 to 2020–21



Note: Incomes have been measured net of taxes and benefits, and are expressed in 2020–21 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 2020–21.

In view of the huge disruption to people's ability to work brought about by the pandemic and social distancing measures, it is very notable how little change there was in the middle of the income distribution (indeed, neither change is statistically significant). For context, the average annual growth in median BHC income since the start of the recovery from the Great Recession to the year before the pandemic (2011–12 to 2019–20) was 1.4% (1.6% for AHC). In other words, the pandemic effectively only undid a year's worth of post-recession growth. This to a very significant extent likely reflects the huge government spending on measures to mitigate falls in income, including the Coronavirus Job Retention Scheme (CJRS or furlough scheme,

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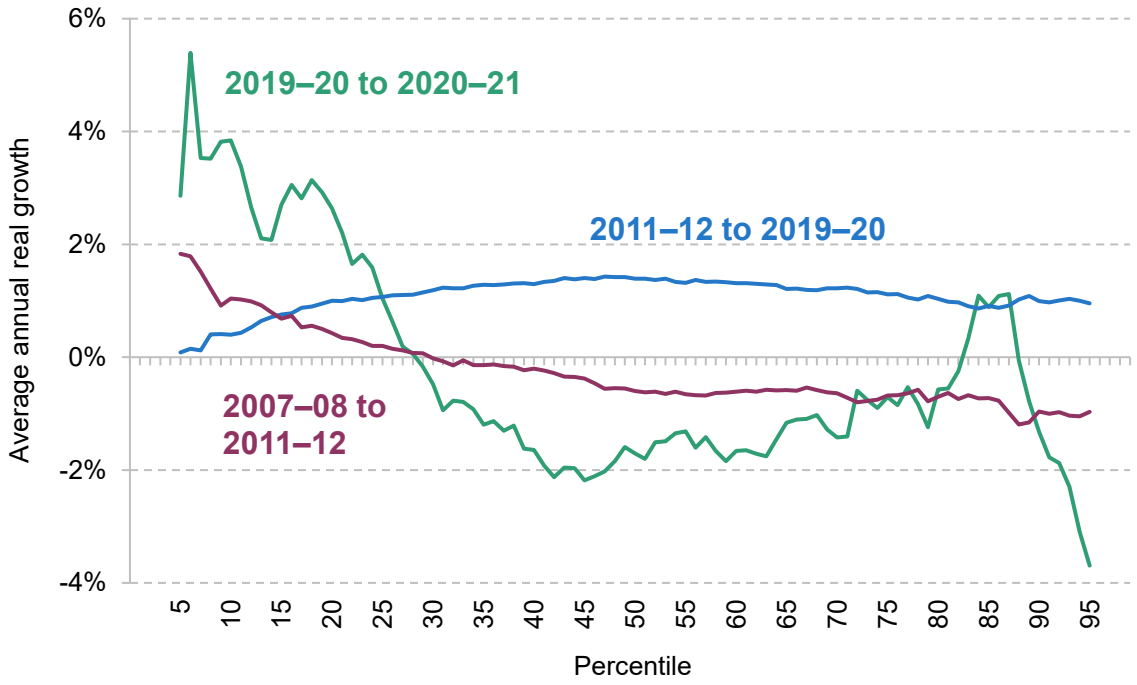
which cost around £60 billion in 2020–21) and uplifts to benefits including universal credit, working tax credit and housing benefit. In total, government spending on working-age benefits was around £11 billion higher in 2020–21 than in 2019–20. As mentioned above, the Self-Employed Income Support Scheme – which cost around £20 billion in 2020–21 – is mostly not included in the HBAI data.

Of course, the change in median income only tells us what was happening in the middle of the income distribution, and masks the fact that the impact of the pandemic on incomes was felt very differently by different parts of the distribution.

Figure 2.2. Average annual real disposable household income growth, by income percentile, for various periods



Note: Incomes have been measured net of taxes and benefits and before housing costs have been deducted, and are expressed in 2020–21 prices. All incomes have been equivalised using the modified OECD equivalence scale.

Source: Authors' calculations using the Family Resources Survey, 2007–08 to 2020–21.

In Figure 2.2, we illustrate this point by examining the change in incomes at different points in the income distribution (measured BHC). As well as the change from 2019–20 to 2020–21, we include the average annual change over the last economic crisis, the Great Recession and its aftermath (2007–08 to 2011–12), and the average annual change between the recovery from the Great Recession and the pre-pandemic year (2011–12 to 2019–20). Focusing first on the pandemic year, we can see that while incomes fell by a small amount around the middle of the distribution (as discussed above), incomes in the bottom quarter or so actually rose, and by substantial amounts – more than 3% on average for the bottom fifth. This is in contrast to most

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of the rest of the income distribution, for whom incomes fell slightly. The reason for this pattern, as will be explored later, is that the people on lower incomes were more likely to be eligible for benefit increases during this period; in addition, as those near the bottom of the income distribution tend to only receive a small share of their income from employment, the labour market disruption had a somewhat more muted effect on them. Figure B.1 in Appendix B shows that the pattern of income growth from 2019–20 to 2020–21 when measured AHC is very similar to that measured BHC which is shown in Figure 2.2.

Notably, the patterns seen during the four years of the Great Recession and its aftermath were fairly similar in broad terms, with income increases at the bottom of the distribution and decreases further up (albeit more muted in both cases). Conversely, during the period of recovery from the Great Recession, income inequality modestly increased, with larger rises in income in the middle and top of the distribution than at the bottom.

As mentioned in the introduction, the collection of HBAI data was more challenging in the pandemic year than in previous years. To check the impact on key statistics, we have also computed income growth across the income distribution in the UKHLS data (see Figure B.2 in Appendix B[3]). These data give a reasonably similar picture in the bottom half of the distribution – strong growth right at the bottom, which falls away fairly quickly and plateaus around the 30th percentile. Things are somewhat more different in the top half of the distribution, where UKHLS suggests an inequality-reducing pattern (i.e. middle growing faster than the top) and HBAI the reverse.

We now turn to the headline measures of income inequality which come out of the changes examined above. Figure 2.3 shows the 90:50 ratio, which gives the ratio between the 90th and 50th percentiles of the income distribution, and the 50:10 ratio, which is defined correspondingly. While there is very little change in the 90:50 ratio between 2019–20 and 2020–21, the increase in incomes at the bottom and slight fall in incomes in the middle has led to a drop in the 50:10 ratio, bringing both ratios to 1.96. This means the middle of the income distribution had about double the income of the 10th percentile in 2020–21, and the 90th percentile had about double that of the middle. Neither of these statistics has substantially changed since the early 1990s, in both cases fluctuating between 1.9 and 2.1.

[3] Note that in this figure, as well as the customary exclusion of percentiles 1–4 and 96–99 on the grounds of statistical uncertainty, we also exclude percentiles 5–7. This is again because of statistical uncertainty, with a UKHLS sample size of 11,000 across 2019Q2–Q4 and 2020Q2–Q4 (compared with 29,000 in the 2019–20 and 2020–21 HBAI data that much of the rest of our analysis is based upon). Percentiles 5–7 show an income change of –6% to +1% in UKHLS, but +6% to +7% in HBAI, amounting to a 5–13 percentage point difference between the two. We strongly suspect that this difference is largely driven by statistical noise rather than systematic differences between the surveys – in the rest of the distribution, the absolute difference never exceeds 4.4 percentage points and averages 1.8 percentage points. Moreover, immediately above percentile 7 the two distributions are very close, suggesting that it is not that the two surveys are capturing the experience of low-income individuals substantially differently from one another.

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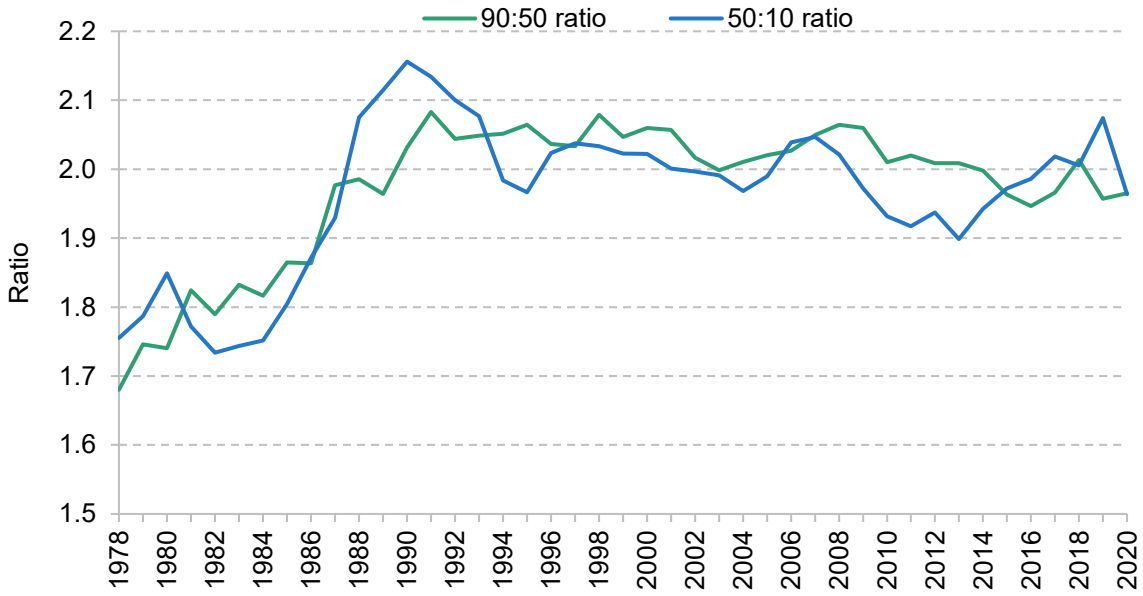
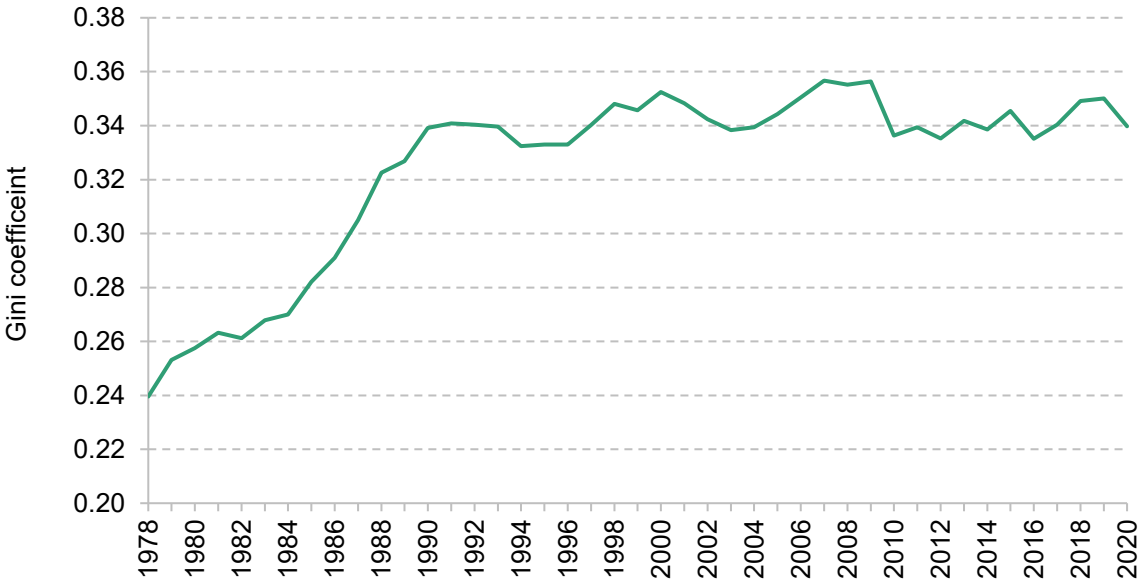
Figure 2.3. 90:50 and 50:10 ratios for disposable household income, 1978 to 2020–21



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

Source: Authors' calculations using the Family Resources Survey, 1994–95 to 2020–21, and the Family Expenditure Survey, 1978 to 1993.

Figure 2.4. Gini coefficient for disposable household income, 1978 to 2020–21



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

Source: Authors' calculations using the Family Resources Survey, 1994–95 to 2020–21, and the Family Expenditure Survey, 1978 to 1993.

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Figure 2.4 shows the Gini coefficient, a measure of inequality which captures the entire income distribution. The Gini in 2020–21 stood at 0.34, a little lower than in the previous year, and a similar level to what it has been at since the early 1990s, but still much higher than the level seen at the end of the 1970s. As with the relatively muted impact on median income, it is remarkable how little these aggregate inequality measures moved despite the huge disruption the year 2020–21 saw.

2.2 Changes in income sources

In this section, we will examine in more detail the reasons for the changes in incomes that we have seen, and place them in a recent historical context. We will see how incomes from different sources have changed for different parts of the distribution, and how this explains the patterns we discuss in other parts of the chapter.

The following graphs split the income distribution into three equal groups – i.e. thirds or 'tertiles'. They show the mean income growth for different periods for each tertile (the diamonds) and the mean income growth within each tertile decomposed into the change in different sources of income (the bars): employment income (net of tax, and including any income from furlough); working-age benefits and tax credits; savings, investments and private pension income (net of tax); benefits for pensioner households; and other income and deductions. In the 'All' bar, we also show median income growth for comparison (the triangle).

Figure 2.5 decomposes income changes in the years before the pandemic, from 2011–12 to 2019–20. The figure shows an inverse-U shape in income growth, with incomes around the middle growing faster than those at the top or bottom (leading to a small rise in relative income poverty, as will be discussed in Section 2.3). It also shows that the majority of this change was accounted for by changes in net employment income, especially in the lowest two tertiles. This was partially offset by reductions in working-age benefits (a consequence of both policy changes and rising employment and earnings), which were felt primarily by the lowest third of the income distribution.

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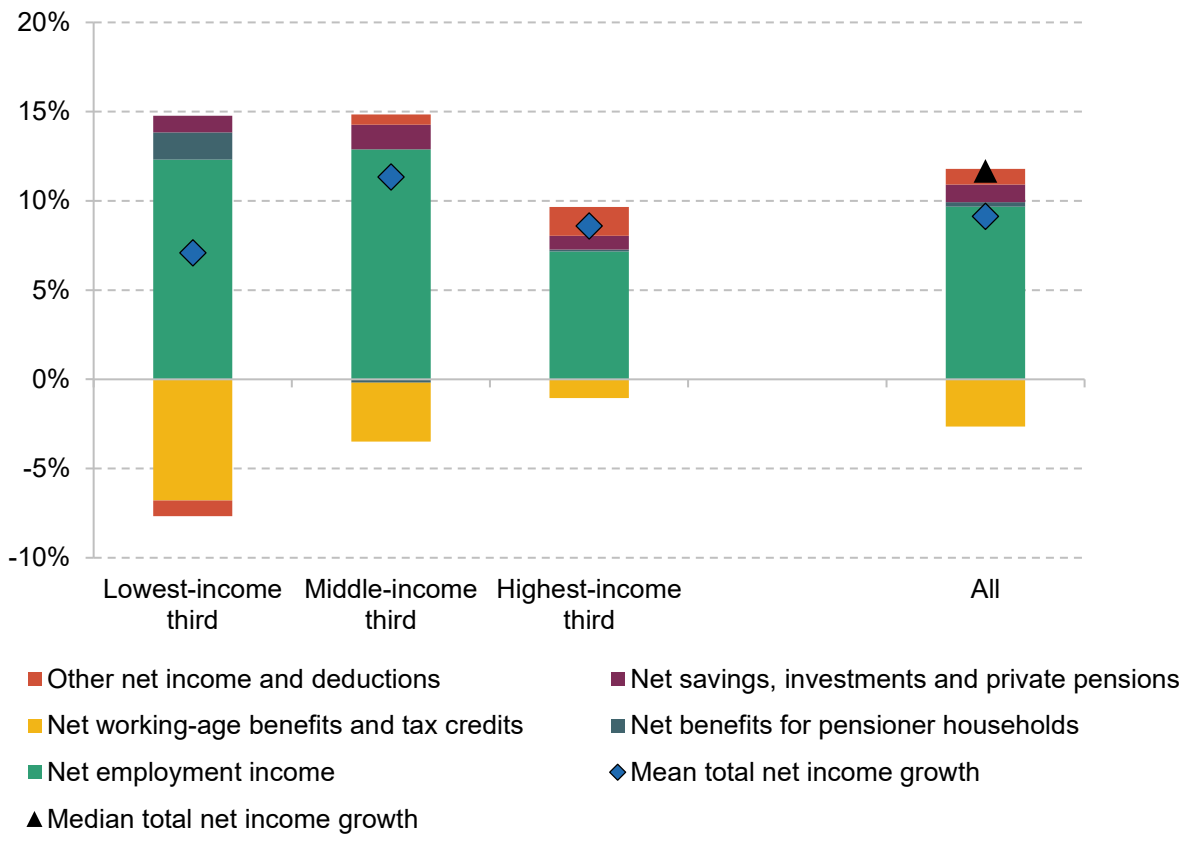
Figure 2.5. Contributions to net household income growth (BHC), 2011–12 to 2019–20, by BHC income tertile



Note: Incomes have been measured net of taxes and benefits and before housing costs have been deducted. All incomes have been equivalised using the modified OECD equivalence scale. Very-high-income households and those with negative incomes are excluded.

Source: Authors' calculations using the Family Resources Survey, 2011–12 and 2019–20.

The picture for 2019–20 to 2020–21, shown in Figure 2.6, is very different. Rather than employment income being the primary boost to income growth, it was the major driver in the income decline. This drop was entirely concentrated in the middle and upper thirds of the distribution, with very little change in the lowest third, partly because people in these households were less likely to be in paid work to begin with.[4] And benefit incomes – which had fallen over the 2010s – increased by 1.7% overall in real terms during this period, almost entirely going to the bottom two-thirds of the distribution. In total, this meant that average income in the poorest third of the population rose by around 2%, compared with falls of between 1% and 2% for the middle- and highest-income thirds of the population.

[4] The slight rise in employment income in the bottom third of the distribution is potentially surprising given falls in employment income due to people being furloughed and seeing hours of work reduced. The slight rise is driven by increases in average employment income for those in working households, potentially because they are more likely to be low earners, many of whom will have seen wage increases due to the 6% real rise in the National Living Wage in 2020–21.

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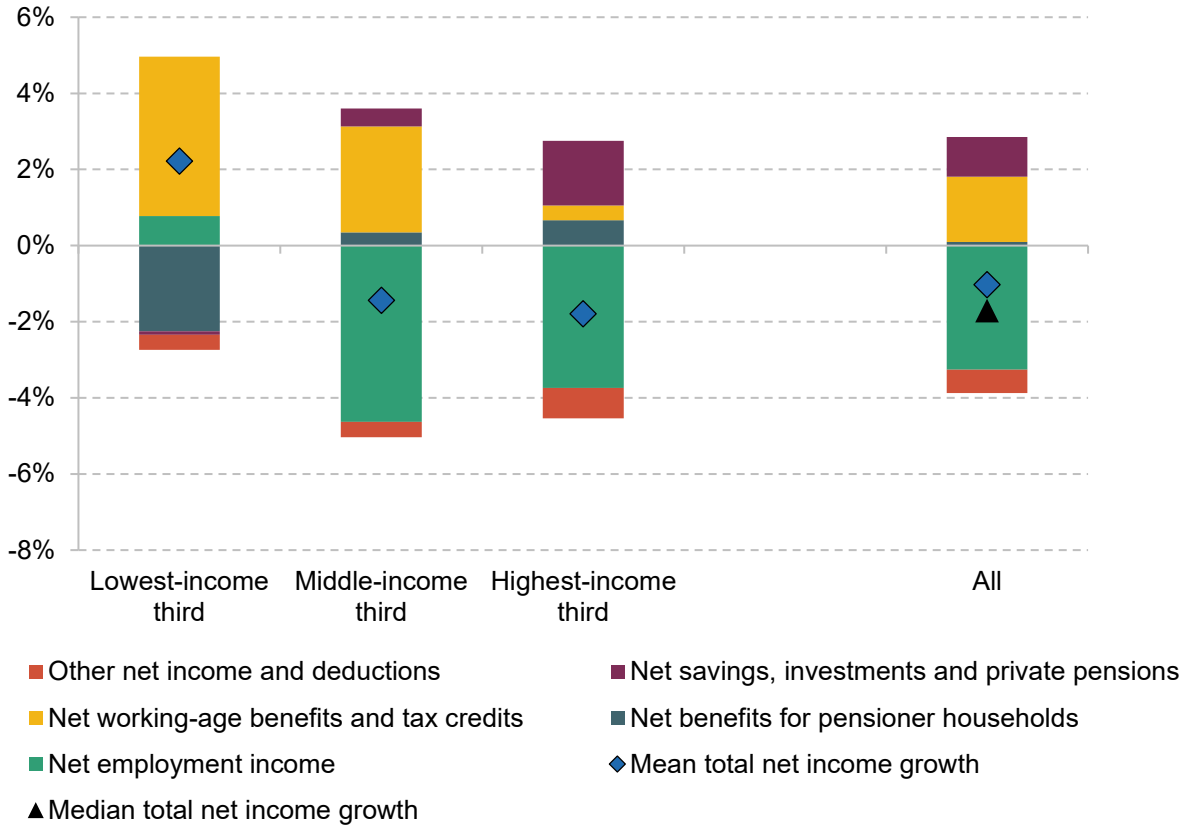
Figure 2.6. Contributions to net household income growth (BHC), 2019–20 to 2020–21, by BHC income tertile



Note: Incomes have been measured net of taxes and benefits and before housing costs have been deducted. All incomes have been equivalised using the modified OECD equivalence scale. Very-high-income households and those with negative incomes are excluded.

Source: Authors' calculations using the Family Resources Survey, 2019–20 and 2020–21.

In some cases, the rise in benefit income will be driven by declines in employment income, but likely more important are the various benefit increases, including the £20 per week uplifts to universal credit and working tax credit, and increases to housing benefit. With much of employment income being paid by the furlough scheme – without which employment income drops would have been considerably larger – the combination of support policies clearly had a huge impact on incomes. Figure 2.6 also shows a drop in pensioner benefits in the bottom third – this is driven by compositional changes (fewer pensioners being at the bottom of the income distribution, as we shall see shortly) rather than falling benefit levels.

Figures 2.5 and 2.6 are both on a BHC basis. Figure B.3 in Appendix B shows that patterns in the pandemic year are very similar on an AHC basis, owing to housing costs evolving similarly across the distribution (a slight real-terms decline, related at least in part to the prevalence of mortgage and sometimes rent holidays).

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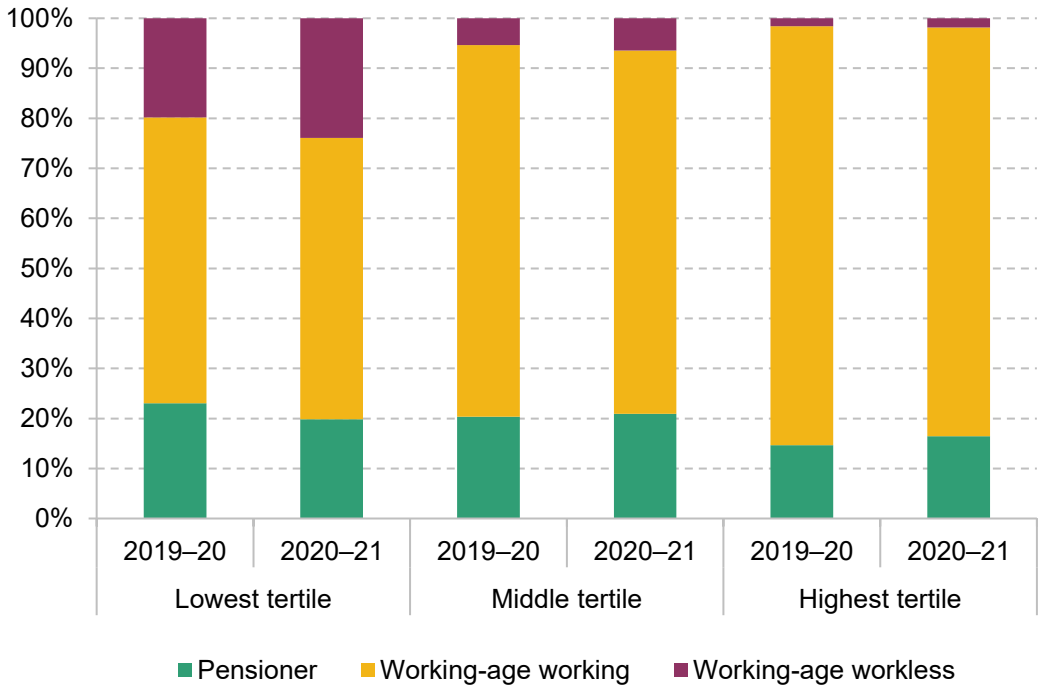
As alluded to above, some of the changes observed in the pandemic year are due to compositional effects which change where different types of people are in the income distribution. Figure 2.7 shows that the percentage of pensioner households decreased slightly in the lowest third and increased slightly in the highest, resulting in (respectively) a fall and rise in pensioner benefits. To account for the change in pensioner composition, Figure 2.8 repeats the income source decomposition for growth in the pandemic year but only for working-age households (the equivalent for the pre-pandemic years is available in Figure B.4 in Appendix B). The general patterns are similar, but more negative, with mean growth 1.0–1.4 percentage points lower across the distribution – reflecting the fact that pensioner incomes, being largely insulated from the labour market, were generally little affected by the pandemic.

Figure 2.7. Composition of households by income tertile, 2019–20 and 2020–21



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

Source: Authors' calculations using the Family Resources Survey, 2019–20 and 2020–21.

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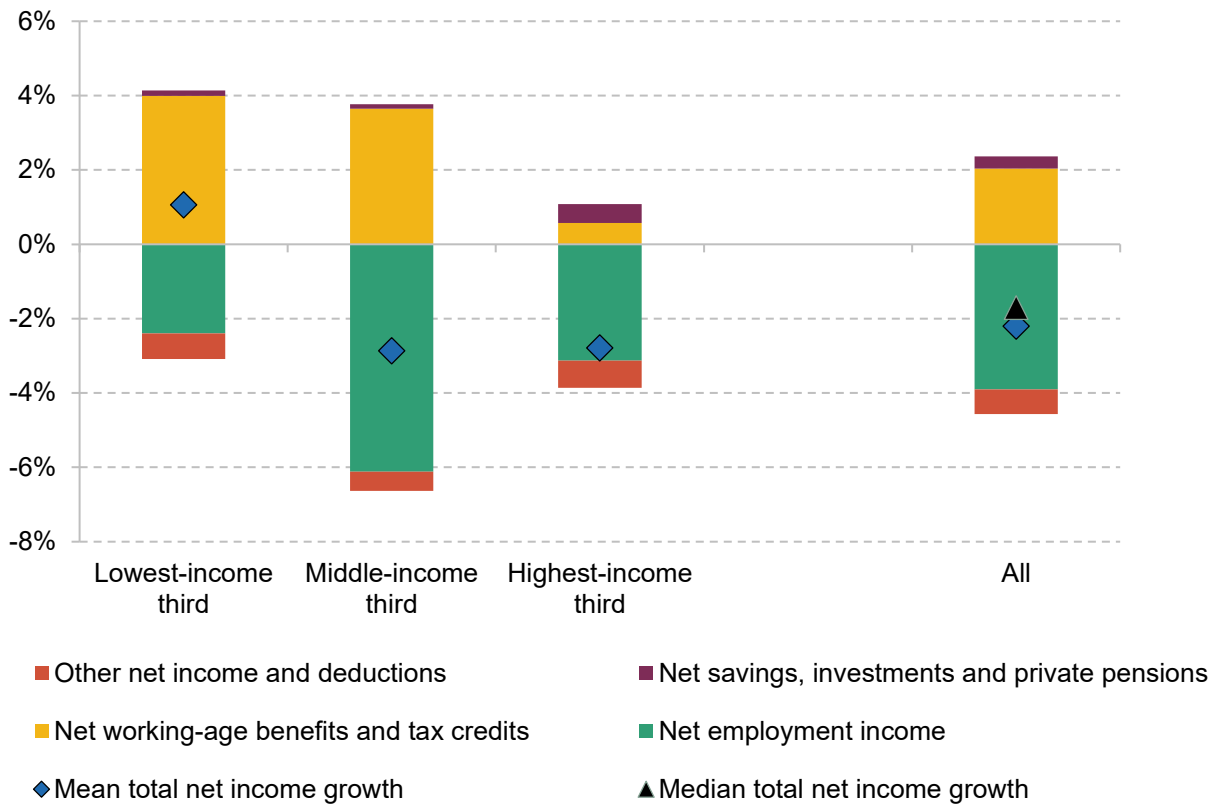
Figure 2.8. Contributions to net household income growth (BHC), 2019–20 to 2020–21, by BHC income tertile: working-age households only



Note: Incomes have been measured net of taxes and benefits and before housing costs have been deducted. All incomes have been equivalised using the modified OECD equivalence scale. Very-high-income households and those with negative incomes are excluded.

Source: Authors' calculations using the Family Resources Survey, 2019–20 and 2020–21.

2.3 Income poverty

In this section, we focus our attention on the bottom of the household income distribution. First, we consider the poverty rate and how it has changed for different groups. Figure 2.9 shows absolute poverty rates, defined as the proportion of the population in households with less than 60% of the median income in a fixed reference year (in this case 2010–11). We have already seen that the lowest end of the income distribution saw growth in their incomes in the pandemic year, and this is reflected in the absolute poverty measure, which fell by 1 percentage point to 17%, continuing the declining trend seen in recent years.

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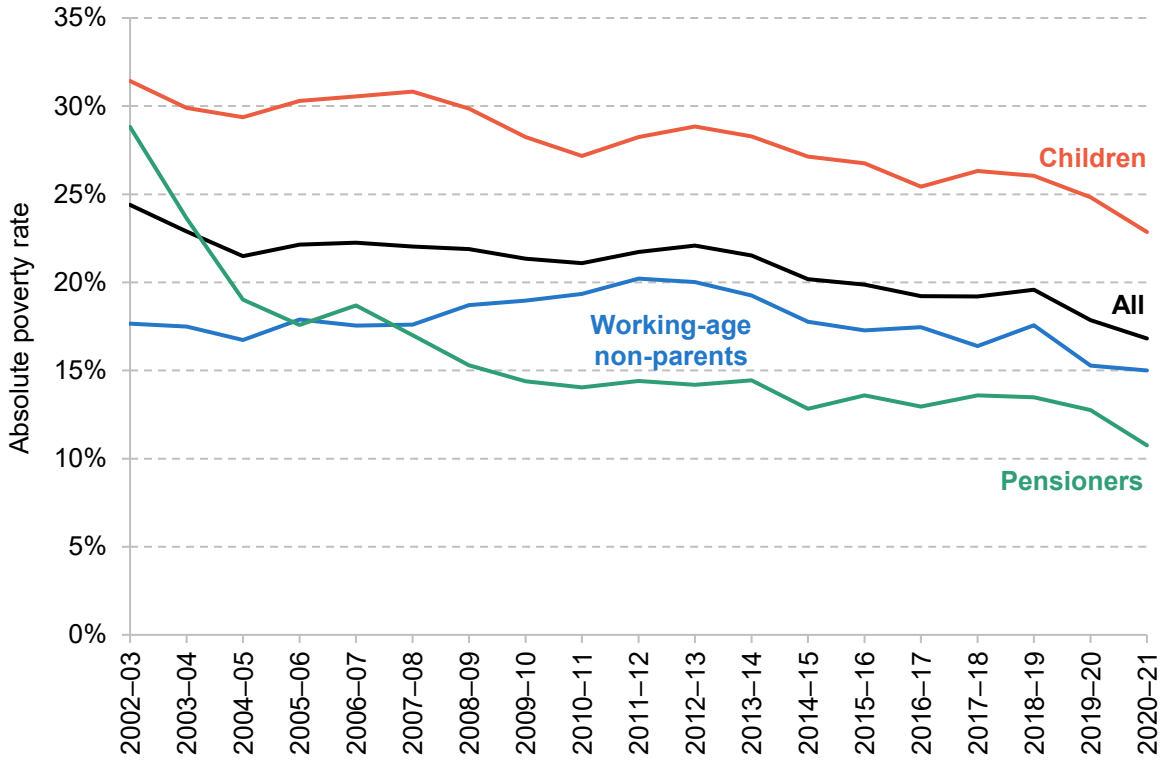
Figure 2.9. Absolute poverty, overall and for different population groups (AHC), 2002–03 to 2020–21



Note: Incomes have been measured net of taxes and benefits, with housing costs deducted. All incomes have been equivalised using the modified OECD equivalence scale. The absolute poverty measure gives the proportion living in a household with less than 60% of the 2010–11 median income, adjusted for inflation.

Source: Authors' calculations using the Family Resources Survey, 2002–03 to 2020–21.

The drop was especially large for children and pensioners – for both of whom the rate fell by 2 percentage points – compared with working-age adults without dependent children ('working-age non-parents') who saw essentially no change. The fall in absolute child poverty of 2 percentage points, to reach 23%, was the largest one-year fall in absolute child poverty since at least 2002–03, when figures for the whole UK started to be published. The absolute poverty rate for pensioners reached 11%, a third lower than that for the population as a whole. The differential trends between pensioners and children, compared with working-age adults without dependent children, might be explained by the fact that, compared with this last group, pensioners were less likely to be exposed to the labour market shock, whilst families with children were more likely to benefit from the uplifts to benefits.

We now turn to relative poverty – defined as having an income below 60% of the contemporaneous median. Figure 2.10 shows that overall, relative poverty fell by more than absolute poverty (1.7 percentage points to just over 20%). This is because median income fell, which – all else equal – reduces relative poverty. Once again, the falls were especially large for

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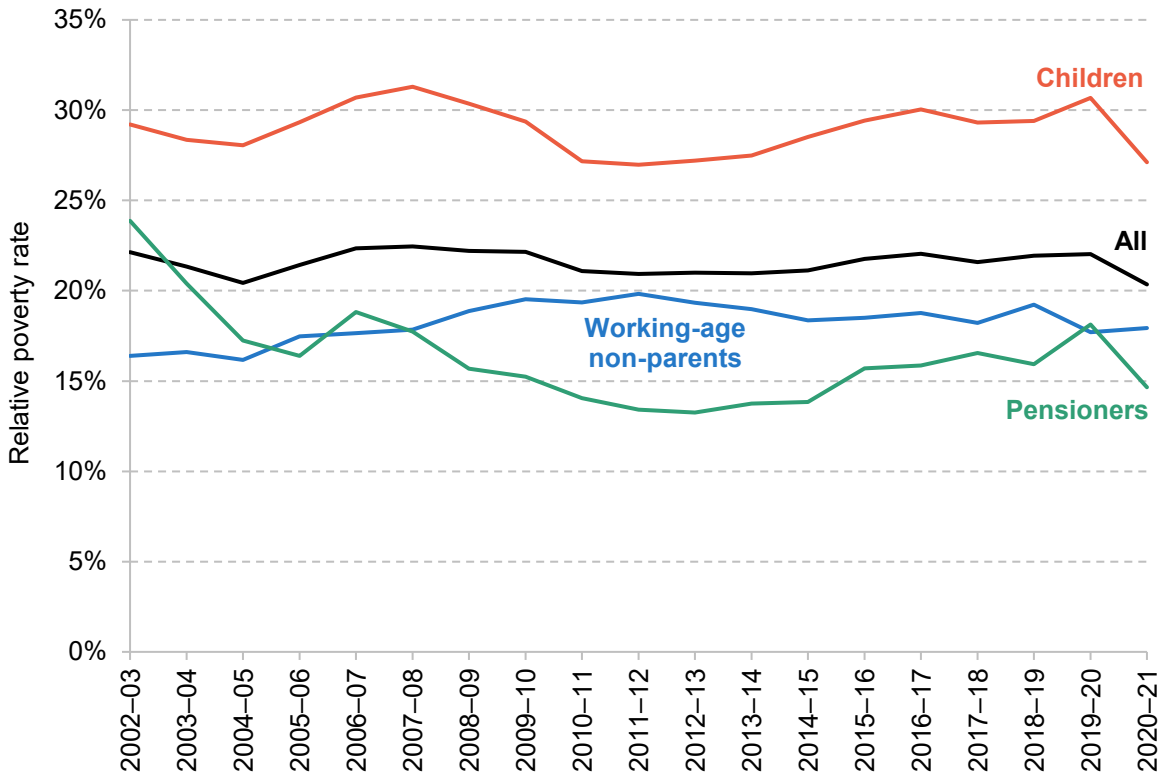
pensioners and children, for the reasons discussed above. Unlike in the case of absolute poverty, which was already falling, the drop in relative poverty goes against the trend observed in recent years, when it has been slowly increasing.

We have already seen how increases in benefit income raised incomes for poorer households in the pandemic year. This could be partly driven by compositional changes and reductions in employment. We now quantify the role of policy reforms themselves. Figure 2.11 plots mean benefit income by band of household earnings in 2011–12, 2019–20 and 2020–21. Comparing the blue and green lines, we can see that the benefit rises in the pandemic year were targeted towards those on low earnings – and especially those on no earnings, who saw an average increase of £26 per week. Those with earnings above £400 per week received virtually no increase on average. In addition, by comparing with the 2011–12 line, we can see that the temporary benefit increases of 2020–21 (perhaps together with a higher take-up rate) on average reversed all the cuts over the previous decade for those on low earnings.

Figure 2.10. Relative poverty, overall and for different population groups (AHC), 2002–03 to 2020–21



Note: Incomes have been measured net of taxes and benefits, with housing costs deducted. All incomes have been equivalised using the modified OECD equivalence scale. The relative poverty measure gives the proportion living in a household with less than 60% of the contemporaneous median income.

Source: Authors' calculations using the Family Resources Survey, 2002–03 to 2020–21.

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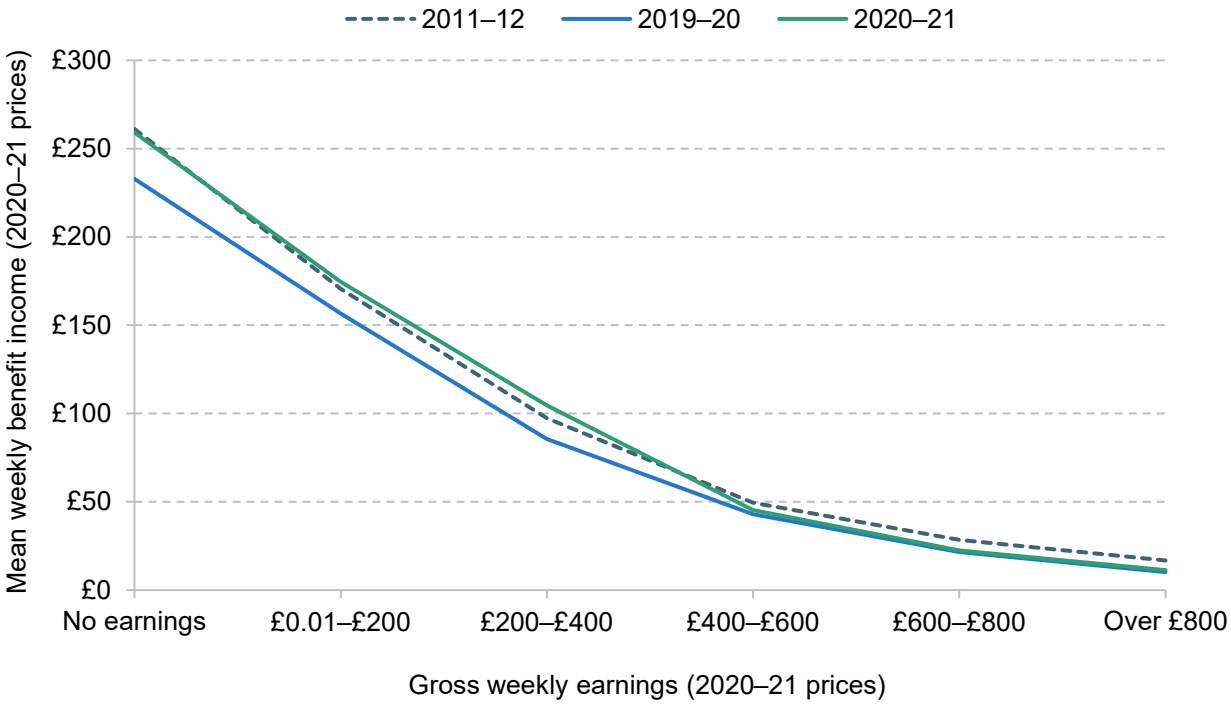
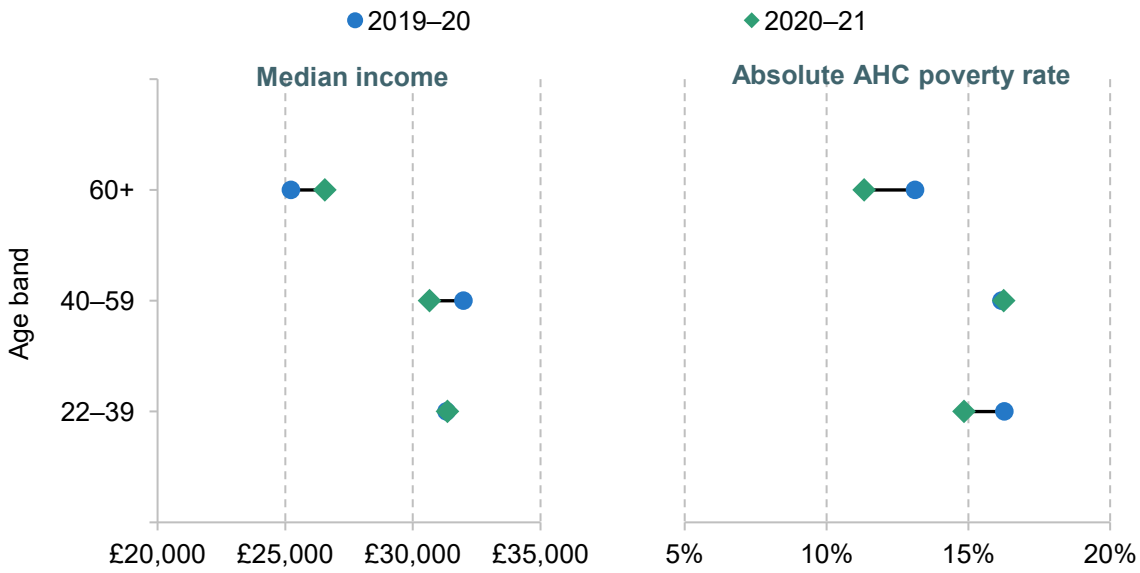
Figure 2.11. Mean benefit income for working-age households, by household earnings, 2011–12, 2019–20 and 2020–21



Note: Earnings and benefits have been equivalised using the modified OECD equivalence scale, and are expressed in 2020–21 prices.

Source: Authors' calculations using the Family Resources Survey, 2011–12, 2019–20 and 2020–21.

Figure 2.12. Median incomes and poverty rates by age band, 2019–20 and 2020–21



Note: Incomes have been equivalised using the modified OECD equivalence scale and are expressed in 2020–21 prices.

Source: Authors' calculations using the Family Resources Survey, 2019–20 and 2020–21.

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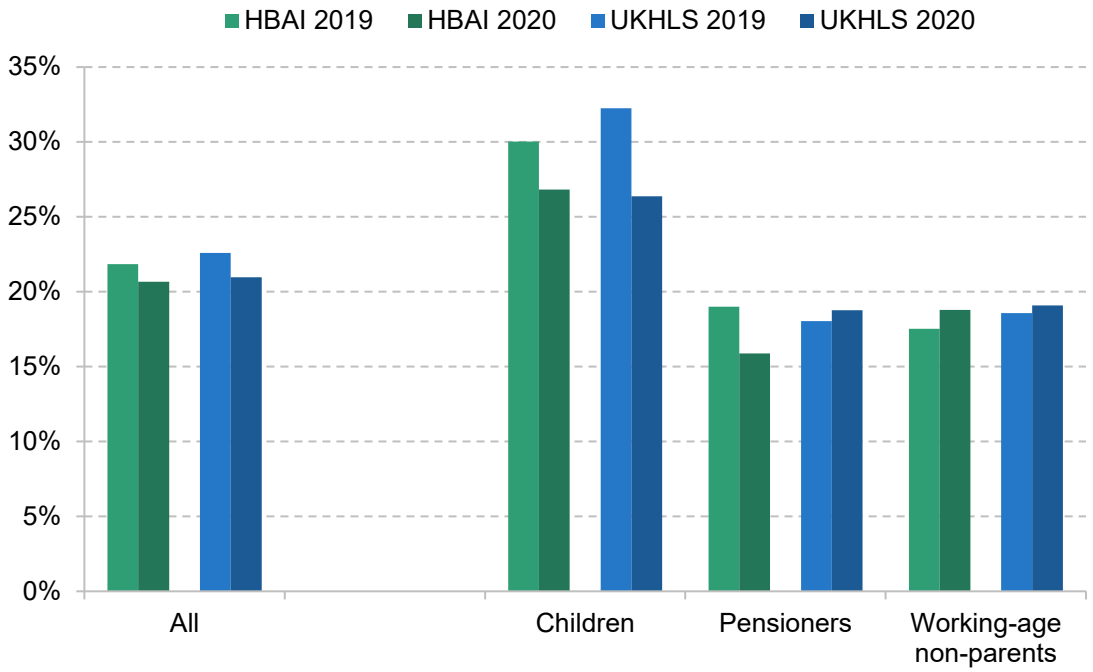
Figure 2.13. Comparison of HBAI and UKHLS relative AHC poverty rates, 2019Q2–Q4 and 2020Q2–Q4



Note: Incomes have been measured net of taxes and benefits and after housing costs have been deducted. All incomes have been equivalised using the modified OECD equivalence scale. Relative poverty rates have been calculated here as 60% of the contemporaneous median in the respective data being used.

Source: Authors' calculations using the Family Resources Survey, 2019–20 and 2020–21, and the UK Household Longitudinal Study, waves 10 and 11.

In Figure 2.12, we turn to studying changes in incomes and poverty rates for different age groups of adults. Those over the age of 60 saw the largest fall in absolute poverty and were the only group that saw an increase in median income, reflecting the fact that the labour market turmoil caused by the pandemic had only a limited impact on their incomes, as discussed above. Younger working-age adults (22–39) fared better than older ones (40–59) in terms of both median income and poverty. This is perhaps surprising given that much was made during the pandemic of the fact that younger workers were considerably more likely to be furloughed than their middle-aged counterparts (see, for example, Gustafsson (2020)). However, their living standards appear to have been protected – in part – because some responded by moving in with parents. These data are consistent with the finding by Cribb et al. (2021) that there was no evidence of an increase in deprivation among younger people.

As with income changes across the distribution, we can compare the official poverty statistics – presented above – and those measured in the UKHLS data. Figure 2.13 shows poverty rates in both data sets for the last three quarters of 2019 and 2020 (the period for which we observe both HBAI and UKHLS data). The levels of overall poverty are very similar (21% in 2020Q2–Q4),

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and the changes are similar too – falls of 1.2 percentage points in HBAI and of 1.6 percentage points in UKHLS.

Looking at particular subgroups of the population, we also generally see a similar picture. Children saw substantial falls in poverty according to both data sets, of 3.2 percentage points in HBAI and 5.9 percentage points in UKHLS, and working-age adults without dependent children saw a slight increase in both. Trends are different for pensioners, with HBAI giving a 3.1 percentage point fall in poverty and UKHLS a 0.7 percentage point increase. Some sampling variation between different data sources is to be expected – especially when looking at subgroups of the population – but overall the evidence from UKHLS gives us greater confidence that the HBAI statistics provide a reliable guide to trends in income poverty and inequality in the lower end of the income distribution during the first year of the pandemic.

2.4 Conclusion

The pandemic had an enormous impact on the labour market and wider economy. But, perhaps surprisingly, it had a fairly muted effect on household disposable incomes. Average income fell, but only enough to undo about one year of post-Great-Recession growth. Income growth was stronger at the bottom of the income distribution, thanks to falls in employment income for middle- and high-income households and increases in benefits boosting the incomes of poorer households. Indeed, the benefit giveaways were enough to return the working-age benefit system to (on average) something quite close to the 2011–12 system, at least for low-earning households. Together these patterns meant that income poverty fell, on both an absolute and a relative basis.

This picture is quite different from the one seen over the past decade or so, where growth was strongest around the middle of the distribution thanks to rises in income from employment, while poorer households saw a substantial share of their employment income increases offset by reductions to the real value of benefits and tax credits.

What might have happened to incomes since the end of 2020–21? The benefit giveaways that boosted incomes in the pandemic year have to a significant extent been undone. Most importantly, the £20 uplift in universal credit and working tax credit expired halfway through 2021–22, and was shortly after replaced with a cut in the universal credit taper rate (the speed at which the benefit is withdrawn as earnings increase). The taper rate cut is worth about half the £20 uplift on average, and is targeted towards slightly higher-income (though still fairly poor)

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families (Waters and Wernham, 2021a and 2021b).[5] This will have put downward pressure on the incomes of poorer households. Employment rose slightly (which typically helps poorer households more than richer ones), while earnings also modestly increased in real terms. The earnings increase is stronger for bonuses than for regular pay, and has tended to be faster in highly paid sectors (e.g. finance) and for workers further up the earnings distribution (Xu, 2022) – meaning that earnings patterns will thus likely be inequality increasing. This stands in contrast to the pandemic year, when changes in employment income tended to reduce inequality. Put together, falls in benefits, rising inequality in individual earnings, and only a small rise in employment likely mean that household income inequality and relative poverty will increase.

Turning to the present and the near future, the critical factor is inflation and the government's policy response to it. The Bank of England expects inflation to average around 10% in 2022–23 (Bank of England, 2022). But benefits have risen (in cash terms) by only 3.1% in April 2022, owing to the nature of the UK's benefit uprating rules, reducing the real incomes of poorer households. Earnings are not expected to keep up with inflation either – meaning a decline in real income for many households – but are expected to rise faster than benefits (the Bank of England forecasts 5¾% growth this calendar year) – tending to increase inequality.

It is worth reflecting that to some extent the inflation and cost of living crisis we are now facing is a hangover from the scale of economic support provided during the pandemic, both here and internationally. This should act as a reminder that while governments can shield households temporarily, and support those most in need, they cannot protect all of us forever from the negative effects of economic shocks.

In response to rising inflation – and rising energy bills in particular – the government has announced a large and strongly progressive package of support (adding up to £37 billion this year (Adam et al., 2022)) and raised income taxes and National Insurance taxes in a progressive way (increasing tax for those who earn over £25,000 and reducing it for those who earn less (Joyce, 2022)). Together these reforms boost incomes by over 10% of net income for the poorest tenth of households, with the gain falling steadily as one goes up the income distribution, before becoming a slight takeaway for the top tenth.[6] With such an enormous amount going on, it is difficult to know how everything will shake out. But the size and progressivity of the support package does suggest that 2022–23 will be an inequality-reducing year, with relative poverty falling.

[5] The increase in housing benefit has been kept, but only in nominal terms, meaning that it will slowly be eroded. The suspension of the minimum income floor in universal credit has expired.

[6] See https://twitter.com/TheIFS/status/1529872478230691841. Note that these statistics include the effect of the cut to the universal credit taper rate.

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Of course, once again, most of these policy changes are temporary (with the exception of the tax reforms – though other tax changes are in the pipeline). So beyond 2022–23, as ever, the outlook for living standards, poverty and inequality will be dependent upon: productivity growth and thus wages, which have been weak since the Great Recession; employment, which has been kept high by low unemployment but is increasingly threatened by rising inactivity; and the government's plans for taxes and benefits.

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3. Trends in child poverty and material deprivation prior to the COVID-19 pandemic

Key findings

1 **In 2019–20, the last year before the pandemic, 25% of children were in absolute poverty** – which for a two-parent family with two young children is defined as having a weekly income below £363 after deducting housing costs. This was down from 28% in 2013–14. The fall in absolute child poverty over this six-year period (3 percentage points) was similar to the fall in poverty in the six years during and immediately after the Great Recession, and far smaller than the fall in poverty in the six years from 1997–98 (16 percentage points).

2 **Relative child poverty – defined as having an income of less than 60% of median income after deducting housing costs – rose in the years leading up to the pandemic.** It increased from 27% in 2013–14 to 31% in 2019–20, the same level as in 2007–08. This means that low-income families with children slipped further behind those on average incomes during the recovery from the Great Recession. In 2019–20, 4.3 million children were in relative income poverty, compared with 3.7 million in 2013–14.

3 **The share of children in families in which at least one adult was in work rose from 82% in 2013–14 to 88% in 2019–20.** Coupled with a partial recovery in earnings after the Great Recession, this led to a large increase in income from employment for low-income families with children. However, **the rise in employment income was mostly offset by a fall in income from benefits**, due to a series of cuts to the real value of working-age benefits. One in five children in working families had incomes below the absolute poverty line in 2019–20, the same as 17 years earlier in 2002–03.

4 **The absolute poverty rate for children in families with three or more children, who make up around 30% of all children, was 38% in 2019–20 – double the rate for only children and those with only one sibling (19%).** Low income growth for poor larger families meant that absolute child poverty for this group was no lower in 2019–20 than it was 16 years earlier in 2003–04.

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Reductions in the real value of working-age benefits since 2010 were larger for families with more children, who are more reliant on benefits.

5 **Absolute poverty rates for black (43%) and Asian (41%) children were nearly twice as high as for white children (22%) in the years leading up to the pandemic.** Absolute child poverty fell for children from all broad ethnic groups between 2013–14 and 2019–20, with black children seeing the largest fall, of 7 percentage points. However, children from all broad ethnic groups saw small rises in relative poverty over the same period, as their incomes did not keep up with those on middle incomes.

6 **In contrast to income measures of poverty, child material deprivation fell rapidly in the years leading up to the pandemic.** The share of children who are materially deprived – defined as those in families unable to afford common items and activities – fell from 24% in 2013–14 to 18% in 2019–20. This is the largest fall seen since the measure was introduced in 2004–05, and much larger than the fall in absolute poverty.

7 **The ability for low-income families with children to afford many common items and activities has increased in the years running up to the pandemic.** That is, for a given level of income, they seem to be less materially deprived. It is not completely clear what has driven this. One reason could be falling real prices of some essentials over that period, such as gas. There is also some evidence that some poor families may be able to support themselves slightly better through periods of low income: the fraction of families with children in the lowest fifth of household incomes who have at least £2,000 of savings, adjusting for inflation, rose from 22% in 2010 to 33% in 2013 and 38% in 2019.

8 **Inflation in 2022 is higher for lower-income families.** The government's package of support for energy bills is highly progressive, benefiting poorer families more than middle- or high-income families. However, the decision to offer a flat rate of support for families on means-tested benefits, rather than uprating benefits with inflation, provides less support for children in large families. While reductions in material deprivation in recent years have been partly driven by families' increased ability to keep their homes warm enough (from 78% in 2013–14 to 88% in 2019–20), higher energy prices could mean fewer can now afford heating and other essential items, pushing up material deprivation.

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In this chapter, we examine trends in child poverty and material deprivation in the run-up to the COVID-19 pandemic. In particular, we focus both on changes since 2007–08 (the year preceding the Great Recession) and on changes since 2013–14 (after which there has been a gradual rise in the relative child poverty rate). The years between 2013–14 and the start of the pandemic were years of high increases in employment, weak earnings growth on average for those in employment (though low earners saw substantial rises in the minimum wage), and significant reductions in the value of benefits and tax credits for low-income families. We examine how these trends and others have combined to drive changes in poverty and material deprivation affecting children.

Section 3.1 shows trends in child poverty using different measures. We look at absolute and relative measures of income poverty, as well as an alternative measure of low living standards based on self-reported 'material deprivation'. Absolute child poverty is defined as the proportion of children in households with incomes below 60% of the median in a fixed reference year, chosen usually as 2010–11. Relative child poverty is defined as the proportion of children living in households with incomes below 60% of the median in the same year. Trends in relative poverty reflect how the incomes of poorer households have fared compared with the median.

Section 3.2 focuses on the recent rise in relative child poverty and decline in absolute poverty after housing costs and examines factors contributing to these. We look at how poverty rates have changed across different types of families with children and what role has been played by changes in the composition of family types. Section 3.3 examines changes in different sources of income for low-income families with children. Section 3.4 examines the relationship between household incomes and self-reported material deprivation, which has fallen dramatically in the pre-pandemic years.

As in the rest of this report, incomes are adjusted ('equivalised') to account for differences in the size and composition of different households, reflecting the idea that larger households need more income than smaller households to enjoy a comparable standard of living. All incomes are uprated using a measure of inflation based on the Consumer Prices Index (CPI) and expressed in 2020–21 prices.

For the reasons referred to in Appendix A and Chapter 2, our analysis mainly focuses on poverty measured after deducting housing costs (AHC).

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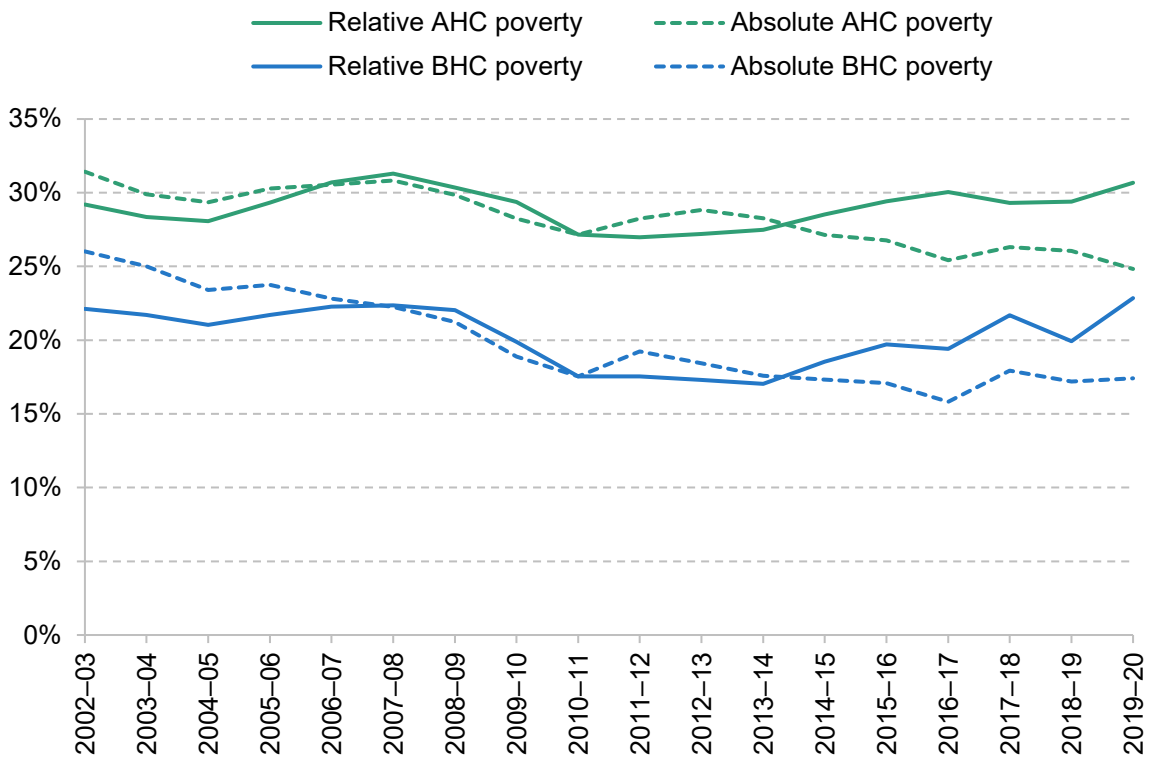
3.1 Trends in child poverty and material deprivation

Figure 3.1 shows trends in income poverty rates among children between 2002–03 and 2019–20. The dotted lines show poverty rates measured against a fixed ('absolute') poverty line. The solid lines show a 'relative' measure of poverty.

Figure 3.1. Child income poverty rates in the UK, 2002–03 to 2019–20



Note: Incomes have been measured net of taxes and benefits. All incomes have been equivalised using the modified OECD equivalence scale.

Source: Authors' calculations using the Family Resources Survey, 2002–03 to 2019–20.

The green lines in the figure show child poverty rates using household incomes measured AHC. Absolute child poverty on this measure has been on a gradual downward trend since 2007–08, with the exception of the two-year period immediately after the financial crisis (2010–11 to 2012–13). In 2019–20, absolute child poverty measured AHC was 25%, compared with 28% six years earlier in 2013–14 and 31% pre-recession in 2007–08. Therefore, while there have been falls in absolute child poverty in the years running up to the pandemic, they were similar in scale to those seen in the years covering the Great Recession and its immediate aftermath.

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Figure 3.1 shows that relative child poverty measured AHC also fell between 2007–08 and 2013–14, from 31% to 27%. This reflects the fact that low-income families with children were catching up with middle-income households during the Great Recession and the following years, in particular due to falling median incomes during and after the Great Recession.

Since 2013–14, however, income growth among low-income families with children has not kept pace with the general population, as middle incomes started to recover from the Great Recession. By 2019–20, the last year before the pandemic, relative child poverty (AHC) had risen by 3 percentage points compared with 2013–14 and was back at the same level as it was on the eve of the financial crisis (31%). In 2019–20, 4.3 million children were in relative poverty, compared with 3.7 million in 2013–14, and slightly higher than the 4.1 million children in relative poverty in 2007–08 (as a result of there being around a million more children in the UK in 2019–20 than in 2007–08).

The blue lines in Figure 3.1 show poverty rates using household incomes measured before housing costs are deducted. Comparing the green and blue lines, we see that, while child poverty rates measured BHC are lower than those measured AHC, changes in poverty rates measured BHC are fairly similar to changes in AHC measures since 2007–08, which suggests that the changes in child poverty rates over the last decade are not mainly due to differential changes in housing costs across the income distribution.

An alternative measure of low living standards to the measures of income poverty shown above is ‘material deprivation’. We use the measure of material deprivation that the Department for Work and Pensions uses alongside income measures of child poverty. This involves asking families whether they can afford a range of items (e.g. warm winter coats for children in the household) and activities (e.g. taking a week’s holiday a year not staying with friends or family).

The list of items and activities used to construct the material deprivation measure includes items that are intended to measure deprivation among children and those that measure deprivation among adults in the family. There are 21 items in total. 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.

The weighting procedure reflects the idea that an inability to afford a common item is more indicative of deprivation than an inability to afford a less common item. For example, a family unable to afford, for their children, a warm winter coat, celebrations on special occasions, to keep their accommodation warm enough, outdoor space to play, and fresh fruit or vegetables every day, would be classified as in material deprivation. These are the top five weighted items for 2019–20. More information on the measurement of material deprivation is available in Appendix D and chapter 6 of Cribb, Joyce and Phillips (2012).

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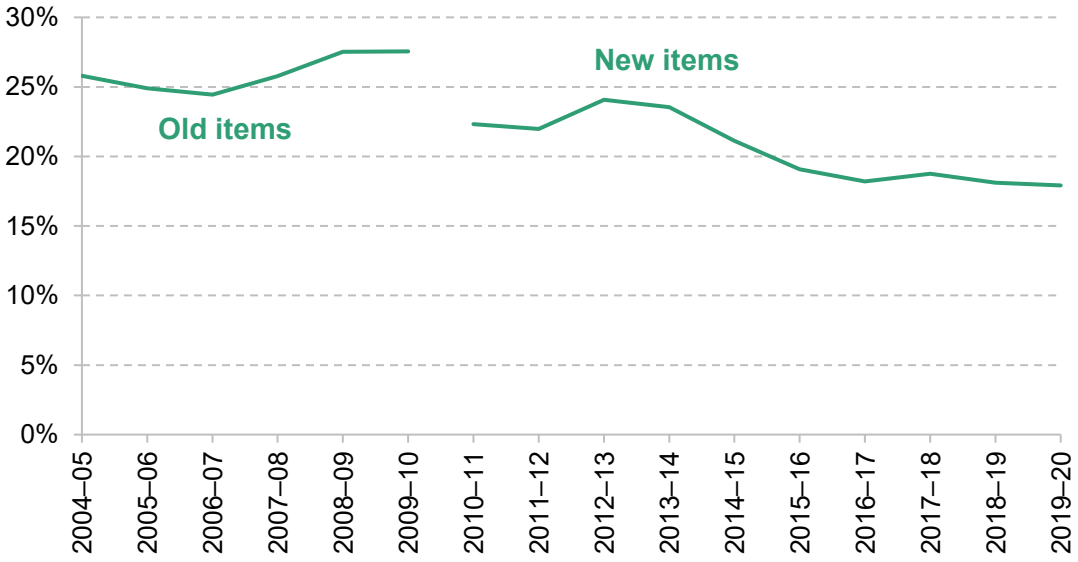
The list of items used to measure material deprivation and the weighting procedure changed in 2010–11, so material deprivation rates are not comparable before and after this year. Since 2010–11, the list of items has been fixed over time, but the weight given to individual items changes from year to year, depending on how many other families can afford these items. Because the items remain the same but the weights differ, the measure of material deprivation falls somewhere between an 'absolute' and a 'relative' measure of low living standards.

Figure 3.2 shows rates of child material deprivation between 2004–05, when a measure of child material deprivation was first introduced, and 2019–20, the last year before the pandemic. We see a downward trend in material deprivation in the years leading up to the pandemic. In 2019–20, 18% of children (2.5 million) were considered materially deprived, stable since 2016–17 and down by a quarter from 24% in 2013–14. This is a large drop, which is the largest movement on record (since material deprivation measures were introduced in 2004–05). And it is in contrast to the rise in relative income poverty recorded from 2013–14 to 2019–20.

The profile of child material deprivation broadly mirrors that of absolute child poverty (AHC) seen in Figure 3.1, though the magnitude of the fall in material deprivation is larger at 5.6 percentage points between 2013–14 and 2019–20. Meanwhile, relative child poverty was rising over this period. As explained above, the material deprivation measure is somewhere between an absolute and a relative measure. We will look further at the relationship between income poverty and material deprivation in Section 3.4.

Figure 3.2. Child material deprivation rates, 2004–05 to 2019–20



Note: The figure refers to material deprivation only, not the government's combined measure of relative low income (measured using 70% of median income as the poverty line) and material deprivation. The set of items used to calculate material deprivation among children changed in 2010–11, so rates of material deprivation after 2010–11 are not comparable to those before.

Source: Authors' calculations using the Family Resources Survey, 2004–05 to 2019–20.

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3.2 Changes in child poverty rates and the share of children by family type

The previous section documents a rise in relative child poverty between 2013–14 and 2019–20, alongside a large fall in child material deprivation and somewhat smaller fall in absolute poverty. In this section, we look at how child poverty rates have changed for different types of families. We consider changes in relative poverty and absolute poverty together, drawing attention to places where the patterns are notably different. This section focuses on describing trends in child poverty by family type; the following section explores what has driven these trends – for example, the divergence in poverty rates by family size and the rise of in-work poverty.

In this analysis, we group families by their number of children, their ethnicity, whether they are lone parents, and whether any adult in the family is in work. We take each of these categories in turn, noting that there are obvious overlaps between the groups – for example, ethnic minority families are more likely to have three or more children than are white families (see Figure C.1 in Appendix C). We will see that the trend of gradually rising child poverty masks quite different trends when comparing children in different family types in some cases. In the case of ethnicity and family work status, we will also see that the changing composition of family types explains a significant component of relative poverty trends in recent years. Table C.1 in Appendix C shows a full decomposition of recent changes in relative child poverty into 'incidence effects' (changes in poverty *within* types of families) and 'composition effects' (changes in the relative number of children from different family types in the population).

Family size

Figure 3.3 plots relative AHC child poverty rates between 2002–03 and 2019–20 by the number of children in the family. It shows that changes in child poverty since 2013–14 – and indeed over the entire period shown – are largest among larger families with three or more children. Children in large families have always been more likely to be in poverty, but there has been a substantial increase in relative poverty rates among this group in the years leading up to the pandemic: in 2019–20, nearly half (47%) of children in families with three or more children were in relative poverty, up from one in three (34%) in 2013–14, and even higher than the 43% rate seen before the Great Recession in 2007–08. In contrast, the share of children in smaller families who were in relative poverty fell very slightly, from 26% to 24%, for one-child families and was relatively stable at 24% for two-child families over the period since 2013–14.

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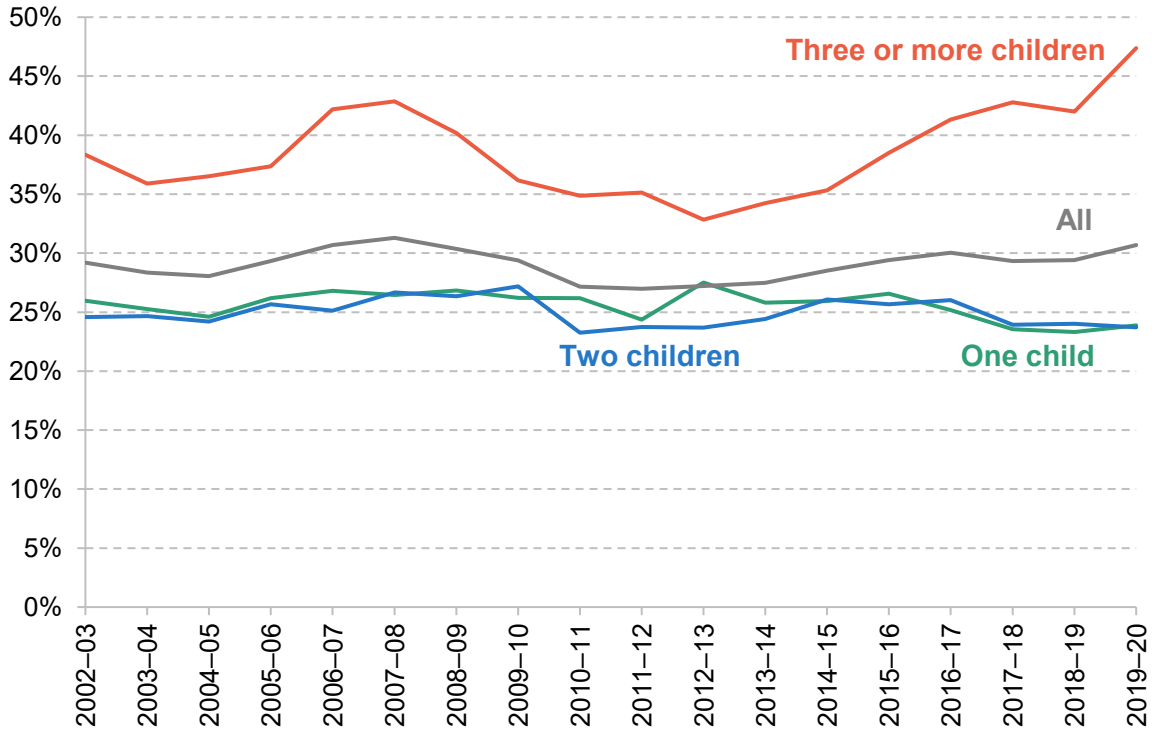
Figure 3.3. Relative child poverty rates (measured AHC) by number of children in family, 2002–03 to 2019–20



Note: Incomes have been measured net of taxes and benefits. All incomes have been equivalised using the modified OECD equivalence scale.

Source: Authors' calculations using the Family Resources Survey, 2002–03 to 2019–20.

A sizeable and broadly stable minority of children (around 30%) live in households with three or more children, for whom relative poverty has increased, whilst levels of relative poverty have been comparatively stable for smaller families. As shown in Table C.1, trends in the aggregate relative child poverty figures are therefore mainly explained by increasing relative poverty rates for families with three or more children.

Figure 3.4 plots the share of children in absolute poverty by family size. The worse income performance of children in larger families in the years running up to the pandemic is also shown here. Whilst there were gradual falls in absolute poverty rates for children living in smaller families, absolute poverty rates for families with three or more children actually rose by 3 percentage points from 35% in 2013–14 to 38% in 2019–20, very similar to the rate seen in 2003–04. That means that, while absolute poverty for larger families with children has had its ups and down, it was no lower prior to the pandemic in 2019–20 than it had been 16 years earlier in 2003–04.

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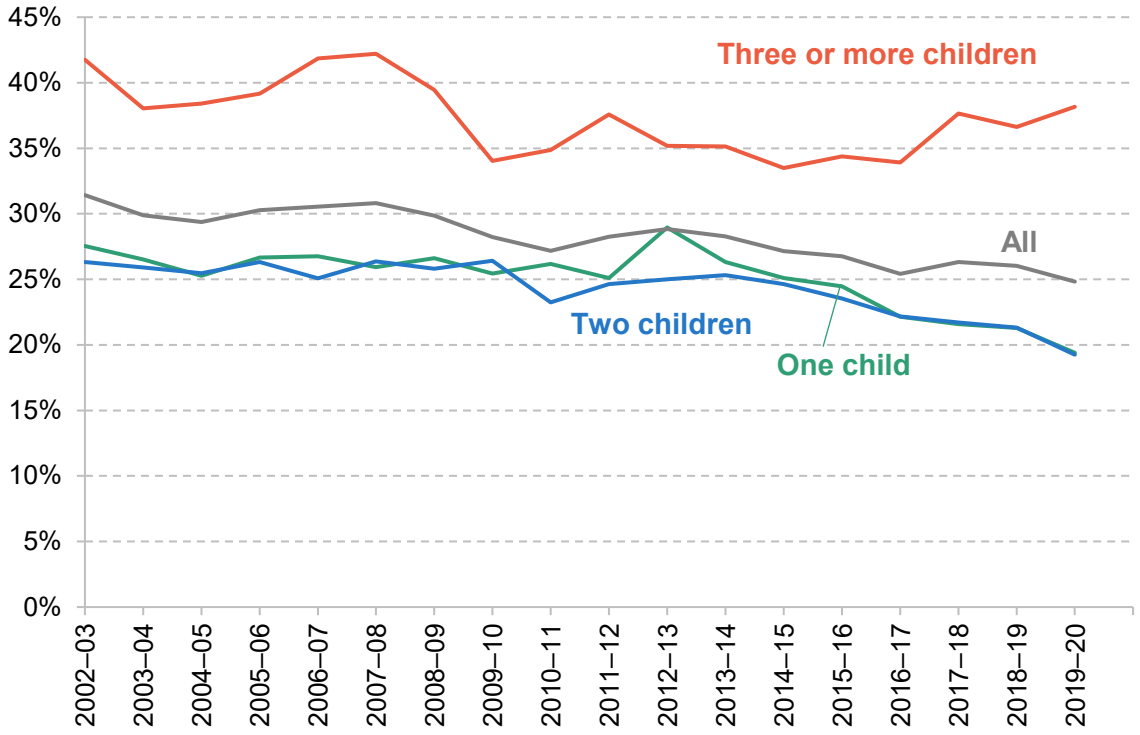
Figure 3.4. Absolute child poverty rates (measured AHC) by number of children in family, 2002–03 to 2019–20



Note: Incomes have been measured net of taxes and benefits. All incomes have been equivalised using the modified OECD equivalence scale.

Source: Authors' calculations using the Family Resources Survey, 2002–03 to 2019–20.

Ethnicity

The years leading up to the pandemic saw an increase in the share of children in ethnic minority families, who tend to have higher poverty rates. This is shown in Figure 3.5, which compares child poverty rates and the share of children by ethnic group in the three years leading up to 2013–14 with the three years leading up to 2019–20.[7] Relative child poverty is around twice as high among black (50%) as among white (26%) children, and around 80% higher among Asian children (46%) than among white children. It is also higher among children of mixed or other ethnicities (38%) than among white children. Of course, there will be great variation within these broad ethnic groups (e.g. people from Indian backgrounds tend to be better off than people from Pakistani or Bangladeshi backgrounds), but sample sizes prevent us from disaggregating further.

[7] Ethnic group is based on the ethnicity of the adults in the family, as this is what is available in the data.

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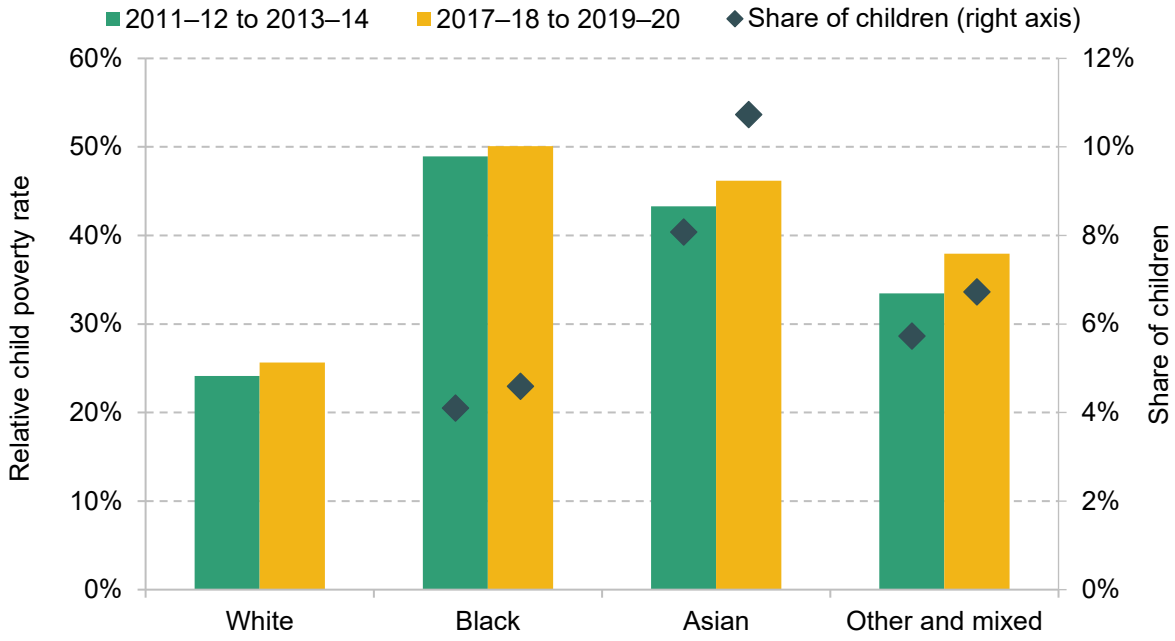
Figure 3.5. Relative child poverty rates (measured AHC) and share of children by ethnic group, three years to 2013–14 and three years to 2019–20



Note: Families in which adults have different ethnicities are included in 'other and mixed'. The share of children in each group is for the three years to 2013–14 and the three years to 2019–20 (left to right). The share of children in white families is not shown; it falls from 82% in the three years to 2013–14 to 78% in the three years to 2019–20.

Source: Authors' calculations using the Family Resources Survey, 2011–12 to 2019–20.

The increase in the share of children living in ethnic minority (in particular Asian) families, from 18% in the three years leading up to 2013–14 to 22% in the three years leading up to 2019–20, contributed to pushing up relative child poverty rates. This 'composition effect' accounted for 29% of the 2.6 percentage point increase in relative child poverty over this period.

However, Figure 3.5 also shows that relative child poverty rates increased slightly within each ethnic group. The share of white children in poverty increased by 2 percentage points, from 24% to 26%. The child poverty rate among black, Asian and 'other and mixed' ethnic groups increased by 1, 3 and 4 percentage points respectively. So the majority (71%) of the increase in relative child poverty is explained by increases experienced by each group, particularly the rise in relative poverty for white children, who make up almost 80% of children in the UK.

On an absolute basis, children from all broad ethnic groups experienced a fall in poverty, as shown in Figure 3.6. The largest fall in absolute poverty was for black children, who saw a 7 percentage point fall from 50% to 43% comparing the three years to 2013–14 with the three years to 2019–20. This is consistent with black children seeing the smallest rise in relative poverty of all of the ethnic groups. Asian children also saw a sizeable fall in their absolute poverty rate, by 5 percentage points over the same period.

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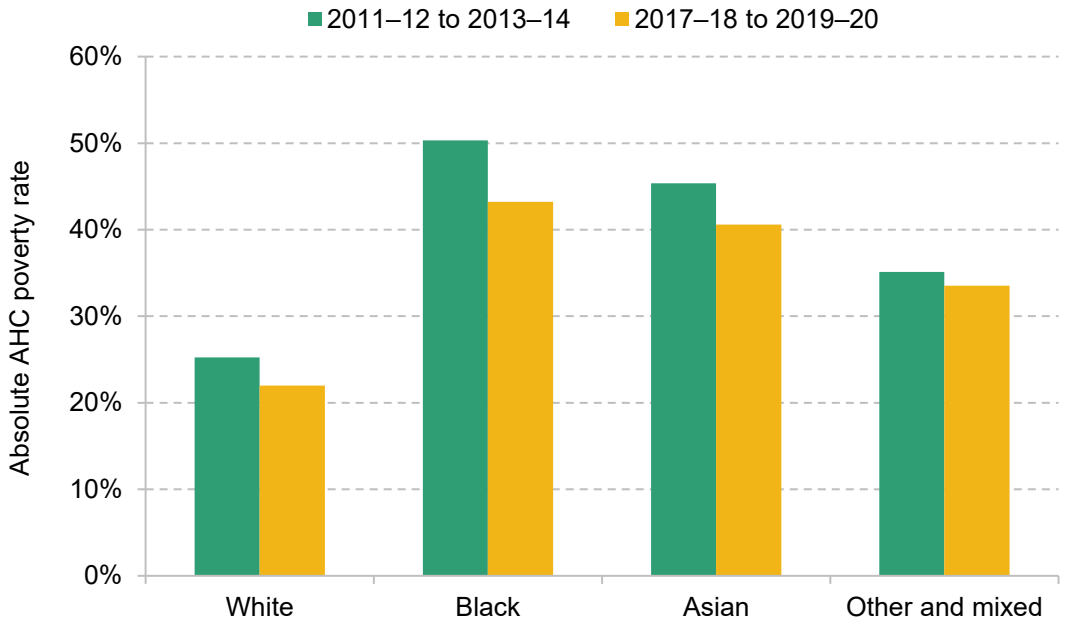
Figure 3.6. Absolute child poverty rates (measured AHC) and share of children by ethnic group, three years to 2013–14 and three years to 2019–20



Note: Families in which adults have different ethnicities are included in 'other and mixed'.

Source: Authors' calculations using the Family Resources Survey, 2011–12 to 2019–20.

Lone parents

Figure 3.7 plots relative and absolute child poverty between 2002–03 and 2019–20 for children in lone-parent families and children in two-parent families. Children in lone-parent families are more likely to be in poverty than those living with two parents: in 2002–03, both relative and absolute child poverty rates were around 2.5 times higher for lone-parent families than for two-parent families. However, poverty rates fell steeply for lone-parent families between 2002–03 and 2010–11, narrowing the gap. In 2010–11, 40% of children in lone-parent families were in (absolute and relative) poverty, 1.7 times the poverty rate for two-parent families.

Relative poverty rates for children in lone-parent families rose in the years leading up to the pandemic. In 2019–20, around half (49%) of children in lone-parent families were in relative poverty, up from 40% in 2013–14 and around the level seen in 2007–08 (51%). The weak income growth for lone-parent families in the years running up to the pandemic meant that the absolute poverty rate for children with lone parents was essentially unchanged between 2013–14 and 2019–20, at around 40%.

In comparison, the poverty rates for children living in two-parent families have been remarkably stable. We would usually expect absolute poverty rates to trend down over time as incomes grow, but the share of children in two-parent families in absolute poverty was basically unchanged between 2002–03 and 2013–14 (at around 24%), while relative child poverty among

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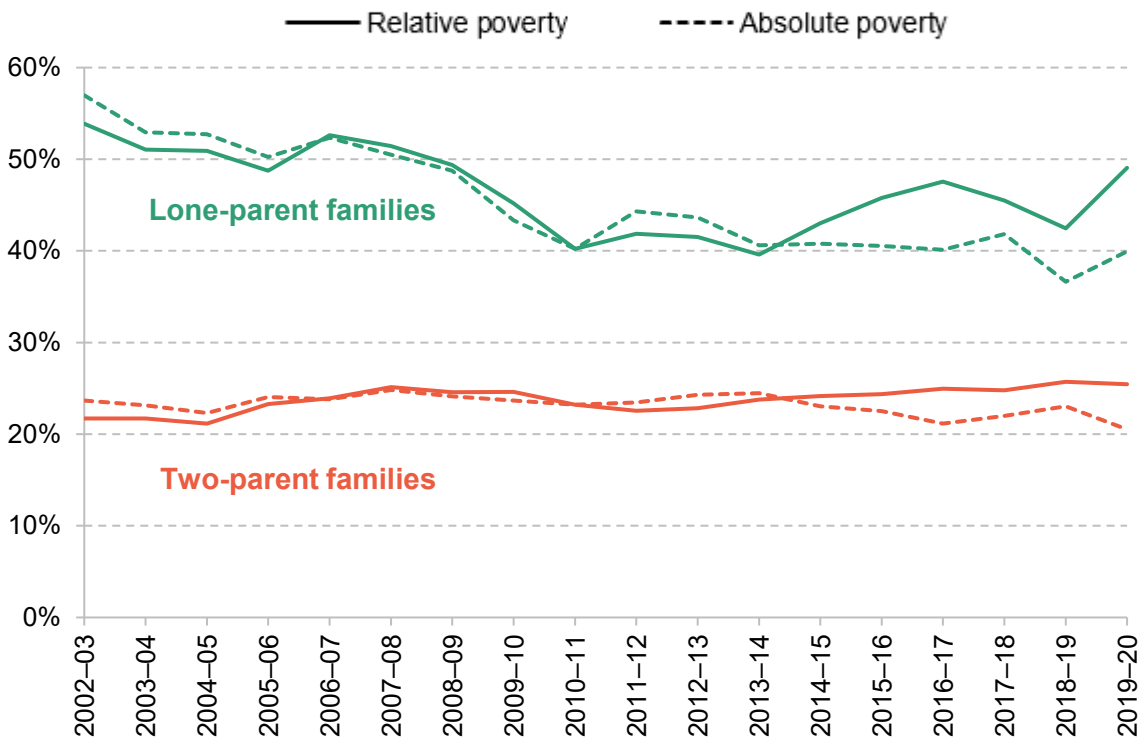
this group trended very gradually upwards. The recovery from the Great Recession boosted the incomes of two-parent families with children, pushing down absolute child poverty rates for this group, from 24% to 21%, though income growth was still weak compared with median growth, leading to modest rises in relative poverty.

Figure 3.7. Relative (solid lines) and absolute (dashed lines) child poverty rates (measured AHC) in lone-parent and two-parent families, 2002–03 to 2019–20



Note: Incomes have been measured net of taxes and benefits. All incomes have been equivalised using the modified OECD equivalence scale.

Source: Authors' calculations using the Family Resources Survey, 2002–03 to 2019–20.

Family work status

Employment rates rose steadily in the years leading up to the pandemic, as part of a significant increase over several decades. As a result, the share of children in families in which at least one adult was in work increased from 78% in 1994–95[8] to 81% in 2002–03 and 82% in 2013–14, but it really took off after 2013–14, reaching 88% in 2019–20, as shown in Figure 3.8.[9] Because children in working families are much less likely to be in poverty, this would have led to a large

[8] This statistic for 1994–95 is for Great Britain only, since FRS data from this time do not include Northern Ireland.

[9] This measures the work status of adults in the *family* at the time of the survey. It is a different measure from the DWP's 'Children living in long-term workless households' series, which measures the number of children living in *households* in the UK where all the adults have not worked for at least 12 months, and also uses a different data set (the Annual Population Survey). Based on the 'Children living in long-term workless households' measure, 8% of children lived in a long-term workless household in the 2020 calendar year.

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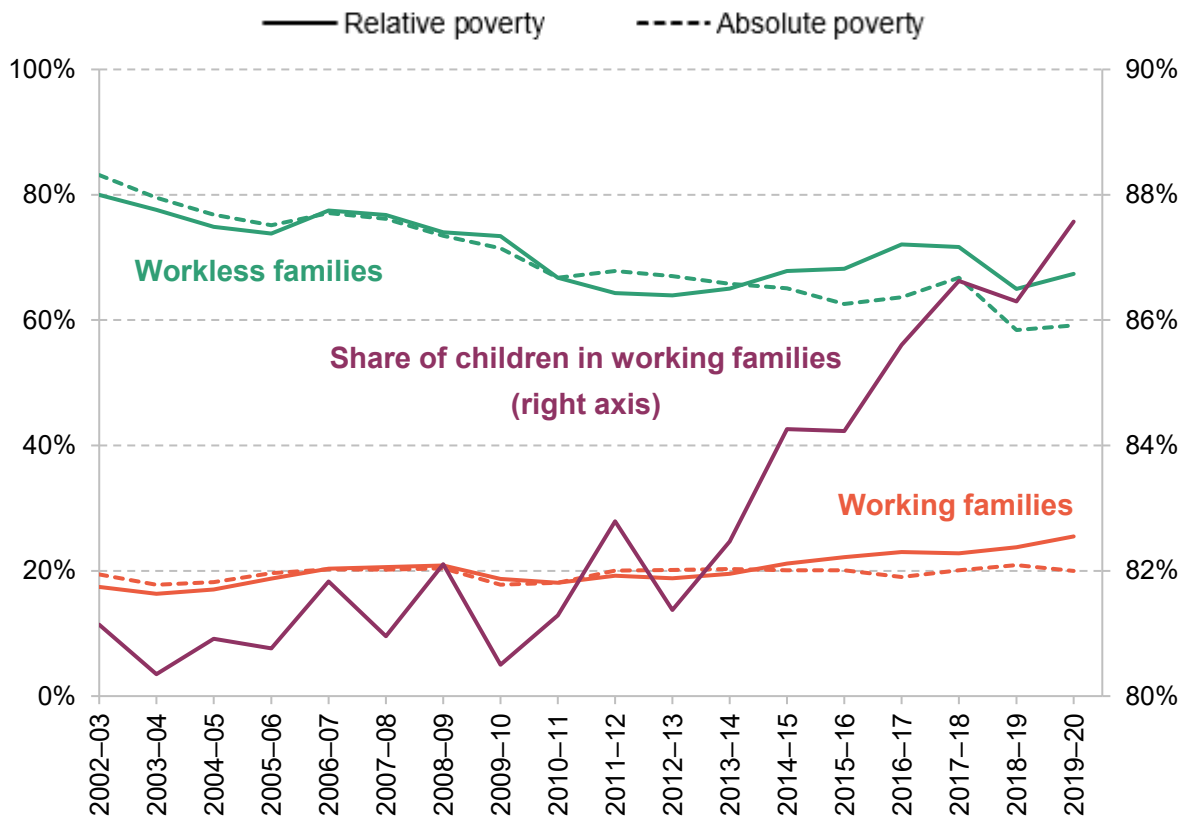
fall in relative child poverty, were it not for increases in child poverty rates among working and non-working families. All else equal, the rise in employment and fall in the fraction of families where no one was in paid work would have led to a 2.1 percentage point fall in relative child poverty between the three years leading up to 2013–14 and the three years leading up to 2019–20.

Figure 3.8. Relative (solid lines) and absolute (dashed lines) child poverty rates (measured AHC) and share of children in working and workless families, 2002–03 to 2019–20



Note: Incomes have been measured net of taxes and benefits. All incomes have been equivalised using the modified OECD equivalence scale. A working family is defined as one in which at least one adult is in paid work.

Source: Authors' calculations using the Family Resources Survey, 2002–03 to 2019–20.

However, Figure 3.8 shows that poverty rates among children in working families also increased markedly over this period. In 2019–20, a quarter (25%) of children in working families were in relative poverty, up from just a fifth (20%) in 2013–14. The share of children in workless families who were in relative poverty was also slightly higher in 2019–20 than in 2013–14, at 67% compared with 65%. These increases in relative poverty rates more than outweighed the positive 'composition effect' towards lower worklessness, resulting in an overall increase in child poverty. Even more remarkable than the recent increases in relative poverty is the lack of change in absolute poverty rates for working families since the early 2000s. The absolute

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poverty rate for working families with children was 20% in 2019–20, around the same as in 2002–03 (19%).

Change in the composition of poverty since before the Great Recession

Having examined trends in child poverty rates, we can examine how these, combined with changes in the characteristics of the child population, have changed the composition of poverty. It is particularly instructive to do this when comparing 2019–20 and 2007–08 because the relative child poverty rates in these years were essentially the same. We pool across three financial years to increase the sample size. The results are summarised in Table 3.1.

Table 3.1. Composition of children in relative AHC poverty, by three-year period

	Fraction of children in relative poverty			
	FY2005–FY2007	FY2011–FY2013	FY2017–FY2019	Change FY2005–FY2007 to FY2017–FY2019 (percentage points)
Lone parent	39%	35%	34%	–6
Couple	61%	65%	66%	+6
One child	22%	27%	20%	–2
Two children	38%	39%	36%	–2
Three or more	40%	34%	44%	+4
Working	53%	58%	70%	+17
Non-working	47%	42%	30%	–17
Asian	13%	13%	17%	+4
Black	6%	7%	8%	+2
White	76%	73%	67%	–9
Other	5%	7%	9%	+3

Note: FY2005 refers to financial year 2005–06 (and so forth).

Source: Authors' calculations using the Family Resources Survey, 2005–06 to 2019–20.

A number of key points stand out from this table. Most strikingly, in the three years to 2019–20, the fraction of children in poverty who live in a working family reached 70%, up from only 58% in the early 2010s and 53% in the three years running up to the recession. As shown above, this is the result of both the fall in worklessness, and increases in the relative poverty rate for working families with children. Second, the fraction of children in relative poverty who live with two parents has risen to 66%, up from 61% in the years in the run-up to the Great Recession. And the rise in the relative poverty rate for larger families means that in the three years to 2019–20, 44% of children in poverty lived in a family with at least three children. Finally, there have been gradual decreases in the fraction of children in relative poverty who are white, principally

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because of the decrease in the fraction of the child population as a whole who are not white. But it is still the case that two-thirds of children in poverty are white.

Summary

In summary, when looking at changes in the income poverty rates of different groups of children in the run-up to the pandemic, there are a number of striking findings. For large families – with three or more children – the years between 2013–14 and 2019–20 saw marked increases in relative poverty, and more gradual rises in absolute poverty, leaving the absolute poverty rate in 2019–20 at the same level as it was in 2003–04, 16 years earlier. Children from all broad ethnic groups have seen falls in absolute poverty since 2013–14 but rises in relative poverty – implying they are falling behind those on average incomes. Children of lone parents have seen marked rises in relative poverty rates and flatlining absolute poverty rates since 2013–14. The large rise in employment in the run-up to the pandemic led to there being more working families with children. This, and rises in their relative poverty rate, mean that 70% of children in relative poverty lived in a working family in 2019–20. In the years prior to the Great Recession, this fraction was only 53%. But perhaps even more remarkable is that the absolute poverty rate for children living in working families was essentially the same in 2019–20 as it had been 17 years earlier in 2002–03.

3.3 Changes in income sources and deductions among low-income families with children

In order to understand the changes in poverty rates documented in the previous section, in this section we delve into the drivers of household incomes (hence poverty rates) in more detail, by looking at changes in different sources of income for low-income families with children.

Figure 3.9 breaks down the contribution of different sources of incomes and deductions in three six-year periods: 1997–98 to 2003–04, when relative child poverty fell by 5 percentage points; 2007–08 to 2013–14, when relative child poverty fell by 4 percentage points; and 2013–14 to 2019–20, when relative child poverty rose by 3 percentage points. The 1997–98 to 2003–04 comparison is for Great Britain only, as the data in the earlier years did not include Northern Ireland. Because we are interested in poverty, we focus on children in the bottom third of household incomes after housing costs are deducted, who are under or fairly close to the poverty line. We look at four main categories of incomes and deductions: income from employment; benefits; housing costs; and other incomes and deductions. The most important of these ‘deductions’ is council tax.

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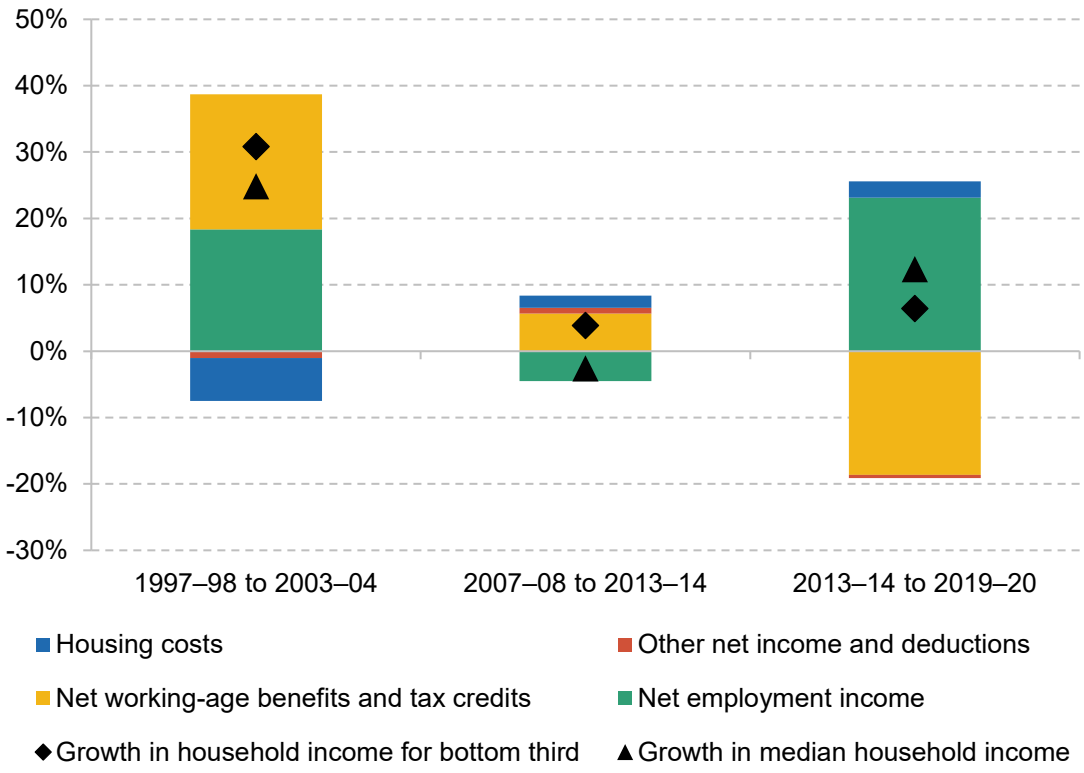
Figure 3.9. Contributions to average (mean) net household income growth (AHC) for children in the bottom third of AHC household incomes, selected periods



Note: The 1997–98 to 2003–04 comparison excludes Northern Ireland. Incomes have been measured net of taxes and benefits and after housing costs have been deducted. Housing costs are represented as negative amounts, so a positive contribution to income growth here means housing costs have fallen. All incomes have been equivalised using the modified OECD equivalence scale.

Source: Authors' calculations using the Family Resources Survey, 1997–98 to 2018–19.

The black diamonds in Figure 3.9 show the average growth in household incomes for children in the bottom third of household incomes in each of the three periods. Between 2013–14 and 2019–20, average household incomes for low-income children grew by 6% (implying a rate of 1% per year). There was a large increase in income from employment, reflecting a sustained rise in employment rates over this period and a partial recovery in average earnings since the Great Recession. In the absence of any other changes to incomes, this rise in employment incomes would have increased average household incomes for lower-income families with children by 23%.

However, this rise in employment income was mostly offset by a large fall in benefit and tax credit incomes. As we discuss below, the fall in benefit income was not simply the result of more people being in employment leading to lower benefit entitlements: it also reflects a series of reductions in the real values of benefits. Growth in median household incomes had started to pick up in the years just prior to the pandemic (Cribb and Wernham, 2021), and totalled 12% (indicated by black triangles in Figure 3.9) between 2013–14 and 2019–20. This was double the

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increase in average household incomes for children in low-income families; hence the rise in relative child poverty over this period.

It is instructive to compare the income changes in recent years and those in earlier periods, when relative child poverty was falling. For convenience, we again look at six-year periods. Figure 3.9 shows that the period between 1997–98 and 2003–04 also saw a large rise in employment incomes for low-income families with children, which contributed 18 percentage points to overall income growth. However, in contrast to the most recent period, benefit incomes also increased substantially between 1997–98 and 2003–04, owing to an expansion of tax credits by the Labour government over this period. The overall result was a 31% increase in average household incomes for children in the bottom third of household incomes, which exceeded the 25% growth in median household incomes and led to a 5 percentage point fall in relative child poverty from 33% in 1997–98 to 28% in 2003–04.

Relative child poverty also fell by 4 percentage points over the Great Recession and its immediate aftermath, from 31% in 2007–08 to 27% in 2013–14. This period was characterised by much smaller changes in both employment and benefit incomes for children in low-income families. There was a small fall in employment incomes (contributing a 5 percentage point fall in total income growth), offset by a small increase in benefit incomes (contributing a 6 percentage point rise).

Overall growth in average household incomes for children in low-income families in this middle period was only a little lower than the 6% growth seen over the latest period. This is the reason for there being similar falls in the absolute poverty rate for children between 2007–08 and 2013–14 and between 2013–14 and 2019–20, as was shown in Section 3.1.

However, in contrast to the latest period, median household incomes fell by 3% between 2007–08 and 2013–14 as a result of the fall in real earnings of people in work in the years following the financial crash. This meant that relative child poverty *fell* between 2007–08 and 2013–14 despite sluggish real-terms income growth for children in low-income families.

The fall in benefit incomes for children in low-income families in recent years was not simply the result of rising employment and a partial recovery in earnings, which led to lower entitlements to means-tested benefits. A series of cuts to the real value of working-age benefits, which first started in 2011, also played an important role. These include: freezing child benefits and working-age benefits in cash terms (or, at points, limiting cash increases to only 1% per year); capping local housing allowances; the introduction of the ‘benefit cap’, which limited total payments to working-age households; and the introduction of the ‘two-child limit’, which removed entitlement to certain means-tested benefits for third or subsequent children. The

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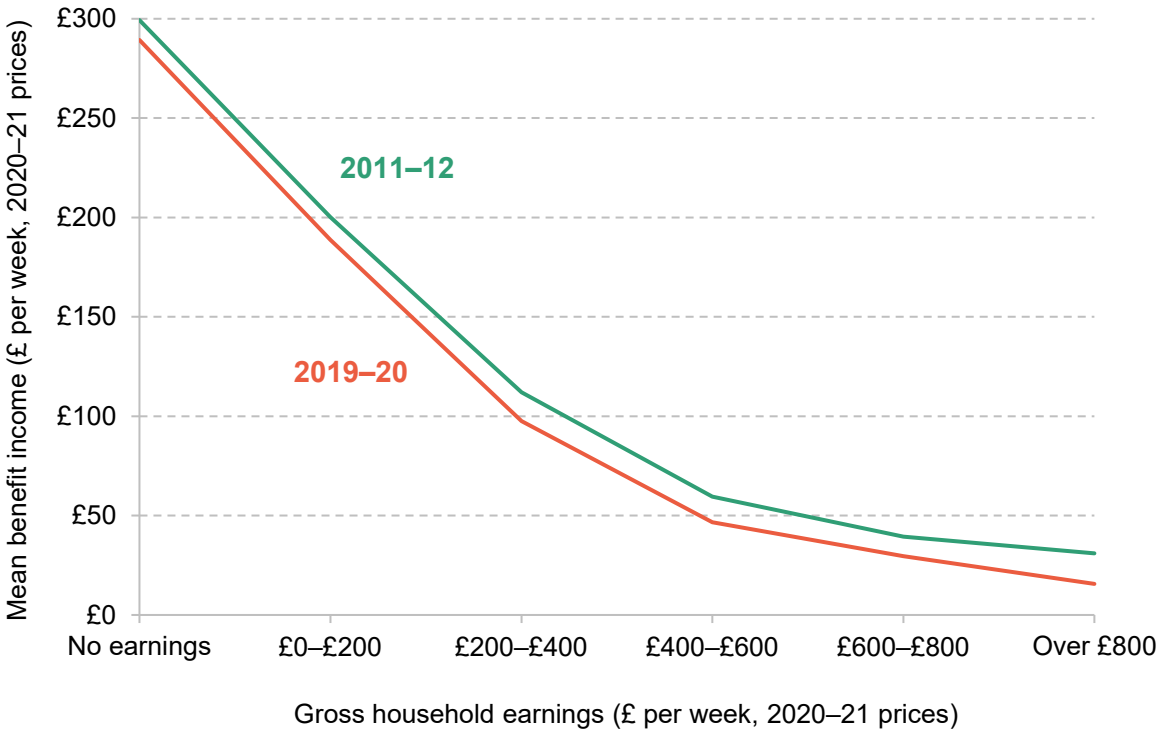
gradual withdrawal of child benefit for families in which someone earns between £50,000 and £60,000 greatly restricted benefit entitlement for high-earning families with children.[10]

Figure 3.10 plots average weekly benefit income (adjusted for inflation and household size) for households with children by their pre-tax weekly earnings in 2011–12 and 2019–20, in £200 bands (equivalent to just over £10,400 a year). The share of children in workless and low-earning households fell over this period, whilst the share in higher-earning households increased. However, for any level of employment income, households' average benefit incomes were lower in 2019–20 than in 2011–12. The fall in benefit incomes was similar across the earnings distribution, of between £10 and £15 a week (around £520 to £780 per year).

Figure 3.10. Mean benefit income for households with children, by household earnings band, 2011–12 and 2019–20



Note: Benefit incomes and earnings are at the household level – for example, mean benefit income for the 'no earnings' category refers to household benefits for children in families in which no one is in paid work. Earnings and benefits have been equivalised using the modified OECD equivalence scale and are expressed in 2020–21 prices.

Source: Authors' calculations using the Family Resources Survey, 2011–12 and 2019–20.

[10] A comprehensive list of benefit reforms affecting children can be found in Child Poverty Action Group (2017).

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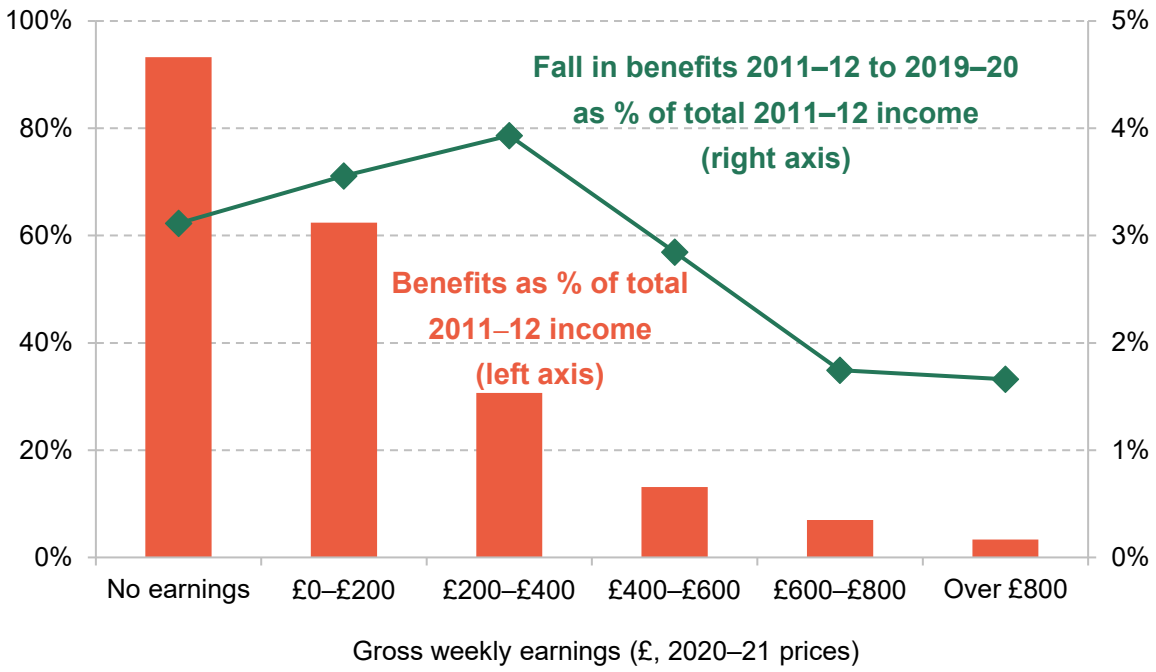
Figure 3.11. Benefits and fall in benefits as a share of total household income, by household earnings band



Note: Benefits, earnings and incomes are at the household level. Total income refers to total net income before housing costs are deducted. Amounts have been equivalised using the modified OECD equivalence scale and are expressed in 2020–21 prices.

Source: Authors' calculations using the Family Resources Survey, 2011–12 and 2019–20.

As a proportion of total benefits, the fall was greater for families with higher earnings: average benefit incomes fell by 3% (from around £300 to £290 a week) among families with no earnings, and halved (from around £30 to £15 a week) for families earning more than £800 a week. However, benefits are a much more important source of income for low-earning families, as shown in Figure 3.11. As such, the fall in benefits between 2011–12 and 2019–20 led to a larger proportionate fall in total incomes for low- and middle-earning households with children, of between 3% and 4% for households earning up to £400 a week, while the fall for households earning more than £600 a week was less than 2%.

One consequence of the 'benefit cap', which came into effect in 2013–14, is that the reduction in benefit entitlements was greater for larger families, who tend to be entitled to higher levels of benefits. The 'two-child limit' may also play a role, though it only applies to children born after 5 April 2017 and is unlikely to have had a large effect on average benefit incomes by 2019–20. The fall in benefits at any given earnings level is greater for larger families than for smaller families, and larger families are more reliant on benefits than are those with fewer children. In 2013–14, families with three or more children got 47% of their total net incomes from working-

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age benefits, compared with 26% for families with one or two children; in 2019–20, these figures were 39% and 19% respectively.

All this means that average benefit income for children in families with three or more children was £37 lower in 2019–20 than in 2013–14 (9% of their total household income in 2013–14), compared with £26 (5%) for children in families with one or two children. The combination of larger reductions in benefits and greater reliance on benefits for household incomes among larger families means that they were more affected by the reductions in working-age benefits in the years leading up to the pandemic.

To summarise, in the years leading up to the pandemic, low-income families with children saw a large increase in income from employment, due to rising employment rates and a partial recovery in earnings following the Great Recession. However, this increase was mostly offset by a large fall in income from benefits. The fall in benefit income reflected a number of real-terms cuts in working-age benefits, particularly for larger families, who are also more reliant on income from benefits. This helps to explain the increases in relative child poverty among working families, and among families with three or more children, found in the previous section.

3.4 Changes in the relationship between household income and material deprivation among families with children

Whilst relative child poverty based on income measures of poverty rose gradually between 2013–14 and 2019–20, material deprivation among children has substantially fallen, with most of the fall occurring between 2013–14 and 2016–17. In this section, we look at how the relationship between household incomes and material deprivation has changed over time and across family types, to understand the divergence between income measures of relative poverty and measures based on material deprivation.

As explained in Section 3.1, the measure of material deprivation used in the UK lies somewhere between an absolute and relative measure of low living standards. However, the divergence between material deprivation and relative income poverty is not simply due to the difference between absolute and relative measures.

Table 3.2 shows, for different family types, how relative income poverty, absolute income poverty and material deprivation rates for children have changed between 2013–14 and 2019–20 (as before, we pool across three years to increase the sample size). There is some correlation between the change in income measures of child poverty and the change in material deprivation over this period: groups that have seen larger rises (or smaller falls) in poverty – especially

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absolute poverty – have generally seen smaller falls in material deprivation. However, the correlation is far from perfect; for example, whilst children in families with three or more children saw the largest rise in absolute and relative poverty, they saw the largest *fall* in material deprivation. Further, overall, the fall in material deprivation for children (4.9 percentage points) is much larger than the fall in children's absolute income poverty (2.7 points).

Table 3.2. Comparison of changes in AHC poverty and material deprivation, by group and three-year period

	Rate FY2017–FY2019			Change FY2011–FY2013 to FY2017–FY2019 (percentage points)		
	Relative poverty	Absolute poverty	Material deprivation	Relative poverty	Absolute poverty	Material deprivation
Overall	30%	26%	18%	2.6	–2.7	–4.9
Lone parent	46%	39%	40%	4.7	–3.4	–6.5
Couple	25%	22%	12%	2.3	–2.2	–4.0
One child	24%	21%	14%	–2.3	–6.0	–5.7
Two children	24%	21%	14%	–0.1	–4.3	–4.7
Three or more	44%	37%	28%	9.9	1.5	–5.9
Working	24%	20%	13%	4.8	0.2	–2.5
Non-working	68%	61%	55%	3.6	–5.4	–5.3
Asian	46%	41%	23%	2.9	–4.8	–8.3
Black	50%	43%	38%	1.2	–7.1	–17.9
White	26%	22%	16%	1.5	–3.3	–4.3
Other	38%	34%	22%	4.5	–1.6	–5.5

Note: FY2017 refers to financial year 2017–18 (and so forth).

Source: Authors' calculations using the Family Resources Survey, 2011–12 to 2019–20.

Figure 3.12 shows that this is indeed the case. It plots the share of children in material deprivation by their household income, after taxes and benefits and after deducting housing costs, with household incomes shown in bands of £100 a week. Children in the first three categories (below £100, £100–£200 and £200–£300) roughly correspond to those who were in or very close to relative poverty in 2019–20. Children in relative income poverty are not necessarily in material deprivation, and vice versa: in 2019–20, 37% of children in relative income poverty were materially deprived, and 63% of materially deprived children were in relative income poverty.

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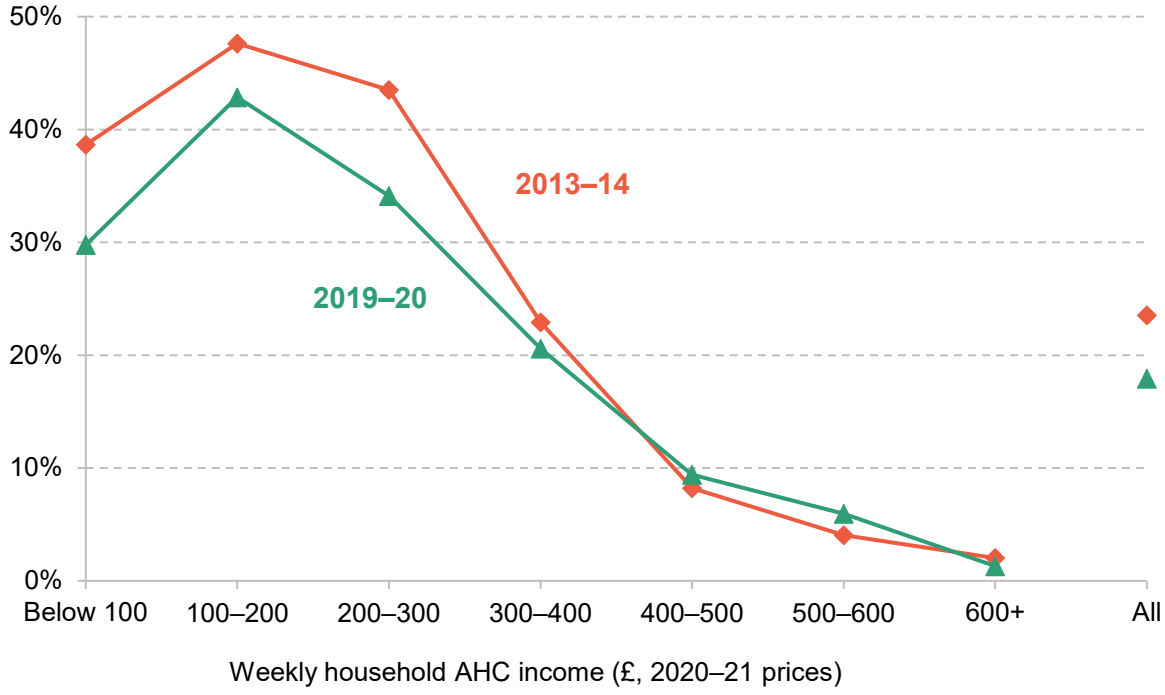
Figure 3.12. Child material deprivation rates by household AHC income band, 2013–14 and 2019–20



Note: Relative poverty line (AHC) in 2019–20 is £290. Amounts have been equivalised using the modified OECD equivalence scale and are expressed in 2020–21 prices.

Source: Authors' calculations using the Family Resources Survey, 2013–14 and 2019–20.

Figure 3.12 shows that in both 2013–14 and 2019–20, children in families with higher incomes were less likely to be materially deprived. The exception is the lowest income band, below £100 a week; previous research by Brewer, Etheridge and O'Dea (2017) shows that people on the lowest incomes do not always have the lowest living standards as measured by consumption, due to temporary income shocks (e.g. self-employment losses or short spells of unemployment) and measurement error in incomes, and this is also the case when we measure living standards using material deprivation.

However, low-income children have become less likely to be materially deprived for any given level of household incomes, up to £300 a week (approximately the relative poverty line in 2019–20). In 2019–20, 30% of children with household incomes below £100 a week were classed as being materially deprived, down from 39% in 2013–14. Rates of material deprivation in 2019–20 were 5 percentage points lower than in 2013–14 for children with household incomes between £100 and £200 a week, and 10 percentage points lower for those with incomes between £200 and £300 a week (just below or close to the relative poverty line in 2019–20).

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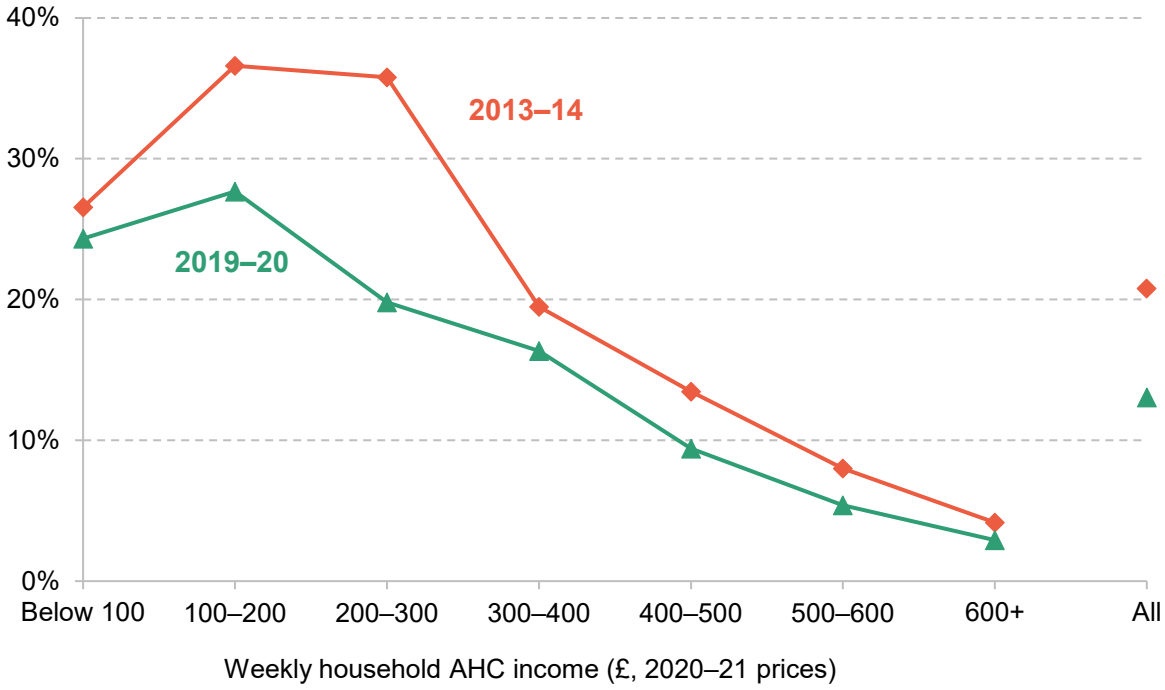
Figure 3.13. Share of children in families who cannot afford at least one of the top five material deprivation items, by household AHC income band, 2013–14 and 2019–20



Note: Relative poverty line (AHC) in 2019–20 is £290. Amounts have been equivalised using the modified OECD equivalence scale and are expressed in 2020–21 prices. Based on the top five items in 2019–20 (see Appendix D).

Source: Authors' calculations using the Family Resources Survey, 2013–14 and 2019–20.

As explained in Section 3.1, the measure of material deprivation used here involves asking families whether they can afford a set of items and activities. 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. Figure 3.13 shows that the fall in material deprivation shown in Figure 3.12 reflects a large fall in the share of children whose families cannot afford at least one of the five most common items (those that most families already have, which are therefore highly weighted in the material deprivation index); in 2019–20, these were: having a warm winter coat; celebrations on special occasions; keeping the accommodation warm enough; outdoor space or facilities nearby where children can play safely; and eating fresh fruit or vegetables every day.[11] Between 2013–14 and 2019–20, the share of children whose families could not afford one of these top five items fell by 2 percentage points for those with household incomes below £100 a week, by 9 percentage points for those with incomes between £100 and £200 a week, and by 16 percentage points for those with incomes between £200 and £300 a week.

[11] Four of these five items were also in the top five in 2013–14.

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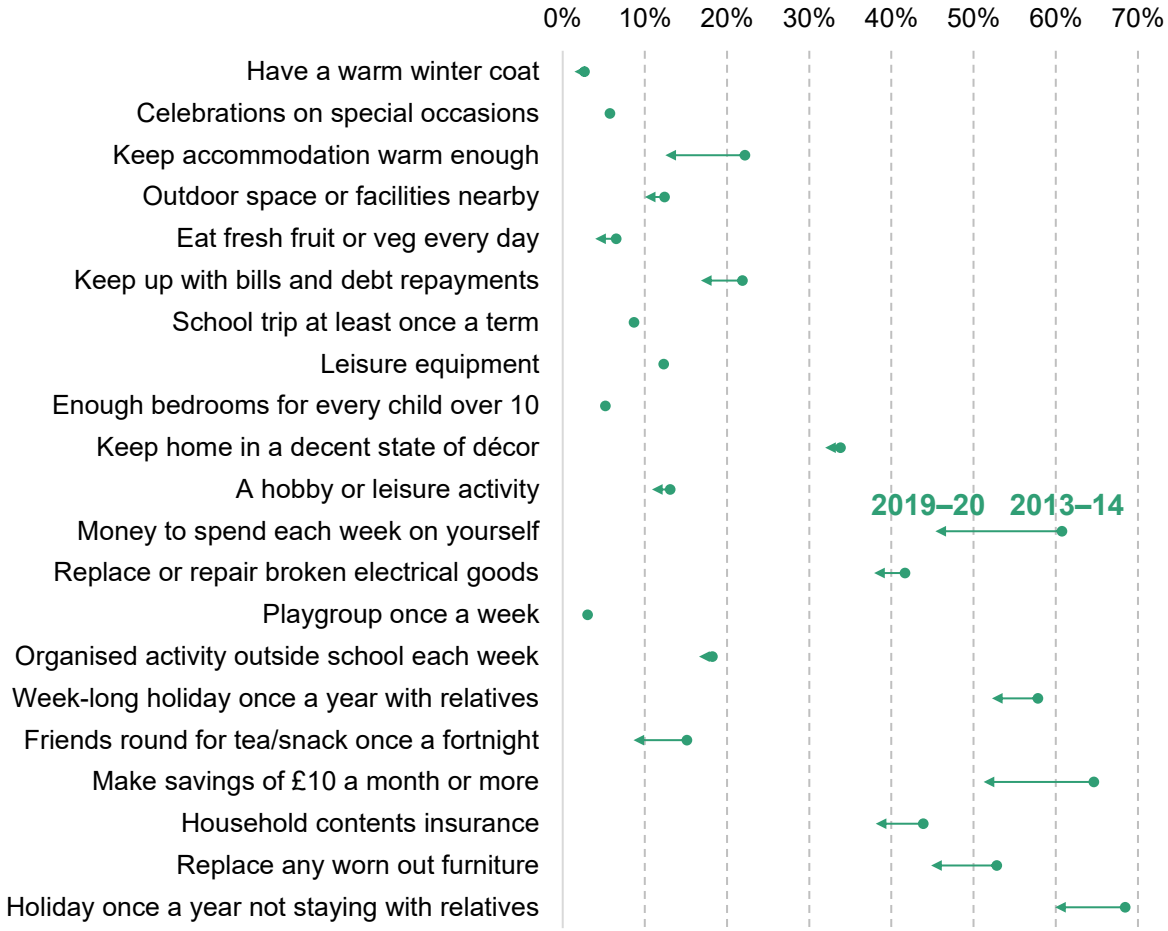
Figure 3.14. Share of children with household incomes below £300 a week whose families cannot afford specific items, 2013–14 (dots) and 2019–20 (arrows)



Note: Relative poverty line (AHC) in 2019–20 is £290. Amounts have been equivalised using the modified OECD equivalence scale and are expressed in 2020–21 prices. Ordering reflects weight placed on item in 2019–20. See Appendix D for more details on weighting.

Source: Authors' calculations using the Family Resources Survey, 2013–14 and 2019–20.

We can delve deeper into the fall in material deprivation rates by looking at which specific items and activities families with children are now better able to afford. Figure 3.14 plots the share of children below or close to the relative poverty line in 2019–20 (with household incomes below £300 a week) whose families cannot afford specific items or activities used in the material deprivation calculations in 2013–14 (the dots) and 2019–20 (the arrows). Corresponding shares for all children (not just low-income children) are given in Figure C.2 in Appendix C. The ordering of items in both figures reflects their weight in 2019–20 – for example, the first item,

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'having a warm winter coat', is the item with the highest weight in 2019–20.[12] The ranking of weights is fairly stable from year to year.

Figure 3.14 shows that across virtually all items in the material deprivation index, the inability to afford an item was lower in 2019–20 than in 2013–14. This is true for both all children (in Figure C.2) and low-income children whose household incomes fall below or are close to the 2019–20 relative poverty line. The share of low-income children whose families could not afford to 'keep [their] accommodation warm enough', the item given the third-highest weight in the material deprivation calculations, fell from 22% in 2013–14 to 12% in 2019–20. This change alone will have substantially pushed down material deprivation. It is worth noting that the increases in the price of gas and electricity seen so far in 2022 is likely to reverse this trend – given the high weight placed on adequate heating in the material deprivation index, the rise in energy prices is likely to put upward pressure on material deprivation in the current year.

Other items given high weights in the material deprivation calculations – such as having a warm winter coat; celebrations on special occasions; having an outdoor space or facilities nearby where children can play safely; eating fresh fruit or vegetables every day; and keeping up with bills and regular debt repayments – also saw falls of between 1 and 5 percentage points for low-income children over this period. Some lower-weighted items saw falls of up to 15 percentage points ('having money to spend on yourself').

What explains the fall in material deprivation for a given level of household incomes? There are a number of possible explanations. First, it is possible that there are issues with either the data on incomes or the data on material deprivation. However, this seems unlikely: the pattern of income growth among low-income families is consistent with the rise in employment and the reduction in working-age benefits seen over the last decade. And if there were measurement problems with the income data, the material deprivation results would suggest that the HBAI data were *understating* income growth for low-income people. It also seems unlikely that the material deprivation questions are systematically wrong in some way: they have been unchanged since 2010–11 and asked in the same way each year. And the falls in material deprivation seen between 2013–14 and 2016–17 have been maintained in the following years; there is not evidence that the falls are due to one particularly un-deprived sample in one year.

Second, it is possible that the prices of items included in the material deprivation index have fallen in real terms, so that low-income families with children are now better able to afford these

[12] Note that weights are based on the share of people who *have* each item, not the share of people who can *afford* each item (some people will not have items because they do not want or need them). The treatment of missing observations is also different in calculating the weights and the material deprivation index, as explained in Appendix D.

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items. Consistent with this hypothesis, the prices of clothing and footwear and of non-processed foods fell in real terms between 2013 and 2019 – this reduces the cost of 'having a warm winter coat' and 'eating fresh fruit or vegetables every day', which are two of the five highest-weighted items in the material deprivation calculations.[13] Gas prices also decreased by about 17% in real terms over the period (Bolton and Stewart, 2022). To the extent that falling real prices are responsible for the fall in material deprivation among low-income families with children, we might expect child material deprivation to go up next year, since low-income families are expected to face the highest rates of inflation (Joyce et al., 2022).

Third, some of the items in the material deprivation index – such as having an outdoor space or facilities nearby where children can play safely, playgroups and organised activities outside school – depend on public and/or charitable provision as well as families' ability to pay, and this could potentially have improved over time for children in low-income families. The rise in the share of low-income families who say they have an outdoor space for children to play safely, for example, could reflect the fall in crime over the last decades.

A fourth possibility is that low-income families with children increasingly access other forms of support which keeps them from material deprivation. Savings are one way for people to 'self-insure' against shocks to avoid deprivation. Figure 3.15 plots the share of children overall and children in the lowest fifth of family incomes with at least £2,000 (2020–21 prices) in gross financial wealth. It shows that savings increased for families with children in general, and for the lowest-income children in particular, between 2013 and 2019 (from 33% to 38% for the low-income group, up from 22% in 2010). There could be other options for people who seek to avoid deprivation even if they have low incomes. For example, the number of food parcels distributed by the Trussell Trust more than doubled between 2013–14 and 2019–20, from 900,000 to 1.9 million (Tyler, 2021), although it is hard to disentangle how much of this increase is due to increased hardship driving up demand for food banks and how much is due to an increase in supply. We would benefit from further research into other mechanisms that might allow lower-income people the ability to avoid material deprivation, such as the possibility of increased support from wider family networks.

[13] Between 2013 and 2019, the price of non-processed food fell by 1% and the price of clothing and footwear increased by just 3%, against overall price inflation of 10% (CPIH), according to the ONS's CPI tables (https://www.ons.gov.uk/economy/inflationandpriceindices/datasets/consumerpriceinflation).

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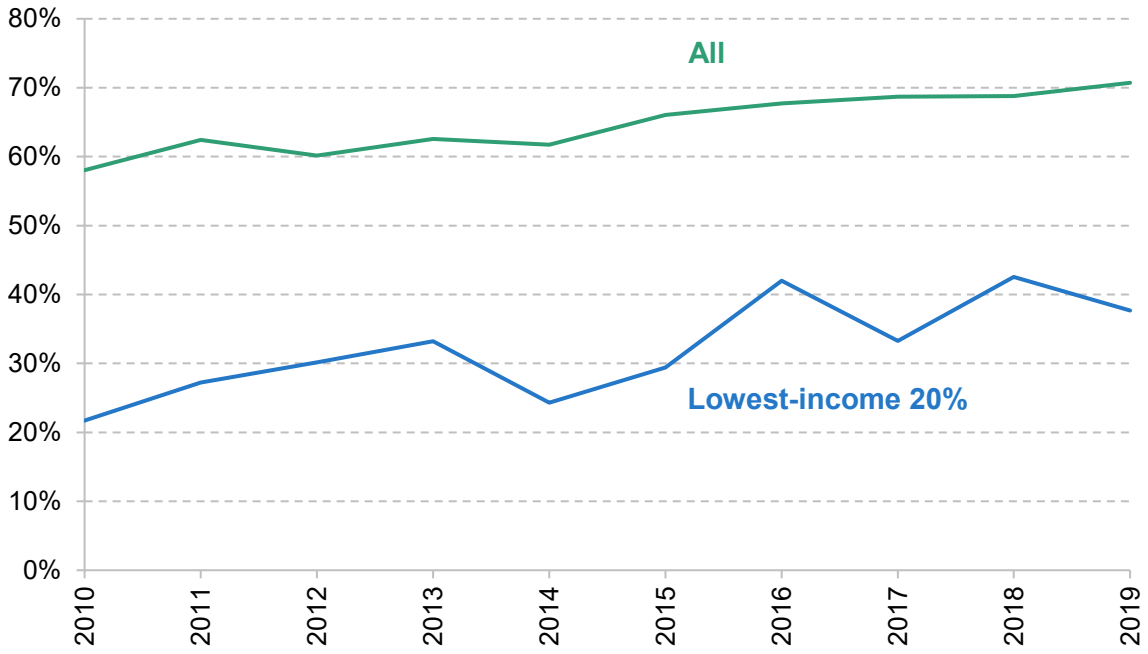
Figure 3.15. Share of children living in a family with at least £2,000[a] in gross financial wealth, 2010 to 2019



[a] In 2020–21 prices.

Note: Lowest-income 20% is defined in terms of equivalised family income.

Source: Calculations by authors and Bee Boileau using the Wealth and Assets Survey.

3.5 Conclusion

The years leading up to the COVID-19 pandemic were characterised by a gradual recovery from the Great Recession that had led to large income falls between 2007–08 and 2011–12. During this recovery, however, there were only modest falls in absolute child poverty, of around 3 percentage points in the six years between 2013–14 and 2019–20, similar to the rate of change seen during the previous six years (2007–08 to 2013–14) that covered the Great Recession and its immediate aftermath.

But the recovery in incomes was slower for poor families with children than for those on average incomes, meaning relative child poverty had been rising in the years leading up to the pandemic. By 2019–20, 31% of children were in relative poverty using measures of household incomes after housing costs, up from 27% in the early 2010s. Since 2013–14, rising employment incomes among low-income families with children have been largely offset by a reduction in benefit income.

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Digging into the changes in poverty in more detail has cast light on some striking trends. In particular, there has been a sharp rise in poverty rates among children in families with three or more children, from 34% in 2013–14 to 47% in 2019–20. We find that reductions in working-age benefits have been particularly large for larger families in the years running up to the pandemic. While the absolute poverty rate for these children rose by less over the same period, in 2019–20 it was at the same level as in 2003–04, 16 years previously.

The large rise in employment in the run-up to the pandemic led to there being more working families with children. This, and rises in the relative poverty rate for working families, mean that 70% of children in relative poverty lived in a working family in 2019–20. In the years prior to the Great Recession, this fraction was only 53%. But perhaps even more remarkable is that the absolute poverty rate for children living in working families was essentially the same in 2019–20 as it had been 17 years earlier in 2002–03.

Child material deprivation fell substantially in the years in the run-up to the pandemic – with the largest falls on record since the measure was first produced in 2004. The falls were particularly steep between 2013–14 and 2016–17. In particular, we find that rates of material deprivation have fallen for any given level of household incomes up to £300 per week. One reason for this may be that some poorer families may find it easier to self-insure against periods of low income, as there have been increases in the fraction of poor families with children who have some financial wealth (savings) to fall back upon in an emergency. Declines in the real price of some of the items included in the material deprivation calculations – in particular, falls in gas bills between 2013 and 2019 – might account for some of the fall in material deprivation among low-income families with children, as one of the largest falls was in the fraction of families with children being unable to afford to heat their home.

This might change over the next year as the rising cost of living is expected to bite hardest for low-income families. Inflation in Autumn 2022 is expected to hit 14% for families in the poorest tenth of the income distribution, compared with 8% for families in the richest tenth, driven in large part by rising energy costs (Karjalainen and Levell, 2022). The government's decision to provide a flat rate of support to households on means-tested benefits, rather than uprating benefits in line with current inflation, means that the support provided is less generous (in percentage terms) for families currently receiving high levels of benefits. Child material deprivation may face upward pressure, since the fall in recent years was partly due to a fall in the share of families unable to afford to keep their accommodation warm, which is likely to increase in the coming year.

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Appendix A. Data sources

Households Below Average Income (HBAI)

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 statistics is to focus solely on material circumstances and to use household income as a proxy for that.

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.[14] 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.[15]

The treatment of housing costs

The government's HBAI statistics provide 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,

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

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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.

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

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measure, though, would indicate that the former was better off.[16] 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 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 units[17] 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

[16] 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.

[17] 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.

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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.

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), 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.

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

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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.[18]

Sample weighting, and adjusting the incomes of the 'very rich'

The incomes analysed in this report are derived from the Family Resources Survey (FRS). These surveys are designed to provide a broadly representative sample of households in Great Britain until 2001–02 (i.e. not including Northern Ireland), 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.[19] For example, if there are proportionately fewer lone parents in the sample than there are in the population, 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.[20] 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.

[18] See also section 5.3 of Brewer et al. (2008).
[19] See Department for Work and Pensions (2022a).
[20] See Burkhauser et al. (2018) for an analysis of the limitations of this adjustment and a discussion of alternatives.

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Adjusting for inflation

All of the description of the HBAI methodology so far sets out how, following the government's HBAI methodology, we 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 (2020–21 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. 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 historic 'formula effect' (the amount by which the Retail Prices Index overstates inflation).[21]

Understanding Society: The UK Household Longitudinal Study

Understanding Society, also known as the UK Household Longitudinal Study, is a panel study, run by the Institute for Social and Economic Research at the University of Essex. The survey is asked in waves, with each wave lasting two years, and a new wave starting each year, so that the waves overlap. The main survey asks a large number of households a wide range of questions, with all household members either interviewed directly or (in the case of younger children) asked about. Households are invited to be re-interviewed in each wave, every year, allowing them to be tracked over time. The survey asks a large series of questions, which include variables that allow the calculation of net equivalised household income, in a similar way to HBAI. The most recent full wave to be released was wave 11, covering 2019–20.

The English Longitudinal Study of Ageing

In an accompanying working paper to this report, which is published as part of this project, Cribb, Karjalainen and Waters (2022) use data from three survey data sets to study the living standards of working-age disability recipients: the Family Resources Survey, the UK Household Longitudinal Study and the English Longitudinal Study of Ageing (ELSA). The FRS and

[21] The resulting 'deflators' are available online at https://ifs.org.uk/uploads/Incomes%2C%20poverty%20and%20inequality.xlsx.

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UKHLS are described above; here we describe the features of ELSA (see Steptoe et al. (2013) for more details). ELSA is a longitudinal study of people aged 50+ in England, and participants are surveyed every other year, starting in 2002–03, with the most recent wave (wave 9) covering 2018–19.

ELSA contains detailed information on around 10,000 individuals' background characteristics, economic outcomes (including labour market participation, income and wealth), subjective measures of financial difficulties, a variety of measures of health and disability (including diagnoses of various conditions and measures of difficulties with mobility and activities of daily living) and a range of other information on participation in different activities in society. It is designed to be – in general – similar to the related studies in the United States (the Health and Retirement Study) and in Europe (the Survey of Health, Ageing and Retirement in Europe).

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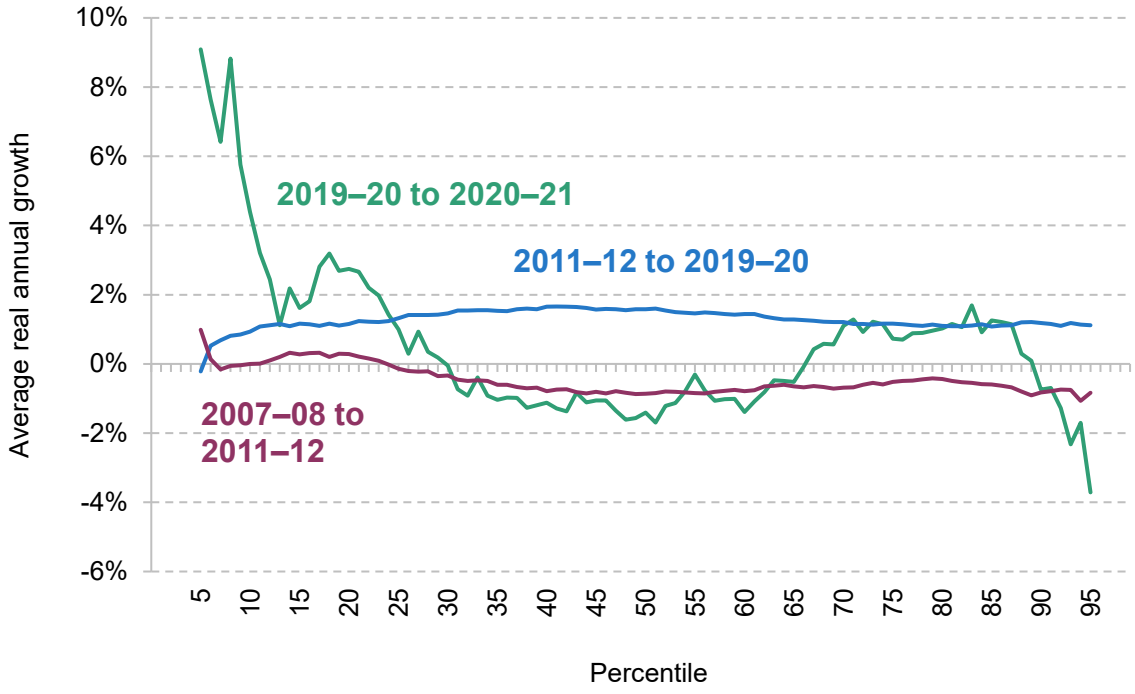
Appendix B. Additional figures for Chapter 2

Figure B.1. Average annual AHC real disposable household income growth, by income percentile, for various periods



Note: Incomes have been measured net of taxes and benefits and after housing costs have been deducted, and are expressed in 2020–21 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, 2007–08 to 2020–21.

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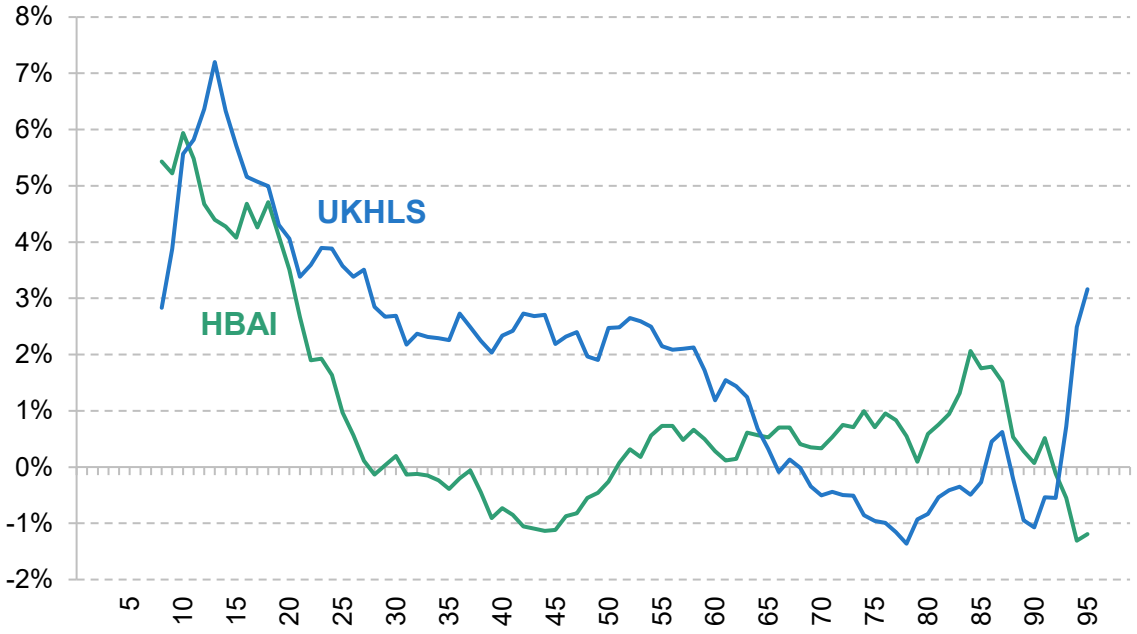
Figure B.2. Comparison of HBAI and UKHLS disposable household income growth, by income percentile, between 2019Q2–Q4 and 2020Q2–Q4



Note: Incomes have been measured net of taxes and benefits and before housing costs have been deducted. All incomes have been equivalised using the modified OECD equivalence scale. Percentiles below the 8th and above the 95th have been excluded because of statistical uncertainty (for more details, see footnote 3).

Source: Authors' calculations using the Family Resources Survey, 2019–20 and 2020–21, and the UK Household Longitudinal Study, waves 10 and 11.

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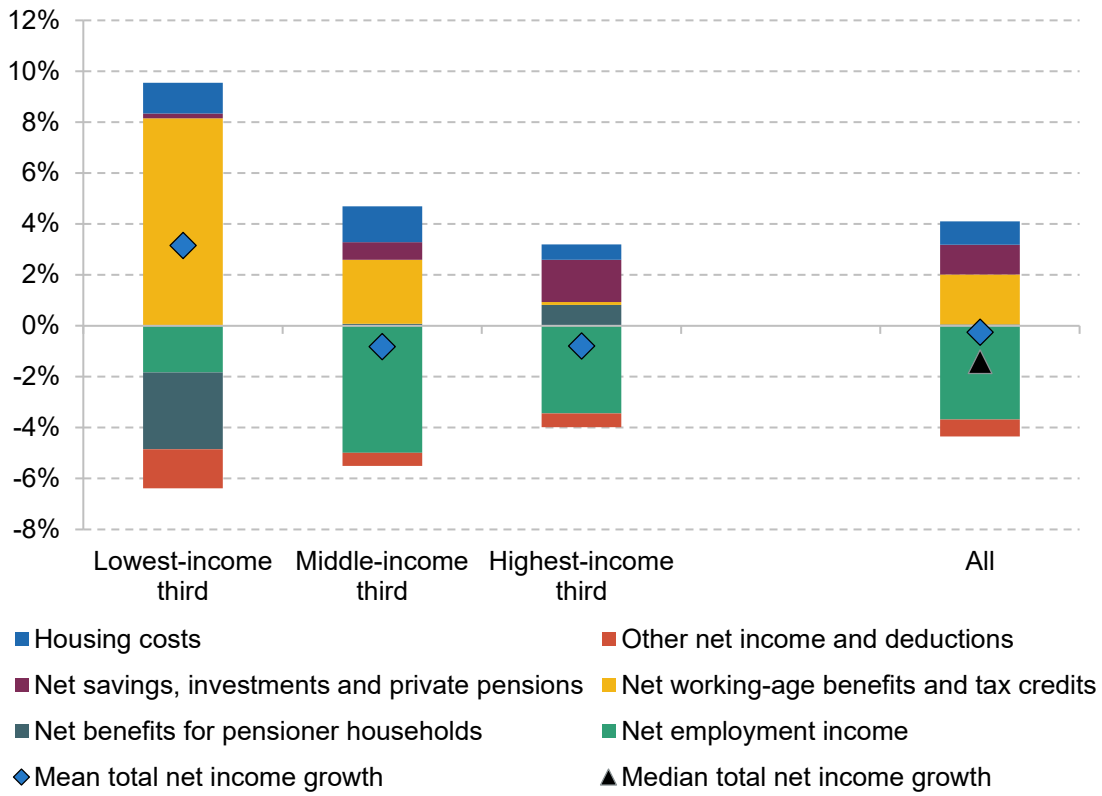
Figure B.3. Contributions to net household income growth (AHC), 2019–20 to 2020–21, by AHC income tertile



Note: Incomes have been measured net of taxes and benefits and after housing costs have been deducted. Housing costs are represented as negative amounts, so a positive contribution to income growth here means housing costs have fallen. All incomes have been equivalised using the modified OECD equivalence scale. Very-high-income households and those with negative BHC incomes are excluded.

Source: Authors' calculations using the Family Resources Survey, 2019–20 and 2020–21.

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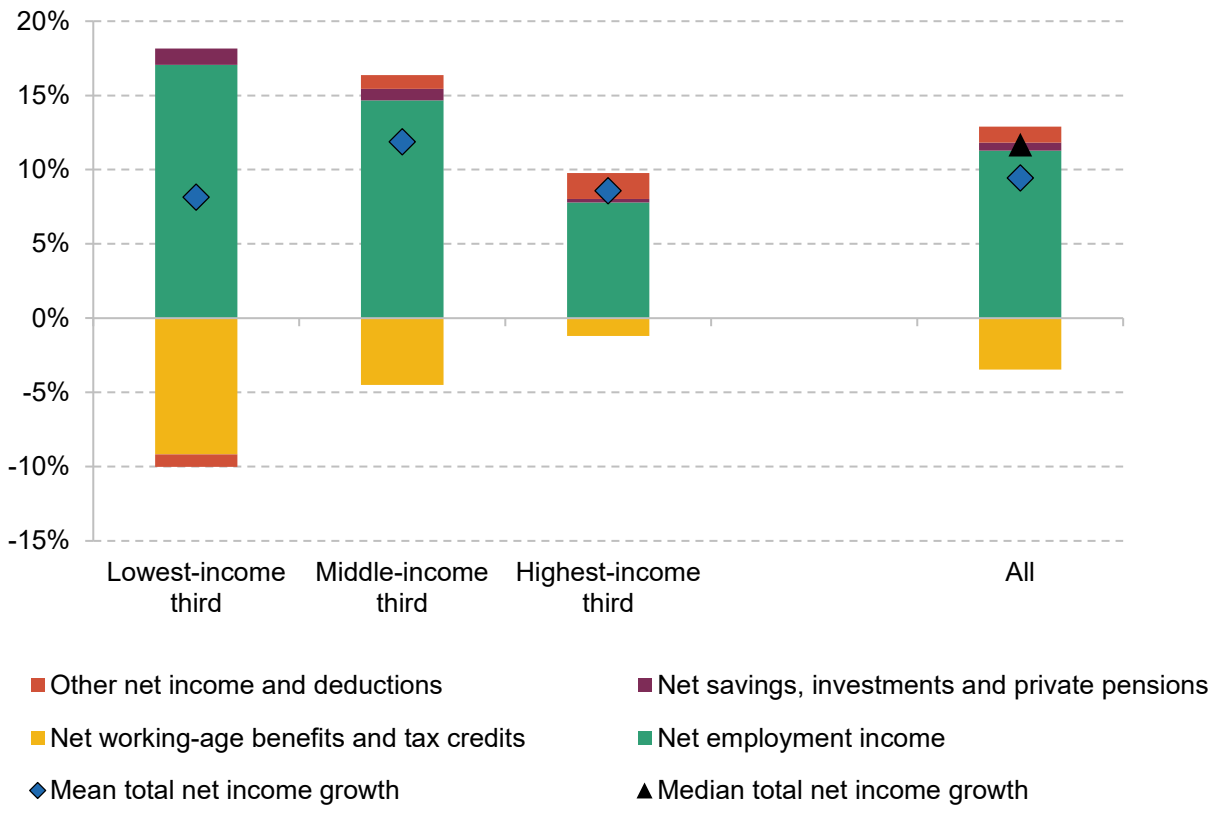
Figure B.4. Contributions to net household income growth (BHC), 2011–12 to 2019–20, by BHC income tertile: working-age households only



Note: Incomes have been measured net of taxes and benefits and before housing costs have been deducted. All incomes have been equivalised using the modified OECD equivalence scale. Very-high-income households and those with negative incomes are excluded.

Source: Authors' calculations using the Family Resources Survey, 2011–12 and 2019–20.

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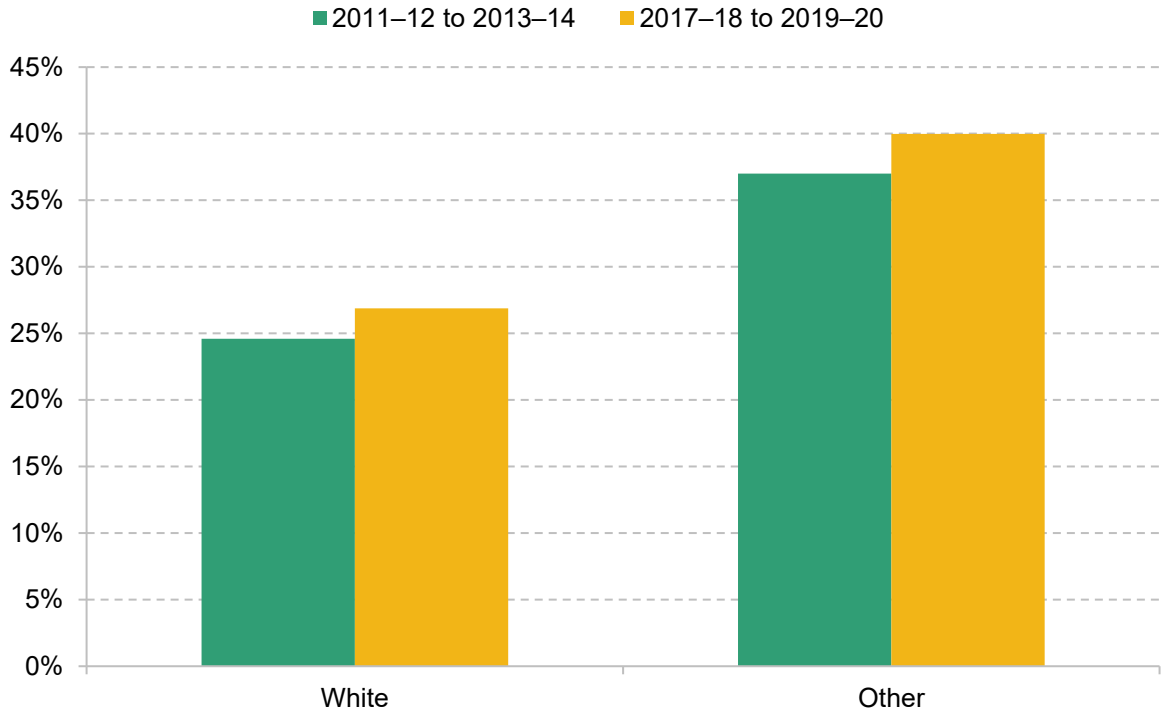
Appendix C. Additional figures and table for Chapter 3

Figure C.1. Share of children in families with three or more children by adult ethnic group, three years to 2013–14 and three years to 2019–20



Note: Families in which adults have different ethnicities are included in 'other'.

Source: Authors' calculations using the Family Resources Survey, 2011–12 to 2019–20.

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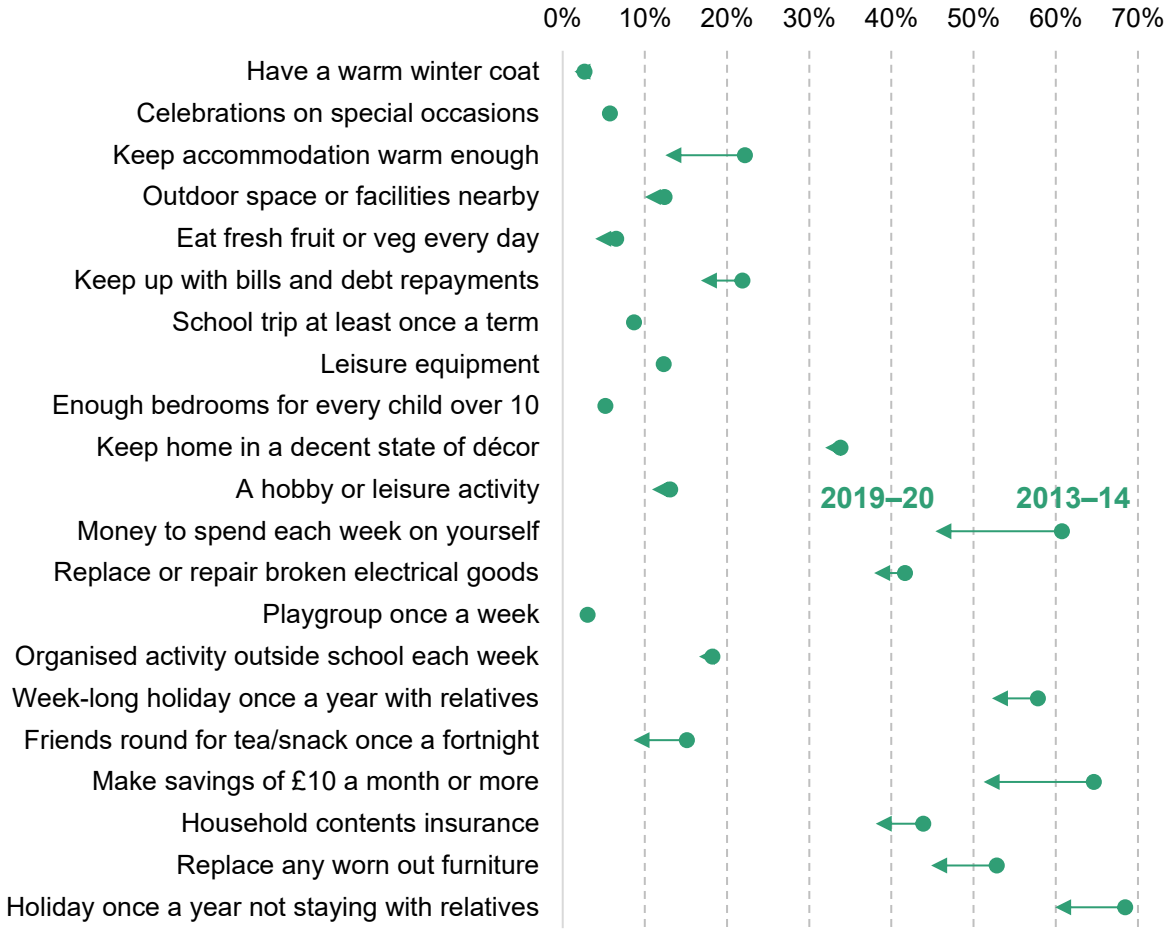
Figure C.2. Share of all children whose families cannot afford specific items, 2013–14 (dots) and 2019–20 (arrows)



Note: Ordering reflects weight placed on item in 2019–20. See Appendix D for more details on weighting.

Source: Authors' calculations using the Family Resources Survey, 2013–14 and 2019–20.

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Table C.1. Decomposition of change in relative AHC child poverty rate, three years to 2013–14 and three years to 2019–20

	Relative AHC poverty rate		Share of children		Decomposition	
	FY2011–FY2013	FY2017–FY2019	FY2011–FY2013	FY2017–FY2019	'Incidence' effects (ppts)	'Composition' effects (ppts)
Overall	27%	30%	100%	100%	2.6	
One child	26%	24%	29%	26%	–0.6	0.4
Two children	24%	24%	44%	44%	0.0	
Three or more children	34%	44%	27%	30%	2.8	
Asian	43%	46%	8%	11%	0.3	0.8
Black	49%	50%	4%	5%	0.1	
White	24%	26%	82%	78%	1.2	
Other	33%	38%	6%	7%	0.3	
Lone parent	41%	46%	23%	22%	1.1	–0.2
Couple	23%	25%	77%	78%	1.8	
Working	19%	24%	82%	87%	4.1	–2.1
Non-working	64%	68%	18%	13%	0.6	

Note: FY2011 refers to financial year 2011–12 (and so forth). Data are pooled across three financial years.

Source: Authors' calculations using the Family Resources Survey, 2011–12 to 2019–20.

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Appendix D. Calculation methodology for child material deprivation status

Material deprivation status is based on ability to afford 21 items (listed below). The classification is based on the following calculation, which follows the methodology in DWP's Households Below Average Income statistics:

1. Each item is given a weight equal to the proportion of people living in families that have the item. In calculating the weights, missing answers are excluded from both the numerator and the denominator. Different weights are calculated for each year. Between 2010–11 and 2019–20, weights on individual items ranged from 0.5 to 1.0. For 'child items' which are aimed at measuring material deprivation among children (marked with a * in the list below), only members of families with children are included in the denominator.
2. Each family is then given a material deprivation score equal to the sum of the weights of all the items that they do not have because they cannot afford them. In calculating material deprivation scores, where a response to an item question is missing the family is counted as *not* being deprived of it. Note that this is different from the calculation of weights, where missing observations are excluded.
3. A family with at least one-quarter of the maximum possible score is classified as being in material deprivation.
4. We then calculate the proportion of children living in a materially deprived family.

List of items, in decreasing order of weighting in 2019–20

1. Have a warm winter coat *
2. Celebrations on special occasions *
3. Keep accommodation warm enough
4. Outdoor space or facilities nearby *
5. Eat fresh fruit or vegetables every day *
6. Keep up with bills and debt repayments
7. School trip at least once a term *
8. Leisure equipment *
9. Enough bedrooms for every child over 10 *
10. Keep home in a decent state of décor

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11 A hobby or leisure activity *
12 Money to spend each week on yourself
13 Replace or repair broken electrical goods
14 Playgroup once a week *
15 Organised activity outside school each week *
16 Week-long holiday once a year with relatives *
17 Friends round for tea/snack once a fortnight *
18 Make savings of £10 a month or more
19 Household contents insurance
20 Replace any worn out furniture
21 Holiday once a year not staying with relatives

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