

Living Standards, Poverty and Inequality in the UK: 2016–17 to 2021–22

Andrew Hood
Tom Waters

Living Standards, Poverty and Inequality in the UK: 2016–17 to 2021–22

Andrew Hood

Tom Waters

Copy-edited by Judith Payne

The Institute for Fiscal Studies

Published by

The Institute for Fiscal Studies

7 Ridgmount Street
London WC1E 7AE

Tel: +44 (0) 20-7291 4800
Fax: +44 (0) 20-7323 4780
Email: mailbox@ifs.org.uk
Website: <http://www.ifs.org.uk>

© The Institute for Fiscal Studies, March 2017

ISBN 978-1-911102-35-9

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. The facts presented and 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 (IFS), which has no corporate view. Co-funding from the ESRC-funded Centre for the Microeconomic Analysis of Public Policy at IFS (grant number ES/M010147/1) 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 Labour Force Survey data were supplied through the UK Data Archive. The data are Crown Copyright and reproduced with the permission of the Controller of HMSO and Queen's Printer for Scotland. 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 Archive.

The authors would like to thank Les Allenby, Helen Barnard, Carl Emmerson, Paul Johnson, Robert Joyce and Holly Sutherland for their helpful comments. Any errors and all views expressed are those of the authors.

Contents

Executive Summary	5
1. Introduction	7
2. Data and Methods	9
2.1 Overview	9
2.2 Macroeconomic scenarios	10
2.3 Projecting housing costs	12
2.4 Other modelling improvements since our last report	13
2.5 Uncertainty	14
3. Projections	16
3.1 Median income	16
3.2 Income inequality	20
3.3 Income poverty	25
3.4 The effect of tax and benefit reforms	29
4. Conclusion	37
Appendix A	39
Appendix B	41
References	42

Executive Summary

Debates over living standards, poverty and inequality in the UK are often hampered by the fact that official data on household incomes are available only with a significant lag. Currently, the latest statistics are for 2014–15. In this report, we attempt to fill this gap by estimating what has happened to household incomes between 2014–15 and 2016–17 based on other data sources and changes to direct tax and benefit policy.

We then estimate how the incomes of different households would evolve up to 2021–22 if current tax and benefit policy plans are kept to and if the macroeconomic forecasts from the Office for Budget Responsibility (OBR) – for things such as earnings and employment – were correct. We also consider macroeconomic scenarios that are more and less optimistic than the OBR’s central forecast.

Key findings

Real median income is projected to grow by 3.8% between 2016–17 and 2021–22, but this projection is highly sensitive to future pay growth.

If workers’ earnings grow in line with the OBR’s forecast, we project that real median income growth will be close to zero over the next two years, before picking up after 2018–19. If average earnings grow 1 percentage point (ppt) per year faster or slower than the OBR expects, our projections for real median income growth between 2016–17 and 2021–22 are 6.8% and 1.0% respectively.

If earnings grow in line with the OBR forecast, we project median income in 2021–22 will be only 10% higher than it was in 2007–08.

This is very slow growth by historical standards. Average income in 2021–22 is projected to be more than 15% lower than if income growth since 2007–08 had been in line with the long-run trend (equivalent to more than £5,000 a year for a couple without children).

We project that median income will continue to rise more quickly for pensioners than for the rest of the population.

If earnings grow in line with the OBR’s forecast, we project that median income for pensioners will grow by 6.8% between 2016–17 and 2021–22, compared with just 3.3% for non-pensioners. After housing costs have been deducted (AHC), median pensioner income is projected to be 7.7% higher than median income for the rest of population by 2021–22, having been nearly 10% lower in 2007–08.

We project an increase in income inequality over the coming years, particularly if incomes are measured after housing costs have been deducted.

The main reason is that real earnings growth tends to benefit high-income households more than low-income households. But planned cuts to working-age benefits also act to increase inequality: higher forecast inflation means that the benefit freeze is now expected to reduce the value of those benefits by 6%, and housing benefit will often no longer cover rent increases faced by low-income private renters. In fact, real AHC incomes are projected to fall between 2014–15 and 2021–22 for the poorest 15% of households on average.

As a result, the official rate of relative AHC poverty is projected to rise by 2.3ppts from 21.3% in 2014–15 to 23.6% in 2021–22.

The direct impact of tax and benefit reforms over this parliament explains about one-third of this projected increase, as cuts to working-age benefits primarily affect low-income households. But most of the increase is again explained by earnings growth benefiting middle-income households more than lower-income ones.

The official rate of absolute AHC poverty is projected to fall slightly, from 20.3% to 19.8% between 2014–15 and 2021–22.

In the absence of tax and benefit changes, we would project a 1.1ppt fall in absolute AHC poverty (to 19.2%), but once these changes are incorporated the expected decline is roughly halved. Between 2007–08 and 2021–22, we project a 2.3ppt fall in absolute poverty – over the previous 14 years, it fell by 19ppts.

But we project that absolute AHC child poverty will rise from 27.5% in 2014–15 to 30.3% in 2021–22.

This increase is entirely explained by the impact of tax and benefit reforms over this parliament. On the other hand, we project falls in absolute AHC poverty rates among pensioners (from 12.8% to 10.9%) and working-age adults without children (from 17.6% to 15.6%).

Cuts to universal credit work allowances explain around a third of the increase in the absolute AHC poverty rate for children in working households.

Work allowances in universal credit – the amount a claimant can earn before their benefits start to be withdrawn – were cut in the 2015 Summer Budget. This £3 billion takeaway from low-income working households increases projected absolute AHC poverty among children in working households in 2021–22 from 22.6% to 23.3%, compared with a 2014–15 level of 21.2%. The cut to the taper rate announced in the 2016 Autumn Statement provided only partial compensation.

1. Introduction

As is now well documented, incomes in the UK fell sharply in the immediate wake of the Great Recession, and have recovered only slowly since. The latest available data show real median income in 2014–15 just 2.2% above its 2007–08 level. This poor performance is largely due to wages (and ultimately productivity) – the large falls in real wages that characterised the recent recession and the weakness of real pay growth since. Hence it is no surprise that the picture looks even worse if we exclude pensioners: among the rest of the population, average incomes were essentially the same in 2014–15 as back in 2007–08.

Since earnings are a more important source of income for higher-income households, the falls in real earnings associated with the recession had a greater impact on the incomes of high-income households than on those towards the bottom of the distribution. This reduced inequality – the 90:10 ratio fell from 4.2 in 2007–08 to 3.9 in 2014–15 – and relative poverty, defined as the proportion of those with an income of less than 60% of the median. Absolute poverty – defined using a fixed real poverty line – also fell, as increases in the generosity of benefits and tax credits between 2007–08 and 2011–12 led to a real rise in the incomes of low-income households on average.

The picture of recent changes in inequality and poverty is somewhat different if incomes are measured after housing costs have been deducted (AHC). While inequality in AHC incomes did decrease between 2007–08 and 2014–15, the decrease was much smaller than on a before-housing-costs (BHC) basis. This is because of large falls in the housing costs of higher-income households, driven by the sharp fall in mortgage interest payments between 2007–08 and 2009–10; since low-income households are less likely to have a mortgage, they benefited to a much lesser extent. These differential trends in housing costs also have implications for trends in poverty: the falls in both relative and absolute poverty have been smaller when incomes are measured AHC.

A challenge in assessing trends in living standards, poverty and inequality in the UK is that official data on household incomes are released with a significant time lag. At the time of writing, the latest available data cover the financial year 2014–15. In this report, we project changes in household incomes up to the present, based on what we know about changes in earnings and other sources of income from other data and on changes to the direct tax and benefit system. We then provide projections of future trends up to 2021–22. Since we do not produce our own forecasts for key determinants of incomes such as earnings and employment, these projections are our estimates of what would happen to incomes under current policy plans if the latest macroeconomic forecasts (November 2016) from the Office for Budget Responsibility (OBR) were correct.

There is, of course, always significant uncertainty around any macroeconomic forecasts,¹ and hence around any projection of future trends in household incomes. But this uncertainty is even greater than usual, given the vote to leave the EU; researchers from Oxford Economics state that ‘we are in a time of virtually unprecedented uncertainty in the last 60 years’ (Beck and Goodwin, 2017, p. 67). In light of this, we show the sensitivity of our projections to different macroeconomic outcomes over the period to 2021–22. In

¹ An indication of the uncertainty surrounding the OBR’s forecasts can be found in Office for Budget Responsibility (2016a), which gives the latest appraisal of their accuracy.

particular, we present our projections under three different scenarios for real earnings growth, based on the OBR's own 'low', 'central' and 'high' scenarios for trend productivity growth.

It is important to note, however, that the uncertainty around macroeconomic forecasts is not the only source of uncertainty in our projections. Uncertainty around the demographic forecasts we use, further changes in policy, and year-on-year sampling variation in the official household income data will all cause the out-turn results to differ from our projections. Hence, this report should be used as a guide to the broad trends we might expect, rather than being interpreted as a precise projection.

Throughout our analysis, we measure income in the same way as the official Households Below Average Income (HBAI) statistics: at the household level, after deducting taxes and adding on state benefits and tax credits, and rescaled ('equivalised') to take into account the fact that households of different sizes and compositions have different needs. We consider incomes measured both before and after housing costs are deducted (BHC and AHC). All cash figures are given in 2016–17 prices.

The rest of this report proceeds as follows. In Chapter 2, we provide an overview of how we produce our projections. Chapter 3 presents our projections for living standards, inequality and poverty through to 2021–22 in the three different earnings growth scenarios. We then turn to consider the effects of this government's implemented and announced direct tax and benefit reforms on inequality and poverty, isolating the impact of cuts to universal credit work allowances in particular. Chapter 4 concludes.

2. Data and Methods

This chapter explains the approach we take in producing our projections. The first section gives a short overview of the methodology. We then turn to modelling changes made since our last report, including macroeconomic scenarios, the projection of housing costs and other technical improvements. Finally, we discuss a number of different sources of uncertainty around our projections.

2.1 Overview

This section gives a short overview of how we produce our projections of living standards, poverty and inequality. A full description can be found in chapter 2 and appendix A of Browne and Hood (2016).

In broad terms, we take the latest data used to produce official income and poverty statistics and adjust these data for relevant known and forecast changes – e.g. demographic and labour market trends, and changes to direct tax and benefit policy – to create a projected distribution of household incomes in each year up to 2021–22. For later years we largely rely on external forecasts, but for 2015–16 and 2016–17 alternative out-turn data sources with more detailed information are available, enabling us to make a greater number of adjustments. Our approach is similar to that used by IFS researchers for a number of years to project the path of household incomes in the UK, and more recently others have conducted similar exercises using similar methods (Office for National Statistics, 2015; Rastrigina et al., 2016; Corlett and Clarke, 2017).

The base data we use are taken from the 2014–15 Family Resources Survey (FRS), a survey of around 20,000 households carried out in the UK that contains information about income sources and household characteristics. The data are supplied with ‘weights’ that ensure sample totals (e.g. number of men in the sample or number of people aged 25) match the actual population in 2014–15. For projecting future years, we change these weights such that sample totals match the forecast demographic characteristics of the future population, including age, sex, region, employment rates and household type.² Most financial variables (such as gross earnings) are increased in line with the average earnings and minimum wage forecasts from the OBR. An important exception is income from private pensions, which rises in line with projections from IFS’s RetSim model.³

To simulate future tax liabilities and benefit entitlements, we use the IFS tax and benefit microsimulation model, TAXBEN. We assume that the direct tax and benefit system of future years reflects the government’s existing announcements (for a full list of which direct tax and benefit reforms are included in our analysis, see Appendix B). Where policies are only partially rolled out, we use OBR and HM Treasury forecasts to apply them to the appropriate proportion of our simulated population. Once we have calculated

² We use the household projections from the Department for Communities and Local Government and the national statistical agencies: see Department for Communities and Local Government (2011 and 2014), StatsWales (2011), National Records of Scotland (2012) and Northern Ireland Statistics and Research Agency (2012).

³ See Browne et al. (2014). The model suggests that private pension income will continue to rise faster than earnings throughout the period we consider in this report.

benefit and tax credit entitlements, we adjust for the fact that not everyone who is entitled to benefits and tax credits claims their entitlements.

Finally, we use announced policy and OBR forecasts to project housing costs for households in different housing tenures in future years. This allows us to simulate the distribution of AHC incomes and calculate the associated projections for poverty and inequality statistics.

2.2 Macroeconomic scenarios

Our projections for living standards, inequality and poverty are all highly dependent upon the OBR macroeconomic forecast we use. These forecasts always come with significant uncertainty, but that uncertainty is clearly greater than usual given the vote to leave the EU.

To help illustrate this, we highlight the sensitivity of our projections to future growth in real earnings – by far the largest source of household income, and one that is highly sensitive to changes in macroeconomic performance. Specifically, we present projections under three scenarios, described throughout as ‘central’, ‘high earnings’ and ‘low earnings’. For our central projection, we use the forecast for average real earnings growth given by the OBR in its latest *Economic and Fiscal Outlook* (Office for Budget Responsibility, 2016b).⁴ These OBR forecasts incorporate the forecast impact on earnings of a number of government policies (discussed in Box 2.1), as well as underlying macroeconomic factors. For the high and low earnings scenarios, we have used the alternative scenarios for trend productivity studied by the OBR from 2017–18 onwards. Under the ‘high productivity’ scenario, productivity growth returns to 2.8% a year – its average over the second half of the 20th century. Under the ‘low productivity’ scenario, it only reaches 0.8% per year – around its average in 2015. We assume that under these scenarios, productivity growth feeds through to earnings growth.⁵ The low earnings, central and high earnings scenarios respectively imply real average earnings growth between 2016–17 and 2021–22 of 0.8%, 5.3% and 10.0% (equating to annual average growth of 0.2%, 1.0% and 1.9% respectively).

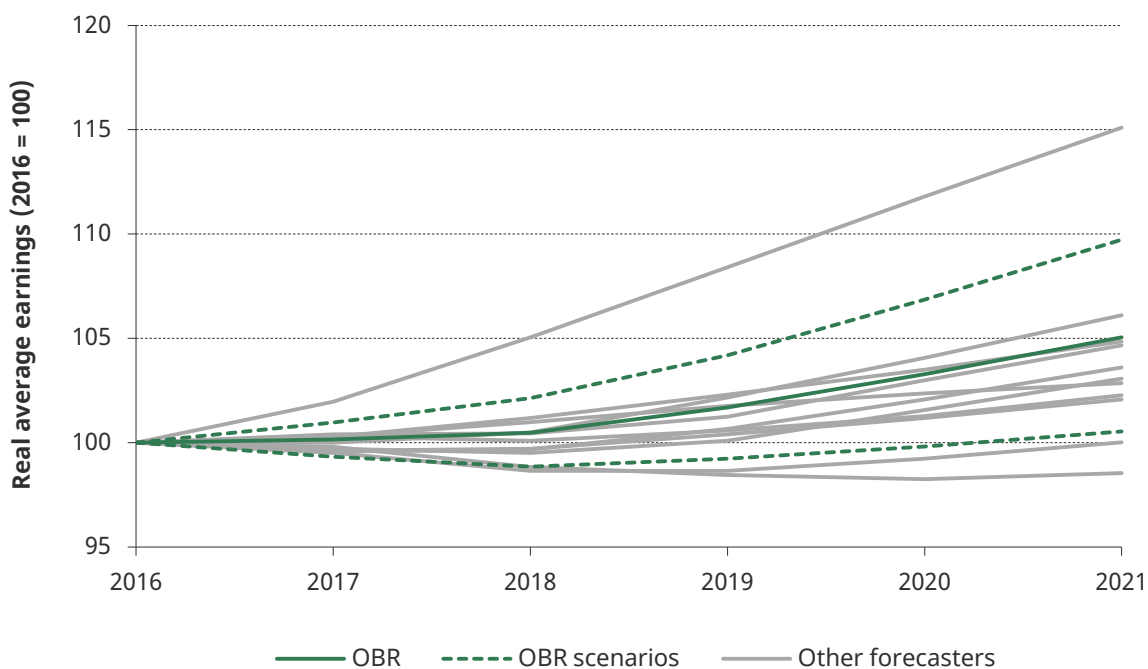
One way to get a sense of how optimistic or pessimistic these different scenarios are is to compare them with the external forecasts for average real earnings growth collected by HM Treasury (2017), as shown in Figure 2.1. The OBR high earnings scenario is considerably stronger than the forecasts of almost all other external forecasters, and even its central scenario is toward the upper end of these forecasts. The figure also suggests that the OBR’s low earnings scenario is not necessarily a ‘worst-case scenario’ – two other external forecasters expect average earnings growth to be worse still.

These high and low earnings variants are presented to highlight one important source of uncertainty in the projections, but they by no means capture all of the uncertainty in this exercise. Other sources of uncertainty in our projections are discussed in Section 2.5.

⁴ We apply the OBR’s forecast growth in average earnings to both employee earnings and income from self-employment.

⁵ Specifically, we adjust private sector earnings in line with productivity, but for public sector earnings we use the OBR’s central forecast until the 1% pay cap ends in 2020–21. After that point, we adjust public sector earnings in line with productivity.

Figure 2.1. Forecasts for real average earnings



Note: Nominal earnings are deflated using CPI inflation. Only external forecasters that supply average weekly earnings and CPI forecasts for every year to 2021 are included. These are (ordered by their forecast for real average earnings in 2021, highest to lowest): Liverpool Macro Research, Natwest Markets, Oxford Economics, Commerzbank, Experian, ING, Beacon Economic Forecasting, Daiwa CM, NIESR, Citigroup and Societe Generale.

Source: HM Treasury (2017) and authors' calculations.

Box 2.1. The effect of government policies on OBR forecasts of earnings

The OBR adjusts its average earnings forecasts to account for the expected effects of government policies. This box summarises the OBR's expectations for the earnings consequences of these policies, and outlines how these interact with our income projections.

- In the 2015 Summer Budget, the Chancellor set out plans to limit public sector pay rises to 1% per year in nominal terms for four years from 2016–17. This policy substantially reduces the forecast earnings of the roughly 16% of employees who work for the public sector, and hence the projected incomes of their households. The OBR forecasts that public sector pay will in fact increase a little faster than 1% per year – with nominal growth at 1.5–2% per year over the period – on the basis of historical rates of pay 'drift' (the extent to which actual pay awards exceed government plans). This is significantly slower than expected nominal earnings growth for private sector employees, which is forecast to be 3.0% a year on average over the same four-year period. Overall, this implies that real-terms average earnings will grow by 4.2% in the private sector and fall by 1.2% in the public sector between 2016–17 and 2020–21. We use these forecasts in our projections by applying the respective pay growth rates to public and private sector employees.

- The national living wage (NLW) increases the hourly wage floor for workers aged 25 and over. The OBR expects it to reach £8.80 by April 2020 and to increase average earnings by 0.2% in that year. In our projections, we apply the NLW as a wage floor to workers aged 25 or older. For those with higher hourly wages, we assume that their earnings increase in line with what the OBR average earnings forecast would have been in the absence of the NLW policy – we do not allow for any ‘spillover’ effects of the NLW on those with higher wages. By using the OBR’s forecasts for inflation and employment, we also incorporate some of the expected ‘knock-on’ effects of the NLW in increasing prices and reducing employment (see Section 2.4 for more details).
- The apprenticeship levy, announced by the Chancellor at Summer Budget 2015, is essentially a payroll tax for the 2% of employers large enough to be subject to it. Previous IFS research has estimated that this small fraction of employees nevertheless employ at least 60% of employees (Amin-Smith, Cribb and Sibieta, 2017). At least some of this tax is likely to be passed through to workers: the OBR estimates that the policy will reduce average earnings by 0.3% by 2020–21. By using the OBR average earnings forecast in our projections, we implicitly assume that this effect reduces the earnings of all workers equally.
- A final policy that impacts average earnings is the ‘auto-enrolment’ of workers into workplace pension schemes. This policy directly affects both employers and employees. On the employer side, there is a minimum contribution requirement, which operates in a similar way to a payroll tax and so is likely ultimately to reduce workers’ earnings (though of course – unlike a payroll tax – employees also directly benefit from the policy because of higher pension entitlement). The OBR estimates that this effect will reduce average earnings by 0.4% by 2021–22. As with the apprenticeship levy, we implicitly assume that all workers are affected by this equally. On the employee side, early evidence suggests that auto-enrolment will act to increase the amount of earnings employees choose to contribute to a pension (Cribb and Emmerson, 2016). This would not affect gross earnings (and hence is not reflected in the OBR forecast), but would affect incomes as measured in HBAI, since these are net of pension contributions. We do not account for this effect in our projections: to the extent that employee pension contributions do increase over the coming years, household incomes will grow less quickly than these projections suggest. However, it is worth noting that this does not imply lower lifetime living standards, since increased pension saving defers income rather than reducing income.

2.3 Projecting housing costs

In the results below, we measure income both before and after housing costs have been deducted (described as BHC and AHC incomes respectively). In order to do this, we project housing costs for each household in our data in each year between 2015–16 and 2021–22. These projections are made on a relatively simple basis, depending only on the housing tenure of the household in question. For owner-occupiers, our measure of housing costs (following the HBAI methodology) consists largely of the mortgage interest payments

they make (capital repayments are not included).⁶ We therefore project the future housing costs of owner-occupiers by increasing their observed housing costs in 2014–15 in line with the OBR forecast for changes in mortgage interest payments. For private renters, we uprate housing costs in line with the OBR’s forecast for private rents (which is simply average earnings growth).⁷ Finally, for social renters, we uprate housing costs in line with the nation-specific policies for social rent levels. For example, in England we assume that the housing costs of social renters fall by 1% a year in nominal terms for each year from 2016–17 to 2020–21.

2.4 Other modelling improvements since our last report

We have made a number of further small improvements to our methodology since our last report of this kind (Browne and Hood, 2016).

- In our previous report, we adjusted incomes for inflation (i.e. ‘deflated’ incomes) using the Consumer Prices Index (CPI), as this is the only measure of consumer price inflation forecast by the OBR (excluding the discredited Retail Prices Index). However, in this report, we follow the HBAI methodology in deflating BHC and AHC incomes using different (appropriate) variants of the CPI.⁸ BHC incomes are deflated using a variant that includes mortgage interest payments (MIPs), dwellings insurance and ground rent, while AHC incomes are deflated using a variant of CPI that excludes rent.⁹ In our projections, we use the OBR’s forecast for CPI, MIPs and rent to construct implied forecasts for these variants of the CPI.
- We have increased the accuracy with which we model the unemployment effect of the national living wage. The OBR estimates that the NLW will increase the overall unemployment rate by 0.2 percentage points (ppts), but it seems reasonable to expect this effect to be concentrated in those demographic groups who are the most likely to earn less than the NLW. Hence, we assume that the increase in the structural unemployment rate resulting from this policy will affect demographic groups in proportion to the share of that group currently earning less than the NLW.
- We now incorporate a cyclical (business-cycle-related) unemployment forecast. We assume that the cyclical component of the OBR unemployment forecast will apply equally to workers in all demographic groups – so if the unemployment rate increases, the proportional rise is spread equally across the population. Whereas previously we only used the OBR’s age- and sex-specific participation rate forecast, adding the unemployment forecast defines an employment rate projection for each age and sex group.

⁶ Also included are water rates, structural insurance premiums, ground rent and service charges.

⁷ This means that in our macroeconomic scenarios, different earnings growth profiles imply different private rent profiles. As a result, the increased incomes that employed private renters receive in the high earnings variant is (on an AHC basis) partially offset by an increase in their housing costs. The inverse is, of course, true for the low earnings variant.

⁸ Both of the indices used here are experimental and do not have National Statistics classification.

⁹ <https://www.ons.gov.uk/economy/inflationandpriceindices/adhocs/005567dwpdeflatorsrequest>.

2.5 Uncertainty

As stated above, growth in average earnings constitutes a major source of uncertainty in our projection. In this section, we outline several other important sources of uncertainty that will cause our projections to differ from the eventual out-turn.

First, even if the OBR's average earnings growth forecast turns out to be right, our assumption for the distribution of that growth might not be. In the absence of any official forecast for earnings inequality, we assume in our projections that all workers earning above the NLW see an equal proportional rise in earnings. It remains to be seen how good an approximation this is, but there have certainly been times when earnings have grown very differently for different kinds of workers. Looking at recent history, between April 2007 and April 2016, the Annual Survey of Hours and Earnings¹⁰ indicates that while the median, 75th percentile and 90th percentile of employee earnings grew at around the same pace (17–18% in nominal terms), growth at the 10th percentile was somewhat quicker, at 24%. If future earnings growth is concentrated among high- or low-income households, the picture for poverty and inequality could differ substantially from our projections.

Second, uncertain future trends in macroeconomic and demographic variables have implications for income and poverty statistics. We use other institutions' forecasts for employment rates, the number of people living in different household types, and the age and sex composition of the population – but these forecasts all come with substantial uncertainty attached.

Third, differences between actual and forecast inflation would have consequences for living standards, poverty and inequality above and beyond the effect on real earnings. For example, even if the real earnings forecast turns out to be correct, the path of inflation could have important consequences. If, as the Bank of England expects, inflation were to peak higher than the OBR predicts and persist for longer, then the real incomes of those receiving working-age benefits would fall by more than in our projections.¹¹

Fourth, in our projections of housing costs (and hence AHC incomes), we use the OBR forecast that private rents grow in line with average earnings. There are two main possible sources of error here: average rents might grow more quickly or more slowly than earnings, and rents might grow at different rates in different parts of the country. This is a particularly important source of uncertainty around our AHC poverty projections, as housing costs take up a sizeable fraction of income for many low-income households.

Fifth, direct tax and benefit policies may end up differing from the government's current plans. A particularly important example of this is the roll-out of universal credit (UC). For our projections, we use the OBR's latest forecast for roll-out (see section A.4 of Browne and Hood (2016) for more details). However, the expected roll-out of UC has been continually pushed back over the past four years, and if the UC timetable were to slip again, it could have a material impact on our projections for low-income households. A

¹⁰ See 'Annual Survey of Hours and Earnings: 2016 provisional results', <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/bulletins/annualsurveyofhoursandearnings/2016provisionalresults>.

¹¹ Pensioner incomes could also be affected in certain circumstances: if 2½% is the highest component in the 'triple lock' formula, higher subsequent inflation would reduce the real value of the state pension.

related uncertainty is the extent to which the take-up of benefits changes following the roll-out of new benefits and developments in the economic environment. If, for example, some households find their incomes falling in real terms due to changes in the labour market, they may respond by increasing their take-up of benefits. We do not account for that in this report, and we use existing take-up rates from administrative data.

Finally, sampling variation in the FRS data we use can affect both the base data underlying our projections and the future HBAI measures of income and poverty that we are trying to project. Particularly in the projection of year-to-year changes, random variation in the sample of households included in the FRS can substantially affect income and poverty growth rates – although this effect should be smaller when measuring broad trends over longer periods of time.

This last source of uncertainty in particular means that the projections for 2015–16 and 2016–17 – years for which we can draw on other data sources rather than just forecasts in making our projections – also come with a large degree of uncertainty. The lack of variants for those years should not be interpreted as a claim about the accuracy of our projections for those years.

3. Projections

In this chapter, we provide our projections for median income, income inequality and income poverty from 2015–16 to 2021–22. We then isolate the effect of direct tax and benefit reforms implemented and planned by the current government on inequality and poverty.

3.1 Median income

Figure 3.1A shows how real median equivalised household incomes evolved between 2007–08 and 2014–15, along with our projections for the path of incomes out to 2021–22. It also shows how incomes would have evolved had they grown in line with the average annual growth in median income between 1961 (the first year in our consistent series of income data) and 2007–08.

Focusing first on what has in fact happened to household incomes since 2007–08, the figure shows that after rising slightly during the recession itself, household incomes fell sharply between 2009–10 and 2011–12, as a result of large falls in real earnings. The slow growth in real median income in the next two years was the result of the weakness of real earnings growth, before strong employment growth and rising real earnings led to a rise of 3.4% in median income in 2014–15 – finally raising it above its pre-recession level.

For 2015–16 and 2016–17, we expect the data to show moderate growth in real median income. The Labour Force Survey (LFS) indicates employment growth of around 1.6% in both 2015–16 and 2016–17. LFS earnings data suggest a 2.4% real rise in average earnings in 2015–16, but available LFS data for 2016–17 combined with the OBR forecast suggest that real earnings growth has slowed to 0.6% in 2016–17, thanks to both weaker nominal earnings growth and higher inflation. Taking these together, we project growth of 3.4% in real median income between 2014–15 and 2016–17.

Beyond 2016–17, the prospects for median income depend largely on the strength of real earnings growth, with the OBR forecasting a slight decline in the overall employment rate. Real earnings growth depends both on rises in the cash earnings of workers and on future prices (inflation). In its latest *Economic and Fiscal Outlook*, the OBR cut its forecast for cash earnings growth, on the basis that it expects the uncertainty created by the vote to leave the EU to reduce firm investment, which will in turn reduce workers' productivity. At the same time, the OBR increased its forecast for inflation, as the depreciation of the pound is expected to continue to feed through to higher prices for UK consumers. The net result is that the OBR's central forecast is for no growth in real earnings in 2017–18 and a rise of just 0.5% in 2018–19. Over the same two-year period, unemployment is expected to rise by 0.5ppts, and the nominal freeze in most working-age benefit rates means that working-age benefits will fall in real terms.

The net effect of all these changes in earnings, employment and benefits is that in our central scenario, real median income is essentially unchanged for two years between 2016–17 and 2018–19. Beyond that, the steady rise in real earnings growth forecast by the OBR, and the (assumed) ending of the working-age benefit freeze in 2020–21, push up real median income growth for the last three years of the projection to an annual average of 1.2%. Taking the seven years from 2014–15 to 2021–22 as a whole, real median income

grows by an average of 1.0% per year in our central projection – a cumulative increase of 7.4%.

Figure 3.1A. Real median BHC income, 2007-08 to 2021-22

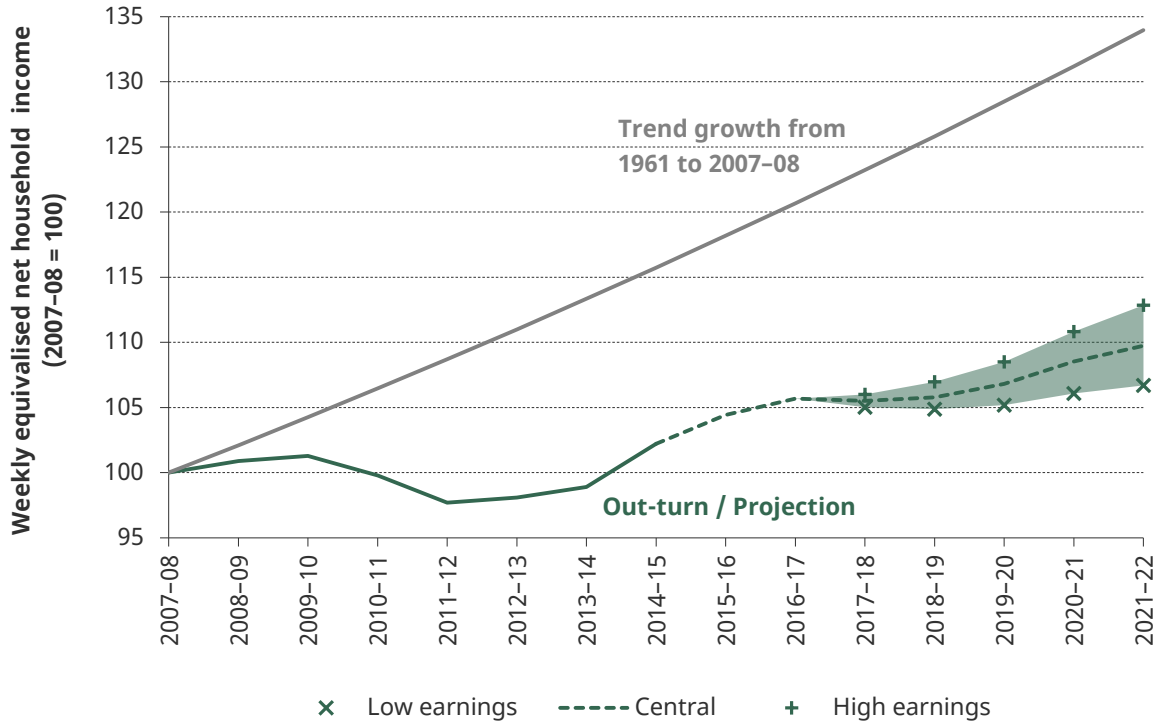
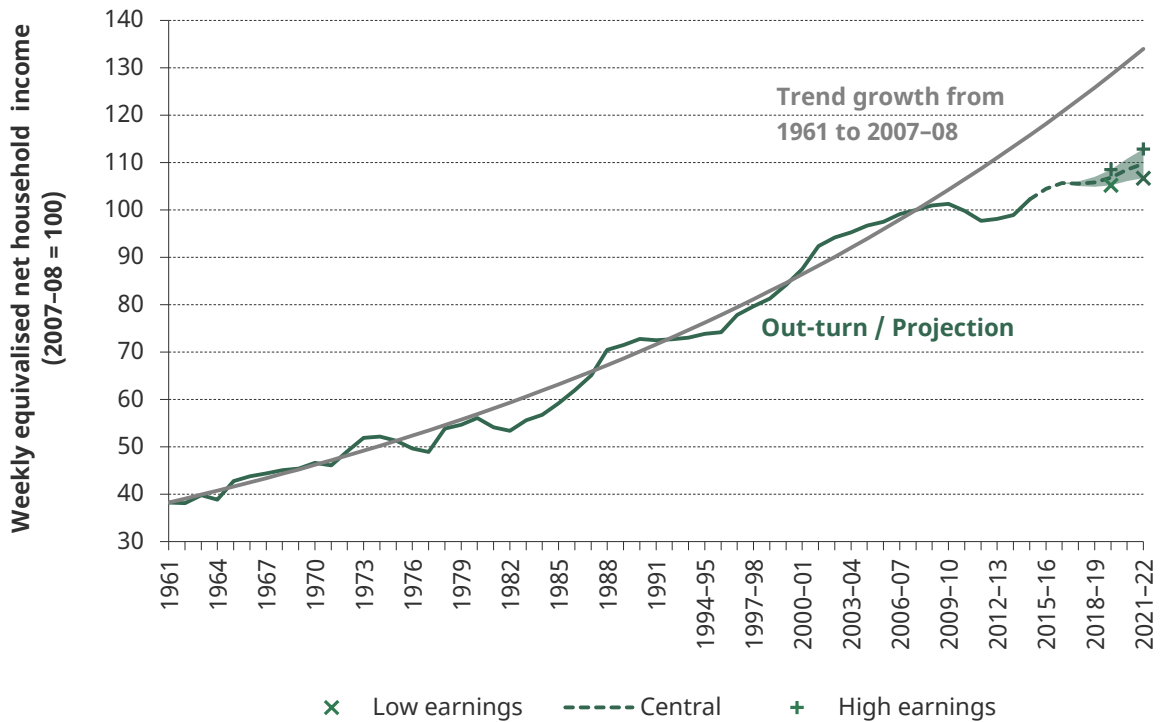


Figure 3.1B. Real median BHC income, 1961 to 2021-22



Source: Authors' calculations using Family Resources Survey and Family Expenditure Survey, various years, and projections for 2015-16 to 2021-22 using TAXBEN and assumptions specified in the text.

Given that incomes in 2014–15 were only 2.2% higher than in 2007–08, this means that our central projection is for median income in 2021–22 to be only 9.7% higher than it was 14 years previously, before the financial crisis. As Figure 3.1A shows, this leaves average household income in 2021–22 around 18% lower than if income growth since 2007–08 had been what one might reasonably have expected at that point: in line with the long-run trend between 1961 and 2007–08. That difference is equivalent to £5,900 per year for a childless couple and £8,300 for a couple with two young children.

The high and low earnings scenarios shown in Figure 3.1A illustrate the importance of real earnings growth for the growth of median income over the next five years. Under the high earnings scenario, real median income rises slowly over the next two years (by 0.3% and 0.9% respectively) and more rapidly thereafter, leading to cumulative growth of 6.8% over the next five years. But under the low earnings scenario, real median income falls in both of the next two years, and is only 1.0% higher in 2021–22 than it is now. However, the figure also shows that even in the event of unexpectedly strong earnings growth, average incomes in 2021–22 will still be much lower than one might have expected back in 2007–08. Even in our high earnings scenario, median income is projected to be 16% lower in 2021–22 than if income growth since 2007–08 had instead been in line with the long-run trend (equivalent to £5,100 per year for a childless couple and £7,200 for a couple with two young children).

Figure 3.1B puts the recent weakness of median income growth in its long-run context, showing median income since 1961 (when our data begin), along with our projections and the trend between 1961 and 2007–08. There are two main things to note from this figure. First, the current and projected weakness of median income growth relative to trend is unprecedented in the last 60 years. The falls in median income after the recessions of the early 1980s and early 1990s took it 8% and 9% respectively below its long-run trend up to that point. In our central projection, as outlined above, median income in 2021–22 is 18% below its long-run trend. Second, despite the actual and projected weakness of income growth after 2007–08, incomes in 2021–22 are still projected to be higher than ever before, and much higher than two or three decades earlier. Even in our low earnings scenario, real median income in 2021–22 is projected to be double what it was in 1982.

Our projections for growth in median income mask very different expected trends in the incomes of different households. Figure 3.2A shows that we are projecting that the divergence in the experiences of pensioners and the rest of the population will continue over the next few years. Non-pensioners, whose incomes were more affected by the falls in real earnings, had essentially the same real median income in the latest data (2014–15) as in 2007–08. Median income among pensioners, however, was 11% higher in 2014–15 than in 2007–08. This was due to real growth in the level of the state pension, higher labour force participation at older ages and a change in the composition of pensioners, with the newly retiring tending to have larger private pension entitlements than previous cohorts of pensioners.¹² Indeed, the importance of this last factor explains why average income among those who were already pensioners in 2007–08 has grown less quickly than average income among pensioners as a whole, as recent work by the Pensions Policy Institute (2017) has shown.

¹² See chapter 5 of Cribb et al. (2013).

Figure 3.2A. Real median BHC income: pensioners and non-pensioners

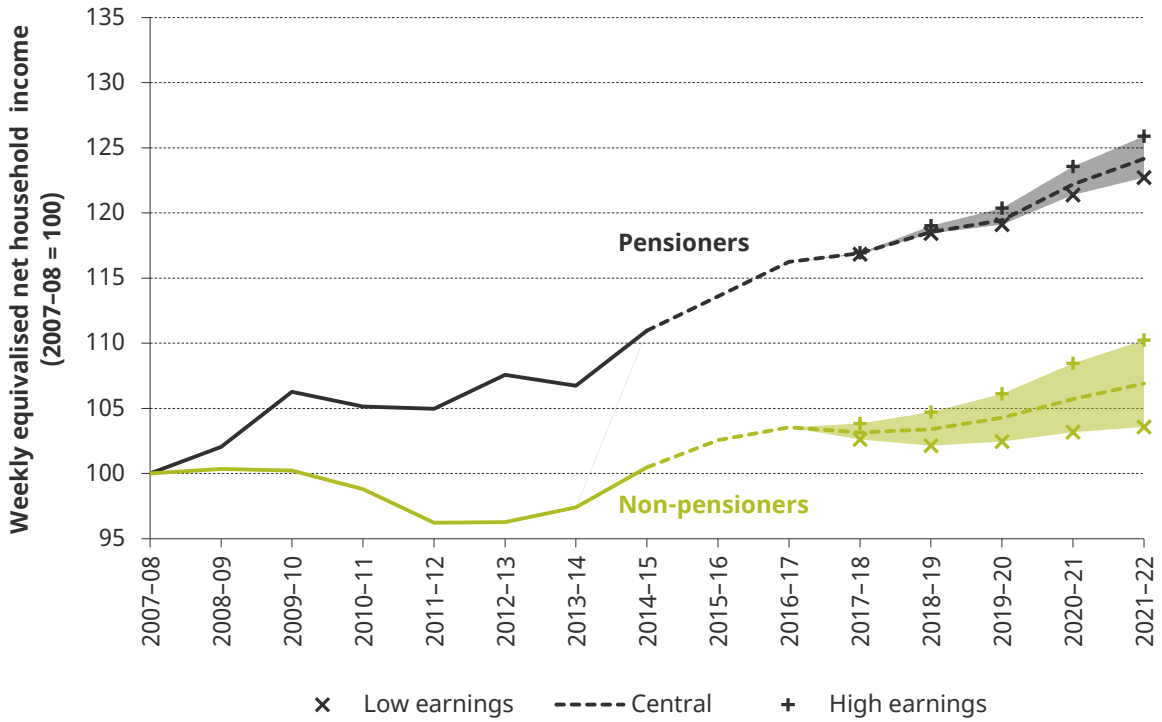
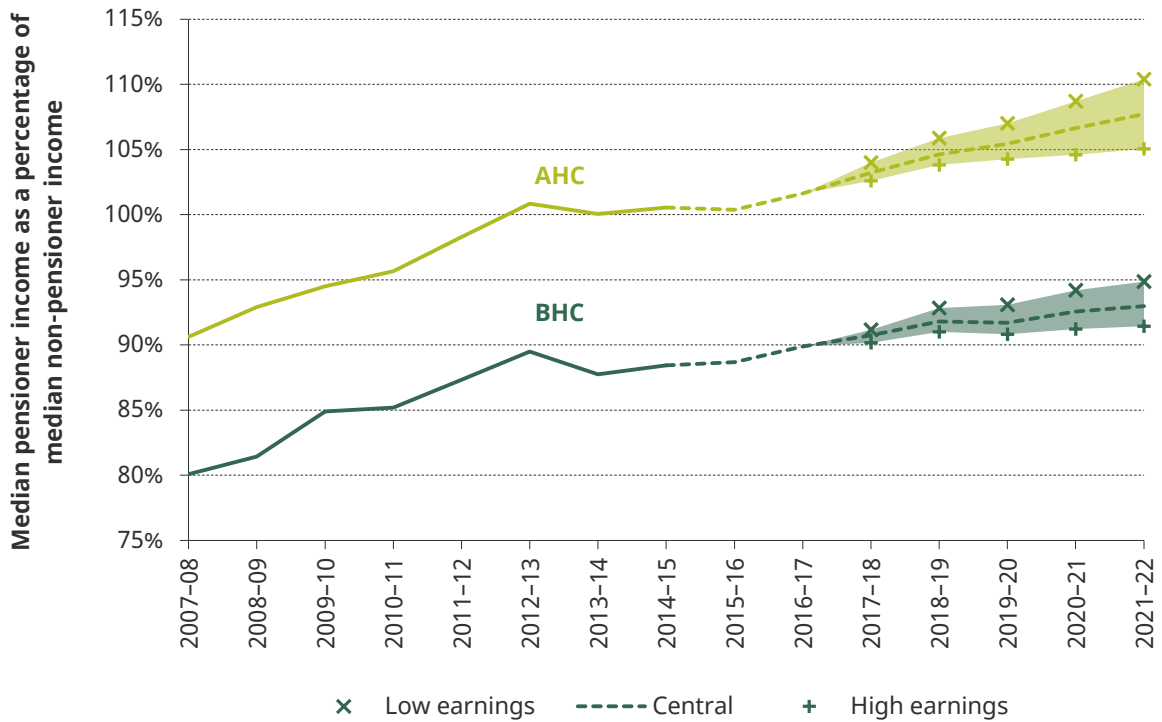


Figure 3.2B. Ratio of pensioner to non-pensioner median income, AHC and BHC



Note: Pensioners are defined as those aged 65 or older.

Source: Authors' calculations using Family Resources Survey, various years, and projections for 2015-16 to 2021-22 using TAXBEN and assumptions specified in the text.

Looking forward, we project that growth in incomes will continue to be stronger for pensioners than for the rest of the population: in our central scenario, real median income among pensioners is projected to rise by 2.0% over the next two years, compared with no change for the rest of the population. Median pensioner income growth is projected to continue to outpace that of non-pensioners in the following three years, leaving real median income growth between 2016–17 and 2021–22 at 6.8% for pensioners and 3.3% for non-pensioners. This continued strong growth in pensioner incomes is explained by essentially the same factors as listed above. In combination with the trends described in the previous paragraph, this would leave median pensioner income 24% higher in 2021–22 than in 2007–08, compared with an increase of just 7% for non-pensioners over the same period. Figure 3.2B, which shows the ratio of pensioner to non-pensioner median income, indicates that the result would be a significant ‘catch-up’ in the incomes of pensioners: before housing costs, median pensioner income is projected to be only 7% below median non-pensioner income by 2021–22, having been 20% lower in 2007–08. Once the lower housing costs of pensioners are taken into account, median income is projected to be 7.7% higher for pensioners than for non-pensioners by 2021–22, having been 9.4% lower in 2007–08.

Meanwhile, non-pensioners will bear the brunt of the effects of the slow real earnings growth forecast over the next couple of years; as a result, our central projection is for no growth at all in median income among non-pensioners between 2016–17 and 2018–19. Figure 3.2A also shows that the incomes of non-pensioners would be more affected by low earnings growth, as would be expected. In the low earnings scenario, we project no growth in real median income for non-pensioners between now and 2021–22, while median income among pensioners is still projected to increase by 5.6% over the same period. This stark difference is partly explained by the ‘insurance’ provided to pensioners through the triple lock on the state pension. When nominal earnings growth drops below 2.5% in the low earnings scenario, the state pension still rises by 2.5%, thanks to the triple lock.¹³ When earnings growth is strong, however, this growth is passed through to the level of the state pension. Hence, in the high earnings growth scenario, trends in median income for the two groups are more similar: we project growth of 6.5% in median incomes for non-pensioners over the next five years, compared with an 8.3% increase for pensioners. Accordingly, Figure 3.2B shows that the ratio of pensioner to non-pensioner median income is projected to rise less quickly in the high earnings scenario – although it does rise between now and 2021–22 in all three scenarios.

3.2 Income inequality

In this section, we turn from our projections for median income and instead consider what macroeconomic forecasts and planned direct tax and benefit changes imply for the evolution of income inequality over the next few years. Throughout this section, we discuss our projections for income inequality across the whole population. In Appendix A, we present the equivalent figures excluding pensioners (Figures A.1 and A.2). While income growth across the distribution is lower once pensioners are excluded (as one would expect given the projections for their median income discussed above), there is no material impact on the projected trends in inequality.

¹³ In the OBR forecast, the relevant measure of inflation never exceeds 2.5%, and so does not affect the level of the state pension.

Figure 3.3A. Change in real household BHC income by percentile point, 2007-08 to 2014-15 and 2014-15 to 2021-22

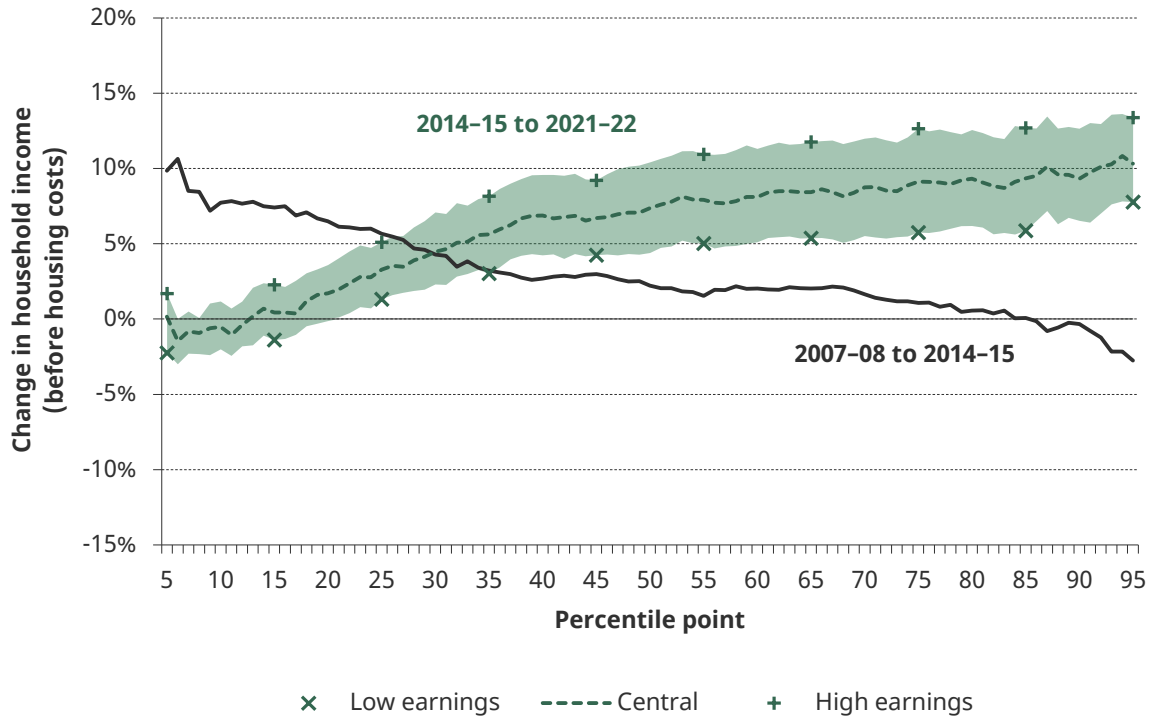
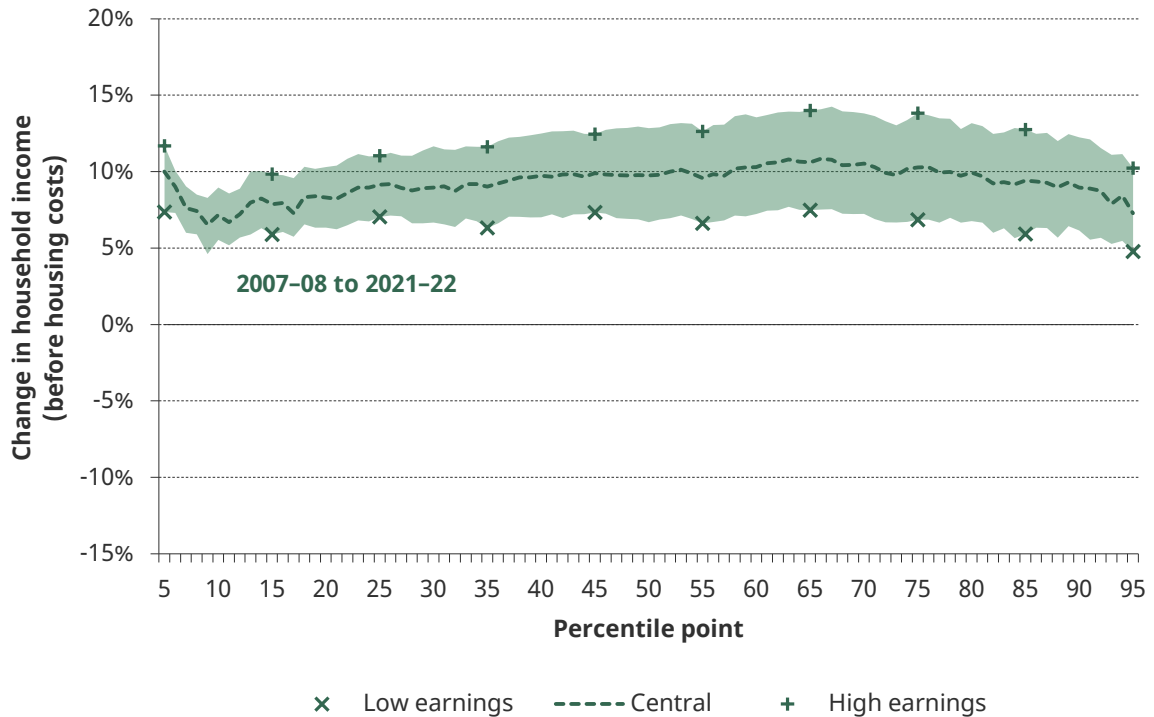


Figure 3.3B. Change in real household BHC income by percentile point, 2007-08 to 2021-22



Note: Percentiles 1-4 and 96-99 are excluded due to high levels of statistical and modelling uncertainty.

Source: Authors' calculations using Family Resources Survey, various years, and projections for 2021-22 using TAXBEN and assumptions specified in the text.

Figure 3.3A shows our projections of the change in household incomes at each percentile point of the distribution between 2014–15 and 2021–22, along with the changes in income seen across the distribution since 2007–08. Between 2007–08 and 2014–15, real income growth (measured first on a BHC basis) was considerably stronger for low-income households: real income rose by 8% at the 10th percentile and 2% at the median, and it fell slightly at the 90th percentile. This led to the 90:10 ratio falling from 4.2 to 3.9.

This fall in inequality might be considered surprising, but it can be explained by two main factors. First, earnings make up a much larger proportion of income for high-income households, and so the falls in real earnings in the aftermath of the recession affected those households more. Second, while cuts to benefits have reduced incomes at the bottom end of the income distribution to some degree, average working-age benefit receipt in fact increased in real terms between 2007–08 and 2014–15 (Belfield et al., 2016). This is partly attributable to several policies that tended to increase benefit awards: most benefits were linked to the higher RPI inflation rate rather than CPI until 2010–11; the child element of child tax credits was overindexed during the recession and in 2011–12; and the real value of many benefits rose substantially in 2012–13 as inflation fell rapidly.

Looking forward, however, we expect the fall in inequality since the recession to be reversed. In our central projection, real incomes fall slightly at the 10th percentile between 2014–15 and 2021–22, while median income is projected to rise by 7% and income at the 90th percentile is projected to rise by 9%. As a result, the 90:10 ratio steadily rises from 2015–16 onwards, and is projected to have returned to 4.3 by 2021–22 – around its 2007–08 level.

Two main factors explain this pattern – cuts in the generosity of working-age benefits (the impact of which we quantify in Section 3.4) and expected real earnings growth. Since the vast majority of working-age benefit spending is directed at low-income households, real cuts in those benefits are expected to reduce the incomes of those households the most. At the same time, rising real earnings are expected to mostly benefit higher-income households.¹⁴ The greater importance of earnings as a source of income for higher-income households also explains why the width of the shaded area in Figure 3.3A increases moving up the income distribution – the incomes of higher-income households are more sensitive to changes in earnings growth (although previous research published by IFS has shown that this is true to a smaller extent than in the past due to rises in employment among low-income households¹⁵).

Figure 3.3B simply shows the net effect of the fall in household income inequality between 2007–08 and 2014–15 and the projected increase in inequality between 2014–15 and 2021–22: over the 14 years as a whole, incomes are projected to have risen by a similar amount across the distribution. It is worth noting, however, that average annual growth over the period is projected to be less than 1% right across the income distribution.

All of the analysis presented so far has looked at incomes measured on a BHC basis. However, changes in housing costs have differed markedly across the income distribution in recent years, and are projected to differ again over the next few years. As a result,

¹⁴ This feature of the projection is dependent upon the distribution of earnings growth. As highlighted in Section 2.5, our assumption that earnings growth will be uniform for those earning above the NLW is highly uncertain, and stronger earnings growth among lower-income workers could act to reduce inequality.

¹⁵ See chapter 3 of Belfield et al. (2016).

Figure 3.4A. Change in real household AHC income by percentile point, 2007-08 to 2014-15 and 2014-15 to 2021-22

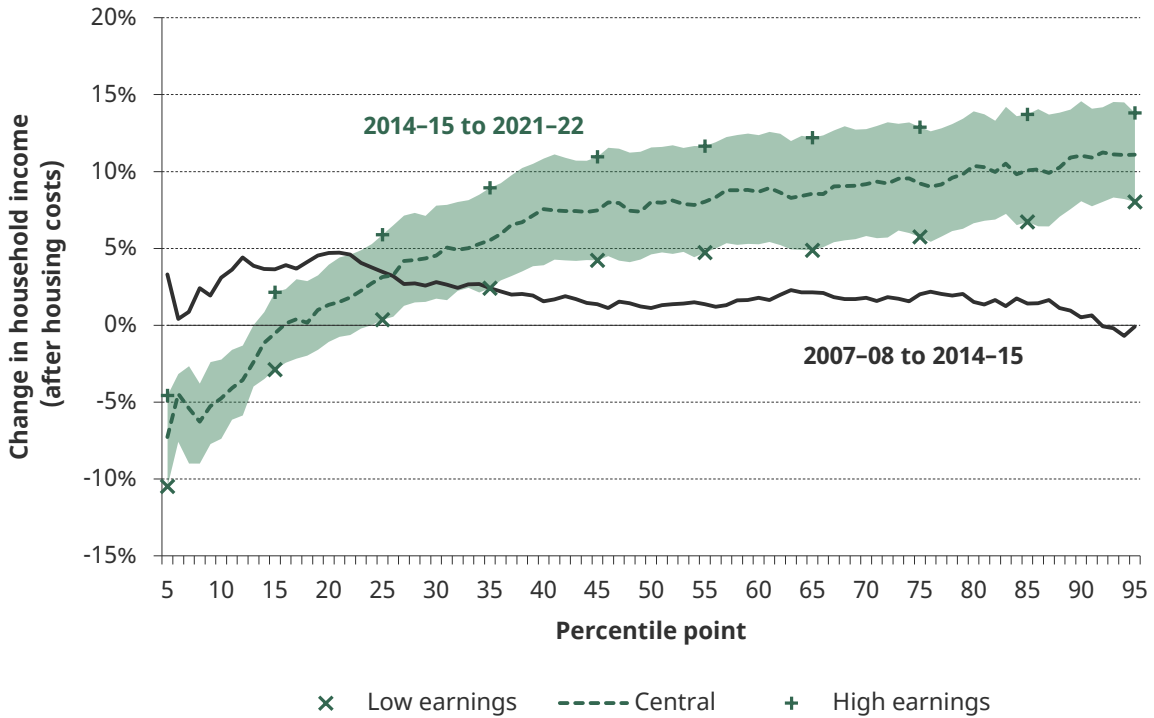
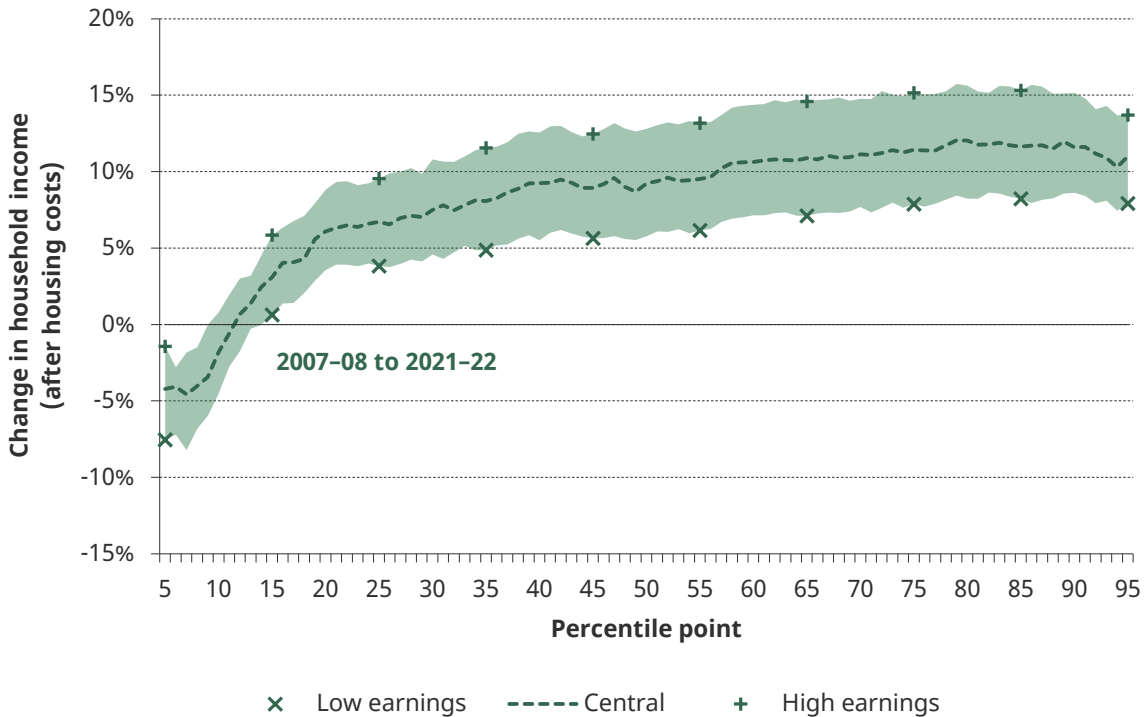


Figure 3.4B. Change in real household AHC income by percentile point, 2007-08 to 2021-22



Note: Percentiles 1-4 and 96-99 are excluded due to high levels of statistical and modelling uncertainty.

Source: Authors' calculations using Family Resources Survey, various years, and projections for 2021-22 using TAXBEN and assumptions specified in the text.

changes in income inequality look significantly different when incomes are measured AHC. This is illustrated by Figure 3.4A, which again shows income growth at each percentile point of the distribution between 2007–08 and 2014–15 along with projected growth between 2014–15 and 2021–22, but this time on an AHC basis.

There are two main things to note from this figure. First, AHC income inequality was roughly unchanged between 2007–08 and 2014–15. This reflects the fact that the fall in BHC income inequality shown in Figure 3.3A was offset by the large drop in mortgage interest costs between 2007–08 and 2009–10, which benefited high-income households (as they are more likely to have a mortgage) more than low-income households. Second, we project that real AHC incomes will fall substantially towards the bottom of the income distribution between 2014–15 and 2021–22. This is the combined effect of the small projected falls in the BHC incomes of low-income households shown in Figure 3.3A and rising real rents (since the OBR forecasts that private rents will rise in line with earnings).¹⁶

Box 3.1. The changing link between rents and housing benefit entitlements

Entitlements to housing benefit (HB) for most claimants in the private rented sector are capped by their local housing allowance rate, which depends on their family size and the area in which they live. Originally, LHA rates were set each year to be equal to the median rent for a property with the ‘appropriate’ number of bedrooms for their family type (as determined by the government) in the local area. From April 2011, LHA rates were reduced to the 30th percentile (among other cuts in generosity). Since then, a number of reforms have seen LHA rates fall behind rents: most rates were increased in line with CPI in April 2013 and by 1% in cash terms in 2014 and 2015, and are now frozen in cash terms until April 2020.

The net effect of all this is that the rents of most private sector HB claimants now exceed their LHA rate. For this group, any increase in rent will not be covered by higher HB. We estimate that in 2014–15, of those households that rent privately and claim HB, around 70% (800,000 households) have a rent above their LHA rate.^a In our projection, the average rent of those in this group rises by £21 per week between 2014–15 and 2019–20 – but without any offsetting increase in HB entitlement. With rents rising but LHA rates frozen, the proportion of privately-renting claimants with rents above their LHA rate increases to 86% (1,300,000 households) by 2019–20, the final year of the LHA freeze.

From 2019–20, the LHA rates will also apply to social housing tenants who began their tenancy after April 2016. In our projections, this further increases the number whose HB (or housing component of universal credit) is less than their rent.

^a This estimate is from the 2014–15 FRS – our base data. Similar results are found in administrative data: Brewer et al. (2014) use the Single Housing Benefit Extract and find that in 2011–12 around 65% of HB claimants in the private sector have rent above their LHA rate.

¹⁶ Another contributor to the large AHC falls seen by poorer households is that they spend a larger share of their income on housing – about 30% in the bottom quintile – which means that changes in BHC income that do not reflect housing costs (e.g. the effect of the benefits freeze) are magnified when looked at on an AHC basis. For the same reason, a given rise in housing costs weighs more heavily on the AHC incomes of poorer households.

Note that rising rents would have a greater impact on the living standards of low-income households than they have in the past. This is because historically increases in housing costs for poorer households in the private rented sector have to a large extent been offset by equal increases in housing benefit. However, the freezing of local housing allowances (LHAs) has significantly reduced the importance of this link, meaning that many poorer households are now fully exposed to rent rises. This point is discussed in further detail in Box 3.1. Of course, it is possible that the freeze in LHA rates (along with other benefit cuts) could weaken the demand for the types of housing typically consumed by low-income households, leading to slower growth in rents for this group (even if average rents do rise in line with the OBR forecast). If this is so, the falls in AHC incomes towards the bottom of the distribution will be smaller than we project.

The result of all this, shown by Figure 3.4B, is that the projected change in inequality over the 14 years from 2007–08 to 2021–22 looks very different when incomes are measured AHC. While BHC incomes are projected to increase by a similar amount across the distribution (leaving income inequality roughly unchanged), our projections suggest a significant increase in AHC income inequality over the period. In our central projection, AHC incomes at the 10th percentile are 2% lower in real terms in 2021–22 than in 2007–08, compared with rises of 9% at the median and 12% at the 90th percentile.

3.3 Income poverty

We now focus on the implications of these projections of the future distribution of household incomes for likely trends in income poverty. Throughout, we measure and project poverty as measured in the official HBAI statistics. We define an individual as being in relative poverty if their equivalised household income is less than 60% of the median income in that year. This is termed relative poverty because the poverty line varies from year to year as median income changes – if median income goes up, then so does the poverty line. Essentially, changes in the relative poverty rate are informative about whether poorer households are keeping up with those on middle incomes. We define an individual as being in absolute poverty if their household income is less than 60% of real median income in 2010–11 (the absolute poverty line used by the government). Changes in the absolute poverty rate are informative of changes in the real incomes of low-income households, irrespective of trends in the incomes of other households. In this section, we focus on relative and absolute poverty rates for different groups; projections for the numbers of individuals of different types in poverty can be found in the online appendix.¹⁷

Like inequality, income poverty can be measured both before and after housing costs have been deducted. In the following analysis, we focus on changes in poverty measured on an AHC basis. We think this is a preferable way to measure incomes for the purposes of measuring poverty, at least at present, for three main reasons. First, while to some extent the cost of housing is a choice and it reflects the quality of housing enjoyed, for some relatively poor groups (particularly social housing tenants) this is less likely to be a reliable rule of thumb. Second, for many of those on housing benefit, their HB receipt rises and falls in line with their rent.¹⁸ For these households, a rise in rent would increase their BHC

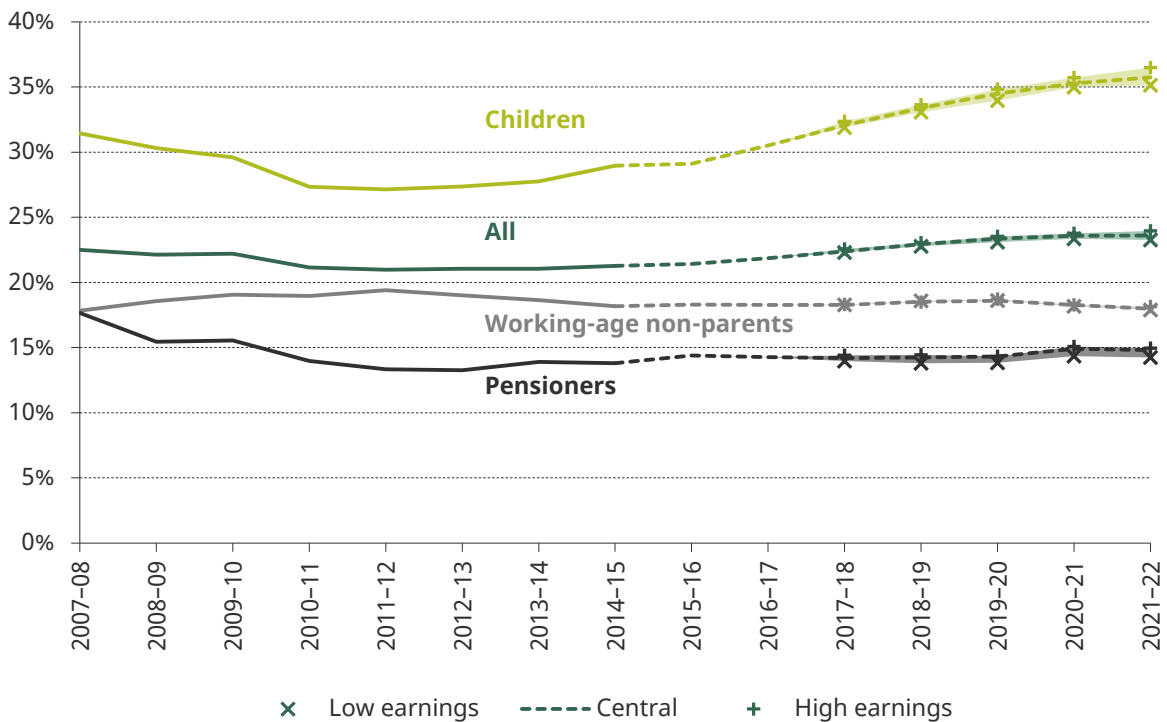
¹⁷ Available at <https://www.ifs.org.uk/publications/8907>.

¹⁸ A complication here is that LHA rates cap HB receipt for private renters (and, from 2019, some social renters). For households caught by the cap, an increase in rent will not be met with an offsetting increase in HB.

income by increasing their HB, but without their standard of living changing – a fact captured by the AHC measure, which nets off the increase in rent. This issue is of particular importance in the period we are projecting: at Summer Budget 2015, the government announced that for each year between 2016–17 and 2019–20, English social rents would fall by 1% in nominal terms. Since this will also reduce claimants’ HB entitlement, their incomes measured on a BHC basis will fall, leading to an increase in measured poverty. AHC income measures avoid this undesirable property by netting out the fall in rents and the fall in HB. Third, more recently, housing cost trends have been very different for low- and high-income groups, so the distinction between BHC and AHC measures has become particularly important. Tables showing equivalent statistics to those in this section on a BHC basis are available in the online appendix – though, for the statistics reported, trends in both measures are similar.

Figure 3.5 shows actual and projected relative poverty rates for the population as a whole and for selected demographic subgroups, from 2007–08 through to 2021–22. The overall poverty rate fell between 2007–08 and 2010–11, from 22.5% to 21.1%, and remained relatively constant up to 2014–15. Relative child poverty and relative pensioner poverty also fell between 2007–08 and 2014–15, from 31.5% to 29.0% and from 17.7% to 13.8% respectively. This fall was explained by the fact that, as shown in Section 3.2, the incomes of low-income households rose faster than median income over that period. For pensioners, this continues a longer-running trend – back in 1997–98, relative pensioner poverty stood at 30.6%.

Figure 3.5. Relative poverty rates, AHC incomes



Note: Poverty line is 60% of contemporaneous median income. Pensioners are those aged 65 or over.

Source: Authors’ calculations using Family Resources Survey, various years, and projections for 2015–16 to 2021–22 using TAXBEN and assumptions specified in the text.

In our projections, the overall relative poverty rate increases gradually in each year from 2014–15 to 2020–21, and remains flat in 2021–22. The total projected rise is 2.3ppts, from 21.3% to 23.6%. But this overall increase masks significant differences in the projected trends in relative poverty rates for different groups.

Relative child poverty rises significantly in our projections, from 29% in 2014–15 to 36% in 2021–22. This is for two main reasons. First, low-income households with children receive a large share of their income from benefits – Belfield et al. (2016) show that households in the bottom quintile of the child income distribution received 61% of their income from benefits in 2014–15. This means that the working-age benefit freeze represents a substantial cut to the real incomes of poor households, as do the roll-out of universal credit and the phased introduction of the two-child limit in tax credits (which is mirrored in UC). Second, low-income households with children gain less from real earnings growth than households around the median, as a smaller share of their income comes from employment. Thus if real earnings rise as projected, median income will grow faster than the incomes of low-income households with children.

On the other hand, we project that relative poverty among pensioners and working-age adults without dependent children (henceforth ‘working-age non-parents’) will change little over the period to 2021–22, ending at around 15% and 18% respectively. This is because real earnings growth does more to increase the incomes of low-income households in these groups than is the case for low-income households with children. In the case of low-income pensioners, the reason is that income from the state pension rises at least in line with average earnings growth, thanks to the triple lock. In the case of low-income working-age non-parents, the reason is that they get a larger share of their income from employment. However, as with our projections for inequality, this latter result is sensitive to the assumption of uniform earnings growth among those above the NLW: if, for example, earnings grow faster for low-income households than for those around the median, relative poverty among working-age non-parents could fall.

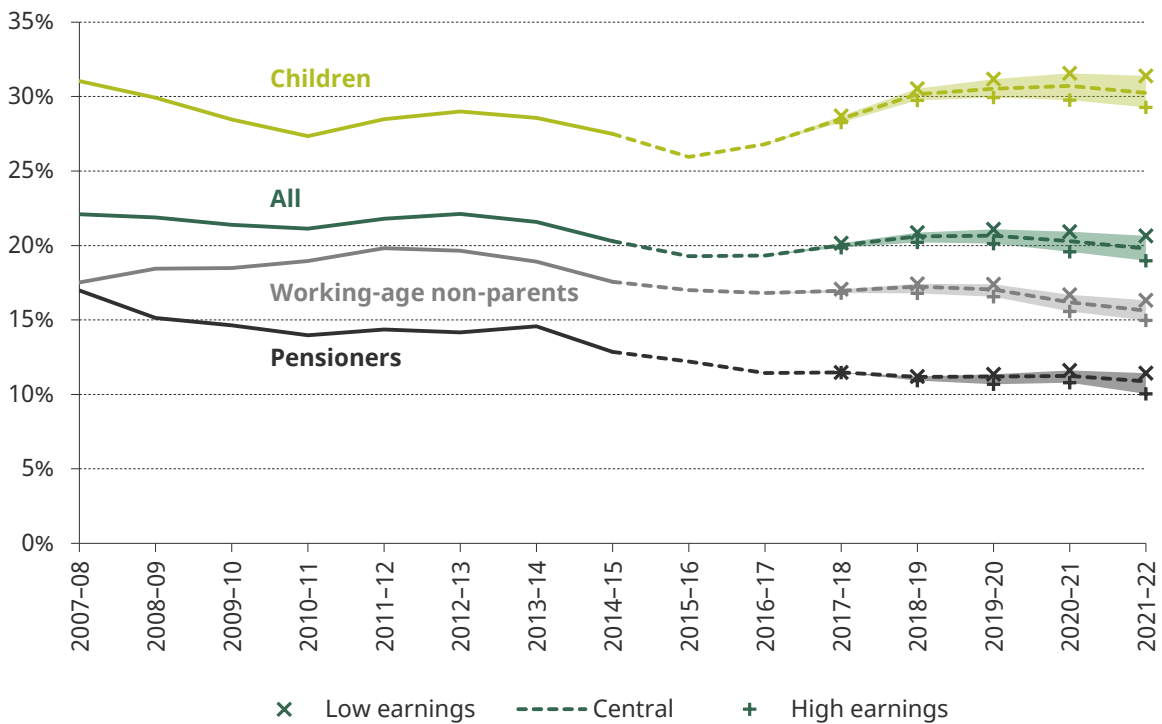
Figure 3.5 also shows that our projections for the relative poverty rate, both overall and for different subgroups, are relatively insensitive to the path of real earnings. For example, overall relative poverty in 2021–22 is projected to vary by only around 0.7ppts between the three different scenarios. This is in large part because higher earnings growth raises the relative poverty line as well as the income of low-income households.

The insensitivity of our relative poverty projections to earnings growth should not be interpreted as indicating a high degree of certainty around these projections. Other sources of uncertainty are more important in the case of poverty – future government policy, inflation, employment growth and its distribution, and the distribution of earnings.

Figure 3.6 shows actual and projected absolute poverty rates between 2007–08 and 2021–22. Overall absolute poverty declined from 22.1% in 2007–08 to 20.3% in 2014–15. As with relative poverty, this was mainly driven by falls in absolute pensioner and child poverty, of 4.1ppts and 3.5ppts respectively (absolute poverty among working-age non-parents was roughly unchanged).

Looking forward, however, our projections suggest a different trend. Absolute child poverty rises in all three scenarios: in our central projection, the increase is from 27.5% in 2014–15 to 30.3% in 2021–22, returning absolute child poverty to its 2008–09 level. This rise

Figure 3.6. Absolute poverty rates, AHC incomes



Note: Poverty line is 60% of median income in 2010-11, adjusted by CPI excluding rent. Pensioners are those aged 65 or over.

Source: Authors' calculations using Family Resources Survey, various years, and projections for 2015-16 to 2021-22 using TAXBEN and assumptions specified in the text.

is explained by the same sorts of reasons that explain the projected increase in relative child poverty: cuts to working-age benefits act to substantially reduce the incomes of low-income households with children, and rises in real earnings have only a moderate offsetting effect.

On the other hand, working-age non-parents and pensioners see steady falls in absolute poverty in our central scenario. These falls occur for much the same reason as relative poverty does not rise for these groups: real earnings growth either directly (in the case of working-age non-parents) or indirectly (via the triple lock in the case of pensioners) increases the incomes of low-income households in these groups. Overall absolute poverty is projected to fall by around half a percentage point, from 20.3% in 2014-15 to 19.8% in 2021-22. Looking at 2007-08 to 2021-22 as a whole, this suggests a fall of 2.3ppts. This is a small fall by historical standards: in the previous 14-year period (1993 to 2007-08), overall absolute poverty fell by 19ppts. Similarly, absolute child poverty is projected to fall by 0.8ppts between 2007-08 and 2021-22, but it had fallen by 21ppts in the previous 14 years.

In Section 3.2, we saw that in our central projection real AHC incomes fall significantly at the bottom of the income distribution between 2014-15 and 2021-22. It might therefore seem surprising that the overall absolute poverty rate declines – albeit only slightly – over that period. This apparent discrepancy is explained by the fact that the overall absolute poverty rate in 2014-15 was 20% – in other words, the absolute poverty line is at approximately the 20th percentile of incomes – and in our central projection AHC incomes

fall only in the bottom 15% of the distribution. Hence these falls in incomes right at the bottom do not tip more households below the poverty line – though clearly they would mean that some households are further below the poverty line than they would have been.

3.4 The effect of direct tax and benefit reforms

For households across most of the income distribution, including those around the median, changes in incomes are largely driven by changes in real earnings (and, to a lesser extent, employment), rather than by government tax and benefit policy. However, for lower-income households, who are more likely to receive a significant share of their income from benefits or tax credits, changes to the tax and benefit system can have a substantial impact on incomes and hence on rates of income poverty. In this section, we first analyse how tax and benefit reforms between 2015–16 and 2021–22 affect our projections for household incomes and poverty. We then focus on one policy in particular – the cut to UC work allowances announced in the 2015 Summer Budget. For ease of exposition, we look only at how tax and benefit reforms affect our income projections in our central scenario – their effect would be similar in our alternative scenarios.

So far, all the income projections we have presented have incorporated the direct tax and benefit reforms implemented or announced by the current government. In this section, we show projections for household incomes assuming instead that tax thresholds and benefit rates rise in line with the default indexation rules that the government inherited (which in the vast majority of cases means they rise in line with CPI inflation) and that there are no other changes to the tax and benefit system. By comparing these two sets of projections, we can isolate the direct impact of the tax and benefit reforms implemented or planned to be implemented during this parliament. Note that while our central projections incorporate other government policies that affect household incomes – such as the introduction of the national living wage and the nominal cuts to social rent levels in England – we isolate here the direct impact of tax and benefit policy only: other government policies are incorporated in both our central and ‘counterfactual’ projections.

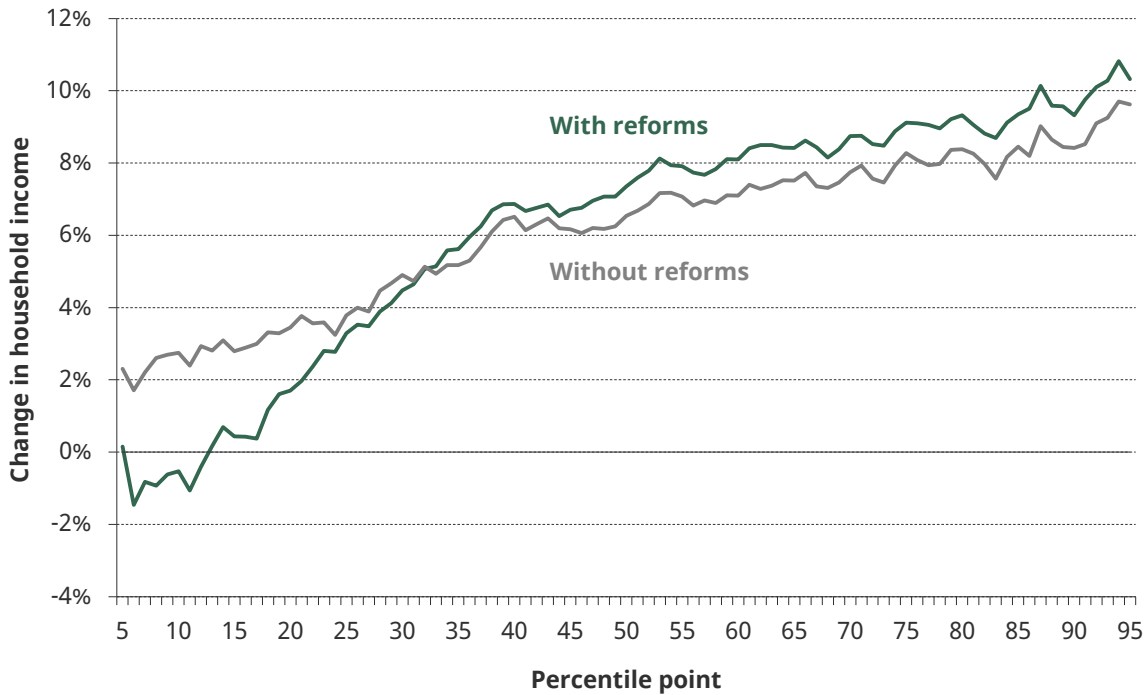
An important limitation of this analysis is that we look only at the direct impact of tax and benefit reforms on household incomes: we do not allow for behavioural responses to changes in policy.¹⁹ This means our results will not include the effect on incomes of people moving into or out of work, or working more or fewer hours, as a result of changes in their benefit entitlements or tax liabilities. We will also fail to capture any effect on incomes of changes in the take-up rates of means-tested benefits in response to changes in their generosity.

Figure 3.7 shows our central projection for changes in BHC incomes between 2014–15 and 2021–22 at each percentile, along with our projection for income changes in the absence of government tax and benefit reforms (the equivalent figure for AHC incomes is shown in

¹⁹ In fact, behavioural responses to planned tax and benefit changes are crudely incorporated in our central results, to the extent that they are reflected in OBR macroeconomic forecasts. Since the impact of tax and benefit reforms on those forecasts is not available, we are unable to remove behavioural responses when looking at this counterfactual scenario.

Appendix A – Figure A.3). It is immediately apparent from the figure that even in the absence of tax and benefit reforms, we would project an increase in income inequality

Figure 3.7. Change in real household BHC income between 2014–15 and 2021–22 by percentile point, with and without direct tax and benefit reforms during this parliament



Note: Percentiles 1–4 and 96–99 are excluded due to high levels of statistical and modelling uncertainty.

Source: Authors' calculations using Family Resources Survey 2014–15 and projections for 2021–22 using TAXBEN and assumptions specified in the text.

over this period. This is because in our counterfactual projections, benefits rise in line with prices while earnings increase in real terms – which, as has been emphasised already, tends to benefit higher-income households more than those towards the bottom of the distribution.

However, the figure also makes clear that government direct tax and benefit reforms will act to increase income inequality over this period. Broadly, the higher-income two-thirds of households gain on average from government reforms, while the lowest-income third lose on average. The losses, however, are much bigger as a percentage of income than the gains: direct tax and benefit reforms increase projected income growth by 0.9ppts at the 90th percentile, but reduce it by 3.3ppts at the 10th percentile.

What explains this pattern? The gains for higher-income households are largely the result of real increases in the personal allowance (which is £12,590 in 2021–22 in the central scenario as opposed to £11,720 in the counterfactual scenario) and in the higher-rate threshold (£49,490 as opposed to £46,835). The losses for low-income households are the result of cuts to working-age benefits, the most important of which are the nominal freeze in most rates until 2020–21 and the cuts to work allowances in UC (discussed in more detail below). The real impact of the benefits freeze on households is dependent upon the future path of inflation. In March 2016, the OBR's forecast implied that the benefits freeze

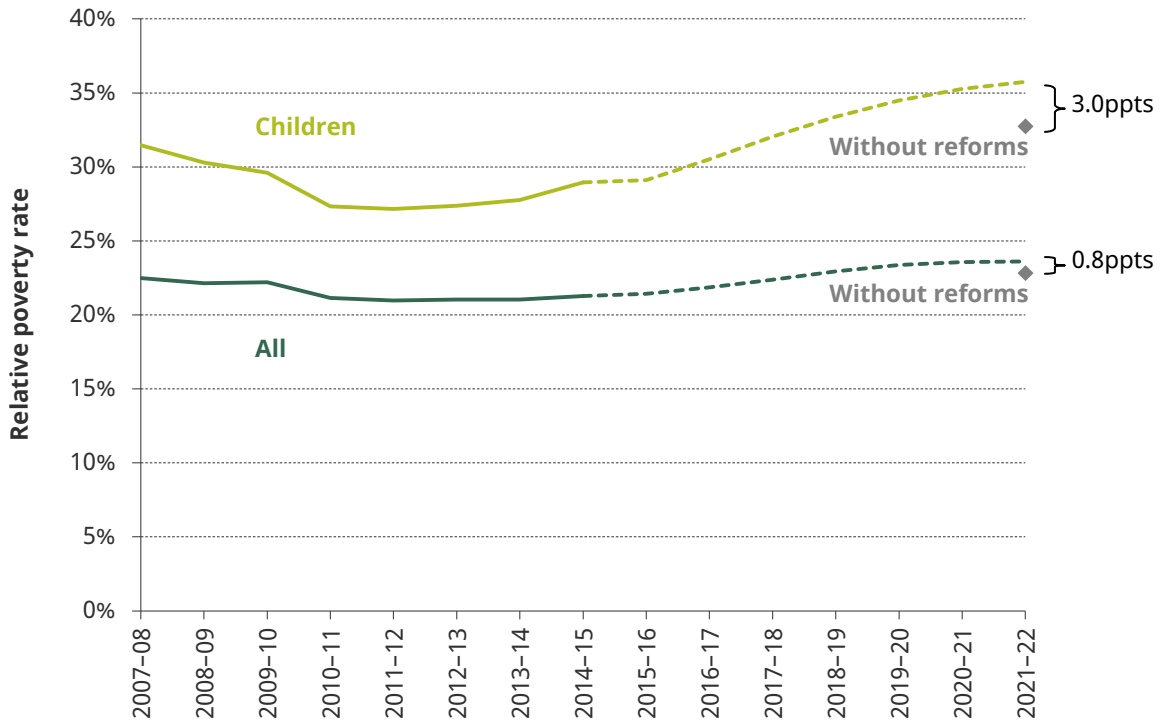
represented a 4% cut in the value of benefits. In November, it raised its inflation forecast, largely due to the depreciation in sterling, with the latest forecast implying a 6% cut in the value of benefits.²⁰

When considering the effect of direct tax and benefit reforms in this parliament on inequality, it is important to keep in mind the broader context. As we showed in Section 3.2, on a BHC basis the inequality-increasing impact of direct tax and benefit reforms over the next few years unwinds the falls in inequality that occurred between 2007–08 and 2014–15, leaving inequality roughly the same in 2021–22 as it had been in 2007–08. On an AHC basis, however, inequality fell much less between 2007–08 and 2014–15, and hence direct tax and benefit reforms in this parliament are part of the explanation for the projected increase in inequality between 2007–08 and 2021–22.

The direct effect of direct tax and benefit reforms on projected relative poverty rates is what one would expect given the pattern shown above: lower incomes for those at the bottom of the distribution together with (slightly) higher incomes at the median imply a higher rate of relative poverty. Below, we focus on the impact on child poverty (as well as documenting the impact on overall rates), as it is poverty among children that is projected to rise most significantly over the next few years. Figure 3.8 compares overall and child relative poverty rates in 2014–15 with projected rates in 2021–22 under our central and counterfactual scenarios. Since inequality between the middle and the bottom of the income distribution is projected to increase in the absence of direct tax and benefit

²⁰ See Emmerson, Hood and Waters (2016).

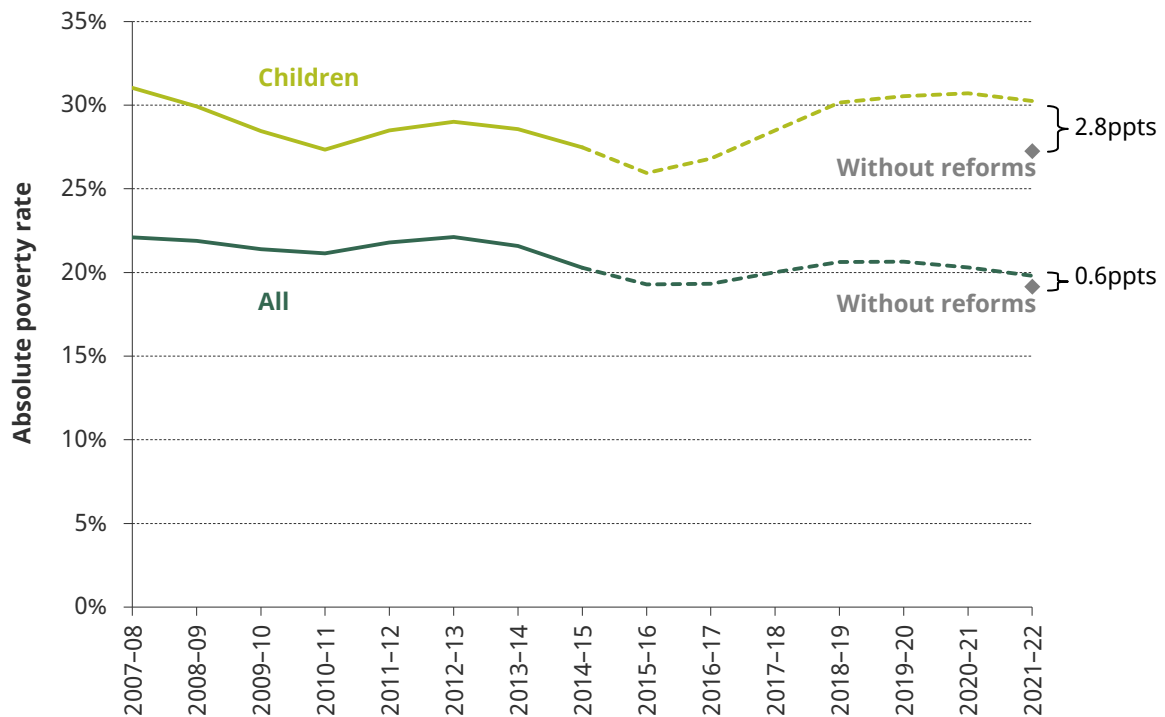
Figure 3.8. Relative poverty rates with and without direct tax and benefit reforms during this parliament, AHC incomes



Note: Poverty line is 60% of contemporaneous median income.

Source: Authors' calculations using Family Resources Survey, various years, and projections for 2015-16 to 2021-22 using TAXBEN and assumptions specified in the text.

Figure 3.9. Absolute poverty rates, AHC incomes



Note: Poverty line is 60% of median income in 2010–11, adjusted by CPI excluding rent.

Source: Authors’ calculations using Family Resources Survey, various years, and projections for 2015–16 to 2021–22 using TAXBEN and assumptions specified in the text.

reforms, we project that relative overall and child poverty would still have risen too, by 1.5ppts and 3.8ppts respectively. However, the direct impact of tax and benefit reforms leads to further increases in projected poverty rates: an increase of 0.8ppts in the overall rate and an increase of 3.0ppts in relative child poverty. But note that these impacts represent less than half of the overall increases.

Figure 3.9 compares overall and child absolute poverty rates in 2014–15 and projected rates in 2021–22 with and without direct tax and benefit reforms. While overall absolute poverty falls by about half a percentage point in our central scenario, the figure shows that in the absence of reforms it would have fallen by around twice that. The figure also shows that direct tax and benefit reforms explain all of the projected 2.8ppt increase in absolute child poverty between 2014–15 and 2021–22, which would have been more or less unchanged in the absence of direct tax and benefit reforms.

It may look surprising, however, that absolute child poverty would not be projected to fall in the absence of reforms: with benefits rising in line with inflation, and real earnings growing, why do we not project a fall in absolute child poverty in this scenario? There are two main reasons. First, there is a demographic shift over the period towards children being in lone-parent households. In 2014–15, 18.3% of children were in lone-parent households, but forecasts suggest that will rise to 19.8% by 2021–22. Since children in lone-parent households are around twice as likely to be in absolute poverty as those with more than one adult in the household, this ‘compositional change’ adds about 0.4ppts to the rate of absolute child poverty in 2021–22. Second, policies introduced by the coalition

government mean that even in the absence of the further reforms under the current government, housing benefit does not rise to offset increasing housing costs for many low-income households. In particular, the cuts in the level of LHA rates (which cap HB entitlements in the private sector) and the decision to change their default indexation to CPI mean that if private rents rise in line with earnings (as is the case in our projections), housing costs rise faster than HB for many households with children around the poverty line. The importance of this second factor is evident from the fact that ignoring housing costs would lead to quite a different result: we project that, in the absence of reforms, absolute child poverty would fall by 1.0ppt on a BHC basis between 2014–15 and 2021–22.

The effect of the cuts to universal credit work allowances

We now consider the impact on poverty and inequality of a particular reform: the cut to work allowances in universal credit. In the 2015 Summer Budget, the Chancellor announced that work allowances – the amount that a family can earn after direct tax before their entitlement starts to be withdrawn – would be reduced. Non-disabled households without children now have no work allowance, while other households also saw significant cuts in the level of their allowances.²¹ This represented a large reduction in the planned generosity of universal credit for low-income working households, and is expected to reduce government expenditure by around £3 billion in the long run. In the run-up to the 2016 Autumn Statement, there was much debate about these measures, especially in the context of the new Prime Minister’s expressed wish to help so-called ‘just-about-managing’ families.²² But the Chancellor chose not to reverse these work allowance cuts, but instead reduced the rate at which UC is tapered away as the recipient increases their earnings, from 65% to 63%. This represented a £0.7 billion giveaway to broadly the same group of UC claimants from whom the work allowance cuts took £3 billion, i.e. it represented only partial compensation for the losses from the cuts to work allowances.²³

Figure 3.10 shows what difference the work allowance cuts make to our projection for real BHC income growth between 2014–15 and 2021–22. In absolute terms, the effect is largest around the 15th to 20th percentiles, though the impact is similar in proportional terms across the bottom fifth of the distribution. The smaller impact towards the very bottom of the distribution is explained by the fact that this change only benefits working households, and the employment rate near the bottom of the income distribution is relatively low. The effects are smaller above the 20th percentile, and essentially zero above the 40th percentile, where families are typically earning too much to be on UC and therefore to be affected by this change. This is the sense in which an increase in work allowances is ‘well targeted’ if the objective is to boost the incomes of low-income working households: any changes to income tax or National Insurance rates or thresholds, for example, would also benefit households much further up the income distribution.²⁴

Given that the work allowance cuts will reduce incomes towards the bottom of the distribution while leaving median income roughly unaffected, they are projected to increase both absolute and relative poverty. On an AHC basis, we project that the cuts will

²¹ See Browne, Hood and Joyce (2016) for further details on this reform.

²² For example, see <https://www.theguardian.com/politics/2016/oct/21/theresa-may-tory-backlash-cuts-in-work-benefits-universal-credit>.

²³ In addition, the change to the taper rate was a bigger giveaway to the higher-income households that lost from the work allowance cuts than to the lower-income households that lost (see Adam (2016)).

²⁴ See Hood, Joyce and Phillips (2014).

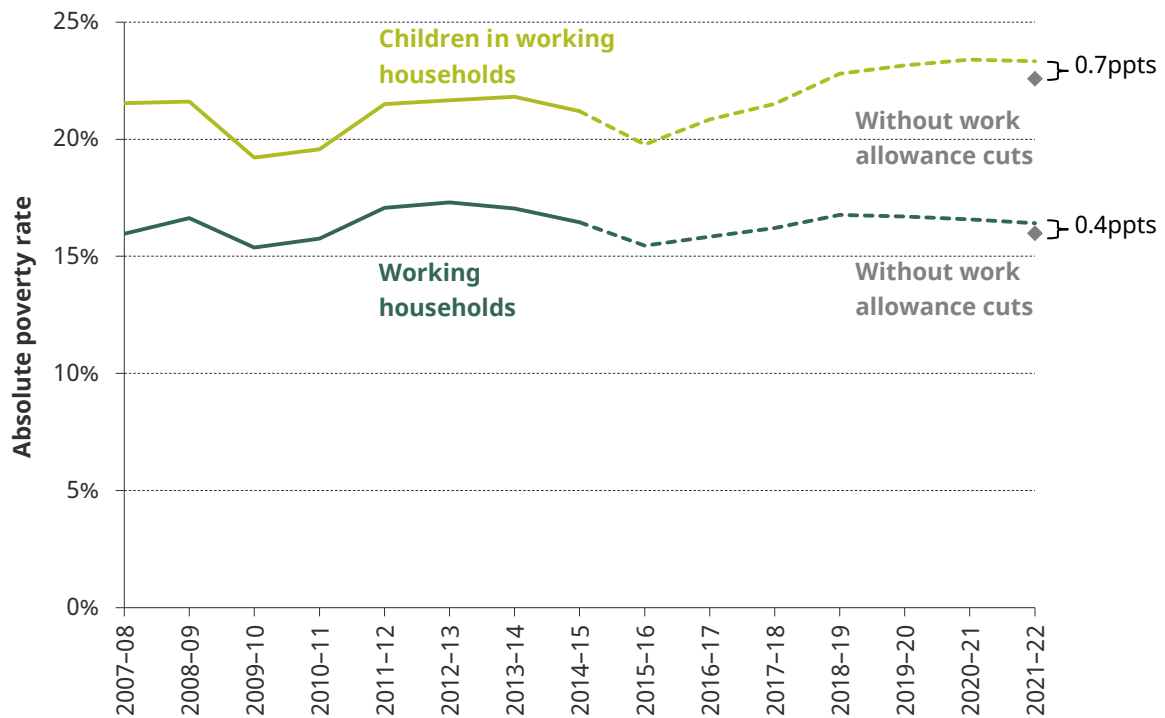
Figure 3.10. Change in real household BHC income between 2014–15 and 2021–22 by percentile point



Note: Percentiles 1–4 and 96–99 are excluded due to high levels of statistical and modelling uncertainty.

Source: Authors' calculations using Family Resources Survey 2014–15 and projections for 2021–22 using TAXBEN and assumptions specified in the text.

Figure 3.11. Absolute poverty rates, AHC incomes



Note: Poverty line is 60% of median income in 2010–11, adjusted by CPI excluding rent. Working households are those where at least one person is in employment.

Source: Authors’ calculations using Family Resources Survey, various years, and projections for 2015–16 to 2021–22 using TAXBEN and assumptions specified in the text.

increase overall absolute and relative poverty in 2021–22 by 0.3ppts and will increase absolute and relative child poverty in 2021–22 by 0.7ppts.

In Figure 3.11, we restrict our attention to working households, since the cuts in work allowances only affect low-income working households. In our central scenario, we project a very slight reduction in AHC absolute poverty in working households, from 16.5% in 2014–15 to 16.4% in 2021–22. But without the work allowance cuts, we project that absolute working poverty would fall by a further 0.4ppts, to 16.0%. The AHC absolute poverty rate among children in working households is projected to increase in our central scenario by 2.1ppts between 2014–15 and 2021–22, from 21.2% to 23.3%. However, around a third of the projected rise is explained by the work allowance cuts: they increase the projected poverty rate for this group by 0.7ppts in 2021–22 (from 22.6% to 23.3%).

4. Conclusion

Despite reasonably strong growth in 2014–15, real median income in that year (the latest data available) was only 2.2% higher than in 2007–08. We expect the data to show stronger income growth over the past two years – with growth in 2015–16 alone equalling the total growth of the previous seven years – thanks to increases in real earnings and in employment.

However, going forward, we project a return to weak real median income growth if the Office for Budget Responsibility's macroeconomic forecasts are correct. In our previous report, we projected that median income would grow by 5.7% between 2016–17 and 2020–21. This report revises that number down to 2.7%, with median income stagnant over the next two years. This more pessimistic assessment is due to changes in the OBR's macroeconomic forecast. The OBR now anticipates a substantial slowdown in real average earnings for two reasons, both of which are connected to the vote to leave the EU. First, inflation is predicted to spike following the fall in the value of the pound. Second, the OBR has revised down its forecast for nominal earnings growth as a result of lower forecast productivity.

There is, of course, substantial uncertainty around those OBR forecasts and therefore our projections – which are essentially estimates of the implications for household incomes of the OBR's forecasts – as illustrated by our high and low earnings growth scenarios. While our central scenario projects real median income growth of 3.8% between 2016–17 and 2021–22, the high and low earnings scenarios project growth rates of 6.8% and 1.0%. Note, however, that even under our high earnings scenario, real median income growth over the next five years is only around two-thirds of its historical average, and by 2021–22 median income is 16% below that implied by the pre-crisis trend. Nonetheless, even in the low earnings scenario, median income still grows over the period and in 2021–22 is at its highest level ever.

In the absence of any changes to the direct tax and benefit system, positive (albeit slow) real earnings growth and the uprating of tax thresholds and benefit rates in line with inflation would imply an increase in inequality and relative poverty over the next few years, but a slight reduction in absolute poverty as real incomes increase. Direct tax and benefit reforms are expected to act to reduce the incomes of low-income households, and to raise the incomes of high-income households slightly, further increasing inequality (and hence relative poverty). Our projections imply that inequality in AHC incomes will rise faster than inequality in BHC incomes, in part because cuts in the generosity of housing benefit mean that for many low-income households, HB will not rise to cover increases in rent. In fact, our central projection is for AHC incomes to fall within the bottom 15% of the distribution on average between 2014–15 and 2021–22, meaning there is only a small projected decline in overall absolute AHC poverty over the period.

These changes in incomes and poverty rates across the population as a whole mask significant differences in the projected trends for different household types. Pensioners are expected to see a continued increase in real incomes, driven by the triple lock (which guarantees that the state pension cannot fall in real terms, or indeed relative to average earnings), increasing employment rates, and a compositional effect whereby newly-retiring pensioners have higher pension incomes than older pensioners. On the other

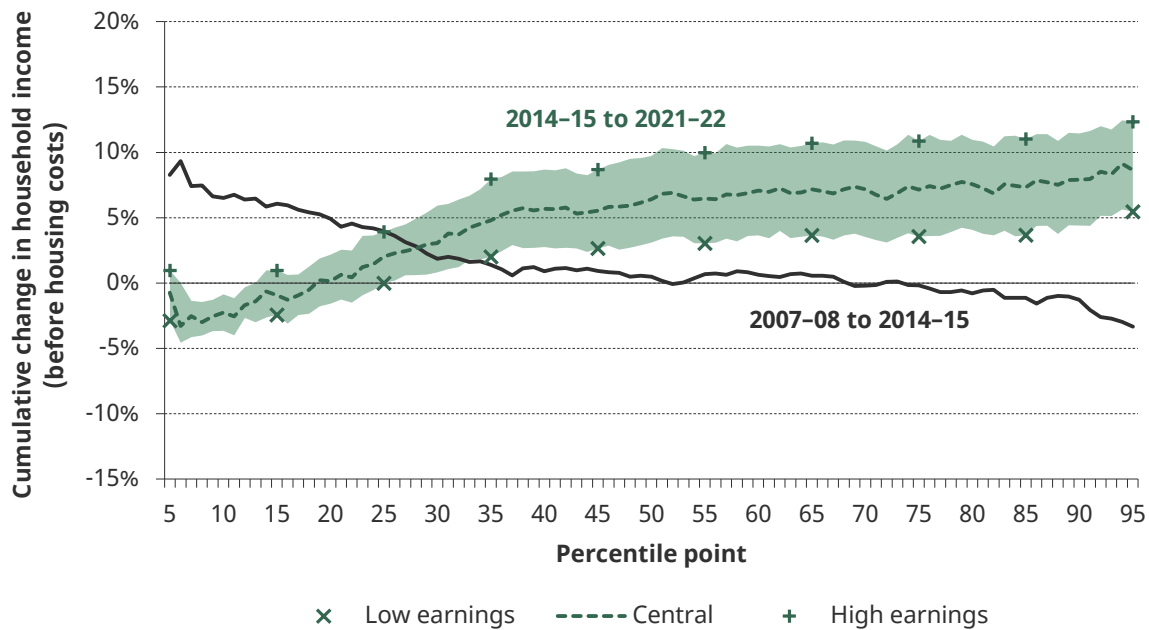
hand, the incomes of non-pensioners are more affected by the weak real earnings growth forecast by the OBR. Indeed, in our low earnings scenario, real median income among non-pensioners does not increase at all between now and 2021–22.

These different trends for different groups are reflected in our poverty projections, with the absolute poverty rate among pensioners falling steadily through to 2021–22 (though relative pensioner poverty is projected to change little). This is in contrast to child poverty, which is expected to increase in both absolute and relative terms, partly due to benefit cuts such as the nominal freeze in most working-age benefit rates and the introduction of a two-child limit in tax credits and universal credit.

Any projections relying on macroeconomic forecasts come with substantial margins of error, particularly when the macroeconomic and policy environment is as uncertain as it is now. Here, we have highlighted one important source of uncertainty among many – the future path of real earnings. What is notable is that even in our high earnings growth scenario, real median income growth is below its historical average between 2016–17 and 2021–22, overall absolute poverty falls only slightly, and absolute child poverty increases. While other sources of uncertainty could be resolved favourably for poverty and living standards, the macroeconomic headwinds facing any attempt to increase living standards and reduce income poverty are clear.

Appendix A

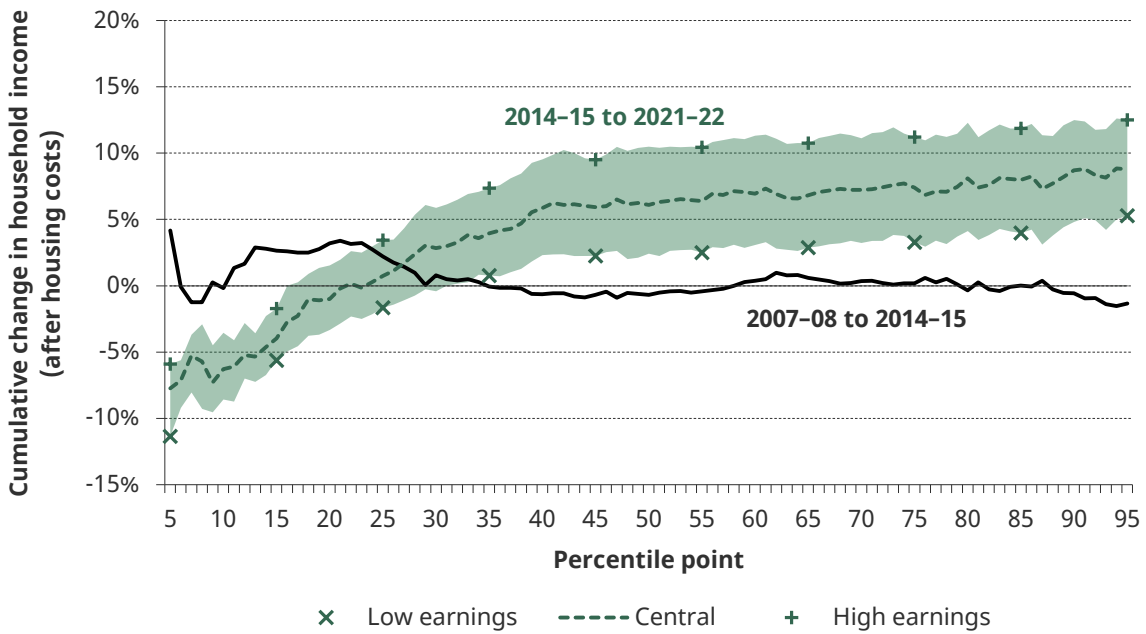
Figure A.1. Change in real household BHC income by percentile point: non-pensioners only, 2007-08 to 2014-15 and 2014-15 to 2021-22



Note: Percentiles 1-4 and 96-99 are excluded due to high levels of statistical and modelling uncertainty.

Source: Authors' calculations using Family Resources Survey, various years, and projections for 2021-22 using TAXBEN and assumptions specified in the text.

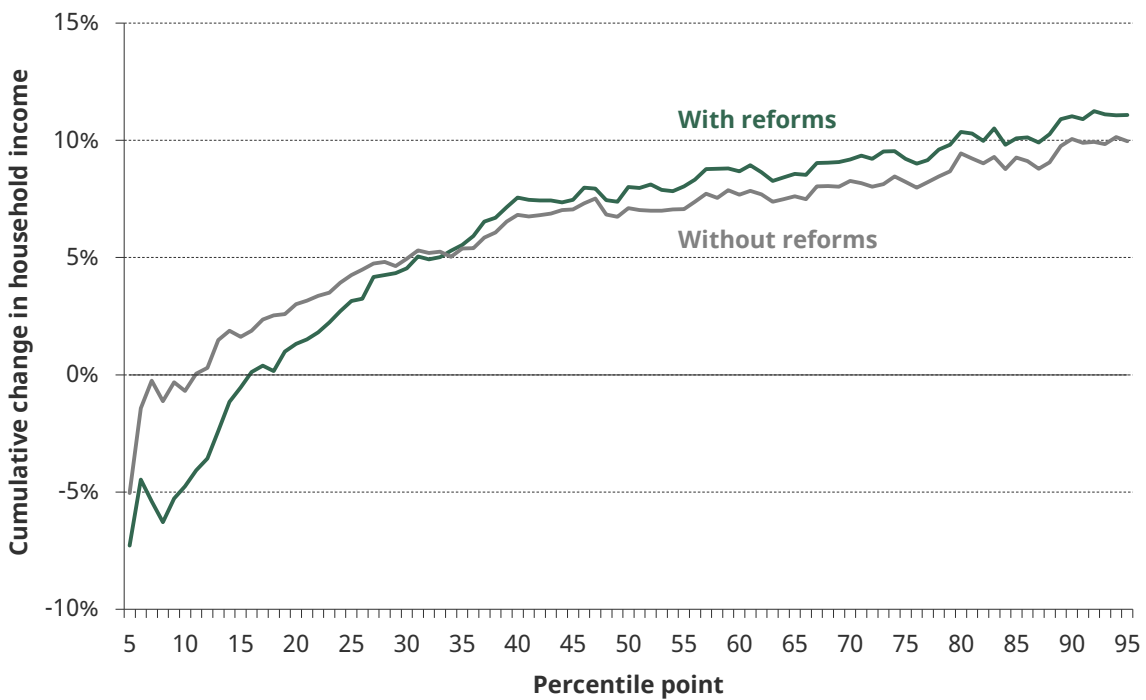
Figure A.2. Change in real household AHC income by percentile point: non-pensioners only, 2007-08 to 2014-15 and 2014-15 to 2021-22



Note: Percentiles 1-4 and 96-99 are excluded due to high levels of statistical and modelling uncertainty.

Source: Authors' calculations using Family Resources Survey, various years, and projections for 2021-22 using TAXBEN and assumptions specified in the text.

Figure A.3. Change in real household AHC income between 2014-15 and 2021-22 by percentile point, with and without direct tax and benefit reforms during this parliament



Note: Percentiles 1-4 and 96-99 are excluded due to high levels of statistical and modelling uncertainty.

Source: Authors' calculations using Family Resources Survey 2014-15 and projections for 2021-22 using TAXBEN and assumptions specified in the text.

Appendix B

Policies directly modelled:

- Local housing allowance (LHA) rate freeze
- Applying LHA rates to some social claimants from 2019
- Transitioning from disability living allowance (DLA) to personal independence payment (PIP)
- Single-tier pension
- The benefit cap, its cut, and the introduction of higher rates in London
- 'Tax free childcare'
- Increase of the personal allowance to £11,500
- Increase of the higher-rate threshold and upper earnings limit to £50,000
- Four-year freeze on most working-age benefits
- Abolition of the work-related activity group premium
- Increases in council tax
- Council tax precept of 2%
- Council tax increases for bands E-H in Scotland*
- Abolition of Class 2 National Insurance contributions (NICs)
- Transition from the legacy system to universal credit (UC)
- Cut in the work allowances and taper rate of UC
- The two-child limit in tax credits and UC
- Removal of the family element in tax credits and family premium in housing benefit
- Switch of support for mortgage interest from a benefit to a loan
- Transition from incapacity benefit to employment support allowance
- Transitional protection from moving to UC
- Personal savings allowance
- National living wage*
- 1% nominal cuts to social rent in England each year from 2016–17 to 2019–20*

* These policies are implemented both in our main projections and in our counterfactual without direct tax and benefit reforms, because either they are not a direct tax and benefit reform or they are the responsibility of a devolved administration.

References

- Adam, S. (2016), 'Tax and benefit reforms', presentation at IFS Post Autumn Statement Briefing (https://www.ifs.org.uk/uploads/publications/budgets/as2016/as2016_sa.pdf).
- Amin-Smith, N., Cribb, J. and Sibieta, L. (2017), 'Reforms to apprenticeship funding in England', in C. Emmerson, P. Johnson and R. Joyce (eds), *The IFS Green Budget: February 2017*, Report no. R124, London: Institute for Fiscal Studies (<https://www.ifs.org.uk/publications/8825>).
- Beck, M. and Goodwin, A. (2017), 'The UK economic outlook', in C. Emmerson, P. Johnson and R. Joyce (eds), *The IFS Green Budget: February 2017*, Report no. R124, London: Institute for Fiscal Studies (<https://www.ifs.org.uk/publications/8825>).
- Belfield, C., Cribb, J., Hood, A. and Joyce, R. (2016), *Living Standards, Poverty and Inequality in the UK: 2016*, Report no. R117, London: Institute for Fiscal Studies (<https://www.ifs.org.uk/publications/8371>).
- Brewer, M., Emmerson, C., Hood, A. and Joyce, R. (2014), *Econometric Analysis of the Impacts of Local Housing Allowance Reforms on Existing Claimants*, Research Report no. 871, London: Department for Work and Pensions (<https://www.ifs.org.uk/publications/7277>).
- Browne, J., Emmerson, C., Heald, K. and Hood, A. (2014), 'Modelling work, health, care and income in the older population: the IFS retirement simulator (RetSim)', Institute for Fiscal Studies (IFS), Working Paper no. W14/12 (<https://www.ifs.org.uk/publications/7253>).
- Browne, J. and Hood, A. (2016), *Living Standards, Poverty and Inequality in the UK: 2015–16 to 2020–21*, Report no. R114, London: Institute for Fiscal Studies (<https://www.ifs.org.uk/publications/8171>).
- Browne, J., Hood, A. and Joyce, R. (2016), 'The (changing) effects of universal credit', in C. Emmerson, P. Johnson and R. Joyce (eds), *The IFS Green Budget: February 2016*, Report no. R112, London: Institute for Fiscal Studies (<https://www.ifs.org.uk/publications/8129>).
- Corlett, A. and Clarke, S. (2017), *Living Standards 2017: The Past, Present and Possible Future of UK Incomes*, London: Resolution Foundation (<http://www.resolutionfoundation.org/publications/living-standards-2017-the-past-present-and-possible-future-of-uk-incomes/>).
- Cribb, J. and Emmerson, C. (2016), 'What happens when employers are obliged to nudge? Automatic enrolment and pension saving in the UK', Executive Summary, London: Institute for Fiscal Studies (<https://www.ifs.org.uk/publications/8733>).
- Cribb, J., Hood, A., Joyce, R. and Phillips, D. (2013), *Living Standards, Poverty and Inequality in the UK: 2013*, Report no. R81, London: Institute for Fiscal Studies (<https://www.ifs.org.uk/publications/6759>).
- Department for Communities and Local Government (2011), 'Live tables on household projections: 2011-based' (<https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections>).

Department for Communities and Local Government (2014), 'Live tables on household projections: 2014-based' (<https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections>).

Emmerson, C., Hood, A. and Waters, T. (2016), 'Falling sterling, rising prices and the benefits freeze', Institute for Fiscal Studies (IFS), Observation (<https://www.ifs.org.uk/publications/8699>).

HM Treasury (2017), *Forecasts for the UK Economy: A Comparison of Independent Forecasts*, February 2017 (<https://www.gov.uk/government/statistics/forecasts-for-the-uk-economy-february-2017>).

Hood, A., Joyce, R. and Phillips, D. (2014), 'Policies to help the low paid', in C. Emmerson, P. Johnson and H. Miller (eds), *The IFS Green Budget: February 2014*, Report no. R91, London: Institute for Fiscal Studies (<https://www.ifs.org.uk/publications/7072>).

National Records of Scotland (2012), '2012-based household projections' (<http://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/households/household-projections/household-projections-for-scotland-2012-based/list-of-tables>).

Northern Ireland Statistics and Research Agency (2012), 'Household projections: 2012-based' (<http://www.nisra.gov.uk/demography/default.asp21.htm>).

Office for Budget Responsibility (2016a), *Forecast Evaluation Report: October 2016* (<http://budgetresponsibility.org.uk/fer/forecast-evaluation-report-october-2016/>).

Office for Budget Responsibility (2016b), *Economic and Fiscal Outlook: November 2016* (<http://budgetresponsibility.org.uk/efo/economic-and-fiscal-outlook-november-2016/>).

Office for National Statistics (2015), 'Nowcasting household income in the UK: financial year ending 2015', *Statistical Bulletin*, 28 October (http://www.ons.gov.uk/ons/dcp171778_421593.pdf).

Pensions Policy Institute (2017), *Have Pensioners' Incomes Grown in this Period of Austerity?*, Briefing Note no. 88, London (<http://www.pensionspolicyinstitute.org.uk/briefing-notes/briefing-note-88---have-pensioners%e2%80%99-incomes-grown-in-this-period-of-austerity>).

Rastrigina, O., Leventi, C., Vujackov, S. and Sutherland, H. (2015), 'Nowcasting: estimating developments in median household income and risk of poverty in 2014 and 2015', Institute of Social and Economic Research (ISER), EUROMOD Working Paper no. EM8/16 (<https://www.iser.essex.ac.uk/research/publications/working-papers/euromod/em8-16>).

StatsWales (2011), '2011-based: household projections by household type and year' (<https://statswales.gov.wales/Catalogue/Housing/Households/Projections/National/2011-Based>).