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**Research Report**

## Employment, earnings and incomes in Scotland

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**Institute for Fiscal Studies**

**IFS Report R268**

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Tom Waters  
Tom Wernham**

# **Employment, earnings and incomes in Scotland**

# Employment, earnings and incomes in Scotland

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# Executive summary

Reductions in poverty – particularly among children – and inequalities in incomes and opportunities across people and places are key aims of the Scottish Government’s National Strategy for Economic Transformation. In this context, this report examines how the levels of and trends in employment, earnings and incomes vary across Scottish households and local authority (LA) areas, and how Scotland performs relative to the rest of the UK.

## Key findings

1. Between the mid 1990s and the 2008 recession, employment in Scotland rose, closing the gap and then eventually overtaking the rest of the UK (rUK). Median (middle) household earnings showed a similar picture. In recent years, however, there has been a slowdown in Scottish performance relative to rUK. The gap between Scottish and rUK earnings has reduced, and employment in Scotland has fallen behind rUK once again.
2. Although in recent years median household earnings in Scotland among working households have been above those of rUK, median household disposable income – taking account of earnings, benefits, other income sources, and taxes – has been very similar, following fast growth in the early 2000s which closed the small gap that had existed previously. Mean disposable income, however, has remained consistently lower as Scotland has had less growth in very high incomes.
3. Scotland has consistently had a higher prevalence of household worklessness than rUK, despite having a similar *individual* employment rate for most of the past two decades. Before the pandemic, 72% of Scots were living in a working household, compared with 76% of people in rUK. There are almost 190,000 fewer Scots in working households than there would be if Scotland had the same proportion as rUK.
4. Inequality in household disposable income has generally been slightly lower in Scotland than in rUK over the last 25 years, but in the run-up to the pandemic the gap was closing. Just before the pandemic, Scotland had the same level of inequality as rUK with London excluded. Higher household worklessness in Scotland partially offsets significantly lower inequality in earnings among households in work.

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5. Scotland's lower disposable income inequality is driven by less inequality between the middle and top of the distribution – the gap between the bottom and middle is much more similar to rUK's. Nonetheless, once we account for Scotland's lower housing costs, Scotland has a lower poverty rate. Just before the pandemic, the Scottish relative poverty rate was 19%, 3 percentage points below that of rUK. Scotland also has lower rates of material deprivation than rUK.
6. It is too early to see much of the impact of recent changes to Scottish tax and benefit policy in official income data. But these reforms are likely to have a significant effect and reduce inequality, with low-income families with children receiving substantial boosts to their incomes as a result of benefit changes.
7. There are significant geographic inequalities in employment, earnings and incomes across Scottish LA areas. Differences in employment and earnings have narrowed somewhat over time though, and are lower than in rUK, albeit somewhat higher than in the Midlands, North, Wales and Northern Ireland.
8. Employment rates are highest in the Orkney Islands (81%) and Eilean Siar (82%), but below 70% in parts of Central and South Western Scotland. Such differences in employment rates across LAs have been persistent over time: 8 of the 10 LAs with the lowest employment rates between 2004 and 2006 were still in the bottom 10 in the period between 2020 and 2022. But there has been somewhat more churn than in the rest of Great Britain, with increases in employment rates in Glasgow and many of its deprived neighbours (where employment rates were particularly low in the mid 2000s) and falls in employment rates in most of the North of Scotland over this period.
9. Much of the decline in employment in the North of Scotland (and much of the increase in Glasgow and its environs) has taken place since the mid 2010s, a time during which employment rates have increased in most of rUK. As a result, the employment rate in both North Eastern Scotland and the Highlands & Islands fell by 6 percentage points relative to rUK between 2013–15 and 2020–22, explaining most of the relative fall in employment in Scotland as a whole over this period.
10. Mean hourly earnings in 2020–22 were lowest in Dumfries & Galloway (£16.10), Scottish Borders (£16.60) and Argyll & Bute (£16.70) and highest in East Renfrewshire (£26.30), East Dunbartonshire (£23.20) and Edinburgh (£21.40), although the majority of LAs (21 out of 32) lay between £17 and £19 during this period. Despite earnings being lowest in rural parts of Southern and Western Scotland, rural areas of Scotland generally perform relatively well compared with those in rUK. For example, among those LA areas with a population density of less than 100 people per square kilometre,

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Scottish LAs make up 6 of the 10 with the highest mean hourly earnings, but only 1 of the 10 with the lowest mean hourly earnings (Dumfries & Galloway).

11. Mean hourly earnings increased by more than average in virtually all Scottish LAs between 2002–04 and 2013–15, with 19 out of 32 Scottish LAs seeing an increase of at least 5 percentage points more than the rUK average during this period. Since the mid 2010s though, growth in earnings has slowed relative to rUK, especially in the North of Scotland. Indeed, between 2015 and 2022, mean monthly earnings in North Eastern Scotland fell from 130% to 114% of the average outside of London, and those in the Highlands & Islands from 94% to 90%, whereas in the rest of Scotland they broadly kept pace with growth in mean monthly earnings outside of London.
12. Mean household income per person is highest in North Eastern Scotland, parts of Lothian and the more affluent suburban LAs near Glasgow. 26 of Scotland's LAs have mean household incomes below the rUK average, but all bar 2 (Glasgow and Dundee) have levels at or above the average for the Midlands, North, Wales and Northern Ireland.
13. There is unsurprisingly a positive correlation between mean hourly earnings and mean household income per person, but this correlation was lower in 2019–21 (0.58) than in 2002–04 (0.81). This may reflect the importance of trends in income from other sources, such as pensions and pensioner benefits, and stronger income growth among pension-age than among working-age adults.

# 1. Employment, earnings and income in Scotland

This chapter takes a look at employment, earnings and incomes in Scotland, and compares levels and trends with the rest of the UK (rUK) and the rest of the UK excluding London. We start by looking at employment and household earnings from work, and how levels of and inequalities in earnings have evolved over time. We then examine how the picture changes when we look at total disposable income – including benefits and after tax. And we zoom in on low-income households, examining income poverty and deprivation in Scotland. Finally, we discuss how recent changes to devolved personal tax and benefit policy are likely to drive divergence in income inequality trends between Scotland and the rest of the UK, drawing on recent analysis from IFS.

Throughout the chapter, monetary amounts are reported in 2021–22 prices, and household earnings are adjusted to account for differences in household size by equivalising to the equivalent amount for a childless couple. Unless otherwise stated, we use HBAI (Households Below Average Income) data derived from the Family Resources Survey (FRS) from 1994–95 to 2021–22, and we report three-year rolling averages due to the small sample size when using Scotland-only data. For brevity, we refer to financial years by the first calendar year alone; for example, ‘2014’ means 2014–15 and ‘2014–16’ means the three financial years from 2014–15 to 2016–17. The last two data points we study – 2020 and 2021 – should be interpreted with caution, since disruption in sample collection related to the pandemic resulted in lower sample sizes, with 2020 particularly adversely affected. These data points are plotted with dashed lines.

## Employment and earnings inequality

### Employment

During the course of the late 2000s and early 2010s, Scotland’s employment rate among working-age adults was similar to and in some years higher than that of the rest of the UK, having closed a gap of several percentage points since the 1990s. This is illustrated in Figure 1, which shows working-age (below state pension age) employment rates.<sup>1</sup> For example, in 2014,

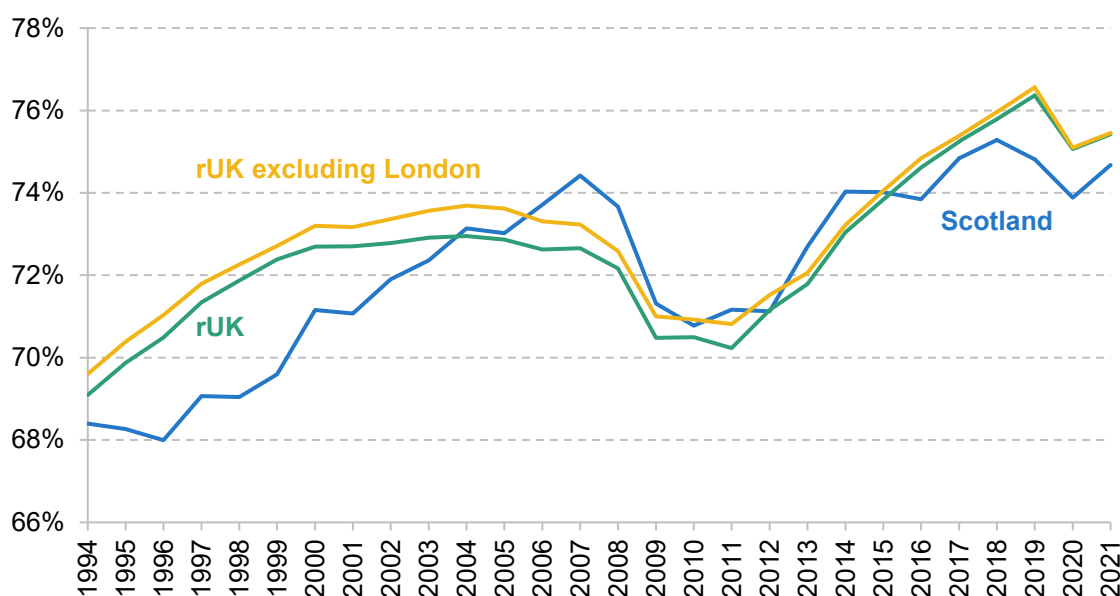
<sup>1</sup> This figure is derived from the FRS data. In the Labour Force Survey – the official source for labour market statistics – the trends are very similar, although the levels are slightly (2–3 percentage points) higher.

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the employment rate in Scotland was around 1 percentage point higher than the rate in rUK (74.0% versus 73.0%).

However, in the mid 2010s, employment in Scotland started to lag behind that in the rest of the UK, with a gap of around 1 percentage point re-emerging by the end of the decade. This seems to be driven by a decline in labour market participation rates (the share of adults who are either in work or looking for work) across age groups (Boileau and Phillips, 2023). So far, this gap does not seem to have closed since the pandemic.

**Figure 1. Individual employment rate, aged 16–64**

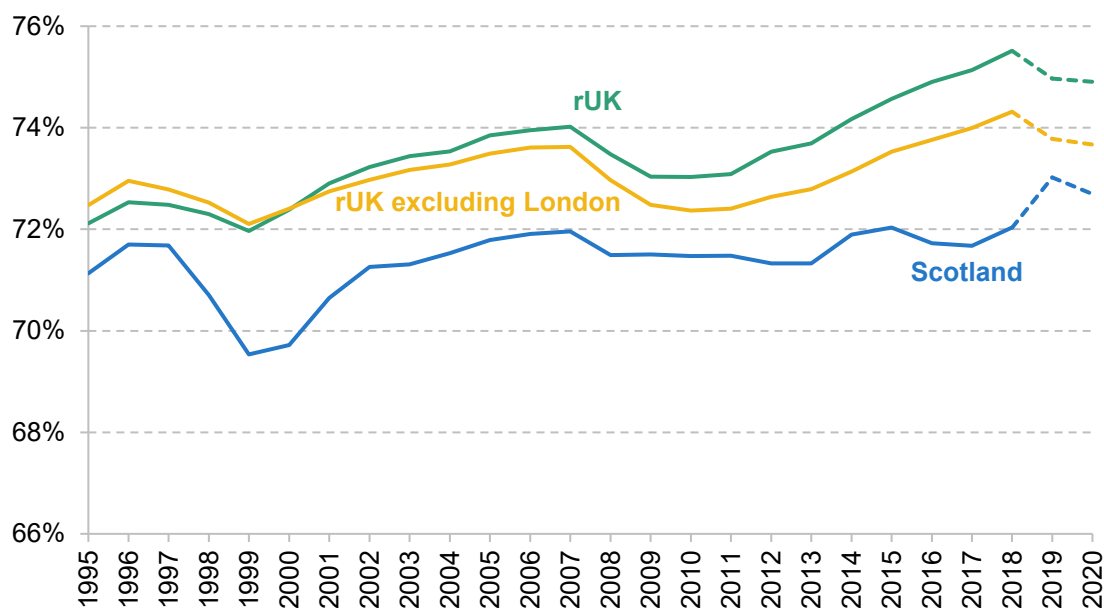


Source: Labour Force Survey dataset HI00, Office for National Statistics.

The focus of this chapter will be on household earnings and incomes, so Figure 2 examines how these trends in individual employment affect the proportion of people living in a household with at least one worker. Though individual employment rates in Scotland were very similar to rUK ones between the mid 2000s and mid 2010s, the same is not true for the share of people in a working household, which has been persistently lower in Scotland. While this proportion increased by 2.5 percentage points for the rest of the UK over the 2010s (substantially driven by London), Scotland experienced barely any increase at all, and just before the pandemic 72% of Scottish people were living in a working household, 3.5 percentage points lower than the rest of the UK. This is equivalent to 190,000 fewer Scots in working households than if the share of people in working households matched that in rUK. The gap particularly opened up after 2014 when individual employment rates in Scotland started to fall. Looking only at households without any pensioners reveals a similar story, so these trends are driven by changes among working-age households.



Figure 2. Percentage in working households



Note: A working household is defined as a household with non-zero earnings from employment or self-employment. Centred three-year rolling averages are reported. Sample is comprised of all households, including those with only pensioners in. The last two data points (representing 2018–20 and 2019–21) are dashed because disruption in sample collection during the pandemic affected the quality of the data (see discussion at the start of this chapter).

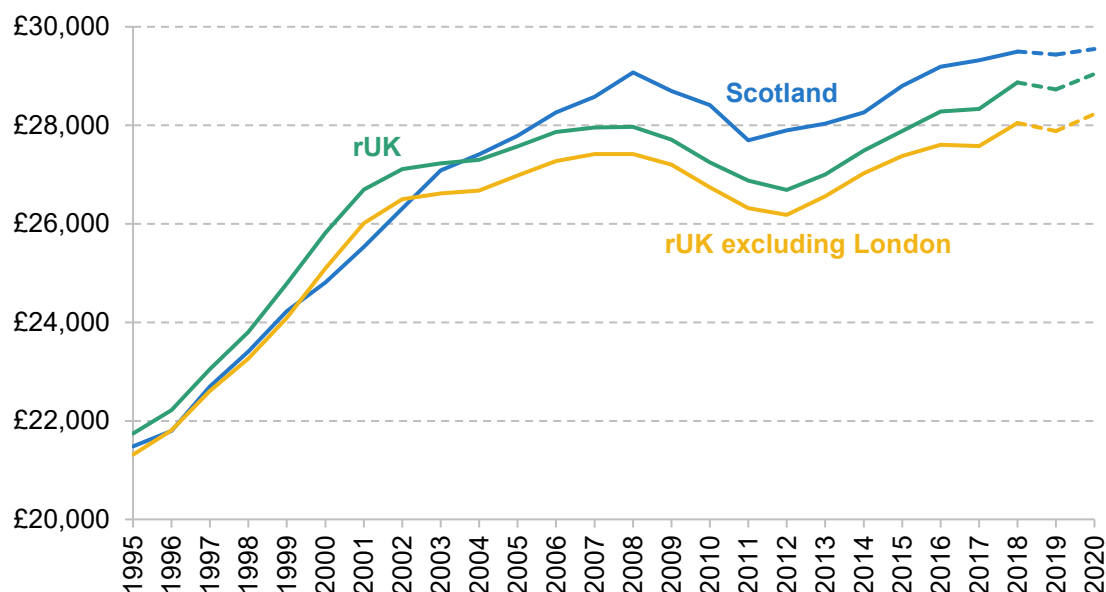
Source: Authors' calculations using the Family Resources Survey, 1994 to 2021.

## Household earnings among those in work

We now momentarily restrict our attention to households who are in work, so that we can examine average household earnings, and household earnings inequality, among this group. Median household earnings in Scotland were around £29,500 before the pandemic. Growth was sluggish over the course of the 2010s, following a significant fall as a result of the 2008 recession. When the pandemic hit, household earnings had only just surpassed their pre-recession level.

At the beginning of the 2000s, Scotland had lower median household earnings than rUK and than rUK excluding London (see Figure 3). But from the early 2000s to the early 2010s, Scottish working households had considerably faster earnings growth, allowing them to overtake and then pull away from rUK. Since 2004, Scotland has had consistently higher median household earnings, though the gap has narrowed in recent years as (London-driven) growth in rUK – still sluggish by historical standards – has outpaced Scotland's. It is important to remember that this is the median among *working* households, and so does not reflect that Scotland has more people in workless households than the rest of the UK.

**Figure 3. Median equivalised annual gross household earnings among individuals in working households**



Note: Gross household earnings include earnings from both employment and self-employment. Amounts have been equivalised using the modified OECD equivalence scale and are expressed in terms of equivalent amounts for a childless couple. Centred three-year rolling averages are reported. The last two data points (representing 2018–20 and 2019–21) are dashed because disruption in sample collection during the pandemic affected the quality of the data (see discussion at the start of this chapter).

Source: Authors' calculations using the Family Resources Survey, 1994 to 2021.

Looking beyond the median, we will now examine three measures of inequality in household earnings. The 90:10 ratio (which is the ratio of the 90<sup>th</sup> and 10<sup>th</sup> percentiles of the earnings distribution) gives us an idea of inequality between those close to the top and those close to the bottom of the earnings distribution. Then, by examining the 90:50 and 50:10 ratios, we will see whether differences in the 90:10 across time or nation are due to differences in inequality in the top half or the bottom half of the distribution.

Household earnings inequality, as measured by the 90:10 ratio, has been consistently lower and more stable in Scotland than in the rest of the UK (Figure 4). Before the pandemic, Scotland's 90<sup>th</sup> percentile of households had earnings 5.7 times greater than its 10<sup>th</sup> percentile. The ratio has hovered between 5½ and 6 from 1994 to 2019, with a fairly shallow trough in the 2000s. By contrast, the 90:10 ratio for the rest of the UK rose from just above 6 to just above 7 from the early 2000s up to the 2010s, and has only slowly declined since. Scotland's earnings are also more equal than those of rUK with London excluded, though the gap is not as large.

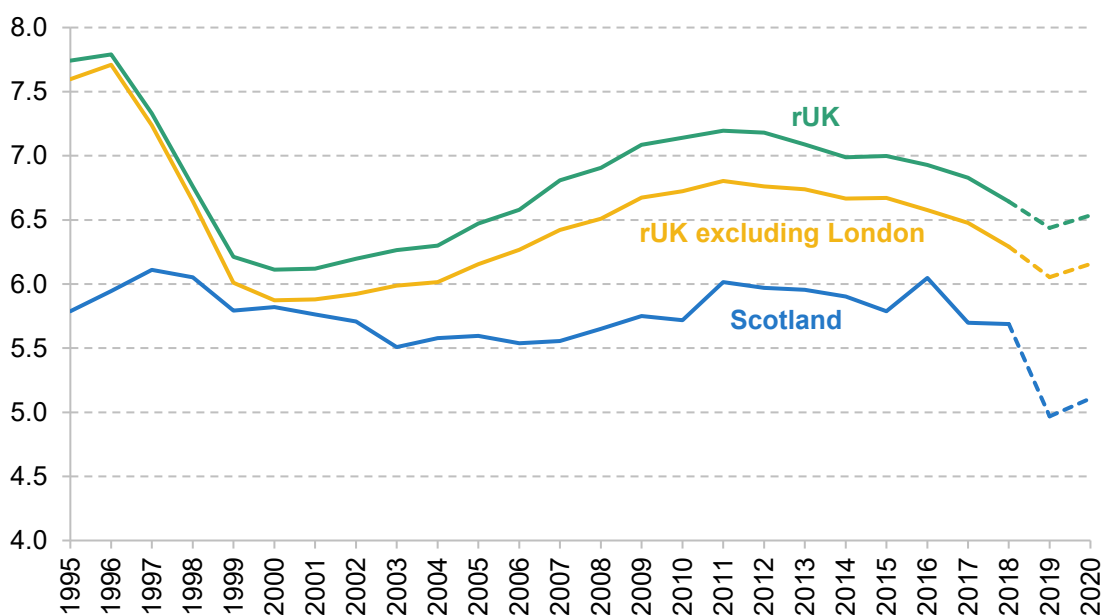
Scotland's lower earnings inequality is mostly explained by it having less inequality in the bottom half of the earnings distribution than the rest of the UK – shown by a 50:10 around 3 in Scotland, compared with closer to 3.5 in rUK over most of the 2010s (Figure A1 in the

appendix). While rUK experienced a significant rise in the 50:10 ratio over the 2000s, Scotland has, in broad terms, not seen much change since the mid 1990s.

The 90:50 ratio has been very stable over time throughout the UK – around 2 in Scotland and just above in rUK throughout the 2000s and much of the 2010s (Figure A2 in the appendix). It is worth noting that the 90:50 and 90:10 ratios do not take account of incomes at the very top, and it is likely that, on measures that did, rUK would have significantly higher upper-end inequality than Scotland due to the concentration of those receiving very high incomes in London.

Taken as a whole, among working households, earnings are more equal in Scotland, with lower-earning households being closer to middle-earning ones than in rUK. But the higher rate of worklessness means that there is a larger share that are getting no income from employment at all.

**Figure 4. 90:10 ratio for gross household earnings among individuals in working households**



Note: See Figure 3.

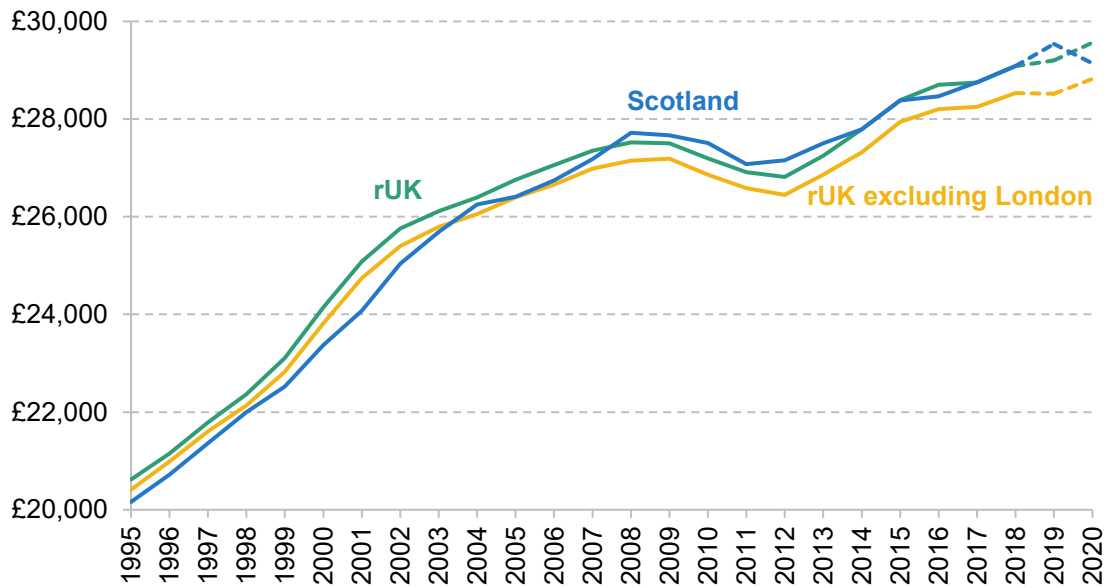
Source: Authors' calculations using the Family Resources Survey, 1994 to 2021.

We now turn to disposable household income, which takes account not only of earnings from work, but also of other sources of income including benefits, and is after deducting income tax, National Insurance contributions and council tax. The sample here includes not just working households, but all households, including those who are retired or otherwise out of work.

Naturally, disposable income depends significantly on the personal tax and benefit system, and over time this is becoming a more important driver of differences in trends as, in recent years, devolution has led to divergence between the personal tax and benefit systems in Scotland and the rest of the UK. We do not have enough recent data on disposable incomes yet to see the impact of all these policies, but these changes are discussed in more detail later in the chapter.

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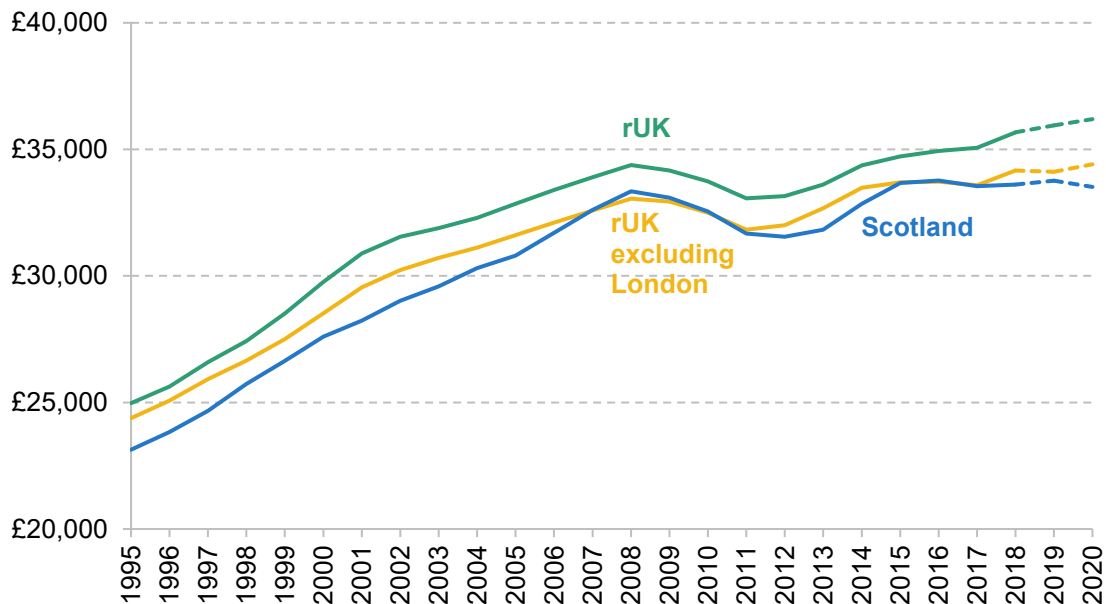
**Figure 5. Median annual disposable household income**



Note: Incomes have been measured net of taxes and benefits. All incomes have been equivalised using the modified OECD equivalence scale and are expressed in terms of equivalent amounts for a childless couple. Centred three-year rolling averages are reported. The last two data points (representing 2018–20 and 2019–21) are dashed because disruption in sample collection during the pandemic affected the quality of the data (see discussion at the start of this chapter).

Source: Authors' calculations using the Family Resources Survey, 1994 to 2021.

**Figure 6. Mean annual disposable household income**



Note: See Figure 5.

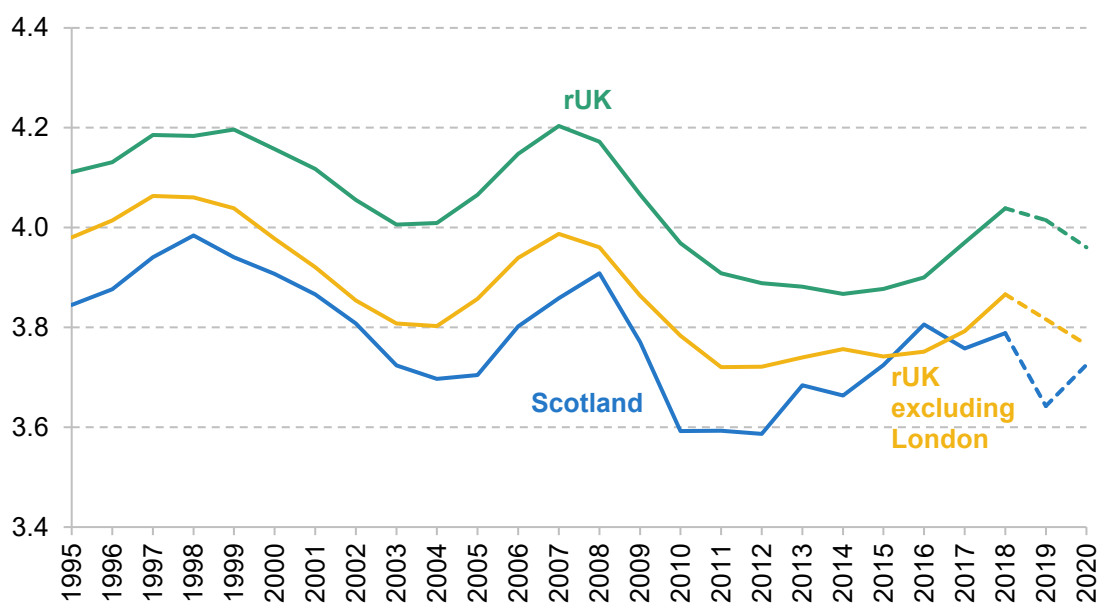
Source: Authors' calculations using the Family Resources Survey, 1994 to 2021.

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Median household income in Scotland was lower than that of rUK at the beginning of the year 2000, but it grew faster and, as a result, caught up over the following decade, as shown in Figure 5. This was a similar pattern to the trends in earnings within working households, albeit with much smaller differences between Scotland and rUK at all times. More recently, growth has slowed relative to rUK, with mean incomes showing an even more pronounced slowdown in Scotland (see Figure 6), as high incomes have seen especially sluggish growth.

But despite similarity at the median between Scotland and rUK, there are more notable differences elsewhere in the distribution. Figure 7 plots the 90:10 ratio for household income over time. Scotland's ratio was around 3.8 just before the pandemic, having steadily increased over the 2010s following a sharp fall after the 2008 recession. As in the case of earnings, the 90:10 for household income is lower in Scotland than in the rest of the UK. But the gap is much smaller for income than it is for earnings. This likely reflects the greater prevalence of household worklessness somewhat offsetting lower inequality among households in work.

**Figure 7. 90:10 ratio for disposable household income**



Note: See Figure 5.

Source: Authors' calculations using the Family Resources Survey, 1994 to 2021.

Moreover, the gap between Scotland and rUK closed over the course of the 2010s, as Scotland's 90:10 slowly ticked up. The 90:10 in rUK fell then rose again from 2009–11 to 2017–19, so that it was around 4.0 at the start and end of the decade. But Scotland's 90:10 increased over the decade from 3.6 to 3.8, closing the gap by a half, and giving it a comparable 90:10 to rUK with London excluded.

The lower 90:10 ratio seen in Scotland over the last few decades is driven by a lower 90:50 ratio, with the 50:10 ratio being fairly similar in Scotland and rUK (see Figures A3 and A4 in the appendix) – in other words, it is because the rich in Scotland are not as well off as the rich in rUK. Reforms to Scottish benefits have not resulted in drastic changes in the 50:10 so far, but some of the most significant of those changes (such as the expansion of the Scottish child payment) are beyond the end of our data, meaning that it may simply be too early to see the effect.

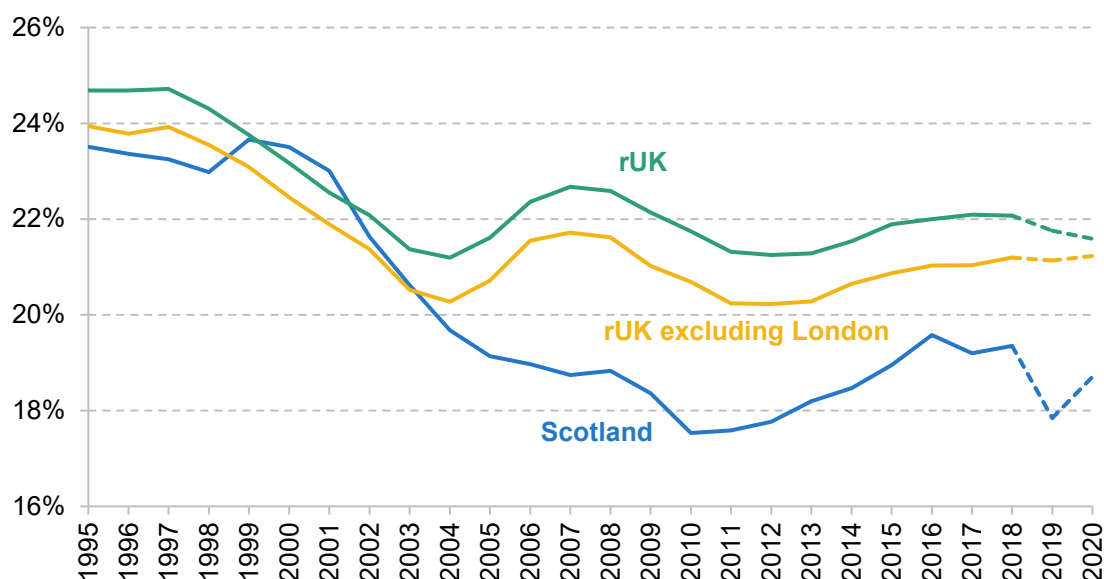
Ultimately, it remains the case that Scotland is slightly more equal than rUK in terms of disposable income, but that it is much closer to rUK on this metric than in terms of household earnings, as higher household worklessness counteracts the significantly more equal earnings distribution. Going forward, increasing divergence between the tax and benefit systems of Scotland and those elsewhere in the UK has the potential to open up bigger differences in household income inequality.

## Income poverty and deprivation

Having examined inequality across the distribution as a whole, we now turn to look at the living standards of households on lower incomes. In this section, we will focus on low-income poverty, with incomes calculated after deducting housing costs (AHC), and measures of material deprivation. We use the AHC measure of poverty because many of the differences in housing costs faced by poorer households are not related to differences in housing quality, but rather tenure, and to account for the fact that housing benefit covers some low-income renters' housing costs (so if their rents increase, they experience an increase in before-housing-costs (BHC) income but no increase in living standards). Once again, we do not yet have sufficient data to reliably see the full impact of changes to devolved taxes and benefits.

Relative poverty (defined as having a household income below 60% of the UK-wide median) in Scotland has been below that of rUK since the mid 2000s, as shown in Figure 8. The rate was 19% just before the pandemic, 3 percentage points below that of rUK. A significant part of the reason why poverty is so much lower in Scotland is differences in housing costs. Compared with the rest of the UK, a much higher proportion of Scottish people live in social housing, where rents are much lower than in the private rental market. 59% of renters in Scotland are social renters, compared with 45% of renters in the rest of the UK, and even among social renters, those in Scotland pay lower rent (Joseph Rowntree Foundation, 2022). This is one of the factors underlying the fact that the housing costs of those in poverty in Scotland are almost £2,000 per year lower than in rUK on average. Rates of BHC income poverty in Scotland are much closer to those in the rest of the UK, with inequalities in disposable BHC incomes at the bottom of the distribution similar in both areas, as shown in the previous section.

Figure 8. Relative AHC income poverty



Note: Incomes have been measured net of taxes and benefits. All incomes have been equivalised using the modified OECD equivalence scale. Relative poverty gives the percentage of individuals with household incomes below the contemporaneous UK median. Centred three-year rolling averages are reported. The last two data points (representing 2018–20 and 2019–21) are dashed because disruption in sample collection during the pandemic affected the quality of the data (see discussion at the start of this chapter).

Source: Authors' calculations using the Family Resources Survey, 1994 to 2021.

Figure 8 also shows that relative poverty increased in Scotland notably over the course of the 2010s, while it was much flatter in rUK. The fact that Scottish household worklessness is higher might mean that low-income households in Scotland were more exposed to real-terms benefit cuts in the period. In addition, social housing rents, although still lower than in England, grew at a faster rate than those in England in the late 2010s (Scottish Government, 2019), also likely contributing to the divergence in poverty trends.

Figure A5 in the appendix shows how Scotland compares with rUK for absolute poverty (defined as having a household income below 60% of the 2010 UK-wide median in real terms). Unlike relative poverty, in general absolute poverty rates tend to fall over time as incomes grow; the rUK–Scotland differences, however, are similar to those seen for relative poverty.

## Poverty and deprivation for different groups

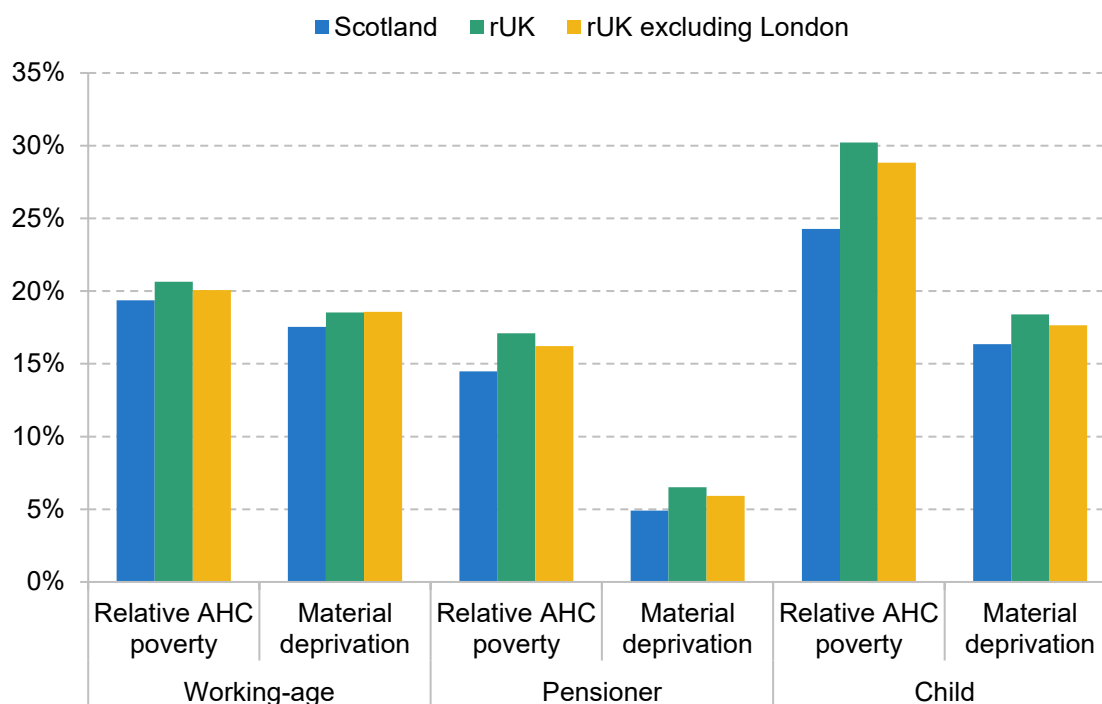
We now shift our focus from the overall poverty rate to how specific groups fare, and examine how these compare with another measure of low living standards – material deprivation. This index measures the extent to which families are unable to afford certain key items, such as the

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ability to heat the home or buy warm clothing. Figure 9 plots both these measures for working-age adults, pensioners and children.<sup>2</sup>

Scotland has lower poverty rates than rUK for all three demographic groups, though the biggest gap is for children (for whom the poverty rate is 24% in Scotland, compared with 30% in rUK). Housing costs play a big role in this, with most of the child poverty gap between Scotland and rUK eliminated if a BHC measure is used. Housing costs also push down poverty for working-age adults and pensioners, though to a lesser extent.

**Figure 9. Rates of material deprivation and relative AHC poverty, 2017–19**



Note: The material deprivation figures refer to material deprivation only, not the combined measure of relative low income (measured using 70% of median income as the poverty line) and material deprivation reported as part of HBAI statistics for children and working-age adults. Relative poverty gives the percentage of individuals with household incomes below the contemporaneous UK median. Incomes have been measured net of taxes and benefits. All incomes have been equivalised using the modified OECD equivalence scale. We use data from 2017–19 because deprivation measures based on pandemic data included questions on the affordability of items which were impossible to access due to COVID restrictions.

Source: Authors' calculations using the Family Resources Survey, 2017 to 2019.

<sup>2</sup> The material deprivation items asked of each of these groups differs, and so there is no 'overall' material deprivation rate.



Looking at the deprivation measures, Scotland also has lower material deprivation for every group considered here, though the gap for children is somewhat more modest. Scotland, like rUK, saw decreases in material deprivation for all three groups over the 2010s, even as relative poverty increased.

As will be discussed in the next section, tax and benefit policy is likely to have the effect of reducing Scottish child poverty further, increasing the gap relative to the rest of the UK.

### Role of devolved tax and benefit policy

The figures on incomes we have looked at so far reflect many different factors, including changes in earnings, employment and incomes from other sources. One factor which has become very important in recent years is reforms to Scottish tax and benefit policy. But many of these changes have only occurred since 2021, when our income data end, so we have not so far seen the full effect of these. This section focuses specifically on these reforms, using the IFS tax–benefit microsimulator (TAXBEN) to model their impact for Scottish incomes.

Scotland has had certain powers devolved to vary income tax (since 2017) and benefit policy (since 2018). These powers are detailed in Box 1. It has exercised these powers more and more over time, driving a steadily wider gap between Scottish and rUK tax–benefit policy. Overall, the impact of these devolved decisions is likely to be inequality reducing. The Scottish income tax system increases total income tax liabilities for workers earning above £28,000, with bigger differences as one goes further up the earnings distribution. Meanwhile, the changes to benefits will increase entitlements for families in the lower half of the income distribution quite significantly. Much of the policy differences between rUK and Scotland (especially for benefits) came into effect after 2021 when our analysis in the previous section ended, and so only partially affect the trends we have been able to assess thus far.

The estimated impact of these policies on household incomes in 2023 is illustrated in Figure 10. Whilst the overall impact of Scottish policy at the median is very small, boosts to incomes of between 3% and 5% for the poorest fifth of households, and reductions of 1–2% for the richest fifth, are likely to have notable impacts on patterns of inequality and poverty.

### **Box 1. Difference in the personal tax and benefit system between Scotland and the rest of the UK**

#### **Income tax for non-savings non-dividend income**

- Since 2017, the Scottish Parliament has had flexibility to set all bands and rates other than the personal allowance, which remains subject to UK government policy.
- It has used these powers to introduce a new system with more bands than and different rates from the rest of the UK. The most important changes are a much lower higher-rate threshold (the point at which higher-rate tax begins to be due), which is £43,663 in Scotland and £50,270 in rUK; and increased higher and additional rates of tax (42% and 47% in Scotland respectively, compared with 40% and 45% in rUK).
- The result of this is that all individuals earning above £28,000 pay more income tax, with increasing differences further up the earnings distribution. Those earning below £28,000 pay very slightly less (at most £22 per year). This means that most Scots in work pay more tax than they would under the rUK regime.

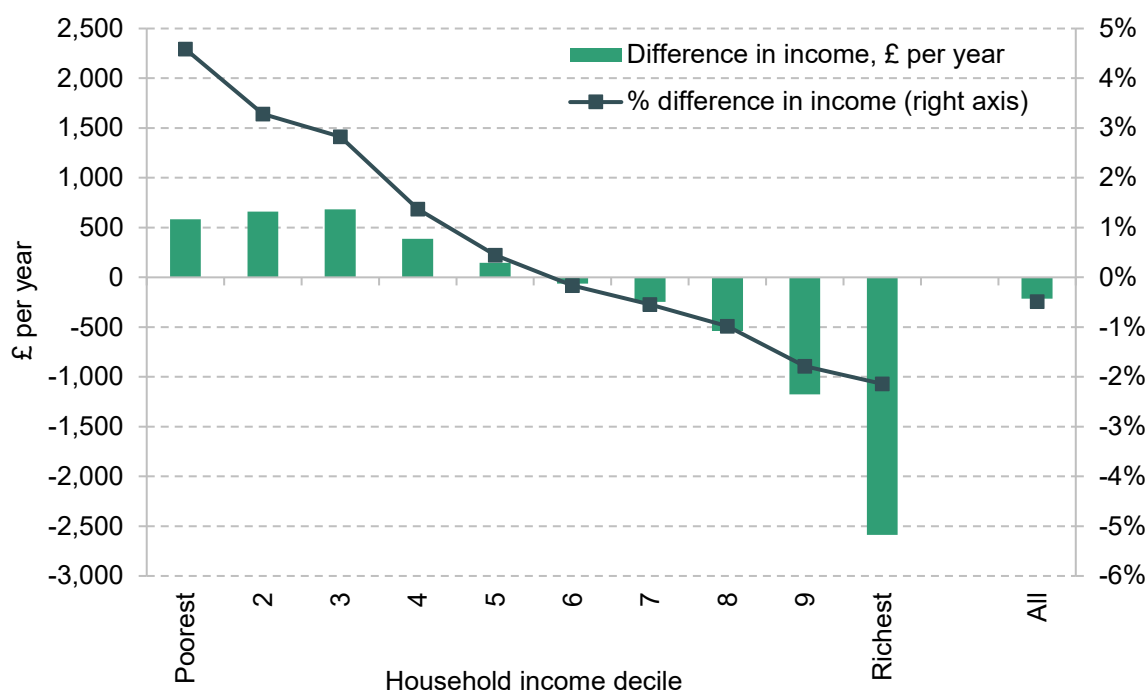
#### **New benefits for children**

- The Scottish child payment was introduced in 2021 and provided low-income parents of under-6s with a payment of £10 per week. This later increased to £20 per week, and in November 2022 the payment was increased to £25 and eligibility was expanded to under-16s.
- Best Start grants were introduced in 2019, replacing Sure Start maternity grants and providing a higher level of support (via three one-off lump-sum payments) for low-income families with babies and young children.

#### **Other benefits**

- Some UK-wide benefits are topped up in Scotland. Those receiving carer's allowance also receive a supplement from the Scottish Government. Payments are also available in Scotland to mitigate the impact of the benefit cap and the so-called 'bedroom tax'.
  - A new system of disability benefits is being brought in, which will have a different process for claim assessment and management, though rates and formal eligibility criteria will be the same. The Scottish Fiscal Commission (2022) expects that this will increase disability benefit spending by 19% by 2027. This change is not incorporated in Figures 10 and 11.
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**Figure 10. Household disposable income under the Scottish tax and benefit system, compared with the system in England and Wales, April 2023**

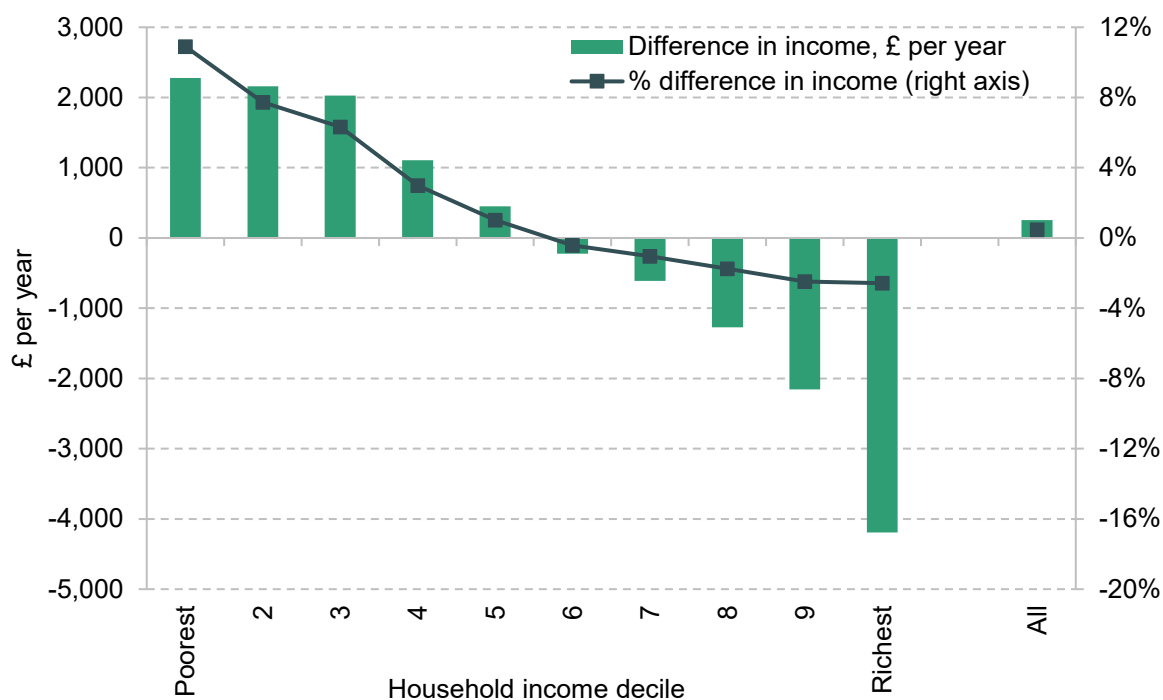


Note: Scottish policies modelled include the Scottish income tax system, Scottish child payment and Best Start payments, the carer's allowance supplement, and mitigation of the under-occupancy charge and benefit cap. Differences between the Scottish and rGB council tax systems are not modelled. Income changes shown are before any behavioural response from households. This is especially important for the increase in the additional rate of income tax, which the Scottish Fiscal Commission (2022) expects to generate significant behavioural response – for example, reducing income or migrating out of Scotland.

Source: Figure 5.3 from Waters and Wernham (2023).

Increases in incomes as a result of Scottish policy are particularly concentrated on households with children, due to the role of the Scottish child payment and Best Start grants (see Box 1). The Scottish child payment in particular represents a large increase in benefits with the explicit aim of reducing child poverty (Scottish Government, 2022b). While the impact of these policies is not yet apparent from the data, the Scottish Government (2022a) estimates that the Scottish child payment alone will reduce the child poverty rate by 5 percentage points in 2023–24. Our analysis confirms significant gains for poorer families with children: Figure 11 shows that the poorest 30% of households with children gain more than £2,000 per year on average due to Scottish policy. Amongst the poorest tenth, households with children have incomes 11% higher than they would under rGB's system.

Figure 11. Household disposable income under the Scottish tax and benefit system, compared with the system in England and Wales, April 2023: households with children



Note: Scottish policies modelled include the Scottish income tax system, Scottish child payment and Best Start payments, the carer's allowance supplement, and mitigation of the under-occupancy charge and benefit cap. Differences between the Scottish and rGB council tax systems are not modelled. Income changes shown are before any behavioural response from households. This is especially important for the increase in the additional rate of income tax, which the Scottish Fiscal Commission (2022) expects to generate significant behavioural response – for example, reducing income or migrating out of Scotland.

Source: Figure A.2 from Waters and Wernham (2023).

## 2. Geographical patterns, trends and inequalities

The last chapter looked at how employment, earnings and incomes in Scotland as a whole compare with those in the rest of the UK, and how they vary across Scottish households. In this chapter, we instead look at how employment, earnings and incomes vary geographically across Scotland's 32 local authority (LA) areas, and how these different parts of Scotland compare with the rest of the UK (rUK), both including and excluding London.

In this chapter, monetary amounts are reported in April 2022 prices. In addition, household incomes are reported on a per-person basis, rather than on an equivalised basis (such data do not exist at an LA level on a comparable basis across the UK). We use employment data from the Annual Population Survey (APS), earnings data from the Annual Survey of Hours and Earnings (ASHE) and Real Time Information (RTI) from employers' payrolls reported to HMRC, and household disposable income estimates from regional national accounts. We use three-year rolling averages for the APS employment and ASHE earnings data to account for the relatively small sample sizes at LA level (particularly smaller LAs such as the Orkney Islands, Shetland Islands and Eilean Siar). These are averages of calendar years for the APS (hence, 2020–22 refers to the calendar years 2020, 2021 and 2022) and the averages for three consecutive Aprils for ASHE (hence, 2020–22 refers to April 2020, April 2021 and April 2022).

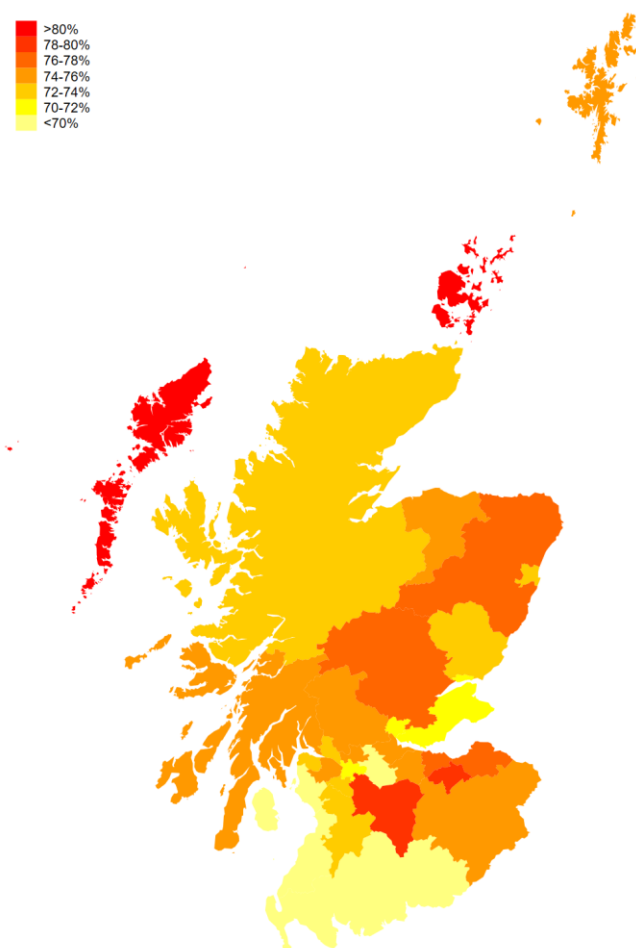
### Employment across Scotland

Employment rates for adults aged 16–64 vary significantly between the Scottish LAs with the highest and lowest levels of employment. This is illustrated in Figure 12 for the years 2020–22, when the estimated rate varied from around 69% in Dumfries & Galloway, North Ayrshire, North Lanarkshire and South Ayrshire, to 81% in the Orkney Islands and 82% in Eilean Siar. Among the larger Scottish cities, employment was lower than the national average (74%) in Dundee (71%) and Glasgow (71%), similar to the national average in Aberdeen (73%) and above the national average in Edinburgh (77%).

This LA-level variation in employment rates has been persistent over time: of the 10 LAs with the lowest employment rates in 2004–06, 8 were still among the 10 with the lowest employment rates in 2020–22; and of the 10 with the highest employment rates in 2004–06, 5 were still among this group in 2020–22. However, the degree of persistence is lower in Scotland than in the rest of Great Britain: the correlation between local employment rates in 2004–06 and 2020–

22 in Scotland is 0.62, compared with 0.67 in England (and 0.74 in England outside of London) and 0.77 in Wales. In other words, while those Scottish LA areas that had low employment rates in 2004–06 were more likely than not to still have low employment rates in 2020–22, there has been somewhat more churn in employment rates across Scotland than in the rest of Great Britain.

**Figure 12. Employment rates by Scottish LA for adults aged 16–64, 2020–22**

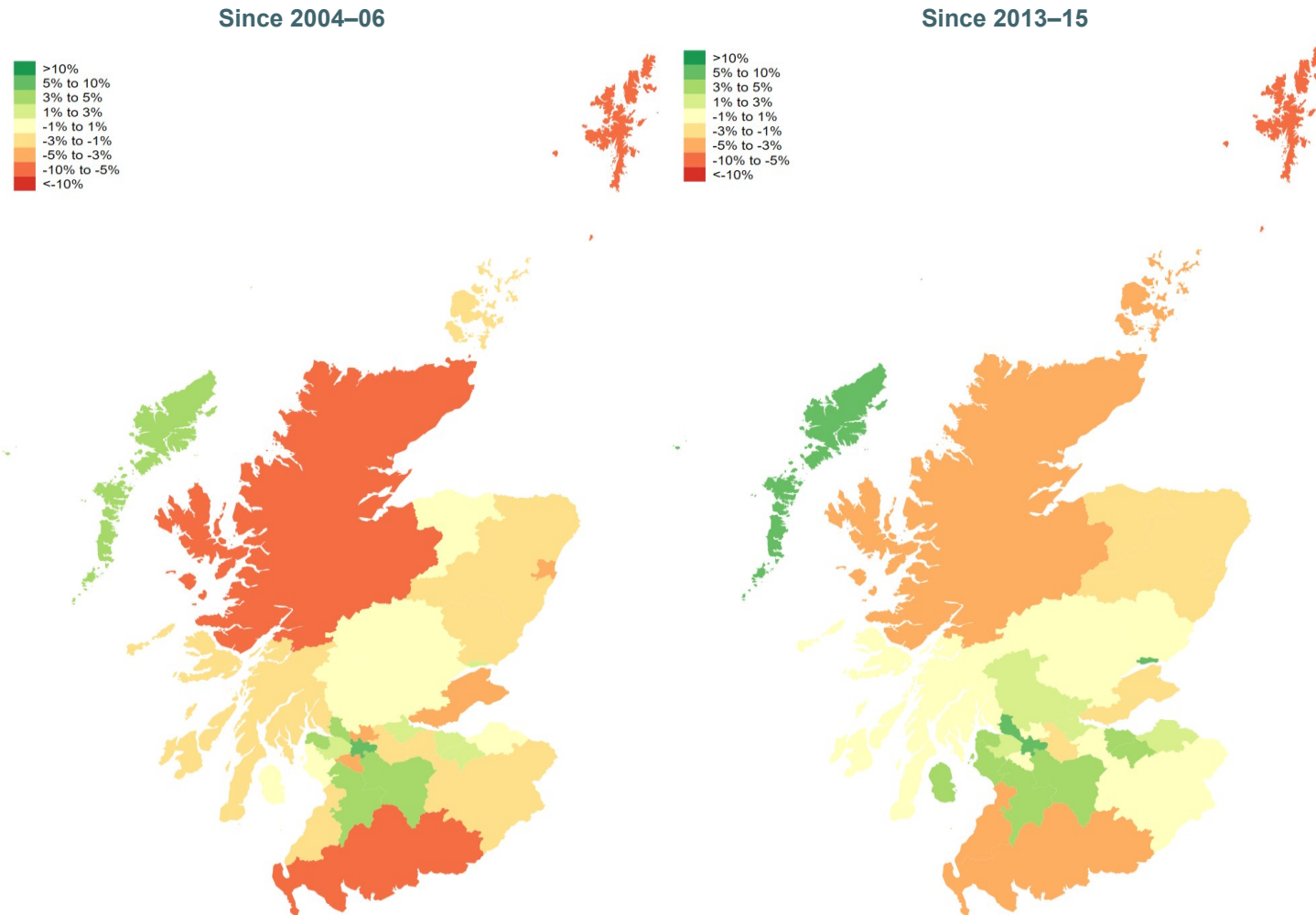


Source: Annual Population Survey, 2020 to 2022 waves.

This churn is illustrated in Figure 13, which shows the change in employment rates since 2004–06 (left panel) and since 2013–15 (right panel) by Scottish LA. The maps show that between 2004–06 and 2020–22, estimated employment rates fell by over 5 percentage points (ppt) in Shetland (–9ppt), Dumfries & Galloway (–7ppt) and the Highlands (–6ppt), in the far North and far South of Scotland, but have increased in a broad swathe of West Central Scotland: Glasgow (+7ppt), South Lanarkshire (+5ppt), Inverclyde (+5ppt), West Dunbartonshire (+3ppt) and Renfrewshire (+1ppt). Much of this reflects trends in the period since 2013–15, during which employment rates have increased in most of the Central Belt of Scotland (especially West Central Scotland), but fallen in most of the North and in Dumfries & Galloway.

## 21 Employment, earnings and incomes in Scotland

Figure 13. Change in employment rates by Scottish LA for adults aged 16–64, up to 2020–22

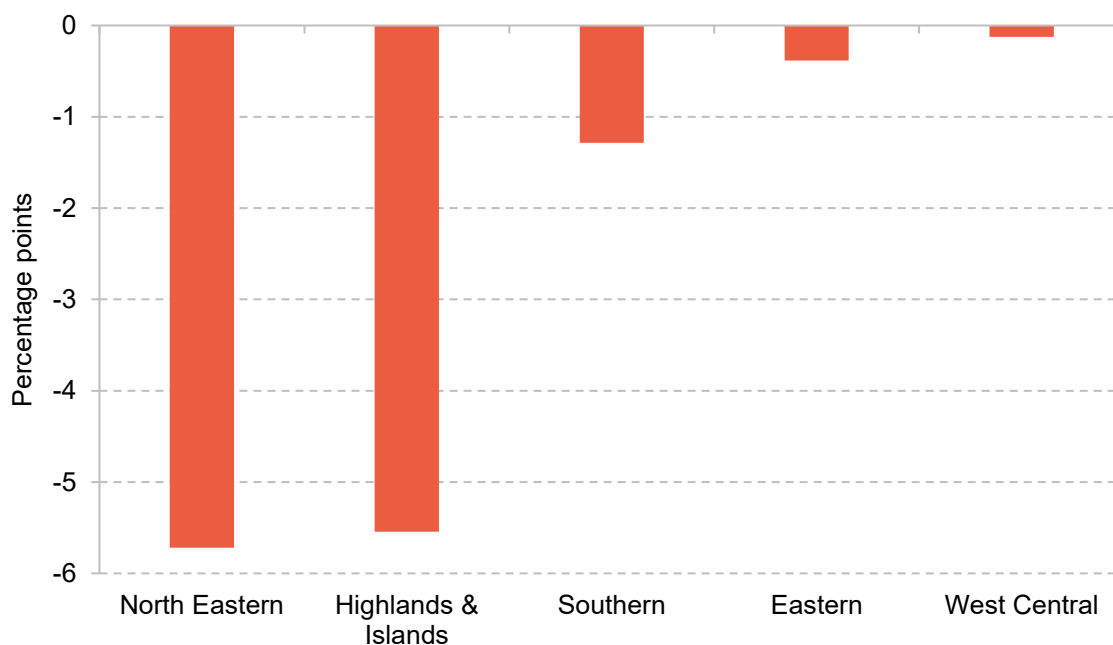


Source: Annual Population Survey: 2004, 2005, 2006, 2013, 2014, 2015, 2020, 2021 and 2022 waves.

## 22 Employment, earnings and incomes in Scotland

The previous chapter showed how employment rates in Scotland have lagged behind those of rUK in the period since around 2014. This is not the result of trends in just a few Scottish LAs: the employment rate has fallen relative to that of the rest of the UK in 22 out of 32 Scottish LAs, with the fall being around 2.5 percentage points or more in half of Scottish LAs. The biggest falls in employment rates relative to rUK are geographically concentrated though: in Shetland (–12ppt), Orkney (–7ppt), the Highlands (–7ppt), Aberdeenshire (–6ppt) and Aberdeen (–6ppt) in the North and North East, and Dumfries & Galloway (–7ppt) and South Ayrshire (–6ppt) in the South West. The LA areas with increases in employment rates relative to rUK include Dundee (+5ppt), Glasgow (+3ppt) and Edinburgh (+2ppt), as well as a number of the poorer areas surrounding Glasgow such as West Dunbartonshire (+3ppt) and Inverclyde (+2ppt).

**Figure 14. Change in employment rates for adults aged 16–64 relative to rUK, between 2013–15 and 2020–22**



Source: Annual Population Survey: 2013, 2014, 2015, 2020, 2021 and 2022 waves.

At a regional level within Scotland, employment rates have declined significantly relative to rUK in the North East of Scotland (–6ppt) and Highlands & Islands (–6ppt) since 2013–15, as illustrated in Figure 14. This reflects the fact that the employment rates in these regions have fallen by around 3ppt since 2013–15, while they have increased by around 3ppt in rUK. The changes in relative employment rates in Southern Scotland (–1ppt), Eastern Scotland (–0.4ppt) and West Central Scotland (–0.1ppt) have been much more muted, reflecting the fact that growth in the employment rate in these regions (2–3ppt) has broadly kept pace with that in rUK. These local and regional patterns likely reflect, at least to some extent, the decline in oil and gas activity in the North Sea, and knock-on effects to onshore ancillary services and local economies in Northern Scotland. Because there are not similarly exposed LAs in other parts of the UK, this



economic shock may also explain the somewhat lower degree of persistence in local employment rates seen in Scotland than in rUK.

The falls in employment relative to rUK mean that whereas just over half (17) of Scotland's 32 LA areas were in the top 50% of all LAs for employment in the period 2004–06, it was just under half (14) by 2013–15, and just a quarter (8) by 2020–22. Compared with LAs outside London and the South of England, the change has been less dramatic, but still evident: whereas around two-thirds (21) of Scottish LAs were in the top 50% of this group in 2004–06, this had declined to half (16) by 2020–22. In other words, the distribution of employment rates across Scottish LAs has moved from being roughly in line with the distribution in the rest of the UK in 2004–06 to roughly in line with Wales, the Midlands and the North of England as of 2020–22.

At the same time, inequality in employment rates across LAs has fallen by more in Scotland than in rUK outside of London. For example, whereas the standard deviation in the employment rates of Scottish LAs has fallen by roughly a quarter (from 4.5% to 3.4%), it has fallen by just over a tenth (from 4.7% to 4.2%) in rUK outside London. In other words, while there has been some convergence in LA-level employment rates in England and Wales, the convergence has been greater in Scotland. This likely reflects the fact that not only have some Scottish LAs with particularly low employment rates to begin with (such as Glasgow, West Dunbartonshire and Inverclyde) seen increases in employment – a pattern that can be observed south of the border too – but also a number of areas with particularly high employment rates to begin with (such as in the North and North East of Scotland) have seen falls in employment. Part of the narrowing in gaps in employment rates across Scotland therefore likely reflects the negative economic impacts of declining oil and gas activity.

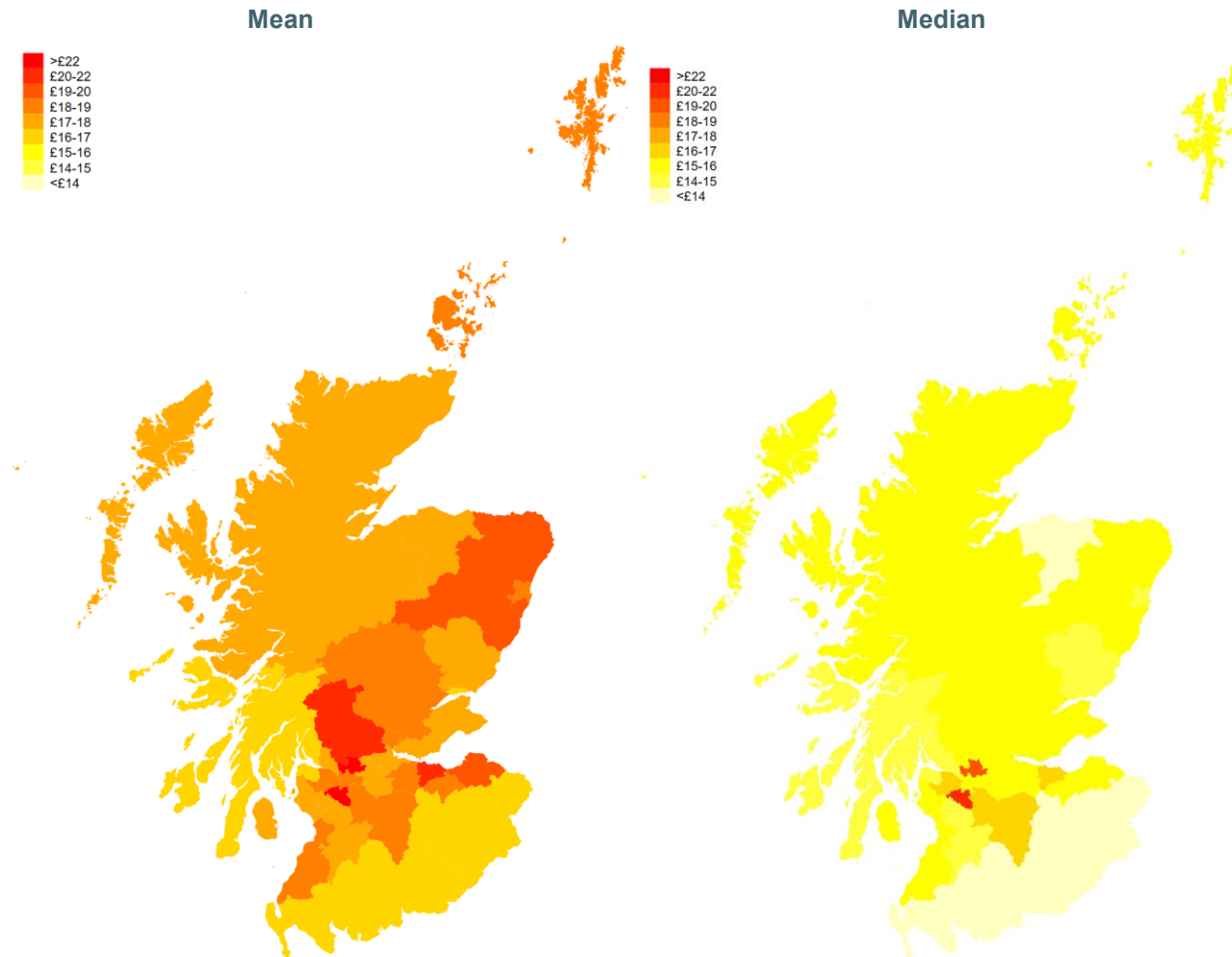
It is worth noting, however, that the employment rate remains above the Scottish average in the North East (75%) and Highlands & Islands (75%), and substantially above the level in the West Central region surrounding Glasgow (71%).

## Earnings across Scotland

Earnings also vary notably across Scotland. This is illustrated in Figure 15, which shows the mean and median hourly wage by LA, based on where people live (rather than where they work).

## 24 Employment, earnings and incomes in Scotland

Figure 15. Hourly earnings, all employee jobs, 2020–22 (April 2022 prices)



Source: Annual Survey of Hours and Earnings, 2020 to 2022 waves.

## 25 Employment, earnings and incomes in Scotland

Mean hourly earnings in 2020–22 varied from £16.10 in Dumfries & Galloway to £26.30 in East Renfrewshire in the Glasgow suburbs. These examples reflect more general patterns. For instance, mean hourly earnings were low in several other rural parts of Southern and Western Scotland such as Scottish Borders (£16.60) and Argyll & Bute (£16.70), as well as in some deprived urban areas such as Dundee (£16.70) and Inverclyde (£16.90). On the other hand, they were relatively high in East Dunbartonshire (£23.20), also in the Glasgow suburbs, as well as in Edinburgh (£21.40) and Stirling (£21.20). A majority (21 out of 32) of Scottish LAs had mean hourly wages of between £17 and £19 during this period though.

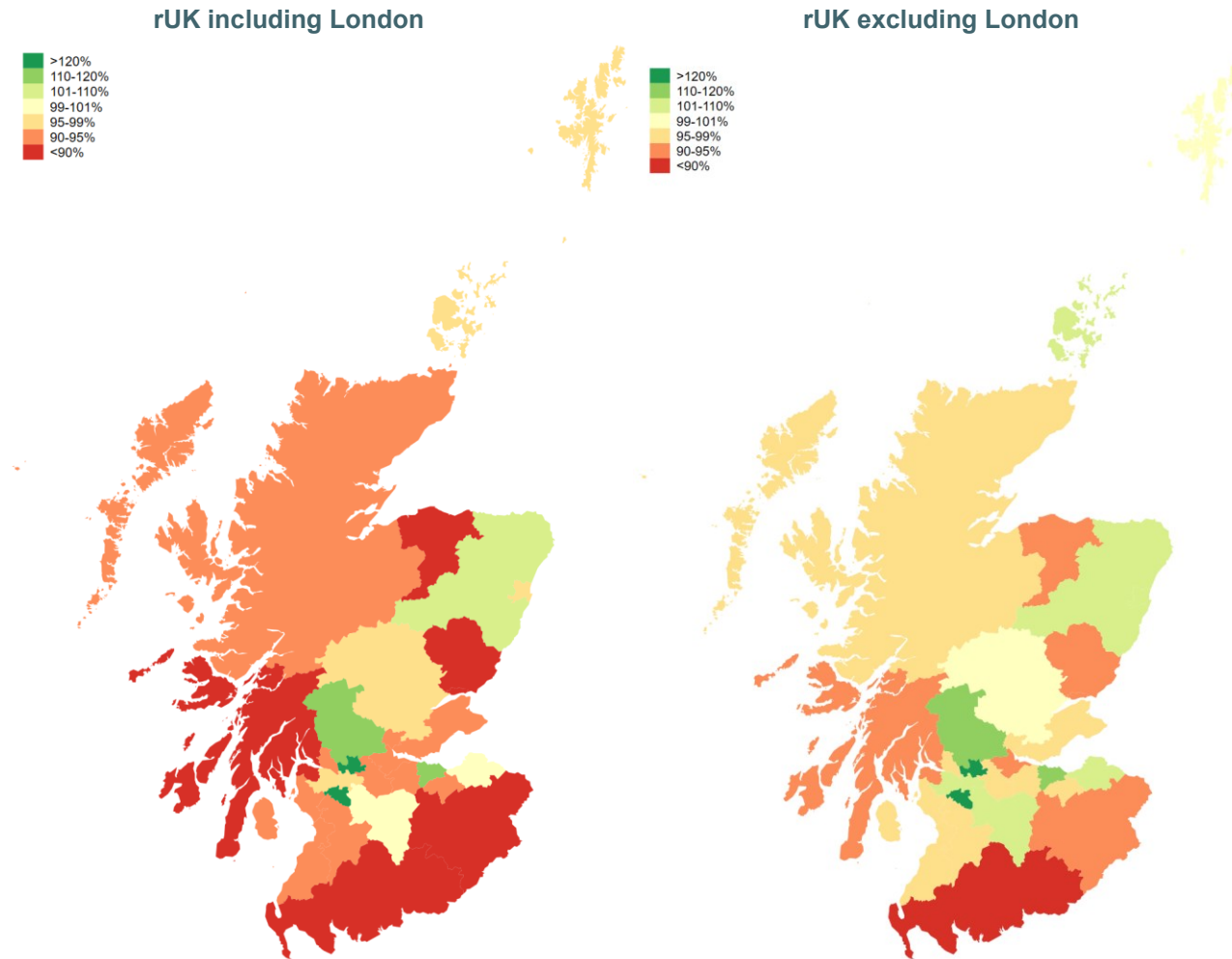
Median hourly earnings were lower (because, unlike the mean, they are not affected by the very highest earnings levels) and varied from £13.00 in Dumfries & Galloway to £21.80 in East Renfrewshire. The geographical pattern more generally was very similar to that for mean earnings, although with some exceptions: for example, Aberdeen City had the 8<sup>th</sup>-highest mean hourly earnings in 2020–22, but the 24<sup>th</sup>-highest median hourly earnings, potentially reflecting very high earnings in the oil and gas (and ancillary) sectors dragging up the mean. Three-quarters (24 out of 32) Scottish LAs had a median hourly wage of between £14 and £16.

Mean hourly earnings in Scotland in 2020–22 were 97.5% of the average in rUK, and 101.5% of the average in rUK outside of London. However, only 5 out of 32 Scottish LAs had mean earnings that exceeded the rUK average in those years (Aberdeenshire (101%), Stirling (111%), Edinburgh (111%), East Dunbartonshire (121%) and East Renfrewshire (137%)); and only 12 out of 32 had mean earnings that exceeded the average in rUK outside of London: all in either the Central Belt or North East of Scotland. This is illustrated in Figure 16.

LA-level geographical inequality in mean hourly earnings in Scotland is lower than in rUK and rUK outside London, but higher than in rUK excluding the South of England. For example, the standard deviation of LA-level mean earnings in 2020–22 was £2.03 for Scotland, compared with £3.17 for rUK as a whole, £2.51 for rUK excluding London and £1.64 for rUK excluding the South of England.

Previous research has shown that the majority of the variation in earnings between different parts of the UK reflects differences in the characteristics of workers – most notably their education levels. Overman and Xu (2022) estimate that 64% of the variation in wages between travel-to-work areas (typically larger than LA areas) in Great Britain between 2012 and 2019 was statistically explained by variation in observable worker characteristics (‘worker effects’) – such as their education level, ability, age, gender and whether they are working full or part time. Around 10% was due to differences in how much workers with given characteristics earn different amounts depending on location (‘area effects’). The remaining 26% of the variation was because workers with characteristics associated with high earnings were concentrated in areas with high earnings conditional upon characteristics (‘interaction effects’).

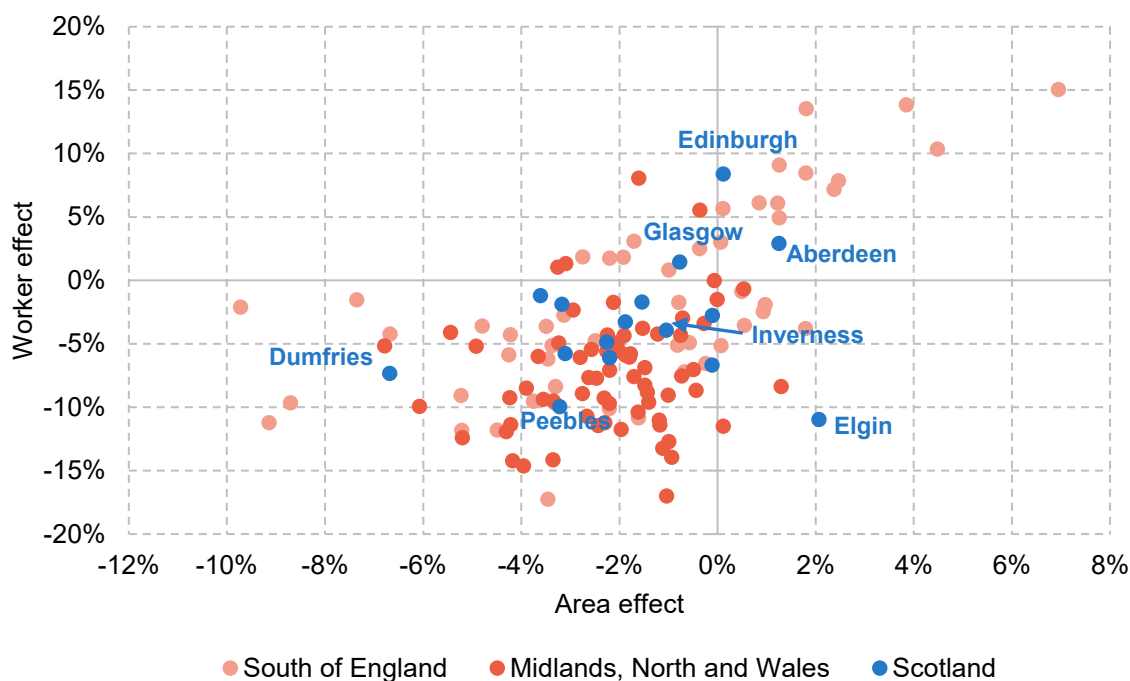
Figure 16. Mean hourly earnings, all jobs, as a percentage of rUK average with and without London, 2020–22



Source: Annual Survey of Hours and Earnings, 2020 to 2022 waves.

Figure 17 uses data from Overman and Xu (2022) to look at how the ‘worker effects’ and ‘area effects’ on mean hourly earnings for Scottish travel-to-work areas (in blue) compare with those in the rest of Great Britain (in pink for the South of England, and in red for Wales, the Midlands and the North of England). The figure shows that Scottish areas are represented at both the low and high ends of the distribution for both ‘worker’ and ‘area’ effects – performing less well on both fronts than the South of England, on average, but better than the Midlands, the North and Wales (particularly for worker effects). Within Scotland, relatively high earnings in the Aberdeen and Edinburgh travel-to-work areas reflect both relatively high ‘worker’ and ‘area’ effects. The Glasgow travel-to-work area, while slightly below the Great Britain average in terms of its ‘area’ effect, performs well on both compared with most of the rest of Scotland, and with the majority of travel-to-work areas in the rest of Great Britain (the average for which is pulled up by the large London travel-to-work area). Among more rural areas, both the Dumfries and Galashiels & Peebles travel-to-work areas in Southern Scotland perform poorly in terms of both ‘worker’ and ‘area’ effects. In contrast, the Elgin travel-to-work area has the lowest ‘worker’ effect in Scotland, but the highest ‘area’ effect, going against the typical pattern of ‘worker’ and ‘area’ effects being positively concentrated. Inverness also is in the top 40% of travel-to-work areas for both ‘worker’ and ‘area’ effects, which is relatively unusual for such a geographically remote location.

**Figure 17. Estimated ‘worker’ and ‘area’ effects on mean hourly earnings for travel-to-work areas in Great Britain, 2012–19 (Great Britain mean = 0)**



Source: Overman and Xu, 2022.

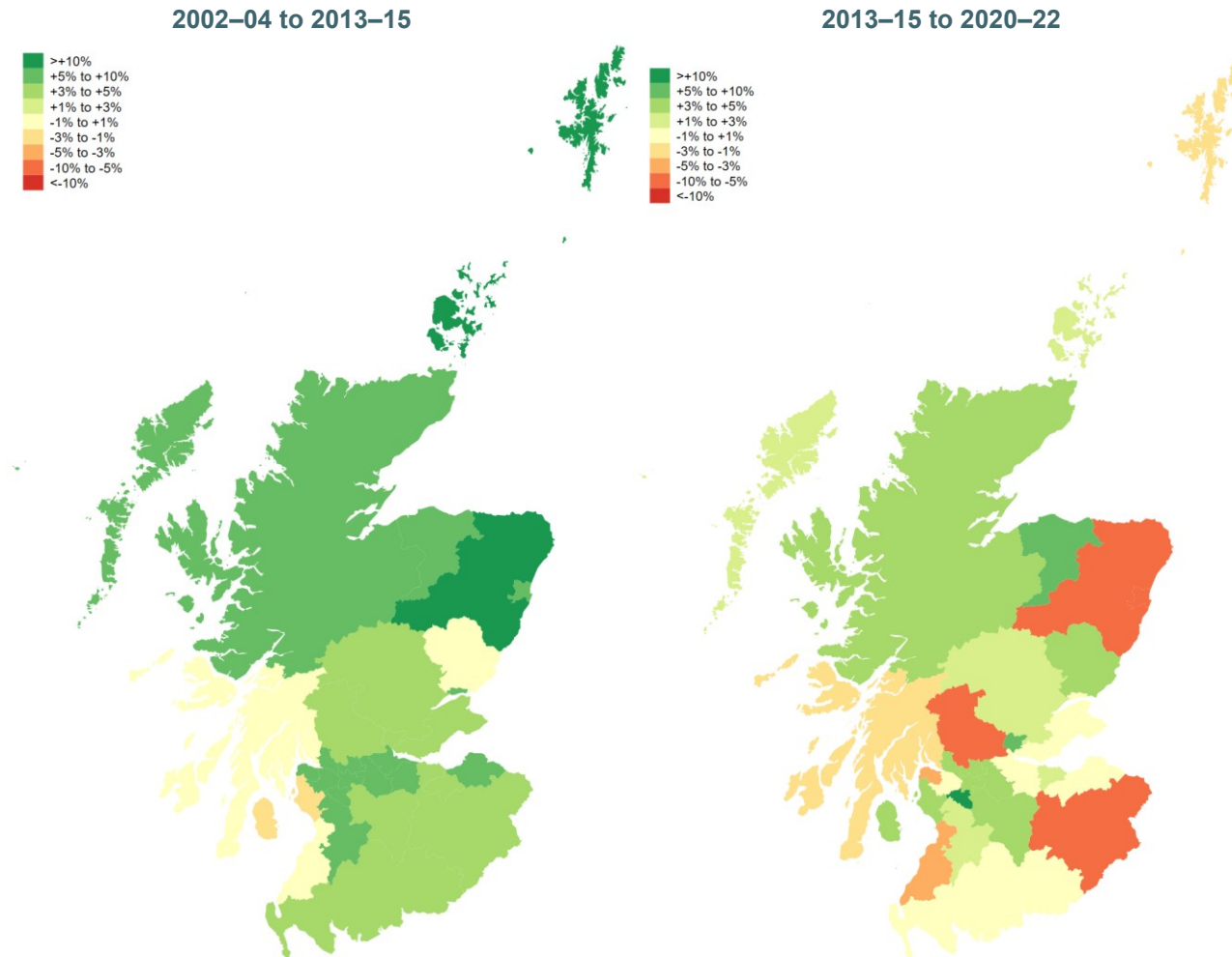
More generally, areas with relatively low population densities in Scotland fare better in terms of mean hourly earnings than areas of low population density in rUK. For example, among those LA areas with a population density of less than 100 people per square kilometre, Scottish LAs make up 6 of the 10 with the highest mean hourly earnings (Stirling, Aberdeenshire, Orkney Islands, Perth & Kinross, Shetland Islands and South Ayrshire), but only 1 of the 10 with the lowest mean hourly earnings (Dumfries & Galloway).

Turning to changes in earnings over time, the last chapter showed that earnings among working households grew more quickly in Scotland than in rUK during the 2000s, and at broadly the same pace during the first half of the 2010s, but that more recently this trend has been partially reversed. Looking at LA-level trends suggests that the faster increase in earnings during the 2000s was quite widespread across Scotland, but that more recent declines are concentrated in a few parts of Scotland.

This is illustrated in Figure 18, which shows the change in mean hourly earnings between 2002–04 and 2013–15 (left panel) and between 2013–15 and 2020–22 (right panel). This shows that during the first period, mean hourly earnings increased relative to the rUK average in virtually all LAs in Scotland. Some of these increases were large: +13ppt in Aberdeenshire, +12ppt in the Orkney and Shetland Islands, and over +5ppt in 19 of Scotland’s 32 LA areas. The only exceptions to this pattern were Angus, Argyll & Bute and South Ayrshire, where there was little change in their relative levels, and North Ayrshire, where they declined by just over 1ppt relative to rUK.

In the later period, since 2013–15, there is a notable fall in mean hourly earnings relative to the rUK average in Aberdeen City (–8ppt) and Aberdeenshire (–7ppt), as well as Stirling (–8ppt). But mean hourly earnings are estimated to have continued to increase relative to the rUK average in more than half of Scottish LAs. Indeed, in contrast to the household earnings figures reported in the previous chapter, according to ASHE at least, mean *hourly* earnings in Scotland continued to increase relative to rUK during the second half of the 2010s. This will partly reflect the fact that trends in household earnings will also be directly affected by trends in employment, which has declined in Scotland relative to rUK (albeit with most of this fall in the North of Scotland), which is not the case for the hourly wages we have focused on here. It may also reflect changes in average hours of work in Scotland relative to rUK – although these have been small, with average hours in Scotland hovering between 99% and 100% of the UK average for the last 20 years. Finally, it may reflect the fact that the data set we have drawn on – ASHE – reflects earnings in April of each year, which may not be fully representative of earnings throughout the year.

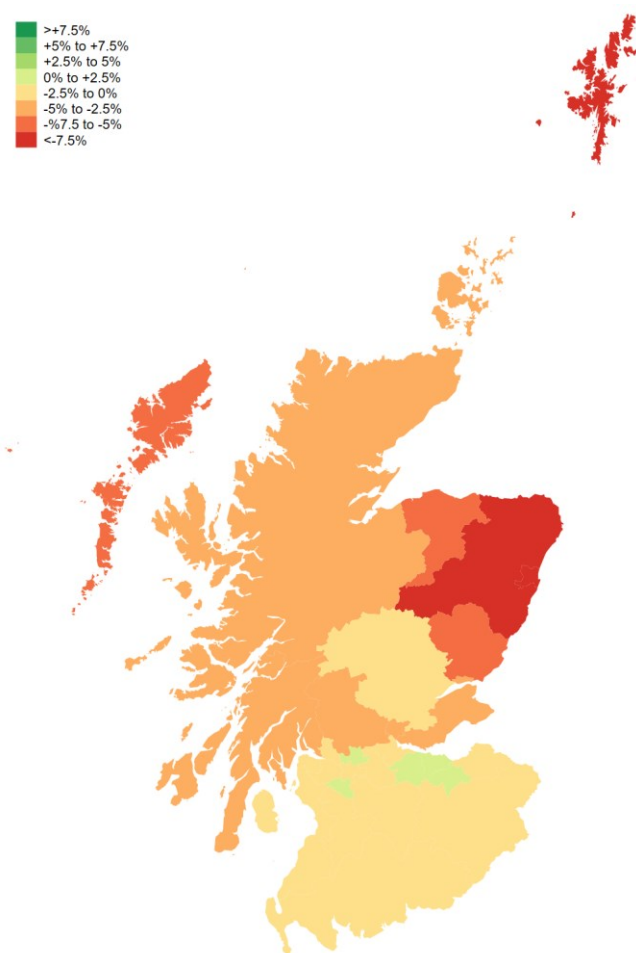
Figure 18. Change in mean hourly earnings, all jobs, relative to rUK average



Source: Annual Survey of Hours and Earnings: 2002, 2003, 2004, 2013, 2014, 2015, 2020, 2021 and 2022 waves.

Earnings data provided to HMRC via the RTI system do cover the entire year and pick up the effects of hours as well as hourly wages. Figure 19 shows changes in mean monthly earnings between 2015 and 2022, relative to the average in rUK excluding London, based on these data. It shows a rather different pattern from the ASHE data, with falls in mean monthly earnings relative to rUK in most of Scotland's LA areas over the last seven years. The largest falls have been concentrated in North Eastern Scotland, as was the case in the ASHE hourly earnings data though, with mean monthly earnings falling from 131% to 113% of the average for rUK excluding London in Aberdeen, and from 129% to 113% in Aberdeenshire. There were also relatively large falls compared with rUK excluding London in the Shetlands (-8ppt), Moray (-7ppt), Angus (-6ppt) and Eilean Siar (-6ppt).

**Figure 19. Change in mean monthly earnings relative to rUK excluding London, 2015 to 2022**



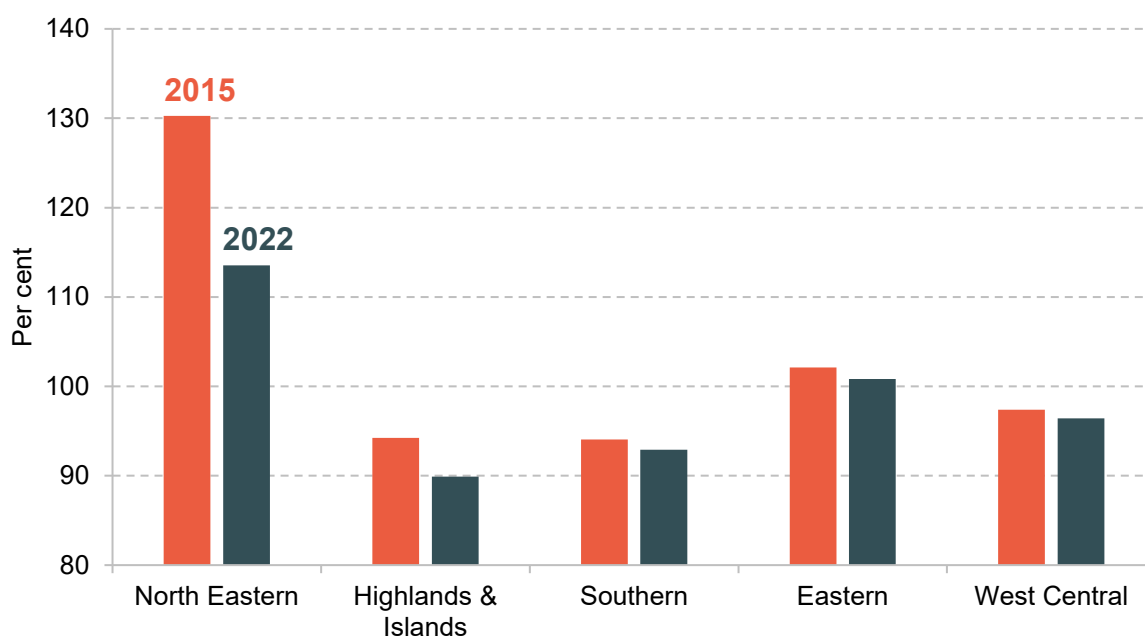
Source: RTI data, March 2023 edition, seasonally unadjusted.

Outside of these North Eastern and Islands regions though, the falls in mean monthly earnings relative to rUK excluding London have been much smaller: indeed, they have broadly kept pace with those in rUK in Scotland's two largest cities, Edinburgh (+0ppt) and Glasgow (-1ppt). These patterns mean that, as for employment, the relative decline in monthly earnings in



Scotland since the mid 2010s has been geographically concentrated in the North Eastern and Highlands & Islands regions, as illustrated in Figure 20. For instance, while mean monthly earnings in the North East have fallen from 130% to 114% of the average in rUK excluding London since 2015, and those in the Highlands & Islands have fallen from 94% to 90%, the falls have been much smaller in Eastern Scotland (102% to 101%), West Central Scotland (97% to 96%) and Southern Scotland (94% to 93%).

**Figure 20. Mean monthly earnings as a percentage of rUK excluding London, 2015 and 2022**



Source: RTI data, March 2023 edition, seasonally unadjusted.

Overall, therefore, while the improvement in Scotland's relative earnings performance during the 2000s was broad-based, the more recent partial reversal has been largely (although not fully) concentrated in the North East and Highlands & Islands – similar to the picture for employment rates. Indeed, it is falls in relative earnings levels in the North East, and to a lesser extent the Highlands & Islands, that explain why mean monthly earnings in Scotland only increased by 1.5% in real terms between 2015 and 2022, compared with 5% in rUK outside of London.

## Household incomes

As discussed in the previous chapter, while income from employment is the largest single source of income, income from other sources such as benefits, pensions and investments also contributes a significant share of household income – particularly at the bottom and very top of the income distribution. We therefore now turn to a measure of income that incorporates these and is available at the LA level: mean gross disposable household income (GDHI) per person.

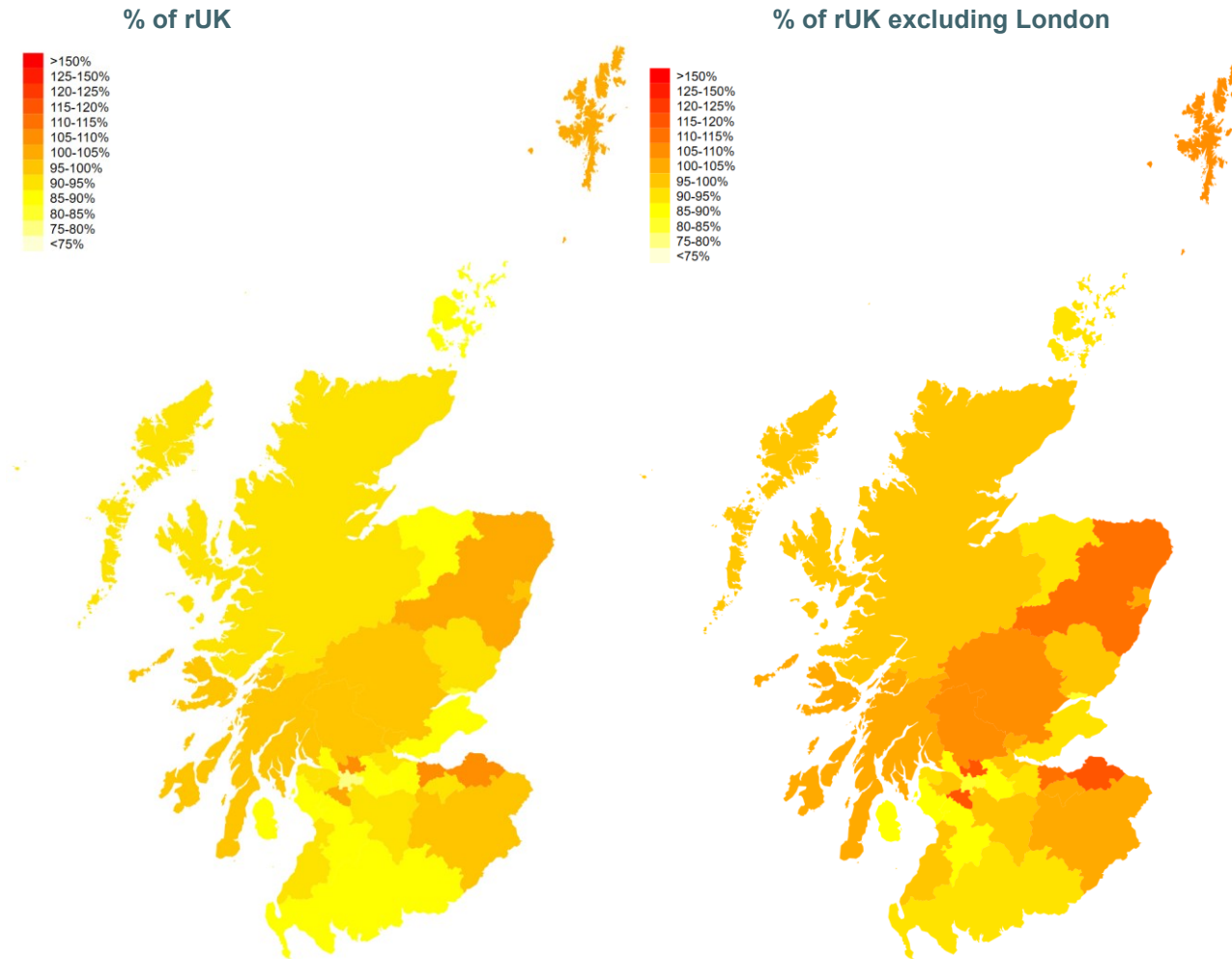
This differs in several ways from the HBAI measure of income analysed at an all-Scotland level in the previous chapter, with perhaps the most significant being that it includes an estimate of the annualised value of owner-occupied housing to the owners (given that they do not need to pay rent). We therefore strip out the component of income that includes this imputed rental income ('operating surplus') and report an adjusted figure for GDHI to make figures more comparable to the HBAI measure of household income.

Figure 21 shows adjusted GDHI per person for each of Scotland's LAs, measured as a share of the average for rUK (left panel) and the average for rUK excluding London (right panel) as of 2020, the most recently available figure. It shows that mean adjusted GDHI is highest in North Eastern Scotland, parts of Lothian, and the more affluent suburban LAs near Glasgow. For example, mean adjusted GDHI was between 105% and 110% of the rUK average and between 110% and 115% of the rUK average excluding London in Aberdeenshire, Edinburgh, East Dunbartonshire and East Lothian. Conversely, the lowest mean adjusted GDHIs are concentrated in Central and South Western Scotland such as Glasgow (80% of rUK, 85% of rUK excluding London), North Lanarkshire and East Ayrshire (86% of rUK, 92% of rUK excluding London) and North Ayrshire (87% and 92%). 26 of Scotland's LAs have adjusted mean GDHI below the rUK average, while 19 have mean adjusted GDHI below the rUK excluding London average. However, this generally reflects relatively high incomes in London and the South of England. Only five Scottish LAs have mean adjusted GDHI below the average level in Wales, the Midlands and the North of England, and for three of these (North Lanarkshire, East Ayrshire and North Ayrshire), the difference is marginal. In other words, mean household incomes are at or above levels outside of the South of England in virtually all of Scotland – the only exceptions are Glasgow and Dundee.

Turning to changes over time, Figure 22 shows changes relative to the average in rUK for two time periods: 2002 to 2014 and 2014 to 2020. This shows that between 2002 and 2014, adjusted mean GDHI grew faster than the rUK average in the majority of Scottish LA areas. The biggest increases were in the Orkney and Shetland Islands (which improved by +22ppt and +21ppt relative to the rUK average during this period) and North East Scotland (Moray, Aberdeen City and Aberdeenshire all improved by 11–15ppt), as well as Midlothian (+17ppt) and East Lothian (+12ppt). Falls were concentrated in the Central Belt, including East Renfrewshire (–10ppt), East Dunbartonshire (–8ppt), Glasgow (–6ppt) and Edinburgh (–4ppt).

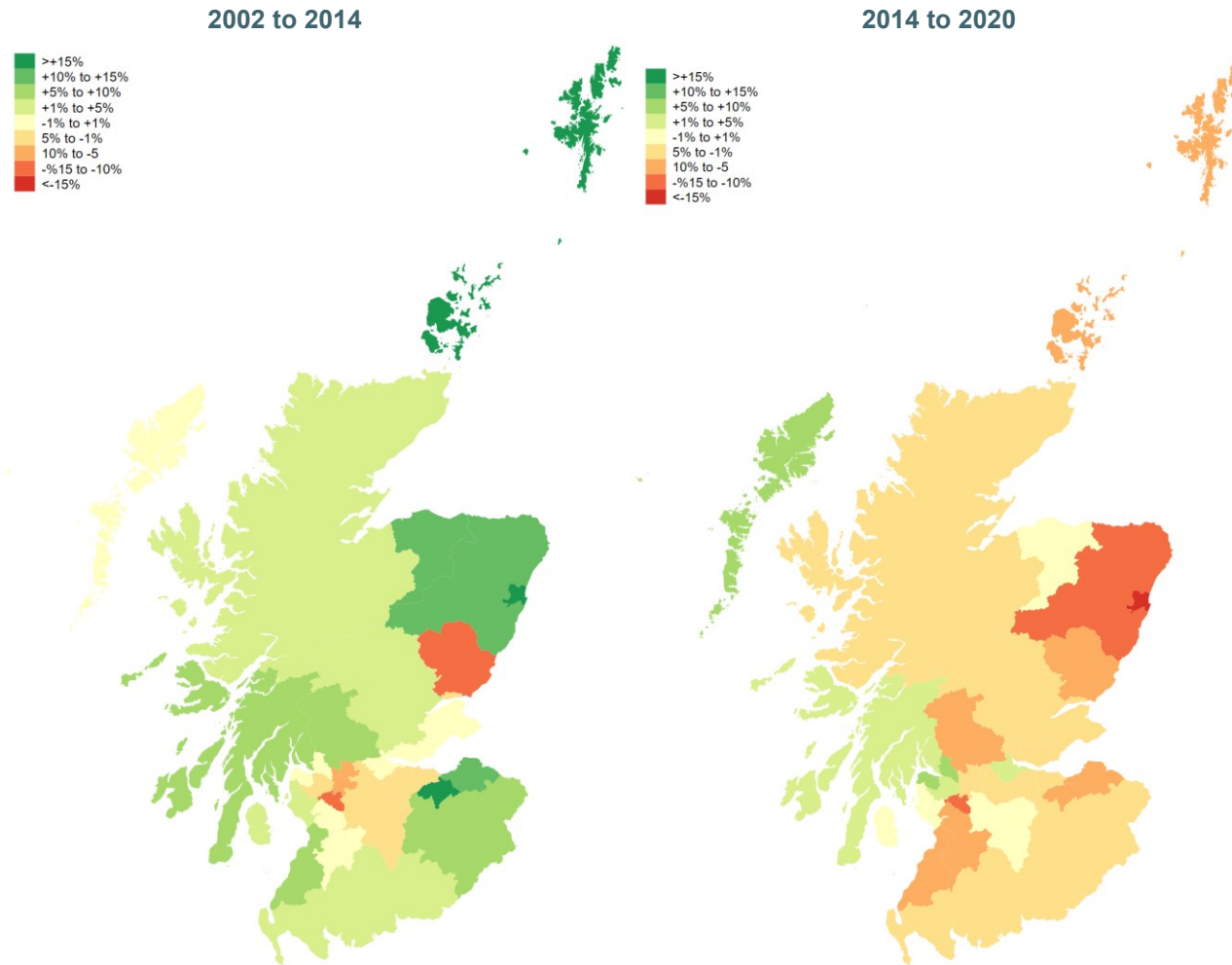
The period between 2014 and 2020 saw adjusted GDHI per capita fall relative to rUK in most of Scotland, with the biggest relative declines being in Aberdeen (–17ppt relative to rUK) and Aberdeenshire (–14ppt). Areas seeing increases were concentrated to the west of Glasgow, including Inverclyde (+6ppt relative to rUK), West Dunbartonshire (+7ppt), Renfrewshire (+1ppt) and Argyll & Bute (+4ppt).

Figure 21. Adjusted GDHI per person, 2020



Source: Regional Gross Disposable Household Income, 2022 release.

Figure 22. Change in adjusted GHDH relative to rUK



Source: Regional Gross Disposable Household Income, 2022 release.

Over the full period between 2002 and 2020, adjusted GDHI per capita increased relative to rUK across most of Northern and Western Scotland, as well as areas along the border with England, with the biggest increases being in the Shetlands (+15ppt relative to rUK) and Moray (+15ppt). However, it fell relative to rUK in much of the Central Belt and Eastern and North Eastern Scotland, with the biggest declines in Angus (−18ppt relative to rUK) and East Renfrewshire (−23ppt relative to rUK).

Household incomes are positively correlated with earnings – although the correlation has reduced over time (from 0.81 to 0.58 between 2002–04 and 2019–21), perhaps reflecting the importance of trends in income from other sources, such as pensions and pensioner benefits, and stronger income growth among pension-age than among working-age adults (see, for example, Bourquin et al. (2019)). There is only a very weak positive correlation (0.14) between changes in hourly earnings and changes in adjusted GDHI per capita over this period, which may also reflect the changing composition of household incomes. Argyll & Bute, for example, had the second-lowest change in hourly earnings between 2002–04 and 2019–21 but the fourth-highest change in adjusted GDHI. This may reflect differences in trends among the working-age population of the area (which shrank by 11% between 2001 and 2021) and the pension-age population (which grew by more than one-third over the same period).<sup>3</sup> Another area that saw a notable difference between earnings and income trends was Glasgow, which had the fourth-highest increase in hourly earnings but the third-lowest increase in adjusted GDHI. In contrast to Argyll & Bute, here the working-age population increased significantly (by 18%) and the pension-age population shrank (by 4%).

<sup>3</sup> Source: <https://www.nrscotland.gov.uk/statistics-and-data/statistics/stats-at-a-glance/council-area-profiles>.

### 3. Policy implications and conclusion

Over the course of the 1990s and 2000s, strong growth in employment, earnings and disposable incomes in Scotland closed the gap with rUK, and indeed on the eve of the Great Recession Scotland had overtaken rUK in employment and median household earnings. At the same time, Scotland's household earnings and income inequalities have remained lower than rUK's, and lower housing costs have also helped to keep relative poverty lower. More recently, however, performance on employment, earnings and incomes has not been as strong relative to rUK. While it is too early to observe in official income statistics, the primary effect of devolved tax and benefit policy is to redistribute income from richer to poorer households, in particular to poorer households with children.

In the near future, the Scottish Government is likely to face challenges with respect to living standards. The (slightly) slowing performance relative to rUK will act as a drag on income growth, and the government is likely to come up against the limits of devolved policy in terms of redistribution.

On the tax side, the potential for further use of the top rates of income tax to fund further benefits expansions may be limited by the capacity of those at the top of the earnings distribution to reduce their tax liabilities – by working less, taking income as dividends (which are subject to UK income tax rates) or migrating. As a reflection of this, the Scottish Fiscal Commission (2022) assumes that over 90% of revenues from increasing the additional rate to 47p will be lost as a result of actions such as these. If the government wishes to continue or expand its redistributive policies, alternative policies, such as council tax reform, might be more efficient, or else there may be opportunities to change the devolution settlement.

A recently announced consultation on adjusting council tax multipliers,<sup>4</sup> to increase liabilities for households in higher bands, might suggest that the Scottish Government is already considering these issues. However, even under these changes, the system would remain regressive, and be based on valuations that are over 30 years out of date, meaning many households would still be paying amounts different from those under a system based on more-up-to-date information.

<sup>4</sup> <https://www.gov.scot/publications/consultation-fairer-council-tax/>.

On the benefits side, the introduction of the Scottish child payment has introduced a significant cliff-edge on the threshold for eligibility, both creating inequities between families on either side of the cliff-edge and damaging work incentives. These effects would only become more acute were the payment to be increased. Moving to a taper system similar to that of universal credit may be increasingly attractive. But this would be associated with challenges, among which are the need to collect additional income information, including from those not eligible for universal credit on the current thresholds, and the challenge of encouraging take-up amongst this group.

Scotland, like the rest of the UK, is geographically unequal, with the employment rate, average earnings and average household income all varying significantly across local authority areas. However, compared with rUK, geographical inequality is lower in Scotland; and there has been somewhat of a decline in labour market inequality, as deprived parts of Central and South Western Scotland in particular have seen their employment rates and earnings close the gap with the Scottish average.

While employment, earnings and household incomes are lower than in most of the South of England, most Scottish LAs have mean (and median) earnings and household incomes that exceed the average for the Midlands, the North of England, Wales and Northern Ireland. Indeed, when considering our adjusted measure of GDHI per capita, it is only Dundee and Glasgow that perform notably worse than the average for these regions; even LA areas considered relatively deprived for Scotland, such as East and North Ayrshire, more-or-less match the average for the Midlands, the North of England, Wales and Northern Ireland. The flip side is that while inequality across LAs is lower than in rUK, it is higher than outside the South of England.

Geographical analysis also sheds further light on national trends over time. The improvements in employment, earnings and household incomes relative to rUK during the 2000s were relatively broad-based, with most parts of Scotland seeing an improved performance – although the largest improvements were in the northern parts of the country. Conversely, the weaker performance seen since the mid 2010s has been more geographically concentrated, with falls in employment and earnings relative to rUK being much greater in North Eastern and Highlands & Islands regions of Scotland. Some traditionally deprived parts of West Central Scotland, in particular, have seen an improvement in their labour market performance in recent years.

These geographic patterns suggest that the improvements seen during the 2000s were about much more than the performance of the oil, gas and associated sectors – although they are likely to have played a role in the particularly strong growth in earnings in the North of Scotland during this period. Conversely, the more geographically concentrated weakening seen since the mid 2010s is suggestive of a more important role for the oil, gas and associated sectors in driving this more recent trend. And despite this fall-back, it remains the case that, as in most of

the rest of Scotland, mean hourly earnings for most LAs in the North of the country were higher relative to the rUK average in 2020–22 than in 2002–04.

The recent deterioration in labour market performance in the North and especially North East of Scotland poses something of a policy conundrum for the Scottish Government. In particular, it is likely to face political pressure to provide additional support to these areas to help make up for reductions in employment and earnings associated with the decline in the oil and gas industry. Moreover, it will wish to maximise the share of, often highly skilled and highly paid, workers from the oil, gas and related sectors who remain in Scotland, not least given the outside contribution they make to devolved tax bases. However, it remains the case that the areas of Scotland with the lowest earnings and employment are in Central and South Western Scotland, despite improvements in some of the areas around Glasgow in particular in recent years. This may suggest focusing general support for skills, employability and economic development on the traditionally struggling areas of Scotland, but providing targeted interventions to help workers in the North East to take up other opportunities in Scotland (for instance, related to the green energy transition).

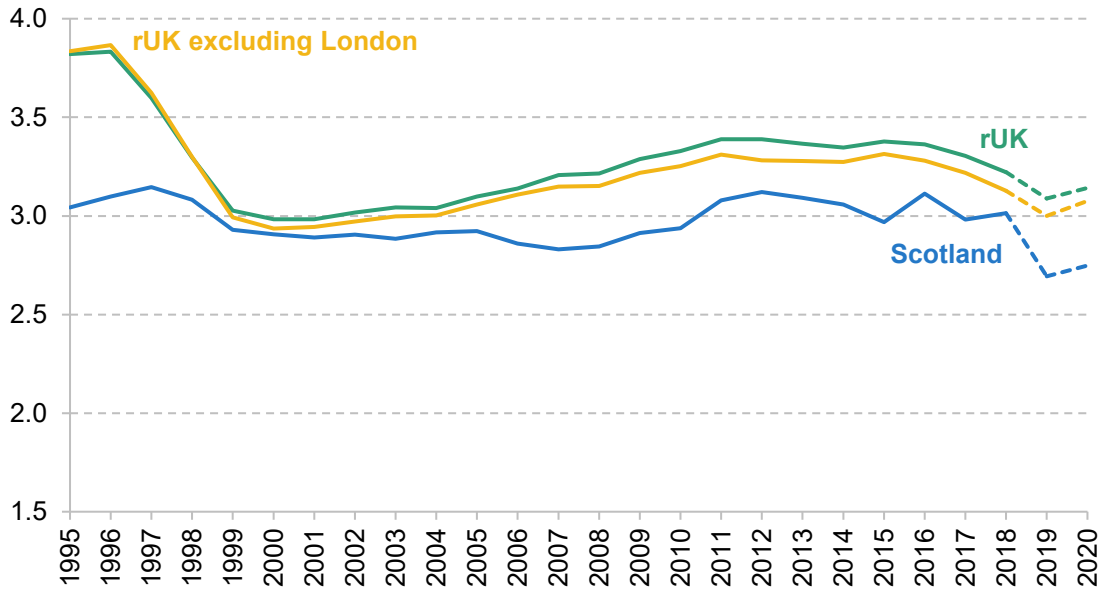
The fact that differences in education levels and experience explain most of the differences in earnings across the country, together with the fact that highly educated people sort into the most productive areas of the country, has some important implications for policy (Overman and Xu, 2022). In particular, it suggests that efforts to improve the education and skills of people living in an area, to improve local amenities and infrastructure and to attract employers providing skilled jobs need to be coordinated in order to both provide greater opportunities to people and reduce geographical labour market inequalities. A focus on amenities and infrastructure alone may not be enough to attract high-paying employers, and if it is, many of the jobs may go to commuters or new residents, rather than existing populations. Conversely, a focus only on local skills and education could increase outflows from areas that lack the infrastructure and amenities that employers and highly skilled people alike find desirable. A concerted push upon multiple fronts – albeit with different focuses in different areas depending on contexts – is likely to be needed.

That being said, a dose of realism is also likely to be important. Not every part of Scotland can offer the same set of amenities and infrastructure and the same proportion of high-paid, high-skilled jobs. Given that evidence suggests productivity can be higher in areas with larger pools of labour and clusters of complementary businesses, it may therefore make sense to focus on supporting existing and emerging ‘agglomerations’ of economic activity. This does not mean forgoing supporting the rest of Scotland. Indeed, ensuring people in the rest of the country can access the opportunities in the most successful agglomerations – through education and skills policy, transport links and appropriate housing supply – would not only help those people, but also help sustain and grow those agglomerations.



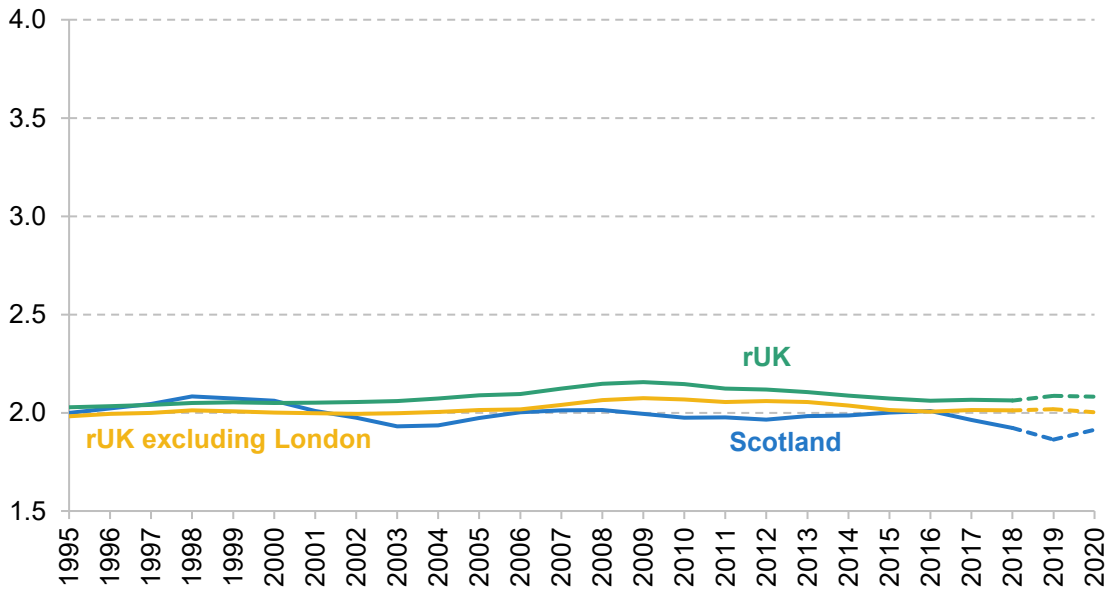
# Appendix. Additional figures

Figure A1. 50:10 ratio for gross household earnings among individuals in working households



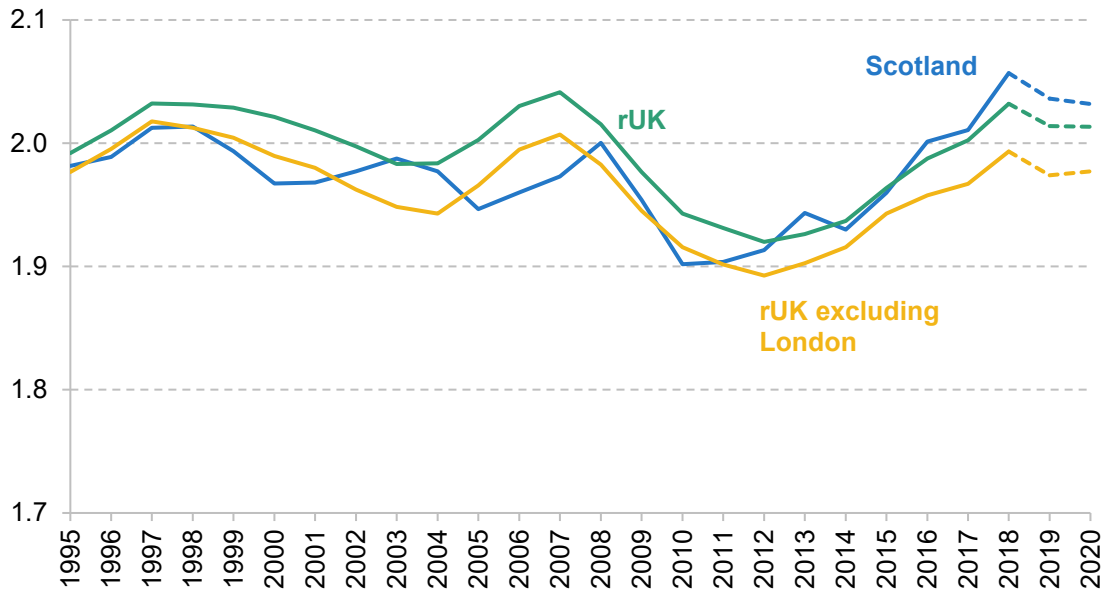
Note and source: See Figure 3.

Figure A2. 90:50 ratio for gross household earnings among individuals in working households



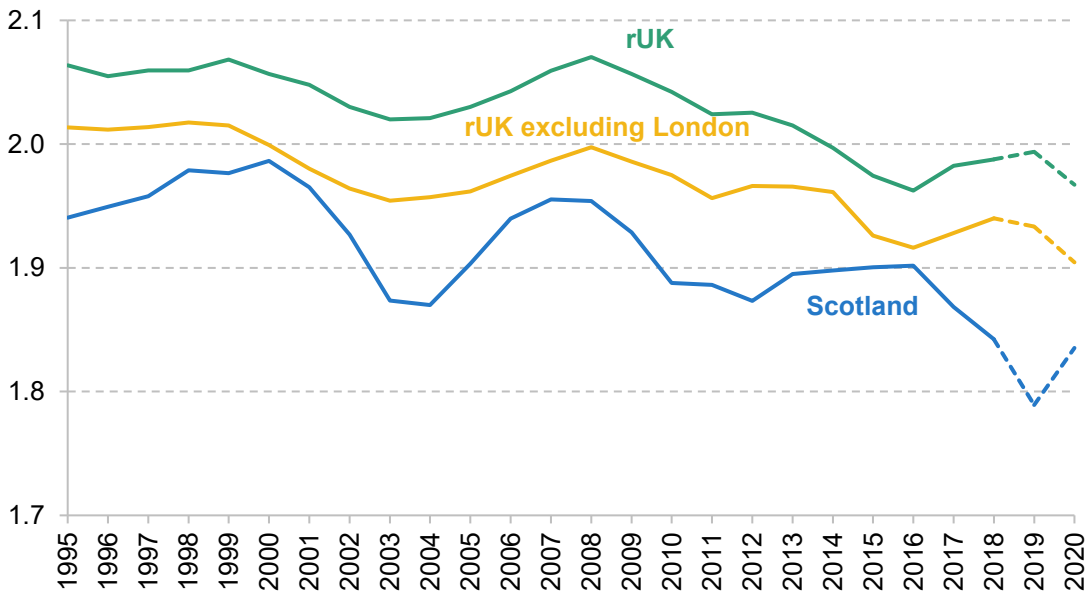
Note and source: See Figure 3.

Figure A3. 50:10 ratio for disposable household income



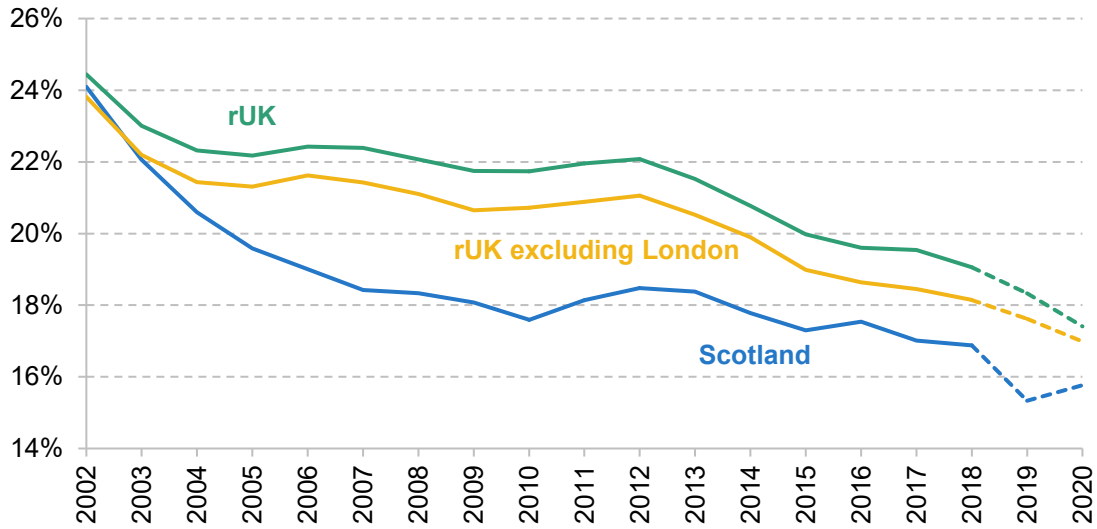
Note and source: See Figure 5.

Figure A4. 90:50 ratio for disposable household income



Note and source: See Figure 5.

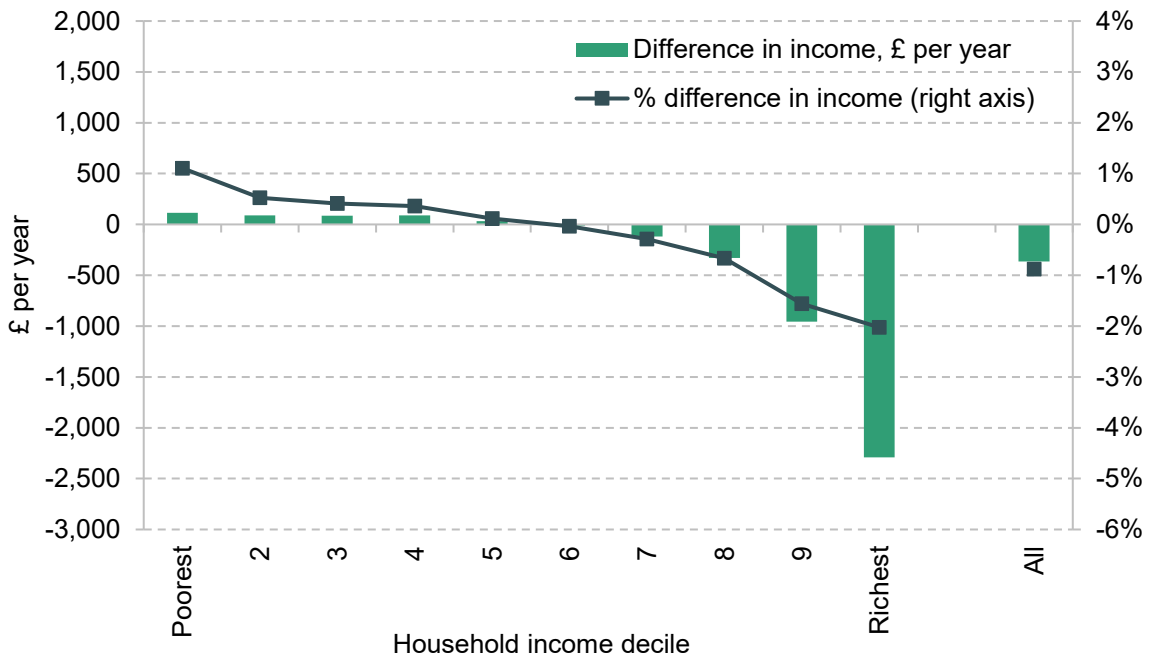
Figure A5. Absolute AHC income poverty



Note: Incomes have been measured net of taxes and benefits. All incomes have been equivalised using the modified OECD equivalence scale. Absolute poverty gives the percentage of individuals with household incomes below the 2010–11 UK median. Centred three-year rolling averages are reported. The last two data points (representing 2018–20 and 2019–21) are dashed because disruption in sample collection during the pandemic affected the quality of the data (see discussion at the start of Chapter 1).

Source: Authors' calculations using the Family Resources Survey, 1994 to 2021.

Figure A6. Household disposable income under the Scottish tax and benefit system, compared with the system in England and Wales, April 2023: households without children



Note: See Figure 10.

Source: Figure A.3 from Waters and Wernham (2023).

# References

- Boileau, B. and Phillips, D., 2023. Income tax performance. Institute for Fiscal Studies (IFS), Report R239, <https://ifs.org.uk/publications/income-tax-performance>.
- Bourquin, P., Cribb, J., Waters, T. and Xu, X., 2019. Living standards, poverty and inequality in the UK: 2019. Institute for Fiscal Studies (IFS), Report R157, <https://ifs.org.uk/publications/living-standards-poverty-and-inequality-uk-2019>.
- Joseph Rowntree Foundation, 2022. UK poverty 2022: the essential guide to understanding poverty in the UK. <https://www.jrf.org.uk/report/uk-poverty-2022>.
- Overman, H. and Xu, X., 2022. Spatial disparities across labour markets. IFS Deaton Review of Inequalities, <https://ifs.org.uk/inequality/spatial-disparities-across-labour-markets/>.
- Scottish Fiscal Commission, 2022. Economic and fiscal forecasts – December 2022. <https://www.fiscalcommission.scot/publications/scotlands-economic-and-fiscal-forecasts-december-2022/>.
- Scottish Government, 2019. Rent affordability in the affordable housing sector: literature review. <https://www.gov.scot/publications/rent-affordability-affordable-housing-sector-literature-review/pages/7/>.
- Scottish Government, 2022a. Scottish Child Payment - estimating the effect on child poverty. <https://www.gov.scot/publications/scottish-child-payment-estimating-the-effect-on-child-poverty/>.
- Scottish Government, 2022b. Scottish Child Payment increased. <https://www.gov.scot/news/scottish-child-payment-increased/>.
- Waters, T. and Wernham, T., 2023. Analysis of Scottish tax and benefit reforms. Institute for Fiscal Studies (IFS), Report R242, <https://ifs.org.uk/publications/analysis-scottish-tax-and-benefit-reforms>.

## Data

- Department for Work and Pensions, NatCen Social Research., 2021. *Family Resources Survey*. [data series]. 4th Release. UK Data Service. SN: 200017, DOI: <http://doi.org/10.5255/UKDA-Series-200017>.
- Office for National Statistics, 2023. *Annual Population Survey*. <https://www.nomisweb.co.uk/datasets/apsnew>.

## 43 Employment, earnings and incomes in Scotland

Office for National Statistics, 2022. *Annual Survey of Hours and Earnings*.

<https://www.nomisweb.co.uk/datasets/asher>.

Office for National Statistics, 2023. Earnings and employment from Pay as You Earn Real Time Information, non-seasonally adjusted. March 2023 edition.

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/realttimeinformationstatisticsreferencetablenonseasonallyadjusted/current>.

Office for National Statistics, 2022. Regional gross disposable household income, 1997–2020.

<https://www.gov.uk/government/statistics/regional-gross-disposable-household-income-uk-1997-to-2020>.