

Overview

This note provides an overview of the taxpayer distribution in our income tax forecast.

As a result of increasing employment, we estimate that the total number of taxpayers will increase from 2.52 million in 2016-17 to 2.68 million in 2023-24. In addition, we expect an increase in the number of people who are classified as higher or top rate taxpayers. This arises due to an effect known as ‘fiscal drag’, which is when earnings rise faster than thresholds, dragging individuals who are currently sitting just below a tax threshold into a higher band.

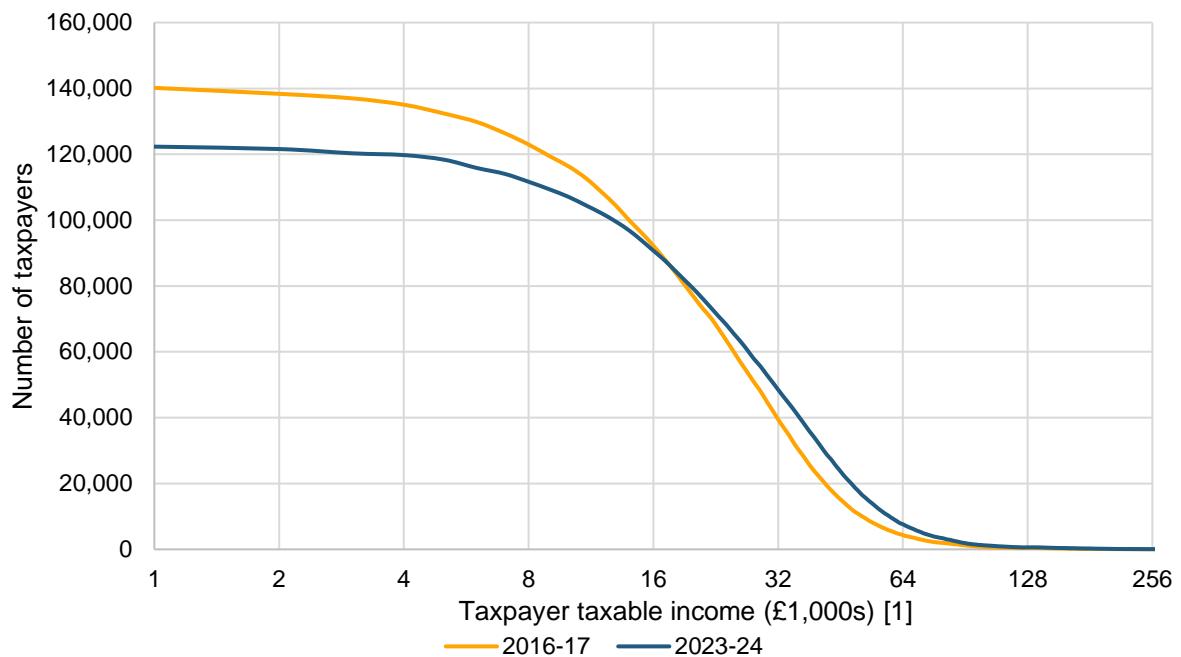
In 2016-17 there were 13,300 top rate taxpayers (individuals earning over £150,000) and we expect this to increase to 22,000 by 2023-24, primarily due to fiscal drag. Between 2016-17 and 2023-24 we expect nominal average earnings to grow by around 2.5 per cent a year, a cumulative increase of around 18.5 per cent. This cumulative growth in earnings needs to be compared to the £150,000 top rate threshold which remains fixed in cash terms. Someone earning around £127,000 in 2016-17 whose earnings grew in line with the average projected across all employees would see their income grow to £150,000 by 2023-24.

Our analysis estimates that the vast majority of ‘new’ top rate taxpayers are also due to fiscal drag (around 7,100 taxpayers out of a total of 8,700). Although the number of top rate taxpayers increases by 65 per cent, total tax revenue from those taxpayers is only estimated to grow by 25 per cent. While these taxpayers are now classified as top rate, they will only experience a modest increase in their total tax liability, as the 46 per cent rate is only paid on the portion of their income that is above £150,000.

Distribution of income tax taxpayers

Figure 1 shows an estimate of the taxpayer income distribution for Scotland, in 2016-17 and 2023-24. To preserve the representation at the lower end of the income distribution we have presented taxpayer incomes on a logarithmic scale. This helps with the interpretation of the overall trends of the distribution, and how it changes over time.

Figure 1: Stylised income distribution in 2016-17 and 2023-24



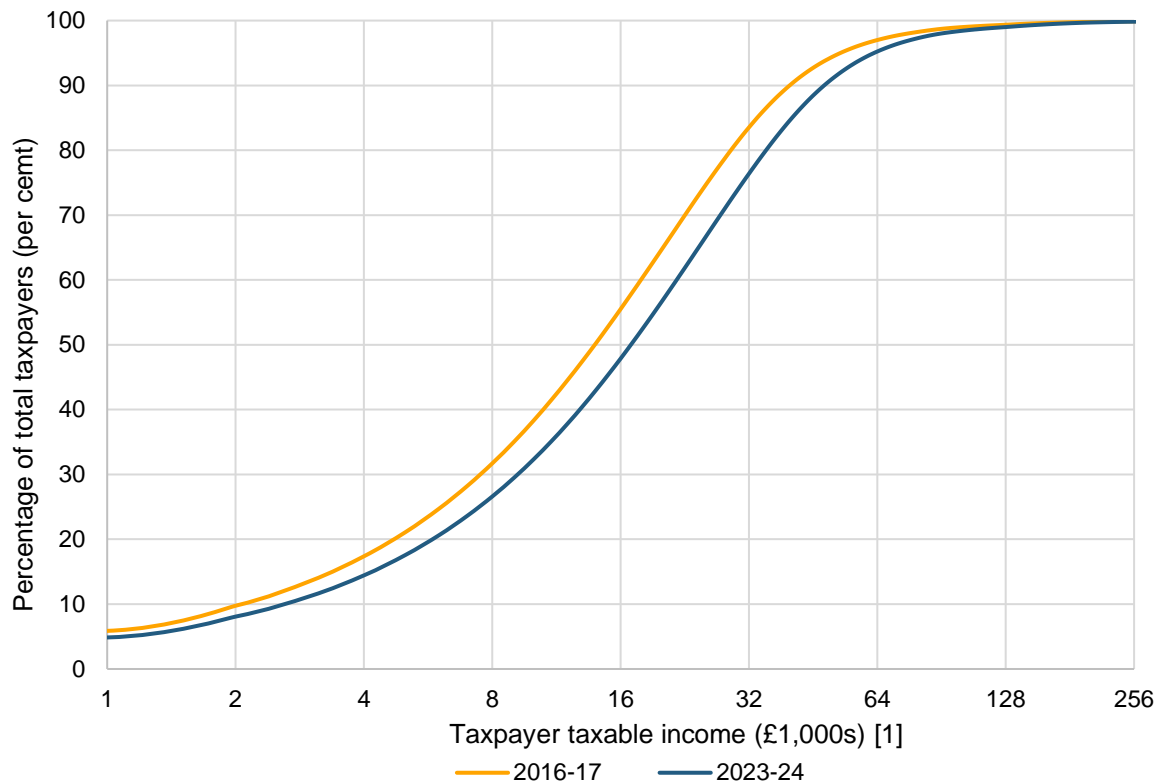
Source: Scottish Fiscal Commission

[1] This chart uses taxable income, which is the taxpayer's total income minus the personal allowance (which is £11,000 in 2016-17 and £13,310 in 2023-24).

As can be seen from Figure 1 above, the largest change in taxpayer populations between 2016-17 and 2023-24 is the reduction in the population of taxpayers earning less than £18,000 taxable income, or £29,000 gross income. This is partly due to earnings growth, which pushes incomes at the top end of the range above the upper limit, but also due to inflation-linked increases in the Personal Allowance meaning that some individuals at the bottom of this range will stop being flagged as taxpayers. We believe that it is increases in the Personal Allowance that is the main driver for the reduction.

Figure 2 presents a cumulative taxpayer distribution graph in 2016-17 and 2023-24.

Figure 2: Cumulative taxpayer distribution in 2016-17 and 2023-24



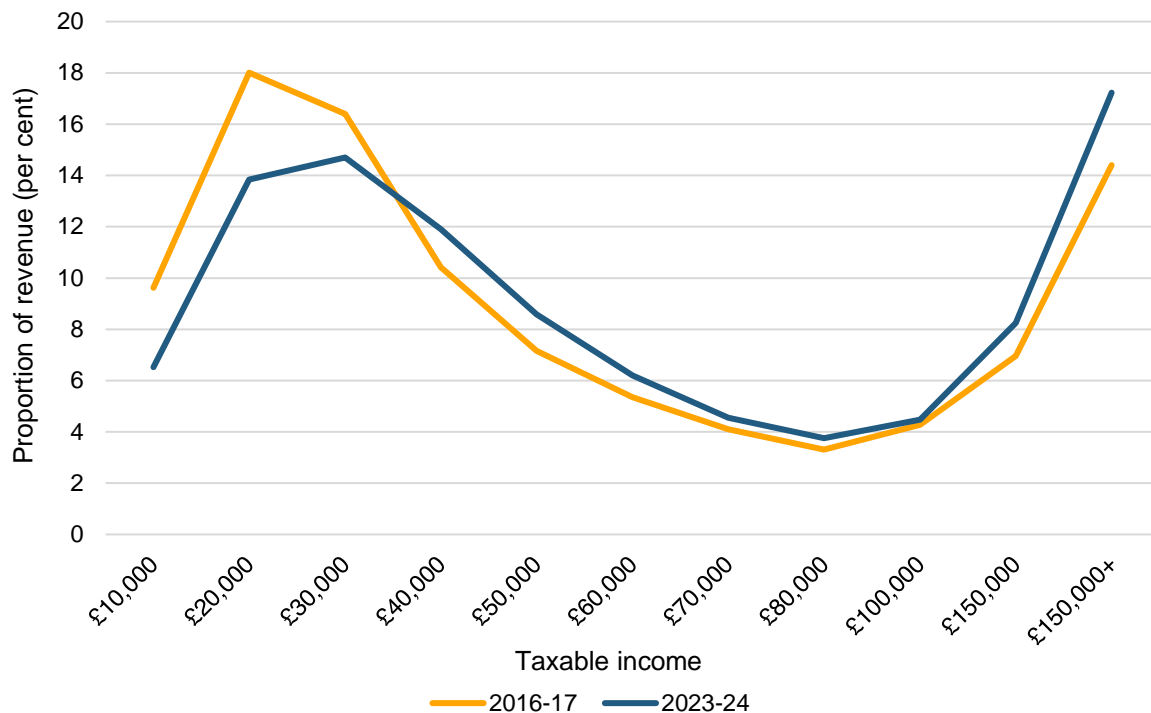
Source: Scottish Fiscal Commission

[1] Because this graph is on a logarithmic scale, the x-axis starts at 1. We estimate that approximately 5% of taxpayers have a taxable income of below £1,000.

Around 90% of all taxpayers earn less than £39,000 taxable income, or £50,000 gross income in 2016-17. In 2023-24, as multiple years of earnings growth have had an effect, the 90% mark is instead at around the £48,000, or £59,000 at an equivalent to 2016-17 gross income level.

Although the top rate population – taxpayers earning £150,000 and above – represent less than 1% of all taxpayers, their contribution to revenues is much larger. Figure 3 shows proportion of NSND revenues by taxpayer income.

Figure 3: Proportion of revenue by income bracket in 2016-17 and 2023-24

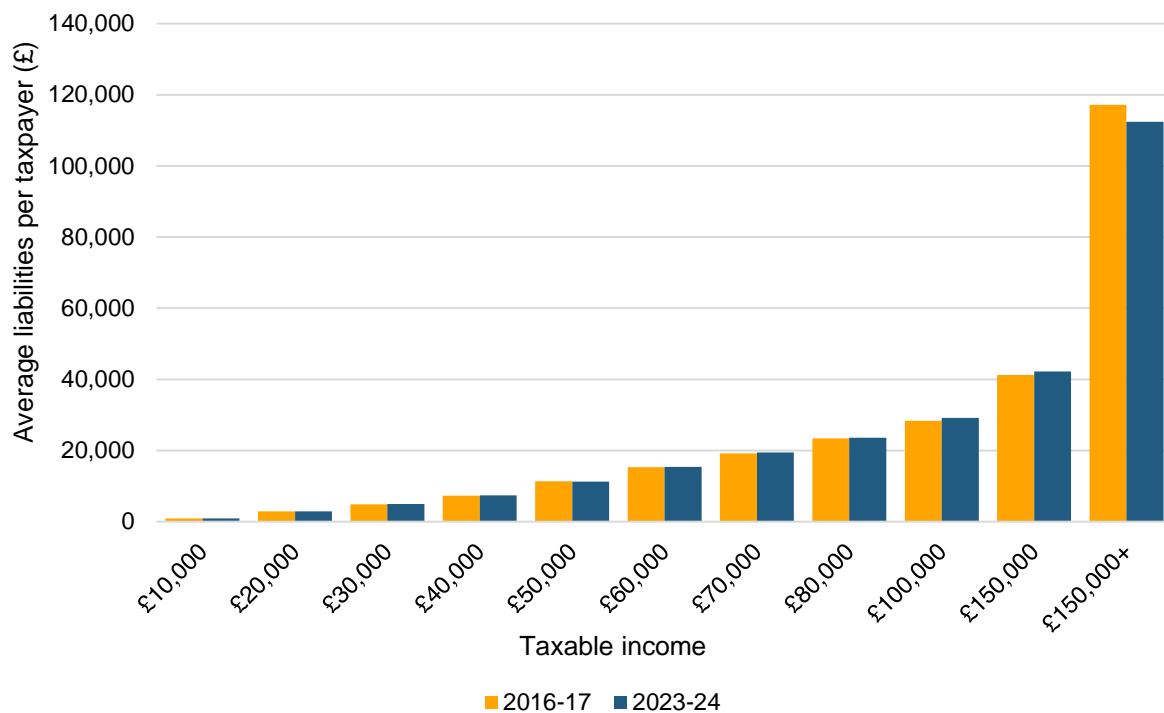


Source: Scottish Fiscal Commission

Despite being less than one per cent of the population, top rate taxpayers account for around 14 per cent of revenue in 2016-17. As shown in the population charts, there is an overall shift as the proportion of taxpayers earning more increases. This is also reflected in Figure 3, as the revenue contribution of top rate taxpayers increases to 17 per cent in 2023-24.

Figure 4 shows an estimate of average revenue per taxpayer. As a result of fiscal drag, which we discuss in the following section, average revenue per taxpayers in the top bracket falls by £5,000 between 2016-17 and 2023-24. Briefly, this is because the vast majority of new top rate taxpayers are at the lower end of this tax bracket, so the total value of liabilities assigned to top rate taxpayers increases more slowly than the number of people flagged as top rate taxpayers.

Figure 4: Estimated average revenue per taxpayer in 2016-17 and 2023-24



Source: Scottish Fiscal Commission

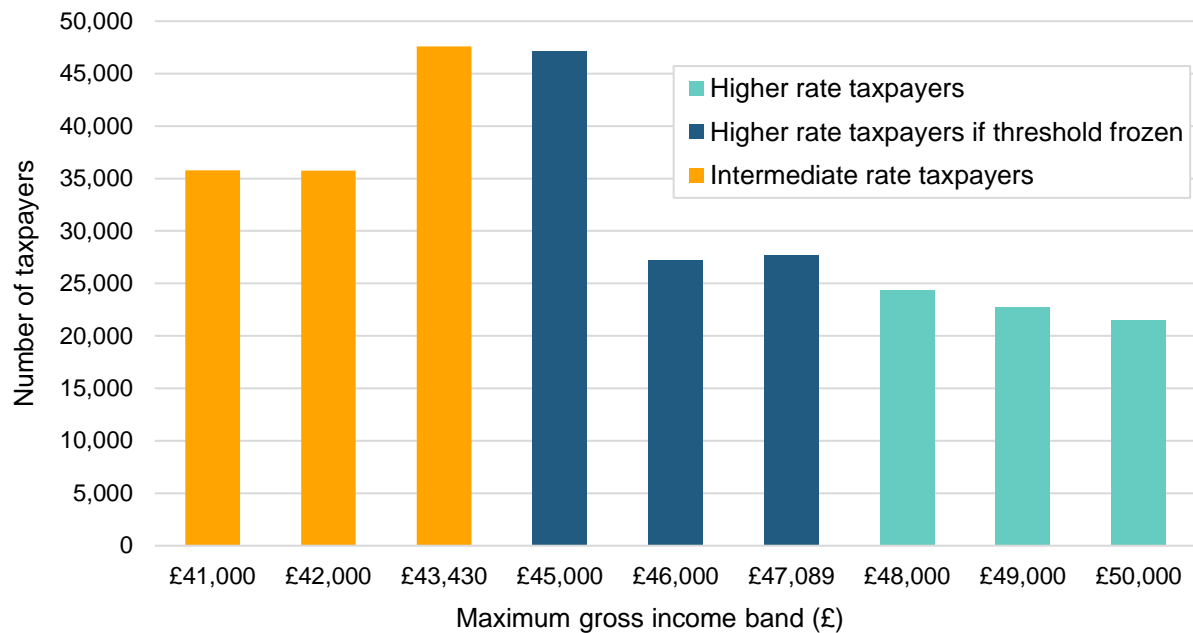
Detailed look at the effect of fiscal drag

Fiscal drag is the result of earnings growing faster than the respective thresholds. For 2019, we forecast average earnings in Scotland growing by 1.9 per cent alongside rising employment. Therefore, it is not surprising that the number of taxpayers is increasing. Given that the higher rate threshold for 2019-20 has been frozen, a number of intermediate rate taxpayers will now find themselves moving in to the higher rate group.

As our modelling accounts for changing demographics and increasing employment levels, it is not possible to fully isolate the effects of fiscal drag. However, we can illustrate it by examining what would happen if the higher rate threshold were to be frozen across the forecast horizon at the planned 2019-20 level of £43,430. This is different from our current baseline assumption which assumes the higher rate threshold will increase by inflation.

We estimate that a frozen higher rate threshold would result in 501,900 higher rate taxpayers, around 102,000 more than if the threshold instead increases by inflation. Figure 5 below shows the distribution of taxpayers in 2023-24, with the dark blue columns illustrating the 102,000 group.

Figure 5: 2023-24 taxpayer distribution by income level



Source: Scottish Fiscal Commission

The impact of changing tax bands on liabilities

As highlighted above with the higher rate threshold, small policy changes to thresholds can result in significant differences to the number of taxpayers classified in each taxpayer group. Although the change to the number of taxpayers may be significant, the actual difference in terms of tax liabilities is generally very small. This is because the higher rates of tax are only paid on the income above the particular threshold and not on all income. To illustrate this we analyse how much additional tax would be paid if a higher rate taxpayer earning £145,000 was instead earning £151,000 and classified as a top rate taxpayer.

Table 1: Comparison of tax liabilities between a taxpayer earning £145,000 and one earning £151,000 in 2019-20

Tax Band	Higher rate taxpayer earning £145,000			Top rate taxpayer earning £151,000		
	Taxable income in each band (£)	Tax rate (%)	Tax Paid (£)	Taxable income in each band (£)	Tax rate (%)	Tax Paid (£)
Starter rate	14,549	19	2,764	14,549	19	2,764
Basic rate	10,395	20	2,079	10,395	20	2,079
Intermediate rate	18,486	21	3,882	18,486	21	3,882
Higher rate	101,570	41	41,644	106,570	41	43,694
Top rate	0	46	0	1,000	46	460
Total			50,369			52,879

Source: Scottish Fiscal Commission

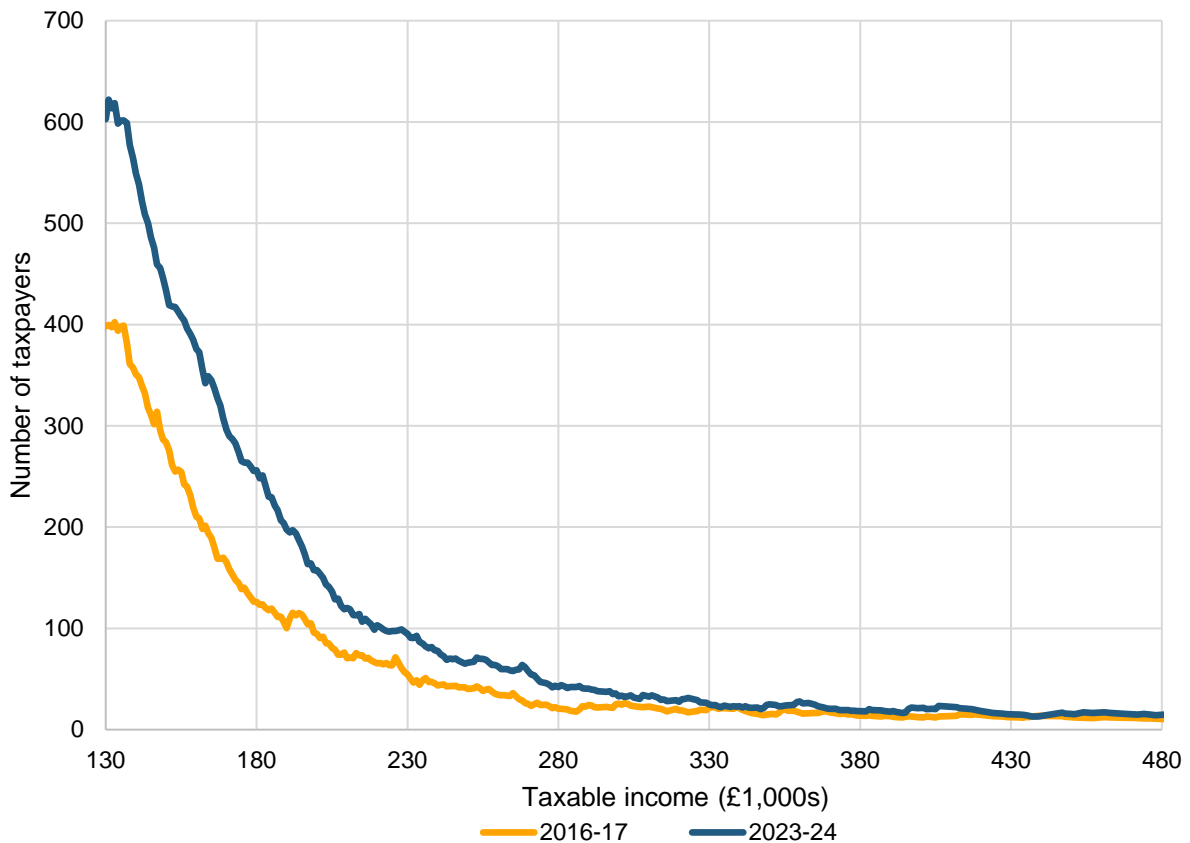
Although the taxpayer above is now a top rate taxpayer, they only pay an additional £2,510 in tax, approximately 5% of their total liabilities.

In 2016-17 there were 13,300 top rate taxpayers, individuals earning over £150,000. By 2023-24 we expect this to have increased to 22,000 individuals earning over £150,000. This is primarily a result of individuals currently earning just below £150,000 seeing their incomes grow to above this threshold. Between 2016-17 and 2023-24 we expect nominal average earnings to grow by around 2.5% a year, a cumulative increase of around 18.5%. This cumulative growth in earnings over this period needs to be compared to the £150,000 top rate threshold which remains fixed. Our forecasts suggest that someone earning around £127,000 in 2016-17 could be expected to see their income grow to £150,000 by 2023-24.

As an illustration, we estimate that there were 7,100 individuals earning between £127,000 and £150,000 in 2016-17, who would see their incomes grow to above £150,000 by 2023-24, thus moving from being a higher rate taxpayer to a top rate taxpayer. These 7,100 individuals represents an illustration analysing the effect of increasing earnings only, and so does not account for the total increase in top rate taxpayers of 8,700 which also include demographic and employment effects. The reason the increase in the number of top rate taxpayers is large compared to the existing population of top rate taxpayers is because the density of the population below £150,000 is much greater than the density of the population above £150,000.

To illustrate this, Figure 6 shows the income distribution in Figure 1, zoomed in to show only those earning above £130,000.

Figure 6: Stylised top rate taxpayer distributions in 2016-17 and 2023-24



Source: Scottish Fiscal Commission

Figure 5 shows that almost all of the forecast increase in the top rate population is due to increases in the number taxpayers earning below £330,000. The forecast average revenue for taxpayers in this group in 2023-24 is £74,400. This compares to the average revenue for all top rate taxpayers of £112,400. The number of people at the very top end of the distribution, with earnings over £340,000, is not expected to increase significantly over the forecast period. The growth in the number of top rate taxpayers is mostly at the bottom end of the top rate distribution, which is why the increasing number of top rate taxpayers does not lead to a large increase in revenues.