

Statistical bulletin

Earnings and employment from Pay As You Earn Real Time Information, UK: September 2023

Experimental monthly estimates of payrolled employees and their pay from HM Revenue and Customs' (HMRC's) Pay As You Earn (PAYE) Real Time Information (RTI) data. This is a joint release between HMRC and the Office for National Statistics (ONS).

Contact:
Debra Leaker, C. Robinson
labour.market@ons.gov.uk;
rtistatistics.enquiries@hmrc.gov.
uk
+44 1633 455400

Release date:
12 September 2023

Next release:
17 October 2023

Table of contents

1. [Main points](#)
2. [Payrolled employees](#)
3. [Median monthly pay](#)
4. [Pay distribution](#)
5. [Regional data](#)
6. [Industry data](#)
7. [Age data](#)
8. [Earnings and employment data](#)
9. [Glossary](#)
10. [Measuring the data](#)
11. [Strengths and limitations](#)
12. [Related links](#)
13. [Cite this statistical bulletin](#)

1 . Main points

- Early estimates for August 2023 indicate that the number of payrolled employees rose by 1.5% compared with August 2022, a rise of 449,000 employees; the number of payrolled employees was up by 3.9% since February 2020, a rise of 1,120,000.
- Payrolled employment decreased by 1,000 employees (0.0%) in August 2023 when compared with July 2023, though this should be treated as a provisional estimate and is likely to be revised when more data are received next month.
- UK payrolled employee growth for July 2023 compared with June 2023 has been revised from an increase of 97,000 reported in the last bulletin to a decrease of 4,000; this is because of the incorporation of additional real time information (RTI) submissions into the statistics, which takes place every publication and reduces the need for imputation.
- Early estimates for August 2023 indicate that median monthly pay increased by 6.7% compared with August 2022, and increased by 21.4% when compared with February 2020.
- Between August 2022 and August 2023, there was a decrease of 41,000 payrolled employees aged under 25 years; during the same period, payrolled employees aged 35 to 49 years increased by 174,000.
- For Nomenclature of Territorial Units for Statistics (NUTS) 3 regions, annual growth in payrolled employees in August 2023 was the highest in Coventry with a rise of 3.9%, and was lowest in Camden and City of London with a fall of 1.4%; at local administrative unit level, growth rates varied between negative 6.8% and positive 4.7%.
- The increase in payrolled employees between August 2022 and August 2023 was largest in the health and social work sector with a rise of 193,000 employees, and smallest in the Wholesale and retail; repair of motor vehicles sector with a fall of 19,000.
- Annual growth in median pay for employees in August 2023 was highest in the other service activities sector with an increase of 8.7%, and lowest in the finance and insurance sector with an an increase of 3.2%.

About the data in this release

Early estimates for August 2023 are provided to give an indication of the likely level of employees as well as median pay in the latest period. These early estimates are, on average, based on around 85% of information being available. They are of lower quality and will be subject to revision in next month's release when between 98% and 99% of data will be available. This work was introduced in April 2020 in response to the coronavirus (COVID-19) pandemic and methods will continue to be developed. A [revisions triangle](#) is available for employees and median pay at the UK level.

Statistics in this release are based on people who are employed in at least one job paid through Pay As You Earn (PAYE), and monthly estimates reflect the average of such people for each day of the calendar month. This follows the introduction of a [new methodology for monthly earnings and employment estimates](#) in December 2019, designed to better align with international guidelines for labour market statistics. This differs from the methodology used before December 2019, which produced statistics based on the total number of people paid in a particular time period.

2 . Payrolled employees

Early estimates for August 2023 indicate that there were 30.1 million payrolled employees (Figure 1), a rise of 1.5% compared with the same period of the previous year. This is a rise of 449,000 people over the 12-month period. Compared with the previous month, the number of payrolled employees showed was largely unchanged at 0.0% in August 2023, which is equivalent to a decrease of 1,000 people.

This monthly change of 1,000 should be treated as provisional, because it is based on an early estimate of August 2023 employees. More information on revisions can be found in Section 11: Strengths and limitations.

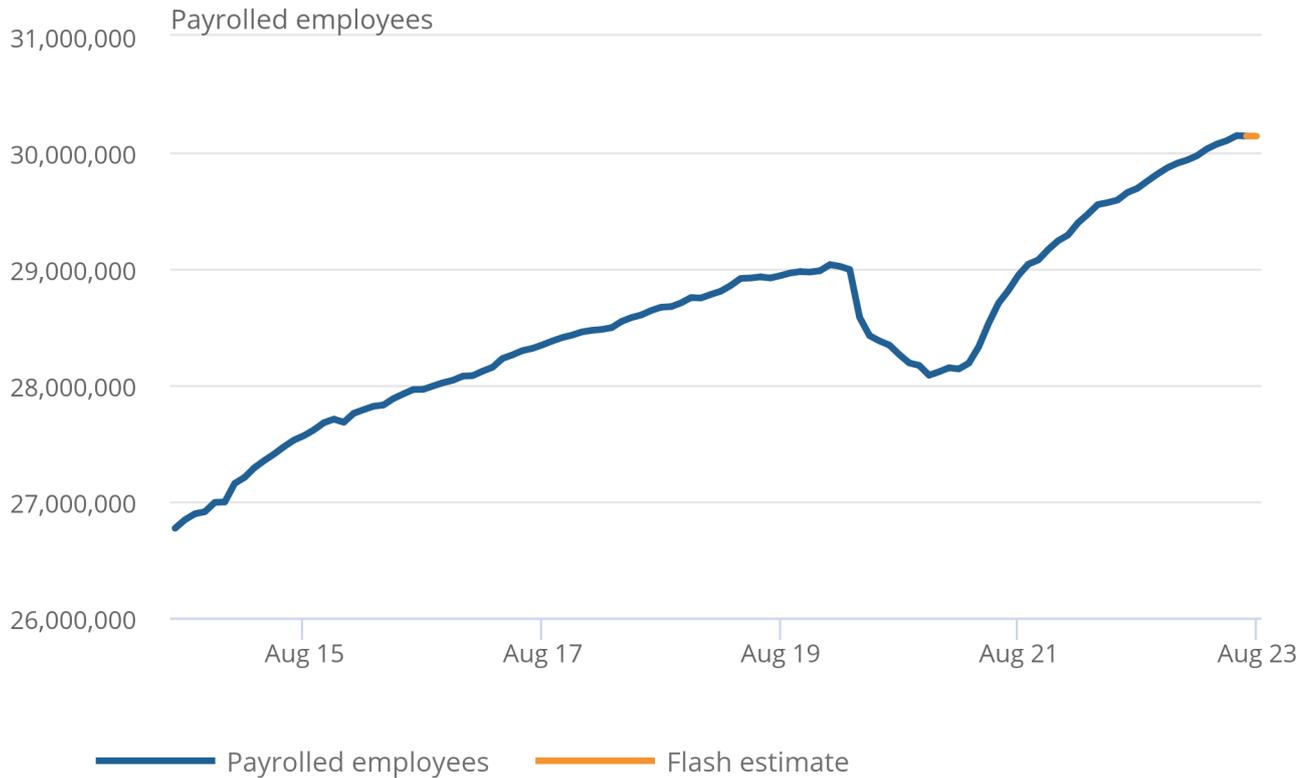
When comparing the number of payrolled employees in July 2023 with the previous month, the number showed was largely unchanged at 0.0%. This is revised down from the early estimate of a 0.3% increase reported in our previous [Earnings and employment from Pay As You Earn Real Time Information, UK: August 2023 bulletin](#).

Figure 1: The number of employees declined between February and November 2020, but is now above pre-coronavirus (COVID-19) trends

Payrolled employees, seasonally adjusted, UK, July 2014 to August 2023

Figure 1: The number of employees declined between February and November 2020, but is now above pre-coronavirus (COVID-19) trends

Payrolled employees, seasonally adjusted, UK, July 2014 to August 2023



Source: Pay As You Earn Real Time Information from HM Revenue and Customs

Notes:

1. The latest period, highlighted in orange, is based on early data and therefore is more likely to be subject to slightly more significant revisions.
2. The July 2023 figure is not a flash estimate of payrolled employees, this is included purely for graphing purposes.

Annual growth in the number of employees remained broadly within a range of 1.0% to 1.5% from mid-2016 until 2019. Growth rates before mid-2016 were higher than 1.5% (Figure 2).

Starting around early 2019, employee growth began a slight downward trend. However, employee growth slowed more substantially past March 2020, coinciding with the coronavirus (COVID-19) pandemic, becoming negative in April 2020.

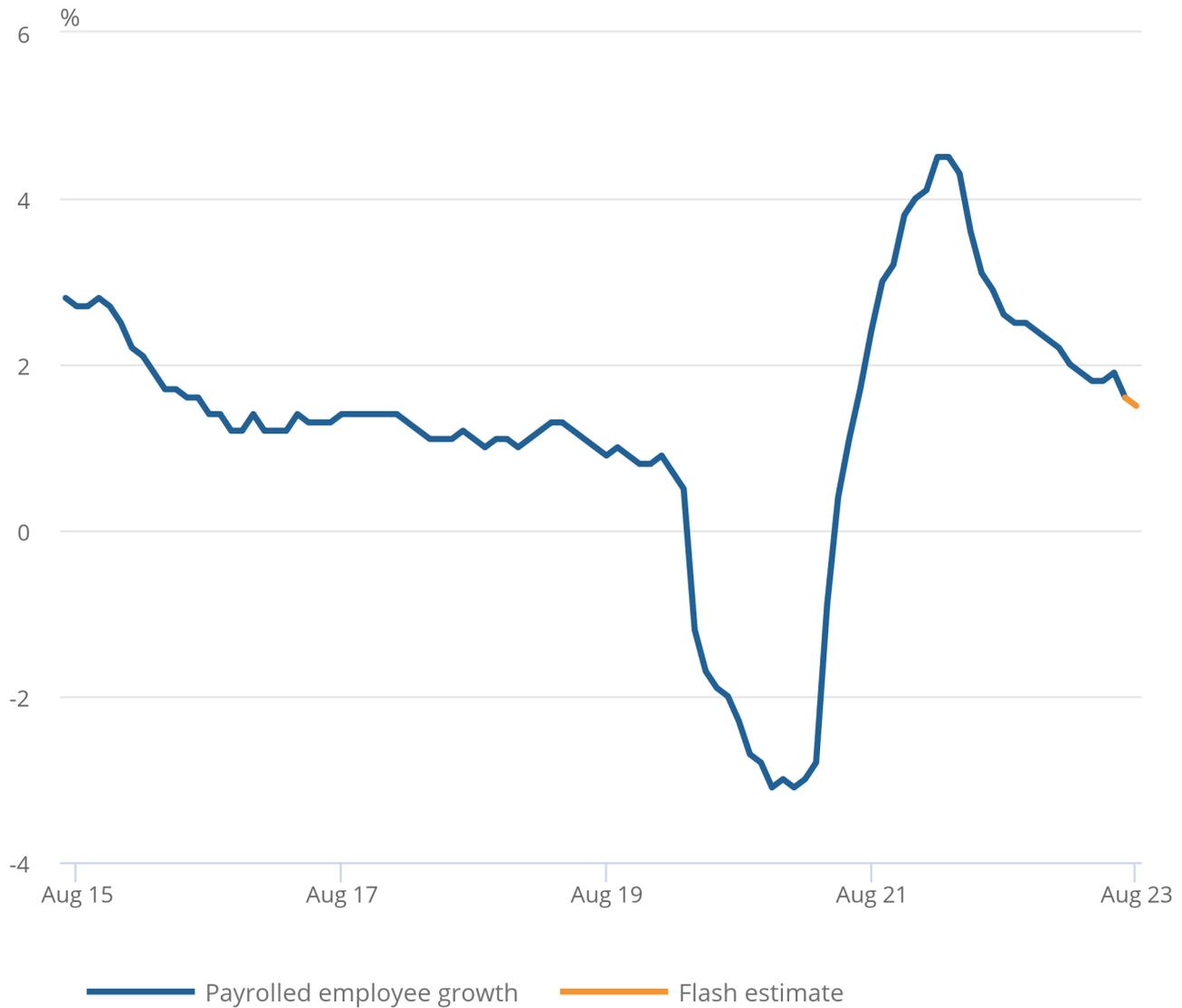
At the start of 2021, growth rates began to recover, and remained high as the labour market continued to recover from the effects of the coronavirus pandemic. From April 2022 the annual growth rate has been falling. Through 2022 this fall would have been partially caused by the comparison against the increase in employee numbers from March 2021, which levelled off as we no longer compared against this higher baseline. However, growth rates then continued to fall into 2023.

Figure 2: Growth in the number of payrolled employees became negative in 2020, but has since returned to positive growth

Percentage change on same month in previous year, seasonally adjusted, UK, July 2015 to August 2023

Figure 2: Growth in the number of payrolled employees became negative in 2020, but has since returned to positive growth

Percentage change on same month in previous year, seasonally adjusted, UK, July 2015 to August 2023



3 . Median monthly pay

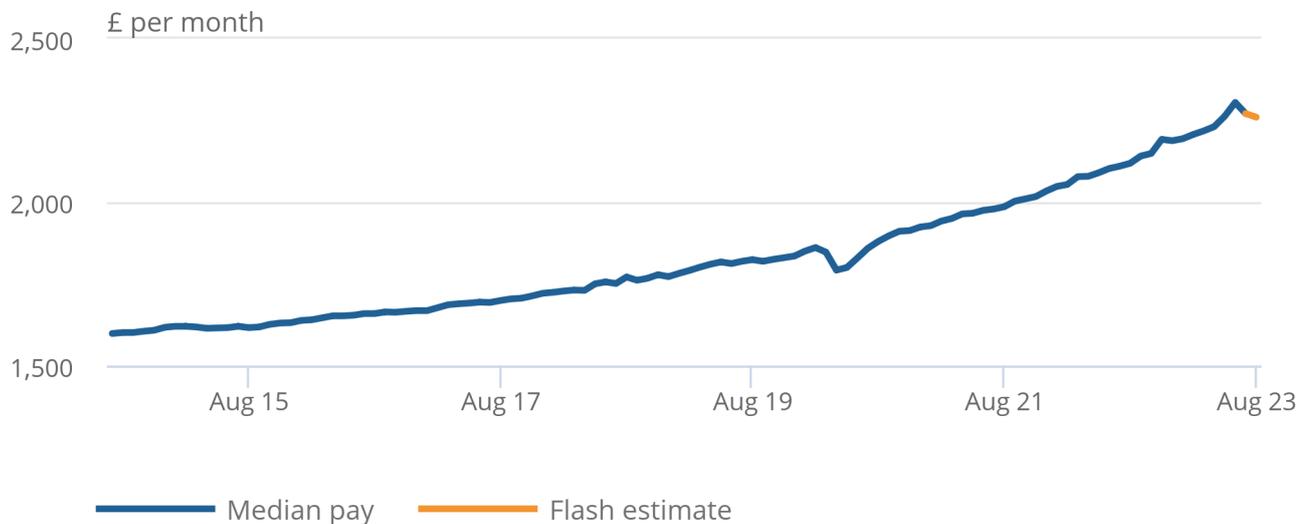
Early estimates for August 2023 indicate that median monthly pay was £2,260, an increase of 6.7% compared with the same period of the previous year.

Figure 3: Median pay decreased sharply in April 2020, but has returned to the previous trend

Median pay per month, seasonally adjusted, UK, July 2014 to August 2023

Figure 3: Median pay decreased sharply in April 2020, but has returned to the previous trend

Median pay per month, seasonally adjusted, UK, July 2014 to August 2023



Source: Pay As You Earn Real Time Information from HM Revenue and Customs

Notes:

1. The latest period, highlighted in orange, is based on early data and therefore is more likely to be subject to slightly more significant revisions.
2. The July 2023 figure is not a flash estimate of payrolled employees, this is included purely for graphing purposes.

Following a general trend of increasing pay growth between mid-2015 and mid-2018, pay growth tended to fluctuate around 3.6%, until 2020 when it became negative. This coincided with the coronavirus (COVID-19) pandemic and related economic and policy responses. From June 2020 median pay growth has been positive and is now above pre-coronavirus pandemic (February 2020) levels. The high level of pay growth in April 2021 is attributed to the relatively high median pay in April 2021, combined with the suppressed level of median pay in April 2020 at the start of the coronavirus pandemic.

Figure 4: The rate of growth in median pay fell between March and May 2020, but is now higher than the average growth before March 2020

Percentage change on same month in previous year, seasonally adjusted, UK, July 2015 to August 2023

Figure 4: The rate of growth in median pay fell between March and May 2020, but is now higher than the average growth before March 2020

Percentage change on same month in previous year, seasonally adjusted, UK, July 2015 to August 2023



Source: Pay As You Earn Real Time Information from HM Revenue and Customs

Notes:

1. The latest period, highlighted in orange, is based on early data and therefore is more likely to be subject to slightly more significant revisions.
2. The Jul 2023 figure is not a flash estimate of median pay growth, this is included purely for graphing purposes.

4 . Pay distribution

In the three months to July 2023, the 10th percentile of the monthly pay distribution was £751, the 90th percentile was £5,410 and the 99th percentile was £15,104 (Figure 5). This means that:

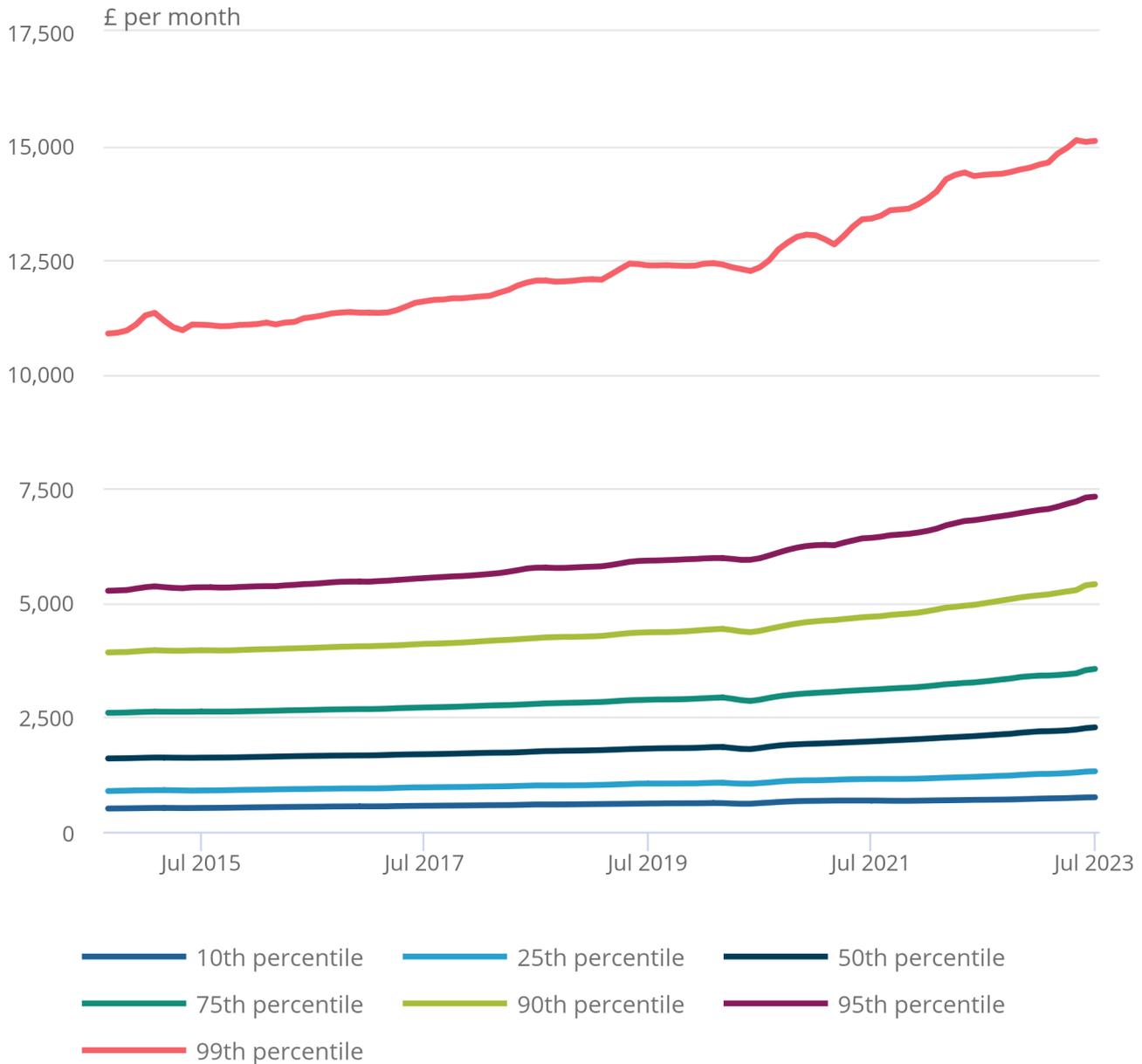
- 10% of payrolled employees earned equal to or less than £751 per month
- 90% of payrolled employees earned equal to or less than £5,410 per month
- 99% of payrolled employees earned equal to or less than £15,104 per month

Figure 5: Some 10% of employees earn less than £751 per month and 90% earn less than £5,410 per month

Pay per month, seasonally adjusted, UK, three months to September 2014 to three months to July 2023

Figure 5: Some 10% of employees earn less than £751 per month and 90% earn less than £5,410 per month

Pay per month, seasonally adjusted, UK, three months to September 2014 to three months to July 2023



Source: Pay As You Earn Real Time Information from HM Revenue and Customs

Notes:

1. Data for the 50th percentile (that is, the median) in this chart are based on three-month moving averages. For this reason, they are not directly comparable with Figures 3 or 4 (which use data for a single month).

5 . Regional data

The regional figures in this bulletin are based on where employees live and not the location of their place of work. They include data for August 2023, and cover Nomenclature of Territorial Units for Statistics (NUTS): NUTS1, NUTS2, NUTS3 regions, and local administrative units (LAUs). For further details, see our [International geographies web page](#).

Numbers of payrolled employees in the UK for the regions shown in Figure 6 ranged from 791,000 in Northern Ireland to 4,318,000 in London in August 2023.

Figure 6: Regional employee growth fell across the UK over 2020 and 2021, but subsequently recovered across all regions

Percentage change on same month in previous year, seasonally adjusted, UK, January 2017 to August 2023

Notes:

1. The latest period is based on early data and therefore is more likely to be subject to slightly more significant revisions.

Download this chart

[.xlsx](#)

London and Northern Ireland experienced higher growth than the UK average between January 2017 and early 2020, while the North East and Scotland experienced lower growth than the UK overall. Employee numbers within LAUs, and NUTS1, NUTS2, and NUTS3 regions are available in our [accompanying datasets](#).

Over the course of the coronavirus (COVID-19) pandemic, all regions' growth rates followed a similar pattern. Growth rapidly declined and became negative in April 2020, but from the middle of 2021 began to recover. As regions have caught up with their pre-coronavirus level, these high growth rates have started to fall back to rates seen historically before the coronavirus pandemic.

Comparing August 2023 with the same period of the previous year for NUTS1 regions, changes in payrolled employees ranged from the highest being a 1.7% increase in London to the lowest being a 1.1% increase in Yorkshire and The Humber.

Examining NUTS3 regions, Camden and City of London experienced a decrease of 1.4% in payrolled employees in comparison with August 2022, and Coventry experienced an increase of 3.9% (Figure 7).

There is greater variation at LAU level, with growth rates varying between negative 6.8% and positive 4.7%.

Figure 7: Growth in payrolled employees varies across the UK

Percentage change on same month in previous year, seasonally adjusted, UK, NUTS3 level, August 2023

Notes:

1. The latest period is based on early data and therefore is more likely to be subject to slightly more significant revisions.

[Download this chart](#)

[.xlsx](#)

Median pay across the NUTS3 regions of the UK in August 2023 ranged from £1,920 in Leicester to £3,488 in Wandsworth (Figure 8).

Inner London generally differs from Outer London, with median pay ranging from £2,229 in Enfield to £3,488 in Wandsworth. Median pay in August 2023 for London as a whole was £2,703.

Median pay across the LAUs in August 2023 ranged from £1,883 in East Lindsey to £5,493 in City of London.

Figure 8: Median pay varies across the UK

Median pay, seasonally adjusted, UK, NUTS3 level, August 2023

Notes:

1. The latest period is based on early data and therefore is more likely to be subject to slightly more significant revisions.

[Download this chart](#)

[.xlsx](#)

6 . Industry data

The industrial sectors in this bulletin are based on the [UK Standard Industrial Classification \(SIC\) codes](#), as defined by the Office for National Statistics (ONS). These codes have been determined from both the most recent [Inter-Departmental Business Register \(IDBR\)](#) and data from Companies House for each Pay As You Earn (PAYE) enterprise. The findings from the 14 largest sectors are presented. The seven smaller sectors have been removed from the bulletin for presentational purposes, but their estimates are available in our [accompanying datasets](#).

The three largest sectors – Wholesale and retail; repair of motor vehicles, health and social work, and education – account for around 40% of UK employees. These three sectors combined with administrative and support services; manufacturing; professional, scientific and technical; and accommodation and food service activities account for more than 70% of UK employees.

Since January 2017, employee growth has not been even across sectors (Figure 9). Sectors such as construction, transportation and storage, and information and communication experienced higher growth than the UK average between January 2017 and early 2020. Sectors such as manufacturing, and Wholesale and retail; repair of motor vehicles experienced lower growth than the UK overall.

All sectors highlighted experienced a decrease in employee growth around April 2020, with the smallest decrease being in health and social work.

Public administration and defence, and health and social work saw early recoveries in their growth rates, as did administrative and support services, and education from early 2021 onwards.

When comparing early estimates for August 2023 with the same period of the previous year, percentage changes in payrolled employees ranged from negative 0.8% in accommodation and food service activities to positive 5.0% in finance and insurance.

Figure 9: Employee growth has been very different across sectors

Percentage change on same month in previous year, seasonally adjusted, UK, January 2017 to August 2023

Notes:

1. The latest period is based on early data and therefore is more likely to be subject to slightly more significant revisions.

Download this chart

[.xlsx](#)

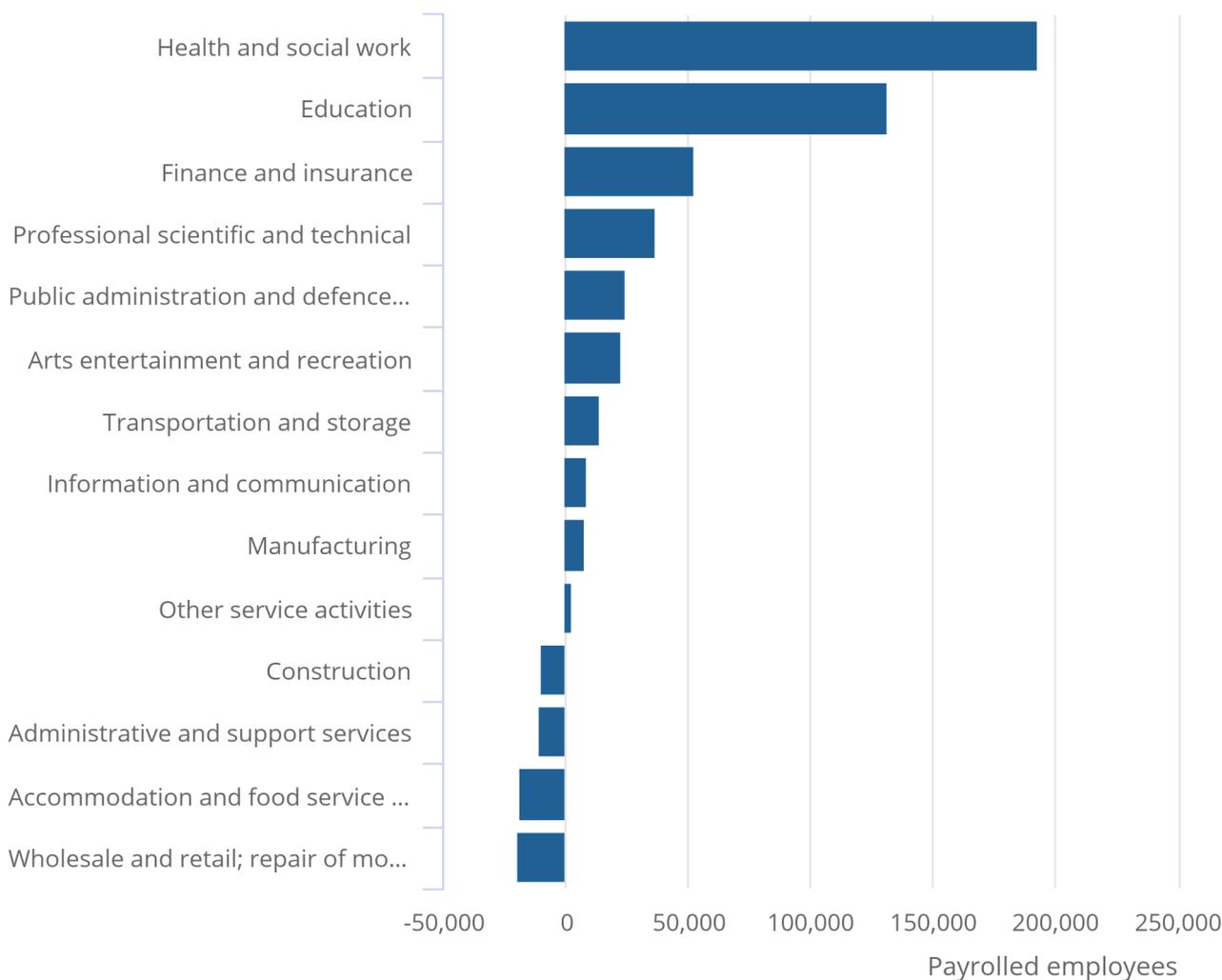
The increase in payrolled employees between August 2022 and August 2023 was largest in the health and social work sector (a rise of 193,000 employees) and smallest in the Wholesale and retail; repair of motor vehicles sector (a fall of 19,000 employees).

Figure 10: The health and social work sector has seen the greatest increase in payrolled employees since August 2022

Payrolled employees, absolute change on August 2022, seasonally adjusted, UK, August 2023

Figure 10: The health and social work sector has seen the greatest increase in payrolled employees since August 2022

Payrolled employees, absolute change on August 2022, seasonally adjusted, UK, August 2023



Source: Pay As You Earn Real Time Information from HM Revenue and Customs

Notes:

1. The latest period is based on early data and therefore is more likely to be subject to slightly more significant revisions.

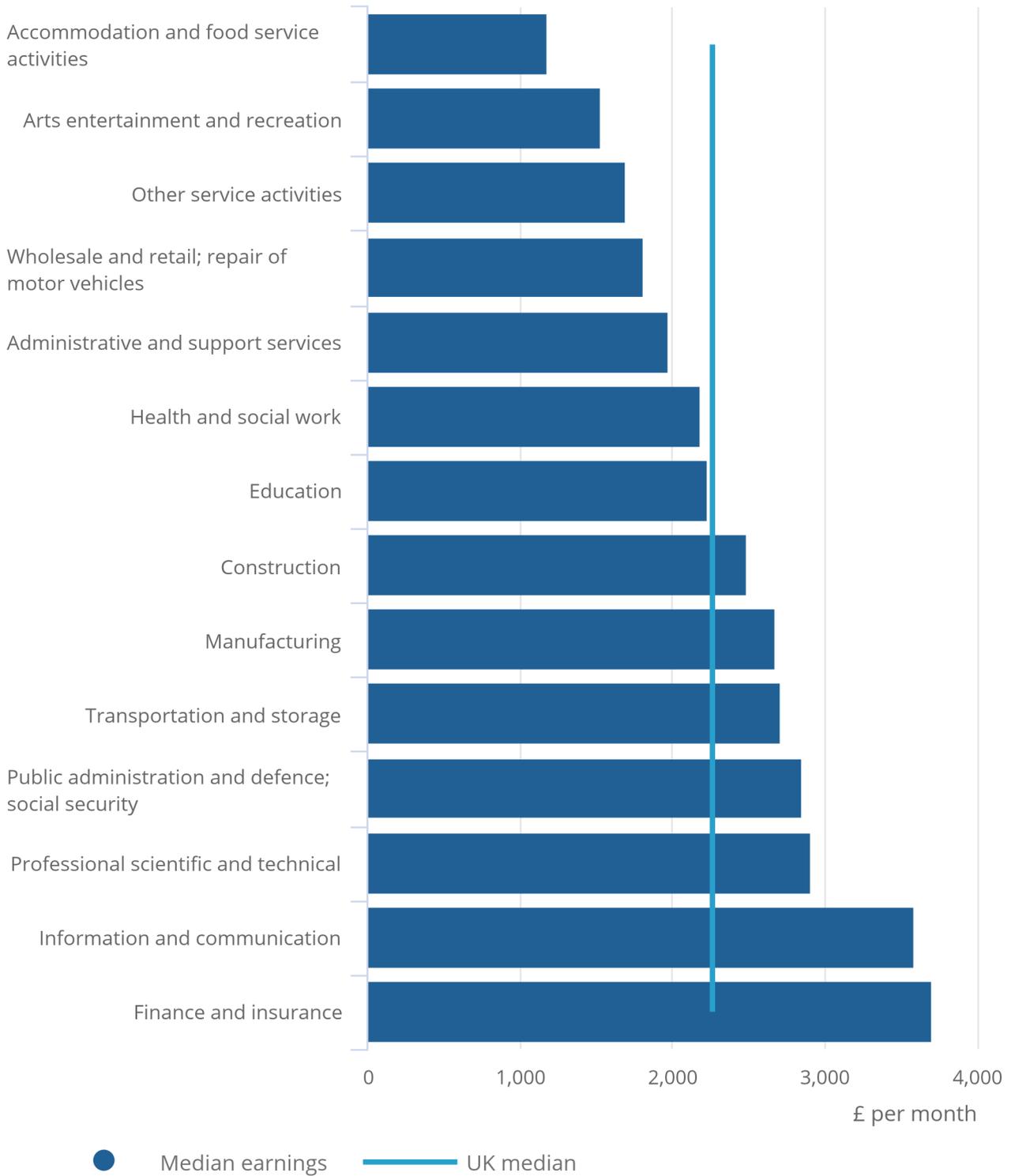
Median pay in August 2023 across the highlighted sectors ranged from £1,176 in the accommodation and food service activities sector to £3,704 in finance and insurance (Figure 11).

Figure 11: Median pay varies by industry

Median pay, seasonally adjusted, UK, August 2023

Figure 11: Median pay varies by industry

Median pay, seasonally adjusted, UK, August 2023



Notes:

1. The latest period is based on early data and therefore is more likely to be subject to slightly more significant revisions.

Compared with the same month in the previous year, median pay grew fastest in the other service activities sector, at positive 8.7% (Figure 12), and slowest in the finance and insurance sector, at positive 3.2%.

From June 2023, NHS workers started to receive a pay rise following an agreed pay offer from the government to eligible workers on the Agenda for Change contract. As well as a consolidated pay rise of 5%, it also included a pay rise backdated to April. The pay offer for 2022 was paid to most NHS workers in September 2022, so the current growth in the health and social work sector will include the effect of the pay offers for both 2022 and 2023.

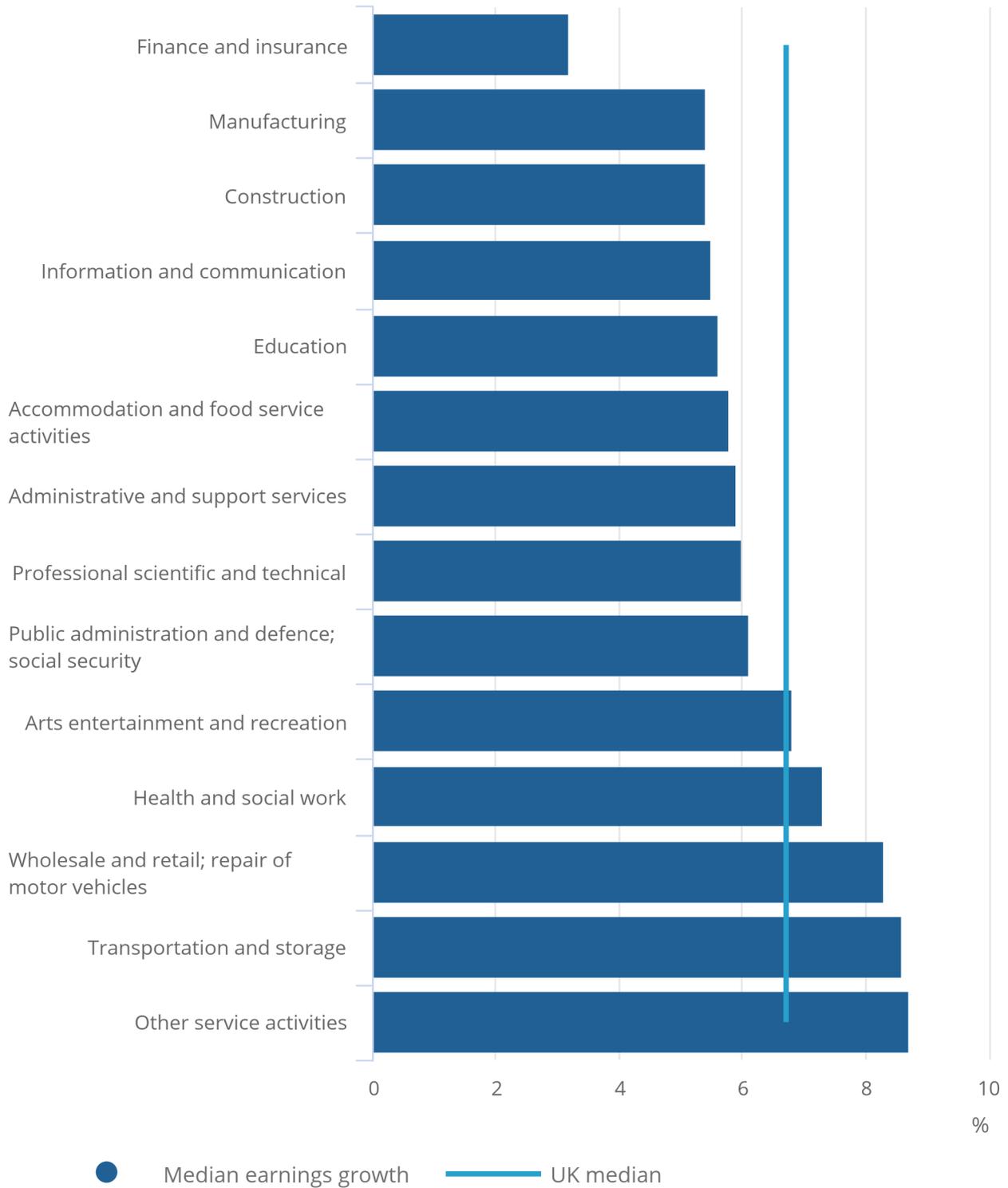
Estimates of mean pay for each sector are available in our [accompanying datasets](#).

Figure 12: Median pay increased most in the other service activities sector

Percentage change on same month in previous year, seasonally adjusted, UK, August 2023

Figure 12: Median pay increased most in the other service activities sector

Percentage change on same month in previous year, seasonally adjusted, UK, August 2023



Source: Pay As You Earn Real Time Information from HM Revenue and Customs

Notes:

1. The latest period is based on early data and therefore is more likely to be subject to slightly more significant revisions.
2. Changes in growth rates are affected by changes in the base period (a year ago) as well as changes in the latest period.

7 . Age data

The age figures in this bulletin are calculated based on individuals' age at the time they receive a payment.

Of the 30.1 million payrolled employees in the UK in August 2023, 94.6% are aged 18 to 64 years.

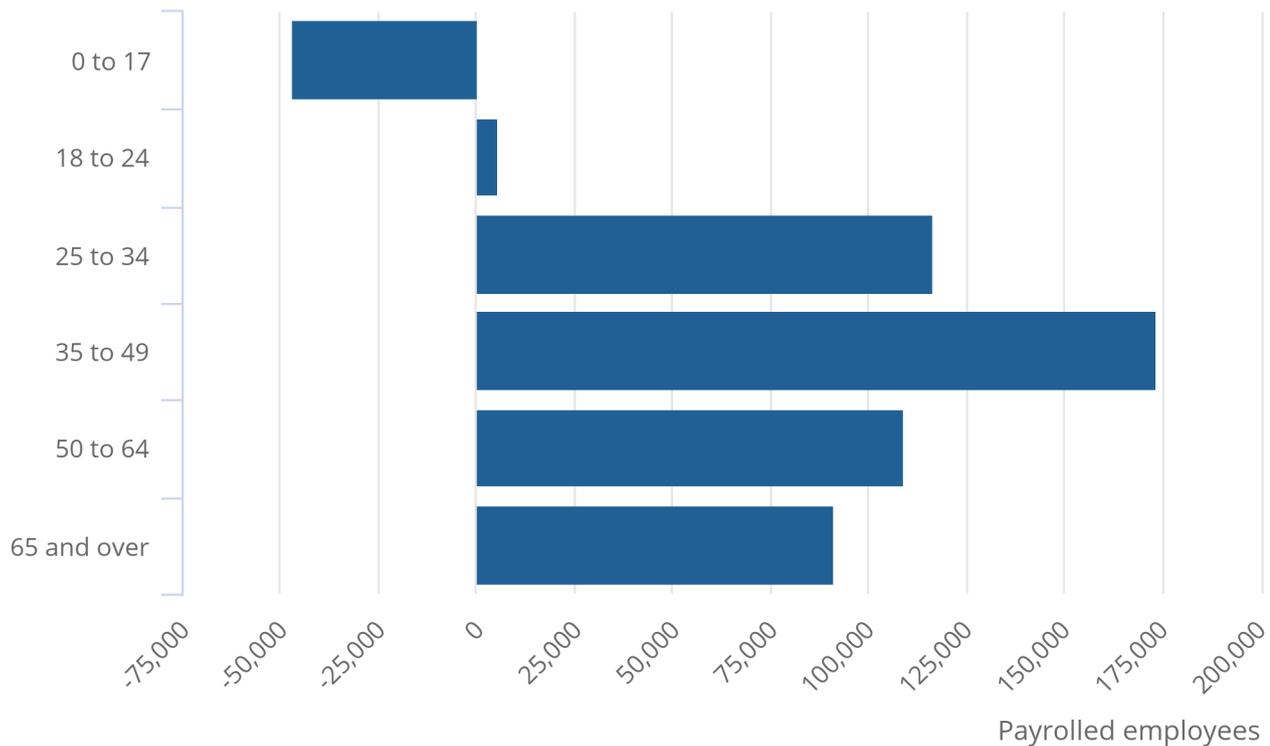
Between August 2022 and August 2023, there was a decrease of 41,000 payrolled employees aged under 25 years. During the same period, payrolled employees aged 35 to 49 years increased by 174,000.

Figure 13: The 35 to 49 years age group has seen the greatest increase in payrolled employees since August 2022

Payrolled employees, absolute change on August 2022, seasonally adjusted, UK, August 2023

Figure 13: The 35 to 49 years age group has seen the greatest increase in payrolled employees since August 2022

Payrolled employees, absolute change on August 2022, seasonally adjusted, UK, August 2023



Source: Pay As You Earn Real Time Information from HM Revenue and Customs

Notes:

1. The latest period is based on early data and therefore is more likely to be subject to slightly more significant revisions.

Since 2019, the number of payrolled employees aged 65 years and over has increased at a faster rate than the UK as a whole, with employee growth peaking at 10.7% in January 2020 (Figure 14). This higher growth coincides with the [phased increase in State Pension age](#) between March 2019 and September 2020, for men and women aged 65 to 66 years. While growth rates fell in this age group during 2020, coinciding with the coronavirus (COVID-19) pandemic, they have now returned to above the UK average.

Conversely, growth in payrolled employees aged under 25 years has undergone long-term decline since 2017. These age groups saw large declines in growth rates during 2020, much steeper than those seen in the UK as a whole. Both groups have since seen positive growth rates, with employee growth peaking in those aged under 18 years at 75.0% in March 2022. However, this growth has since then continued to decline.

Figure 14: Employee growth is lower in younger age groups

Percentage change on same month in previous year, seasonally adjusted, UK, January 2017 to August 2023

Notes:

1. The latest period is based on early data and therefore is more likely to be subject to slightly more significant revisions.

Download this chart

[.xlsx](#)

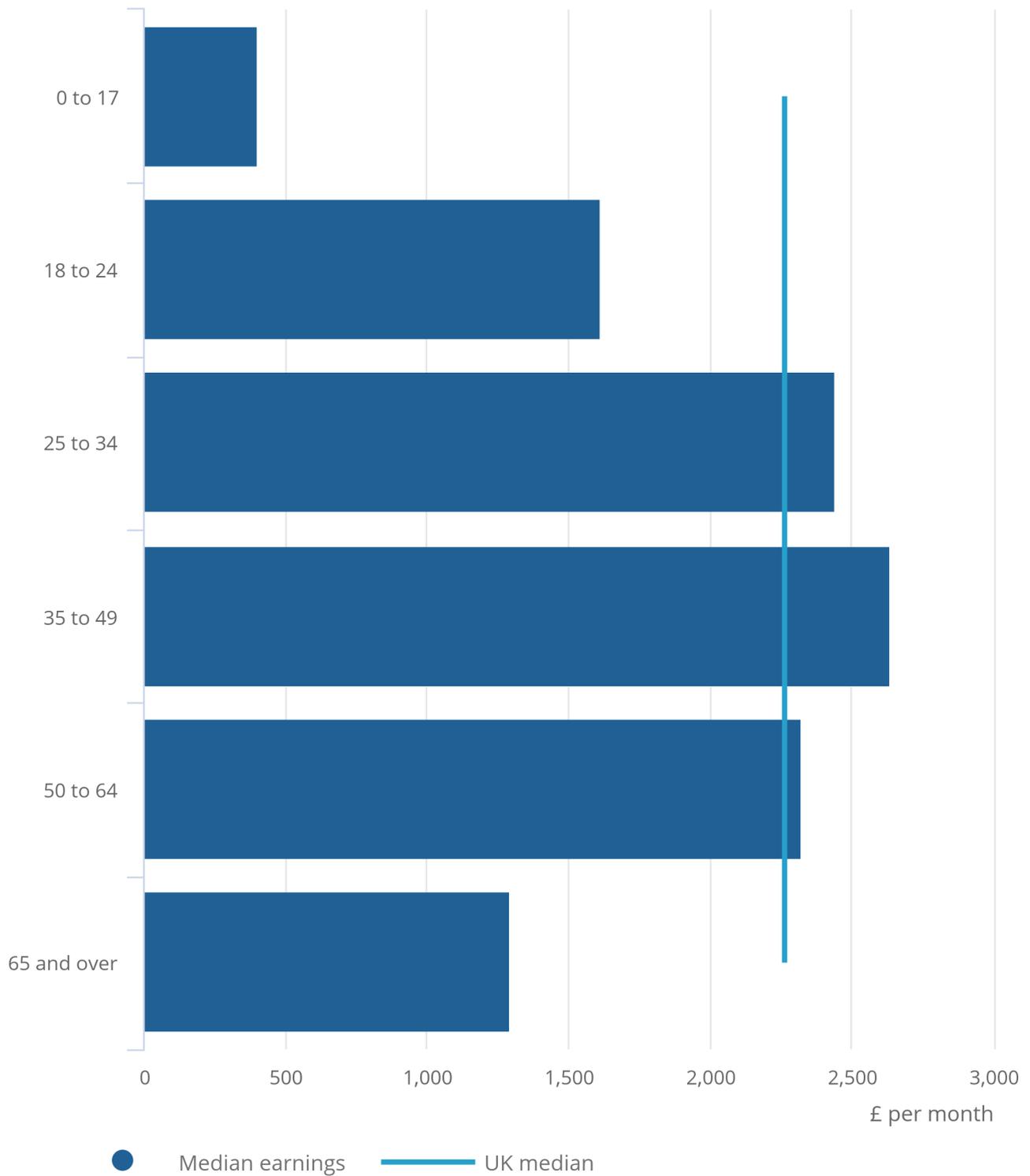
Median pay in August 2023 ranged from £401 for those aged under 18 years to £2,634 for those aged 35 to 49 years (Figure 15). Overall, median pay is higher in the central age bands, of those studied.

Figure 15: Median pay varies by age

Median pay, seasonally adjusted, UK, August 2023

Figure 15: Median pay varies by age

Median pay, seasonally adjusted, UK, August 2023



Notes:

1. The latest period is based on early data and therefore is more likely to be subject to slightly more significant revisions.

8 . Earnings and employment data

[Earnings and employment from Pay As You Earn Real Time Information, non-seasonally adjusted](#)

Dataset | Released 12 September 2023

Earnings and employment statistics from Pay As You Earn (PAYE) Real Time Information (RTI) (Experimental Statistics), non-seasonally adjusted.

[Earnings and employment from Pay As You Earn Real Time Information, revision triangle](#)

Dataset | Released 12 September 2023

Revisions of earnings and employment statistics from Pay As You Earn (PAYE) Real Time Information (RTI) (Experimental Statistics).

[Earnings and employment from Pay As You Earn Real Time Information, seasonally adjusted](#)

Dataset | Released 12 September 2023

Earnings and employment statistics from Pay As You Earn (PAYE) Real Time Information (RTI) (Experimental Statistics), seasonally adjusted.

9 . Glossary

Median monthly pay

Median monthly pay shows what a person in the middle of all employees would earn each month. The median pay is generally considered to be a more accurate reflection of the "average wage" because it discounts the extremes at either end of the scale.

National Minimum Wage and National Living Wage

The National Minimum Wage (NMW) is a minimum amount per hour that most workers in the UK are entitled to be payrolled. There are different rates of minimum wage depending on a worker's age and whether they are an apprentice. The NMW applies to employees aged 16 to 24 years. The government's National Living Wage (NLW) was introduced on 1 April 2016 and applies to employees aged 25 years and over. See current and previous rates for the NMW and NLW on [the government website](#).

Pay As You Earn

Pay As You Earn (PAYE) is the system employers and pension providers use to take Income Tax and National Insurance contributions before they pay wages or pensions to employees and pensioners. It was introduced in 1944 and is now the way most employees pay Income Tax in the UK. This publication relates to employees only and not pensioners.

10 . Measuring the data

Data source and collection

The data for this release come from HM Revenue and Customs' (HMRC's) Pay As You Earn (PAYE) Real Time Information (RTI) system. They cover the whole population rather than a sample of people or companies, and they will allow for more detailed estimates of the population. The release is classed as [Experimental Statistics](#) as the methodologies used to produce the statistics are still in their development phase. As a result, the series are subject to revisions.



Coverage

This publication covers employees payrolled by employers only. It does not cover self-employment income or income from other sources such as pensions, property rental and investments. Where individuals have multiple sources of income, only income from employers is included.

The figures in this release are for the period July 2014 to August 2023 and are seasonally adjusted.

Upcoming changes

We reported that in our October 2022 release we would be making a change to update the seasonal adjustment model used in the publication and supporting datasets. In updating the model, we have found issues in some of the series that prevent the seasonal adjustment model being applied. To ensure consistency throughout the publication we have delayed the update across all series until this issue can be resolved. We hope to implement the updated model in full in future publications.

Please contact us by email if you would like to offer feedback on how the contents can be improved in the future.

Methodology

An accompanying article contains more information on the [calendarisation and imputation methodologies](#) used in this bulletin, alongside comparisons with other earnings and employment statistics and possible quality improvements in the future.

11 . Strengths and limitations

Pre-release data

HM Revenue and Customs (HMRC) grants pre-release access to [official statistics](#) publications. As this is a joint release, and in accordance with the HMRC policy, pre-release access has been granted to a number of people to enable the preparation of statistical publications and ministerial briefing. Further details, including a list of those granted access to official statistics by HMRC, can be found on the [HMRC statistics: pre-release access list web page](#).

Experimental Statistics status

This is a joint experimental release between HMRC and the Office for National Statistics (ONS). The existing monthly publications produced by the ONS remain the primary [National Statistics](#) for the labour market. The intention is that these new statistics will also be updated on a monthly basis.

The release is classed as [Experimental Statistics](#) as the methodologies used to produce the statistics are still in their development phase. This does not mean that the statistics are of low quality, but it does indicate that the statistics are new and still being developed. As the methodologies are refined and improved, there may be revisions to these statistics.

Rather than waiting until the development work has been completed, the statistics are being published now to involve potential users in developing the statistics. We hope that this encourages users to provide us with their thoughts and suggestions on how useful the statistics are and how we can improve them. You can send us your comments by email.

Strengths of the data

As Pay As You Earn (PAYE) Real Time Information (RTI) data cover the whole population, rather than a sample of people or companies, we are able to use these to produce estimates for geographic areas and other more detailed breakdowns of the population. The methods for producing such breakdowns are under development and we expect to include further statistics in a future release. These statistics can help inform decision-making across the country. They also have the potential to provide more timely estimates than existing measures.

These statistics also have the potential to replace some of those based on surveys, which could reduce the burden on businesses needing to fill in statistical surveys.

Industry Sector Classifications

The industrial sectors in this bulletin are based on the [UK Standard Industrial Classification \(SIC\) codes](#), as defined by the Office for National Statistics (ONS). These codes have been determined from both the most recent [Inter-Departmental Business Register \(IDBR\)](#) and data from Companies House for each Pay As You Earn (PAYE) enterprise.

Large enterprises that cover multiple SIC codes are classified into a single SIC code based on the relative number of employees in each SIC code. Changes to the proportion of employees across SIC codes in large enterprises can result in the enterprise being reclassified to a different SIC code. To obtain the SIC code we link to the most recent quarterly versions of the IDBR. Once a year in the month we refresh data for the whole series, the IDBR link is refreshed using the most recent version available, and any reclassifications are then used for the entirety of the time series until the next year.

This means that sector level time series represent the current employers classified in each sector and are less likely to be distorted by employers being reclassified at the enterprise level because of small changes at the lower unit level. However, it also means that these time series may be revised between publications and, in the historical sections of the time series, employers are classified in sectors that they weren't classified in at that point in time. However, this method should minimise discrepancies in the data caused by reclassifications and should more easily allow the tracking of job movements between sectors.

Imputation and revisions

RTI data used in this release are extracted in the weeks following the end of the latest reference month. For some individuals this means payments relating to work done in recent reference months are yet to be received. Rather than wait until all payment returns have been received, we produce timelier measures by imputing the values for missing returns.

For the latest reference month around 15% of the data are imputed. We refer to this as the "flash" or "early" estimate in the bulletin, as this figure is the most subject to revision as payment returns are received and the imputed payments replaced with actual data.

From our July 2022 publication, two changes were made to the imputation model. A seasonal factor was incorporated into the imputation model. The model was also made more responsive to recent changes to the labour market that would affect the likelihood of a payment existing. The latter change in particular should reduce the scale of revisions seen to the "flash" estimate, but cannot eliminate revisions completely.

Earlier months also contain some imputed data. Some payment frequencies mean that we have not received the relevant payment data more than a month after the reference period. Also, in some circumstances, returns might be submitted late. Therefore, earlier months are also subject to revision, but these revisions are likely to be much smaller because the level of imputation is smaller. The proportion of imputed data for a reference month two months before data extraction is around 1% to 2% of the data.

For the majority of months, post-flash revisions will occur in small amounts gradually each month as more submissions are received. However, all RTI submissions must be received before the end of the tax year. Therefore, for months close to the end of the tax year these submissions and associated minor revisions that would have accumulated through the year instead need to be received all at once in the final submissions of the tax year. The months of January and February will be most affected by this and see sharper non-flash revisions at the end of the tax year if the imputed submissions are not received by that point. From July 2022, changes were incorporated into the imputation model to try to control for these seasonal differences, as well as other seasonal factors that might affect whether submissions are received through different points of the year.

The seasonal adjustment model will also update each month as the model is refined on the latest data available. These adjustments will appear as revisions in the seasonally adjusted data, and in the supporting seasonally adjusted revisions triangle.

Starting with the December 2020 publication, we introduced a new revisions policy. For each publication, we incorporate new input data only for the current tax year and the previous tax year. Revisions to estimates can potentially be made for up to the last two years as data can continue to be received, though updates to data outside of the most recent tax year are minimal.

Changes to the seasonally adjusted data also occur earlier than this limit, as the seasonal adjustment model is refined. The benefit of introducing this revisions policy is that we can use the processing time saved to produce and publish more detailed breakdowns. We capture any new input data referencing earlier years by incorporating data for the whole time series once a year.

Seasonal adjustment

The seasonal adjustment applied in this bulletin follows established best practice. This approach assumes that any seasonal patterns remain broadly consistent over time. If the seasonal pattern changes in strength, this will be represented as greater volatility in the seasonally adjusted figures. Both the seasonal and non-seasonally adjusted datasets are released alongside this bulletin.

Differences compared with the Labour Force Survey and Average Weekly Earnings statistics

Further information about the methodology used and comparisons with the ONS's [Labour Force Survey \(LFS\)](#) and [Average Weekly Earnings](#) can be found in our [Monthly earnings and employment estimates from Pay As You Earn Real Time Information \(PAYE RTI\) data methodology](#).

For more information on the strengths and weaknesses of these sources and other labour market data sources, including the advantages of new administrative data sources and limitations of some of our published figures, see our [Comparison of labour market data sources methodology](#).

12 . Related links

[Labour market overview: September 2023](#)

Bulletin | Released 12 September 2023

Estimates of employment, unemployment, economic inactivity and other employment-related statistics for the UK.

[Employment in the UK: September 2023](#)

Bulletin | Released 12 September 2023

Estimates of employment, unemployment and economic inactivity for the UK.

[Labour market in the regions of the UK: September 2023](#)

Bulletin | Released 12 September 2023

Regional breakdowns of changes in UK employment, unemployment and economic inactivity.

[Average weekly earnings in Great Britain: September 2023](#)

Bulletin | Released 12 September 2023

Estimates of growth in earnings for employees before tax and other deductions from pay.

[Vacancies and jobs in the UK: September 2023](#)

Bulletin | Released 12 September 2023

Estimates of the number of vacancies and jobs for the UK.

13 . Cite this statistical bulletin

Office for National Statistics (ONS) and HM Revenue and Customs (HMRC), released 12 September 2023, ONS website, statistical bulletin, [Earnings and employment from Pay As You Earn Real Time Information, UK: September 2023](#)

PAYROLLED EMPLOYEES

1 Payrolled employee counts from PAYE RTI

Period	Payrolled employees
	UK, all industries, seasonally adjusted
	Payrolled employees
August 2014	26,841,718
August 2015	27,564,544
August 2016	27,961,551
August 2017	28,343,570
August 2018	28,668,812
August 2019	28,939,142
August 2020	28,260,946
August 2021	28,943,024
August 2022	29,689,942
September 2022	29,752,255
October 2022	29,811,862
November 2022	29,865,908
December 2022	29,905,730
January 2023	29,932,970
February 2023	29,970,138
March 2023	30,029,049
April 2023	30,070,548
May 2023	30,099,788
June 2023	30,143,589
July 2023	30,140,041
August 2023	30,139,074
Change on year	449,132
Change %	1.5

Source: PAYE RTI

- Figures for Aug 2023 are early estimates and are more likely to be subject to more significant revisions.
- These data are experimental statistics.
- The number of payrolled employees here is defined as the number of people receiving paid remuneration included in PAYE RTI within the reference period, including people who have not done work but are an employee - such as those on paid leave.
- Values for the month are an average of employee counts in each day of the month. It is a measure of people who are payrolled employees, as opposed to a measure of employee jobs.
- These statistics include only individuals paid through PAYE and do not cover other sources of income such as from pensions, self-employment or investments.
- PAYE covers occupational pension income as well as employment. In these tables pension income is excluded.
- Incomes and employments are allocated to regions and countries according to the residence of the recipient.
- Incomes and employments are allocated to industries according to the sector that an recipients's PAYE scheme is in.
- These data include imputation for payments not yet received by HMRC which would relate to the respective work periods.
- Figures have been rounded to the nearest £ or unit.
- Those employees placed on furlough through the Coronavirus Job Retention Scheme and still in PAYE are included in these statistics.
- Pay figures are based on gross earnings.

MEDIAN PAY

2 Median monthly pay from PAYE RTI

Period	£ per month
	UK, all industries, seasonally adjusted
	Median pay
August 2014	1,601
August 2015	1,616
August 2016	1,659
August 2017	1,699
August 2018	1,771
August 2019	1,824
August 2020	1,880
August 2021	1,986
August 2022	2,119
September 2022	2,141
October 2022	2,149
November 2022	2,192
December 2022	2,188
January 2023	2,194
February 2023	2,207
March 2023	2,218
April 2023	2,231
May 2023	2,263
June 2023	2,305
July 2023	2,271
August 2023	2,260
Change on year	141
Change %	6.7

Source: PAYE RTI

1. Figures for Aug 2023 are early estimates and are more likely to be subject to more significant revisions.
2. These data are experimental statistics.
3. The number of payrolled employees here is defined as the number of people receiving paid remuneration included in PAYE RTI within the reference period, including people who have not done work but are an employee - such as those on paid leave.
4. Values for the month are an average of employee counts in each day of the month. It is a measure of people who are payrolled employees, as opposed to a measure of employee jobs.
5. These statistics include only individuals paid through PAYE and do not cover other sources of income such as from pensions, self-employment or investments.
6. PAYE covers occupational pension income as well as employment. In these tables pension income is excluded.
7. Incomes and employments are allocated to regions and countries according to the residence of the recipient.
8. Incomes and employments are allocated to industries according to the sector that an recipients's PAYE scheme is in.
9. These data include imputation for payments not yet received by HMRC which would relate to the respective work periods.
10. Figures have been rounded to the nearest £ or unit.
11. Those employees placed on furlough through the Coronavirus Job Retention Scheme and still in PAYE are included in these statistics.
12. Pay figures are based on gross earnings.

MEAN PAY

3 Mean monthly pay from PAYE RTI

Period	£ per month
	UK, all industries, seasonally adjusted
	Mean pay
July 2014	2,189
July 2015	2,229
July 2016	2,274
July 2017	2,327
July 2018	2,412
July 2019	2,489
July 2020	2,528
July 2021	2,714
July 2022	2,867
August 2022	2,880
September 2022	2,901
October 2022	2,919
November 2022	2,972
December 2022	2,961
January 2023	2,972
February 2023	3,010
March 2023	3,066
April 2023	3,014
May 2023	3,059
June 2023	3,129
July 2023	3,060
Change on year	193
Change %	6.7

Source: PAYE RTI

1. Figures for Aug 2023 are early estimates and are more likely to be subject to more significant revisions.
2. These data are experimental statistics.
3. The number of payrolled employees here is defined as the number of people receiving paid remuneration included in PAYE RTI within the reference period, including people who have not done work but are an employee - such as those on paid leave.
4. Values for the month are an average of employee counts in each day of the month. It is a measure of people who are payrolled employees, as opposed to a measure of employee jobs.
5. These statistics include only individuals paid through PAYE and do not cover other sources of income such as from pensions, self-employment or investments.
6. PAYE covers occupational pension income as well as employment. In these tables pension income is excluded.
7. Incomes and employments are allocated to regions and countries according to the residence of the recipient.
8. Incomes and employments are allocated to industries according to the sector that an recipients's PAYE scheme is in.
9. These data include imputation for payments not yet received by HMRC which would relate to the respective work periods.
10. Figures have been rounded to the nearest £ or unit.
11. Those employees placed on furlough through the Coronavirus Job Retention Scheme and still in PAYE are included in these statistics.
12. Pay figures are based on gross earnings.

AGGREGATE PAY

4 Aggregate monthly pay from PAYE RTI

Period	£ per month
	UK, all industries, seasonally adjusted
Period	Aggregate pay
July 2014	58,590,178,458
July 2015	61,361,903,152
July 2016	63,583,579,999
July 2017	65,886,912,651
July 2018	69,082,732,096
July 2019	71,983,371,631
July 2020	71,642,155,498
July 2021	78,187,176,091
July 2022	85,015,175,765
August 2022	85,493,443,986
September 2022	86,302,346,553
October 2022	87,010,057,379
November 2022	88,760,140,413
December 2022	88,544,096,507
January 2023	88,958,672,249
February 2023	90,209,178,683
March 2023	92,072,985,068
April 2023	90,625,080,681
May 2023	92,070,348,501
June 2023	94,305,146,946
July 2023	92,216,278,287
Change on year	7,201,102,522
Change %	8.5

Source: PAYE RTI

1. Figures for Aug 2023 are early estimates and are more likely to be subject to more significant revisions.
2. These data are experimental statistics.
3. The number of payrolled employees here is defined as the number of people receiving paid remuneration included in PAYE RTI within the reference period, including people who have not done work but are an employee - such as those on paid leave.
4. Values for the month are an average of employee counts in each day of the month. It is a measure of people who are payrolled employees, as opposed to a measure of employee jobs.
5. These statistics include only individuals paid through PAYE and do not cover other sources of income such as from pensions, self-employment or investments.
6. PAYE covers occupational pension income as well as employment. In these tables pension income is excluded.
7. Incomes and employments are allocated to regions and countries according to the residence of the recipient.
8. Incomes and employments are allocated to industries according to the sector that an recipients's PAYE scheme is in.
9. These data include imputation for payments not yet received by HMRC which would relate to the respective work periods.
10. Figures have been rounded to the nearest £ or unit.
11. Those employees placed on furlough through the Coronavirus Job Retention Scheme and still in PAYE are included in these statistics.
12. Pay figures are based on gross earnings.

PAY DISTRIBUTION

5 Monthly pay by percentile from PAYE RTI

Period	£ per month, 3 month moving average UK, all industries, seasonally adjusted							
	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile	95th percentile	99th percentile	
July 2015	518	899	1,617	2,625	3,965	5,343	11,084	
July 2016	544	934	1,655	2,661	4,018	5,419	11,253	
July 2017	565	967	1,692	2,715	4,107	5,544	11,598	
July 2018	593	1,009	1,752	2,794	4,233	5,772	12,051	
July 2019	615	1,052	1,816	2,884	4,359	5,926	12,382	
July 2020	623	1,061	1,829	2,885	4,390	5,978	12,340	
July 2021	680	1,151	1,973	3,104	4,700	6,425	13,406	
July 2022	696	1,204	2,101	3,282	4,990	6,839	14,360	
August 2022	698	1,213	2,114	3,303	5,022	6,872	14,375	
September 2022	700	1,220	2,128	3,328	5,056	6,900	14,385	
October 2022	703	1,226	2,140	3,349	5,087	6,930	14,426	
November 2022	709	1,241	2,162	3,381	5,122	6,967	14,479	
December 2022	715	1,252	2,178	3,398	5,148	7,001	14,517	
January 2023	721	1,262	2,192	3,411	5,168	7,033	14,585	
February 2023	725	1,263	2,196	3,413	5,188	7,055	14,631	
March 2023	728	1,269	2,203	3,425	5,220	7,105	14,827	
April 2023	733	1,279	2,214	3,441	5,252	7,166	14,951	
May 2023	740	1,293	2,232	3,462	5,281	7,219	15,119	
June 2023	748	1,311	2,263	3,531	5,387	7,304	15,082	
July 2023	751	1,320	2,280	3,558	5,410	7,324	15,104	
Change on year	55	116	179	276	420	485	744	
Change %	7.9	9.6	8.5	8.4	8.4	7.1	5.2	

Source: PAYE RTI

1. Figures for Aug 2023 are early estimates and are more likely to be subject to more significant revisions.
2. These data are experimental statistics.
3. The number of payrolled employees here is defined as the number of people receiving paid remuneration included in PAYE RTI within the reference period, including people who have not done work but are an employee - such as those on paid leave.
4. Values for the month are an average of employee counts in each day of the month. It is a measure of people who are payrolled employees, as opposed to a measure of employee jobs.
5. These statistics include only individuals paid through PAYE and do not cover other sources of income such as from pensions, self-employment or investments.
6. PAYE covers occupational pension income as well as employment. In these tables pension income is excluded.
7. Incomes and employments are allocated to regions and countries according to the residence of the recipient.
8. Incomes and employments are allocated to industries according to the sector that an recipients's PAYE scheme is in.
9. These data include imputation for payments not yet received by HMRC which would relate to the respective work periods.
10. Figures have been rounded to the nearest £ or unit.
11. Those employees placed on furlough through the Coronavirus Job Retention Scheme and still in PAYE are included in these statistics.
12. Pay figures are based on gross earnings.

EMPLOYEE FLOWS

6 Inflows and outflows from PAYE RTI

Period	Payrolled employees UK, all industries, seasonally adjusted	
	Inflows	Outflows
July 2017	675,209	655,947
July 2018	668,940	630,775
July 2019	642,562	652,146
July 2020	440,963	476,590
July 2021	689,650	579,994
July 2022	687,111	621,669
August 2022	680,378	645,504
September 2022	690,219	627,906
October 2022	692,279	632,672
November 2022	687,104	633,058
December 2022	675,706	635,884
January 2023	677,791	650,551
February 2023	686,810	649,642
March 2023	694,765	635,854
April 2023	669,678	628,179
May 2023	669,531	640,291
June 2023	675,269	631,468
July 2023	651,337	654,885
Change on year	-35,774	33,216
Change %	-5.2	5.3

Source: PAYE RTI

- Figures for Aug 2023 are early estimates and are more likely to be subject to more significant revisions.
- These data are experimental statistics.
- The number of payrolled employees here is defined as the number of people receiving paid remuneration included in PAYE RTI within the reference period, including people who have not done work but are an employee - such as those on paid leave.
- Values for the month are an average of employee counts in each day of the month. It is a measure of people who are payrolled employees, as opposed to a measure of employee jobs.
- These statistics include only individuals paid through PAYE and do not cover other sources of income such as from pensions, self-employment or investments.
- PAYE covers occupational pension income as well as employment. In these tables pension income is excluded.
- Incomes and employments are allocated to regions and countries according to the residence of the recipient.
- Incomes and employments are allocated to industries according to the sector that an recipients's PAYE scheme is in.
- These data include imputation for payments not yet received by HMRC which would relate to the respective work periods.
- Figures have been rounded to the nearest £ or unit.
- Those employees placed on furlough through the Coronavirus Job Retention Scheme and still in PAYE are included in these statistics.
- Pay figures are based on gross earnings.

REGIONAL PAYROLLED EMPLOYEES (NUTS1)

7 Regional payrolled employees from PAYE RTI

Period	Payrolled employees UK, all industries, seasonally adjusted											
	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East	London	South East	South West	Wales	Scotland	Northern Ireland
August 2014	1,032,664	2,920,643	2,156,440	1,961,817	2,303,684	2,555,840	3,689,260	3,800,644	2,248,767	1,190,148	2,306,048	675,764
August 2015	1,050,636	2,992,805	2,202,203	2,016,282	2,378,697	2,629,434	3,846,765	3,899,173	2,304,529	1,210,320	2,336,853	696,847
August 2016	1,055,945	3,030,365	2,233,006	2,048,993	2,415,822	2,681,320	3,925,885	3,954,849	2,341,562	1,223,287	2,344,255	706,263
August 2017	1,063,765	3,078,909	2,260,026	2,082,039	2,449,257	2,718,385	3,989,363	4,005,675	2,371,885	1,240,836	2,361,920	721,509
August 2018	1,069,751	3,120,874	2,285,725	2,108,177	2,476,730	2,750,235	4,049,023	4,048,347	2,395,335	1,254,733	2,373,292	736,588
August 2019	1,071,367	3,146,249	2,308,738	2,124,139	2,488,123	2,779,996	4,123,996	4,087,302	2,416,482	1,261,797	2,383,163	747,790
August 2020	1,054,204	3,093,120	2,261,994	2,082,232	2,434,166	2,717,258	3,988,535	3,984,952	2,357,066	1,233,133	2,316,352	737,934
August 2021	1,083,900	3,178,592	2,322,214	2,132,855	2,493,516	2,779,031	4,058,612	4,080,350	2,419,450	1,268,918	2,365,227	760,360
August 2022	1,106,836	3,244,971	2,371,153	2,175,496	2,559,025	2,836,873	4,244,068	4,184,112	2,469,475	1,297,065	2,421,404	779,463
September 2022	1,109,466	3,253,171	2,375,355	2,179,754	2,562,887	2,842,949	4,254,814	4,194,720	2,474,296	1,299,906	2,424,744	780,193
October 2022	1,110,947	3,257,378	2,379,511	2,182,730	2,568,074	2,847,735	4,271,481	4,203,801	2,478,346	1,301,472	2,428,574	781,815
November 2022	1,112,836	3,263,364	2,383,071	2,186,753	2,572,589	2,852,554	4,282,991	4,210,733	2,482,728	1,302,423	2,432,673	783,192
December 2022	1,114,888	3,265,927	2,385,821	2,189,148	2,576,563	2,856,255	4,293,831	4,214,835	2,484,844	1,303,677	2,434,866	785,075
January 2023	1,114,671	3,269,342	2,387,232	2,189,723	2,578,369	2,859,925	4,303,476	4,218,291	2,488,381	1,302,899	2,436,350	784,310
February 2023	1,115,641	3,271,576	2,386,849	2,191,570	2,579,488	2,865,579	4,311,565	4,226,117	2,491,360	1,306,133	2,437,787	786,473
March 2023	1,118,257	3,276,539	2,387,745	2,196,992	2,583,001	2,872,653	4,320,709	4,234,942	2,494,691	1,309,212	2,442,953	791,356
April 2023	1,120,583	3,285,456	2,393,712	2,199,487	2,588,893	2,878,517	4,313,898	4,238,078	2,505,250	1,313,640	2,443,331	789,701
May 2023	1,121,297	3,289,235	2,396,568	2,203,211	2,594,333	2,879,301	4,318,323	4,246,822	2,503,843	1,315,684	2,441,128	790,043
June 2023	1,123,180	3,292,275	2,398,365	2,206,106	2,598,179	2,882,823	4,322,729	4,254,411	2,507,914	1,317,810	2,448,913	790,885
July 2023	1,122,902	3,290,146	2,398,795	2,204,685	2,599,933	2,884,592	4,317,782	4,255,861	2,506,022	1,316,874	2,450,755	791,692
August 2023	1,122,298	3,288,903	2,398,065	2,204,792	2,601,130	2,884,212	4,317,892	4,256,428	2,507,822	1,315,151	2,451,096	791,285
Change on year	15,462	43,932	26,912	29,296	42,105	47,339	73,824	72,316	38,347	18,086	29,692	11,822
Change %	1.4	1.4	1.1	1.3	1.6	1.7	1.7	1.7	1.6	1.4	1.2	1.5

Source: PAYE RTI

1. Figures for Aug 2023 are early estimates and are more likely to be subject to more significant revisions.
2. These data are experimental statistics.
3. The number of payrolled employees here is defined as the number of people receiving paid remuneration included in PAYE RTI within the reference period, including people who have not done work but are an employee - such as those on paid leave.
4. Values for the month are an average of employee counts in each day of the month. It is a measure of people who are payrolled employees, as opposed to a measure of employee jobs.
5. These statistics include only individuals paid through PAYE and do not cover other sources of income such as from pensions, self-employment or investments.
6. PAYE covers occupational pension income as well as employment. In these tables pension income is excluded.
7. Incomes and employments are allocated to regions and countries according to the residence of the recipient.
8. Incomes and employments are allocated to industries according to the sector that an recipients's PAYE scheme is in.
9. These data include imputation for payments not yet received by HMRC which would relate to the respective work periods.
10. Figures have been rounded to the nearest £ or unit.
11. Those employees placed on furlough through the Coronavirus Job Retention Scheme and still in PAYE are included in these statistics.
12. Pay figures are based on gross earnings.

REGIONAL MEDIAN PAY (NUTS1)

8 Regional median monthly pay from PAYE RTI

Period	UK, all industries, seasonally adjusted											
	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East	London	South East	South West	Wales	Scotland	Northern Ireland
August 2014	1,526	1,513	1,495	1,511	1,519	1,643	1,926	1,716	1,496	1,499	1,650	1,488
August 2015	1,532	1,525	1,513	1,524	1,532	1,655	1,949	1,733	1,516	1,516	1,654	1,488
August 2016	1,568	1,567	1,545	1,563	1,574	1,697	2,007	1,783	1,556	1,552	1,689	1,526
August 2017	1,603	1,610	1,585	1,608	1,623	1,746	2,058	1,824	1,603	1,597	1,727	1,560
August 2018	1,677	1,685	1,651	1,676	1,691	1,821	2,142	1,892	1,668	1,650	1,786	1,619
August 2019	1,716	1,733	1,695	1,723	1,729	1,874	2,203	1,953	1,721	1,707	1,853	1,682
August 2020	1,769	1,790	1,756	1,786	1,785	1,941	2,258	2,016	1,782	1,776	1,911	1,748
August 2021	1,845	1,875	1,838	1,882	1,872	2,051	2,414	2,122	1,870	1,877	2,026	1,822
August 2022	1,977	2,009	1,976	2,016	2,013	2,190	2,564	2,273	2,026	1,993	2,125	1,975
September 2022	2,006	2,035	1,999	2,034	2,025	2,210	2,590	2,294	2,035	2,014	2,143	1,965
October 2022	2,015	2,038	2,002	2,039	2,028	2,217	2,598	2,299	2,048	2,025	2,162	1,980
November 2022	2,069	2,086	2,039	2,077	2,083	2,256	2,623	2,324	2,098	2,091	2,231	2,009
December 2022	2,051	2,075	2,037	2,072	2,060	2,255	2,635	2,341	2,084	2,062	2,203	2,010
January 2023	2,046	2,077	2,037	2,073	2,069	2,257	2,644	2,338	2,084	2,051	2,224	2,037
February 2023	2,055	2,082	2,049	2,082	2,078	2,270	2,651	2,348	2,099	2,074	2,254	2,051
March 2023	2,067	2,094	2,051	2,091	2,089	2,284	2,656	2,366	2,119	2,096	2,250	2,116
April 2023	2,088	2,111	2,079	2,114	2,111	2,292	2,663	2,366	2,127	2,110	2,278	2,056
May 2023	2,119	2,148	2,109	2,142	2,137	2,333	2,702	2,412	2,166	2,130	2,281	2,081
June 2023	2,181	2,196	2,158	2,195	2,186	2,373	2,740	2,459	2,211	2,169	2,296	2,101
July 2023	2,131	2,162	2,116	2,162	2,152	2,335	2,718	2,416	2,159	2,171	2,294	2,092
August 2023	2,117	2,144	2,103	2,148	2,139	2,323	2,703	2,406	2,159	2,122	2,292	2,094
Change on year	140	135	127	132	126	133	139	133	133	129	167	119
Change %	7.1	6.7	6.4	6.5	6.3	6.1	5.4	5.9	6.6	6.5	7.9	6

Source: PAYE RTI

1. Figures for Aug 2023 are early estimates and are more likely to be subject to more significant revisions.
2. These data are experimental statistics.
3. The number of payrolled employees here is defined as the number of people receiving paid remuneration included in PAYE RTI within the reference period, including people who have not done work but are an employee - such as those on paid leave.
4. Values for the month are an average of employee counts in each day of the month. It is a measure of people who are payrolled employees, as opposed to a measure of employee jobs.
5. These statistics include only individuals paid through PAYE and do not cover other sources of income such as from pensions, self-employment or investments.
6. PAYE covers occupational pension income as well as employment. In these tables pension income is excluded.
7. Incomes and employments are allocated to regions and countries according to the residence of the recipient.
8. Incomes and employments are allocated to industries according to the sector that an recipients's PAYE scheme is in.
9. These data include imputation for payments not yet received by HMRC which would relate to the respective work periods.
10. Figures have been rounded to the nearest £ or unit.
11. Those employees placed on furlough through the Coronavirus Job Retention Scheme and still in PAYE are included in these statistics.
12. Pay figures are based on gross earnings.

REGIONAL PAYROLLED EMPLOYEES (NUTS2)
9 Regional payrolled employees from PAYE RTI

Period	Payrolled employees			
	August 2022	August 2023	Change on year	Change %
	UK, all industries, seasonally adjusted			
Tees Valley and Durham	496,592	503,033	6,441	1.3
Northumberland and Tyne and Wear	610,244	619,266	9,022	1.5
Cumbria	220,775	223,654	2,879	1.3
Greater Manchester	1,261,401	1,279,093	17,692	1.4
Lancashire	651,238	658,912	7,674	1.2
Cheshire	442,846	449,493	6,647	1.5
Merseyside	668,711	677,750	9,039	1.4
East Yorkshire and Northern Lincolnshire	408,170	411,820	3,650	0.9
North Yorkshire	361,846	364,033	2,187	0.6
South Yorkshire	593,140	599,789	6,649	1.1
West Yorkshire	1,007,997	1,022,424	14,427	1.4
Derbyshire and Nottinghamshire	969,161	983,030	13,869	1.4
Leicestershire, Rutland and Northamptonshire	876,177	887,383	11,206	1.3
Lincolnshire	330,158	334,379	4,221	1.3
Herefordshire, Worcestershire and Warwickshire	625,569	634,304	8,735	1.4
Shropshire and Staffordshire	718,539	729,354	10,815	1.5
West Midlands (county)	1,214,917	1,237,472	22,555	1.9
East Anglia	1,124,013	1,141,453	17,440	1.6
Bedfordshire and Hertfordshire	886,619	902,991	16,372	1.8
Essex	826,241	839,768	13,527	1.6
Inner London - West	545,596	543,424	-2,172	-0.4
Inner London - East	1,206,373	1,223,310	16,937	1.4
Outer London - East and North East	878,848	899,534	20,686	2.4
Outer London - South	614,200	625,904	11,704	1.9
Outer London - West and North West	999,051	1,025,719	26,668	2.7
Berkshire, Buckinghamshire and Oxfordshire	1,197,923	1,221,330	23,407	2
Surrey, East and West Sussex	1,283,188	1,305,930	22,742	1.8
Hampshire and Isle of Wight	898,016	911,271	13,255	1.5
Kent	804,985	817,897	12,912	1.6
Gloucestershire, Wiltshire and Bristol/Bath area	1,177,300	1,196,133	18,833	1.6
Dorset and Somerset	567,420	575,499	8,079	1.4
Cornwall and Isles of Scilly	226,932	230,416	3,484	1.5
Devon	497,824	505,774	7,950	1.6
West Wales and The Valleys	789,386	799,795	10,409	1.3
East Wales	507,679	515,356	7,677	1.5
North Eastern Scotland	227,196	230,025	2,829	1.2
Highlands and Islands	204,635	206,762	2,127	1
Eastern Scotland	901,204	916,493	15,289	1.7
West Central Scotland	684,363	689,615	5,252	0.8
Southern Scotland	404,006	408,202	4,196	1
Northern Ireland	779,463	791,285	11,822	1.5

Source: PAYE RTI

1. Figures for Aug 2023 are early estimates and are more likely to be subject to more significant revisions.
2. These data are experimental statistics.
3. The number of payrolled employees here is defined as the number of people receiving paid remuneration included in PAYE RTI within the reference period, including people who have not done work but are an employee - such as those on paid leave.
4. Values for the month are an average of employee counts in each day of the month. It is a measure of people who are payrolled employees, as opposed to a measure of employee jobs.
5. These statistics include only individuals paid through PAYE and do not cover other sources of income such as from pensions, self-employment or investments.
6. PAYE covers occupational pension income as well as employment. In these tables pension income is excluded.
7. Incomes and employments are allocated to regions and countries according to the residence of the recipient.
8. Incomes and employments are allocated to industries according to the sector that an recipients's PAYE scheme is in.
9. These data include imputation for payments not yet received by HMRC which would relate to the respective work periods.
10. Figures have been rounded to the nearest £ or unit.
11. Those employees placed on furlough through the Coronavirus Job Retention Scheme and still in PAYE are included in these statistics.
12. Pay figures are based on gross earnings.

REGIONAL MEDIAN PAY (NUTS2)

10 Regional median monthly pay from PAYE RTI

Period	UK, all industries, seasonally adjusted			
	August 2022	August 2023	Change on year	Change %
Tees Valley and Durham	1,971	2,125	154	7.8
Northumberland and Tyne and Wear	1,989	2,122	133	6.7
Cumbria	1,987	2,145	158	8
Greater Manchester	2,016	2,142	126	6.3
Lancashire	1,927	2,067	140	7.3
Cheshire	2,122	2,259	137	6.5
Merseyside	2,010	2,162	152	7.6
East Yorkshire and Northern Lincolnshire	1,941	2,070	129	6.6
North Yorkshire	2,024	2,131	107	5.3
South Yorkshire	1,954	2,080	126	6.4
West Yorkshire	1,996	2,122	126	6.3
Derbyshire and Nottinghamshire	2,011	2,142	131	6.5
Leicestershire, Rutland and Northamptonshire	2,049	2,184	135	6.6
Lincolnshire	1,943	2,088	145	7.5
Herefordshire, Worcestershire and Warwickshire	2,113	2,242	129	6.1
Shropshire and Staffordshire	2,008	2,135	127	6.3
West Midlands (county)	1,961	2,095	134	6.8
East Anglia	2,077	2,206	129	6.2
Bedfordshire and Hertfordshire	2,338	2,474	136	5.8
Essex	2,227	2,365	138	6.2
Inner London - West	3,187	3,348	161	5.1
Inner London - East	2,627	2,769	142	5.4
Outer London - East and North East	2,358	2,477	119	5
Outer London - South	2,610	2,757	147	5.6
Outer London - West and North West	2,404	2,518	114	4.7
Berkshire, Buckinghamshire and Oxfordshire	2,432	2,560	128	5.3
Surrey, East and West Sussex	2,274	2,405	131	5.8
Hampshire and Isle of Wight	2,172	2,309	137	6.3
Kent	2,175	2,307	132	6.1
Gloucestershire, Wiltshire and Bristol/Bath area	2,151	2,293	142	6.6
Dorset and Somerset	1,980	2,121	141	7.1
Cornwall and Isles of Scilly	1,834	1,963	129	7
Devon	1,909	2,055	146	7.6
West Wales and The Valleys	1,953	2,091	138	7.1
East Wales	2,055	2,176	121	5.9
North Eastern Scotland	2,243	2,412	169	7.5
Highlands and Islands	2,033	2,190	157	7.7
Eastern Scotland	2,141	2,306	165	7.7
West Central Scotland	2,138	2,301	163	7.6
Southern Scotland	2,075	2,239	164	7.9
Northern Ireland	1,975	2,094	119	6

Source: PAYE RTI

1. Figures for Aug 2023 are early estimates and are more likely to be subject to more significant revisions.
2. These data are experimental statistics.
3. The number of payrolled employees here is defined as the number of people receiving paid remuneration included in PAYE RTI within the reference period, including people who have not done work but are an employee - such as those on paid leave.
4. Values for the month are an average of employee counts in each day of the month. It is a measure of people who are payrolled employees, as opposed to a measure of employee jobs.
5. These statistics include only individuals paid through PAYE and do not cover other sources of income such as from pensions, self-employment or investments.
6. PAYE covers occupational pension income as well as employment. In these tables pension income is excluded.
7. Incomes and employments are allocated to regions and countries according to the residence of the recipient.
8. Incomes and employments are allocated to industries according to the sector that an recipients's PAYE scheme is in.
9. These data include imputation for payments not yet received by HMRC which would relate to the respective work periods.
10. Figures have been rounded to the nearest £ or unit.
11. Those employees placed on furlough through the Coronavirus Job Retention Scheme and still in PAYE are included in these statistics.
12. Pay figures are based on gross earnings.

INDUSTRY PAYROLLED EMPLOYEES

11 Industry payrolled employees from PAYE RTI

Period	Payrolled employees			
	August 2022	August 2023	Change on year	Change %
	UK, all industries, seasonally adjusted			
Agriculture, forestry and fishing	192,078	190,498	-1,580	-0.8
Mining and quarrying	51,431	52,767	1,336	2.6
Manufacturing	2,351,538	2,359,030	7,492	0.3
Energy production and supply	103,666	112,695	9,029	8.7
Water supply, sewerage and waste	184,588	190,360	5,772	3.1
Construction	1,311,828	1,302,456	-9,372	-0.7
Wholesale and retail; repair of motor vehicles	4,387,282	4,367,998	-19,284	-0.4
Transportation and storage	1,365,119	1,379,093	13,974	1
Accommodation and food service activities	2,156,781	2,138,576	-18,205	-0.8
Information and communication	1,314,499	1,323,386	8,887	0.7
Finance and insurance	1,059,301	1,112,012	52,711	5
Real estate	442,430	444,817	2,387	0.5
Professional, scientific and technical	2,358,745	2,396,017	37,272	1.6
Administrative and support services	2,497,252	2,486,787	-10,465	-0.4
Public administration and defence; social security	1,438,993	1,463,884	24,891	1.7
Education	3,155,458	3,287,277	131,819	4.2
Health and social work	4,076,895	4,269,624	192,729	4.7
Arts, entertainment and recreation	596,193	619,391	23,198	3.9
Other service activities	533,722	536,054	2,332	0.4
Households and Extraterritorial	112,143	106,352	-5,791	-5.2

Source: PAYE RTI

1. Figures for Aug 2023 are early estimates and are more likely to be subject to more significant revisions.
2. These data are experimental statistics.
3. The number of payrolled employees here is defined as the number of people receiving paid remuneration included in PAYE RTI within the reference period, including people who have not done work but are an employee - such as those on paid leave.
4. Values for the month are an average of employee counts in each day of the month. It is a measure of people who are payrolled employees, as opposed to a measure of employee jobs.
5. These statistics include only individuals paid through PAYE and do not cover other sources of income such as from pensions, self-employment or investments.
6. PAYE covers occupational pension income as well as employment. In these tables pension income is excluded.
7. Incomes and employments are allocated to regions and countries according to the residence of the recipient.
8. Incomes and employments are allocated to industries according to the sector that an recipients's PAYE scheme is in.
9. These data include imputation for payments not yet received by HMRC which would relate to the respective work periods.
10. Figures have been rounded to the nearest £ or unit.
11. Those employees placed on furlough through the Coronavirus Job Retention Scheme and still in PAYE are included in these statistics.
12. Pay figures are based on gross earnings.

INDUSTRY MEDIAN PAY

12 Industry median monthly pay from PAYE RTI

Period	UK, all industries, seasonally adjusted			
	August 2022	August 2023	Change on year	Change %
Agriculture, forestry and fishing	1,909	2,009	100	5.2
Mining and quarrying	4,199	4,417	218	5.2
Manufacturing	2,544	2,682	138	5.4
Energy production and supply	3,784	3,995	211	5.6
Water supply, sewerage and waste	2,728	2,849	121	4.4
Construction	2,364	2,491	127	5.4
Wholesale and retail; repair of motor vehicles	1,674	1,813	139	8.3
Transportation and storage	2,496	2,710	214	8.6
Accommodation and food service activities	1,112	1,176	64	5.8
Information and communication	3,409	3,596	187	5.5
Finance and insurance	3,588	3,704	116	3.2
Real estate	2,197	2,302	105	4.8
Professional, scientific and technical	2,747	2,911	164	6
Administrative and support services	1,869	1,980	111	5.9
Public administration and defence; social security	2,692	2,855	163	6.1
Education	2,112	2,231	119	5.6
Health and social work	2,041	2,189	148	7.3
Arts, entertainment and recreation	1,431	1,528	97	6.8
Other service activities	1,564	1,700	136	8.7
Households and Extraterritorial	1,052	1,118	66	6.3

Source: PAYE RTI

- Figures for Aug 2023 are early estimates and are more likely to be subject to more significant revisions.
- These data are experimental statistics.
- The number of payrolled employees here is defined as the number of people receiving paid remuneration included in PAYE RTI within the reference period, including people who have not done work but are an employee - such as those on paid leave.
- Values for the month are an average of employee counts in each day of the month. It is a measure of people who are payrolled employees, as opposed to a measure of employee jobs.
- These statistics include only individuals paid through PAYE and do not cover other sources of income such as from pensions, self-employment or investments.
- PAYE covers occupational pension income as well as employment. In these tables pension income is excluded.
- Incomes and employments are allocated to regions and countries according to the residence of the recipient.
- Incomes and employments are allocated to industries according to the sector that an recipients's PAYE scheme is in.
- These data include imputation for payments not yet received by HMRC which would relate to the respective work periods.
- Figures have been rounded to the nearest £ or unit.
- Those employees placed on furlough through the Coronavirus Job Retention Scheme and still in PAYE are included in these statistics.
- Pay figures are based on gross earnings.

PAYROLLED EMPLOYEES BY AGE

13 Payrolled employees by age from PAYE RTI

Period	Payrolled employees UK, all industries, seasonally adjusted					
	0 to 17	18 to 24	25 to 34	35 to 49	50 to 64	65 and over
August 2014	409,347	3,494,883	6,370,023	9,162,497	6,589,354	815,614
August 2015	432,250	3,602,414	6,564,212	9,288,966	6,844,123	832,579
August 2016	436,874	3,608,984	6,685,683	9,337,035	7,045,061	847,914
August 2017	439,646	3,590,930	6,774,182	9,382,902	7,287,326	868,584
August 2018	440,652	3,582,164	6,823,807	9,424,487	7,505,321	892,382
August 2019	434,660	3,520,053	6,871,305	9,451,766	7,691,806	969,552
August 2020	304,063	3,185,055	6,695,925	9,353,478	7,734,993	987,432
August 2021	448,667	3,396,717	6,753,589	9,439,735	7,886,539	1,017,777
August 2022	529,193	3,479,607	6,938,203	9,637,755	8,039,002	1,066,180
September 2022	534,571	3,481,535	6,951,757	9,658,026	8,054,774	1,071,591
October 2022	528,270	3,486,097	6,967,375	9,677,917	8,070,323	1,081,880
November 2022	524,861	3,486,697	6,977,503	9,695,946	8,085,712	1,095,189
December 2022	522,584	3,482,940	6,986,338	9,713,584	8,099,460	1,100,824
January 2023	518,199	3,478,768	6,995,404	9,728,555	8,105,378	1,106,665
February 2023	523,784	3,481,920	7,000,052	9,739,439	8,110,989	1,113,954
March 2023	528,330	3,491,011	7,011,453	9,755,898	8,119,864	1,122,493
April 2023	525,427	3,501,715	7,018,902	9,771,261	8,123,722	1,129,521
May 2023	519,353	3,496,735	7,028,333	9,784,772	8,134,122	1,136,473
June 2023	513,061	3,493,806	7,040,335	9,803,938	8,148,503	1,143,945
July 2023	502,726	3,475,187	7,047,892	9,814,315	8,153,425	1,146,497
August 2023	482,412	3,485,315	7,054,522	9,811,278	8,148,373	1,157,173
Change on year	-46,781	5,708	116,319	173,523	109,371	90,993
Change %	-8.8	0.2	1.7	1.8	1.4	8.5

Source: PAYE RTI

1. Figures for Aug 2023 are early estimates and are more likely to be subject to more significant revisions.
2. These data are experimental statistics.
3. The number of payrolled employees here is defined as the number of people receiving paid remuneration included in PAYE RTI within the reference period, including people who have not done work but are an employee - such as those on paid leave.
4. Values for the month are an average of employee counts in each day of the month. It is a measure of people who are payrolled employees, as opposed to a measure of employee jobs.
5. These statistics include only individuals paid through PAYE and do not cover other sources of income such as from pensions, self-employment or investments.
6. PAYE covers occupational pension income as well as employment. In these tables pension income is excluded.
7. Incomes and employments are allocated to regions and countries according to the residence of the recipient.
8. Incomes and employments are allocated to industries according to the sector that an recipients's PAYE scheme is in.
9. These data include imputation for payments not yet received by HMRC which would relate to the respective work periods.
10. Figures have been rounded to the nearest £ or unit.
11. Those employees placed on furlough through the Coronavirus Job Retention Scheme and still in PAYE are included in these statistics.
12. Pay figures are based on gross earnings.

MEDIAN PAY BY AGE

14 Median monthly pay by age from PAYE RTI

Period	UK, all industries, seasonally adjusted					
	0 to 17	18 to 24	25 to 34	35 to 49	50 to 64	65 and over
August 2014	275	1,080	1,731	1,907	1,722	722
August 2015	286	1,117	1,753	1,921	1,733	748
August 2016	292	1,170	1,797	1,961	1,763	782
August 2017	300	1,214	1,854	2,007	1,792	813
August 2018	315	1,264	1,924	2,080	1,855	864
August 2019	324	1,319	1,999	2,129	1,890	950
August 2020	358	1,346	2,027	2,182	1,927	1,030
August 2021	404	1,399	2,150	2,333	2,045	1,113
August 2022	408	1,522	2,319	2,493	2,170	1,202
September 2022	410	1,523	2,336	2,526	2,195	1,219
October 2022	412	1,532	2,346	2,527	2,199	1,214
November 2022	414	1,549	2,381	2,584	2,277	1,252
December 2022	415	1,554	2,382	2,561	2,245	1,252
January 2023	410	1,560	2,386	2,561	2,239	1,253
February 2023	411	1,573	2,405	2,575	2,253	1,263
March 2023	409	1,581	2,421	2,590	2,266	1,264
April 2023	412	1,591	2,431	2,609	2,290	1,277
May 2023	414	1,609	2,463	2,634	2,313	1,303
June 2023	411	1,614	2,510	2,707	2,375	1,335
July 2023	409	1,618	2,455	2,647	2,334	1,313
August 2023	401	1,614	2,444	2,634	2,320	1,291
Change on year	-7	92	125	141	150	89
Change %	-1.7	6	5.4	5.7	6.9	7.4

Source: PAYE RTI

1. Figures for Aug 2023 are early estimates and are more likely to be subject to more significant revisions.
2. These data are experimental statistics.
3. The number of payrolled employees here is defined as the number of people receiving paid remuneration included in PAYE RTI within the reference period, including people who have not done work but are an employee - such as those on paid leave.
4. Values for the month are an average of employee counts in each day of the month. It is a measure of people who are payrolled employees, as opposed to a measure of employee jobs.
5. These statistics include only individuals paid through PAYE and do not cover other sources of income such as from pensions, self-employment or investments.
6. PAYE covers occupational pension income as well as employment. In these tables pension income is excluded.
7. Incomes and employments are allocated to regions and countries according to the residence of the recipient.
8. Incomes and employments are allocated to industries according to the sector that an recipients's PAYE scheme is in.
9. These data include imputation for payments not yet received by HMRC which would relate to the respective work periods.
10. Figures have been rounded to the nearest £ or unit.
11. Those employees placed on furlough through the Coronavirus Job Retention Scheme and still in PAYE are included in these statistics.
12. Pay figures are based on gross earnings.