

Private rental affordability, England, and Wales QMI

Quality and Management Information about the Private rental affordability, England and Wales publication

Contact:
Housing Analysis team
better.info@ons.gov.uk
+44 1329 444783

Release date:
28 October 2024

Next release:
To be announced

Table of contents

1. [Output information](#)
2. [About this Quality and Methodology Information](#)
3. [Important points](#)
4. [Quality summary](#)
5. [Quality characteristics of the data](#)
6. [Methods used to produce the data](#)
7. [Related links](#)
8. [Cite this methodology](#)

1 . Output information

- Title: [Private rental affordability, England and Wales](#)
- Accredited official statistic: no
- Data sources: [Price Index of Private Rents](#) (PIPR; from the Private rent and house prices, UK bulletin); [Family Resources Survey](#) (FRS); [Earnings and employment from Pay As You Earn Real Time Information, UK](#) (RTI)
- Frequency: annual
- How compiled: administrative and survey data
- Geographic coverage: countries of England and Wales, regions in England, local authorities in England and Wales
- Related publications: [Housing affordability in England and Wales](#); [Housing purchase affordability in Great Britain](#); [Additional measures of housing affordability](#)
- Last revised: 28 October 2024

2 . About this Quality and Methodology Information

This quality and methodology information report contains information on the quality characteristics of the data, as well as the methods used to create it.

The information in this report will help you to:

- understand the strengths and limitations of the data
- learn about existing uses and users of the data
- understand the methods used to create the data
- help you to decide suitable uses for the data
- reduce the risk of misusing data

3 . Important points

Our [Private rental affordability statistical bulletin](#) along with [housing purchase affordability](#) are intended as a series of additional measures of affordability. They provide users with further measures in addition to our [Housing affordability in England and Wales publication](#). We plan to include more measures over time.

These statistics include estimates of the percentage of income spent on private rent in England and Wales and for regions in England. They use household income for renters from the Family Resources Survey (FRS) in both countries. Starting with the 2023 release, they also use modelled local authority level private renter household incomes to produce affordability ratios.

Rent price information from our [Price Index of Private Rents \(PIPR\)](#) uses data from the Valuation Office Agency (VOA).

The 2023 release marks a break in methodology from our previous publications, with rents now being taken from a single UK source with a representative mix of new and existing rents. This source has an improved methodology, providing representative statistics; but produces a mean rather than a median rental price (a geometric mean, which is a weighted average). This new source has resulted in higher rental price levels, and hence reduced affordability. We have recalculated and published a back series using the new data source.

For this methodology, we deem a property "affordable" if a household would spend the equivalent of 30% or less of their income on rent.

4 . Quality summary

In this methodology, we produce estimates of the percentage of gross household income spent on rent, by private renters at country level in England and Wales, at a regional level in England, and local authority level in England and Wales.

Private rent prices are, since the 2023 release, republished from our [Private rent and house prices](#) UK series, which contains the Price Index of Private Rents (PIPR). This product is the successor to all of our previous sources (our [Private rental market summary statistics \(PRMS\) bulletin](#), and data supplied by [Rent Officers Wales](#) and the [Northern Ireland Housing Executive](#)). Improvements are explained and quantified in our [Redevelopment of private rental prices statistics, impact analysis, UK article](#), and the differences are analysed in [Section 8 of the bulletin accompanying this release](#).

Before the 2023 release, lower quartile, median and upper quartile rent prices were available. This allowed a range of different households to be represented in the data, and [previous bulletins](#) showed that these revealed important differences in affordability for low-income households.

For income, we use the household income estimates from the [Department for Work and Pensions Family Resources Survey](#) (FRS), using the household file obtained via the [UK Data Service](#). We only include private renting households, whether they are privately renting a furnished or unfurnished property, rent-free or squatting. We use a grossing factor weight to adjust for potential bias in responses to the FRS and allows us to create regionally weighted estimates. This produces the most relevant measure of income available. However, this source adds uncertainty because a random sample has been taken and shows volatility in year-on-year estimates, and it is not possible to say if this is statistically significant because of the complex survey design.

For this bulletin, we deem a property affordable if a household would spend 30% or less of their income on rent. While the ONS use 30%, there is no widely accepted standard on this. A [2019 Scottish Government review](#) looked at the literature around measuring affordability. The review found a range of different thresholds used both within the UK and internationally, from as low as 20% to as high as 50%. The report also identifies other methods of measuring affordability, some of which specifically look to avoid the necessary generalisation of such a blunt measure.

These are official statistics in development and are in a developmental phase. This does not mean that the quality of the statistics is low, but rather that the statistics are still novel and may be improved further. We are publishing these statistics now to enable users to benefit from work done so far, and also to offer users an opportunity to comment on their development.

Uses and users

These measures of affordability are in addition to our main release, where users have been identified as the following:

- central government: monitoring housing trends, supply and demand, policy-making such as schemes for first-time buyers
- devolved administrations: supporting policy-making and monitoring changes at the country level, similar to those requirements of central government; also used for comparisons with wider UK policies
- local government: monitoring and developing housing policies and affordability of housing to meet the current and future needs of their areas and to understand how changes and policies at the national level affect housing at the local authority level; determine the need of what type or price of property is required in the area so people can better afford housing
- other private sector organisations: property investors and financial management companies may also use these data to assess affordability of investments
- banks and building societies: house price and affordability statistics are used for mortgage lending to make decisions on whether to lend, how much to lend and setting interest rates; earnings data are also useful to inform mortgage lending to see how much of people's earnings are needed to spend on mortgages and how long is needed to pay them off
- house builders: these users are interested in whether and where demand for new housing exists, how much people are likely to be able to afford to spend on a property in a given area and the returns received on homes built and converted
- housing industry specialists: these include organisations such as larger estate agents seeking information on subnational housing affordability trends
- housing bodies: these include organisations such as the Home Builders Federation and charities that carry out secondary analyses of official housing statistics
- general public: interest in the affordability of housing in their local area across the UK

Strengths and limitations

A limitation of the affordability calculation is that while the PIPR does adjust for property size, the income data do not adjust for household size. For example, while a one-bedroom flat in a region may be affordable for a family, it may not be suitable.

We are aware that by averaging over regional and country areas, this can hide differences within each country or region, where affordable properties may be in a different place to the households with the appropriate incomes. However, from 2023 we have made local authority level estimates for England and Wales available.

The new source of rent prices, the Price Index of Private Rents (PIPR) makes a number of improvements over the previous source. The hedonic regression model allows full use of administrative property attributes data, and better represents geographical areas that are under-collected. It therefore provides statistically robust estimates, covering new and existing rents.

It also allows for robust comparisons over time. These changes ensure that when we analyse rental prices, we are comparing like with like. This is similar to the approach used to calculate the [UK House Price Index](#), but tailored to suit the rental data.

PIPR makes a number of exclusions, including rents paid for by housing benefit and rents of single rooms. Median and quartile rents are not available; the prices estimated by PIPR are geometric means.

These rental prices do not yet include Northern Ireland, though this is under development. They are official statistics in development and are subject to revisions if improvements in the methodology are identified.

Further quality information for the rental statistics can be found in our [Price Index of Private Rents QMI](#) release.

There are various sources of income data. A strength of the FRS is that it allows us to differentiate between homeowners and private renters and therefore we have chosen to use this source. We have used a weighted-quartiles method to approximate median income estimates from these data. The weighting helps to compensate for some survey design and response bias.

FRS sample sizes are low at the regional level, and caution must be taken when interpreting year-on-year changes. It is not possible to provide the statistical significance of these estimates. Further quality information for the income statistics can be found on the [Family Resources Survey](#) information page.

To create the local authority level versions of these rents available in this edition for the first time, we have used earnings estimates from the [Earnings and employment from Pay As You Earn Real Time Information, UK](#) series, to scale the FRS incomes. This gives the most relevant available measure – local authority level incomes of privately renting households.

We have to make the assumption that earnings and income levels have the same relationship in each area. The resulting modelled incomes therefore come with additional uncertainty, over and above that of the regional income estimates. Further quality information is available in our [Methodology for monthly earnings and employment estimates](#).

5 . Quality characteristics of the data

This section provides a range of information that describes the quality of the data and details any points that should be noted when using these statistics.

Relevance

Housing affordability is an important issue as it affects almost everyone in the country. There are a number of different aspects to housing affordability dependent on the situation for each individual or household. This can be if someone is renting, looking to buy a property or currently paying a mortgage. This methodology is one of a range of different affordability measures to provide evidence for the public debate and policy decision-makers.

To a large extent this private rental affordability measure covers people who have already succeeded in affording a private rented home – as most homes are rented through agencies or landlords who apply an affordability test before granting tenure. The private rental income estimates we use will not be a perfect match for the incomes considered by landlords or letting agents. A variety of factors will affect the affordability for households or individuals.

The new source of rent prices, the Price Index of Private Rents (PIPR) covers a representative mix of new and existing rents in England and Wales - the "stock" of rents. Alternatively, the "flow" of rents could be measured, capturing the price of new tenancies starting in the reference period. This is the approach taken by private sector organisations (such as Homelet, Rightmove and Zoopla) using data for advertised new lets, which include advertised lets that do not lead to a tenancy starting, and do not capture where the achieved rent price differs from the initially-advertised price.

Rents paid for by housing benefit and prices to rent a single room in a house of multiple occupancy (HMO) are not included in these estimates.

The rental price series is derived by applying the change in the index to a base set of rental prices from the reference period (currently January 2023). To ensure the base set of rental properties remains representative, the base period for the price series will be updated every five years, and rents recalculated. Further information is available in our [Price Index of Private Rents QMI](#) release.

Incomes and house prices are presented on a nominal basis; this means they have not been adjusted for the effects of inflation over time and are comparable with each other. No data are seasonally adjusted.

Before the 2023 release, private rental market summary statistics (PRMS) methodology meant lower quartile, median and upper quartile rent prices were available. This allowed a range of different households to be represented in the data, and [previous bulletins](#) showed that these revealed important differences in affordability for low-income households. The change from medians and quartiles to geometric mean (using a weighted average) is because of the change in methodology between PRMS and PIPR.

Accuracy and reliability

A strength of the PIPR is that it is constructed using large administrative data sources. Annually the Valuation Office Agency and the devolved administrations collect over 450,000 private rents prices in England, 30,000 in Wales, 40,000 in Scotland, and over 10,000 in Northern Ireland. Income estimates are subject to a margin of error as they are based on survey data. There are limitations with both the rent and income data sources and therefore the data should be treated as indicative of rental affordability. It is not possible to say if differences between estimates are statistically significant because of the complex design of the Family Resources Survey (FRS) sample.

The coronavirus (COVID-19) pandemic affected the response rate to the FRS in 2021, with roughly half the usual number of households responding and even fewer private rental households. We use statistical techniques such as weighting to partially compensate for this, however, there is more uncertainty around the 2021 income values than in previous years. In 2022, response rates have partially recovered.

For more information on this, please see the [background information on the Family Resources Survey for 2021](#) and the [background information on the Family Resources Survey for 2022](#).

The local authority level income data are modelled-use FRS incomes scaled with the ratio of region to local authority earnings estimates. These are taken from the [Earnings and employment from Pay As You Earn Real Time Information, UK](#) series (RTI). RTI incomes are produced using a sophisticated calendarisation and imputation process, following a [methodology for monthly earnings and employment estimates](#) designed to align with international guidelines for labour market statistics. However, these are official statistics in development and will remain in a developmental phase while further improvements are worked on.

Using RTI earnings this way underestimates income in areas with high levels of income from other sources, such as pensions, benefits and self-employment, some of which would be eligible income for obtaining a mortgage.

PIPR rents are only available as a mean average (produced through a hedonic regression model). FRS and RTI incomes are available as medians, which are the more appropriate average where skews exist in a dataset. The affordability ratios are therefore not comparing the same types of averages. There are no uncertainty measures available for the private rental estimates and consequently we cannot provide measure of error or [confidence intervals](#) for this output.

Coherence and comparability

Work is taking place to include Scotland and Northern Ireland in future versions of this release. PIPR uses a different local geography for Scotland to our income source (Broad Market Rental Areas), so we do not anticipate being able to produce local-level affordability ratios for Scotland in future.

The Office for National Statistics's (ONS's) monthly UK measure of the [affordability of new tenancies](#) is from a private supplier, Dataloft. This is a measure that covers new tenancies only, and so does not cover the same concept as this series.

Other estimates of private rental affordability have been produced for individual countries of the UK, and are also not comparable with this series:

- the [English Housing Survey](#), which shows the median proportion of income spent on housing by tenure
- the [Wellbeing of Wales: national indicator 49](#), which shows the income spent on housing costs (including rent, service charge, Council Tax, and other housing costs), by tenure, for three-year periods
- Welsh Government's [Data mapping and visualisation on the housing rental market in Wales report](#), published in June 2023; a piece of research to identify and map current and historical data to explore rents and affordability in Wales
- the Northern Ireland Housing Executive's [Exploring the Provision of an Intermediate Rent Product for Northern Ireland report](#), which uses a 25% affordability test, 2020 data, and bespoke sources that include dwelling characteristics
- Scottish Government's [New Deal for Tenants draft strategy consultation](#), which uses FRS estimates of rent and income to look at private and social rental affordability from 2007 to 2020

Timeliness and punctuality

We intend this output to be published annually in autumn, but the statistics will be lagged by a year because of data availability - so in autumn 2022, it included data for financial year ending (FYE) 2021.

The required FRS income data are available in May, but are lagged by a year - so in May 2022, data for FYE 2021 were available.

The financial year estimates of PIPR are produced monthly, and estimates are released two to three weeks after the end of the reference period.

6 . Methods used to produce the data

This methodology takes regional monthly rental prices from the monthly price statistics tables of our Price Index of Private Rents (PIPR; published in the [Private rent and house prices](#) UK series).

For the income element, household data are taken from the Family Resources Survey, accessed via the UK Data Service. The data are filtered to only include monthly household income of private renters. A UK household weighting variable (Gross4) is applied to weight the observations and weighted-quartile estimates are then calculated for each region and country as a whole.

To create the local authority level incomes, we have used earnings estimates from the [Earnings and employment from Pay As You Earn Real Time Information, UK](#) series (RTI) to scale the FRS incomes. RTI is a joint release between HM Revenue and Customs (HMRC) and the ONS, and is classified as official statistics in development.

These estimates are based on people who are employed in at least one job paid through Pay As You Earn (PAYE). They cover the whole population, rather than a sample of people or companies, and are able to provide estimates for geographic areas.

PAYE does not cover self-employment income or income from other sources such as pensions, property rental and investments. We therefore have to make the assumption that earnings and income levels have the same relationship in each area. The resulting modelled incomes therefore come with additional uncertainty, over and above that of the regional income estimates. Further quality information is available in the [methodology for monthly earnings and employment estimates](#).

The proportion of income spent on rent is then calculated by combining these measures within each region and country.

Our statistical practice is regulated by the Office for Statistics Regulation (OSR). OSR sets the standards of trustworthiness, quality and value in the [Code of Practice for Statistics](#) that all producers of official statistics should adhere to.

You are welcome to contact us directly with any comments about how we meet these standards. Alternatively, you can contact OSR by emailing regulation@statistics.gov.uk or via the OSR website.

7 . Related links

[Private rent and house prices, UK](#)

Bulletin | Released monthly

The Price Index of Private Rents (PIPR) measures private rent inflation for new and existing tenancies. The UK House Price Index measures house price inflation.

[Housing affordability in England and Wales](#)

Bulletin | Released Annually (Usually March)

Data on house prices and annual earnings to calculate affordability ratios for national and subnational geographies in England and Wales, on an annual basis.

[Housing Purchase Affordability, UK: 2022](#)

Bulletin | Released 27 July 2023

Ratios of house prices to annual disposable household incomes, by decile, for countries of the UK and regions of England. Part of our additional measures of housing affordability series.

[Research Output: Alternative measures of housing affordability: financial year ending 2018](#)

Article | Released 19 March 2020

Alternative measures of housing affordability in England, including affordability in relation to varying household income and house price distributions, upfront costs, mortgage repayments and private rental affordability.

[Rent affordability in the affordable housing sector: literature review](#)

Article | Released 17 June 2019

Scottish Government report with information on definitions and measures of social rent affordability, the relationship between housing and poverty, rents in the affordable housing sector, the role of the mid-market rent sector and policies with an impact on rent affordability.

[UK private rented sector: 2018](#)

Article | Released 18 January 2019

Brings together existing UK data sources on the private rented sector to assess comparability, coherence and data limitations.

[Family Resources Survey](#)

Collection | Revised 31 March 2022

The Family Resources Survey is a continuous household survey, which collects information on a representative sample of private households in the UK.

[A guide to sources of data on income and earnings](#)

Methodology article | Revised 2 March 2022

Outlines the different data sources and outputs that feed into the analysis of income and earnings within the UK.

[Earnings and employment from Pay As You Earn Real Time Information, UK : September 2024](#)

Bulletin | Released 10 September 2024

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). These are official statistics in development.

8 . Cite this methodology

Office for National Statistics (ONS), released 28 October 2024, ONS website, methodology, [Private rental affordability, England and Wales QMI](#)

