

# House price statistics for small areas QMI

Quality and Methodology Information for house prices statistics for small areas, detailing the strengths and limitations of the data, methods used and data uses and users.

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# 1 . Methodology background

<b>Output name</b>	House price statistics for small areas	<b>Related publications</b> <a href="#">House price statistics for small areas statistical bulletin</a>
<b>National Statistic</b>	No	
<b>Frequency</b>	Quarterly	
<b>Data collection</b>	Administrative data	
<b>How compiled</b>	Uses data from HM Land Registry (LR) to provide statistics on the price paid and number of residential property transactions for properties that were sold in England and Wales	
<b>Geographic coverage</b>	Lower layer Super Output Area, Middle layer Super Output Area, Electoral ward, Local authority, County and unitary authority, Combined authority, Region, Country, England and Wales, Local enterprise partnership, Parliamentary constituencies, Nomenclature of Territorial Units for Statistics – Level 3, Travel to work areas, Major towns and cities, Rural-urban classification	

## 2 . About this Quality and Methodology Information report

This quality and methodology report contains information on the quality characteristics of the data (including the European Statistical System five dimensions of quality) 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

- Statistics relate to transactions of residential properties at full market value in England and Wales from 1995, as recorded by HM Land Registry, the body responsible for recording changes in land ownership.
- Statistics include the number of transactions and price paid by property type for a range of geographies between the Middle layer Super Output Area level and the England and Wales level.
- Statistics include the number of transactions and price paid for all properties at the Lower layer Super Output Area level.
- We revise the statistics in each quarterly release and these revised statistics supersede previously published statistics.
- Revisions are made for the entire time series, covering the year ending December 1995 to the latest data period.
- Revisions help reduce the impact of registration lag, whereby transactions can be registered by the Land Registry some time after the date of completion.

## 4 . Quality summary

### Overview

This report provides information about House price statistics for small areas (HPSSAs), produced by the Office for National Statistics (ONS), since February 2015. Elements of these statistics were formerly produced by the Ministry of Housing, Communities and Local Government (MHCLG).

HPSSAs report the number, median price paid, mean price paid, lower quartile price paid and 10th percentile price paid for all residential dwellings sold at market value and registered since 1995. They are calculated using open data from HM Land Registry, a source of comprehensive record-level administrative data on residential property transactions.

Statistics are also reported for different types of dwelling, including newly-built dwellings and existing dwellings, detached, semi-detached, terraced houses, flats or maisonettes and all types combined. For Lower layer Super Output Areas (LSOAs), the price paid statistics are reported only for all property types combined and not for the individual types.

The data are available from 1995 to the most recently completed month. For the purpose of HPSSAs, the reference periods used are quarterly rolling years beginning with the year ending December 1995 and quarterly thereafter.

### Uses and users

House prices are localised and policies on planning for housing are made by local authorities in order to meet housing demand in their areas.

As HPSSAs provide a uniquely localised view of housing market activity and price, they are used by housing policy-makers including central and local government. In particular they are used for assessing housing needs and in developing and monitoring housing policies by local, regional and national government.

To identify the users and uses of HPSSA, regular communication with other producers of house price statistics, such as our House Price Index (HPI) team, MHCLG and HM Land Registry was carried out to understand the types of requests users make for more detailed statistics on house prices. The Neighbourhood Statistics Service team and our Customer Contact Centre were also consulted to help gather more information about the potential users of HPSSA. The following broad groups of users have been identified.

## **Central government**

Monitoring housing trends, supply and demand in society, policy-making and regulation.

## **Local government**

Monitoring and developing their housing policies 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.

## **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.

## **Banks and building societies**

House price statistics are used for mortgage lending to make decisions on whether to lend, how much to lend and setting interest rates.

## **House-builders**

House-builders are interested in whether and where demand for new housing exists and the returns received on homes built or converted.

## **Housing industry specialists**

These include organisations such as larger estate agents seeking information on small area trends.

## **Housing bodies**

These include organisations such as the Home Builders Federation.

## **Media**

Make use of the data to inform and aid journalistic coverage of local housing markets.

## Social researchers

Data may be indicative of social status and may be used in the development of further statistics and social analysis.

## Academics

Include geographers and sociologists who make use of these statistics for study and analysis.

## Strengths and limitations

The HPSSAs report the average transactional values of residential properties down to the small area level and are therefore particularly useful when identifying the change in price for properties sold in a given period and area. HPSSAs can also be used to identify changes in the number of property transactions, housing market value and the composition of transactions by property type.

The Land Registry Price Paid Data (PPD) only include records for single residential properties sold for full market value (including some sales made under the government's [Help to Buy](#) scheme). To avoid systematically biasing house price data, the Land Registry excludes records of sales that were not at full market value. These are not included in the data from the Land Registry and if included, would detract from a meaningful average house price figure. All exclusions cover:

- all commercial transactions, including operational farms
- transfer, conveyances, assignments or leases at a premium with nominal rent, which are:
  - “right to buy” sales at a discount
  - subject to a lease
  - subject to an existing mortgage
  - purchased with an identifiable buy to let mortgage
  - to affect the sale of a share in a property
  - by way of a gift
  - by way of exchange
  - under a compulsory purchase order
  - under a court order
  - to trustees
- vesting deeds transmissions or assents of more than one property
- leases for seven years or less
- purchased through a company

The Land Registry Price Paid Data do not include all transactions of newly-built properties. For some types of newly-built properties, such as buildings that have been converted from commercial use to residential use and very small new housing developments, the Price Paid Data may not list these as transactions of newly-built properties. Therefore, the HPSSA measure of the number of sales of newly-built properties principally refers to the number of newly-built property sales in larger housing developments.

Sales of new properties where the use of the land has changed, and small developments, are more likely to be counted as sales of existing properties in the Land Registry Price Paid Data and so the total sum of newly-built property sales does not reflect the entirety of new housing stock.

## Recent improvements

Statistics for wards have been updated to be based on 2018 ward boundaries.

# 5 . Quality characteristics of the data

## Relevance

Following a [review of house price statistics by the National Statistician](#), the House price statistics for small areas (HPSSAs) were produced specifically for medium to smaller geographic areas, such as local authorities and Middle layer Super Output Areas in response to demand from users for an indication of house prices at this small area level. The review also concluded that house price statistics for different geographies should be available on a consistent basis. The HPSSAs provide this consistent geographic structure.

## Accuracy and reliability

HM Land Registry Price Paid Data, used in the production of these statistics, are comprehensive in that they capture changes of ownership for individual residential properties, which have sold for full market value and covers both cash sales and those involving a mortgage. Land Registry Price Paid Data have been in existence since April 2000, with the Land Registry collecting data back to the year 1995. Every change of ownership that is listed in Land Registry Price Paid Data can be used in the calculation of HPSSAs; therefore the data are a reliable indicator of actual prices paid for transactions recorded by the Land Registry.

Registration of a property transaction with HM Land Registry is compulsory for all changes of ownership except leases with less than seven years to run. Solicitors acting for purchasers invariably register the transaction as quickly as possible after completion. It is the view of the Land Registry that under-recording is negligible. Therefore, such under-recording is unlikely to affect the statistics significantly.

The Land Registry Price Paid Data used in the HPSSAs are taken directly from the sale contract and are audited. Deliberate misreporting of price in this documentation would in most cases be fraud and is likely to be insignificant in volume. To minimise errors occurring in transcription, the Land Registry has quality-control procedures to check for exceptions in the data capture process such as price band and application type.

The Land Registry Price Paid Data contains records of each completed and registered residential dwelling transaction. Recent transactions can be registered with the Land Registry after the publication of the Price Paid Data and so are not included in the HPSSAs. This is known as registration lag and is the case predominantly for transactions that occurred in the most recent quarter.

For example, for statistics relating to the year ending June 2015, it is the second quarter (April to June) of 2015 that is most likely to contain transactions that were not registered and included in the Price Paid Data at the time it was published.

Therefore, in this instance the number of house sales for the year ending June 2015 in our HPSSAs is lower than the actual number of house sales that took place during this time. However, when the next data are published (year ending September 2015), all previous periods (including year ending June 2015) will be updated to reflect any additional registrations for transactions that took place during those previous periods. This means the effect of registration lag on the HPSSAs is minimised as much as possible.

Registration lag does not affect a sufficiently large enough number of records to influence the house price statistics in the HPSSAs, nor is it thought to affect one house type more than any other and so a formal process of revision is not employed.

## **Coherence and comparability**

Our House price statistics for small areas (HPSSAs) are fully comparable throughout the time series going back to 1995 because a single method was used to produce statistics for all available periods, geographies and property types.

There are also other sources of house price statistics available in addition to the HPSSAs, some of which present an index of house prices. A house price index is a measure of the change in average house prices in an area between two points in time. An increase to an index of 1 means that house prices have increased by 1% between the two points in time. There are differences in the statistics reported by each index because there are differences in both the data and methods used to produce them. Therefore, the HPSSAs are not directly comparable with these other indices.

## **UK House Price Index (UK HPI)**

HPSSAs provide a different set of statistics to the [UK House Price Index](#) (UK HPI). The UK HPI is weighted to reflect the mix of properties sold in the previous year, which is broadly representative of the mix of properties in the overall dwelling stock.

The HPSSAs are not mix-adjusted but use rolling years to better reflect the actual mix of property sold than is possible with a shorter period and so avoids seasonal effects. This means that the UK HPI provides a measure of the changing value of properties in the housing market, whereas the HPSSAs measure the price paid for properties sold in a given period. Therefore, the two sets of statistics provide different figures.

The HPSSAs report the non-adjusted average transactional values down to the small area level and are therefore particularly useful when identifying the change in price for properties sold in a given period and area. HPSSAs can also be used to identify changes in the number of property transactions, housing market value and the composition of transactions by property type.

The UK HPI is a monthly publication that contains statistics on the mix-adjusted average house prices and house price indices for the UK, its constituent countries, the regions of England and local authority districts. The index is calculated using the Land Registry Price Paid Data.

The HPSSAs and the HPI follow similar trends, but the HPI is a mix-adjusted index, which means it is weighted to reflect the actual mix of dwellings in the housing stock. This HPI methodology is specifically designed to reflect market values, while the HPSSAs report average transactional values and are therefore particularly useful when identifying the actual change in sold properties rather than the change in the value of the overall housing stock.

## Registers of Scotland official Quarterly housing market statistics

Registers of Scotland records all the property transactions in Scotland. It produces monthly average house prices based on arithmetic means of these transactions, which is published as the [Quarterly house price statistics](#) in the second month after the period to which the figures refer to.

## Northern Ireland Residential Property Price Index

The Land and Property Services assisted by the Northern Ireland Statistics and Research Agency publish a quarterly [Residential Property Prices Index \(RPPI\) for Northern Ireland](#). The index measures change in the price of residential property sales recorded by HM Revenue and Customs. This statistic was first published in Quarter 1 (Jan to Mar) 2012.

## Halifax House Price Index and Nationwide House Price Index

Both the [Halifax](#) bank and the [Nationwide](#) building society produce monthly house price indices based on their own mortgage approvals only and therefore, like the HPI, will not include any cash transactions.

They both have UK-wide coverage and because the Halifax and Nationwide use only their own data, they can process the data immediately and do not have to await the receipt of data from other lenders. The statistics can therefore be published sooner after the reference period than other monthly house price statistics.

## Her Majesty's Revenue and Customs (HMRC) Quarterly Stamp Duty Statistics

The Quarterly Stamp Duty Statistics provide local authority district and Westminster Parliamentary constituency-level data showing the number of property transactions in each Stamp Duty Land Tax band.

These statistics relate to a slightly different subset of transactions than the HPSSAs. The Quarterly Stamp Duty Statistics include transactions of £40,000 or more and include some types of transactions that are excluded in the HPSSAs, such as transactions that took place with a buy-to-let mortgage. These differences mean that the number of transactions reported in the HPSSAs is lower than the number of transactions reported in the Quarterly Stamp Duty Statistics.

## Accessibility and clarity

The data for these statistics are available from our website; users can also download the narrative in PDF format. For further information please email [better.info@ons.gov.uk](mailto:better.info@ons.gov.uk).

For information regarding conditions of access to data, please refer to:

- [terms and conditions \(for data on the website\)](#)
- [accessibility](#)



## Timeliness and punctuality

The HPSSAs can be produced and published within four months of the latest complete Price Paid Data being published by the Land Registry, which itself is made available on a monthly basis. The Price Paid Data is a complete record of registered residential property transactions, although additional registrations can occur after the first publication of the monthly Price Paid Dataset. More information about this is in the Accuracy section.

For more details on related releases of Land Registry data, the [GOV.UK release calendar](#) provides 12 months' advance notice of release dates. In the unlikely event of a change to the pre-announced release schedule, we will notify you and provide the reasons for the change, as set out in the [Code of Practice for Statistics](#).

## Concepts and definitions (including list of changes to definitions)

### Median

The HPSSAs report median figures. The median is the value determined by putting all the house sales for a given year, area and type in order of price and then selecting the price of the house sale that falls in the middle, such that an equal number of transactions lie above and below that value.

The median is less susceptible to distortion by the presence of extreme values than is the mean. It is the most appropriate average to use because it best takes account of the skewed distribution of house prices. This (unadjusted) median is also appropriate to use because the raw data used to calculate it comprise almost 100% of all residential property transactions and is therefore an accurate representation of the true median.

### Mean

The mean is the value determined by adding the values of all transactions for an area together and dividing it by the number of transactions that took place in that area. It is useful for comparing with the median to give an indication of the distribution of house prices in an area and assessing what effect extremely high-value transactions have on this distribution. However, the median is the most appropriate measure of average house price.

### Lower quartile

The lower quartile is the value determined by putting all the house sales for a given year, area and type in order of price and then selecting the price of the house sale that falls three-quarters of the way down the list, such that 75% of transactions lie above and 25% lie below that value. These are particularly useful for assessing housing affordability when viewed alongside average and lower-quartile income for given areas.

### 10th percentile

The 10th percentile is the value determined by putting all the house sales, for a given year, area and type, in order of price and then selecting the price of the house sale that falls nine-tenths of the way down the list, such that 90% of transactions lie above and 10% lie below that value. These give an idea of the prices paid for the very cheapest housing in a given area and help determine housing affordability for those on a particularly low income.

## Transaction

A transaction occurs when a change of freeholder or leaseholder takes place regardless of the amount of money involved. Similarly, an exchange of properties would be classed as two transactions. The transaction covers both the property and the land on which it stands; this could be extensive, but operational farms and other commercial properties are excluded from the Land Registry Price Paid Data. Other exclusions are described in Exclusions from the data in Section 5.

## Transaction price and market value

The Land Registry records the transaction price, that is, the actual price for which the property changed hands. This will usually be an accurate reflection of the market value for the individual property, but it is not always the case.

For example, if the ownership of a property is transferred from one individual to another within the same family the price may be fixed by agreement at a level quite different from the market value. Similarly, if the transaction was agreed under the legislation that gives council tenants the right to buy their home, the price would have been discounted.

To generate statistics that more accurately reflect market values, the Land Registry has excluded records of houses that were not sold at market value from the dataset. The remaining data are considered a good reflection of market values at the time of the transaction.

However, the Land Registry Price Paid Data are not adjusted to reflect the mix of houses in a given area. Fluctuations in the types of house that are sold in that area can cause differences between the median transactional value of houses and the overall market value of houses. The HPSSAs are an accurate measure of social change with regards to house prices and not an economic measure of change or inflation.

## Stamp Duty Land Tax and Land Transaction Tax

Since April 2018, [Land Transaction Tax \(LTT\)](#) has replaced Stamp Duty Land Tax (SDLT) in Wales. LTT is broadly consistent with SDLT, however, the [residential tax rates differ](#). This change in the tax system may have affected house prices and transactions in Wales – particularly around the time of LTT's introduction.

## Geography (including list of changes to boundaries)

Statistics are reported for a range of subnational geographies in England and Wales as listed in the Output information section.

Geographic referencing is carried out using the National Statistics Postcode Lookup (NSPL) file, available on the [ONS Open Geography Portal](#). The version used is the most up-to-date file at the time of production. In accordance with National Statistics geography policy each record is allocated to a Middle layer Super Output Area (MSOA) and all other geographies on which we report, using its address and postcode, which are fitted using the NSPL.

It is important to note that the coverage of the published HPSSAs may not be 100% for all reported property types in all geographies. This is because some areas did not have enough house sales for a given property type in a given year to produce a robust median house price.

This is most common for smaller geographic areas, such as Lower layer Super Output Areas (LSOAs) and MSOAs but, for example, affected no more than 25% of MSOAs in 2013. If, for a given year, for house type and area there were fewer than five sales records in the Land Registry Price Paid Data, the house price statistics are not reported in the HPSSAs. Therefore, coverage can vary throughout the time series.

For larger geographies, multiple smaller areas with fewer than five records are aggregated and statistics for these areas are reported if this aggregation totals at least five records in the larger geography. Therefore, this issue has a negligible impact on coverage at the larger geographies and for the “all types” category for all geographies.

## Output quality

Part of the calculation process for HPSSAs is joining Land Registry Price Paid Data with the National Statistics Postcode Lookup (NSPL). This process does not always achieve a 100% match rate as not all house sale records have postcodes attributed to them and some that do have erroneous or invalid postcodes that do not appear on the NSPL. These unmatched records are infrequent and show no bias to particular areas, price ranges or house types. Such records are not included in the calculation of median house price.

Any error in the medians and number of transactions resulting from these unmatched records is negligible and assumed to be random. For example, between 1995 and 2013, there were 0.16% of records that could not be matched to postcodes.

## Output quality trade-offs

(Trade-offs are the extent to which different dimensions of quality are balanced against each other.)

This output is not subject to scheduled revisions, however, the raw data used to calculate these statistics are occasionally revised to maintain the highest-possible quality. When this happens, the latest release of HPSSAs will be calculated using the revised data and any revised historic data will be included in the latest release.

If an area contained fewer than five property sales in a given year, the median, mean, lower quartile and 10th percentile are not reported. A minimum of five records is deemed necessary to produce a robust median house price, indicative of the prices in a particular area. This was agreed by our methodologists and has been standard practice with the Ministry of Housing, Communities and Local Government (MHCLG) in historic releases. This approach results in some areas lacking 100% coverage, especially in the smaller geographic areas and individual house types.

## Why you can trust our data

The Land Registry data behind HPSSAs are record-level data with a number of variables relating to the dwelling type and the sale, but no personal data relating to the seller or buyer. This is explained further on the [Land Registry's guidance page on accessing the Price Paid Data](#). There is more detail in the Land Registry [Privacy Impact Assessment Review and the Review report: April 2013](#). The [Land Registry Price Paid Data](#) or the [Land Registry Price Paid Report Builder](#) have more information on an individual sale.

# 6 . Methods used to produce the data

## How we collect the data, main data sources and accuracy

HM Land Registry has provided the publicly available, open data used in the production of these statistics. The data relate to residential dwelling transactions, together with information on the prices paid and type of dwelling (newly built and existing stock, detached, semi-detached, terraced and flat or maisonette). This is known as Price Paid Data.

Land Registry Price Paid Data are used to produce the House price statistics for small areas (HPSSA). The Price Paid Data can be accessed for free via the [GOV.UK website](https://www.gov.uk) as a whole dataset or for individual years or months or by other specific search criteria.

The data are provided by HM Land Registry, a government department responsible to the Lord Chancellor for maintaining the Land Register, which is a record of land ownership in England and Wales. The Land Registry was established in 1862 and now operates under the provisions of the Land Registration Act of 1925. The purpose is to provide a guarantee of ownership as the basis for free movement of interests in land.

It is a statutory requirement for all the relevant details to be sent to the Land Registry whenever a person transfers ownership of a property or takes a mortgage out against it. This change must be registered with the Land Registry to make it legally effective. Over half of the applications for registration are received electronically and the rest are on paper forms. Data received via paper forms are then keyed into an electronic register. Historic data are retained within the files but are not shown on the Land Register.

## How we process the data

To link Land Registry Price Paid Data to geographic information, the postcode of each transaction is matched to a postcode lookup file, which can in turn be used to determine which Middle layer Super Output Area (MSOA) and other geographies each transaction took place in.

The postcode lookup used in the production of these statistics is the National Statistics Postcode Lookup (UK) (NSPL). This is a complete list of current and historic postcodes in the UK along with a selection of the statistical geographies they are situated within. The [NSPL](#) is produced by Office for National Statistics (ONS) Geography and is freely available for download. The most recently available version of the NSPL is used when the statistics are produced.

With datasets prepared, the NSPL dataset is matched to the Land Registry Price Paid Data using postcodes to assign the relevant statistical geographies to each house sale. This allows groups of sales with the same geographies to be formed and averages and sale counts to be calculated.

## How we analyse and interpret the data

Using these data, we calculate the number of transactions, median price paid, mean price paid, lower quartile price paid and 10th percentile price paid. We publish the statistics in a format that helps users gain the maximum benefit from large datasets, helping to increase their potential onward use.

A final list of geographies with sale counts and averages is produced and then matched back to geography lists for completeness. Outputs are made into tables and published as [House price statistics for small areas](#).

## How we quality assure and validate the data

The datasets for the number of transactions are checked to ensure that they are internally additive to other geographies (where possible).

The median prices for MSOAs are compared with prices for the same period from the previous release. This is used to determine how many areas for which there are price changes and whether this compares reasonably with the same check for the previous release.

The datasets also undergo a range of manual checks to ensure there are no missing data and that titles and notes are up to date and correct.

## **How we disseminate the data**

The data used to produce HPSSAs are available each month when it is published by HM Land Registry.

## **How we revise the data**

House price statistics for small areas (HPSSAs) contain annual data published every quarter on a rolling basis, going back to year ending December 1995. We revise the statistics in each quarterly release and these revised statistics supersede previously published statistics to ensure that:

- residential property transactions added to or edited in the Land Registry Price Paid Data (PPD) are included, especially in more recent periods to which changes are more likely to relate
- if a geography change is made, the entire series reflects the new structure, avoiding geographic breaks in the time series

Revisions are made because of changes to the underlying data by the Land Registry, caused predominantly by additional records of transactions being processed after we have published statistics relating to the period when the transactions took place. By taking account of this lag to registrations of property transactions, the statistics are made more accurate.

## **7 . Other information**

[Information about Land Registry Price Paid data](#)