

# 'HOW TO' | February 2022

# **Calculate Housing Affordability**

# Why is housing important for women?

Women face specific challenges when it comes to securing adequate and affordable housing. As women tend to have lower earnings, homes are even less affordable for women renting or buying on their own. This can make it harder to leave unwanted relationships, thereby increasing women's risk of domestic abuse.

You can find more of our analysis on housing at the Women's Budget Group website.

# What to expect

In this How To we will first look at housing affordability when **buying**, and then we will look at the affordability of **renting**. We'll compare affordability for men and women.

All the stages will come with **step-by-step instructions**. There will be templates for you to complete as you work through.

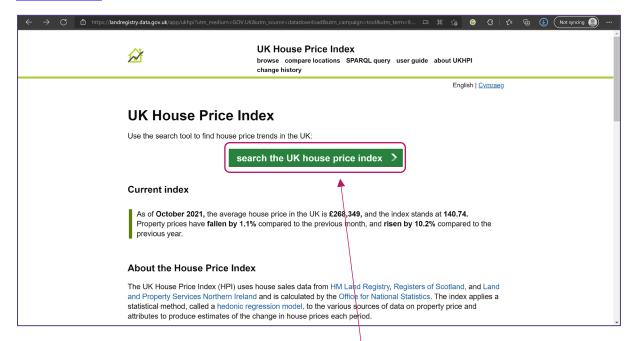
If you'd like to skip straight to the section on renting, click **here**.

Let's work through the different parts together.



#### **Buying**

We can find the data on house prices throughout the UK in one place: <u>UK House Price Index</u> (data.gov.uk)<sup><u>ii</u></sup>



To find more detailed information, click on the green search button.

You will then find details of house prices for the UK over one year.

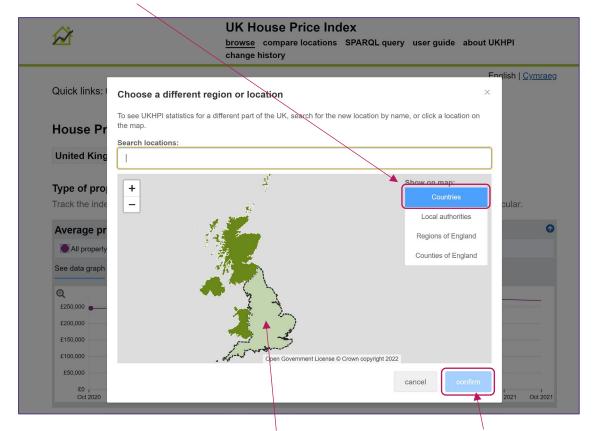


To find the data on different areas, we need to click on the location picker.

This will bring up a map.



When the map appears, you will also find a menu of places to choose from. Here I have clicked on 'Countries'.



Next I have selected England by clicking on the map. You also need to confirm your choice.

The page will then provide you with the house prices for the chosen location.



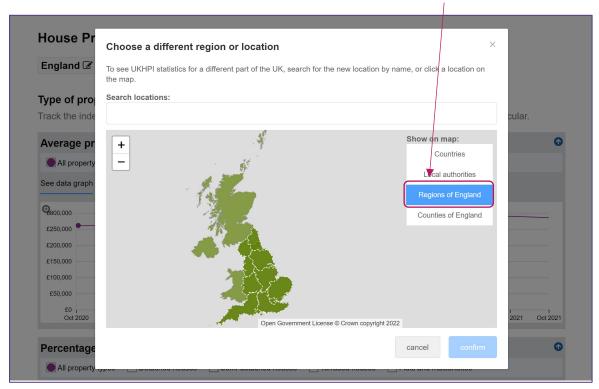
To see the detailed figures for each period of time, hover your mouse over the chart.



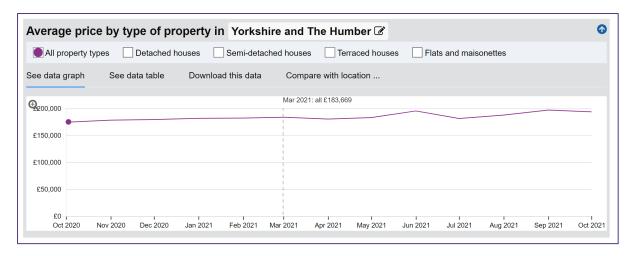
We can start to put the information into a table:

|         | MEDIAN HOUSE PRICE IN 2021 |
|---------|----------------------------|
| REGION  | £                          |
| England | 271,374                    |

Let's now find out how much house prices are at the regional level. Again, click on the location selector, and this time, when the map appears, click on 'Regions of England'.



The map will show you the different regions, and, again, you can click on the one you want. We'll use Yorkshire and the Humber for our example.





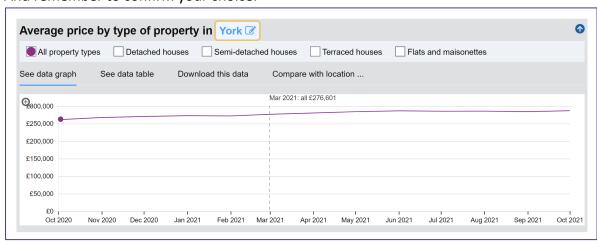
We can see that the house price is much lower in the Yorkshire and the Humber region compared to England.

|                        | MEDIAN HOUSE PRICE IN 2021 |
|------------------------|----------------------------|
| REGION                 | £                          |
| England                | 271,374                    |
| Yorkshire & The Humber | 183,669                    |

Now let's find the data for York. Click on 'Local authorities' for the smaller areas. The map is much trickier to manage, so we can type into the search bar instead.



And remember to confirm your choice.





This time, we notice that the house prices in York are much higher than the region, and higher than England, too.

|                        | MEDIAN HOUSE PRICE IN 2021 |
|------------------------|----------------------------|
| REGION                 | £                          |
| England                | 271,374                    |
| Yorkshire & The Humber | 183,669                    |
| York                   | 276,601                    |

Now, you can complete a table with the information for your local area.

|                 | MEDIAN HOUSE PRICE IN 2021 |
|-----------------|----------------------------|
| REGION          | £                          |
| Local Authority |                            |

If you'd like to compare with the region and/or nation, you can complete the extra detail here.

|                 | MEDIAN HOUSE PRICE IN 2021 |
|-----------------|----------------------------|
| REGION          | £                          |
| Nation          |                            |
| Region          |                            |
| Local Authority |                            |



Let's move on to calculate affordability.

To calculate affordability we need to find out how many times a person's earnings go into the average house price. We'll call this the ratio.

Here is a summary of the data on earnings for the locations we used above. You can find a 'How To' on finding earnings data here.

|                          | MEDIAN ALL EARNINGS 2021 |           |         |  |
|--------------------------|--------------------------|-----------|---------|--|
| REGION                   | ALL (£)                  | WOMEN (£) | MEN (£) |  |
| England                  | 26,192                   | 21,175    | 31,153  |  |
| Yorkshire and The Humber | 24,065                   | 19,281    | 29,111  |  |
| York                     | 24,041                   | 20,507    | 28,711  |  |

Source: ONS (2021) Annual Survey of Hours and Earnings, Table 8.7a1

Let's start with affordability for women and men combined. We need data for the house price, and the earnings in the 'All' category. We'll start with the local authority, York.

house price 
$$\div$$
 earnings = ratio  
£276,601  $\div$  £24,041 = 11.5

Here is a table we can use to track our affordability calculations:

|        | MEDIAN HOUSE<br>PRICE IN 2021 | RATIO | OF HOUSE PI<br>EARNINGS | RICE TO |
|--------|-------------------------------|-------|-------------------------|---------|
| REGION | £                             | ALL   | WOMEN                   | MEN     |
| York   | 276,601                       | 11.5  |                         |         |

<sup>1</sup> Earnings and hours worked, place of residence by local authority: ASHE Table 8 - Office for National Statistics (ons.gov.uk)

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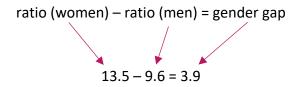


Doing the same calculations for women and men, we get the following result:

|        | MEDIAN HOUSE<br>PRICE IN 2021 | RATIO | OF HOUSE PE<br>EARNINGS | RICE TO |
|--------|-------------------------------|-------|-------------------------|---------|
| REGION | £                             | ALL   | WOMEN                   | MEN     |
| York   | 276,601                       | 11.5  | 13.5                    | 9.6     |

It's clear that the ratio is higher for a woman than a man.

We can also calculate the gender gap, which is the difference between the ratio of women to men:



|        | MEDIAN HOUSE<br>PRICE IN 2021 | RATIO OF HOUSE PRICE TO EARNINGS |       | EARNINGS |            |
|--------|-------------------------------|----------------------------------|-------|----------|------------|
| REGION | £                             | ALL                              | WOMEN | MEN      | GENDER GAP |
| York   | 276,601                       | 11.5                             | 13.5  | 9.6      | 3.9        |

Including the regional and national level data, here is the final table:

|                        | MEDIAN HOUSE<br>PRICE IN 2021 | RATIO OF HOUSE PRICE TO EARNINGS |       |     | ) EARNINGS |
|------------------------|-------------------------------|----------------------------------|-------|-----|------------|
| REGION                 | £                             | ALL                              | WOMEN | MEN | GENDER GAP |
| England                | 271,374                       | 10.4                             | 12.8  | 8.7 | 4.1        |
| Yorkshire & The Humber | 183,669                       | 7.6                              | 9.5   | 6.3 | 3.2        |
| York                   | 276,601                       | 11.5                             | 13.5  | 9.6 | 3.9        |

Source: Author's calculations based on UK House Price Index (2021) Local authority data: house prices, March 2021; ONS (2021) Annual Survey of Hours and Earnings, Table 8.7a.

This confirms that housing is less affordable in each area for women compared to men. However, it also shows that the gender gap is slightly smaller in York compared to England as a whole.



Now try and complete the template with the data for your local area. Remember the formula:

| house price ÷ earnings = ratio |
|--------------------------------|
|                                |

|                 | MEDIAN HOUSE PRICE IN 2021 |
|-----------------|----------------------------|
| REGION          | £                          |
| Local Authority |                            |

|                 | MEDIAN ALL EARNINGS 2021  |  |  |  |  |  |
|-----------------|---------------------------|--|--|--|--|--|
| REGION          | ALL (£) WOMEN (£) MEN (£) |  |  |  |  |  |
| Local Authority |                           |  |  |  |  |  |

|                 | MEDIAN HOUSE<br>PRICE IN 2021 | RATIO OF HOUSE PRICE TO EARNINGS |       |     |            |  |
|-----------------|-------------------------------|----------------------------------|-------|-----|------------|--|
| REGION          | £                             | ALL                              | WOMEN | MEN | GENDER GAP |  |
| Local authority |                               |                                  |       |     |            |  |

If you want to compare with the region and/or nation, here is the larger template.

|                 | MEDIAN HOUSE<br>PRICE IN 2021 | RATIO OF HOUSE PRICE TO EARNINGS |       |     |            |
|-----------------|-------------------------------|----------------------------------|-------|-----|------------|
| REGION          | £                             | ALL                              | WOMEN | MEN | GENDER GAP |
| Country         |                               |                                  |       |     |            |
| Region          |                               |                                  |       |     |            |
| Local authority |                               |                                  |       |     |            |

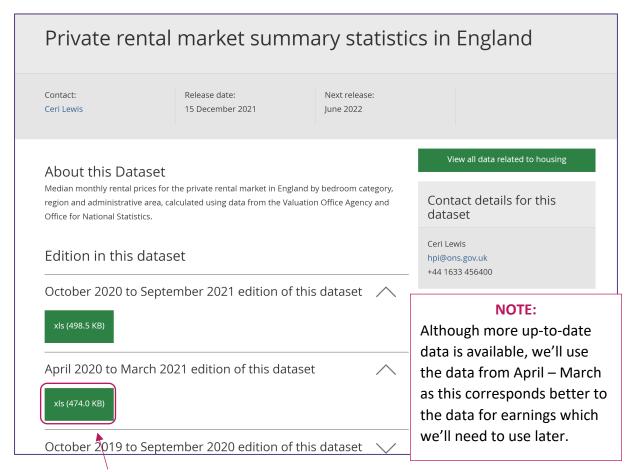


## Renting<sup>2</sup>

We need to go to different sites to find the data for rents in different parts of the UK. We'll go in alphabetical order: **England, Northern Ireland, Scotland, Wales**.

### **England**

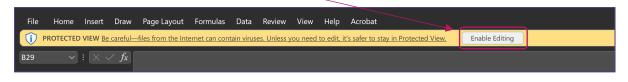
For England, you can find the latest dataset here: <u>Private rental market summary statistics in England</u> - Office for National Statistics (ons.gov.uk)<sup>iii</sup>



Click on the green button to download the spreadsheet. You will need to have software that can read Excel files.

Open the file from your downloads folder to open the spreadsheet.

As usual, click on 'Enable Editing' if this appears. This just means that navigating the table will be easier.



<sup>&</sup>lt;sup>2</sup> NOTE: this guide will only cover private sector rents



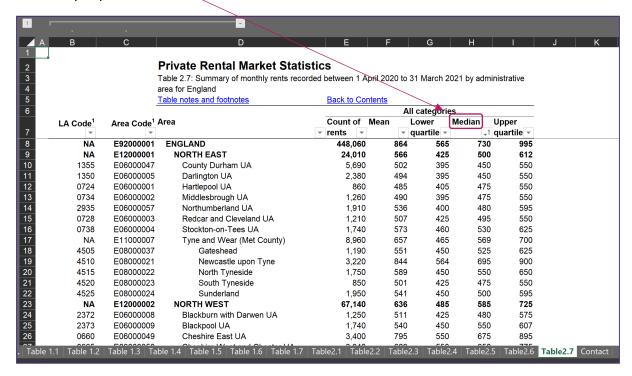
You can click on the contents tab, to check what information is included in the spreadsheet.





We're going to use table 2.7 as this has the data on average rents in each local authority. You can click on the blue hyperlink to get to the table.

We will use the median figure as this tends to give the number that is more representative for most people.





As before, we'll use York as the example. We need to scroll down to find the information.

| 2              |                      |            | Private Rental Market Statis             | stics            |               |              |              |            |  |
|----------------|----------------------|------------|--|------------------|---------------|--------------|--------------|------------|--|
| 3              |                      |            | Table 2.7: Summary of monthly rents reco | rded between 1 A | pril 2020 to  | 31 March 2   | 021 by admi  | nistrative |  |
| 4              |                      |            | area for England                         |                  |               |              | •            |            |  |
| 5              |                      |            | Table notes and footnotes                | Back to Co       | <u>ntents</u> |              |              |            |  |
| 6              |                      |            |  |                  | Δ             | II categorie | es           |            |  |
|                | LA Code <sup>1</sup> | Area Code1 | Area                                     | Count of         | Mean          | Lower        | Median       | Upper      |  |
| 7              | -                    | -          |  | ▼ rents          | ~             | quartile 🔻   | <b>↓</b> ↑   | quartile 🔻 |  |
| 62             | 4305                 | E08000011  | Knowsley                                 | 740              | 641           | 525          | 615          | 755        |  |
| 63             | 4310                 | E08000012  | Liverpool                                | 4,700            | 569           | 429          | 525          | 650        |  |
| 64             | 4320                 | E08000014  | Sefton                                   | 1,600            | 602           | 475          | 575          | 675        |  |
| 65             | 4315                 | E08000013  | St. Helens                               | 1,600            | 589           | 475          | 550          | 700        |  |
| 66             | 4325                 | E08000015  | Wirral                                   | 2,540            | 606           | 475          | 575          | 695        |  |
| 67             | NA                   | E12000003  | YORKSHIRE AND THE HUMBER                 | 43,170           | 631           | 475          | 575          | 720        |  |
| 68             | 2001                 | E06000011  | East Riding of Yorkshire UA              | 1,880            | 582           | 450          | 535          | 650        |  |
| 69             | 2004                 | E06000010  | Kingston upon Hull, City of UA           | 2,460            | 447           | 375          | 425          | 495        |  |
| 70             | 2002                 | E06000012  | North East Lincolnshire UA               | 1,530            | 474           | 410          | 455          | 525        |  |
| 71<br>72<br>73 | 2003                 | E06000013  | North Lincolnshire UA                    | 1,060            | 517           | 433          | 500          | 575        |  |
| 72             | 2741                 | E06000014  | York UA                                  | 4,300            | 838           | 675          | <b>→</b> 775 | 895        |  |
| 73             | NA                   | E10000023  | North Yorkshire                          | 5,710            | 693           | 535          | 625          | 750        |  |
| 74<br>75       | 2705                 | E07000163  | Craven                                   | 250              | 624           | 525          | 595          | 675        |  |
|                | 2710                 | E07000164  | Hambleton                                | 930              | 641           | 525          | 595          | 700        |  |
| 76             | 2715                 | E07000165  | Harrogate                                | 1,760            | 853           | 625          | 750          | 900        |  |

Here's a table we can use to record the figures.

|        | MEDIAN PRIVATE SECTOR RENTS IN 2021 |
|--------|-------------------------------------|
| REGION | £                                   |
| York   | 775                                 |

To calculate how affordable rent is, we need to compare like with like.

We have the information on annual earnings from our How To guide on earnings<sup>3</sup>

|        | MEDIAN ALL EARNINGS 2021  |  |  |  |  |  |
|--------|---------------------------|--|--|--|--|--|
| REGION | ALL (£) WOMEN (£) MEN (£) |  |  |  |  |  |
| York   | 24,041 20,507 28,711      |  |  |  |  |  |

Source: ONS (2021) Annual Survey of Hours and Earnings, Table 8.7a<sup>4</sup>

...so we can multiply rent by 12 to get the approximate annual figure.

|        | MEDIAN PRIVATE SECTOR RENTS IN 2021 (annual) |
|--------|--|
| REGION | £  |
| York   | 9,300  |

<sup>&</sup>lt;sup>3</sup> LINK TO earning how to

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<sup>&</sup>lt;sup>4</sup> Earnings and hours worked, place of residence by local authority: ASHE Table 8 - Office for National Statistics (ons.gov.uk)



Now, we need to calculate what percentage rent takes from earnings.

We can use the equation:

rent 
$$\div$$
 earnings  $\times$  100

Let's start with the cost of rent for women and men combined. We'll use the data from the 'All' category.

rent 
$$\div$$
 earnings  $\times$  100 = percentage  
£9,300  $\div$  £24,041  $\times$  100 = 38.7%

|        | MEDIAN ANNUAL PRIVATE SECTOR RENTS IN 2021 | HOW MUCH OF MEDIAN EARNINGS WOULD BE ABSORBED BY MEDIAN PRIVE RENT? |       | D BE |
|--------|--|---|-------|------|
| REGION | £  | ALL   | WOMEN | MEN  |
| York   | 9,300                                      | 38.7% % %   |       |      |

The remainder of the calculations are here:

|        | MEDIAN ANNUAL PRIVATE SECTOR RENTS IN 2021 | HOW MUCH OF MEDIAN EARNINGS WOULD BE ABSORBED BY MEDIAN PRIVATE RENT? |       |     |
|--------|--|---|-------|-----|
| REGION | £  | ALL   | WOMEN | MEN |
| York   | 9,300                                      | 38.7% 45.3% 32.49   |       |     |

Source: Author's calculations based on Valuation Office Agency (2021) Private rental market summary statistics: April 2020 to March 2021, Table 2.7; ONS (2021) Annual Survey of Hours and Earnings, Table 8.7a.

Note: Anything over 30% is classed as unaffordable.



Now try and complete the template with the data for your local area. Remember the formula:

# rent $\div$ earnings $\times$ 100 = percentage

\*\*Remember to multiply by 12 to get the annual figure!

|                 | MEDIAN PRIVATE SECTOR<br>RENTS IN 2021 | MEDIAN PRIVATE SECTOR RENTS IN 2021 (annual) |
|-----------------|--|--|
| REGION          | £                                      | £  |
| Local Authority |  |  |

|                 | MEDIAN ALL EARNINGS 2021  |  |  |  |  |  |
|-----------------|---------------------------|--|--|--|--|--|
| REGION          | ALL (£) WOMEN (£) MEN (£) |  |  |  |  |  |
| Local Authority |                           |  |  |  |  |  |

|                 | MEDIAN ANNUAL PRIVATE SECTOR RENTS IN 2021 | HOW MUCH OF MEDIAN EARNINGS WOULD BE ABSORBED BY MEDIAN PRIV. RENT? |  | D BE |
|-----------------|--|---|--|------|
| REGION          | £  | ALL WOMEN MEN   |  |      |
| Local authority |  | % % %   |  |      |

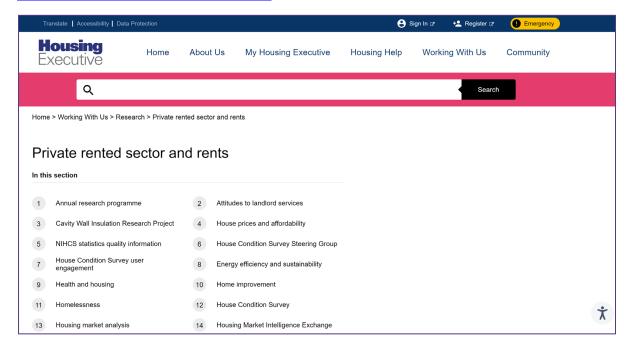
Here is a full template in case you'd like to compare with the national and regional picture.

|                 | MEDIAN ANNUAL PRIVATE SECTOR RENTS IN 2021 | HOW MUCH OF MEDIAN EARNINGS WOULD BE ABSORBED BY MEDIAN PRIVATE RENT? |       |     |
|-----------------|--|---|-------|-----|
| REGION          | £  | ALL   | WOMEN | MEN |
| Country         |  | %   | %     | %   |
| Region          |  | %   | %     | %   |
| Local authority |  | %   | %     | %   |



#### **Northern Ireland**

For Northern Ireland, the data can be found here: <u>The Housing Executive - Private rented</u> sector and rents research (nihe.gov.uk)<sup>iv</sup>

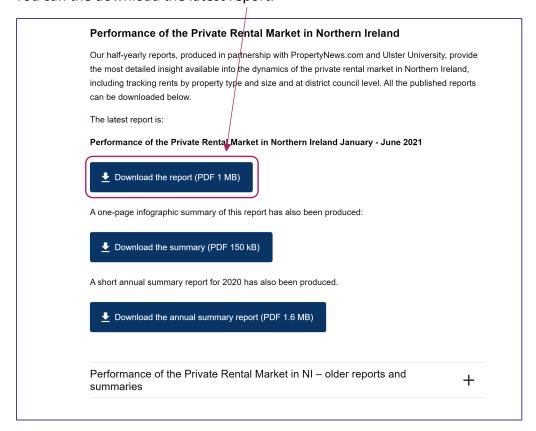


## Scroll down and click on number 18

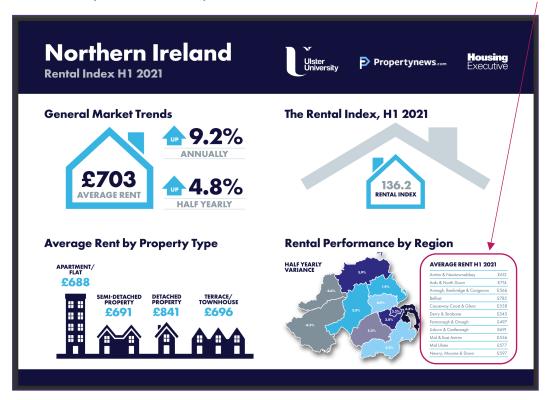




You can the download the latest report.

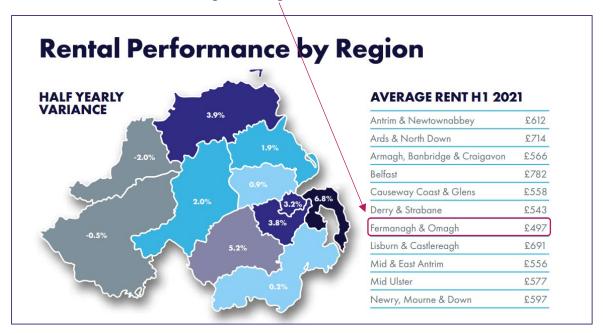


The summary contains a really clear overview with all the information for each local area.





We'll use the data for Fermanagh & Omagh...



...and calculate the approximate annual cost by multiplying by 12.

|                   | MEDIAN PRIVATE SECTOR RENTS IN 2021 (annual) |
|-------------------|--|
| REGION            | £  |
| Fermanagh & Omagh | 5,964  |

We have the data on earnings from our HOW TO LINK

|                     | MEDIAN ALL EARNINGS 2021 |           |         |  |
|---------------------|--------------------------|-----------|---------|--|
| REGION              | ALL (£)                  | WOMEN (£) | MEN (£) |  |
| Fermanagh and Omagh | 23,209                   | 19,671    | 26,414  |  |

So we can calculate the cost by using our equation

rent ÷ earnings × 100



# Here's the completed table:

|                   | MEDIAN ANNUAL<br>PRIVATE SECTOR<br>RENTS IN 2021 | HOW MUCH OF MEDIAN EARNINGS WOULD BE ABSORBED BY MEDIAN PRIVATE RENT? |       | D BE  |
|-------------------|--|---|-------|-------|
| REGION            | £  | ALL   | WOMEN | MEN   |
| Fermanagh & Omagh | 5,964  | 25.7%   | 30.3% | 22.6% |

Source: Author's calculations based on Housing Executive (2021) Private rented sector and rents: H1 2021, rental performance by region; NISRA (2021) Annual Survey of Hours and Earnings, Table 7a.

Again, we can see that renting alone is much more expensive for women compared to men.

Now, you can find the information for your local area.

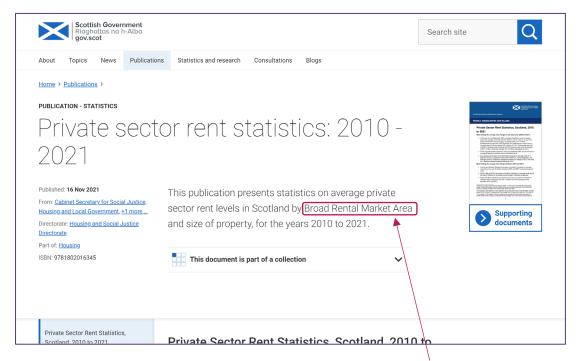
Here's a template for you to complete:

|                 | MEDIAN ANNUAL PRIVATE SECTOR RENTS IN 2021 | HOW MUCH OF MEDIAN EARNINGS WOULD BE ABSORBED BY MEDIAN PRIVA RENT? |       | D BE |
|-----------------|--|---|-------|------|
| REGION          | £  | ALL   | WOMEN | MEN  |
| Local authority |  | %   | %     | %    |



#### **Scotland**

Data for Scotland can be found here: <u>Private sector rent statistics</u>: <u>2010 - 2021 - gov.scot</u> (<u>www.gov.scot</u>). There are a number of differences in the way the data is organised that are important to note.



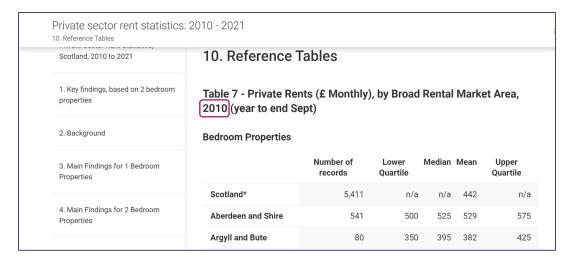
The geographical areas used in this data are classified as 'broad rental market areas'. They align more closely to parliamentary constituency areas than local authority boundaries. You may want to search by postcode to be sure to get the data for a specific place. Plus, it may be better to use earnings data for parliamentary constituency\* to get a more accurate comparison.

The data is also listed for each individual category of property, e.g., one-bedroom; three-bedroom. There is no overall average. That means that you'll need to choose which is the most relevant category to analyse. To find the data, scroll down the page to section 10.





You'll find the tables for the different types of property for each year.



You'll have to scroll down to find the latest data. It's currently recorded at table 18.



<sup>\*</sup>NOTE: to find earnings data for parliamentary constituency, use ASHE table 10.7a

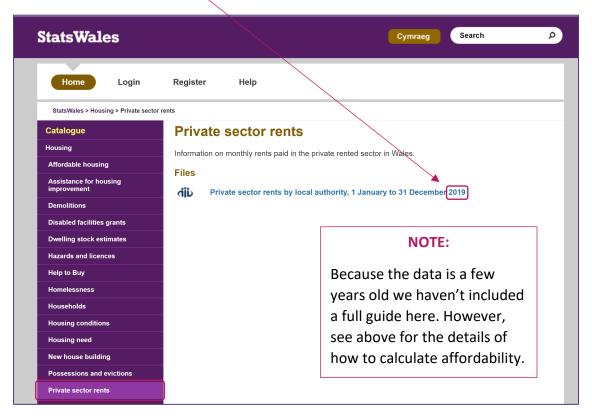
<u>Earnings and hours worked, place of residence by Parliamentary constituency: ASHE Table 10 - Office for National Statistics</u>



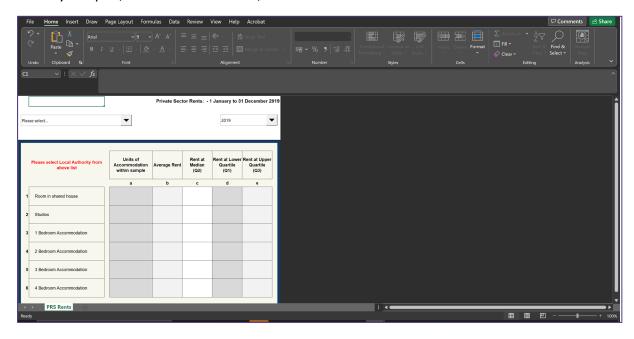
#### Wales

The data for Wales can be found here: Private sector rents (gov.wales)vi

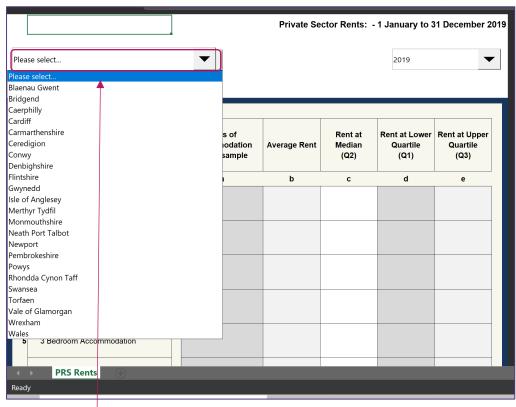
However, it is important to note that they suspended data collection during the pandemic so the figures are a few years old now. You'll need to consider that when choosing the earnings data you use to compare.



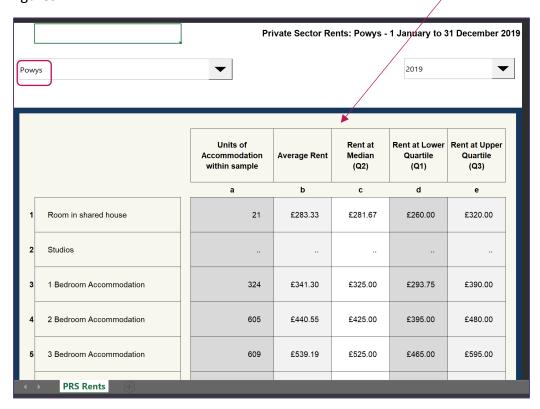
When you open, the downloaded file, the data is in an interactive table.







Click on the box to choose your local authority. The table will then fill with the relevant figures.



Notice that the data is for each type of property. There is no overall average.



#### Links to sources:

\_\_\_\_

https://wbg.org.uk/analysis/reports/a-home-of-her-own-housing-and-women/

ii

https://landregistry.data.gov.uk/app/ukhpi?utm\_medium=GOV.UK&utm\_source=datadown load&utm\_campaign=tool&utm\_term=9.30\_15\_12\_21

iii

https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/privaterentalmarketsummarystatisticsinengland

iv https://www.nihe.gov.uk/Working-With-Us/Research/Private-rented-sector-and-rents

<sup>v</sup> https://www.gov.scot/publications/private-sector-rent-statistics-scotland-2010-2021/

vi https://statswales.gov.wales/Catalogue/Housing/Private-Sector-Rents