

Creating a Pivot Table using your ONS Custom DataSet

Once you have created a custom dataset using the ONS custom dataset tool and have downloaded the excel spreadsheet you will likely want to apply a pivot table to the data to understand and analyse it.

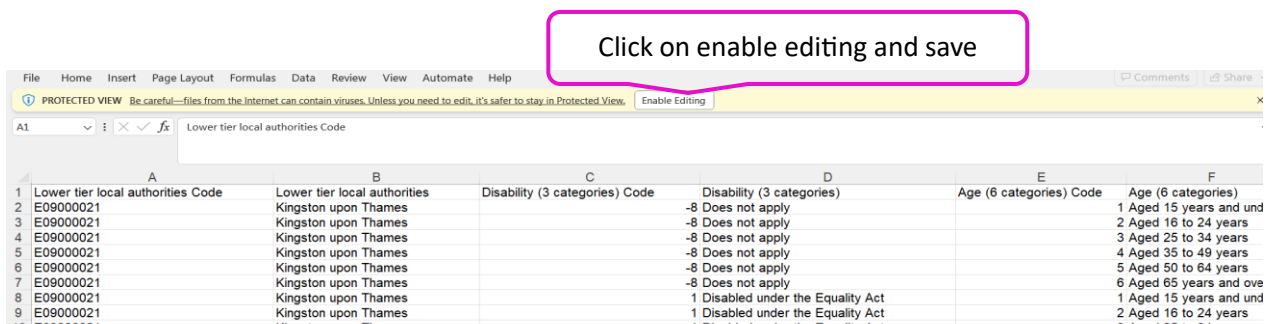
This example uses the following dataset generated using the [ONS create a custom dataset](#)

- Population type** - Usual residents
- Area type**- Lower tier local authorities
- Coverage** – Kingston borough
- Variables** – Age, Disability

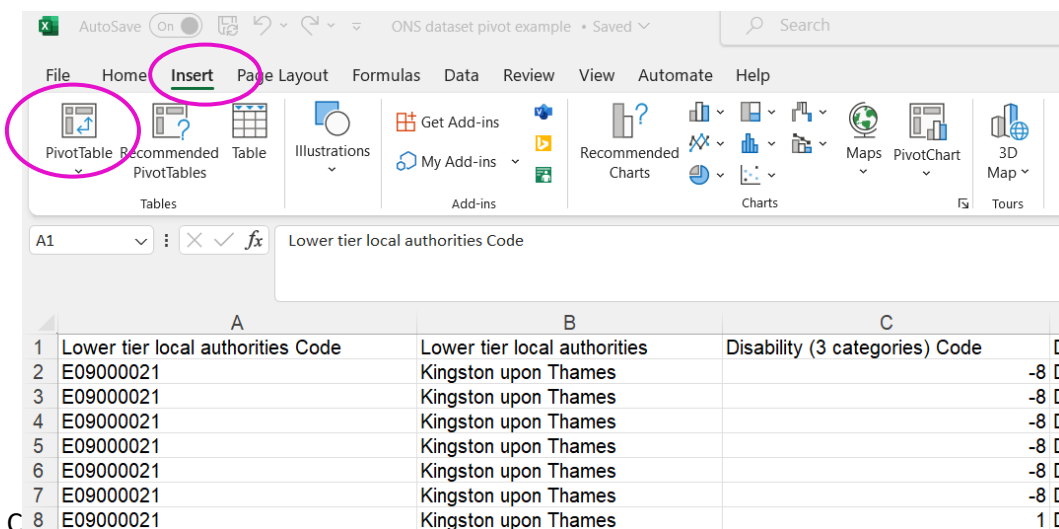
To start with we suggest selecting 2 or 3 variables in your pivot table. You can download variables to create more complex datasets, once you are familiar with how it works.

Using the tool will give a dataset that you download into XLSX file (an Excel file).

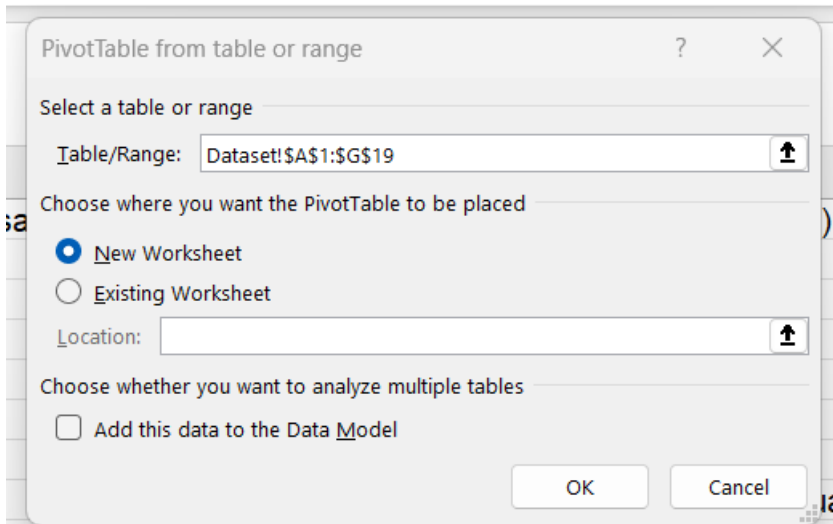
- Open downloaded file. Click on enable editing and save to central location.



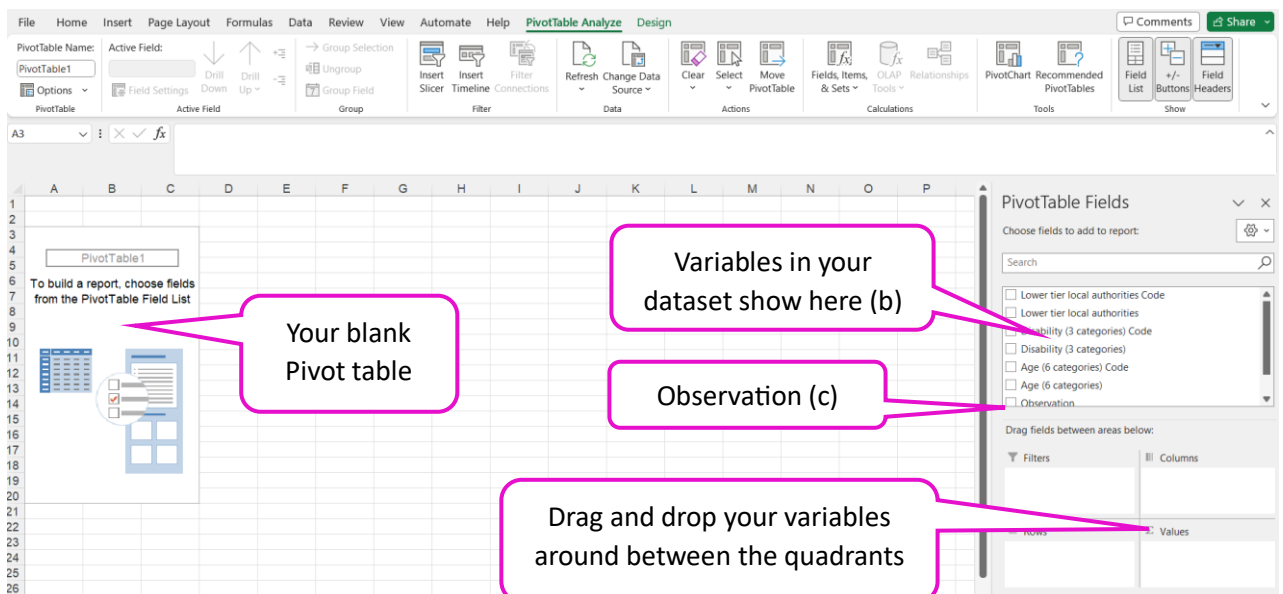
- Click on the Insert tab. When you are in the Insert tab click on pivot table



- Clicking on the pivot table will open a dialogue box. Make sure that the data you want has been selected – either by the cell references in the Table/range box or checking the data is all within the dotted lines around the data. Choose new worksheet and click **OK**.



- This creates a blank pivot table in a new worksheet. You can create more pivot tables in new worksheets from the same dataset, if required.



- Pivot table – key layout features
 - a. Having your cursor clicked in the pivot table (on the left side) opens the pivot table Fields menu on the right side. If you can't see the pivot table Fields menu – click within the pivot table. The pivot table will build here on the left as you click option on / off in the Pivot table Fields.
 - b. Pivot table Fields list the variables you selected for your dataset i.e. age, disability. As you click these on/off they are added/removed from your pivot table. Select the options for your categories, don't use the category with code.

- c. The Observation category – which is usually last on the list - is required to add numbers to the categories. This is placed in the **Values** quadrant (its likely to default here when you tick the observation box in the fields list).
- d. You drag and drop the variables between the different quadrants to rearrange how the data is presented.

- Click on all the variables you want in the Pivot table Fields list *including the observations option*. Observations brings the numbers in to the table. This populates your Pivot table. Usually the variables you click on drop into the **Rows** quadrant by default.

1. Clicking on the variables in the Pivot table fields list

2. Populates the Pivot table here

Row Labels	Sum of Observation
Kingston upon Thames	168063
Disabled under the Equality Act	21990
Aged 15 years and under	1739
Aged 16 to 24 years	2284
Aged 25 to 34 years	2152
Aged 35 to 49 years	3407
Aged 50 to 64 years	4710
Aged 65 years and over	7698
Does not apply	0
Aged 15 years and under	0
Aged 16 to 24 years	0
Aged 25 to 34 years	0
Aged 35 to 49 years	0
Aged 50 to 64 years	0
Aged 65 years and over	0
Not disabled under the Equality Act	146073
Aged 15 years and under	30860
Aged 16 to 24 years	16379
Aged 25 to 34 years	21119
Aged 35 to 49 years	35755
Aged 50 to 64 years	25335
Aged 65 years and over	16625
Grand Total	168063

- Click on each on and drag to move the fields between the quadrants – rows and columns to correlate the data, and filters can be used to

1. Clicking on the variables in the Pivot table fields list

2. Populates the Pivot table here

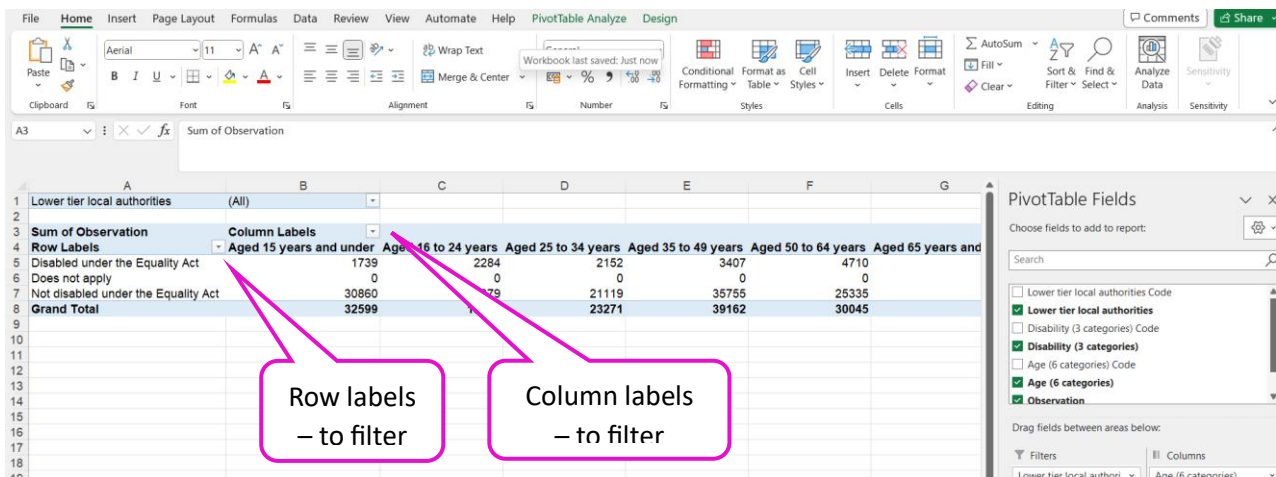
Lower tier local authorities (All)	Sum of Observation	Column Labels	Does not apply	Not disabled under the Equality Act	Grand Total
Row Labels	Disabled under the Equality Act				
Aged 15 years and under	1739	0	30860	32599	
Aged 16 to 24 years	2284	0	16379	18663	
Aged 25 to 34 years	2152	0	21119	23271	
Aged 35 to 49 years	3407	0	35755	39162	
Aged 50 to 64 years	4710	0	25335	30045	
Aged 65 years and over	7698	0	16625	24323	
Grand Total	21990	0	146073	168063	

In the Pivot table – click on the down arrow next to Lower tier local authorities.

Sum of Observation	Column Labels					
Row Labels	Aged 15 years and under	Aged 16 to 24 years	Aged 25 to 34 years	Aged 35 to 49 years	Aged 50 to 64 years	Aged 65 years and over
Disabled under the Equality Act	1739	2284	2152	3407	4710	
Does not apply	0	0	0	0	0	
Not disabled under the Equality Act	30860	16379	21119	35755	25335	
Grand Total	32599	18663	23271	39162	30045	

- You can filter the data within the table. Click on the drop-down arrow next to the filter, opens sort and filter list box. Click on / off the sub-categories of your variable. For example, for local authorities In our example we selected 'Kingston' from the Census data for our dataset. If we had asked for Kingston data by wards, we could choose to see the data at borough or individual ward level – all wards, specific wards or one ward. Click on the down arrow to select the data you want to include. Click the box 'select multiple items' to select more than 1 options from list (i.e. wards list).

- You can also filter data within the table in the Rows and Columns. Next to Row Labels and Column labels there is a down arrow. Click the arrow to open the sort / filter box and click on/off the options you want. For example Age was one of our variables. We can click off 'Age 15 & under' and 'Aged 65 & over' options to only look at data for the working age population.



Screenshot – drop down to select age range

In our example, we chose the variables: Age, Disability and local authority Kingston – to find the number of working age adults with a disability; the area was set as Kingston borough, we added Age to the Rows quadrant and Disability to give the Columns quadrant so the table is as follows. You can add fields to the filters column if you want to filter the whole table by that field. This shows the numbers of your population by the categories.

Lower tier local authorities	(All)				
Sum of Observation	Column Labels				
Row Labels	Disabled under the Equality Act	Does not apply	Not disabled under the Equality Act	Grand Total	
Aged 16 to 24 years	2284	0	16379	18663	
Aged 25 to 34 years	2152	0	21119	23271	
Aged 35 to 49 years	3407	0	35755	39162	
Aged 50 to 64 years	4710	0	25335	30045	
Grand Total	12553	0	98588	111141	

- If you play about with dragging and dropping the different categories / groupings into the different boxes in the quadrant to see which configuration in the pivot table makes most sense, works best for your data or creates a table that makes it easiest to make sense of the data.
- You can change to see the results percentage of the total rather than the actual numbers. In the values field, next to Sum of Observation click on the down arrow to open a dropdown list –select the last item in the list 'Value field settings'. This opens a Value Field Settings dialogue box, click on the 'Show values as' tab, and then change the 'No calculation' to '% of Row total' (or the option as appropriate for your data) select **OK**. This converts the numbers in the table to percentages. See steps listed in diagrams below.

Sum of Observation	Column Labels	Does not apply	Not disabled under the Equality Act	Grand Total
Row Labels	Disabled under the Equality Act			
Aged 16 to 24 years	2284	0	16379	18663
Aged 25 to 34 years	2152	0	21119	23271
Aged 35 to 49 years	3407	0	35755	39162
Aged 50 to 64 years	4710	0	23335	30045
Grand Total	12553	0	98588	111141

1. Click on drop-down arrow next to Sum of observation

2. Click on Value Field settings

3. Click on Show value as tab

4. Choose % of Row total (or appropriate for calculation).

5. To alter decimal place, use the buttons in the number group on the Home tab.

- Note on **'Does not apply'** You may find in your options list – 'Does not apply'. The following ONS explanation covers why '@Does not apply' may occur. You can filter to hide/remove the Does not apply if there is no data or it is meaningless in your dataset.

When using one variable, like ethnic group, the 'Does not apply' will still be present in the dataset but will have zero in the observation column. This is because all usual residents have an applicable observation.

Some variables, such as economic activity status, only apply to usual residents aged 16 and above. If economic activity status is combined with another variable, such as ethnicity, which was asked of all usual residents, the usual residents who are aged under 16 will be counted in the 'Does not apply' category as they will not appear in any of the economic activity variable categories.

If you then want to create a chart from your Pivot table we have developed a range of materials to support using the ONS tool - [Resources for use with the ONS custom dataset tool](#)