

Using Pivot Tables to compare and analyze multiple occupational requirements

The [Occupational Requirements Survey \(ORS\)](#) publishes job-related information on physical demands; environmental conditions; education, training, and experience; as well as cognitive and mental requirements. ORS can be used to identify occupations that have different combinations of these requirements. Understanding occupations with multiple specific requirements can be useful to job seekers, vocational and rehabilitation experts, human resource professionals, hiring managers, safety and medical professionals, and the disability community.

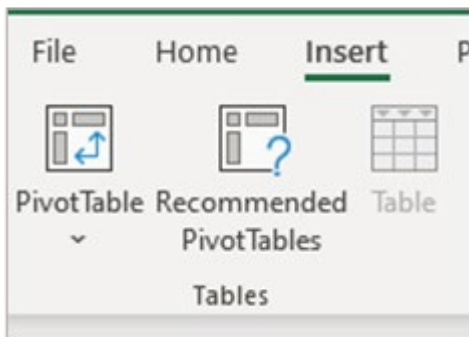
Follow the steps below to use spreadsheet tools to view and analyze multiple occupational requirements.

Steps:

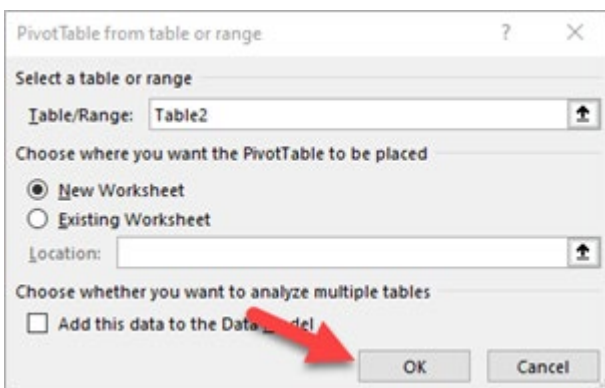
1. Download and open the [ORS complete dataset](#).
2. Click **Enable Editing** at the center top of the screen.
3. Go to the **ORS 20XX dataset** tab at the bottom of the sheet.
4. Within the ESTIMATE column (column N), are range values that include a less than (<) or greater than (>) symbol. Prior to creating a pivot table, all cells in column N will need to be converted to a numeric value (shown in the next step). Some options to consider when working with range estimates:
 - a. Remove all range values from the dataset
 - b. Remove less than or greater than symbols, but retain the range value
 - c. Assign a different numeric value that denotes estimates as range estimates (i.e., a value of 100 for all greater than ranges)
5. Convert estimates to numbers:
 - a. Select first data cell in the **ESTIMATE** column (N2).
 - b. Hold **Shift+Ctrl+Down Arrow** to select all estimates (column N).
 - c. Click on the exclamation point symbol at the top of the column.
 - d. Select **Convert to Number**.

DATATYPE	ESTIMATE	STANDARD ERR
Percentage	100.0	-
Percentage		
Percentage		
Percentage		
Percentage		
Percentage		
Percentage		
Percentage		
Percentage		
Pounds	35.00	-

6. Select **Insert > Pivot Table**.



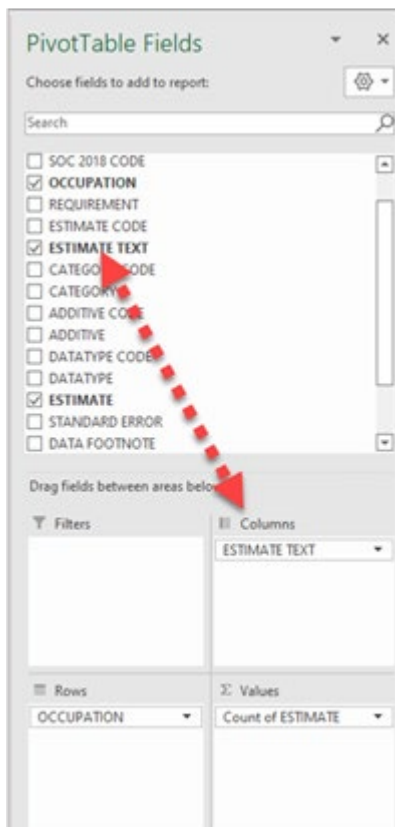
7. Hit **OK**. Note: The pivot table tool will automatically select the complete ORS dataset as your table range and create a new sheet with the table.



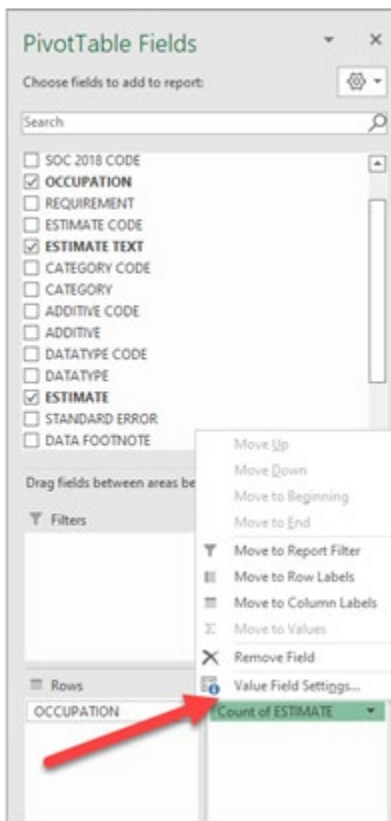
8. In the PivotTable Fields area, grab and drag the following fields to the following areas:

- a. OCCUPATION -> Rows
- b. ESTIMATE TEXT -> Columns
- c. ESTIMATE -> Values

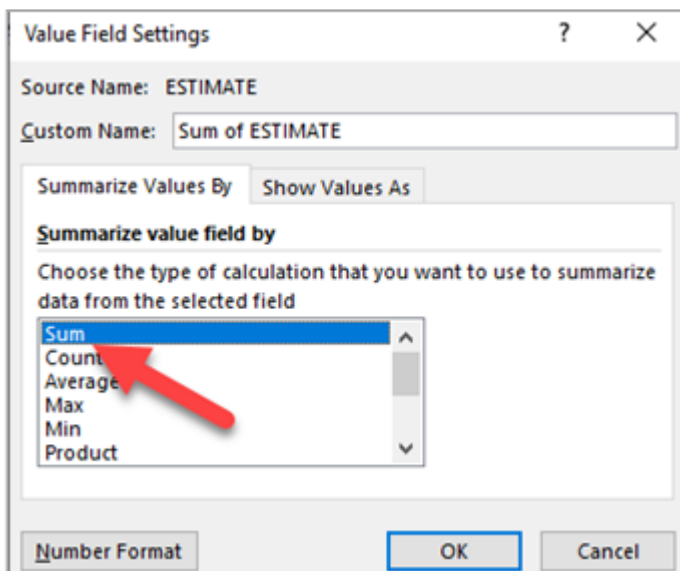
Note: The fields you selected and moved should all be checked.



9. In the Values area, click the drop-down menu beside **Count of ESTIMATE** > **Value Field Settings**.



10. Select **Sum** and hit **OK**. Note: Sum is only a method for displaying the estimate value. No summation calculation is done.

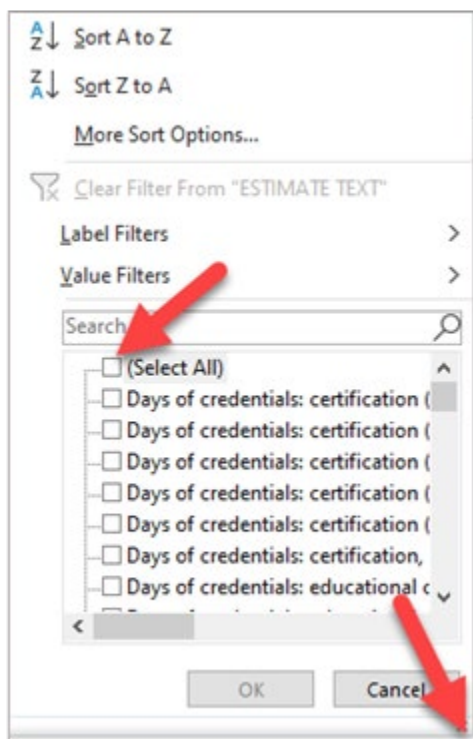


11. Select multiple requirements from the Columns Labels drop-down menu.

a. Click on the **Column Labels** drop-down menu arrow.

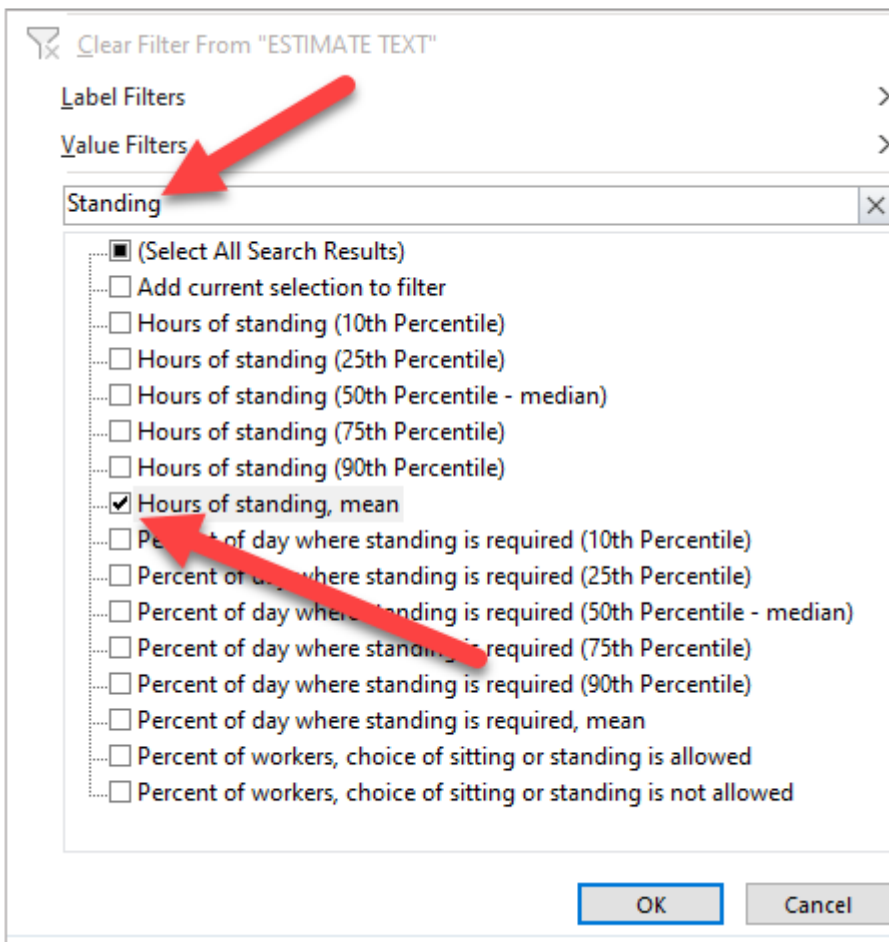
Sum of ESTIMATE		Column Labels
Row Labels		Days of credentials
Accountants and auditors		certification (10th
Adhesive bonding machine operators and tenders		Percentile)

- b. Unselect **Select All**.
- c. Expand the menu to view the complete estimate text titles by hovering your cursor over the lower right-hand corner of the window until a double-headed arrow appears. Drag it and expand.

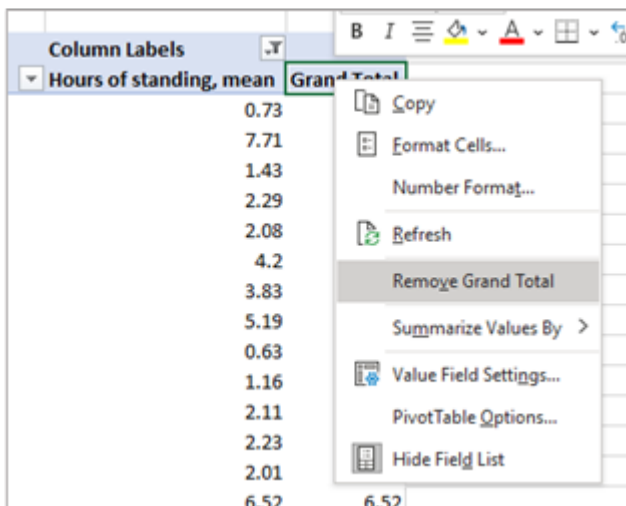


12. Search for the first estimate you wish to analyze by placing keywords in the text box below Value Filters. Select the estimate(s).

- a. Check all the requirements you wish to analyze identified by the keyword search.
- b. Click **OK**.



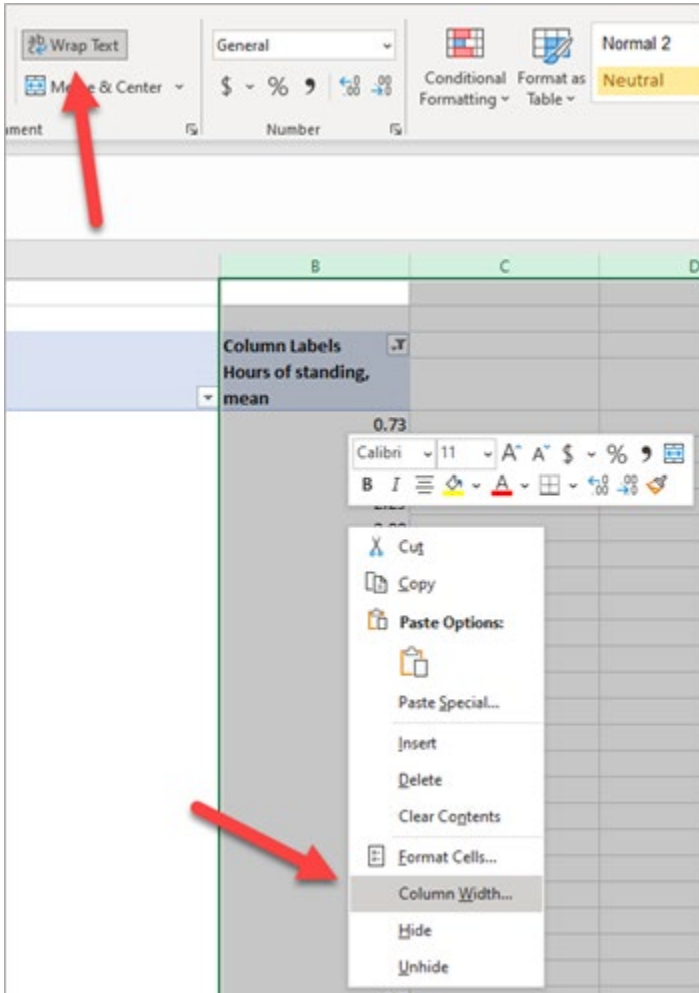
13. Remove the Grand Total column by selecting the Grand Total column heading cell (i.e., the cell in row 4), right click, and select **Remove Grand Total** from the drop-down menu.



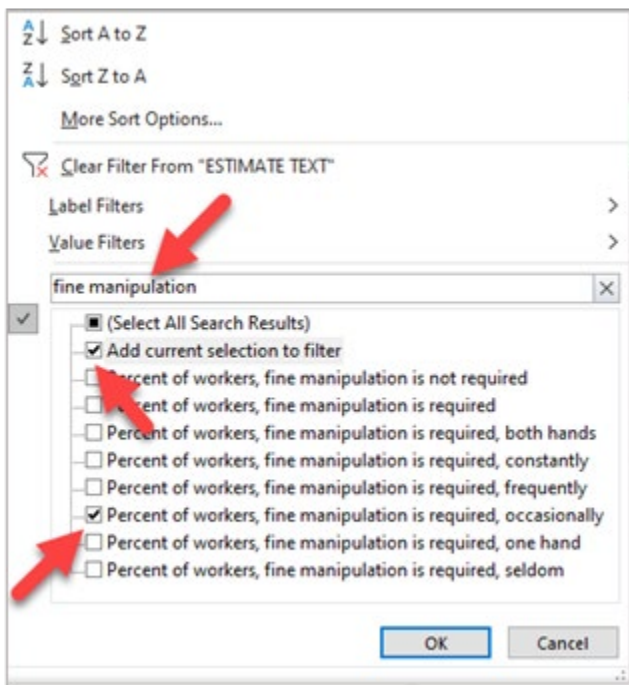
14. Format the pivot table.

- a. Select column B.

- b. Hold **Shift+Ctrl+Right Arrow** to select the remainder columns to the right in the worksheet. All the columns should be grey indicating they are selected.
- c. Right click somewhere in the worksheet (without selecting a cell) and select **Column Width** from the drop-down menu.
- d. Enter 20 and click **OK**.
- e. Click **Wrap Text** in the Home tab.



15. As you did [above](#), search for additional requirements you wish to analyze using key words.
 - a. Select the additional requirements and check **Add current selection to filter**.
 - b. Follow the same procedure to add additional requirements.



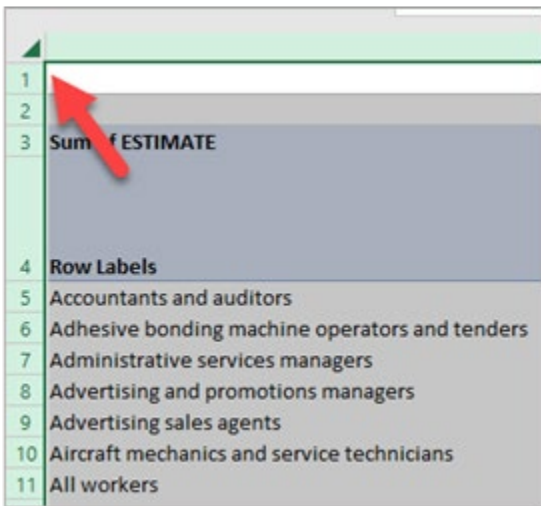
16. Copy and paste as values all the data in your newly created pivot table sheet to have all data analysis tools available to analyze the data. Note: Analysis tools are limited within pivot tables.

a. Create a new sheet to conduct your pivot table data analysis. Right click on any tab and the bottom and click **Insert > Worksheet > OK**.

	1.2	71.5
sts	0.57	
	0.99	49.8
	0.99	

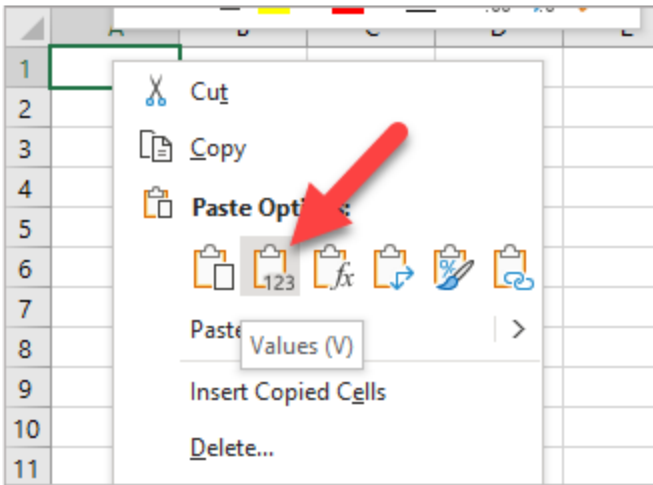
Pivot Table **Pivot Table Data Analysis** ORS 2021 dataset (+)

- Select all the data in your pivot table sheet by clicking on the triangle in the upper left corner of your worksheet.
- Hold **Ctrl + C** to copy the sheet to your clipboard.



1	
2	
3	Sum of ESTIMATE
4	Row Labels
5	Accountants and auditors
6	Adhesive bonding machine operators and tenders
7	Administrative services managers
8	Advertising and promotions managers
9	Advertising sales agents
10	Aircraft mechanics and service technicians
11	All workers

- d. Select cell A1 in the new sheet you created to analyze your pivot table data.
- e. Right click and select the **Values (V)** icon under **Paste Options**.



17. Format the new sheet.

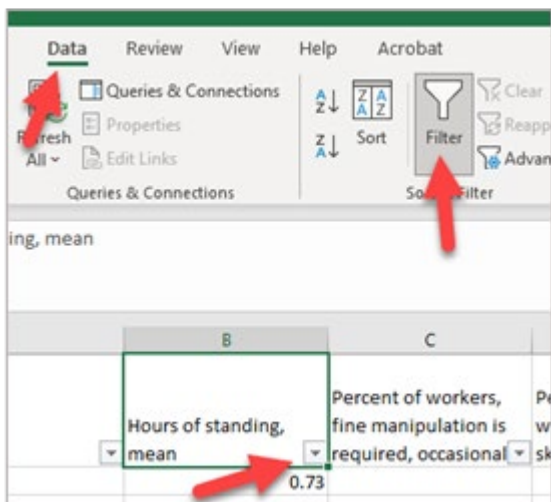
- a. Expand column A so that all the occupation titles are visible. To expand the width of the column, place your cursor on the border of column A, click and drag to the width desired.

	A	B	C
1			
2			
3	Sum of ESTIMATE	Column Labels	
4	Row Labels	Hours of s	Percent of v
5	Accountants and auditors	0.73	4.4
6	Adhesive bonding machine operators and tenders	7.71	
7	Administrative services managers	1.43	
8	Advertising and promotions managers	2.29	
9	Advertising sales agents	2.08	
10	Aircraft mechanics and service technicians		33.2

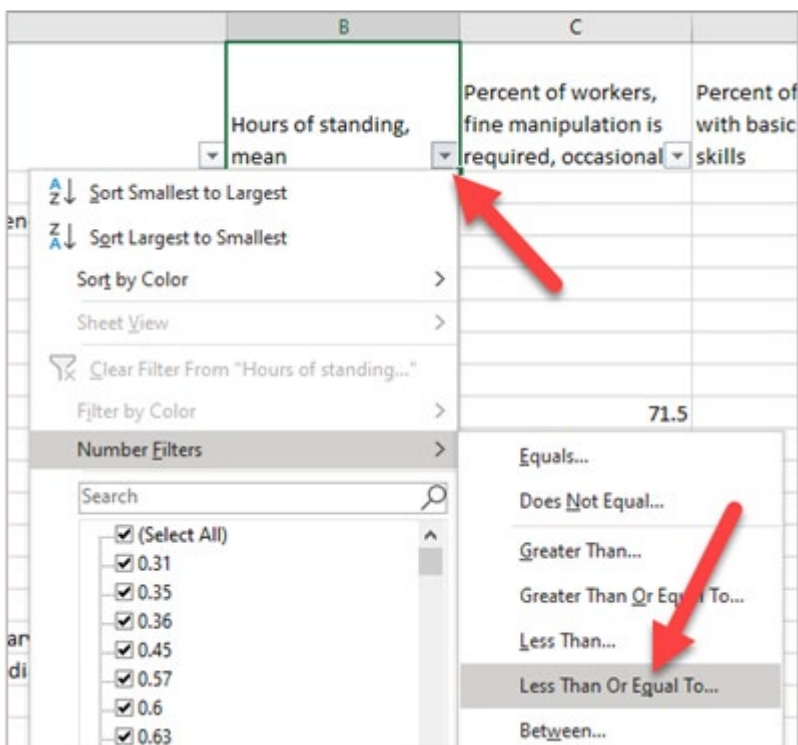
- Format the remaining columns as you did in the [Step above](#).
- Delete the top 3 rows so filters can be applied to the requirement columns. The estimate text headings should be in row 1.

	A	B	C	
1	Row Labels	Hours of standing, mean	Percent of workers, fine manipulation is required, occasionally	Percent with skill:
2	Accountants and auditors	0.73		
3	Adhesive bonding machine operators and tenders	7.71		
4	Administrative services managers	1.43		
5	Advertising and promotions managers	2.29		
6	Advertising sales agents	2.08		
7	Aircraft mechanics and service technicians			
8	All workers	4.2		
9	Amusement and recreation attendants	3.83	71.5	

- Analyze the data using the data analysis tools. Here is one example of using these tools to display only the occupations that have mean Hours of Standing equal to or less than 4 hours.
 - Turn on the filter tool by selecting the **Filter** icon in the **Data** tab.



- b. Click on arrow in the **Hours of standing, mean** column and select **Number Filters** from the drop-down menu. Then select **Less Than Or Equal To**.



- c. Enter **4** and select **OK**.

Hours of standing, mean	Percent of workers, fine manipulation is required, occasional	Percent of workers, with basic people skills	Percent of workers, with the ability to pause work
0.73			4.4
7.71			
1.43			
2.29			
2.08			
4.2			
3.83			
5.19			
0.63			
1.16			
2.11			
2.23			

Custom AutoFilter

Show rows where:

Hours of standing, mean

is less than or equal to 4

☒ And ☐ Or

Use ? to represent any single character
Use * to represent any series of characters

Additional resources:

- [Latest news release](#)
- [Archived ORS news releases](#)
- [Handbook of Methods](#)
- [Collection manuals](#)
- [Factsheets](#)

Articles:

- [All The Economics Daily \(TED\) articles on ORS](#)
- [Minds at work: what's required according to the Occupational Requirements Survey \(PDF\)](#)
- [A look at teachers' job requirements, employer costs, and benefits \(PDF\)](#)
- [Occupational Requirements Survey: Third wave testing report \(PDF\)](#)
- [Occupational Requirements Survey: results from a job observation pilot test](#)
- [The Occupational Requirements Survey: estimates from preproduction testing](#)

For additional information on occupational requirements see the [ORS homepage](#) or download the [ORS complete dataset](#) to explore the latest estimates.