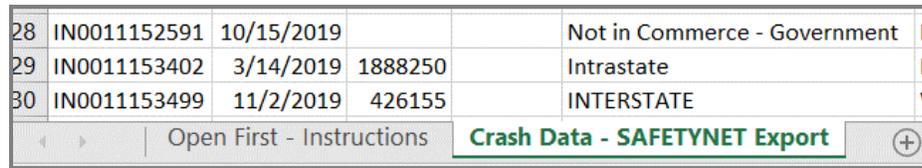


SAFETYNET Reports: Creating a Pivot Table

Objective: A PivotTable is a powerful tool to calculate, summarize, and analyze data. It allows you to see comparisons, patterns, and trends in your data. In this exercise, we will create a PivotTable in Excel using SAFETYNET crash data showing counts of crash records by carrier type and year.

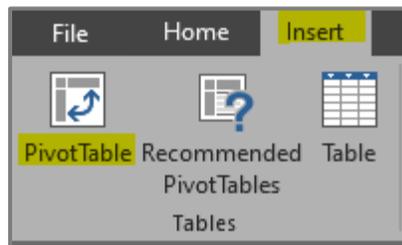
To complete this exercise, you must download and open the SAFETYNET Reports Exercise Excel file from the SAFETYNET Reports session in Crowd Compass (you may have already completed this step).

1. Click on the 'Crash Data-SAFETYNET Export' tab (image below) and then click on any cell in Columns A-P.



28	IN0011152591	10/15/2019		Not in Commerce - Government
29	IN0011153402	3/14/2019	1888250	Intrastate
30	IN0011153499	11/2/2019	426155	INTERSTATE

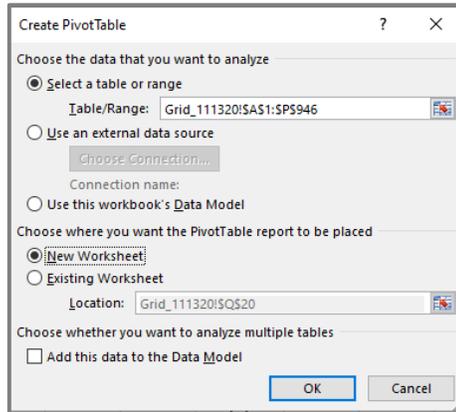
2. Select Insert > PivotTable.



3. Create PivotTable Dialogue Box appears (image below). Keep the default selections, which are the following:

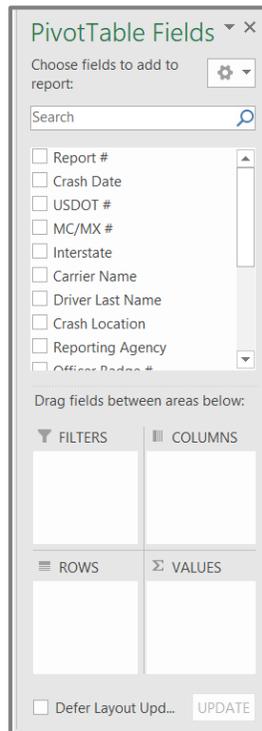
- a. Choose the data that you want to analyze - By default, Excel selects to the whole table in the 'SAFETYNET Grid Crash Data' tab.
- b. Choose where you want the PivotTable report to be placed. By default, Excel places the PivotTable report into a new worksheet.
- c. Choose whether you want to analyze multiple tables - Excel adds the new PivotTable to others that were previously created. Ignore this today! We are only creating one PivotTable.

SAFETYNET Reports: Creating a Pivot Table



4. Click OK

A new worksheet opens up. The PivotTable will appear to the left. A box called PivotTable Fields (image below) appears to the right. The box includes a list of fields available for the PivotTable. You will choose fields from this list.



Note: If you click the worksheet, the Box disappears.

Click the PivotTable area to make the Box appear.

SAFETYNET Reports: Creating a Pivot Table

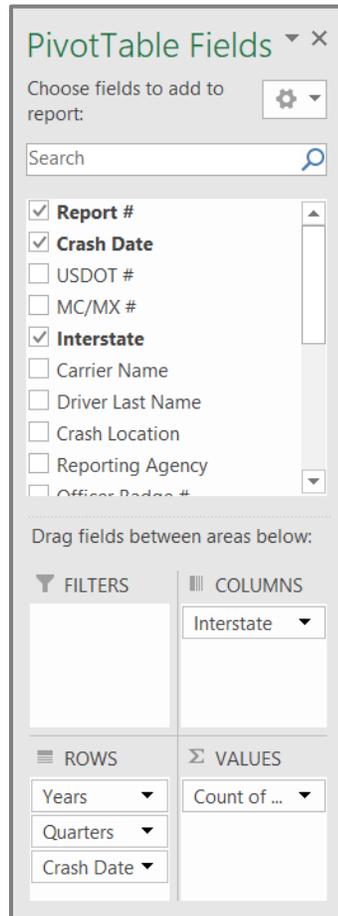
Your next step will be to drag the 'Crash Date', 'Interstate', and 'Report #' fields to their respective quadrants (image below).

5. Drag and drop the 'Crash Date' field to the ROWS quadrant.

- a. By default, Excel adds quarter and year fields in that quadrant since this is a date field.

6. Drag and drop the 'Interstate' field to the COLUMNS quadrant.

7. Drag and drop the 'Report #' field to the VALUES quadrant.



Note:

Use the checkbox if you want to Excel to assign the field to a quadrant.

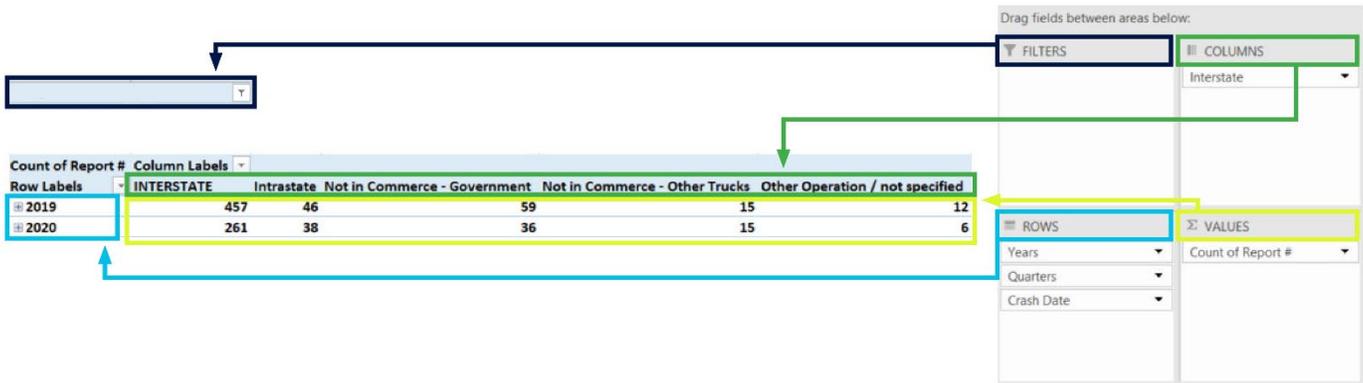
Excel uses this logic:

- non-numeric fields are assigned to Rows
- date and time hierarchies are assigned to Columns
- numeric fields are assigned to Values.

Drag and drop the fields to the quadrants if you want to control where to place the fields.

SAFETYNET Reports: Creating a Pivot Table

The PivotTable will automatically populate using the data from the fields you selected. The diagram below shows the path from quadrant to PivotTable.



8. Review your results.

Count of Report #	Column Labels						
Row Labels	INTERSTATE	Intrastate	Not in Commerce - Government	Not in Commerce - Other Trucks	Other Operation / not specified	Grand Total	
2019	457	46	59	15	12	589	
2020	261	38	36	15	6	356	
Grand Total	718	84	95	30	18	945	

Nice job! You made a PivotTable! Did you finish earlier than other folks in the class? Read on.

SAFETYNET Reports: Creating a Pivot Table

Why not explore your PivotTable? Here are some suggestions.

Suggestion 1: Explore different views of the data in the table. For example:

1. Compare the counts of Interstate crashes in the first 3 months of each year.
 - a. Click on the Column labels down arrow to open the Column Labels filter. Uncheck the (Select All) checkbox. Select Interstate and then the OK button.
 - b. Expand the second Quarter of each year to show April – May.

Count of Report #	Column Labels	Grand Total
	INTERSTATE	
2019		
Qtr1	103	103
Qtr2		
Apr	29	29
May	43	43
Jun	41	41
Qtr3	125	125
Qtr4	116	116
2020		
Qtr1	110	110
Qtr2		
Apr	36	36
May	43	43
Jun	37	37
Qtr3	35	35
Grand Total	718	718

Suggestion 2: Make a PivotChart

1. Click directly on the PivotTable. This approach synchronizes the PivotTable and the new chart so that a change made to one is reflected in the other.
2. Select Insert in the top menu



3. Select the Pivot Chart button in the toolbar
4. Select Column in the Dialogue Box and choose a Clustered Column
5. Select the Okay button
6. Experiment with different filters in the PivotTable and chart to change the display