



The instructions for this week build off of the instructions to create a chart with Pivot Table data to help you to answer the following research question:

At what location type do most Disorderly Conduct offenses occur in my county?

## Use a Pivot Table to Create a Stacked Bar Chart of Disorderly Conduct Offense Locations

- 1. If you already have a Referral Detail Pivot
  Table, you can skip to the next step. If you do
  not already have a Pivot Table for Referral Detail data, select a cell on the "Referral\_Detail" tab and
  insert a Pivot Table (additional instructions about how to add a Pivot Table can be found in Pivot Table
  Basics).
- 2. Select a Value. Type "referral" into the search bar in order to locate the field "Referral\_ID" (alternatively, you may scroll through the list of column headers from the Referral\_Detail tab to locate it).
  - **2a.** Once the variable "Referral\_ID" is visible, click and hold the field name to drag it down to the empty Values box.
  - 2b. Remember, Excel does not understand that the Referral ID is an identifier and not a very large number. For this chart, you will need to count offenses. To do this, click the down arrow next to "Sum of Referral ID" on the Pivot Fields menu. Select "Value Field Settings" in the menu and in the pop-up that appears, select "Count" from the "Summarize Fields by" tab. You will know you have done all of this correctly if you now see "Count of Referral ID" on your Pivot Table fields menu as shown right.

2b PivotTable Fields

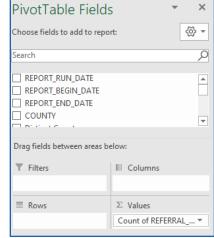
Fields Needed for Offense Locations Table

Values: Count of Referral\_ID

Columns: Location(s)

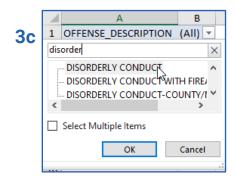
Pull Data from: Referral Detail Sheet

Filter: Offense Description = Disorderly Conduct



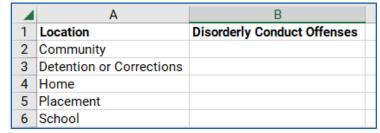
**NOTE:** Even though you are counting Referral IDs, the figures in your Pivot Table represent the total number of offenses in your county for the reporting period (in the Referral Detail Sheet, 1 row = 1 offense). For this exercise, this is exactly what we want as we are interested in the location of Disorderly Conduct offenses.

- 3. Add a filter. Type "offense" into the search bar in order to locate the field "Offense\_Description" (you could also scroll through the list of column headers from the Referral\_Detail tab to locate it).
  - **3a.** When the variable "Offense\_Description" is visible, click and hold the field name to drag it down to the empty Filter box.
  - **3b.** In your Pivot Table, click the gray down arrow next to "Offense Description" to open the filter menu. Once there, enter "disorderly" into the search bar to locate the offense we are interested in.
  - **3c.** Select "Disorderly Conduct" and then click OK.

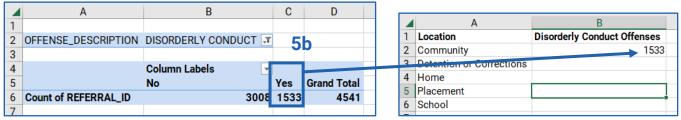


**NOTE:** You may notice that there are multiple "Disorderly Conduct" offense descriptions. If you would like to include any of the other Disorderly Conduct offense descriptions in your analysis, select multiple items in your filter. Alternatively, you could use the Disorderly Conduct offense *type* to filter, which already includes multiple related offense descriptions.

4. Add a new sheet to record offense locations. This sheet will be used to store your chart and its data (if you need a refresher on how to do this, return to the Excel Basics to Organize Data instructions.)



- **4a.** In cell A1, type "Location." This column will be used to record the locations where offenses occurred. In cells A2-A6, enter the following possible locations: community, detention or corrections, home, placement, and school.
- **4b.** In cell B1, type "Disorderly Conduct Offenses." This column will be used to record the number of disorderly conduct offenses that occurred at each location.
- 5. Return to Pivot Table to collect locations of Disorderly Conduct offenses. Type "location" into the Pivot Tables Field List search bar in order to locate the field "Location\_Community" (alternatively, you may scroll through the list of column headers from the Referral\_Detail tab to locate it).
  - **5a.** Once the variable "Location\_Community" is visible, click and hold the field name to drag it down to the "Columns" box.
  - **5b.** In your Pivot Table, note the number that appears in the "Yes" column. This value represents the number of Disorderly Conduct offenses where the location was community. Record this value next to "Community" in the your offense location table.



**5c.** Click back to your pivot table. Clear "Location\_Community" from the Columns box in the Pivot

**5d** 

Table Fields menu (for a reminder of how to do this, check the Pivot Table Basics notes).

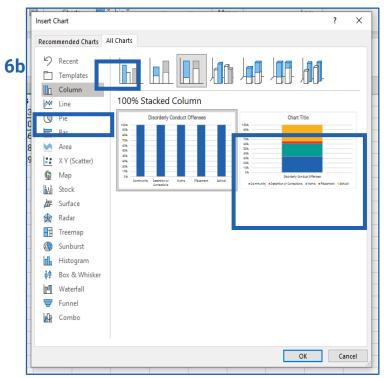
**5d.** Repeat steps 5a-5c for each of the remaining 4 referral locations. When finished, your referral locations table should be populated like the one shown at the right.

<b>4</b>	Α	В
1	Location	Disorderly Conduct Offenses
2	Community	1533
3	Detention or Corrections	30
4	Home	1266
5	Placement	228
6	School	1589
7		

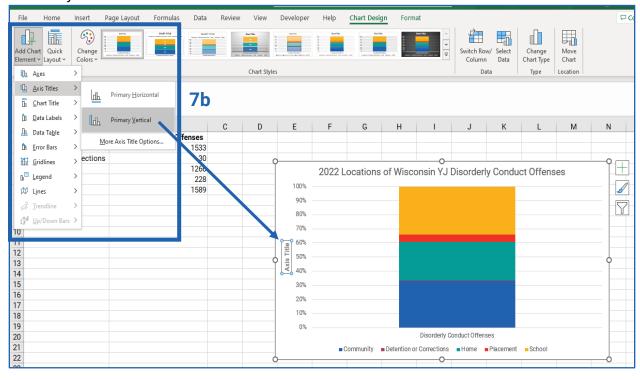
**6. Insert a chart.** Select all the data in your Disorderly Conduct location table. You can do this by clicking on cell A1, holding down your cursor, and dragging your mouse over towards cell B1 and then down towards the bottom of the table.

- **6a.** Once all data in the table is highlighted, move to the top of your Excel window and click "Insert" to reveal the Insert Ribbon. Click on "Recommended Charts" in the Charts group.
- 6b. As the name implies, this menu will recommend charts based on the data you have highlighted. In this instance, we will be using this menu to look for something specific. Select the "All Charts" tab (located at the top of the pop up menu) and then click on "Column" in the list that appears. Find the column chart option called "100% Stacked Column." From the two choices that appear, select the option that displays data as a singular, stacked column. Once highlighted, click "OK."





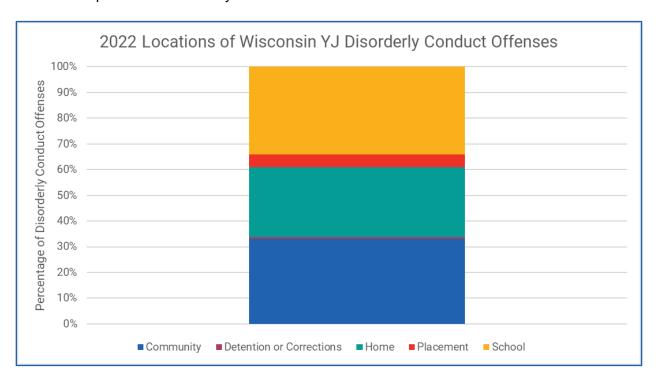
- 7. Add in a chart title and labels. Double-click the title of the chart to highlight the text and rename the chart. Because this chart is showing the location of 2022 Disorderly Conduct offenses for the state of Wisconsin, we will call this chart "2022 Locations of Wisconsin YJ Disorderly Conduct Offenses." You will want to choose a title that is similarly appropriate for your data.
  - **7a.** Because we already have a legend defining the different segments of the bar, we do not need a horizontal (x) axis for this chart.
  - **7b.** To add labels for our y (vertical) axis, click on your chart so the associated data table in your sheet is highlighted. Then, in the top menu, you should now see the "Chart Design" ribbon. Click "Add Chart Element," and then hover over "Axis Titles" so you can click on the "Primary Vertical" option. A text box should appear next to your y-axis. Click on it to add the label, "percent of 2022 Disorderly Conduct Offenses."



**NOTE:** You can use the Chart Design menu to add additional elements to your chart (like data labels) or adjust chart elements like gridlines. This menu can also be used to change the colors of your chart or adjust the chart type. The best way to learn how each of these options work is to test them out!

**7c.** Your chart should now look like the chart on the next page.

## Creating a Chart with Multiple Pivot Table Analyses



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