



## eWReport Practice Group – YJ Referral Report

# Session Four: Creating a Chart With Pivot Table Data

### Prep for this Session

This age distribution chart is created with data from the Youth\_Detail sheet in the YJ referral report. To get started, you will need to be sure you have inserted a Pivot Table with data from this sheet. If you need a reminder of how to do this, review the Pivot Table Basics instructions.

## Use a Pivot Table to Create an Age Distribution Table

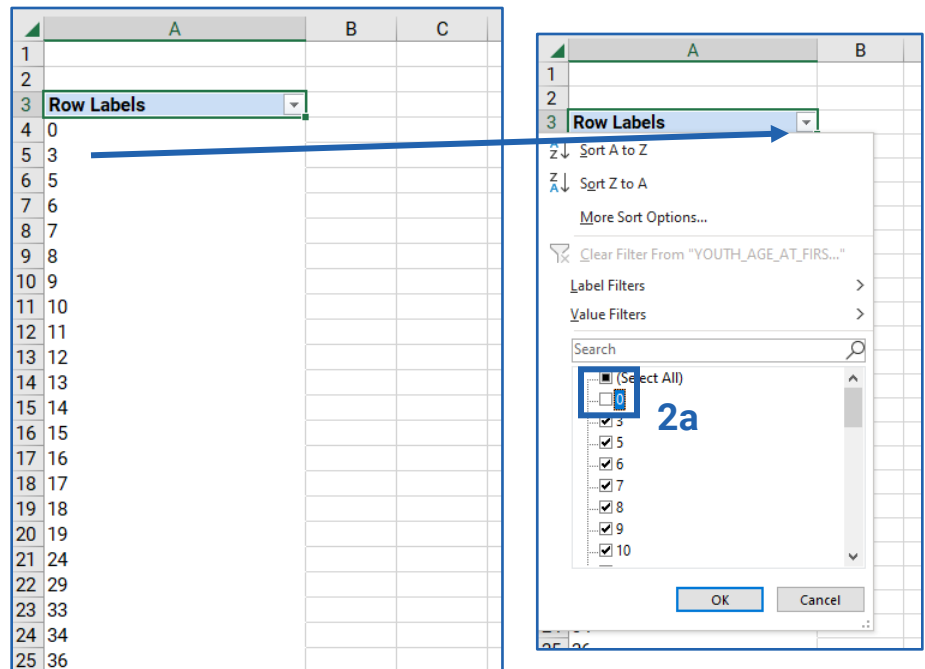
### Fields Needed for Age Distribution Table

- Pull Data from: Youth Detail Sheet
- Rows: Youth Age at First Referral
- Values: Count of Youth\_ID

- Add rows.** Type “age” into the search bar in order to locate the field “YOUTH\_AGE\_AT\_FIRST\_REFERRAL” (or scroll through the list to locate it).
  - Once the variable “YOUTH\_AGE\_AT\_FIRST\_REFERRAL” is visible, click and hold the field name and drag it down to the empty Rows box. You will know this has worked when you see rows have been added to your Pivot Table.

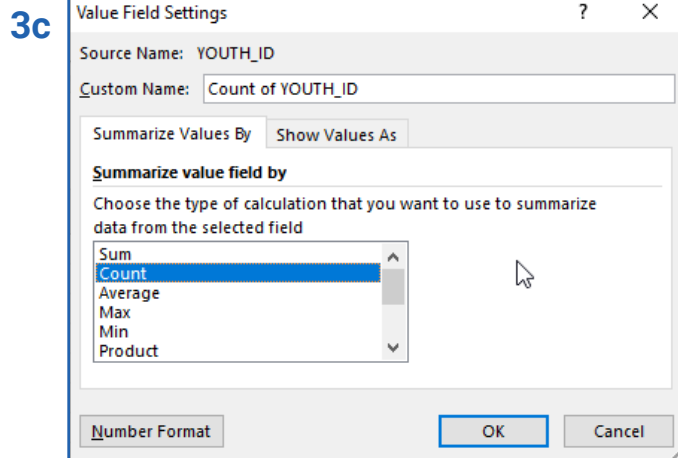
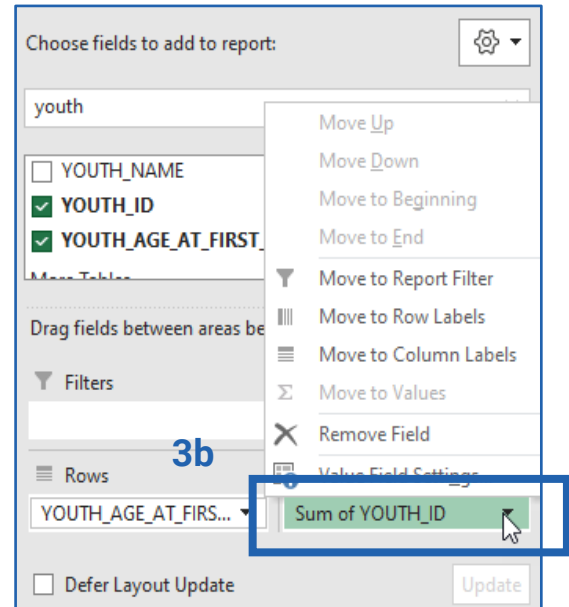
- Filter your rows.** You might notice ages in your table that don’t make sense (ex. youth reported to be age 0, 49, 73, etc. at first YJ referral). These are likely data entry errors. To ensure your chart only includes data that is accurate, you can filter these ages out.

- In your Pivot Table, click on the gray arrow that appears next to the “Row Label” heading. In the menu that appears, uncheck any ages you want to exclude (as shown below). Then click ok.



## Creating a Chart from a Pivot Table

3. **Select a value.** Type “Youth” into the search bar in order to locate the field “YOUTH\_ID” (alternatively, you may scroll through the list of column headers from the Youth\_Detail tab to locate it).
  - 3a. Once the variable “YOUTH\_ID” is visible, click and hold the field name and drag it down into the empty Values box.
  - 3b. You will likely see large numbers appear next to the age values in your table. This is because the default setting is telling Excel to sum IDs. Instead, we want to *count* Youth IDs to determine the number of youth that fall under each age bucket. To change this, select the down arrow that appears next to “Sum of YOUTH\_ID” in the Fields menu. Then click “Value Fields Settings...” in the menu that appears (shown right).
  - 3c. Select “Count” and then click “OK.” Your table should now display a count of the number of youth that fall into each age bucket (though it is likely your counts will be smaller than our example as we are using statewide data).



	A	B
1		
2		
3	Row Labels	Count of YOUTH_ID
4	8	114
5	9	117
6	10	223
7	11	465
8	12	766
9	13	1250
10	14	1618
11	15	1904
12	16	1944
13	17	173
14	18	4
15	19	3
16	Grand Total	8581
17		

4. **Add a new sheet to store your chart and its data.** In order to continue to use your Pivot Table for calculations, you’ll want to save this age data in another sheet. If you need a refresher on how to add a new sheet, refer to the instructions in “Using Excel Basics to Organize Data.”

## Creating a Chart from a Pivot Table

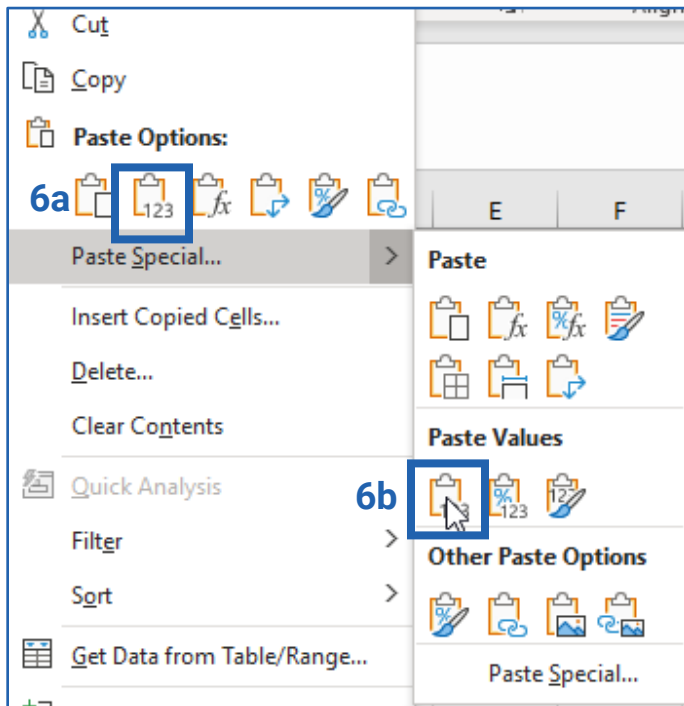
- 5. Collect data from your Youth Detail Pivot Table.** Return to the Pivot Table that you just created. Highlight the entire table by clicking one cell and holding down your cursor while dragging across cells to cover the entire table. Once selected, copy this data. You can right click to copy or use the CTRL + C keys (click CTRL on your keyboard and hold down to then click C).

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Row Labels	Count of YOUTH_ID
8	114
9	117
10	223
11	465
12	766
13	1250
14	1618
15	1904
16	1944
17	173
18	4
19	3
<b>Grand Total</b>	<b>8581</b>

- 6. Paste the age data into the sheet you just added.** Navigate to the new sheet you created in step 4. Right click in cell A1 to bring up the menu pictured below. You have two options to paste:
  - 6a. Click the second option under "Paste Options:," a clipboard with numbers on it.
  - 6b. Hover your cursor over "Paste Special." In the menu that appears, click on the first icon displayed under "Paste Values" (the icon is a clipboard with numbers on it).

The values you copied from your pivot table should now be pasted into your sheet.



**NOTE: Why Paste Values?** Simply pasting data you copied from a Pivot Table into a new sheet will paste a copy of the *Pivot Table* into your selected sheet. While you can technically make a chart from a Pivot Table, if you later decide you want to swap fields in the Pivot Table, your chart will automatically change too!

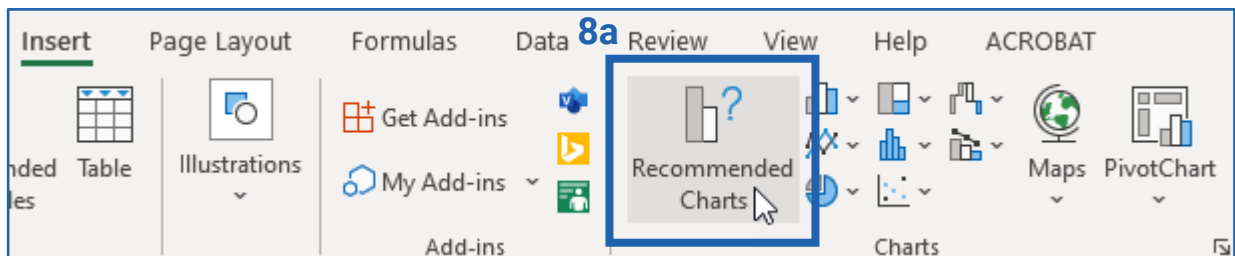
## Creating a Chart from a Pivot Table

7. **Clean up your variable names.** Cells in column A contain ages, so rename the header in column A (cell A1), "Age." Cells in column B contain counts of youth, so rename the header in column B (cell B1), "Youth." If you copied over the "Grand Total" row, you can delete it as you will not need a grand total in this chart. Your spreadsheet should now look like the snapshot on the right.

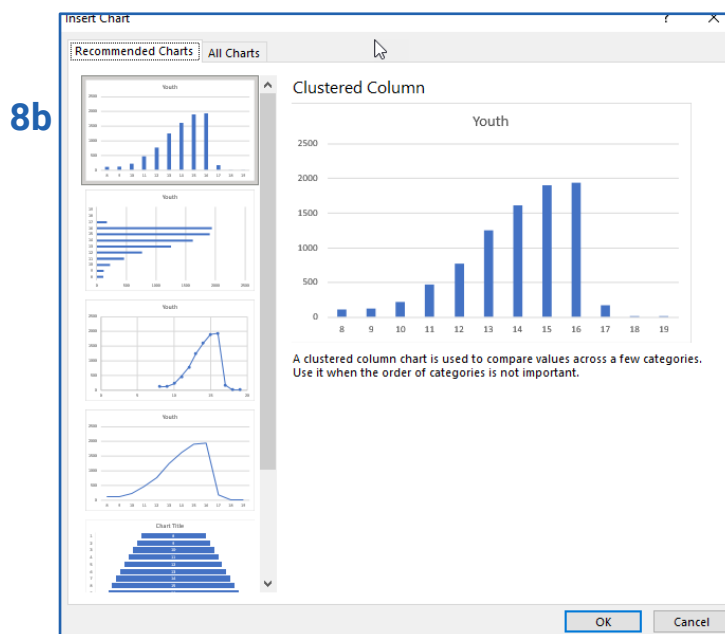
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	A	B	
1	Age	Youth	
2	8	114	
3	9	117	
4	10	223	
5	11	465	
6	12	766	
7	13	1250	
8	14	1618	
9	15	1904	
10	16	1944	
11	17	173	
12	18	4	
13	19	3	
14			

8. **Add in a chart.** Highlight the data in your age chart. 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.
- 8a. 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.



- 8b. Recommended Charts will generate a list of charts best suited for highlighted data and will also allow you to preview what your data will look like in the chart. From the list, click on the Clustered Column option. Then click ok. You will know this has worked if a chart appears in your sheet.

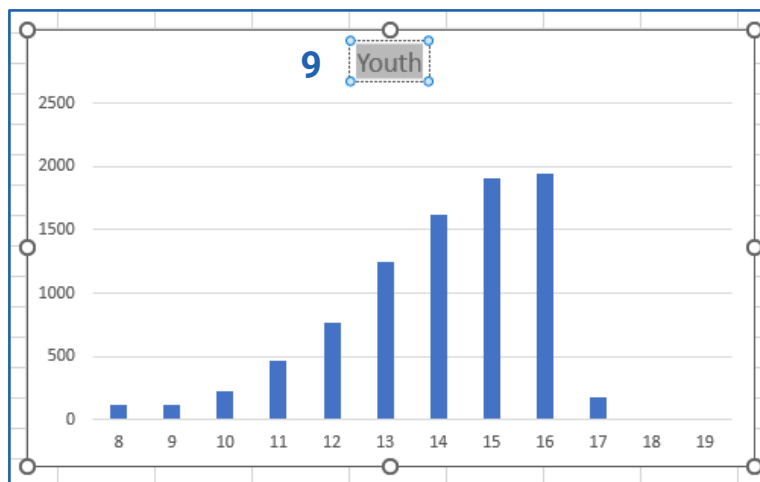


**NOTE: Not all data are suitable for all charts.** Be mindful of how you are choosing to represent data and reach out if you are unsure if a visualization is appropriate. Some quick tips:

- **All charts should have a title describing the data shown**
- **Always label your chart axes**
  - **X Axis is your independent variable** (in this case, “Age,” measured in years)
  - **Y Axis is your dependent variable** (in this case, “Youth”)

You will not always be there to explain your chart, proper labeling ensures that information will be interpreted correctly.

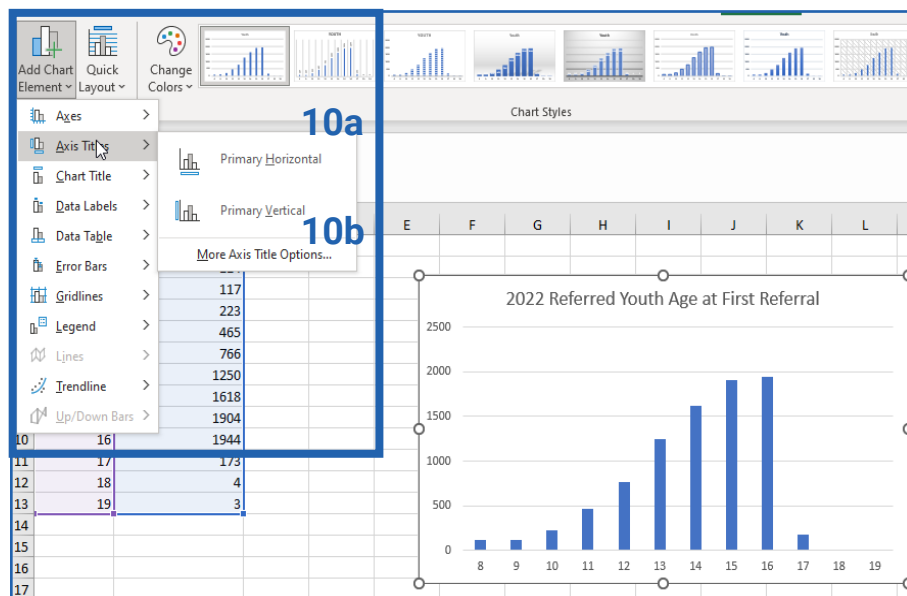
**9. Add in a chart title.** Double-click the title of the chart to highlight the text and rename the chart. A title should describe the data in chart. For this example, we will use the name “2022 Referred Youth Age at First Referral.”



**10. Label your x (horizontal) and y (vertical) axes.** Click on your stacked column chart so that the associated data table in your sheet is selected (cells will look like they’re highlighted). In the top menu, the “Chart Design” ribbon should now be open.

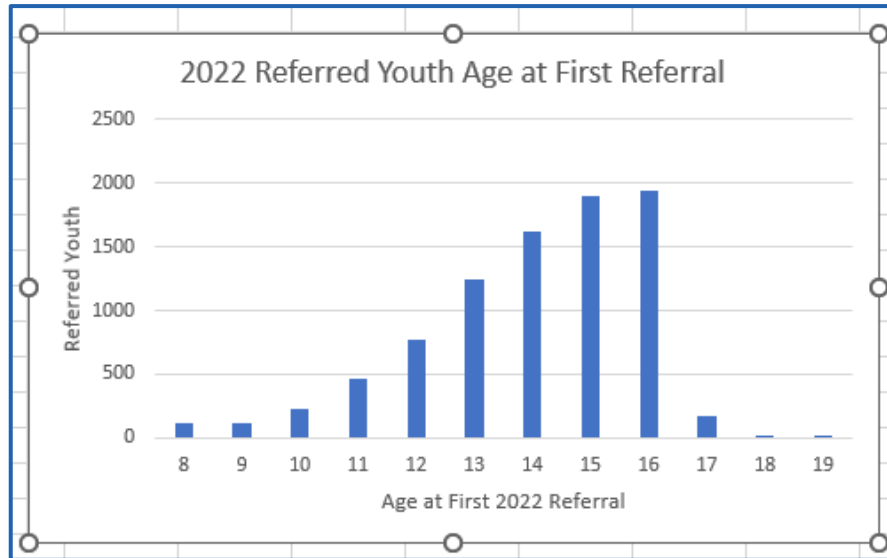
**10a.** In the Chart Layouts group, click “Add Chart Element.” Using the menu that appears, hover over

“Axis Titles” so you can click on the “Primary Horizontal” option. A textbox should appear below your x axis. Double-click the text box that appeared underneath your horizontal axis until the text is highlighted. Type the label, “Age at First 2022 Referral.” This label accurately describes the values in the horizontal axis.



## Creating a Chart from a Pivot Table

- 10c.** Return to the “Chart Design” menu, click “Add Chart Element” and hover over “Axis Titles” again so you can click on “Primary Vertical.” This time, a text box will appear to the left of your y axis. Double-click the text box that appeared next to your vertical axis so the text is highlighted. Type the label, “Referred Youth.” This label accurately describes the values in the vertical axis. Your chart should now look similar to the one shown below.



### Optional Review

There are several ways to customize charts and the best way to learn about available options is to test them out! Play around with the options in the “Chart Design” menu and remember you can ask DCF for support when you need it.

The video below use a slightly different approach to add a chart but is still very useful.

[Excel Quick and Simple Charts Tutorial](#)

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