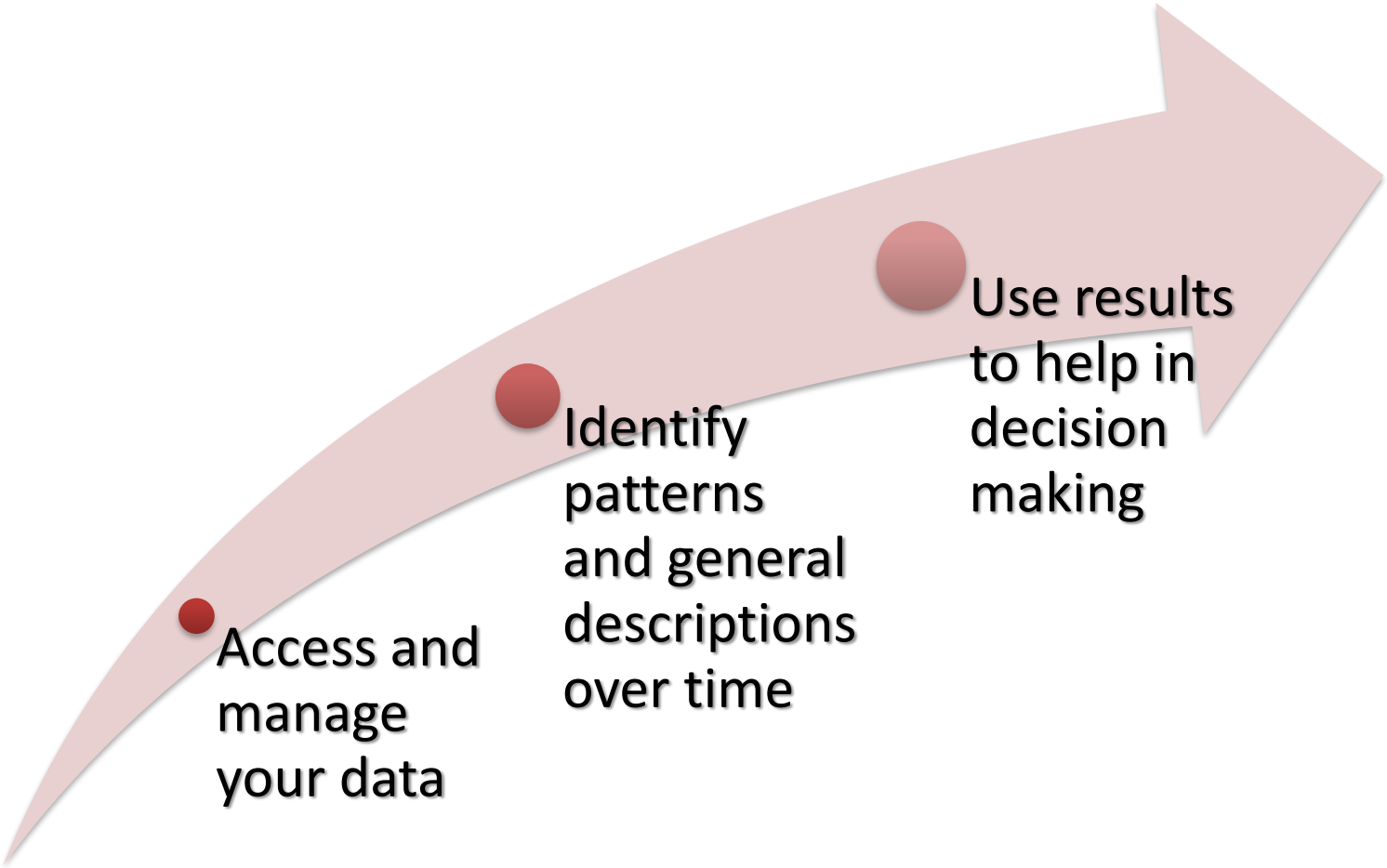
TEXAS JUVENILE JUSTICE DEPARTMENT

TRANSFORMING YOUNG LIVES AND CREATING SAFER COMMUNITIES

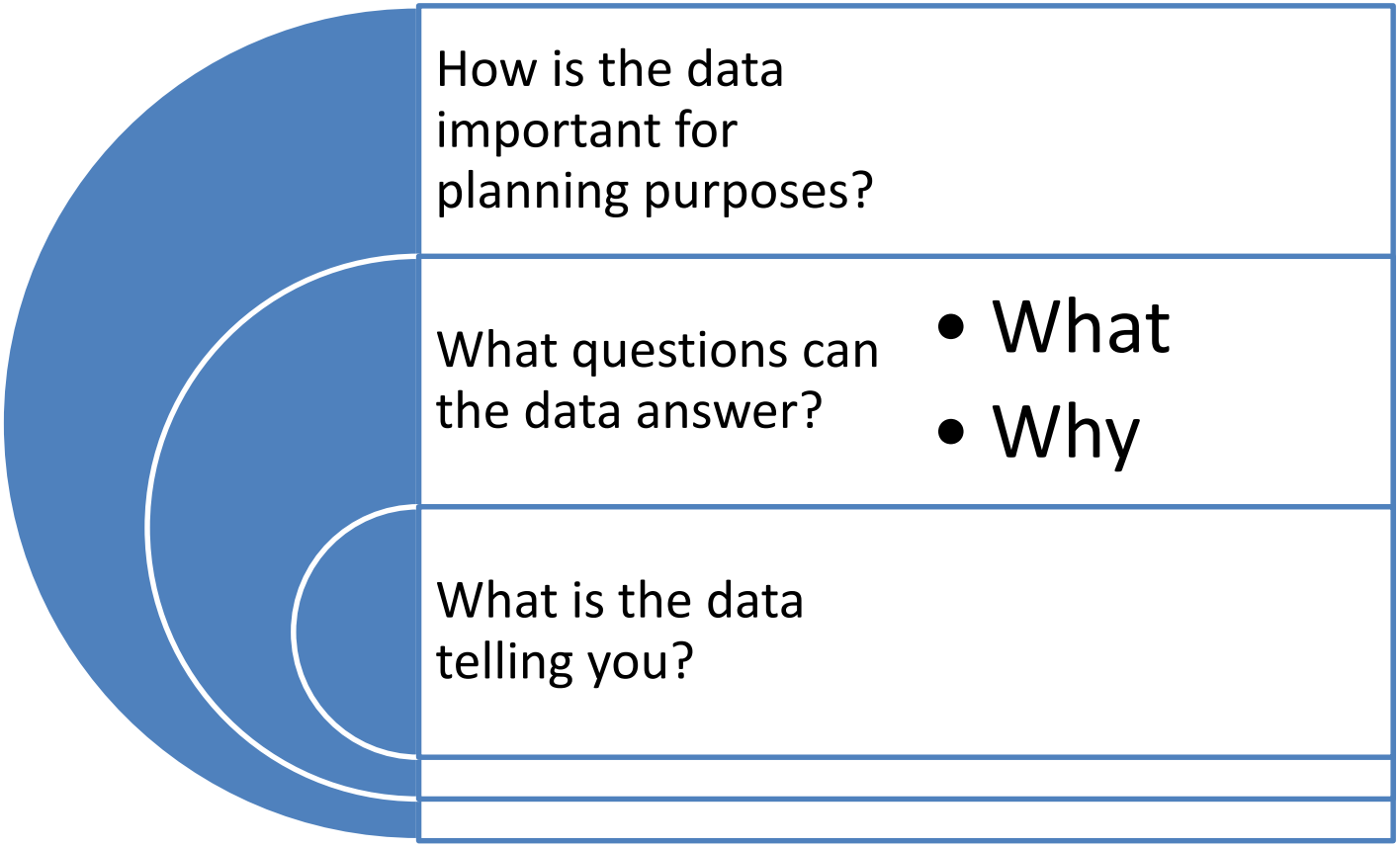
Excel for Ad Hoc Reports

Research and Planning Division

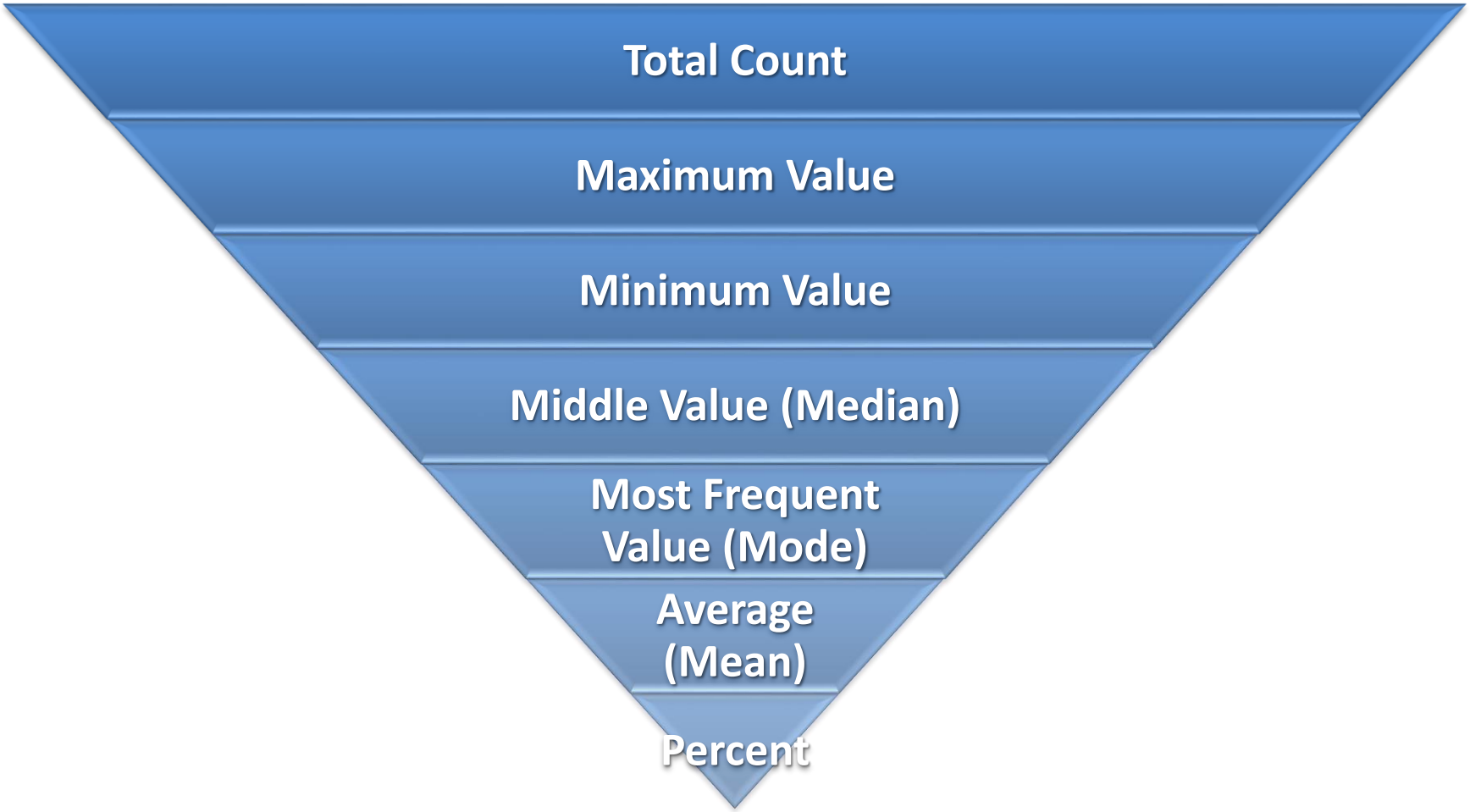
Programmatic Objectives



Program/Data Questions



Descriptives



Example

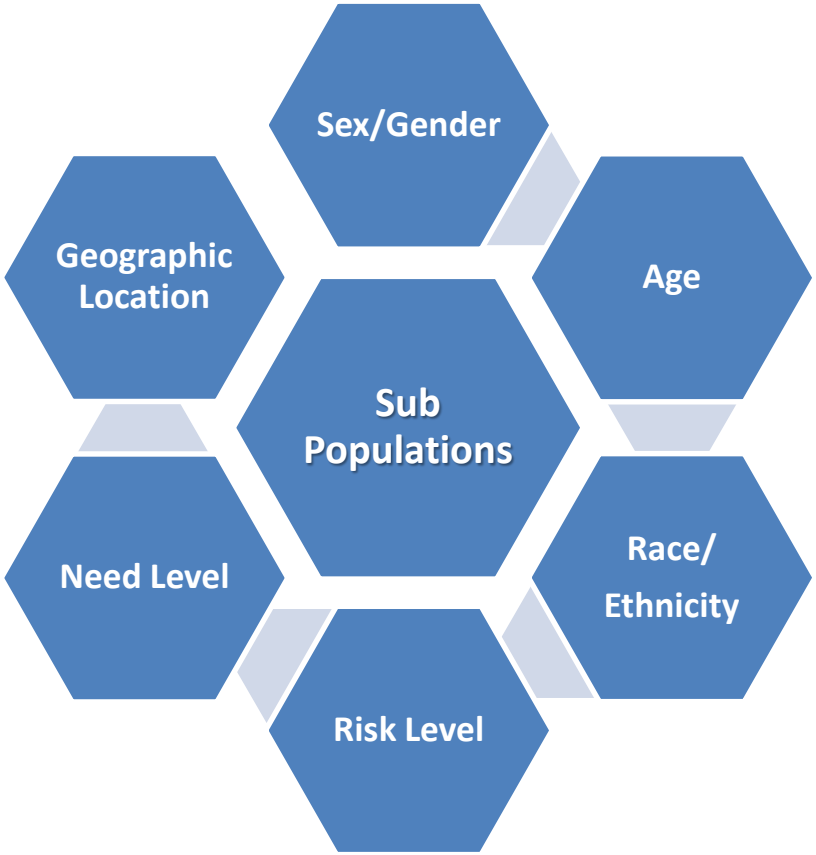
Youth	Age
A	16
B	15
C	15
D	14
E	12

Basic or Descriptive Statistic

- Total Count = 5
- Maximum Value = 16
- Minimum Value = 12
- Middle Value =15
- Most Frequent Value =15
- Average = 14.5
- Percent = part/whole * 100

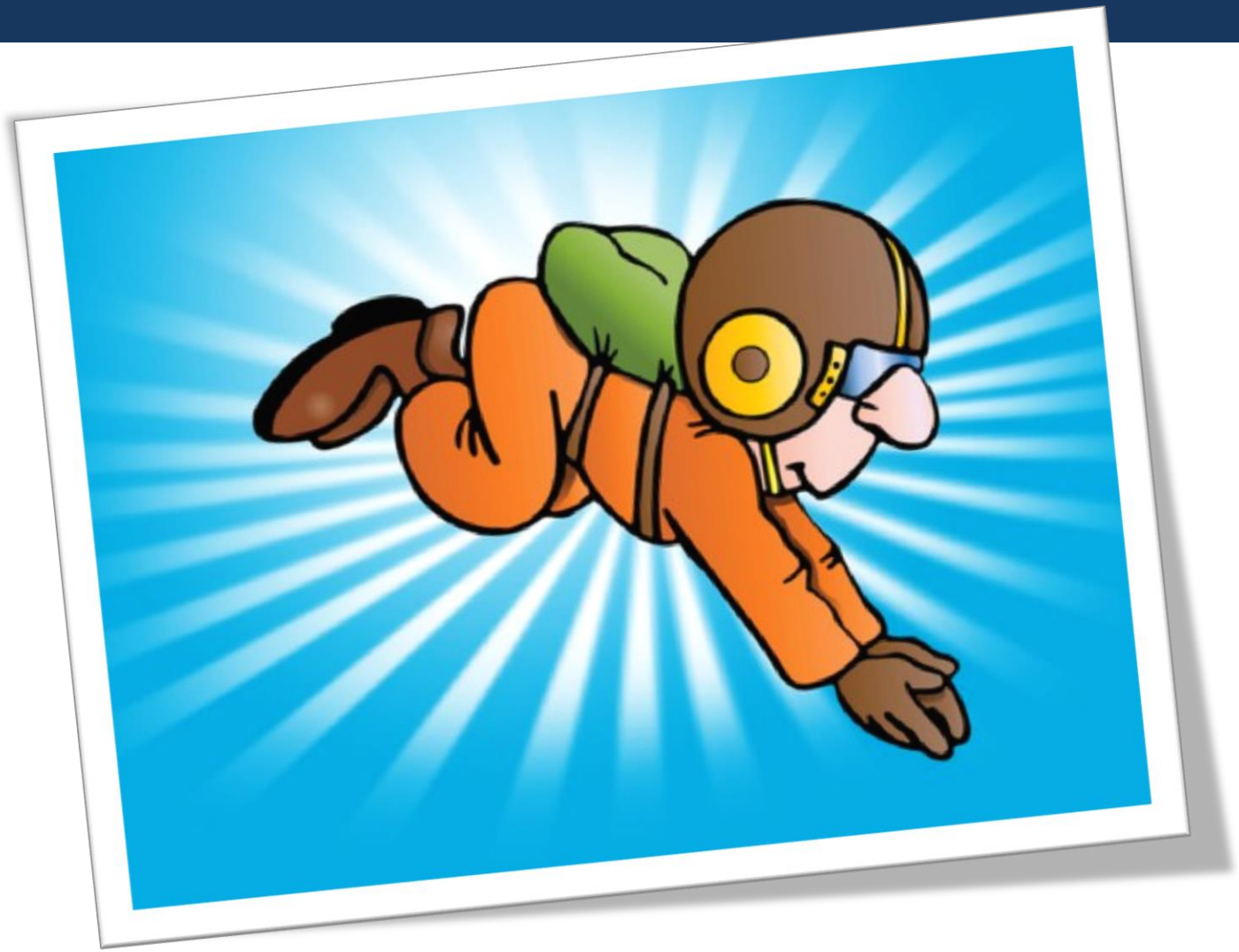
  1/5*100 = 20%

Sub-Populations of Interest



Technical Objectives

- Save Ad Hoc reports in Excel
- Use Pivot Tables to work with data
- Create Pie Charts, Bar Graphs, and Line Graphs
- Explore Formatting options



The demonstration is based on the following JCMS report

TechShare.Juvenile and JCMS.Basic

Super User, System (ANDERSON COUNTY JUVENILE PRC

Home Search Juvenile

My JCMS Home Page » Ad-Hoc Reports » Ad-Hoc Report »

Report: **Program for Excel training**

Run | CSV | Copy | Delete

Summary

Type of information: **Program**

Report Title: **Program for Excel training**

Criteria Fields

Add Selection Criteria For Field: Add New

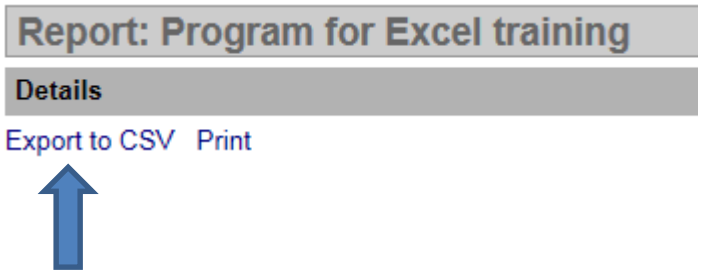
	Field	Criteria
Edit | Delete	Program End Date	(convert(datetime, convert(varchar, program.EndDate, 101)) between '09/01/2016' and '08/31/

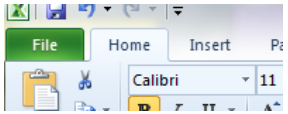
Print Fields

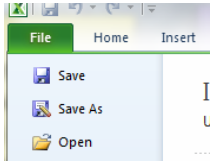
Edit

Field	Sort
Juvenile Full Name	Asc
Juvenile PID	
Referral Number	
Program Name	
Program Component	
Program Component Outcome	
Offense DOI	
Offense Level/Degree	
Juvenile Age	
Juvenile Ethnicity	
Juvenile Race	
Juvenile Primary Address Zip Code	
Program Begin Date	
Program End Date	
Program Days	
Program Outcome	

Ad Hoc Report Transition







- At the top of the JCMS report, there should be “Export to CSV”. Click on this phrase.
- It will create a CSV file that looks like an Excel file.
- You may want to save it as an Excel file.
- To do so:
  - Click on file (upper left hand)
  - In the pop up window that opens, click “Save As”
  - Then in the window that opens click on the drop down menu for “Save As Type” and pick the Excel you want to save it as.

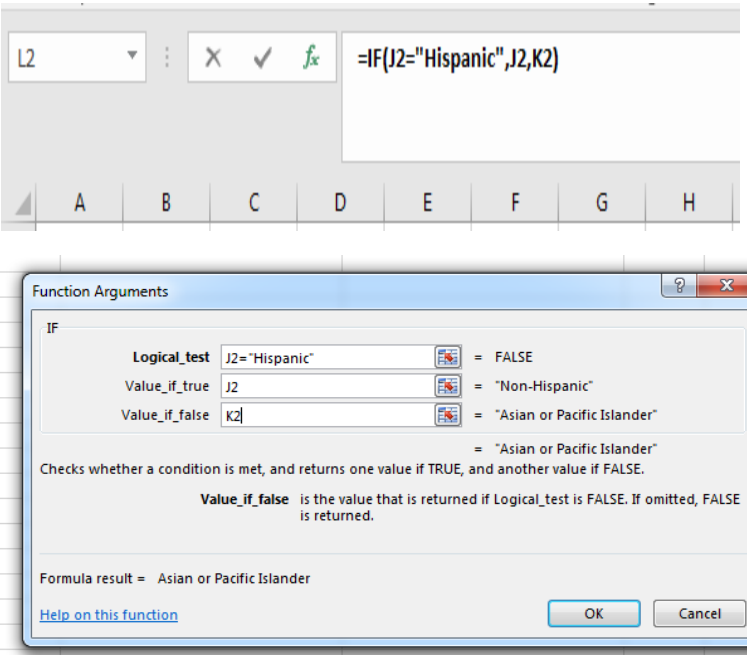
Excel File

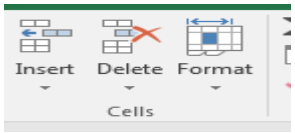
- You should get something that looks like this:

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Report: Program for Excel training																
Report Date: 11/06/2017 11:36																
Juvenile F	Juvenile F	Referral N	Program N	Program C	Program C	Offense D	Offense L	Juvenile A	Juvenile E	Juvenile R	Juvenile F	Program B	Program E	Program D	Program Outcome	
Book, Rita	10000253	10000302	A New Vis	Life Skills	Transferre	Primary	MA	15	Non-Hispa	Asian or P	78666	1/3/2017	########	56	Transferred out of J	
Book, Rita	10000253	10000302	Avalon Individual & Family Cou			Consolida	MA	15	Non-Hispa	Asian or P	78666	########	########	49	Transferred out of J	
Booker, La	10000258	10000307	Avalon Individual & Family Cou			Primary	F2	15	Non-Hispa	White	78666	3/2/2017	########	120	Failure to Comply	
Bravo, Joh	10000260	10000309	Avalon Individual & Family Cou			Primary	F2	16	Non-Hispa	Asian or P	79770	########	6/7/2017	141	Failure to Comply	
Bravo, Joh	10000260	10000309	Avalon Social Service - Probati			Primary	F2	16	Non-Hispa	Asian or P	79770	4/3/2017	8/7/2017	126	Completed	
Garcia, Jos	10000259	10000308	Animal Ac	Animal/Ec	Complete	Primary	F2	14	Hispanic	White	78572	3/9/2017	8/1/2017	145	Completed	
Garcia, Jos	10000259	10000308	Animal Ac	Cognitive	Complete	Primary	F2	14	Hispanic	White	78572	3/9/2017	8/1/2017	145	Completed	
Garcia, Jos	10000259	10000316	Avalon Individual & Family Cou			Primary	MB	14	Hispanic	White	78572	6/5/2017	########	73	Supervision Ended	
Gonzalez,	10000261	10000310	Avalon Individual & Family Cou			Primary	F2	16	Hispanic	White	78541	2/2/2017	########	160	Completed	
Henson, A	10000223	10000268	Avalon Individual & Family Cou			Primary	F1	17	Non-Hispa	Black	77788	9/6/2016	########	115	Supervision Ended	
Henson, A	10000223	10000268	Avalon Social Service - Probati			Consolida	F3	17	Non-Hispa	Black	77788	9/6/2016	########	115	Supervision Ended	
Kantor, Ke	10000230	10000289	A New Vis	Life Skills	Failure to	Primary	FS	17	Non-Hispa	White	79015	########	3/1/2017	137	Failure to Comply	
Tester, Est	10000256	10000305	Avalon Individual & Family Cou			Primary	F2	13	Non-Hispa	Black	77777	3/9/2017	6/1/2017	84	Completed	
Tester, Ru	10000251	10000300	A New Vis	Life Skills	Complete	Primary	MA	14	Non-Hispa	Black	77777	3/8/2017	8/1/2017	146	Completed	
Tester, Ru	10000251	10000300	A New Vis	Mentoring	Failure to	Primary	MA	14	Non-Hispa	Black	77777	3/8/2017	8/1/2017	146	Completed	
Testing, Jo	10000257	10000306	A New Vis	Life Skills	Complete	Primary	F2	13	Non-Hispa	American	78758	3/9/2017	7/7/2017	120	Completed	
Testing, Jo	10000257	10000306	A New Vis	Mentoring	Complete	Primary	F2	13	Non-Hispa	American	78758	3/9/2017	7/7/2017	120	Completed	
Total Juveniles: 17		Unique Juveniles: 10														

- It will make things easier if you delete the rows that have Report and Total in them

IF Formula



- Click on the column after Juvenile Race. Then click on  in the top right.

- Insert Sheet Columns.
- Type in RacEth in the top cell.
- In the next cell down, type = and then click on the fx above column C or D.
- A pop up will open. Type in If at the top.
- Type in the following, or you can type it in the task bar next to fx.

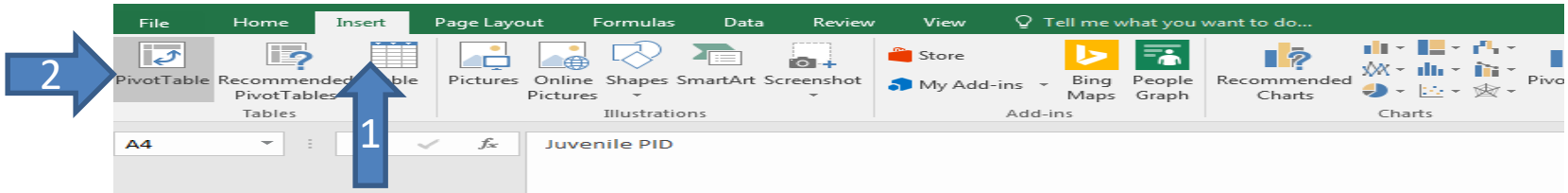
Pivot Table Insert Instructions

It is usually a good idea to start with a Pivot Table.

Click on Insert (upper left hand corner).

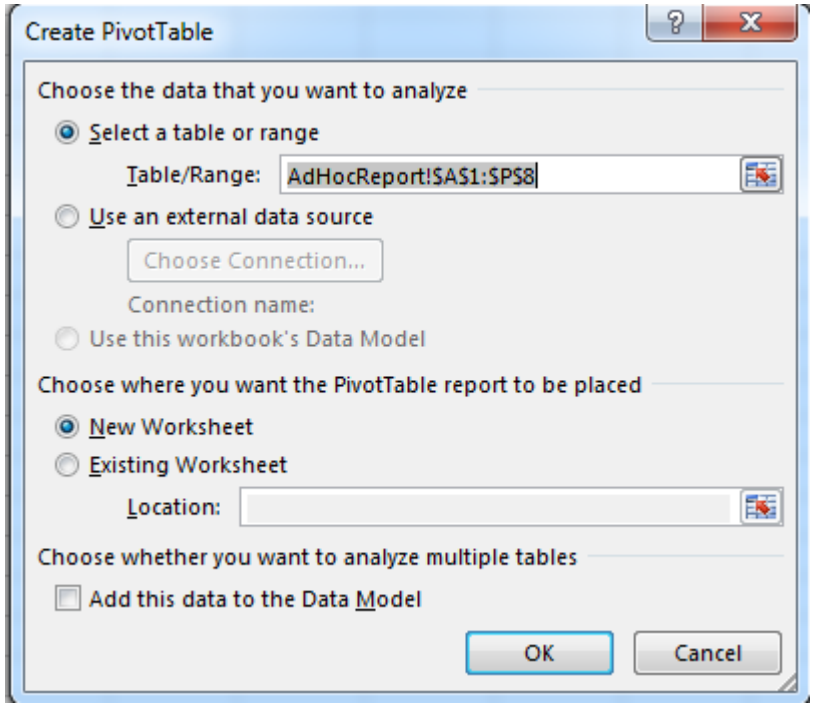
Pivot Table is the farthest left item under Insert.

How to Find a Pivot Table



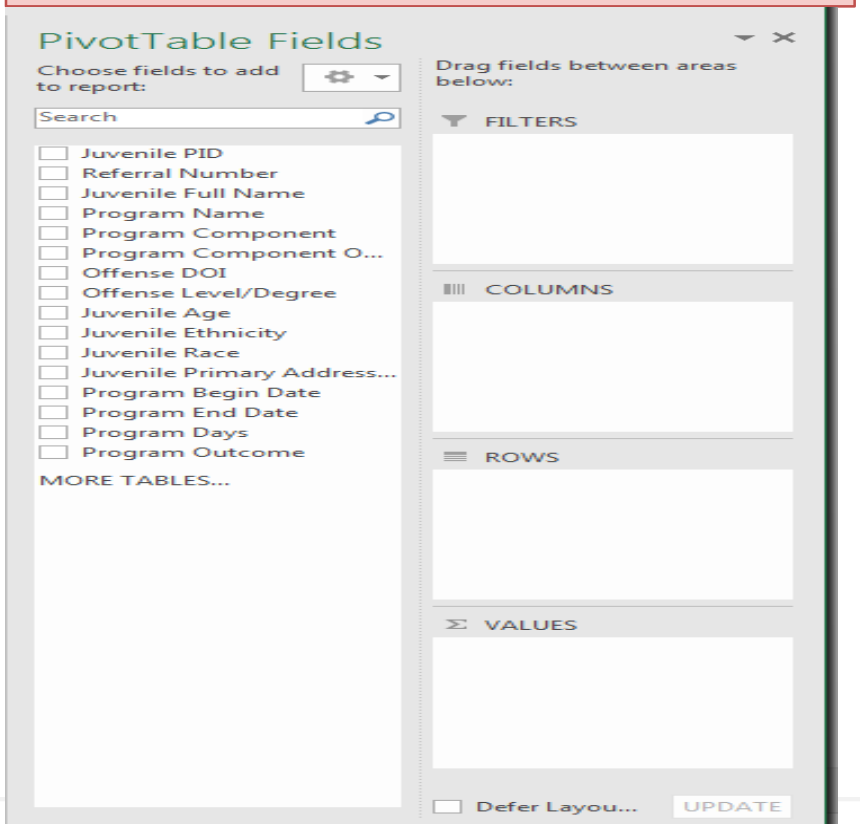
	A	B	C	D	E	F	G
1		Report: Juveniles under 18 with Gang Involvement					
2		Report Date: 12/19/2016 08:57					
3							
4	Juvenile PID	Juvenile Full Name	Juvenile Age	Juvenile Gender	Juvenile Gang Involvement		
5	10000256	Tester, Bob	16	Male	Former Gang Member		
6	10000259	Aaron, Hotchner	15	Male	Former Gang Member		
7	10000262	Diggler, Dirk	11	Male	Former Gang Member		
8	10000217	Tester, Amanda	16	Female	Gang Member		
9	10000220	Compact, Isabelle	18	Female	Gang Member		
10	10000227	Tester, Chance	18	Male	Gang Member		
11	10000263	Fenske, Landon	12	Male	Gang Member		
12	10000268	Kee, Albert	14	Male	Gang Member		
13	10000247	Midland, Runaway from TJJD	16	Male	Hard Core/Professional Gang Member		
14	10000248	Midland, Bench Warrant	17	Male	Hard Core/Professional Gang Member		
15	10000250	WILBARGER, NICOLE	15	Female	Hard Core/Professional Gang Member		
16	10000265	Bush, Harry	16	Female	Hard Core/Professional Gang Member		
17	10000266	Allen, Frank	15	Male	Hard Core/Professional Gang Member		
18	10000264	Kid, Fake	12	Male	Hard Core/Professional Gang Member		
19	10000273	Stark, Tony	16	Male	Hard Core/Professional Gang Member		
20	10000218	Tester, Lacey	16	Female	No		
21	10000221	TEST, JAMES	18	Male	No		
22	10000223	Henson, Ashley	16	Female	No		
23	10000224	Lopez, Lauren	16	Female	No		
24	10000226	Tester, Promise	18	Female	No		
25	10000229	Galindo, George	17	Male	No		
26		Doe, John	15	Male	No		
27	10000230	Kantor, Kelsey	16	Female	No		
28	10000232	Moore, Joshua	12	Male	No		
29	10000233	White, Alexis	12	Female	No		
30	10000234	Martin, Joseph	11	Male	No		
31	10000235	White, Andrew	12	Male	No		
32	10000236	James, Jessica	12	Female	No		
33	10000237	Thomas, Sarah	12	Female	No		
34	10000238	Harris, Samantha	12	Female	No		
35	10000239	Mouse, Mickey	11	Male	No		
36	10000240	Johnson, Emily	12	Female	No		

Pivot Table Insert Instructions part II



- When you click on Pivot Table, there should be a moving green fence around your data and a pop up screen that looks like this appear.
- If you have deleted the Report and Total lines, then all you have to do is click OK.

Building a Pivot Table part I



- Clicking okay will make half of your screen look like this.
- Click on the box next to the variable you are interested in.
- The variable should appear under rows. If the value of the variable is a number it might go under
- Σ VALUES. You can drag it back to Rows.
- You also want to drag something into Σ VALUES.

Building a Pivot Table part II

Row Labels	Count of Referral Number
American Indian or Alaskan Native	2
Asian or Pacific Islander	4
Black	5
Hispanic	4
White	2
(blank)	
Grand Total	**17**

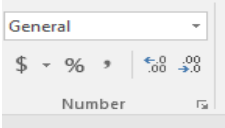
- If you drag something with a text value into Σ VALUES, you will get a count of how many things are in the categories in the row box.
- It is often very useful to put the same thing in twice in the Σ VALUES box.
- If you do this, one column can be the number and the other the percent.
- If you right click on the duplicate column, you will see an option for Show Values As. Pick % Column Total to get the percentage.

From Pivot to Regular Table

Row Labels	Count of Referral Number	Count of Referral Number2
American Indian or Alaskan Native	2	11.76%
Asian or Pacific Islander	4	23.53%
Black	5	29.41%
Hispanic	4	23.53%
White	2	11.76%
Grand Total	**17**	**100.00%**

Row Labels	Count of Referral Number	Count of Referral Number2
American Indian or Alaskan Native	2	0.117647059
Asian or Pacific Islander	4	0.235294118
Black	5	0.294117647
Hispanic	4	0.235294118
White	2	0.117647059
Grand Total	17	1

- Sometimes it is hard to edit pivot tables, so I recommend copying the table and pasting values (the icon will have 123 in it).
- You do lose the format.
- I would change Row Labels to RacEth, Count of Juvenile Full Name to Number and Count of Juvenile Full Name2 to Percent.
- I would highlight the numbers under Percent, and go to and click on %.



Formatting a Table

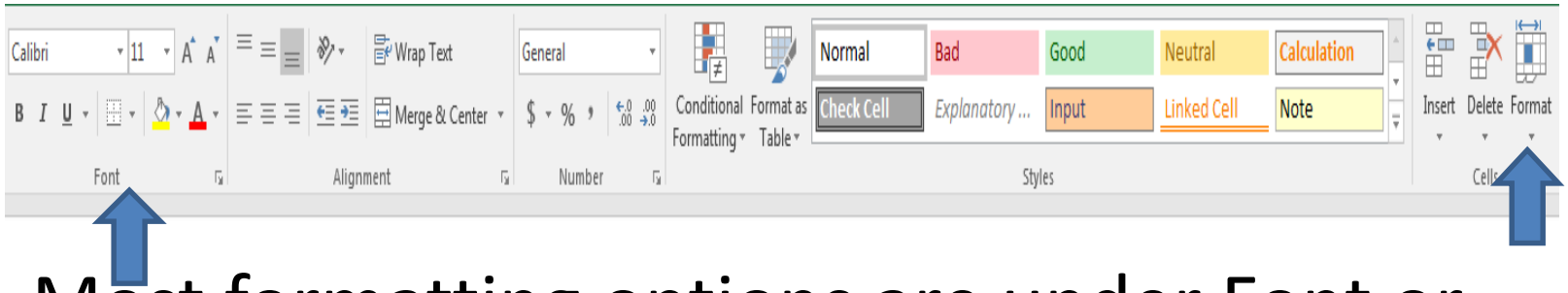
Race and Ethnicity	Number	Percent
American Indian or Alaskan Native	2	12%
Asian or Pacific Islander	4	24%
Black	**5**	**29%**
Hispanic	4	24%
White	2	12%
Grand Total	17	100%

Race and Ethnicity	Number	Percent
American Indian or Alaskan Native	2	12%
Asian or Pacific Islander	4	24%
Black	**5**	**29%**
Hispanic	4	24%
White	2	12%
Grand Total	17	100%

Race and Ethnicity	Number	Percent
American Indian or Alaskan Native	2	12%
Asian or Pacific Islander	4	24%
Black	**5**	**29%**
Hispanic	4	24%
White	2	12%
Grand Total	17	100%

- At this point you should think about how you want your table to look, with consideration for how other tables produced by your agency look. Some considerations:
  - Do you want lines around the table to distinguish it?
  - Do you want lines in the table?
  - Are there colors your agency tends to use?
  - Do you need to focus attention on a particular row or column?

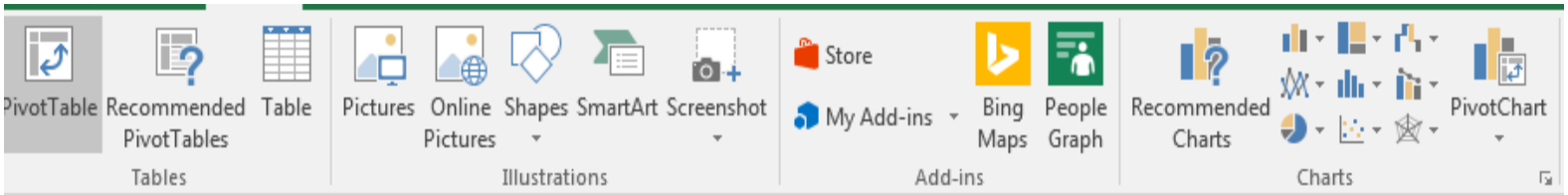
Where is Formatting in Excel?



- Most formatting options are under Font or Cells Format.
- Before clicking on either of these, highlight the cells that you want to format.

Charts

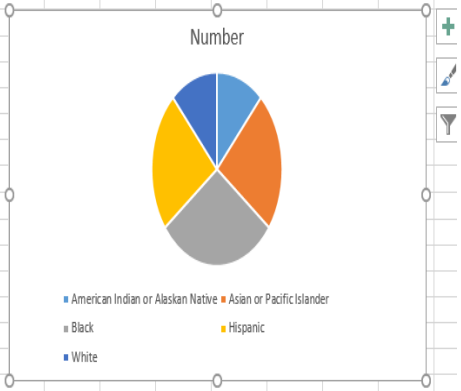
- If you recall how you inserted a Pivot Table, you can go to the same place, but a little to the right and find charts to insert.



- I recommend that if you are making a chart from a table to just highlight the name of the values and the numbers. Don't highlight the total.

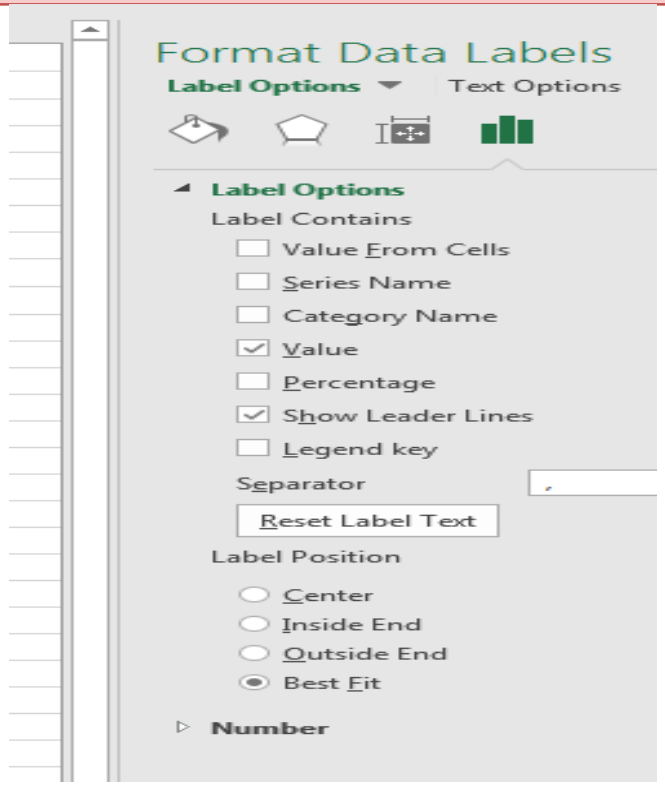
Build a Pie Chart

Race and Ethnicity	Number	Percent
American Indian or Alaskan Native	2	12%
Asian or Pacific Islander	4	24%
Black	5	**29%**
Hispanic	4	24%
White	2	12%
Grand Total	17	100%

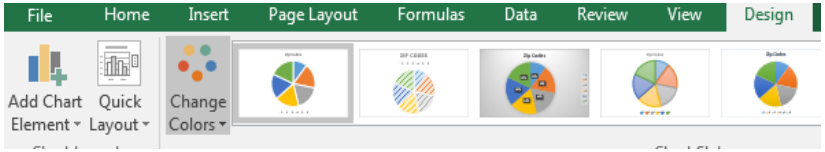


- If you highlight RacEth and the names of the zip codes, and click on under charts , you will get something like this.
- There are a lot of ways to edit a pie chart.
- If you click on the pie chart, you will see two new tabs appear at the top of your spreadsheet (or four if you are using an older version of Excel). You want to look at the design tab.

Format

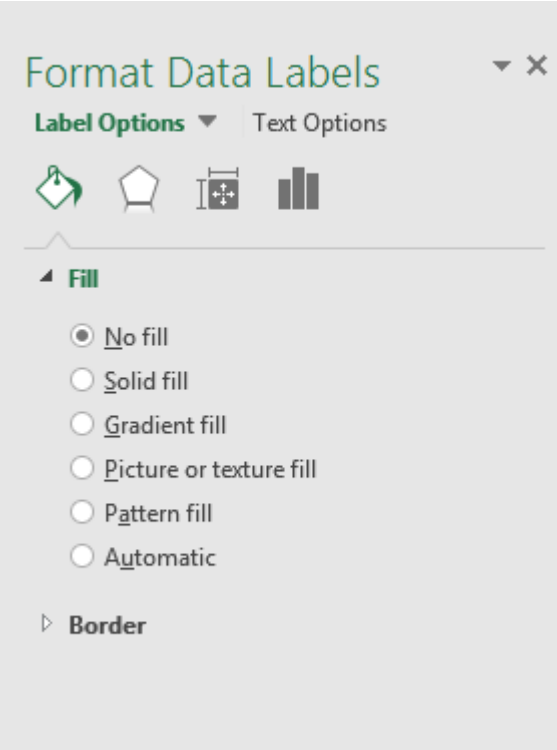


- Probably the most important thing is add a chart element.



- For pie charts, the most important data element to add is the data label, which opens up a split screen that looks like this. Here you can chose what data labels to display and where they will show up.

Clicking on the Chart



- Left clicking on the chart, the title, the labels, or the legend opens up some formatting options.
- gives you options about the colors of what you clicked on.
- gives you options for things like shadows, 3-D, or other special effects.
- changes the size and alignment of any text.
- lets you change the positioning or what is displayed.

Multiple Column Tables

- If you drag variables into the row and column boxes, you can make more sophisticated tables.
- For example, if you put program names in rows and program outcomes in columns, you get something like this:

Count of Juvenile Full Name	Column Labels				
Row Labels	Completed	Failure to Comply	Supervision Ended	Transferred out of Jurisdiction	Grand Total
A New Vision Teen Center	4	1		1	6
Animal Action Program	2				2
Avalon Individual & Family Counseling	2	2	2	1	7
Avalon Social Service - Probation	1		1		2
Grand Total	**9**	**3**	**3**	**2**	**17**

Percentages in Multiple Column Tables part I

- If you want percentages in this type of table, you have two options:
- 1) Make a separate table (copy and paste, but you don't have to paste values).
- You will need to decide if the percentage change across columns (what % of A New Vision completed vs. failed), rows (what % of completers were in A New Vision), or total (what % of program slots were A New Vision).
- I recommend including a sentence or note directing the reader's attention to which % you are using (a little subtlety is good: As seen in Exhibit X-1, 2/3rds of A New Vision attendees completed the program).
- Right click on one of the numbers and go to Show Values As. Click the type of percentage you want to use.
- If you just want to show the percentages table, it is often helpful to indicate the total number of cases.

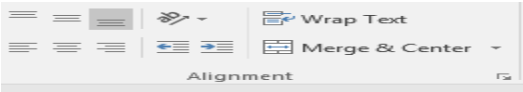
Percentages in Multiple Column Tables part I

- 2) Drag the variable in the sum box in a second time.
- Right click on one of the numbers and go to Show Values As. Click the type of percentage you want to use.
- This will look pretty ungainly in the pivot table, so copying and pasting values is a good idea.

Before and After

	Column Labels					
	Completed		Failure to Comply		Supervision Ended	
Row Labels	Count of Juvenile Full Name	Count of Juvenile Full Name2	Count of Juvenile Full Name	Count of Juvenile Full Name2	Count of Juvenile Full Name	Count of Juvenile Full Name2
A New Vision Teen Center	4	44.44%	1	33.33%		0.00%
Animal Action Program	2	22.22%		0.00%		0.00%
Avalon Individual & Family Counseling	2	22.22%	2	66.67%	2	66.67%
Avalon Social Service - Probation	1	11.11%		0.00%	1	33.33%
Grand Total	9	100.00%	3	100.00%	3	100.00%

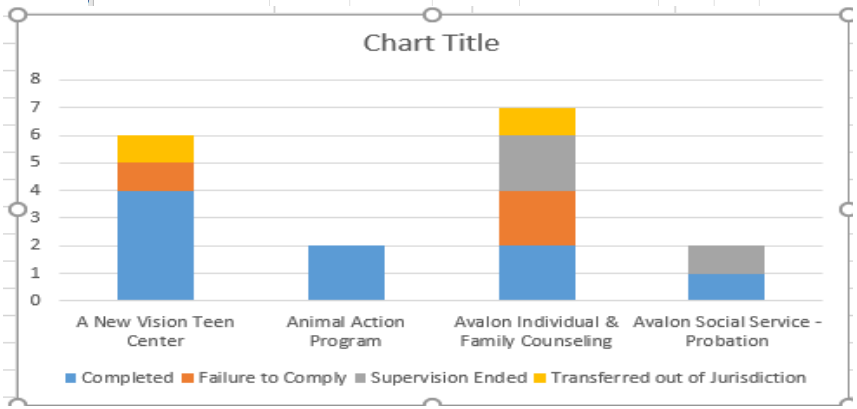
- Highlight completed and the cell next to it.
- Click on Merge and Center toward the middle of the top bar.



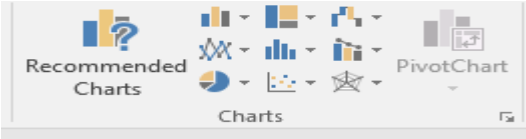
	Completed		Failure to Comply		Supervision Ended		Transferred out of Jurisdiction		Total	
Row Labels	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
A New Vision Teen Center	4	44%	1	33%		0%	1	50%	6	35%
Animal Action Program	2	22%		0%		0%		0%	2	12%
Avalon Individual & Family Counseling	2	22%	2	67%	2	67%	1	50%	7	41%
Avalon Social Service - Probation	1	11%		0%	1	33%		0%	2	12%
Grand Total	9	100%	3	100%	3	100%	2	100%	17	100%

Column Chart

Count of Juvenile Full Name	Column Labels				
Programs	Completed	Failure to Comply	Supervision Ended	Transferred out of Jurisdiction	Grand Total
A New Vision Teen Center	4	1		1	6
Animal Action Program	2				2
Avalon Individual & Family Counseling	2	2	2	1	7
Avalon Social Service - Probation	1		1		2
Grand Total	9	3	3	2	17



- Going back to the percentage-less table, we can look at a more sophisticated chart.
- Highlight as shown on the side:
- Click on Insert Charts just a little to the right of Insert Pivot tables. Pick the column chart (upper left corner).



Customizing the Column Chart

- When you go into Add Chart Elements in the Design tab, you will notice a lot more options available than when you were looking at the pie chart.
- One I particularly recommend is Data Table. This shows the values that make up the table. You should make the exhibit larger when you do this.
- You can also click on the chart elements like with the pie chart.

Tips

- The undo button is your best friend.
- If you are making a chart or table to show someone, it never hurts to have a sentence or note about what the table or chart is supposed to show.
- Give the table or chart to someone to see if they can figure out what they are supposed to get from it, and if they can't see it, you need to change it.
- It is better to practice when you don't have a deadline.

Style Guide

- Speaking of practice…..
- When you are practicing (or making a table or chart) and you find something that you like, I recommend writing it down in a document. Fonts, lines, colors, type of exhibit are all good things for the guide.
- The more checklist the better.
- When you are in a hurry, the more you can check off and the less you have to think about, the faster it will go.

Future Topics

- In future webinars, we will look more at functions, including using V lookup to compare the recidivism rate between programs, and how to use the IF function to make tables with one record per youth.
- We will have a survey attached to the webinar, please fill it out with ideas for other Excel needs.

Resources

- It is often helpful to look at other agencies to get ideas on how your charts and tables should look:
  - TJJD at http://www.tjjd.texas.gov/statistics/researchdetail.aspx
  - Bureau of Justice Statistics at https://www.bjs.gov/
  - National Criminal Justice Reference Service at https://www.ncjrs.gov/App/Topics/Topic.aspx?TopicID=122 or https://www.ncjrs.gov/App/Publications/AlphaList.aspx

Contact Us

Glenn Like

Glenn.Like@tjjd.texas.gov

(512) 490-7767

Carolina M. Corpus-Ybarra

Carolina.Corpus-Ybarra@tjjd.texas.gov

(512) 490-7258