

### STEP ONE: type in data

Male Data Only	Female Data Only
0	10
2	8
1	6
6	6
15	3
1	0
3	0
5	0
1	4
5	2
4	1
	5
	5

Enter all the data values (not the frequency). For this example we will be going to compare males and females next to each other on a histogram

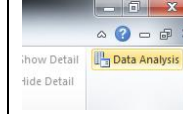
### STEP TWO: create a bin size

A	B	C
Male Data Only	Female Data Only	BIN
0	10	0
2	8	2
1	6	4
6	6	6
15	3	10
1	0	12
3	0	14
5	0	16
1	4	

Create a bin size for your data. Looking at our data we might want to count by 1s or 2s. If we go by twos create a column labeled BIN and fill in your scale from 0- maximum value

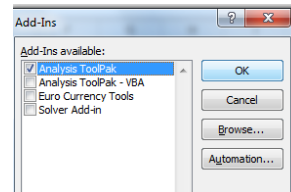
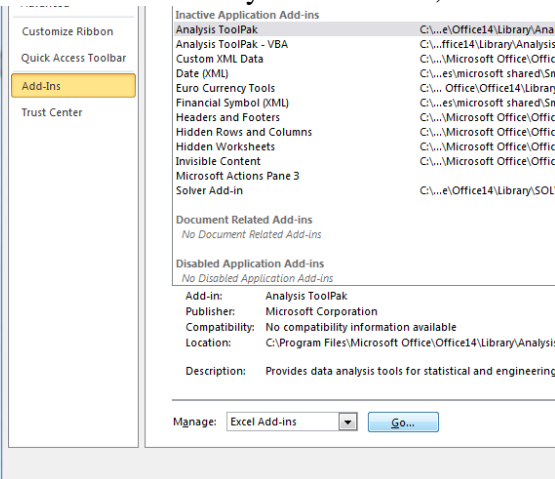
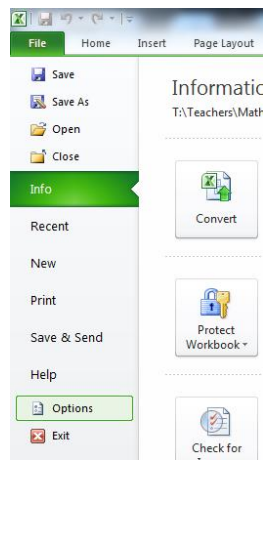
### STEP THREE: data analysis

We are now ready to create our histogram. First we need to make sure our “Data Analysis” is turned on. If you go to the “Data” Tab you need to have a “Data Analysis” button at the far right. If you don’t following the instructions below



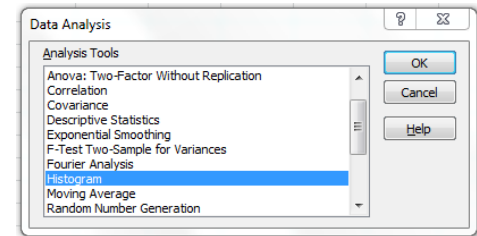
### STEP FOUR: turning on the data analysis tab

To turn on Data Analysis. Go to file, and choose options. Then Choose Add-ins. At the bottom select Manage “Excel Add-on” and [go]. Now click on “Analysis Tool Pack” and OK. Now you your data analysis button show on the Data tab.

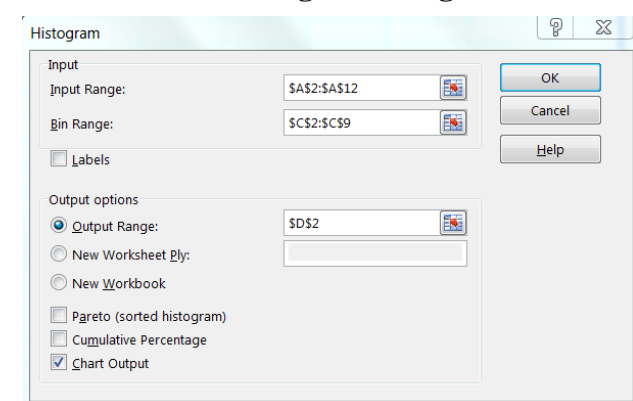


### STEP FIVE: choosing histogram

Go to Data Analysis and choose Histogram. We will start by making a histogram of **ALL DATA**.



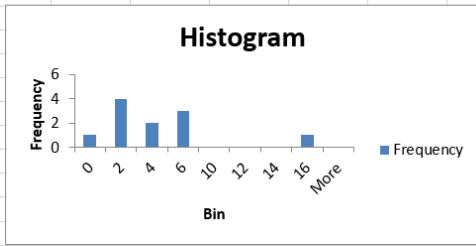
### STEP FIVE: Creating the histogram



- 1) Select Output Range and Chart Output
- 2) Click on **INPUT RANGE**: Highlight your total data (don't highlight the words). Notice that it says \$A\$2:\$A\$12. This represents the column from Cell A2-A12 (The \$ are so it stays dynamic)
- 3) Click on **BIN RANGE**: And highlight your bin
- 4) Click on **OUTPUT RANGE**: Click ANY blank cell on your document. I generally pick the empty cell right next to the bin. This is where Excel will put your frequency

**STEP SIX: Changing the look**

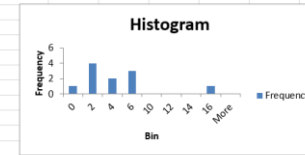
Bin	Frequency
0	1
2	4
4	2
6	3
10	0
12	0
14	0
16	1
More	0



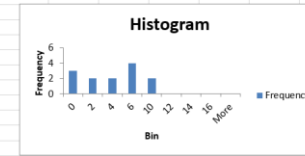
Tada! Click on the histogram and now you can change the title and design under the Chart Tools options.

**STEP SEVEN: Repeat steps and create female histogram**

Bin	Frequency
0	1
2	4
4	2
6	3
10	0
12	0
14	0
16	1
More	0



Bin	Frequency
0	3
2	2
4	2
6	4
10	2
12	0
14	0
16	0
More	0



Now you should have both the male and the female graphs.

**STEP EIGHT: Combining the graphs together**

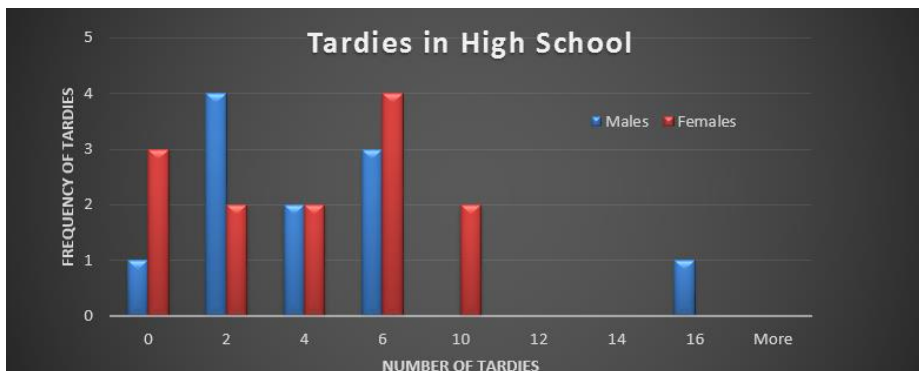
You can actually put all the data together into one graph! Choose the male graph then under DESIGN choose "Select Data". Click on the word frequency, and edit. Change the name from frequency to Males. Press OK

Bin	Frequency
0	3
2	2
4	2
6	4
10	2
12	0
14	0
16	0
More	0

To add the females to the graph choose "Add"

For Series Name type "Females" and for series value highlight the frequency for the females (where it says frequency next to your bin size) and press OK.

**STEP TEN: make it look nice**



- Select your graph and click on the buttons on the right to edit.
- ~ The + allows you to edit titles and turn on/off axis labels. By clicking more options you can change where it shows up
- ~ By selecting the paintbrush you can change colors and design.
- ~ By clicking on the bars (and then the paintbrush) you can change the size and width
- ~ Play around with all the options to make the best looking graph you can!