Using Excel to Analyze Your Data PITTSBURGH DATA JAM

1. Compiling a table with your data

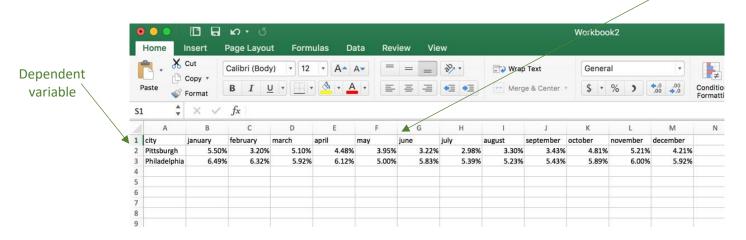
Starting a table in excel is easy. Say you want to see how the unemployment rate in Pittsburgh compares to Philadelphia over the past 12 months.

• Establish independent and dependent variables

Independent variable: time (January - December) - format as columns Dependent variable: unemployment rate (in Pittsburgh and Philadelphia) – format as rows

• Fill in data, one number in each box

Independent variable will become column



2. Graphing my data

Make graphs (of different types) to see what your data looks like.

- Highlight your entire data set
- Go to the 'Insert' tab at the top of the page and chose from bar, scatter, line, pie, and other graphs. Excel will automatically format your graph according to your table format.

Insert	Page Layout	Chart Title				
K Cut Copy ▼	Calibri (Body)	505 505 505 505 505 505 505 505 505 505	D1 Select Data Source Range Details Chart data range: =Sheet1!\$A\$1:\$M\$3			
			Legend entries (Series) Pittsburgh Philadelphia	: Name: =Sheet1!\$A\$2		
You can custo	mize how the graph	looks.	-	Y values: =Sheet1!\$B\$2:\$M\$2		
	0	p down menu, pick "Select Data."	+ - Switch Ro	w/Column		
shows all t	he data being prese	ight, should appear. This window nted in the graph. From this menu nd change series names.	Hidden and Empty Cel Show empty cells as:			

3. Further analysis of your data

You can automatically find the **average, maximum value, minimum value, sum, and other operations** of any column or row with a few quick steps.

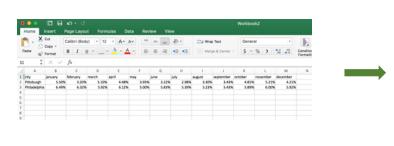
- To perform any of these operations on a row, select an empty cell that at the end of your data.
- Select the down arrow on the "AutoSum" button, under the "Home" tab. Then, select your chosen operation from the drop down menu. For options like the median, select "More Options" and search through all of excels formulas.
- To apply any operation to a column, follow the same directions; however, this time select the empty cell at the bottom of your data.

Another helpful tool when analyzing data are **lines of best fit**, or trendlines. Trendlines will help you see the overall trend of the data points on a graph. You can add one by completing the following steps.

- On your graph, left click a data point.
- A menu should appear, select the option "Add Trendline."
- The trend line menu should appear. Choose between various types of trend lines that will suit your data set the best.

4. Helpful Hints and tricks

Transposing data: If you decide you need to reformat your data to go the other way, simply copy your existing data found in the first picture, go to an empty cell, left click, click 'Paste Special,' and transpose.



8	city	Pittsburgh	Philadelphia		
9	january	5.50%	6.49%		
10	february	3.20%	6.32%		
11	march	5.10%	5.92%		
12	april	4.48%	6.12%		
13	may	3.95%	5.00%		
14	june	3.22%	5.83%		
15	july	2.98%	5.39%		
16	august	3.30%	5.23%		
17	september	3.43%	5.43%		
18	october	4.81%	5.89%		
19	november	5.21%	6.00%		
20	december	4.21%	5.92%		
21					

Filtering through data tables: When working with big data, it may be helpful to hone into one area of your data set. Using the filter button at the top right corner will allow you to chose what data you want displayed at one time.

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Item	importance ¹	Dec 2014 to	Oct 2015 to	Nov 2014 to	2015	2013	2014	Historical	2015	2016	-	10 Daity products 6.3 -0.5 -3.4		2.8 -1.5 to -0.5 2.0 to 3.0
10011		Nov 2015	Nov 2015	Nov 2015	2015	2013	2014	Average	2015	2016		31 32 'BLS estimated expenditure shares, December 2014. Food prices represent a Bem		
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insumer Price Indexes	Percent	1404 8010	1404 2010	1404 2010	Parcent	change					-	34 Note: The most recent forecast was published on December 23, 2015. Sort		
VI food	100.0		-0.3	1.3	1.8	1.4	2.4	2.6	1.5 to 2.5	2.0 to 3.0		35 \$4 Ascending Z4 De	escending	
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Food away from home	40.9		0.2	2.7	2.8	2.1	2.4	2.7	2.2 to 3.2	2.5 to 3.5		37 By color: None	•	
												38 Source: Bureau of Labor Statistice. Forecasts by Economic Research Service		
Food at home	59.1		-0.6	0.3	1.2	0.9	2.4	2.6	0.75 to 1.75	2.0 to 3.0		 40 IContact: Annemarie Kuhns 202-894-5351, amkuhnsißers usda opv or David		
Meats, poultry, and fish	13.2		-0.8	-2.1	2.1	2.1	7.2	3.1	1.5 to 2.5	2.0 to 3.0		41 By color: None	8	
Meats	8.6		-1.3	-2.1	3.3	1.2	9.2	3.3	2.5 to 3.5	1.5 to 2.5		42		
Beef and Veal	4.1		-14	-1.3	7.7	2.0	12.1	4.1	6.75 to 7.75	1.0 to 2.0		43 Equals 😳 Da	airy product ·	
Pork	2.6		-2.3	-6.6	-3.6	0.9	9.1	2.8	-4.25 to -3.25	1.5 to 2.5		45 And O Or		
Other meats	1.9		0.4	22	3.9	-0.1	3.9	2.4	3.5 to 4.5	2.5 to 3.5		45		
Poulty	2.5		-0.3	.13	0.6	47	2.0	2.6	0.25 to 1.25	2.0 to 3.0		47 Equals 😏 Equ	.gs •	
Fish and seafood	2.0		0.4	-3.1	-0.7	2.5	5.8	2.9	-1.0 to 0.0	2.5 to 3.5		49 Q. Search		
Eggs	0.9		-2.2	23.7	17.1	3.3	8.4	4.3	16.75 to 17.75	0.0 to 1.0		50 Q SUPER		
Dairy products	6.3		-0.6	-3.4	-1.2	0.1	3.6	2.8	-1.5 to -0.5	2.0 to 3.0		51 Blue indicates an adia	ustment uc	
our potenti	0.0			-0.4	-14	0.1			-1/3 00 -0/3	2.0 00 0.0		52 53 Cereals and bakery p		
Fats and oils	1.7		-2.2	-1.7	-1.0	-1.4	0.1	2.8	-1.25 to -0.25	0.0 to 1.0				
Fruits and vegetables	9.7		0.0	1.4	-0.4	2.5	1.5	3.0	-0.25 to 0.75	2.0 to 3.0		54 Consumer Price Index	A85	
Fresh fruits & vegetables	7.5		0.3	14	-0.7	3.3	1.9	3.1	-0.75 to 0.25	2.5 to 3.5		66 Via Dairy products		
Fresh fruits	4.0		-0.3	1.4	-0.7	2.0	4.8	3.1	-2.25 to -1.25	2.5 to 3.5	-	67 Eggs		
Fresh vegetables	3.5		-0.3	1.1	-2.4	4.7	-1.3	3.0	0.75 to 1.75	2.5 to 3.5 2.0 to 3.0	-	58 Fats and oils		
Processed fulls & vegetables*	2.1		-1.0	1.8	1.3	4.7	-1.3	2.8"	0.5 to 1.5	2.0 to 3.0 1.5 to 2.5	-			
	2.1			3.2	3.3	-1.7			0.5 to 1.5		-	60 Fish and seafood		
Sugar and sweets Cereals and bakery products	8.0		-0.5		3.3		-0.8	2.2	2.5 to 3.5 0.5 to 1.5	1.5 to 2.5	-	Q Produktion		
				1.3		1.0	0.2	2.6					Clear Filter	
Nonaicoholic beverages	6.7		-0.9	0.0	1.2	-1.0	-0.5	1.5	0.75 to 1.75	1.5 to 2.5				