Creating Excel®
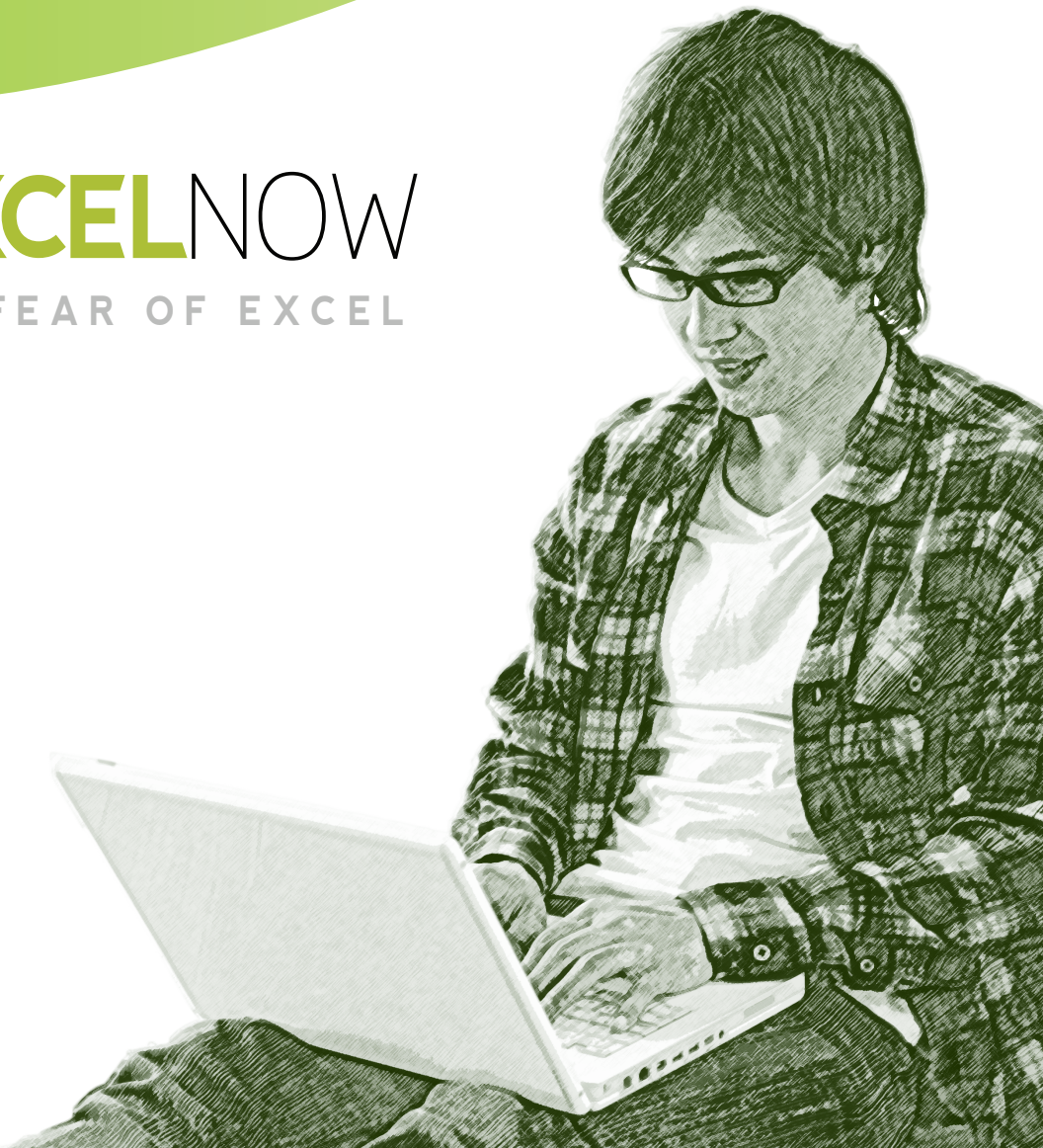# Tables and Charts

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Creating Excel® Tables and Charts

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Let's start with a story...

Edward is a people person – that's the whole reason for his career in human resources. He's okay with a computer, but he decided long ago he wasn't going to spend his time hunched in front of a desktop monitor in a cubicle trying to make one number match another.

He'd much rather be across a desk from a prospective employee or even diffusing a tense situation in the office. But when the head of HR wants a full breakdown of every employee – with detailed charts - he almost wishes he had a difficult conversation to distract him.

When the employees he loves are just names and numbers, he can't sort the information into anything he finds useful, and it loses all meaning. Edward checks his watch – he has an interview in ten minutes and he's done almost nothing to prepare. He's not sure where the time's gone.

The prospective hire is in accounting, and half the questions that department gave Edward are just as complicated as the work he's been doing all day. At one point, he asks the kid — Lisa, a recent college grad — about her familiarity with Excel.

"Oh, yeah, no problem," she says. "I love Excel – I think it's pretty easy."

He looks at her sideways - she has to be joking. "Easy?"

"Totally!" After a moment, she realizes he disagrees. "What, why?"

He shakes his head. "I've been fighting this database all day."

"Do you mind if I take a look?"

He looks at her, then shrugs. "Sure." He closes out of files with sensitive information and turns his monitor so they can both see it. He offers her the mouse and she turns the keyboard as well. "My boss wants to see all this information in both a table in a chart. I'm not even sure what those are."

"No problem." Her fingers dance across the keyboard and – barely touching the mouse – she sorts the sample information into color-coded tables and charts. He's reminded of hackers in television shows.

"Wait," he says. "Can you go back and show me what you did?"

As she does, he's shaking his head in disbelief. She makes it sound so simple. After the interview, he opens up his personnel database and applies the same rules. It doesn't take long before he's completed his task – two days ahead of schedule.

Needless to say, he recommended Lisa for the job.

This is what she told him: "Tables let you organize your data in a meaningful way…"

Creating and Using Tables

If you convert a range of cells into a Table, you automatically gain useful formatting features and management tools, as well as the ability to copy formulas and create better charts.

Below are two identical lists, except that the second list has been converted into a Table.

The obvious difference in the two lists is that every other row in the Table is shaded (these are called banded rows) and that there are filter arrows next to each entry in the title row.

	Employee Name	Building	Department	SS#	Phone	Status	Hire Date	Years	Benefits	Salary	Job Rating
2	Abbott, James	North	Manufacturing	252582122	5058669137	Full Time	5/26/2003	10	DMR	87,760	1
3	Acosta, Robert	North	Quality Control	889210902	7193838954	Contract	5/6/1991	22		70,150	2
4	Adams, David	Main	Process Developmer	452255054	9705780571	Half-Time	1/19/1990	23	DM	35,045	4
5	Adkins, Michael	North	Quality Control	330879921	3035459665	Full Time	7/5/1999	14	D	49,930	1
6	Aguilar, Kevin	Main	Manufacturing	536516131	9704249228	Full Time	10/27/2000	12	M	64,130	1
7	Alexander, Charles	North	Professional Training	124203063	3037312659	Full Time	5/8/1989	24	DMR	71,730	1
8	Allen, Thomas	South	Project & Contract S	120361975	3037345539	Contract	12/2/1993	19		76,870	5
9	Allison, Timothy	South	Operations	144722757	3032380636	Contract	1/3/1994	19		81,930	5
10	Alvarado, Sonia	South	Process Developmer	244171882	5057187041	Contract	4/1/2007	6		54,000	3
11	Alvarez, Steven	North	Quality Control	938508346	7191657646	Full Time	11/28/1994	18	DMR	58,370	5
12	Anderson, Teason	North	Compliance	831188207	9708085402	Half-Time	3/31/2006	7	M	46,095	3
13	Andrews, Diane	West	Operations	644862142	3034679864	Full Time	9/14/1998	14	R	52,490	4
14	Anthony, Robert	Main	Manufacturing	528258211	3035871924	Contract	8/20/1998	14		57,600	3
15	Armstrong, David	Main	Manufacturing	855135948	7198979762	Hourly	5/31/2009	4		28,424	4
16	Arnold, Cole	North	Manufacturing	828395582	5055918708	Full Time	8/12/2004	8	R	65,720	1

	Employee Name	Building	Department	SS#	Phone	Status	Hire Date	Years	Benefits	Salary	Job Rating
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- After positioning the active cell within a complete range of data, you can convert the range into a Table in one of four ways:

  1. Press **Ctrl+t**

  2. Press **Ctrl+l** (the letter L)

  3. Click the **Format as Table** button in the **Style** group on the **Home** tab of the Ribbon

  4. Click the **Table** button in the **Tables** group on the **Insert** tab of the Ribbon

- If you type in a cell immediately to the right of the last title in the Table, that cell and its column automatically become part of the table.

- If you add data to the first row below a Table, that row automatically becomes part of the table.

- If you insert or delete rows within a Table, the banded rows color scheme is adjusted automatically.

- If you type a formula, Excel copies that formula automatically into every other cell in that column within the Table.

- A contextual Design tab in the ribbon (shown on the next page) provides special formatting for banded rows/columns, total rows, and both first and last columns.
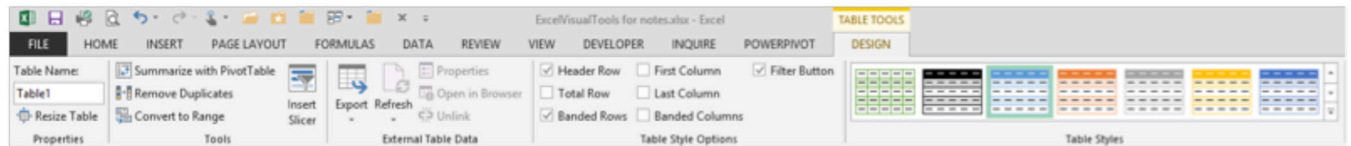
Designer-quality, professional formatting options are just a click away

Use one of the 60 styles shown to the right or design your own Table style.
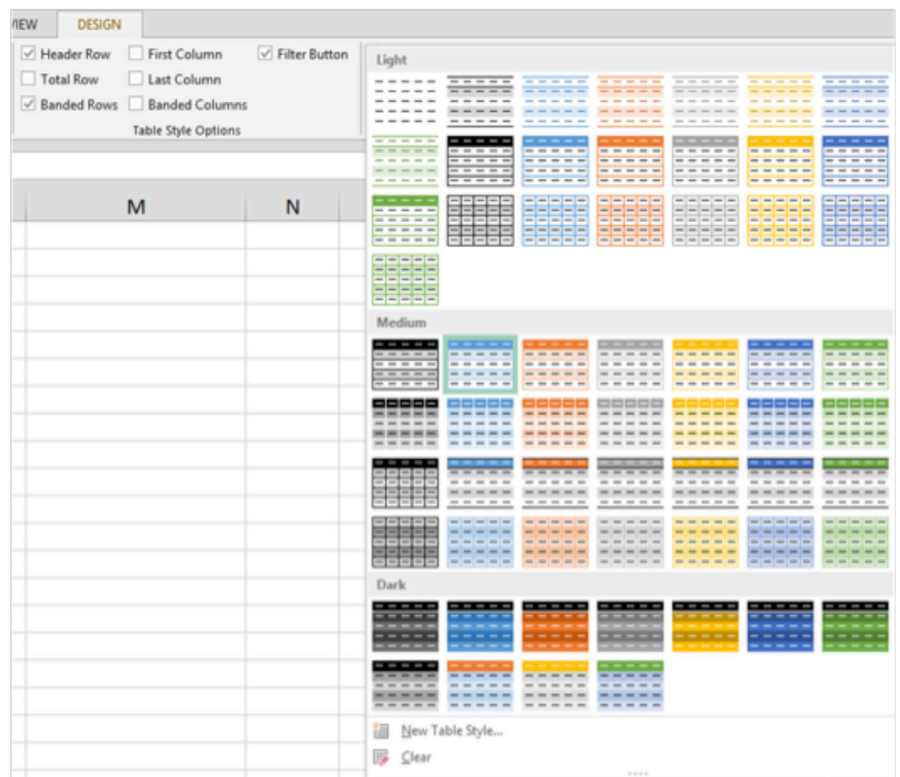
As you scroll down in a Table, column letters are replaced with field header names. This makes it far easier to keep track of what the data signifies.

	Employee Name	Building	Department	SS#	Phone	Status	Hire Date	Years	Benefits	Salary	Job Rating
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11	Alvarez, Steven	North	Quality Control	938508346	7191657646	Full Time	11/28/1994	18	DMR	58,370	5
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13	Andrews, Diane	West	Operations	644862142	3034679864	Full Time	9/14/1998	14	R	52,490	4
14	Anthony, Robert	Main	Manufacturing	528258211	3035871924	Contract	8/20/1998	14		57,600	3
15	Armstrong, David	Main	Manufacturing	855135948	7198979762	Hourly	5/31/2009	4		28,424	4
16	Arnold, Cole	North	Manufacturing	828395582	5055918708	Full Time	8/12/2004	8	R	65,720	1
17	Ashley, Michael	Main	Project & Contract S	635767088	9706456972	Full Time	1/9/1992	21	DMR	62,688	2
18	Atkins, Kevin	North	Engineering/Mainter	343897392	5055789252	Full Time	4/11/1998	15	R	32,100	1
19	Austin, William	West	Manufacturing Adm	230192897	9707461285	Full Time	3/17/2005	8	D	71,400	4
20	Avila, Jody	Taft	Operations	776823797	5051682521	Full Time	12/4/1994	18	DMR	57,560	4
21	Ayala, Polly	Main	Manufacturing	436693732	5056503334	Full Time	1/21/1996	17	DMR	60,100	1
22	Ayers, Douglas	West	Professional Training	147724014	5058627048	Half-Time	2/11/1989	24	DM	39,620	5

How to Create a Chart in Excel

Excel can calculate just about anything if you enter the right formula. To find a percentage, you would use the formula: =Cell1/Cell2 and then be sure to change the formatting to Percentage.

Excel charts really start getting into unlocking the power of Excel. Charts can be used to produce reports, analyze data and make quick decisions at a glance.

Building Charts

Quick Chart Creation

To create a chart, first select the cells in your worksheet that contain the information you want depicted in the chart. Usually, worksheet data (as in the range **B3:D8** to the right) designed for charts has

	A	B	C	D	E	F
1			Learn Excel Now			
2		CA	TX	NY	Total	Average
3	Jan	10,091	14,461	9,656	34,208	11,403
4	Feb	16,130	19,485	19,439	55,054	18,351
5	Mar	22,944	25,759	16,034	64,737	21,579
6	Apr	29,872	35,381	27,348	92,601	30,867
7	May	30,793	37,815	31,414	100,022	33,341
8	Jun	42,192	35,246	32,393	109,831	36,610

identifying information in a row across the top of the cells (as in Row 2) and in a column on the left side of the cells (as in Column A). Be sure to include this row and column as you select the range you want to see depicted in a chart – highlight the cells **A2:D8**.

To select data from non-adjacent cells, use the **Ctrl** key to select these ranges. All of these ranges must be on the same worksheet.

If you need to create a chart from data on separate sheets, first create a chart with some data and then copy and paste the data from other worksheets. You can create charts that are displayed on the same worksheet as the source data or on a separate chart sheet. There are advantages and disadvantages to both locations and you can easily change the location of a chart.

Pro Tip: Although you can include rows or columns (such as Column E above) that contain totals, these are frequently omitted from charts because they tend to distort the chart display.

**To create a chart quickly, select data and press the F11 key**

The newly created chart is placed on a new sheet and named Chart1, Chart2, etc. in the current workbook.

As seen to the right, a chart produced with the quick method lacks titles for the vertical Y-axis, the horizontal X-axis and a main title but is other wise a readable and useful chart created with a minimum of effort.
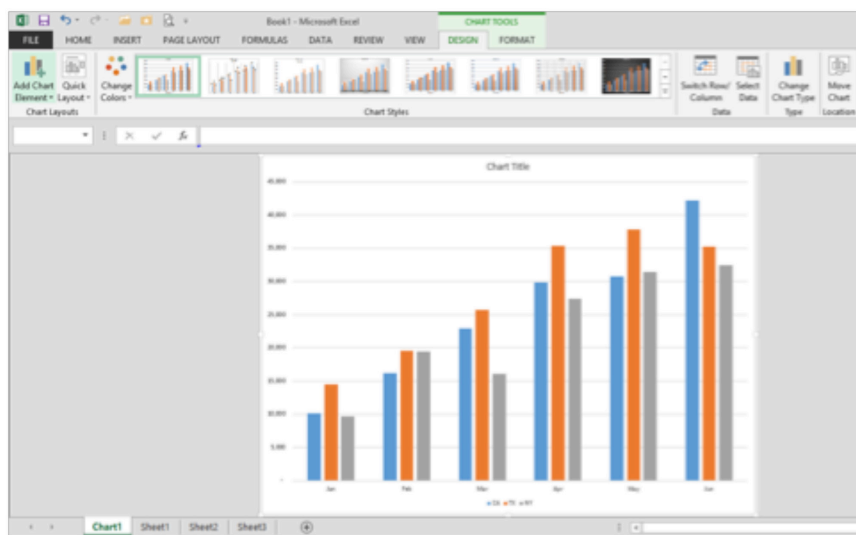
To create a chart quickly next to your data, select the data and press Alt+F1

The new chart appears on your worksheet and the Design tab is automatically activated. When you click outside the chart, the Home tab becomes active.
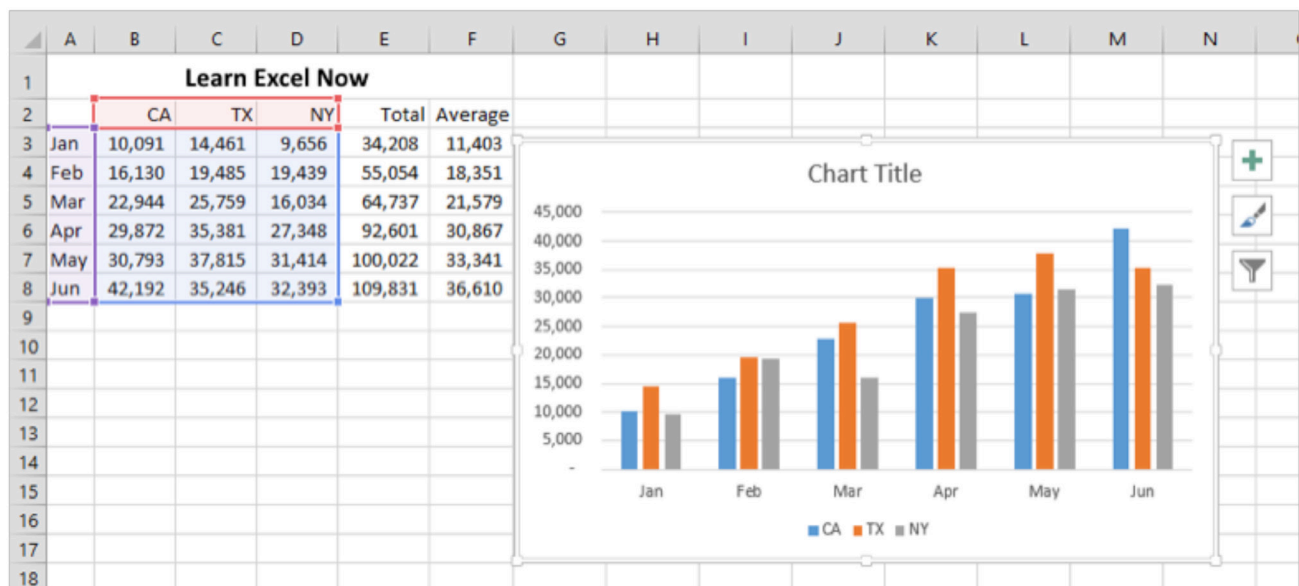

Excel's charting capability is loaded with design, layout, and formatting features that would take many hours to fully explore. Whenever you create a chart, you have two new Ribbon tabs that open the door to numerous methods for adjusting the appearance of any chart.

The **Design** tab offers options to change the chart type (column, Bar, Line, Pie – 53 types in all), adjust the row/column orientation, change a chart's layout via the **Quick Layout** button (up to 12 options, depending on the chart type), and adjust chart styles (up to 14 options, depending on the chart type).

The **Format tab** offers even more adjustment capability with **WordArt, Shape Style** options and object placement buttons.
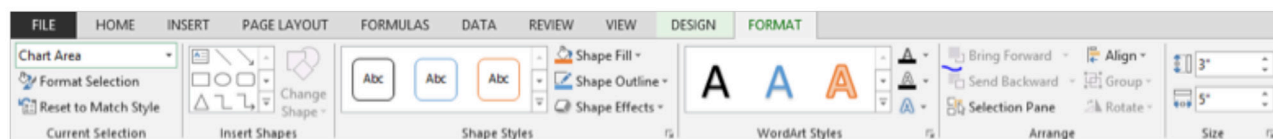
Using Excel in the workplace can be a challenge,
but it can also open new doors to understanding your business.
In addition, great Excel users have an extra tool
to help advance their career.

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