



# Biggest Excel Chart Mistakes Everyone Makes

Are these hindering your ability to tell your story?

By Jay Arthur

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# Biggest Excel Chart Mistakes Everyone Makes

*Are these hindering your ability to tell your story?*

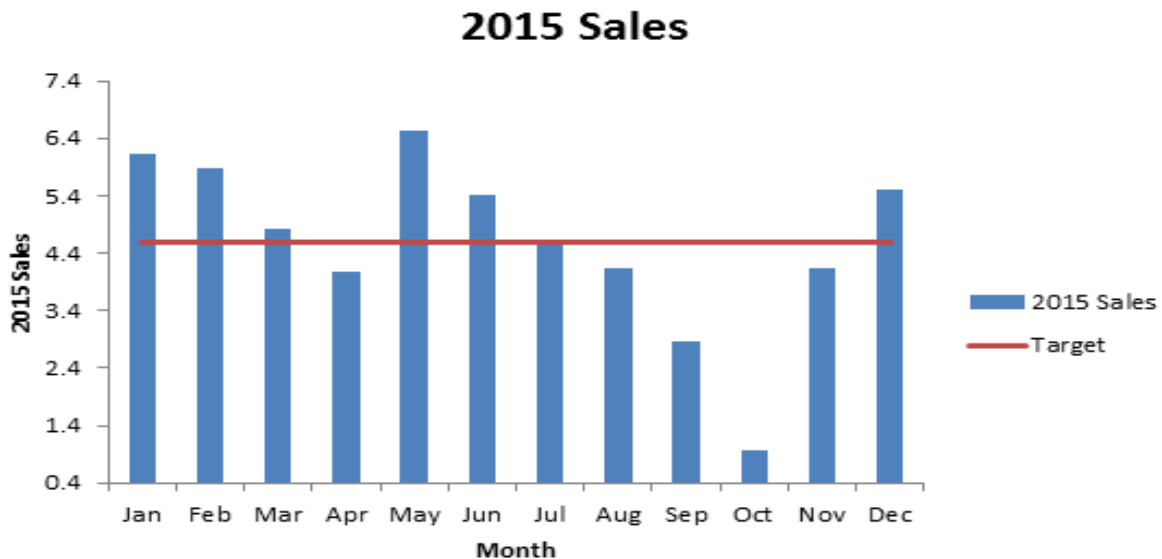
The right chart can turn a spreadsheet into instantly understandable and actionable insights. Unfortunately, most people use the wrong or underpowered charts to tell their story. The most common mistakes are:

## 1. Using Spreadsheets Instead of Charts to Display Data

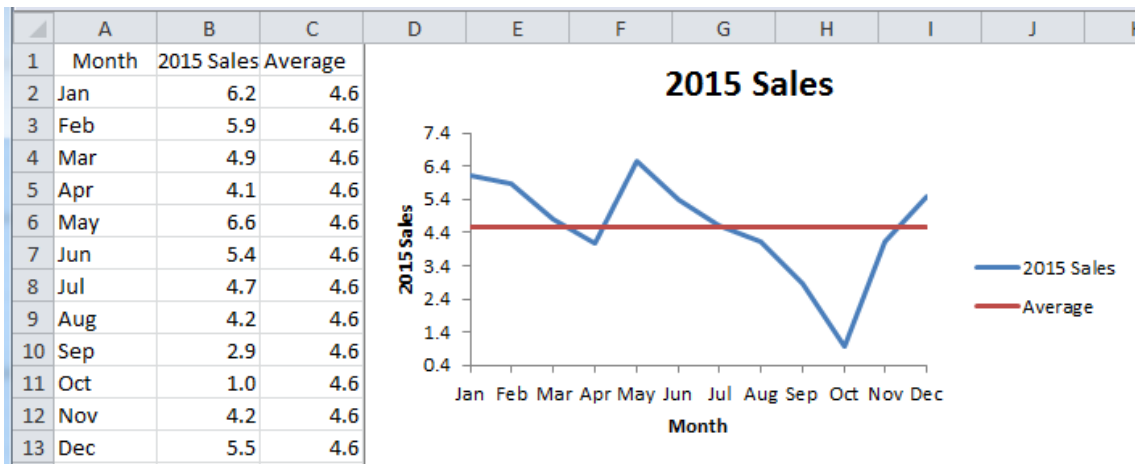
People seem to fear using charts. Maybe they're afraid someone will challenge their chart or are not sure which type of chart to use. So instead, they try to make their spreadsheet "pretty" so that people will read it. This never works. Learn how create charts using native Excel or use an Excel add-in like [QI Macros](#) to create charts for you.

## 2. Using the Wrong Chart for Time Series Data

Many people use bar charts or column charts for *time-series* data (time running across the x axis).

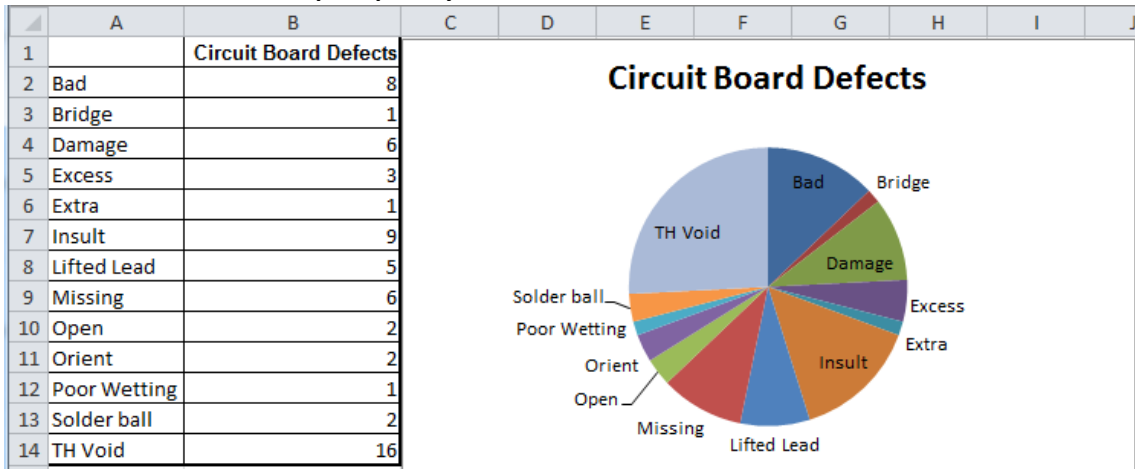


Instead use line, run or control charts for time-series data.

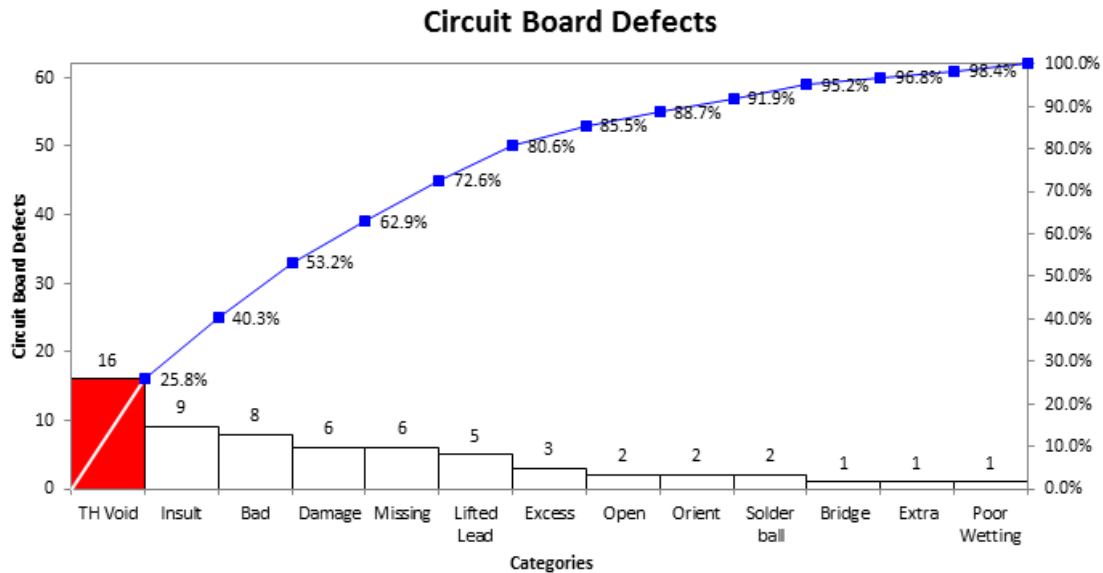


### 3. Using the Wrong Chart to Compare Categories

Many people use Pie charts for category data, but rarely sort the data or size them properly.

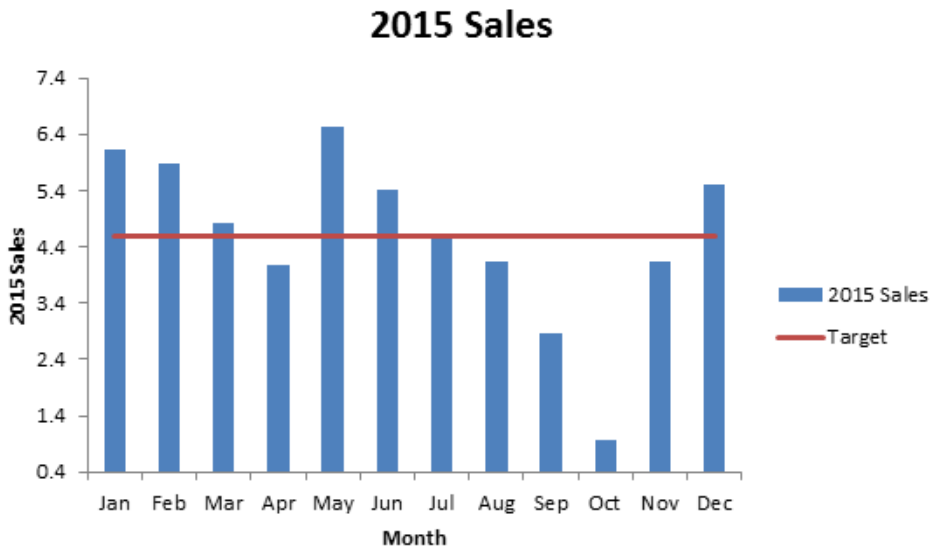


Instead, use sorted column or Pareto charts for category data. It's easy to create Pareto charts with [QI Macros](#).

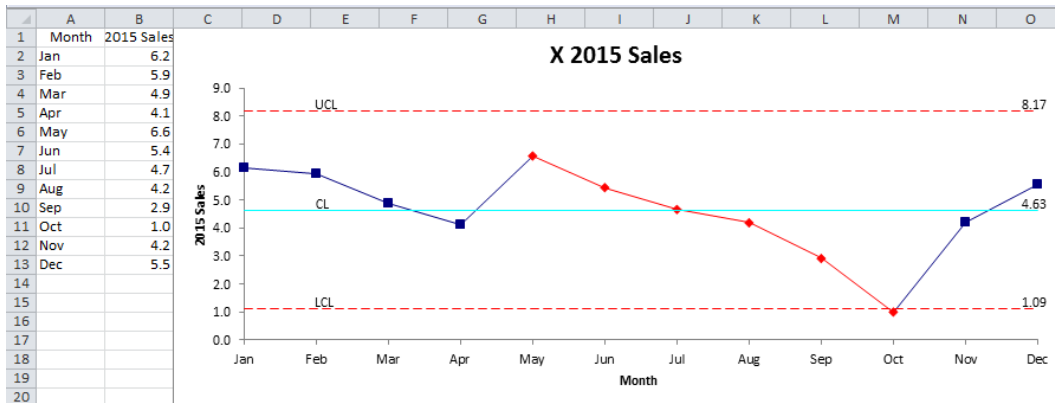


#### 4. Using Target Lines as the Only Evaluation Criteria

People often show data in relationship to a target line. They celebrate when sales are above the target line and seek culprits when sales are below the line. This monthly *snapshot* approach to management isn't useful and leads to chasing *normal* variation.



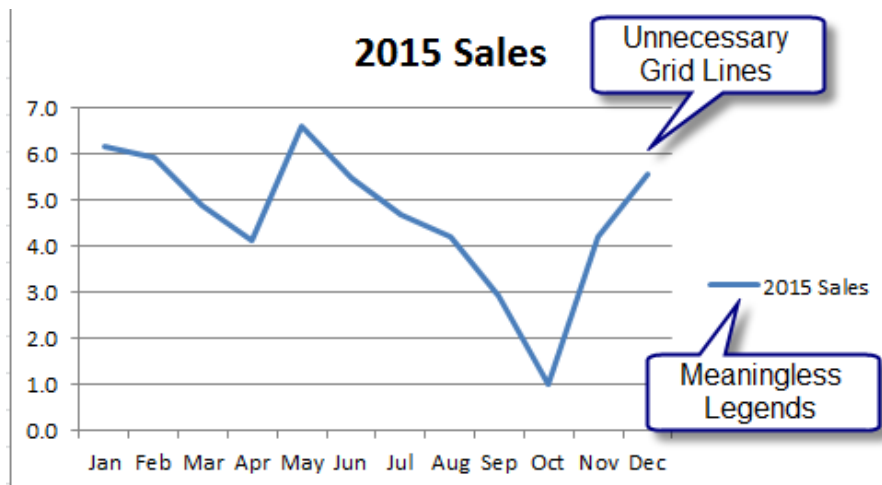
Instead use a [control chart](#). A control chart is simply a very smart line graph with a center line and zones to help identify “out of control” points and trends. There’s no action required until there’s a statistically significant condition like six points in a row descending. Then it’s time to analyze what’s going wrong and fix it.



You can easily create a control chart in Excel using [QI Macros](#) add-in. QI Macros will draw a control chart and identify conditions to be investigated by turning the line and markers red.

## 5. Failing to Remove Chart junk

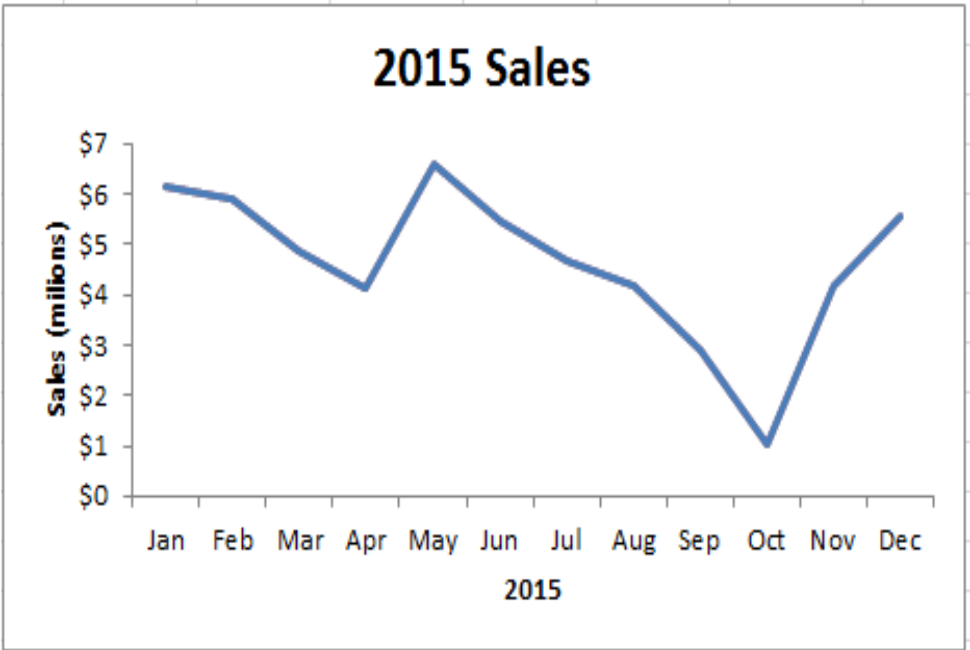
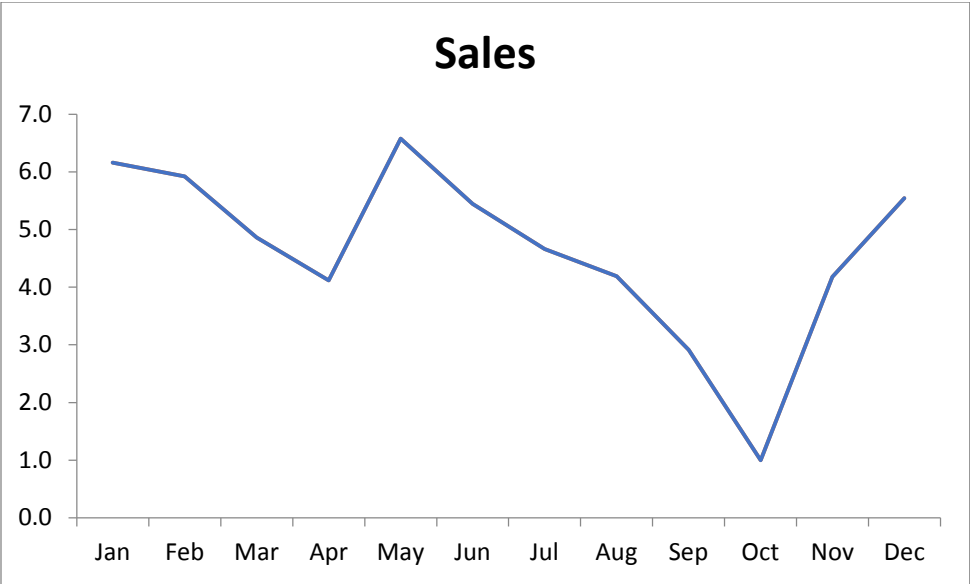
Remove unnecessary gridlines, legends, backgrounds or anything that confuses the understanding of the chart.



## 6. Failing to Label and Format Charts and Axes.

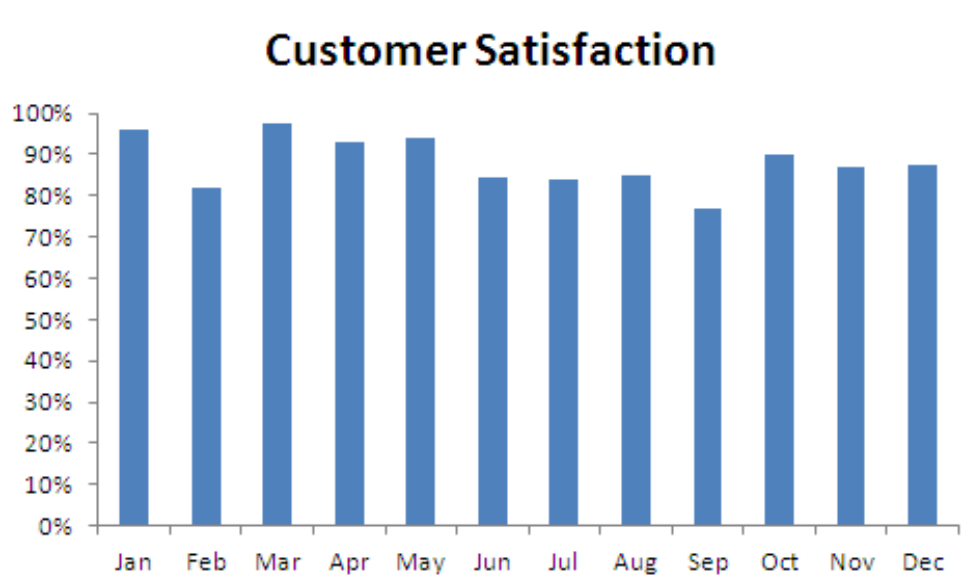
Charts should have a title and labels for both the x and y axis. Make sure to properly format numbers to help communicate what they represent (e.g.dollars, percentages, dates, etc.)

Which chart is clearer and more informative?

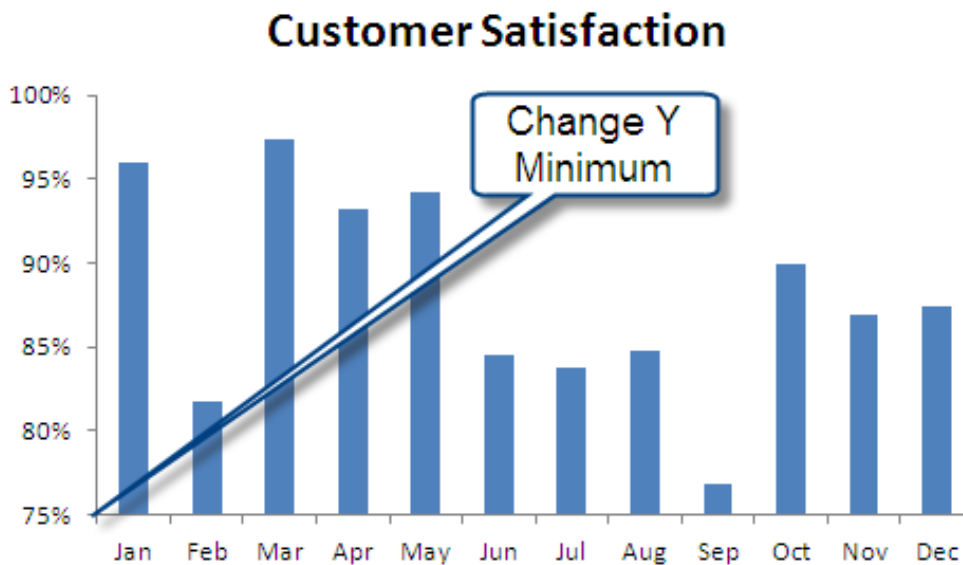


## 7. Using the Wrong Scale

Using Excel's default scale can be misleading. This chart doesn't look bad, does it?

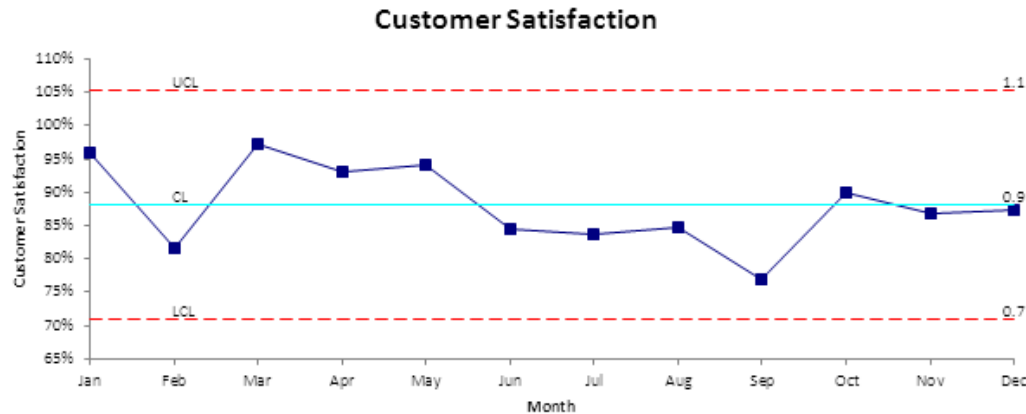


But if you change the minimum, you can better see the variation.





Better still, use a line, run or control chart instead. In this example, customer satisfaction is stable (no red points or lines) with an average of 90%.

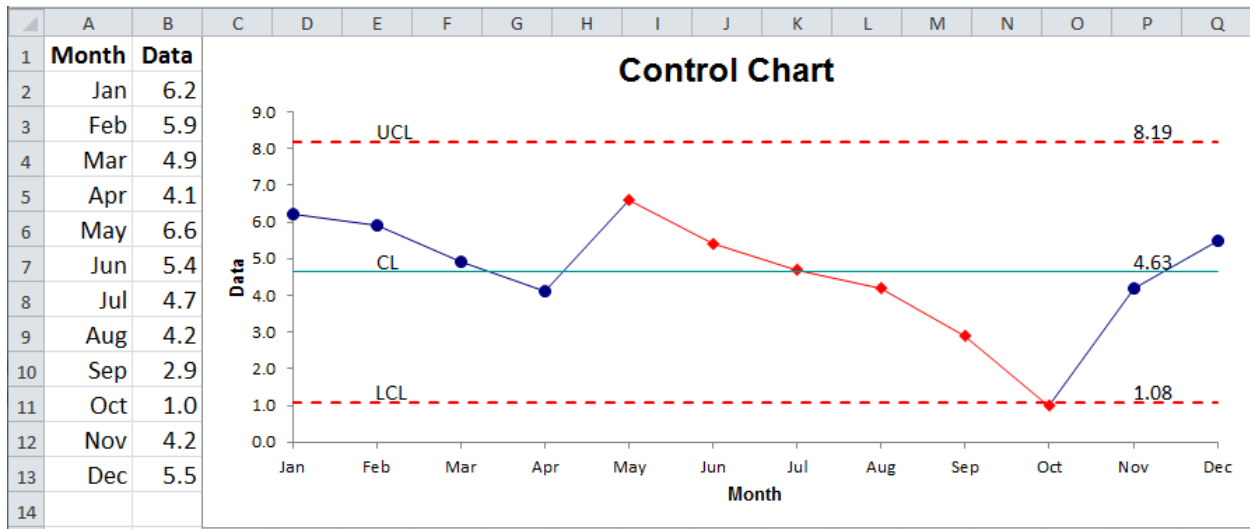


## 8. Using Primitive, Under Powered Charts

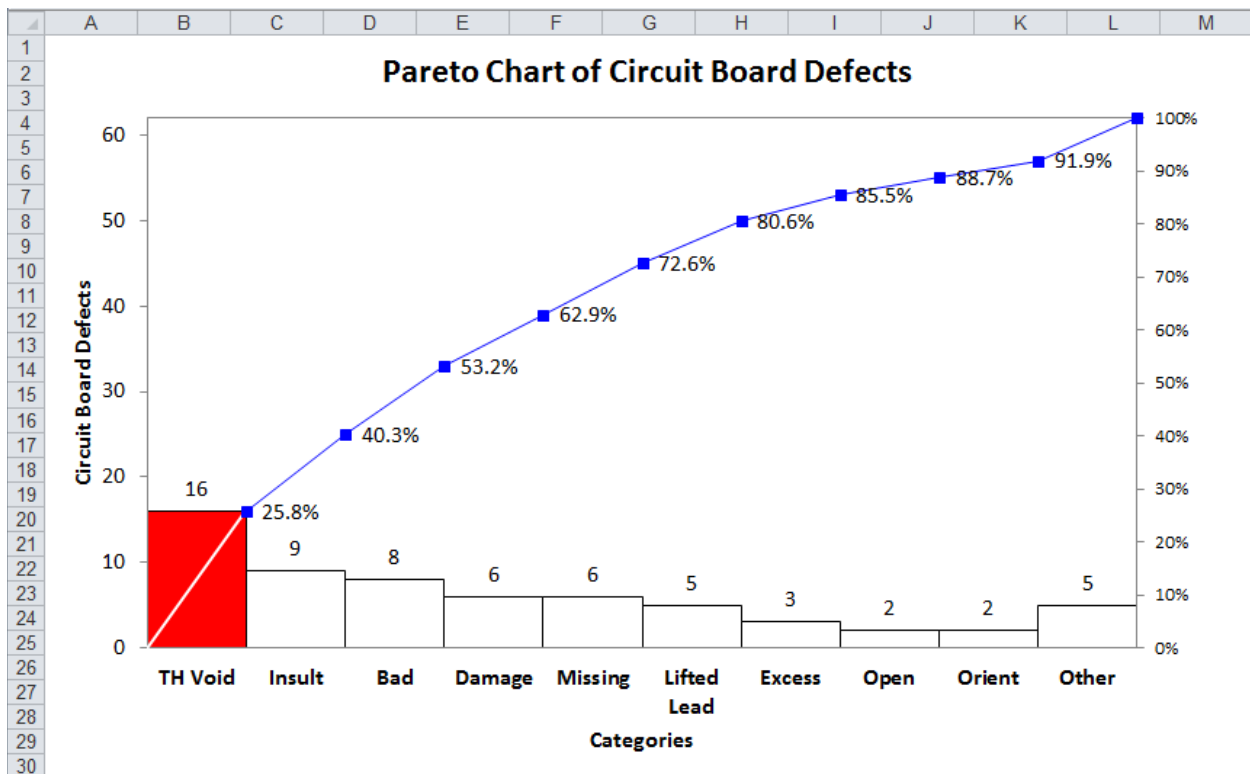
People everywhere use unreadable spreadsheets or rudimentary line, bar and pie charts to manage million-to-billion dollar businesses around the globe. These charts don't have enough actionable intelligence and they can cause lots of unnecessary fire drills to find out why a number is high or low this month, when statistically, the process is running smoothly. Line, bar and pie charts also fail to detect when something has actually changed in the process.

To effectively manage any business, leaders and managers need dashboards of smart charts that can tell when a key process indicator (KPI) is purring along smoothly or veering wildly out of control. What are smart charts? They include control charts. Pareto charts and histograms and they are all easy to create using [QI Macros add-in for Excel](http://www.qimacros.com).

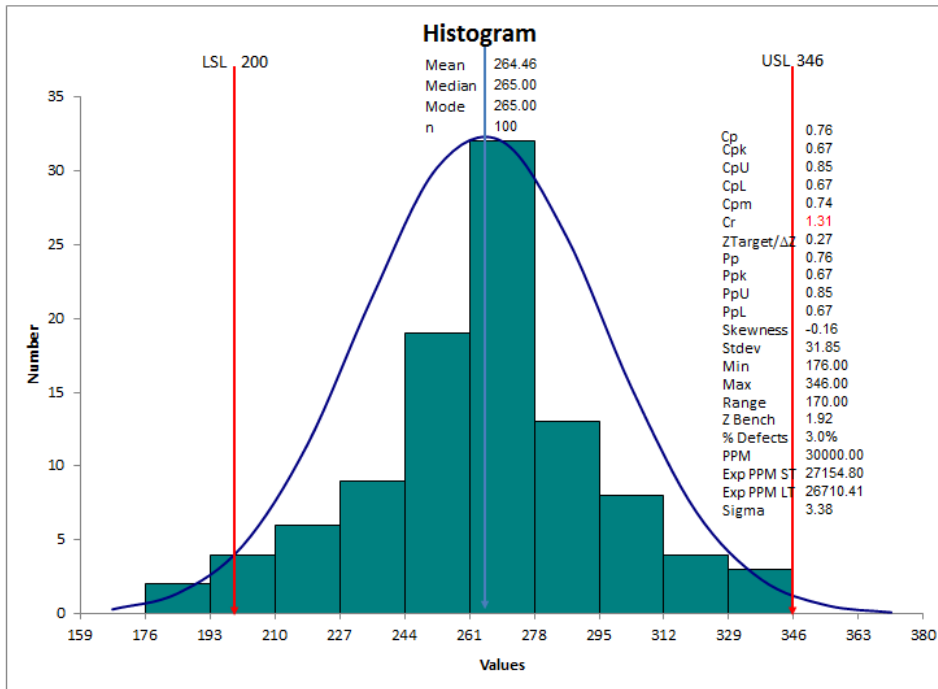
To chart data over time, use control charts.



To compare categories, use Pareto charts.



To analyze variability in your data, use histograms.



## Jay Arthur



[Jay Arthur](#), the KnowWare Man, teaches people how to eliminate delay, defects and deviation in one day using Excel and the Magnificent Seven Tools of Lean Six Sigma. Jay is the shortcut to results with Lean Six Sigma.

Jay is first and foremost a Money Belt; he knows how to use data to fix broken processes to save time, save money and save lives. Jay has 25 years of experience helping companies save millions of dollars.

Jay is a frequent speaker at Lean Six Sigma conferences, is the author of many popular Lean Six Sigma books published by McGraw Hill including [Lean Six Sigma Demystified](#) and [Lean Six Sigma for Hospitals](#). He is also the developer of [QI Macros SPC Software for Excel](#).