Creating the Spreadsheet:

The table and data format should look similar to this.

Pareto Chart Data			
Category	Value	Percentage	Cumulative Percentage
Reason 1	115	32%	32%
Reason 2	100	27%	59%
Reason 3	50	14%	73%
Reason 4	40	11%	84%
Reason 5	20	5%	89%
Reason 6	15	4%	93%
Reason 7	10	3%	96%
Reason 8	8	2%	98%
Reason 9	5	1%	99%
Reason 10	2	1%	100%

Create the headings, categories and values in an MS Excel spreadsheet, called pareto template.xls . Enter “Reason 1” through “Reason 10” in the Category column . We will then populate the formulas to generate the values and the Percentage and Cumulate Percentage columns.

Formulas:
We can use the formulas from an article on Paretos from the QualityHelp Community site. Enter the formulas into columns C, D and E. You only need to type in the highlighted formulas, then copy down the columns (cell references will adjust automatically).

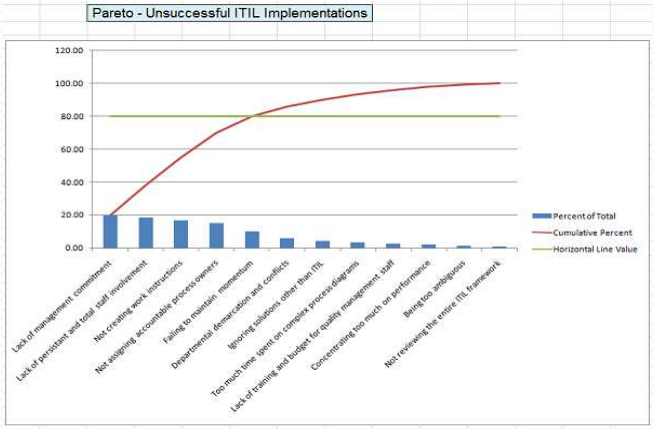
Note the constant 80.00 in all cells in column E.

Generating the Chart

To generate the pareto chart in Excel, follow the following steps:

1. Select columns **A, C, D** and **E** (using Ctrl key and mouse cursor)
2. From the Excel Insert Menu, select the Column chart dropdown and choose the first 2D chart (Clustered column)
3. Reposition and resize the chart away from the table (either below or to the right)
4. Right-click on any one of the vertical bars for Cumulative Percent, and change the "Series Chart Type" to first Line Chart
5. Repeat step 4 for the Horizontal Line Value column (in our table / chart set to 80%

As a practical tool and template, you might want to cut/copy the pareto char you just generated, and insert into a new Worksheet tab (named Pareto). Rename the first worksheet tab to Data, and drag it to the second Tab position. Save your work.



QualityHelp
Community Guide

Pareto Powered Presentations

Smart Guide (V.01)

(Creating a Pareto Chart to insert into a Presentation)

(Created by the QualityHelp Community at qualityhelp.org)

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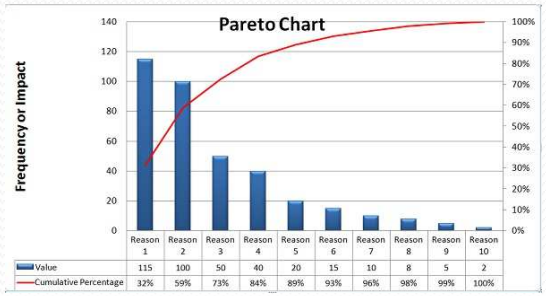
Pareto Powered Presentations



A **pareto chart** is an effective tool used in Six Sigma to perform a relatively simple analysis of defects in service industries. It then provides a Lean method of focusing on eliminating the top 20% of defects that typically generate 80% of wasted effort and inefficiencies.

This guide aims to get you using this powerful tool with a spreadsheet and presentation device (like MS Powerpoint) to analyse and remove defects.

Objectives:

1. We want to create a powerpoint presentation to graph the top nine or ten technical, service or process defects in descending order of impact.
2. We want to graphically highlight the cost and performance benefits of solving and neutralising the top 2 or 3 using a Pareto chart. This would free up resources and time to drill down on the remaining defects and issues.
3. We also want to build a reusable template in MS Excel to generate the Pareto chart.

	A Reason	B Count	C Percent of Total	D Cumulative Percent	E Horizontal Line Value
3	Lack of management commitment	**60**	**=(B3*100/$B$15)**	**=C3**	**80.00**
4	Lack of persistant and total staff involvement	**55**	=(B4*100/$B$15)	**=(D3+C4)**	**80.00**
5	Not creating work instructions	**50**	=(B5*100/$B$15)	=(D4+C5)	**80.00**
6	Not assigning accountable process owners	**45**	=(B6*100/$B$15)	=(D5+C4)	**80.00**
7	Failing to maintain project momentum	**30**	=(B7*100/$B$15)	=(D6+C5)	**80.00**
8	Departmental demarcation and conflicts	**18**	=(B8*100/$B$15)	=(D7+C6)	**80.00**
9	Ignoring solutions other than ITIL	**12**	=(B9*100/$B$15)	=(D8+C7)	**80.00**
10	Too much time spent on complex process mapping	**10**	=(B10*100/$B$15)	=(D9+C8)	**80.00**
11	Lack of training and budget for quality management	**8**	=(B11*100/$B$15)	=(D10+C9)	**80.00**
12	Too much concentration on performance	**6**	=(B12*100/$B$15)	=(D11+C10)	**80.00**
13	Being too ambiguous with targets and components	**4**	=(B13*100/$B$15)	=(D12+C11)	**80.00**
14	No regular management reviews of entire ITIL framework	**2**	=(B14*100/$B$15)	=(D13+C12)	**80.00**
15	**Totals**	**=SUM(B3:B14)**	**=SUM(C3:C14)**	**=D14**	

MS Excel Data and Formlas for a Sample Pareto Chart