

HOW TO - Pareto charts in Excel

Another popular quality tool that's a snap to produce using Excel is a Pareto chart. If you already have your data summarized, as in Figure 4, you can obtain a Pareto chart by following these steps:

Sort your data in descending order by frequency of occurrence.

Create Percentage (e.g., in cell C2, type: $=B2/\$B\7) and Cumulative Percentage (e.g., in cell D2, type: $=C2$. In cell D3, type: $=D2+C3$) columns, as shown in Figure 5.

	A	B	C	D
1	Category	Frequency	Percentage	Cumulative Percentage
2	Tool Change	31	36%	36%
3	Set-up Parts	26	30%	66%
4	Bad Material	15	17%	83%
5	Machine Malfunction	9	10%	93%
6	Operator Error	6	7%	100%
7		87		

Figure 5

Once again using the Control key to select noncontiguous columns, highlight the Category, Percentage and Cumulative Percentage columns. In the example, this corresponds to cells A1:A6 and C1:D6.

Use the ChartWizard to generate a Combination Bar Chart with both left and right axes.

After adding some titles and customizing the formats, you get a chart like the one in Figure 6. Note that the height of each bar references the left axis, whereas the cumulative percentage line references the right axis.

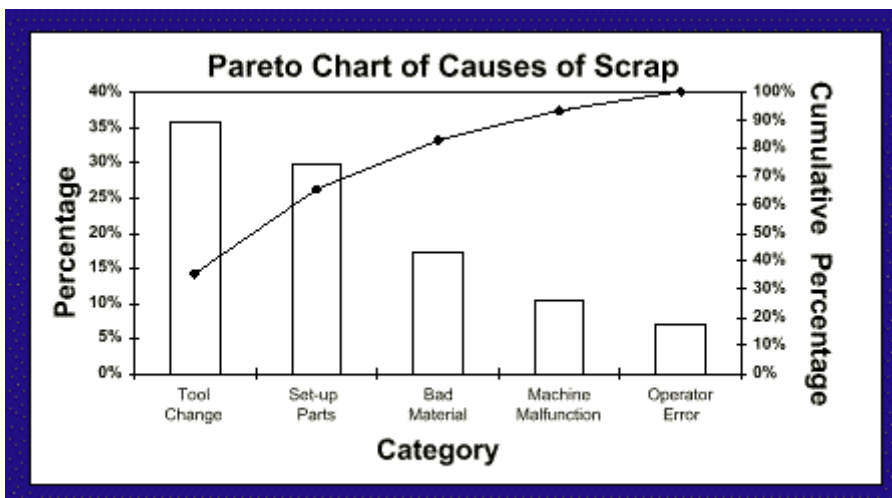


Figure 6