

2 EGR 120
 3 Introduction to Engineering
 4 File: Hist.xls

Using Histograms in Microsoft Excel

6
 7 Histograms are used to graph the frequency of events according to the number of times
 8 that they occur in predefined ranges. In the example below, a histogram is used to
 9 graph the number of runners that cross the finish line in 1 minute intervals in a 5 km race.
 10

Runner Number	Time (min)
1	18.2
2	21.9
3	25.5
4	24.4
5	27.9
6	20.0
7	17.6
8	21.1
9	23.3
10	24.4
11	25.8
12	19.8
13	24.0
14	23.8
15	24.5
16	26.6
17	27.5
18	23.3
19	22.8
20	22.1
21	26.1
22	19.7
23	18.0
24	22.7
25	23.9

Upper Bound
18
19
20
21
22
23
24
25
26
27
28

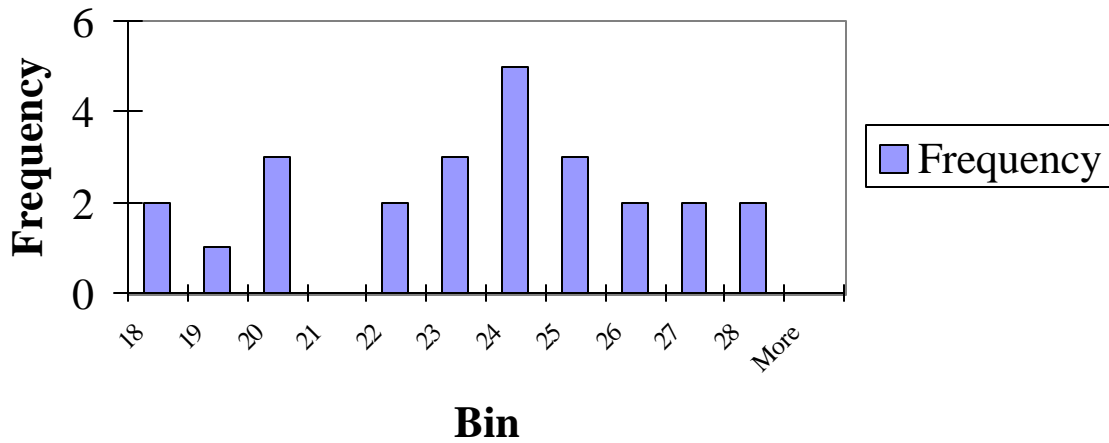
Steps in creating the histogram:

- 1) Enter the runner numbers and times in columns B and C
- 2) Decide on the desired ranges and enter the upper bound for each
- 3) Pick **Tools - Data Analysis - Histogram** from the main menu
- 4) Fill out the histogram information as follows (also see screen capture below):
 - Input Range** : Specify runners' times
 - Bin Range** : Specify upper bound values
 - Output range** : Pick the cell for the top left of the output (Bin/Freq Table)
 - Chart Output** : Check box for a graph
 Click OK and then Excel produces the table and graph shown below.

Bin	Frequency
18	2
19	1
20	3
21	0
22	2
23	3
24	5
25	3
26	2
27	2
28	2
More	0

38
 39

Histogram of times for 5K race



Histogram [?] [X]

Input

Input Range: [icon]

Bin Range: [icon]

Labels

Output options

Output Range: [icon]

New Worksheet Ply:

New Workbook

Pareto (sorted histogram)

Cumulative Percentage

Chart Output

OK

Cancel

Help