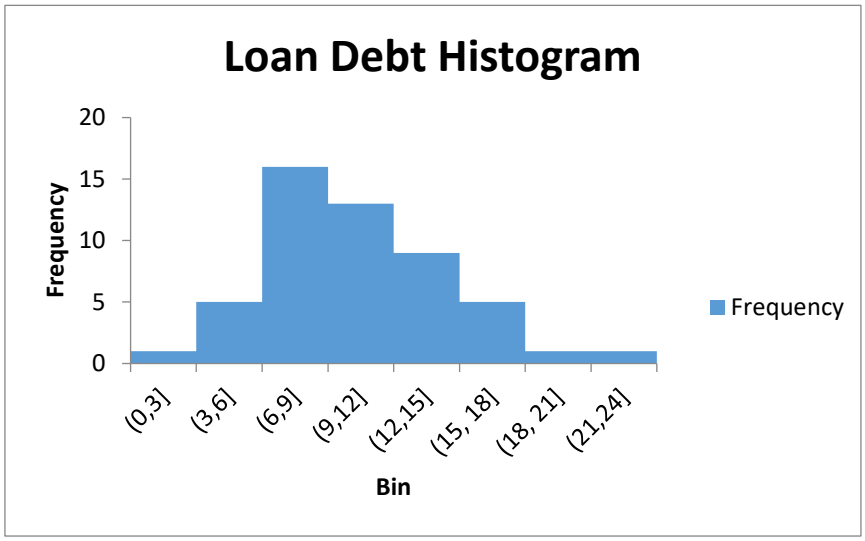
MAT 221 Lab 1 Answers

The data set in **Lab01DataS19.xls** (file on BB9) contains the percentage of student loan defaults in each of the 50 states and Washington DC. NOTE that the dataset is **not** sorted!

1. The frequency table and histogram,

Bin	Frequency
(0,3]	1
(3,6]	5
(6,9]	16
(9,12]	13
(12,15]	9
(15, 18]	5
(18, 21]	1
(21,24]	1
	51



2. Find the $\bar{x} = 10.500$, s = 3.967, and M = 10, min = 2.700 and max = 22.300.

10.500	mean
10.000	median
2.700	min
22.300	max
3.967	sd
6.533	Mean-s
14.467	Mean +s
2.567	Mean-2s
18.433	Mean+2s

3. 35/51 = 68.6% fall in $(\bar{x} - s, \bar{x} + s)$, 49/51 = 96.1% fall between$(\bar{x} - 2s, \bar{x} + 2s)$.
4. The dataset is skewed to the right as can be seen in the histogram and that the mean is bigger than the median. There is also an outlier (22) on the high side. The modal class is (6, 9].