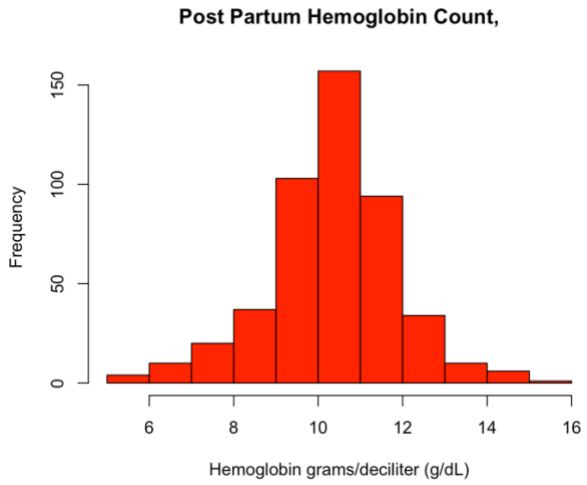
Benny Cox, Homework 1 Analysis, BIOSTAT I

For the post-delivery hemoglobin concentration:

- Provide at least one graph (a screenshot or graph downloaded from SAS or R.) **1 point**



- Provide a table with your summary statistic. Please make this table in your word document. Do not provide any tables that were output from software.**1 point**

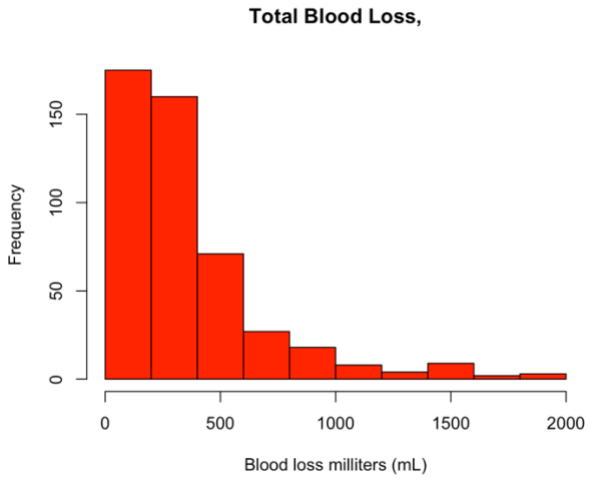
Variable	Mean	Median	Range	Q1	Q3	IQR	SD
HBPost	10.38235	10.5	(5.5, 15.4)	9.60	11.20	1.6	1.498344

- Using the graph and the summary statistics, explain which summary of center and which summary of spread are the best to describe the data**. 2 points**

The data is relatively normally distributed in shape as shown by the curve in the histogram, and within the table you can see both the mean and median are good summaries of center since they are very close. However, I think the median is better since it is less affected by any potential outliers. For the spread, I believe the standard deviation is the best measure of spread since it captures all the data and is small in comparison to the center value.

For the total blood loss:

- Provide at least one graph (a screenshot or graph downloaded from SAS or R.) **1 point**



- Provide a table with your summary statistic. Please make this table in your word document. Do not provide any tables that were output from software. **1 point**

Variable	Mean	Median	Range	Q1	Q3	IQR	SD
TotalBloodLoss	384.8637	300	(20, 2000)	150	450	300	333.735

- Using the graph and the summary statistics, explain which summary of center and which summary of spread are the best to describe the data. **2 points**

As you can see by the histogram, the data is very strongly skewed right as shown by the right tail. Additionally, the mean is much bigger than the median hinting at a strong right skew as well. I believe the mean is being affected by the large outliers in this dataset; thus the median is a better measure of center. The spread of the data I believe is best shown by the range in this case, due to the large spread the SD/IQR do not show.