Exploration 5B: Beef n’ Buns

The manager of a local fast-food restaurant is interested in improving the service provided to customers who use the restaurant’s drive-up window. As a first step in this process, the manager asks his assistant to record the time (in minutes) it takes to serve 200 different customers at the final window in the facility’s drive-up system. The given 200 customer service times are all observed during the busiest hour of the day for this fast-food operation. The data are in the file “C05 BeefNBuns.xls”. Are shorter or longer service times more likely in this case?

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STUDENT WORK: A student produces the graph at the right and then states: “As the graph below shows, most of the service times are on the higher end of the graph, so we expect that there will be many customer complaints.”

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| **OBSERVATIONS** | What does this graph tell you about the situation? How many service times were long? How many were short? |
| **INFERENCES** | What do we mean by “long service times” or “short service times”? What is wrong with the graph above? What doesn’t it show? |
| **QUESTIONS** | What information that you need is left unsaid by the graph? What questions about the data do you have that a more accurate representation of the data might help you answer? |
| **HYPOTHESIS** | What will happen to the graph if we change \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_? |
| **CONCLUSION** | Make an accurate sketch of what the new graph will look like. |