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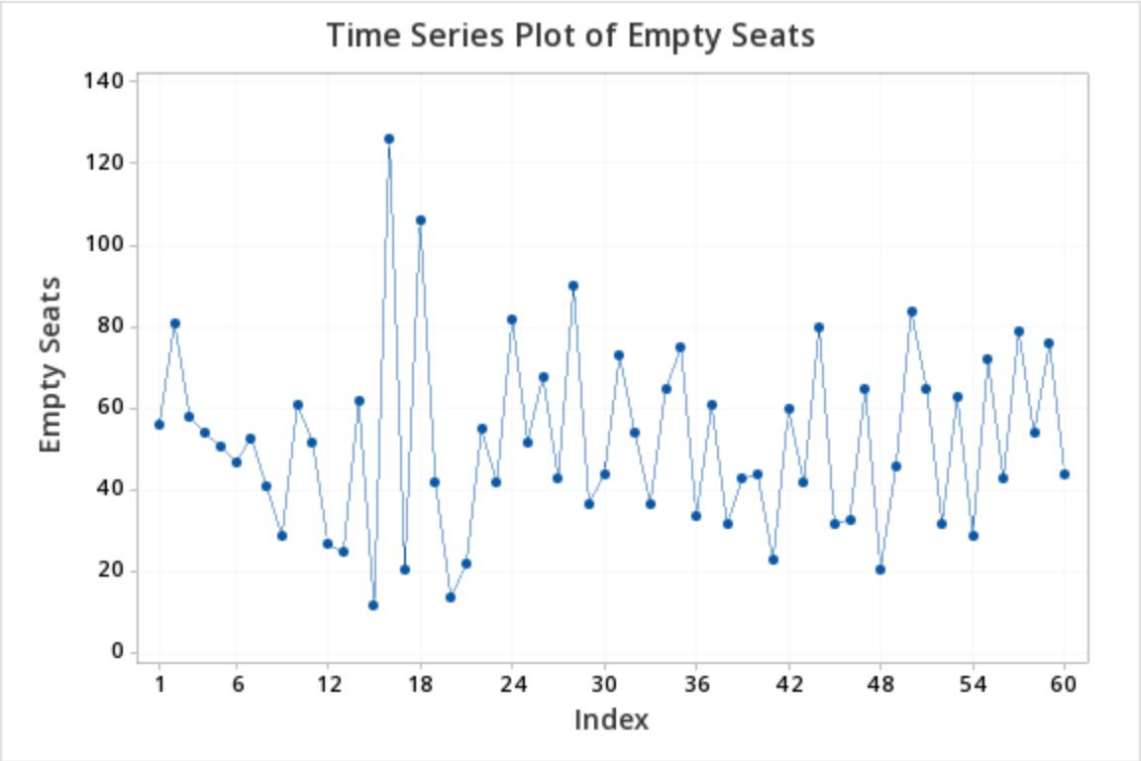
Process Capability

1. Provide a summary showing if the process is in control (stable) due to random variation, or if some patterns exist that might require investigation for special causes.
   - I was not able to get minitab to produce a binary logistic regression so I made a time series plot instead.

EMPTY THEATER SEATS PROBLEM.MTW

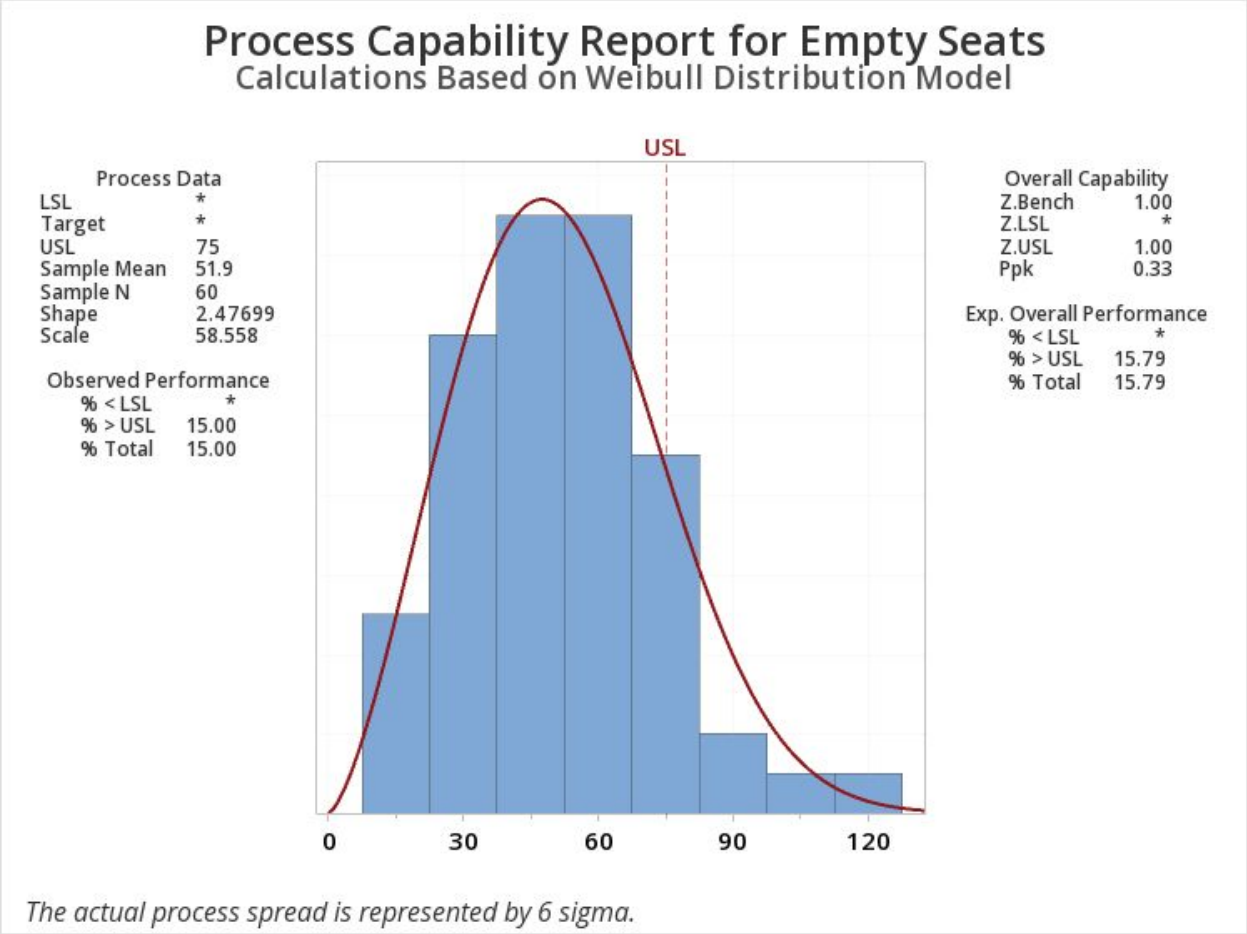
Time Series Plot of Empty Seats



It looks as though there was a general decline in empty seats at the beginning and then a spike. After the spike, there is a lot more variation in the number of empty seats.

2. Assume the general manager indicated that the goal is to have a maximum of 75 empty seats on any given day. Based on this goal, you are tasked to summarize the process capability. Illustrate how well is the process delivering what the customer (general manager) wants. In the end, the general manager would like to know the percent "out of spec" and the Sigma Level of the process.

- Here we can run a non-normal process capability report because the data is right skewed.



Here we can see that most of the data is below the upper bound of 75 empty seats. The Z.Bench is 1.00 which means that this is a 1 sigma process. 15% of the seats are out of spec.