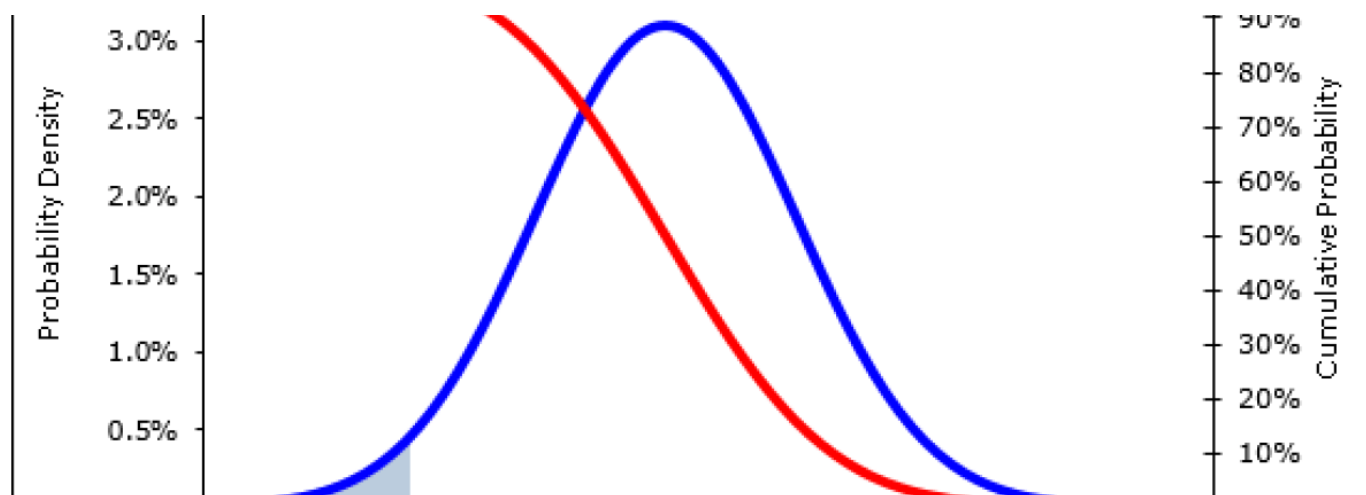


Chick-fil-A Sandwich Weight Normal Distribution



Have you ever grabbed a delicious Chick-fil-A sandwich and looked at how massive it was and showed all your friends how lucky you were that you struck gold with the size of your meal!

I wondered how big or heavy a sandwich would have to be in order to be statistically significant such that interrupting my friend's dinner with the discovery was worthwhile. In other words, how heavy did the sandwich have to be to justify saying "look how big this sandwich is"? Note: I do not work for Chick-fil-A, I just enjoy their sandwiches and had the thought to analyze their food.

Method:

Random restaurants in Tampa, FL over three months at various times of day. Always ordered the Chick-fil-A sandwich with no modifiers. Weighed the sandwich with the foil intact. Used the same scale for every sandwich. Measured weight in grams.

Results:

Low Weight: 170

High Weight: 218

Mean: 195.8

St. Dev: 12.89

Observations: 20

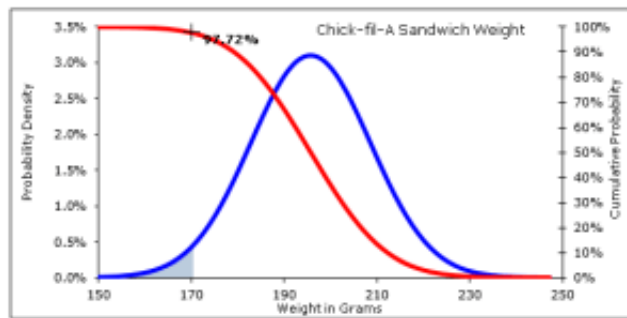
Using the normal distribution and the [68-95-99.7 rule](#), I determined any sandwich over

221 grams would be rare (2.5% chance) and anything over 234 grams (0.15% chance), you would be given full authority to interrupt the entire restaurant with your awesome discovery!

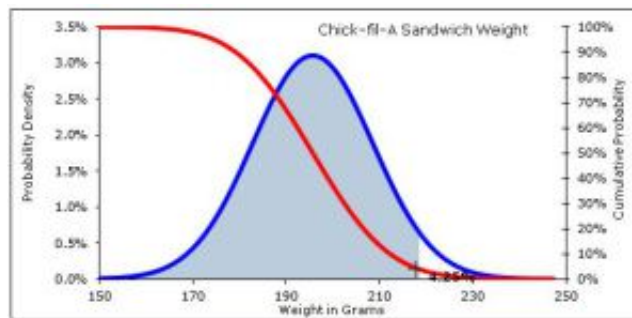
My 218-gram sandwich that I proudly hailed at the table, in between sips of iced-tea, had a 4.25% chance of happening, which was significant enough to take a picture, but maybe not to broadcast widely. My first measured sandwich, however being at 170 grams, was more significant at having only a 2.3% of occurring. My tears of my sadness were justified in realizing that I had received such a significantly smaller portion than normal.

Please note, the charts show 1-cumulative probability as to show the odds of getting a sandwich of said size.

The 170 – Gram Sandwich:



The 218 – Gram Sandwich:





This is the 218 Grammer:



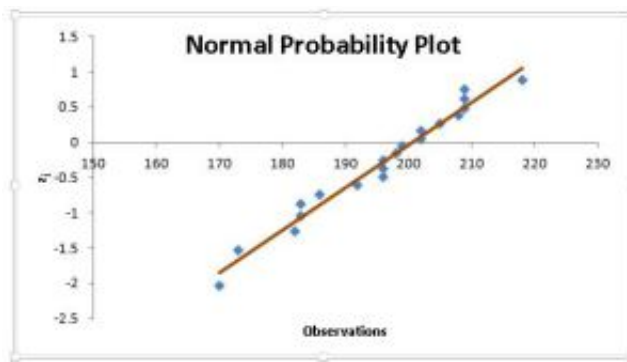
Please email me with questions or if you would like to see the data. Keep in mind, anything between 182-208 grams is within tolerance and is not special enough to stop and allow your fries to get cold.

Hope you enjoyed.

Aaron Medvick

www.restaurantstats.com

Update: Here is a normal probability plot:



Added in histogram of the data, with a couple extra sandwiches.

