
ISyE 2028 – Basic Statistical Methods - Fall 2015

Bonus Project: “Big” Data Analytics Proposal

Title: Hold Time on Calls to Customer Service

The problem that I want to research is the time spent on hold when people call customer service centers. My interest in this subject began this year when I had to call our internet provider twice -and stayed on hold for quite a while- to get the internet running again, and another time when I was put on hold by the bank when my card got stolen. I have read interesting articles about this topic, (including this one from TIME: <http://business.time.com/2013/01/24/you-probably-spent-13-hours-on-hold-last-year/> , and <http://www.dialogtech.com/blog/call-management/why-callers-on-hold-hang-up-on-you-an-ifbyphone-benchmarking-analysis-part-one>) some claiming that we will spend over 40 days on hold in our lifetime. Using these average hold times, the companies will hire the minimum number of employees so that, given the calls they expect to receive, the people will need to wait the average amount of time on the phone.

My data source will come from an anonymous survey of self-reported hold times, and I expect to have a sample size from 50-100 responses. After doing some research, I decided to narrow my scope down to a few questions, “How many minutes did you spend on hold (in one phone call this year)?” and “Did you hang up?” Most respondents will likely be from the Georgia Tech community, and it will show college student’s experience with calling customer service. This is a very specific sample, but with an increasing number of samples, I expect that it will start to look like a normal distribution of times with the average being somewhere around 13 minutes.

I expect the mean time on hold to be close to or equal to the national average, is 13 minutes per phone call. I will construct a boxplot and histogram of the data, as well as calculating the basic descriptive statistics. I will also use R to develop confidence intervals for the mean, which, along with other descriptive statistics, should be able to give an accurate depiction of how long a person waits on hold in any given call to customer service. There are many surveys and averages about the amount of time spent on phone calls that vary greatly, it will be interesting to see how my survey results compare to those reported by other companies and surveys. There are results ranging from 43 days to over a year spent on hold in one’s lifetime, I will also do more research on reasons why these differences exist.

http://www.soundresultsonhold.com/on_hold_stats_studies.html