Pizza Hackathon

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1. The locations where the Pizza Principle holds are at the Little Neck station and Far Rockaway station in Queens. Both of their mean pizza slice prices are at $2.50 which is the price for a subway single ride ticket in 2014.
2. The subway locations where the Pizza Principle does not hold true are the Astoria, Brooklyn, Elmhusrt, Flushing, Howard Beach, Jamaica, Jackson Heights, Kew Garden, New York, and Woodhaven stations, although the New York Station’s median price is $2.50 which does hold true with the Pizza Principle
3. There are no discernible trends regarding the ride data and the mean price for a slice of pizza. A scatterplot of mean pizza prices on the Y axis with metro ride data from July 2014 yielded a r-squared value of 0.09576 indicating there was no correlation between mean pizza prices and average number of riders per station.
4. Since there is no correlation between mean slice of pizza prices and subway usage for the stations investigated in the study, the only recommendation to help increase pizza consumption in New York City is target those stations that had the most commuters access them which would be the Brooklyn and Jamaica station.

Table 1. 2014 NYC Subway Fare Prices by MTA Station

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| MTA Station | Borough | Mean | Median | LL | UL |
| Astoria | Queens | 4496.7 | 319 | 16 | 27515 |
| Brooklyn | Brooklyn | 12500.2 | 1341 | 241 | 93779 |
| Far Rockaway | Queens | 2158 | 183 | 1 | 25036 |
| Elmhurst | Queens | 5618.8 | 406.5 | 3 | 42056 |
| Flushing | Queens | 2021 | 149 | 1 | 22202 |
| Howard Beach | Queens | 2219.51 | 117 | 1 | 18149 |
| Jackson Heights | Queens | 4616 | 300 | 1 | 100706 |
| Jamaica | Queens | 10781 | 751 | 1 | 70389 |
| Kew Gardens | Queens | 7241.1 | 682 | 47 | 42872 |
| Little Neck | Queens | 1500 | 247 | 1 | 10270 |
| New York | Manhattan | 2913.8 | 343.5 | 1 | 18324 |
| Woodhaven | Queens | 3940 | 308 | 1 | 48552 |

Contribution Statement

The data inquiry questions 1 and 2 were discussed and answered as a group during a meeting and typed up in the report by Nataniel. The table information for Table 1 was found using R Studio and the data was transferred into Microsoft Excel by Adria and Ailssa for the mean, median, minimum (Lower Level) and maximum (Upper Level). The analysis of the MTA and Pizza Price data was found using R Studio code written and analyzed by Ana. The remaining data inquiry questions were then discussed as a group, and the overall data was analyzed and written by Nataniel in the report.