

Determining the Optimal Location for a New Chipotle Restaurant in Queens, New York

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1 Introduction

The “fast-casual” restaurant style has grown rapidly in popularity over the past decade. These restaurants straddle the border between fast food and traditional full table service restaurants, promising higher quality ingredients than at fast food restaurants at a lower price point than full-service restaurants.

In this report, we use demographic data as well as collected user preference and existing restaurant location data to try to determine attractive areas for opening a new fast-casual restaurant location. Specifically, we try to find areas in Queens, New York where we expect the chain Chipotle Mexican Grill to be popular and face relatively less competition. Accordingly, this report is targeted at the regional management of Chipotle. However, the data and analysis are relevant to a variety of stakeholders in the restaurant industry.

2 Data

The two main sources of data we use are demographic data from the US Census Bureau, and venue data from Foursquare.

We were able to obtain census-tract-level demographics using the US Census Bureau online API. Specifically, we used data from the 2019 American Community Survey 5-year estimates. We pulled tract-level data from the Detail Tables and Subject Tables to get information on the population’s education, income, age, and ethnicity.

We also obtained geometric data for the census tracts using the Census TIGERweb REST API. This data is used for map visualizations, Foursquare location searches, and normalizing demographic data by tract land area.

We used the Foursquare Places dataset for two purposes. First, we used the venues/listed endpoint to determine the categories of venues that occurred in lists along with Chipotle. We used the most frequently occurring categories to serve as an estimate of the competitors of Chipotle. We then used the venues/search endpoint to determine the number of competitor venues in the vicinity of each census tract.