

## Introduction/Business Problem

A new bar, ABC Bar is opening in Philadelphia, PA. It is looking for ways to increase customer satisfaction. One idea they have is to offer drink specials on a Saturday and advertise it on <https://philly.thedrinknation.com/specials/Saturday>. To explore whether this would be a useful strategy for increasing customer satisfaction, ABC Bar will perform a data science study to see whether posting a Saturday special on thedrinknation.com correlates with increased Foursquare likes in Philadelphia, PA as an indicator of customer satisfaction.

## Data

First, all Philadelphia bars advertising specials on <https://philly.thedrinknation.com/specials/Saturday>, and their addresses, will be scraped using the python packages requests and beautiful soup. The addresses scrapped will then be used to make FourSquare API calls to get the number of Foursquare likes for each of these bars. Next, the FourSquare API will be called again using the "Bar" categoryID to get a list of all the bars in Philadelphia. Bars appearing in both this list and the list of bars advertising on drinknation.com will be removed in order to get a list of bars in Philadelphia, PA that do not advertise a Saturday special on drinknation.com. The FourSquare API will be used again to get the number of FourSquare likes for each of the Philadelphia, PA bars that do not have a Saturday special that they advertise on thedrinknation.com. Linear regression will then be used to determine whether having a Saturday special, and posting it on thedrinknation.com, predicts a bar's number of Foursquare likes.