OIDD898 Homework 2 Jordan Farrer

The R code that built this can be found in .

1) 5 cities to open your first stores

In order to create a set of 5 cities to open the first stores in I started with a list of the 298 largest cities in the US and filtered down to the those in the 19 Midwest states specified by the FiveThirtyEight. I attempted to use these in Facebook Ads; however, I did not find the filters useful enough. Instead, I decided to look at the popularity of the words "weed", "cannabis", "marijuana", and "pot" on election day (Nov 8, 2017) across the US¹. The choice of election day was to identify people curious if the legalization of marijuana was on the ballot. In addition, this allowed each state could get a score. City-level data was not possible here. Then, I combined the two datasets ranked the cities based on being in a state with a high-level of popularity for the weed related terms and the largest population. Noteably, four of the top five are cities in CO where this was not a ballot question, though it was in Montana (and North Dakota - #13).

Rank	City	State	Population	Google Trends State Value
1	Billings	Montana	108,869	91
2	Denver	Colorado	663,862	84
3	Colorado Springs	Colorado	445,830	84
4	Aurora	Colorado	353,108	84
5	Fort Collins	Colorado	156,480	84
6	Lakewood	Colorado	149,643	84
7	Thornton	Colorado	130,307	84
8	Arvada	Colorado	113,574	84
9	Westminster	Colorado	112,090	84
10	Pueblo	Colorado	108,423	84

Table 1: Order of Cities to Open Stores (incl. Top 5)

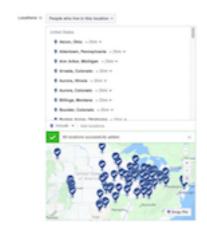


Figure 1: Attempt to use Facebook Ads

2) Hours your store will be opened

Google Trends only has hourly data if you look at data for the past 7 days. I did this for Washington state and Colorado (separately because it cannot be done combined). As these are two states with recreational marijuana people may search for "dispensaries near me". I wanted to find when this was most common. I used terms "dispensary" or "dispensaries" for WA² and CO³ and plotted the two time series below. From this charts, I would have the stores open from noon to 3am each day except Sunday (early close at midnight).

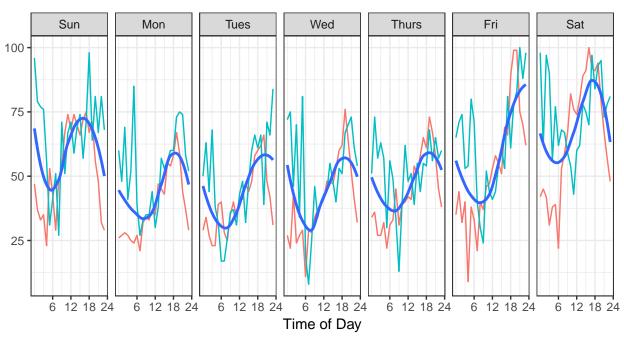
 $^{^{1}} https://www.google.com/trends/explore?date=2016-11-08\%202016-11-08\&geo=US\&q=weed\%2Bpot\%2Bcannabis\%2Bmarijuana \\ ^{2} https://www.google.com/trends/explore?date=now\%207-d\&geo=US-WA\&q=dispensary,dispensaries,dispensary\%20\%2B\%20dispensaries$

 $^{^3} https://www.google.com/trends/explore?date=now\%207-d\&geo=US-CO\&q=dispensary, dispensaries, dispensary\%20\%2B\%20 dispensaries$

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Google Trends Popularity of 'dispensary or dispensaries'





Feb 8, 2017 9:00pm to Feb 15, 2017 7:00pm

3) 2 foods to sell in your store in addition to the marijuana