# Site Suitability Analysis: Opening a New Bar in Portland, OR

Prime Locations for Traditional Bars to Serve 20-29 Year-Olds

Portland State



# METHODOLOGY

Our study area is Portland, Oregon. In order to give the bar developer maximum flexibility with potential clientele, we created two maps. The first map displays areas suitable for capturing younger, single patrons with an orientation toward nightlife, shows, and entertainment. The second map displays areas suitable for capturing older, family-oriented patrons with an orientation toward a family-friendly environment. Six parameters were used to complete the weighted overlays, four per overlay: current bar density (used for both overlays), proximity to transit stops(used for both overlays), count of 20 year old residents per tract, count of 30-40 year old residents per tract, count of family households per tract, and count of nonfamily households per tract. In order to use the the Weighted Overlay tool, each layer parameter had to be rasterized. To obtain the proper weights, Bolstad's methodology from GIS Fundamentals (531-533) was used, along with research conducted by Kunsoon Park and input from an industry professional. The final product was then clipped to areas zoned for bars. The processes undertaken for each layer are as follows:



### Bar Density

Weight for youth bar map: 20%, Weight for family bar map: 10% Bar locations were batch geocoded from a Google list, finding 267 bar locations. The resulting point layer was then run through a Kernel Density filter with a search radius of 1/4 mile, as this is the limit most people are willing to walk to businesses. We then reclassified the densities using natural breaks with 5 classes, giving preference to high density areas.

### Public Transit: Walking Distance

Weight for youth bar map: 30%, Weight for family bar map: 20% A layer containing Max Light Rail and streetcars were run through the Euclidean Distance tool. The result was manually reclassified into five classes, with the second class threshold at  $\frac{1}{4}$  mile, as this is the limit most people are willing to walk to businesses.

### Population: Age 20-29

Weight for youth bar map: 40%

The ACS 2015 age table was joined to a Portland census tract layer. Ages 20-24 and 25-29 were added together in a new field. The layer was reclassified into five classes based on this new field using natural breaks classification.

# INTRODUCTION

Portland falls within the top 10 cities for bar-density per capita (Williams), hence, it can be difficult finding a location to open a new bar. With over 200 bars already within the city, finding the right location can be crucial to the success of a potential business owner. The goal of this project is to find suitable sites based on the following criteria:

- already existing bar locations
- walking distance from Trimet MAX and Streetcar stops
- age brackets from 20-29 and 30-49 years old
- non-family households and family households

Finding the perfect location can contain a great amount of nonquantifiable data, such as personal preference of a customer base (i.e. a dive bar, biker bar, dance club, etc.) and whether or not the local consumers frequent bars as often as a potential bar owner would like. Instead, we have conducted a site-suitability analysis based on quantifiable data presented in our methodology section. By using this data, we can show the best and next best potential locations to open a bar in Portland.

> Our analysis has shown the prime location to place a traditional bar would be in downtown Portland. The clustering in downtown was not unexpected as this matches the real-world location of most of Portland's bars. What was less expected was the spread of prime locations for more family-oriented bars in our second map. The primary cause of this spread could be attributed to families living further out from the city center, whereas younger, single, people tend to gravitate towards downtown. To test our analysis, we geocoded several newer bars within Portland and found that our model was correct, at least in relation to this sample. For the traditional bars, we found that out of the 8 bars in our sample, 5 of those bars fell within our prime area, while the other 3 fell into the second best location. For the family-oriented bars, 1 fell within our prime area and 7 were within the second best area. With these new bars falling within our analysis area, we are confident that this analysis could be used in helping site a new bar within Portland.

Family Households Weight for family bar map: 30% The ACS 2015 family table was joined to a Portland census tract layer. Family households were added up into a new field. The layer was then reclassified into five classes based on this new field using a natural breaks classification.

Non-Family Households Weight for youth bar map: 10% The ACS 2015 family table was joined to a Portland census tract layer. Nonfamily households were added up into a new field. The layer was then reclassified into five classes based on this new field using a natural breaks classification.

Population: Age 30-49 Weight for family bar map: 40% The ACS 2015 age table was joined to a Portland census tract layer. Ages 30-39 and 45-49 were added together in a new field. The layer was reclassified into five classes based on this new field using natural breaks classification.

### Prime Locations for Family-Oriented Bars to Serve 30-49 Year-Olds



## RESULTS

With Portland being the 19th largest growing city in the country (Beebe), new businesses will find opportunity with the growing population if they can find the right location to place their stakes. Alcohol has historically been significant in social and cultural development (SIRC), and this analysis can help future business owners connect to this market of culture by building bars where people will have the greatest access to them.

Beebe, Craig. "Portland Region Nears 2.4 Million Residents, Growing By 41,000 Last Year". Metro. N.p., 2016. Web. 14 Mar. Bolstad, Paul, Gis Fundamentals, 4th ed, Acton: Xanedu, Print, Gilhooly, Mary L. M. "Reduced Drinking With Age: Is It Normal?". Addiction Research & Theory 13.3 (2005): 267-280. Web. 14 Mar. 2017. Norwick, Hannah. "How To Make It: Rules For Opening Your Own Bar". First We Feast. N.p., 2013. Web. 14 Mar. 2017. Park, Kunsoon. "Identification Of Site Selection Factors In The U.S. Franchise Restaurant Industry: An Exploratory Study". Virginia Tech, 2002. Web. 14 Mar. 2017. Regional Plan Association of New York, Building Transit-Friendly Communities. 1997. Web. 14 Mar. 2017. "Social And Cultural Aspects Of Drinking - Culture Chemistry And Consequences". Sirc.org. Web. 14 Mar. 2017.

2017. Web. 14 Mar. 2017.

### CONCLUSION

### REFERENCES

Vinh, Tan. "Where To Go For Dining And Drinks In Portland? It's Rocking Across The Willamette". The Seattle Times. N.p.,