

Portland's Best Beer Neighborhoods

The craft brewery scene, which had nearly disappeared from most American cities, is now returning by force in many cities around the country. The city of Portland currently holds the title for most breweries in the world, with the total continuing to grow. Breweries have become an important part of Portland's culture, for those who live here and for tourists alike.

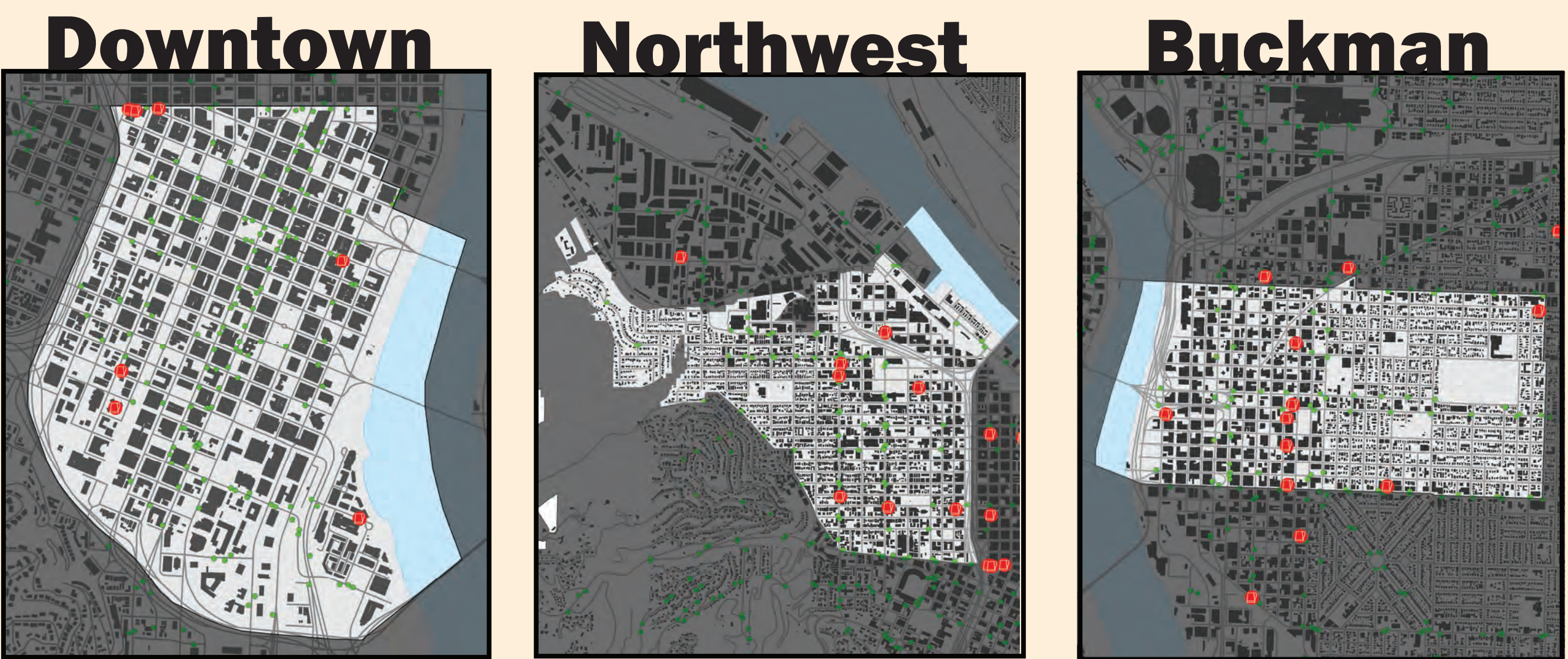
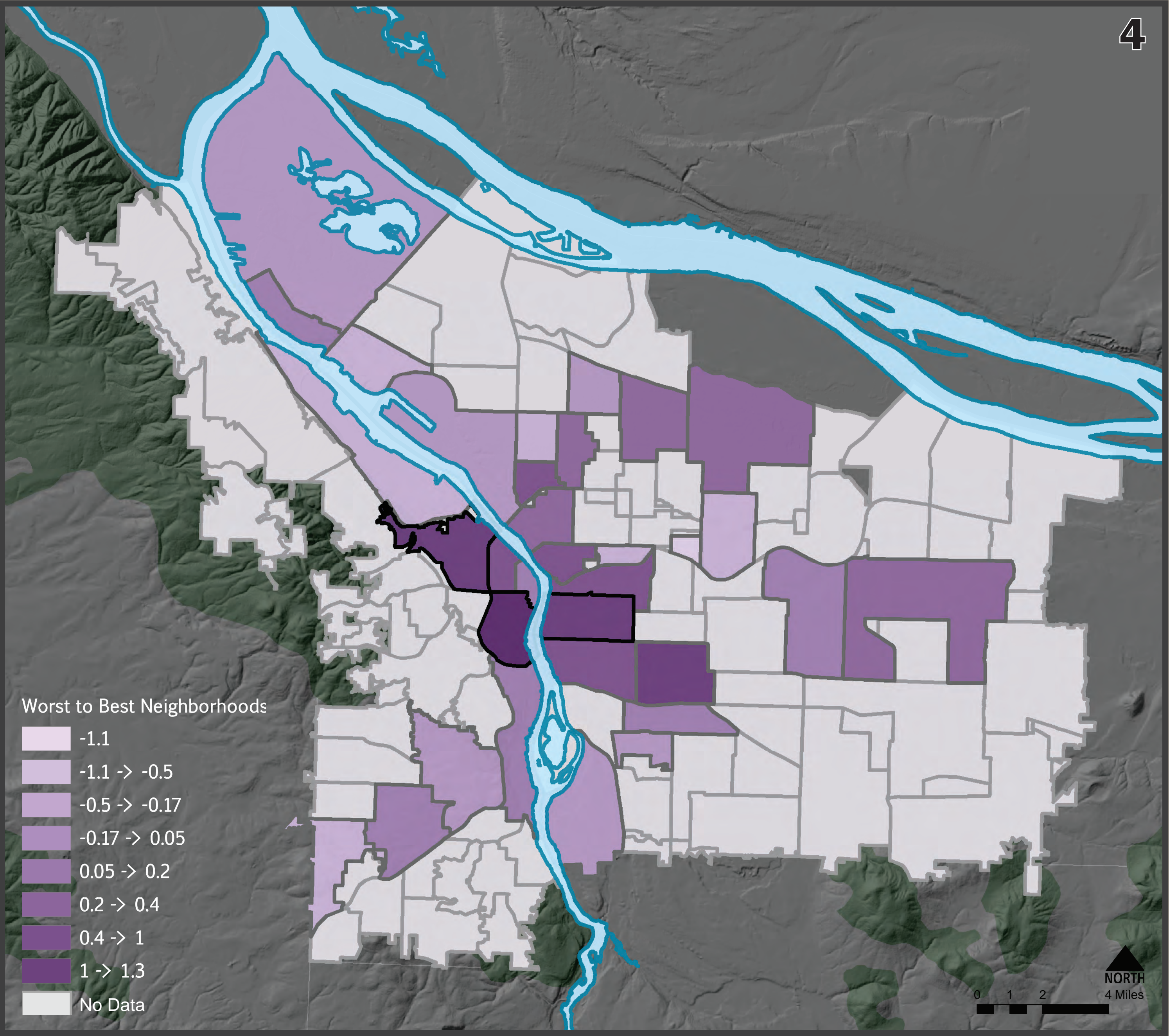
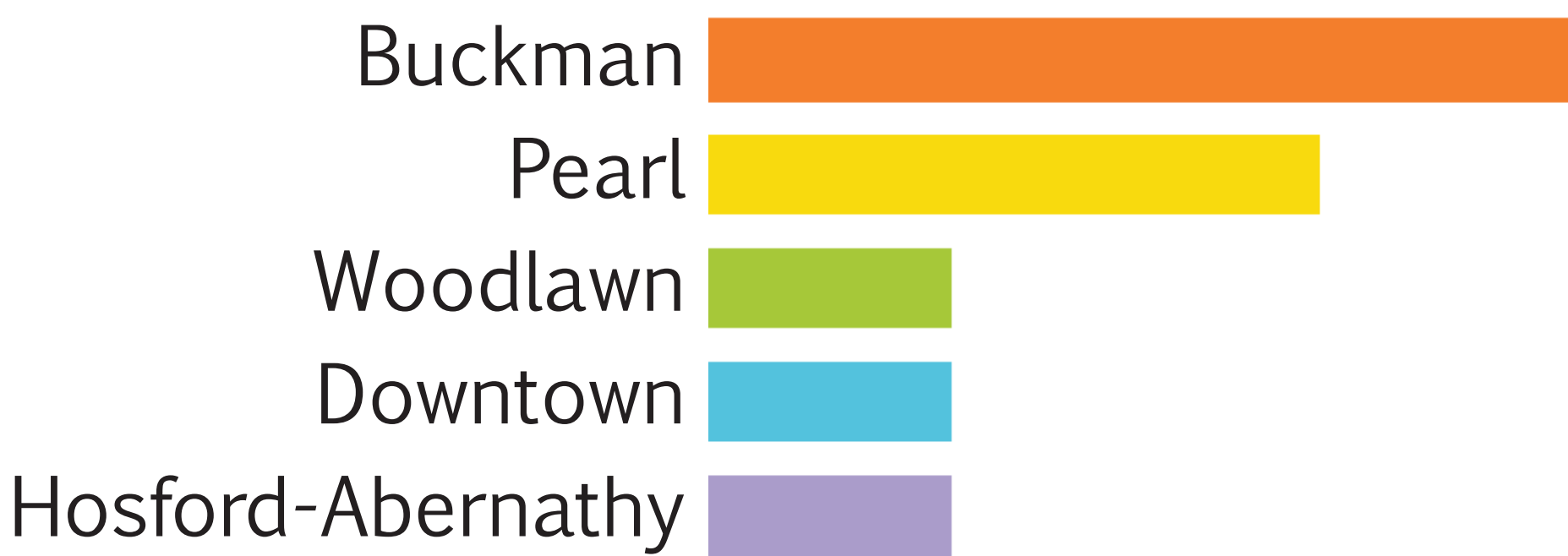
STUDY AREA

The area chosen for this study was all Portland neighborhoods containing breweries that are currently open and operational. This was chosen, because people living in, moving to, or visiting Portland could easily understand which neighborhood would be the best to visit for breweries.

DATA COLLECTION

Brewery location data was collected from the Brew Public's Brew-Ha pamphlet that included an entire list of currently operating breweries all over Oregon. This list included their addresses and was basis for which breweries were used in the analysis. The addresses were then geocoded to coordinates that could be projected onto the Portland neighborhoods study area in ArcMap. Brewery review data was collected from the popular online site, Yelp.com. This site is used by local people to rate businesses on a scale from 1-5 stars based off of their general experience (including taste, price, atmosphere, etc.). This data was then averaged for each neighborhood. Transportation stop data was collected from Metro's Regional Land Information System Database.

SURVEY RESULTS



METHODOLOGY

Four Model Analysis

Original data for all three models were normalized by calculating the z-score for each variable using this equation $[z = (x - \mu) / \sigma]$. The z-score was then used to apply different weights of importance to express different ways to choose which neighborhoods were best:

1) Average Brewery Reviews Model

Reviews of each individual brewery were acquired through Yelp on a scale rating from 0-5. These ratings were averaged for each neighborhood containing a brewery. This model weighted reviews higher than brewery density and accessibility (reviews=50, density=25, transportation=25).

2) Transportation Model

Neighborhoods were buffered (1/4 mile), then all max transit, streetcar, and bus stops were and totaled for each neighborhood polygon. This model weighted accessibility higher than brewery reviews and density (transportation=50, density=25, reviews=25).

3) Brewery Density Model

Brewery addresses were geocoded and displayed on top of the Portland neighborhoods layer. This model weighted density per neighborhood higher than brewery reviews and accessibility (density=50, reviews=25, transportation=25).

4) Equal Weight Model

This model weighted all three variables equally (density=33, reviews=33, transportation=33) to show which three neighborhoods in Portland would have breweries that were near the most other breweries, had the highest rating, and was the easiest to access by public transportation.

CONCLUSION

By normalizing the three variables our results show that the top three overall best neighborhoods for breweries are: Downtown, Northwest, and Buckman. The results for the weighted analyses were the same, except when reviews were weighted over both transportation and density. This model showed that Richmond had higher reviewed breweries than Buckman.

