Iowa Alcohol Consumption Data Expectations

Based on prior studies of alcohol consumption patterns in the United States, we have some general expectations for what the results from the Iowa alcohol data will show. Intuitively, counties with the highest population will also most likely have the highest amount of alcohol consumption and a greater amount of liquor stores. The five biggest cities in Iowa are Des Moines, Cedar Rapids, Davenport, Sioux City, and Iowa City, so we can expect those associated counties to have more alcohol consumption than more rural areas of Iowa. There are also several large universities in Iowa located in Ames, Iowa City, Cedar Rapids, Cedar Falls, and Davenport. The higher concentration of young people in university areas might result in more alcohol consumption in those areas. We anticipate that university sessions will have a large impact on alcohol consumption, with alcohol consumption decreasing by a significant amount during the summer when students are not on campus.

Based on the literature review, there is an indication that areas with a higher population of registered democrats tend towards more alcohol consumption compared to republicans. Historically, Iowa has had a higher concentration of registered democrats in the more urban areas of central and eastern Iowa. However, the majority of Iowa is rural with a higher proportion of republican support.

There are several major events that we expect to have an impact on alcohol consumption in Iowa. Alcohol is often used during celebratory events, so we expect increased levels of alcohol sales around major holidays celebrated in Iowa, specifically New Years, Independence Day, Thanksgiving, and Christmas. There are also celebratory events that could increase alcohol consumption levels, such as the Iowa State Fair, Old Thresher’s Festival, and university football games. The Iowa State Fair is held in Des Moines and takes place over a span of 11 days in August It also doubles as a political event, as many presidential candidates use the fair to gather support for their campaigns. Old Thresher’s Festival is held in Mt. Pleasant over several days in September and brings in people from around the state to celebrate the start of harvest. Tailgates for Iowa State and University of Iowa football games also represent major cultural events that are often associated with increased alcohol consumption.

We expect that alcohol sales will spike around major holidays and cultural events and will crash when universities are out of session (May-August). Around major political events, we expect alcohol consumption for certain demographics to increase or decrease based on outcome. Specific political events that we believe may impact alcohol consumption are the Iowa caucus (February 1), the general election debates (September 26, October 9, October 19), and election day (November 8).

Description of Dataset

The dataset was published by the Alcoholic Beverages Division and provided by the Iowa Department of Commerce and is part of an ongoing series of public alcohol consumption datasets provided by the Iowa state government. The dataset contains over 3 million data descriptors of individual alcohol purchases occurring in Iowa between January 1st, 2014 and October 1st, 2017. Each data point lists the date of the purchase, the name of the store selling the purchase, store address, city, county, product brand, item description, bottle volume in milliliters, cost of the alcohol, cost of alcohol including tax, number of bottles sold, total purchase cost, and volume sold in liters and gallons.