1. The following states are shown with each state and the amount of breweries it has.
   1. Alaska has 7, Alabama ahs 3, Arkansas has 2, Arizona has 11, California has 39, Colorado has 47 and so forth. The rest of the list may be found on the HTML document.
2. After merging the Beer and Brewery data we have 2410 rows of data.
   1. The first 6 observations to our data are:
3. Brewery\_id Name.x Beer\_ID ABV IBU
4. ## 1 1 Get Together 2692 0.045 50
5. ## 2 1 Maggie's Leap 2691 0.049 26
6. ## 3 1 Wall's End 2690 0.048 19
7. ## 4 1 Pumpion 2689 0.060 38
8. ## 5 1 Stronghold 2688 0.060 25
9. ## 6 1 Parapet ESB 2687 0.056 47

b. The last 6 observations of our data are:

## Brewery\_id Name.x Beer\_ID ABV IBU

## 2405 556 Pilsner Ukiah 98 0.055 NA

## 2406 557 Heinnieweisse Weissebier 52 0.049 NA

## 2407 557 Snapperhead IPA 51 0.068 NA

## 2408 557 Moo Thunder Stout 50 0.049 NA

## 2409 557 Porkslap Pale Ale 49 0.043 NA

## 2410 558 Urban Wilderness Pale Ale 30 0.049 NA

1. In order to address our missing values for each column, it was important to omit missing values, duplicates and NAs.
2. Look at bar chart to understand the answer.
3. The state with the maximum ABV and IBU happens to be Maine.
4. For the summary of the statistics and distribution of the ABV variable happens to be around 0.052. The data is right skewed.
5. The relationship between the bitterness of the beer and its alcoholic content appears to be linear and positive. Thought there are many outliers that are represented, the general observation is that the data are climbing. That is to say that the data are positively growing.
6. The model predicts that it will be an IPA with a prob of 66%. It would seem that the higher the IBU and ABV are, the higher the indicator is of a data point to be an IPA.
7. We should look for eligible states for appropriate target market by using ABV. If you want to make an IPA here are the states Budweiser should invest in. These are the top 5 states #1 " CT" 0.0745 #2 " NV" 0.0695 #3 " DC" 0.069 #4 " CO" 0.0674 #5 " MD" 0.0668
   1. If you want to market or make Ale, here are the states Budweiser should look into. These are the top 5 states# 1 " AR" 0.04 #2 " KS" 0.0528 #3 " ND" 0.054 #4 " WY" (Wyoming) 0.0547 #5 " MO" Missouri 0.0549