# Beers and beer reviews: BeerAdvocate.com

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## Data: Beers, breweries and Beer reviews (Kaggle)

Covers years ~1998-2019, although early data quite sparse.

#### Data on:

- Beers (ABV, Style, Seasonality, etc.)
- Breweries (Location, restaurants)
- Beer reviews (Beer name/id, comments, and five numbers: taste, smell, feel, overall.



## What this data set tells us

- For a craft beer, for example Long Trail IPA, we know how many people reviewed that beer on BeerAdvocate.
- Difficult to obtain standardized sales figures (i.e. units sold) from all breweries.
- We don't know #units sold.
- Using number of reviews as an approximate indicator of interest/popularity (more reviews ~ more people purchased).

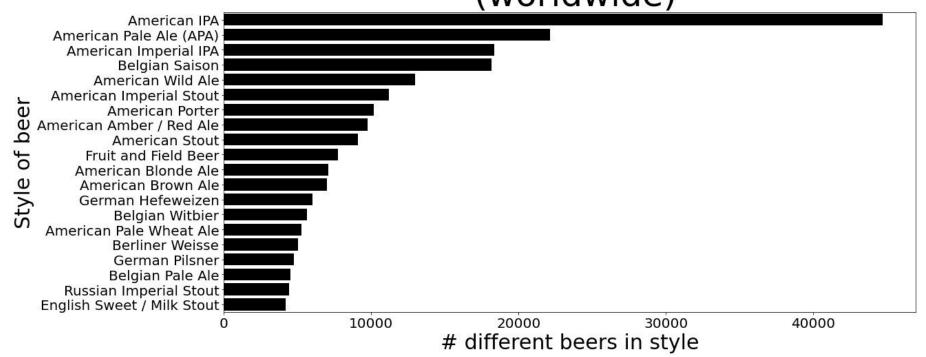
## Questions about the data

- What style of craft beer is most commonly produced?
- What style of beer is highest rated?
- What is the trend in alcohol content?

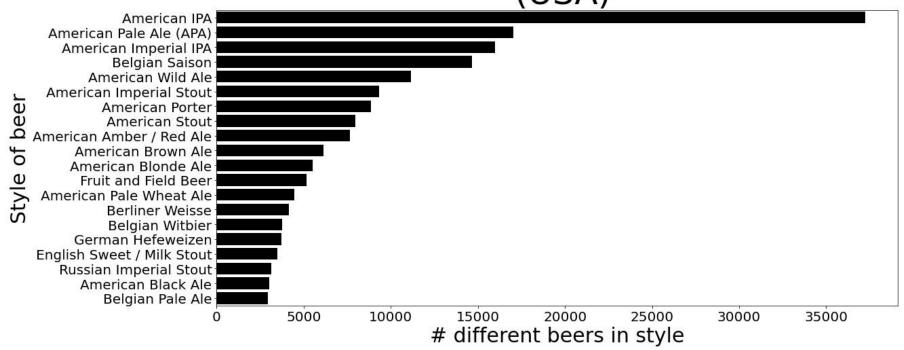
## Data processing

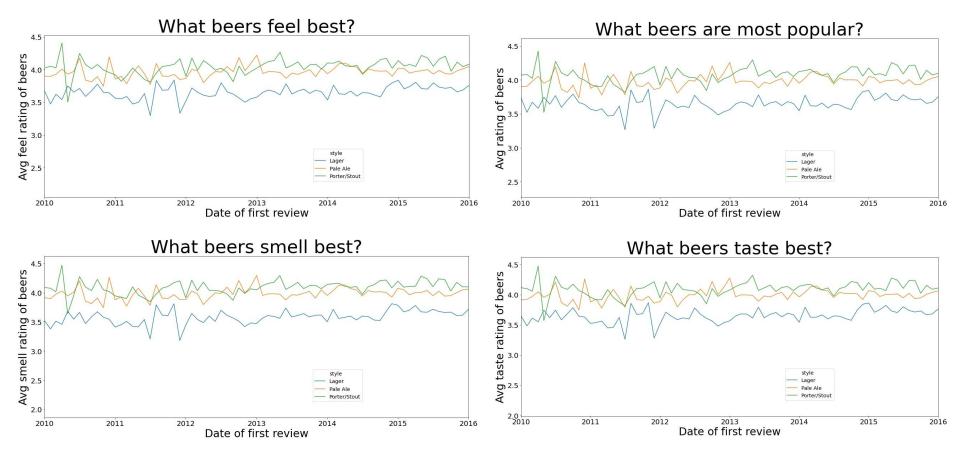
- Use "date of first review" as a substitute for "release date." (Older beers this is silly.)
- Too many styles (> 100) to analyze all of them.
   Bin most into three groups: Pale Ales, Lagers, and Stouts/Porters
- Simplify date to only include month and year.

## Top 20 Most Popular Craft Beers (worldwide)



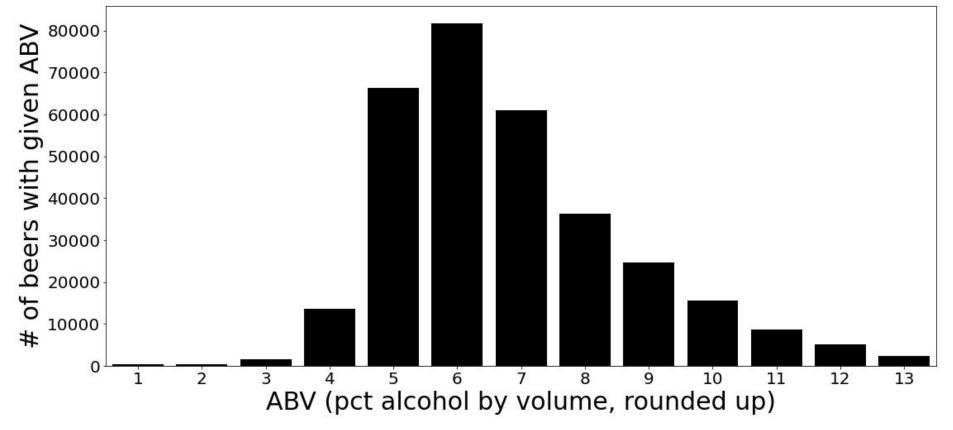
## Top 20 Most Popular Craft Beers (USA)



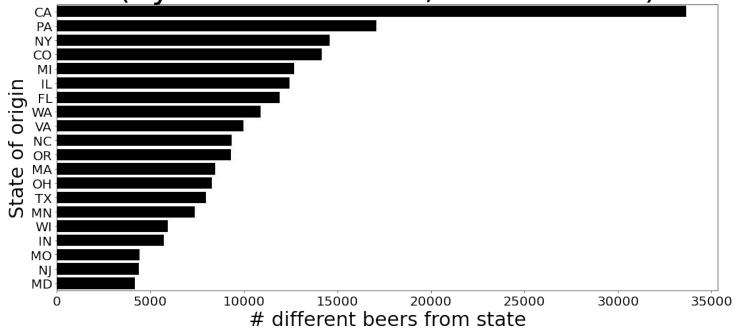


Popularity = overall score assigned to beer. All ratings fairly similar.

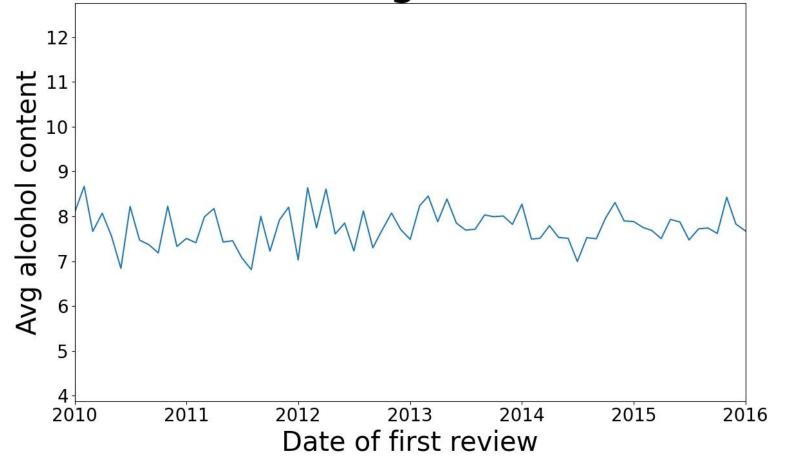
#### How much alcohol do beers contain?



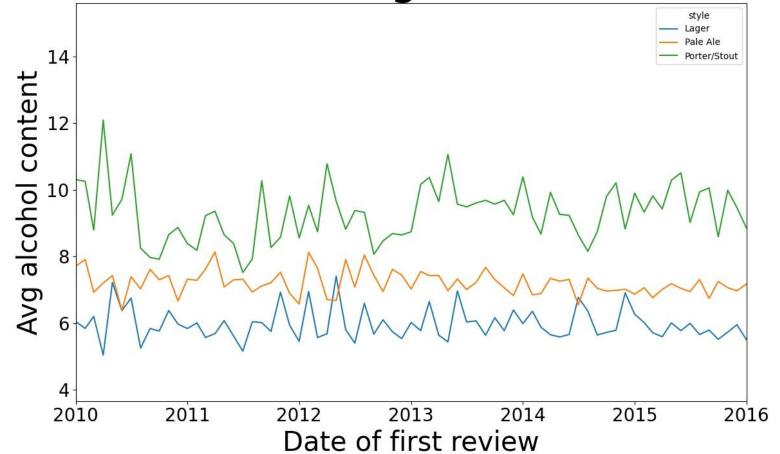
Which states release the most craft beers? (by different beers, not total vol)



## What is the average alcohol content?



What is the average alcohol content?



#### Conclusions

- As the number of craft beers on the market has increased, some fairly consistent patterns have emerged:
  - Porters and stouts are the most consistently well-reviewed
  - IPAs and their analogues come in second
  - Lagers receive the worst reviews
- The alcohol content has generally stabilized as well (assuming you exclude outliers) and it follows the same pattern as the reviews.
- Despite the fact that porter/stout is the most well-reviewed style of beer, more IPA-style beers are brought to market than any other.