



Finding The Right Bud

Presentation to CEO & CFO of Budweiser

Pinnacle Economics, LLC

Todd Garner: Presenter

SMU DS 6306 - Project 1

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Agenda

- Go through questions posed by Budweiser
- Summarize insights from the data
- Recommendations



Budweiser Beer

“Budweiser is a medium-bodied, flavorful, crisp American-style lager.”



<https://us.budweiser.com/>

5% Alcohol by Volume
(ABV)

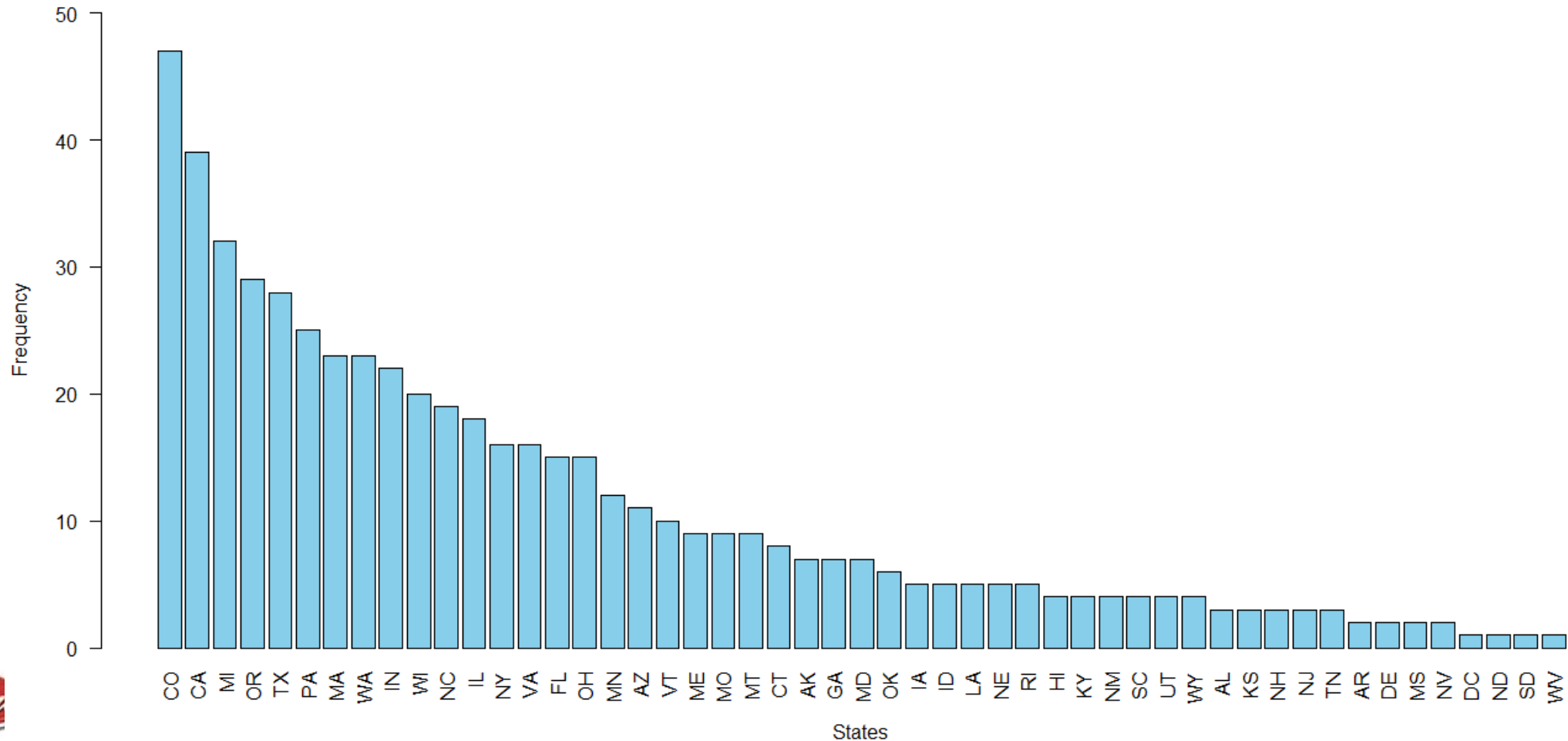
12 International
Bitterness Units (IBU)

https://worldfood.guide/list/list_of_beers_in_america_by_alcohol_content_abv/



Breweries by State

Number of Breweries by State



Budweiser USA Breweries



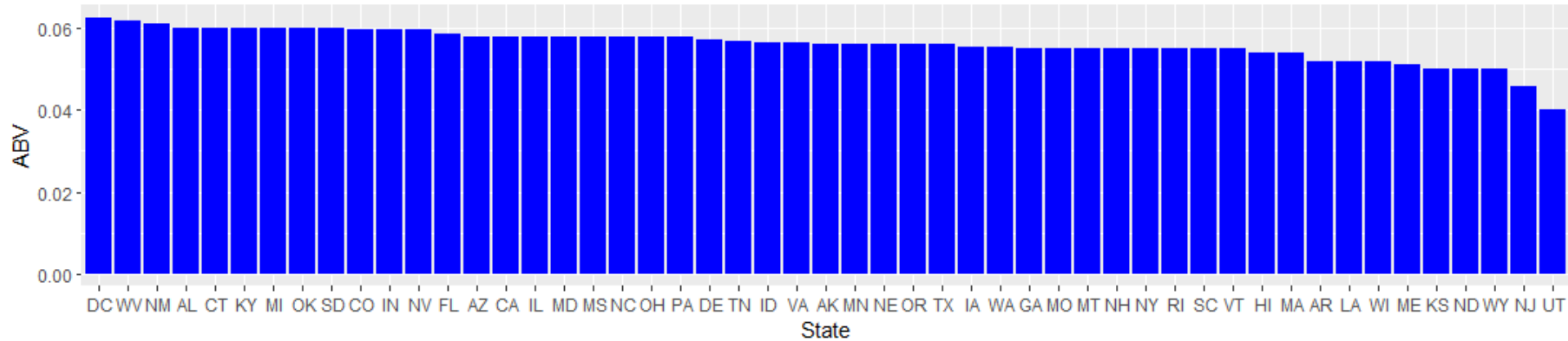
ADDRESSING THE MISSING DATA

- 1005 missing IBU values - 2,410 total data observations:
- 62 missing ABV values - 2,410 total data observations
- Conclusion: IBU is important for Brewers, but not particularly relevant to the consumer. ABV is important for all stakeholders
- Result: We've taken the MEDIAN of both ABV and IBU so as not to skew the data averages.

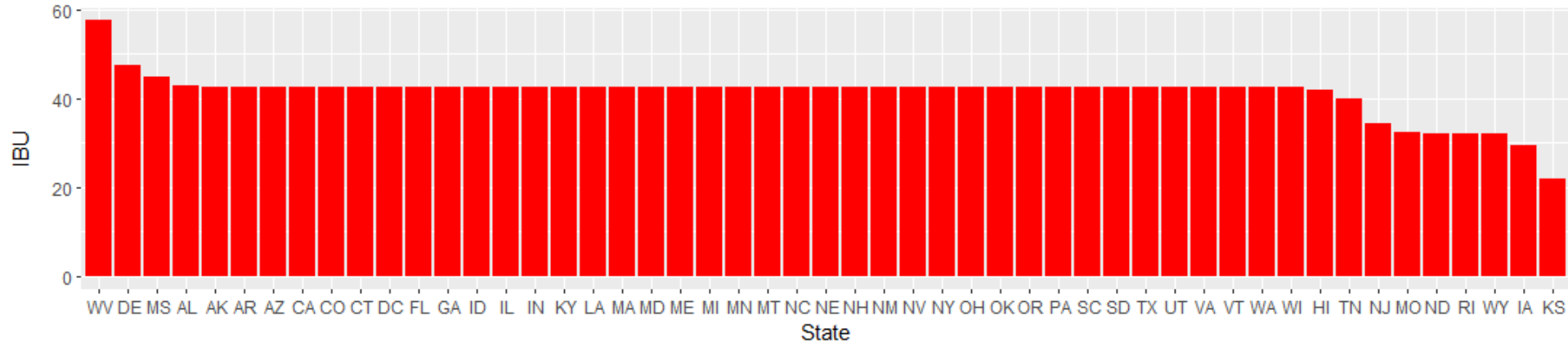


MEDIAN VALUES FOR ABV & IBU BY STATE

Median Alcohol by Volume by State

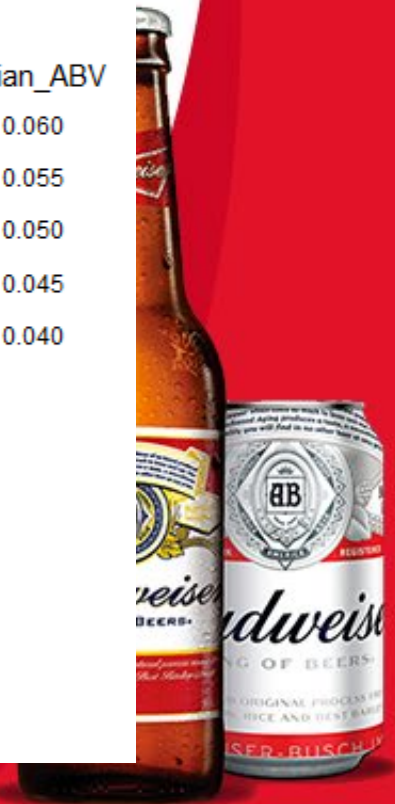
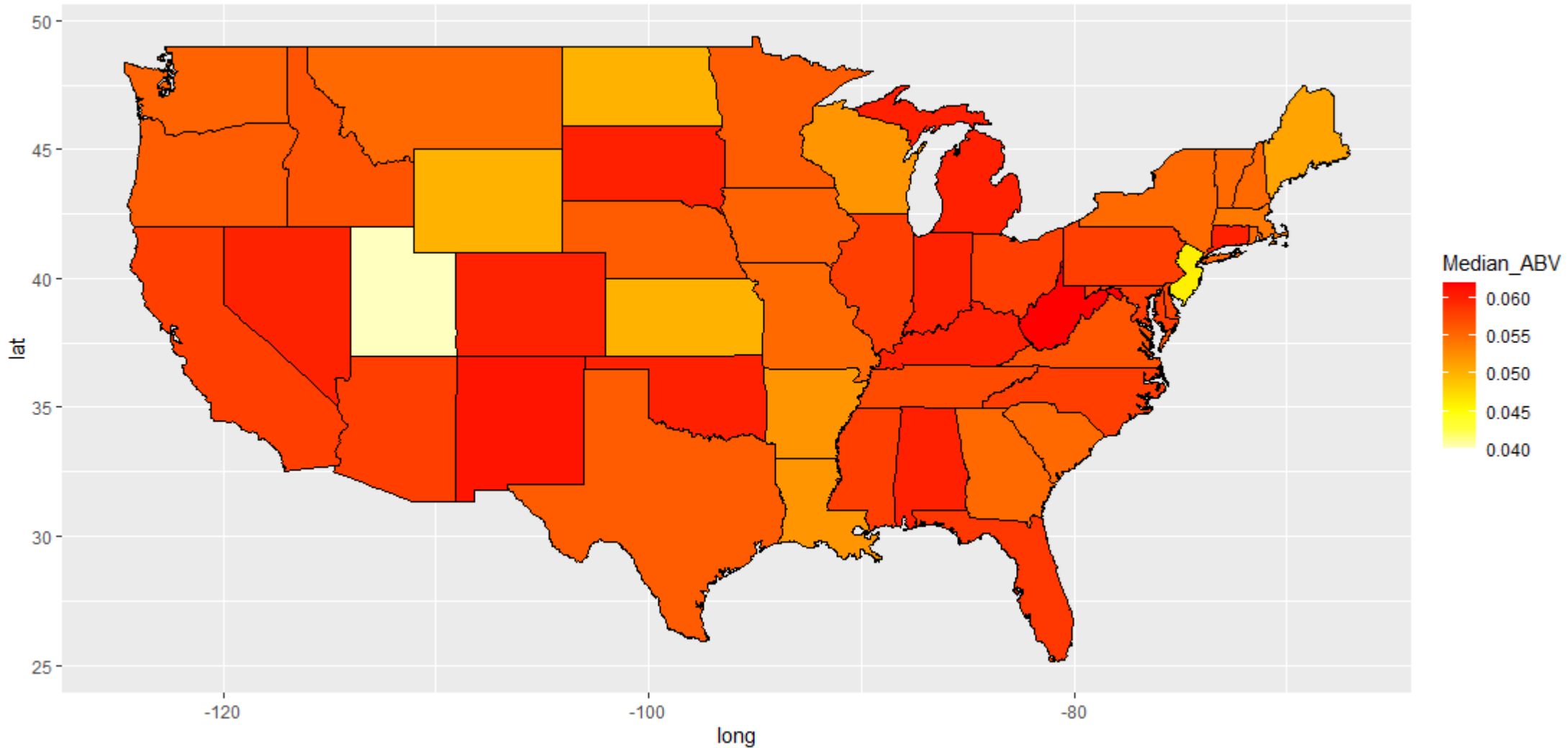


Median IBU by State



Mean Alcohol by Volume by State

Mean Alcohol By Volume by State



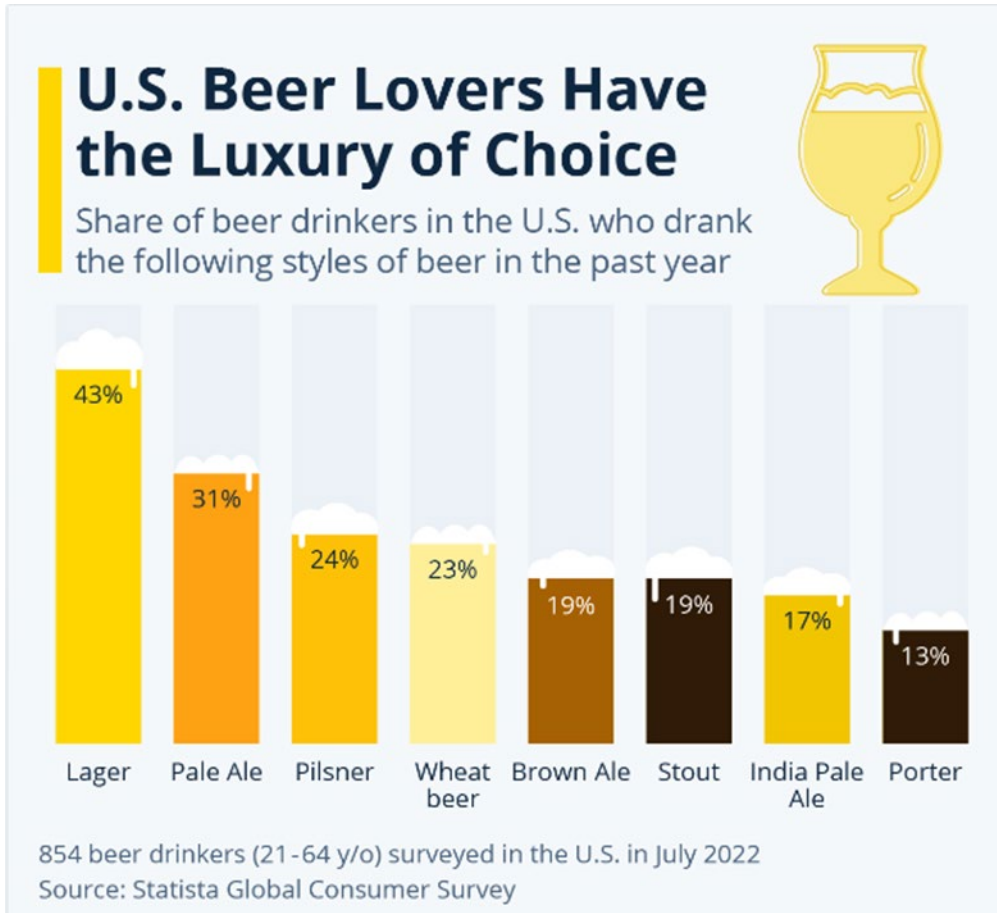
MAX ABV & MAX IBU

MAX ABV: 52 Lee Hill Series Vol.
5 - 12.8% ABV Boulder, CO

MOST BITTER: 375 Bitter Bitch
Imperial IPA 138 IBU Astoria, OR



US Beer Type of Choice



<https://www.statista.com/chart/28572/popularity-of-beer-styles-in-the-us/>

IBU By Beer Type

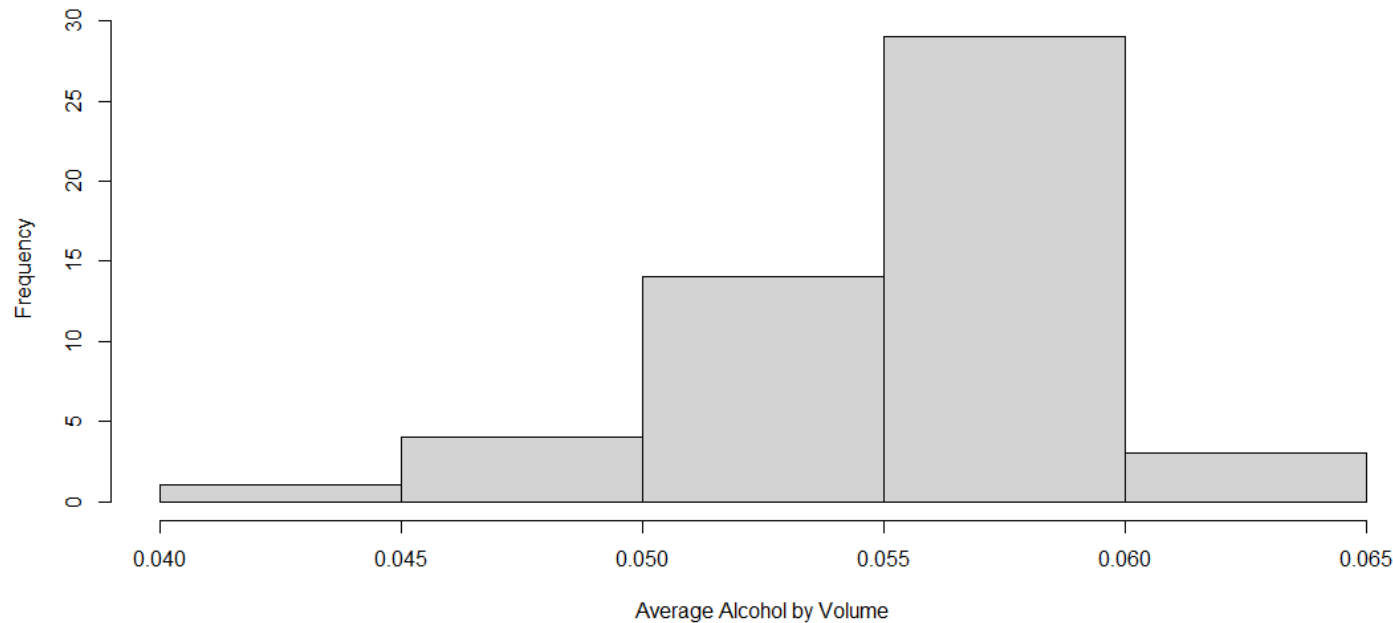
- Light Lager — 4-10
- Blond Ale — 14-25
- Saison — 20-38
- Pilsner — 25-45
- Dry Stout — 30-35
- Pale Ale — 30-50
- Hazy IPA — 30-50
- Hazy Double IPA — 45-80
- West Coast IPA — 50-70
- Imperial Stout — 50-80
- Double IPA — 65-100

<https://www.firestonebeer.com/what-really-is-ibu/>



Summary Statistics and Distribution by ABV

Summary statistics for State means of Alcohol by Volume across all 50 States



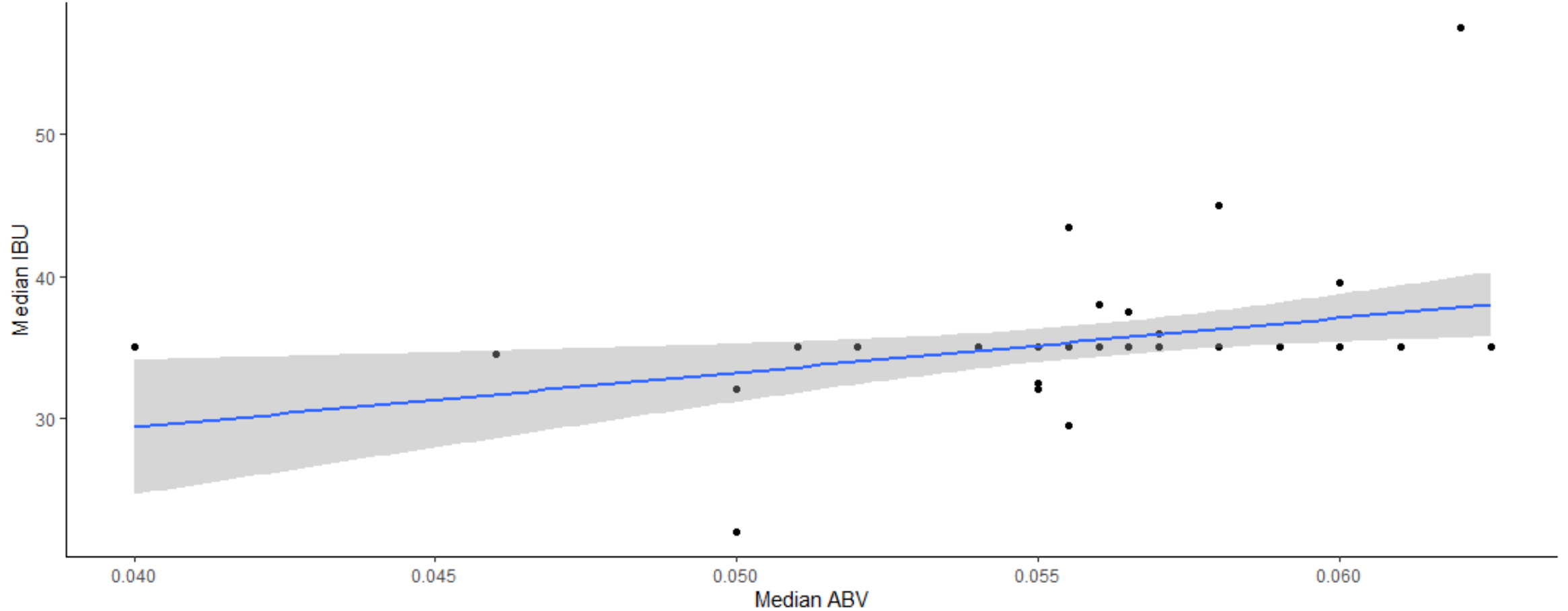
Comments on
summary statistics
and distribution
Alcohol by volume for
beers - not grouped

- MIN: 0.10%
- MAX: 12.8%
- MEAN: 5.977%
- MEDIAN: 5.7%

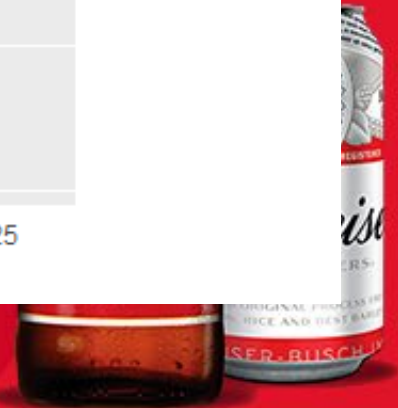
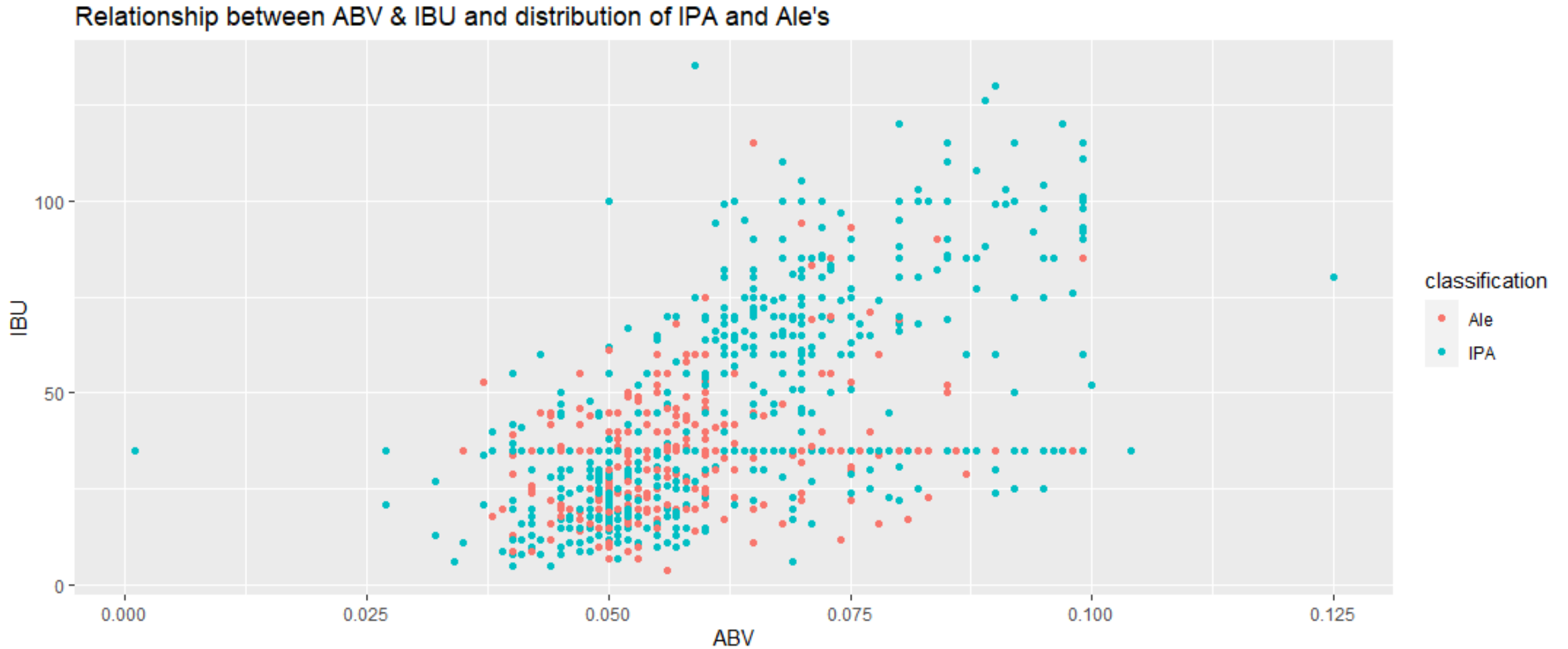


Relationship between ABV & IBU

Median ABV versus Median IBU for each state (the dots) with a blue linear regression line plotted for all of the state data points



Difference between ABV/IBU - IPA & Ale





Let's go one step further

INSIGHTS AND RECOMMENDATIONS

Bud today

- Billions spent on successful advertising from the early 1800s.
 - Budweiser Clydesdales
 - Spuds Mackensie
 - WASSSUUPPPPP!?!?!?!?
- Joe “Six Pack” is your hero!
- Does Bud want to dilute the Bud brand with a “Bud IPA” or “Bud Pale Ale”
- This could potentially irritate Joe “Six-Pack”



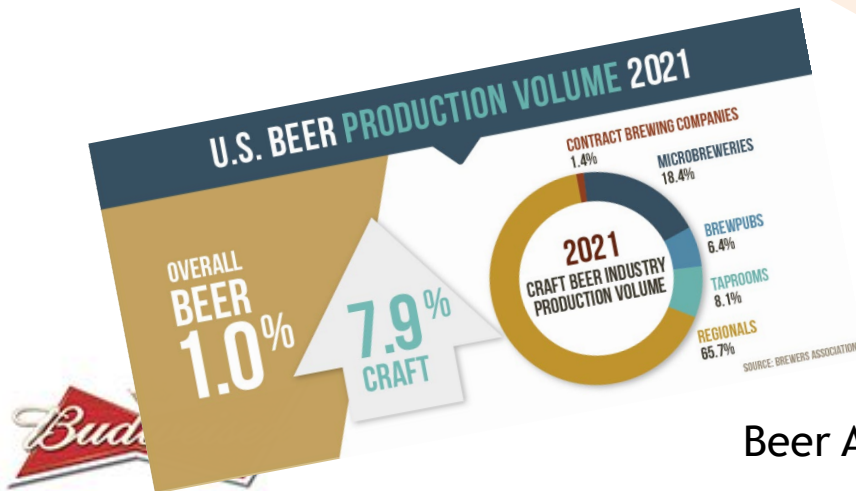
Market Research Shows:

The Craft Brewing Industry Contributed \$76.3 Billion to the U.S. Economy in 2021, more than 490,000 Jobs



Anheuser-Busch InBev SA [+ Add to myFT](#)

AB InBev offsets falling beer sales as consumers switch to premium products



Beer Advocate: "Putting the beer into geeks since 1996"



Further Market Research

- Beer drinkers want more alcohol per beer
- “I can drink two and get the same effect as 4 regular beers and have some left over for later.”
- Craft beers garner a premium price
- Also have higher ABV/IBU
- Premium Beer for a Premium Price!



Beer Advocate Top 250

Rank	Style	Number of Votes
1	Stout - American Imperial	77
2	IPA - New England	54
3	Farmhouse Ale - Saison	18
4	Wild Ale	15
5	IPA - Imperial	14
6	Stout - Russian Imperial	14
7	Lambic - Fruit	7
8	Porter - Imperial	7
9	Pale Ale - American	6
10	Stout - Sweet / Milk	6
11	Barleywine - American	5
12	Lambic - Gueuze	5
13	Barleywine - English	4
14	Quadrupel (Quad)	3
15	Stout - Oatmeal	3

Source: <https://www.kaggle.com/datasets/bengosha/beer-advocate-top-250-beers>



Economic Impact - Craft Beers

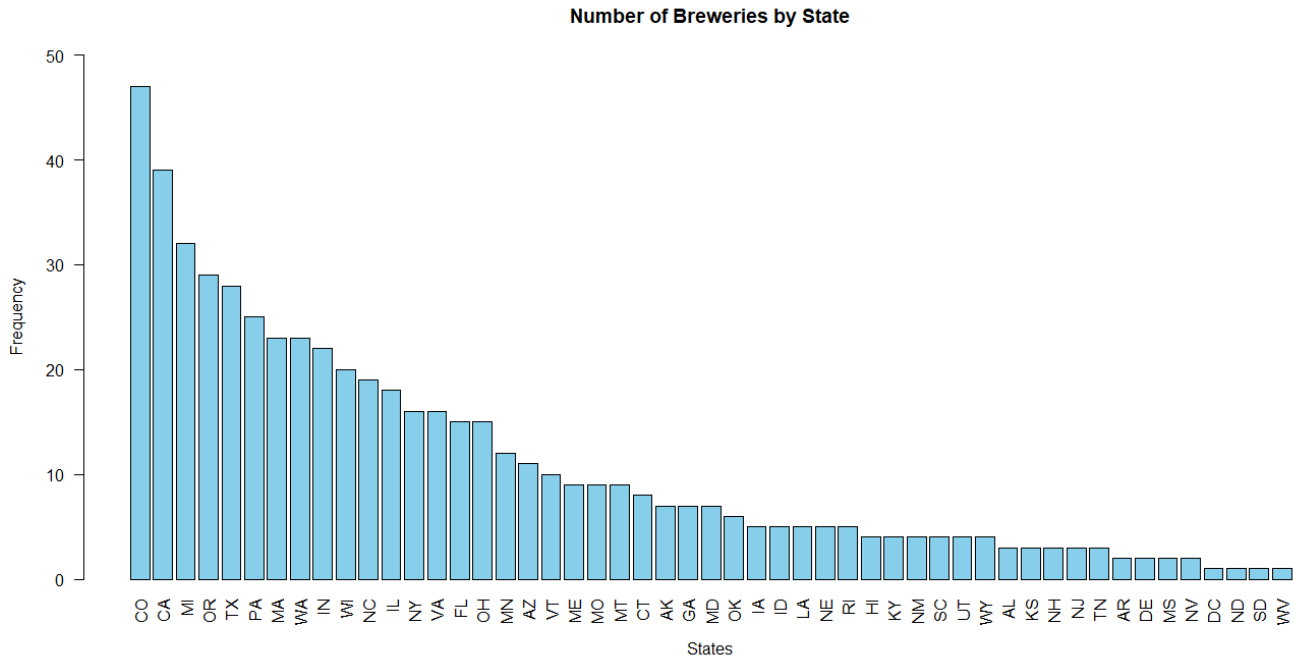
State	Employment	Avg. Wage	Economic Impact (Output)	Impact/ 21+ Adult
California	54,036	\$56,376	\$9,031,255,961	\$311.97
Pennsylvania	32,869	\$52,155	\$5,366,323,942	\$547.67
Texas	29,782	\$49,984	\$4,906,107,395	\$235.72
New York	25,498	\$61,948	\$4,238,966,450	\$282.66
Florida	28,487	\$44,702	\$4,141,801,660	\$246.77
Ohio	19,542	\$44,131	\$3,108,787,632	\$355.90
Illinois	17,569	\$51,170	\$2,983,516,800	\$317.75
Colorado	17,226	\$46,839	\$2,451,083,612	\$565.54
Wisconsin	13,500	\$52,078	\$2,419,996,966	\$551.66
Michigan	16,172	\$41,952	\$2,278,887,865	\$303.35
North Carolina	15,685	\$42,010	\$2,259,801,227	\$289.32
Georgia	12,310	\$47,360	\$1,966,894,620	\$251.26
Minnesota	12,594	\$46,869	\$1,963,284,857	\$469.58
Oregon	13,854	\$42,975	\$1,873,021,974	\$578.74
Washington	12,792	\$45,050	\$1,841,533,935	\$318.20
New Jersey	11,107	\$59,007	\$1,801,670,101	\$260.35
Virginia	12,019	\$42,936	\$1,683,809,432	\$263.07
Massachusetts	14,033	\$44,316	\$1,605,751,430	\$302.16
Indiana	10,498	\$42,591	\$1,599,866,084	\$323.72

Source: <https://www.brewersassociation.org/statistics-and-data/economic-impact-data/>



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Source: <https://www.brewersassociation.org/statistics-and-data/economic-impact-data/>



Recommendations

- Invest further into partnerships with Craft Breweries
- They have plowed the hardest ground
- Use Bud's:
 - Economies of Scale
 - Distribution
 - Capital Investment
 - Operational Efficiencies
- Join them as partners and reap the rewards.
- Invest quietly - Joe “six-pack” and Beer “Nerds” can peacefully coexist...whether they know it or not!





Thank You For Your Business!

Todd Garner

Pinnacle Economics, LLC

DS 6306 Case Study 1 - EDA

Lani Lewis - contributor