

Name: Alcohol Outlet Density

Short Description: Number of off-premises (purchases intended to be consumed off-site) alcohol outlets per 10,000 people.

Data Source:

- **Name:** United States Census Bureau, County Business Patterns (CBP)
- **Link to Source:** <https://www.census.gov/data/datasets/2018/econ/cbp/2018-cbp.html>

Year: 2020

Source Geographic Level: County

Stratification: Not applicable to alcohol outlets

Selection Rationale: Alcohol outlet density contributes to capturing built environment impacts on mental wellness. Additionally, alcohol outlets have been found to be overconcentrated in low-income and racial and ethnic minority neighborhoods, reflecting the impacts of structural racism.

Strengths and Limitations

- **Strengths:**
 - *[Importance]* Research on alcohol outlets has found an association between higher alcohol outlet density and adverse mental health outcomes.^{1,2}
 - *[Equity]* This measure captures disparities experienced between population groups. Historical discriminatory redlining practices have shown to increase present day exposure to retail alcohol availability, particularly in Black and Hispanic neighborhoods.³ Additionally, alcohol and liquor outlet advertising has been found to be concentrated in low-income and racial/ethnic minority

¹ Giesbrecht, N., Huguet, N., Ogden, L., Kaplan, M. S., McFarland, B. H., Caetano, R., Conner, K. R., & Nolte, K. B. (2015). Acute alcohol use among suicide decedents in 14 US states: impacts of off-premise and on-premise alcohol outlet density. *Addiction*, 110(2), 300–307. <https://doi.org/10.1111/add.12762>

² Pereira, G., Wood, L., Foster, S., & Hagggar, F. (2013). Access to alcohol outlets, alcohol consumption and mental health. *PloS ONE*, 8(1), Article e53461. <https://doi.org/10.1371/journal.pone.0053461>

³ Lee, J. P., Ponicki, W., Mair, C., Gruenewald, P., & Ghanem, L. (2020). What explains the concentration of off-premise alcohol outlets in Black neighborhoods? *SSM – Population Health*, 12, Article 100669. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7576518/>

communities⁴ and higher alcohol outlet density has also been found to be associated with more highly segregated communities.⁵

- [Relevance and Usability] Data on alcohol outlet density can inform intervention strategies for reducing excessive alcohol consumption and related harms. The Community Preventive Services Task Force recommends using regulatory authority like licensing and zoning to limit alcohol density.⁶
- [Scientific Soundness] This measure of alcohol outlet density follows the Centers for Disease Control and Prevention Guide for Measuring Alcohol Outlet Density for container-based measures with a population-based denominator.⁷ This measure calculation is advantageous because it is both simple to calculate and simple to communicate.
- [Feasibility] CBP is an annual series; full release of CBP statistics is available approximately 16 months after each reference year. CBP data are easily accessible for download.

- **Limitations:**

- [Relevance and Usability] We note that some studies call for further research on the relationship between alcohol outlet density and alcohol use and harm,⁸ and others have found that individuals in areas of high alcohol outlet density in particular communities actually drank less frequently and that it may be important to consider the intersection of income and alcohol outlet density.⁹
- [Scientific Soundness] Container-based methods are unable to detect high-density clustering of outlets within an area, nor can they account for the size of the directly exposed population or effects from neighboring areas. Nevertheless, given that the primary function of the tool is to delineate variations in population-level exposure, this method provides a sufficient estimate at the neighborhood level.

⁴ Alaniz, M. L. (1998). Alcohol availability and targeted advertising in racial/ethnic minority communities. *Alcohol Health and Research World*, 22(4), 286-289. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6761895/>

⁵ Scott, J., Danos, D., Collins, R., Simonsen, N., Leonardi, C., Scribner, R., & Herd, D. (2020). Structural racism in the built environment: Segregation and the overconcentration of alcohol outlets. *Health & Place*, 64, Article 102385. <https://doi.org/10.1016/j.healthplace.2020.102385>

⁶ The Community Guide. (n.d.) *Excessive Alcohol Consumption*. <https://www.thecommunityguide.org/topic/excessive-alcohol-consumption>

⁷ Centers for Disease Control and Prevention. (2017). *Guide for Measuring Alcohol Outlet Density*. US Department of Health and Human Services. <https://www.cdc.gov/alcohol/pdfs/CDC-Guide-for-Measuring-Alcohol-Outlet-Density.pdf>

⁸ Gmel, G., Holmes, J., & Studer, J. (2016). Are alcohol outlet densities strongly associated with alcohol-related outcomes? A critical review of recent evidence. *Drug and Alcohol Review*, 35(1), 40– 54. <https://doi.org/10.1111/dar.12304>

⁹ Mair, C., Sumetsky, N., Gruenewald, P.J., & Lee, J. (2020). Microecological relationships between area income, off-premise alcohol outlet density, drinking patterns, and alcohol use disorders: The East Bay Neighborhoods Study. *Alcoholism: Clinical and Experimental Research*, 44(8), 1636-1645). <https://doi.org/10.1111/acer.14387>

Calculation:

$$\text{Alcohol Outlet Density} = \frac{\# \text{ off premise alcohol outlet establishments}}{\text{total population}} \times 10,000 \text{ people}$$

Alcohol outlets have been identified using the following North American Industry Classification System (NAICS) Industry Codes:

- In all states:
 - NAICS Code 445310 for “Beer, Wine, and Liquor Stores”
- Only in states where licensing laws allow the sale of any type of alcohol (beer, wine, or liquor) in grocery and convenience stores,¹⁰ which are also considered off-premises alcohol outlets by the Centers for Disease Control and Prevention¹¹:
 - NAICS Code 445110 for “Grocery Stores”
 - NAICS Code 445120 for “Convenience Stores”
 - NAICS Code 447110 for “Convenience Stores & Gas Stations”

¹⁰ List of alcohol laws of the United States. (2021, October 31). In *Wikipedia*.
[https://en.wikipedia.org/w/index.php?title=List of alcohol laws of the United States&oldid=1052886055](https://en.wikipedia.org/w/index.php?title=List_of_alcohol_laws_of_the_United_States&oldid=1052886055)

¹¹ Centers for Disease Control and Prevention. (2017). *Guide for Measuring Alcohol Outlet Density*. US Department of Health and Human Services. <https://www.cdc.gov/alcohol/pdfs/CDC-Guide-for-Measuring-Alcohol-Outlet-Density.pdf>