Liquor Licenses and Binge Drinking: on the Map

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DATA YOU CAN USE

UWM JOSEPH J. ZILBER SCHOOL OF PUBLIC HEALTH
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Field Experience in Public Health

UWM Zilber School of Public Health MPH Field Experience Goal: “provide a practical public health experience that allows students to apply the knowledge and skills learned in the classroom to real world public health problems”
Personal Goals
500 Cities Project

- Collaboration between CDC Foundation and Robert Wood Johnson Foundation
- Provide city and census tract-level small area estimates
- 500 Cities Data
  - 27 measures
  - Categories: Health Outcomes, Prevention, Unhealthy Behaviors

(CDC, 2018b & United States Census Bureau, n.d.)
Problem Background

**Binge drinking**: “Adults aged ≥18 years who report having five or more drinks (men) or four or more drinks (women) on an occasion in the past 30 days.”

(CDC, 2018a, CDC, 2018b & Connatser, 2019)
## Binge Drinking Throughout Wisconsin

<table>
<thead>
<tr>
<th>City</th>
<th>Crude Binge Drinking Prevalence</th>
<th>Maximum Census Tract Binge Drinking Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milwaukee</td>
<td>23.1%</td>
<td>36.8%</td>
</tr>
<tr>
<td>Appleton</td>
<td>24%</td>
<td>27%</td>
</tr>
<tr>
<td>Green Bay</td>
<td>25.5%</td>
<td>32.5%</td>
</tr>
<tr>
<td>Madison</td>
<td>27.4%</td>
<td>34.3%</td>
</tr>
</tbody>
</table>

(CDC, 2018a & CDC, 2018b)
“The City of Milwaukee is committed to proactively publish data in a structured standardized machine readable format to improve provision of services, increase transparency and access to public information, and enhance coordination and efficiencies among departments, partner organizations and citizens.”

(City of Milwaukee Open Data Policy, 2016)
Liquor Licenses Data

• Open Data Portal [Map]
• Data from Milwaukee City Clerk – License Division
• Updated weekly
• Available through ArcGIS Esri REST
Liquor Licenses

“Liquor Licenses allow persons to sell alcohol beverages to individual retail customers, from a particular place (premises) . . . No one can sell alcohol beverages (or give away for a commercial purpose) or allow consumption in a public place without getting the appropriate license or permit.”

(City of Milwaukee Open Data Portal, 2018 & City of Milwaukee, n.d.)
Methods

• ArcGIS Online allows for maps to be created online and then shared or embedded in a website
  • Automatic update feature
  • Compatible with Open Data Portal liquor license map
Methods

1. Used ArcGIS Desktop to join census tract shapefile* and 500 Cities data
2. Uploaded shapefile to ArcGIS Online as map layer
3. Color coded census tracts by binge drinking prevalence
4. Added liquor license data to ArcGIS Online map as a layer through ArcGIS Server Web Service
5. Color coded points based on expiration date
6. Added UWM Union, Sandburg Residence Hall, and 1-mile buffer to map

* Shapefile = file containing information on location, shape, and geographic attributes

(ArcGIS Online, n.d. & CDC, 2018b)
Map Uses

Binge Drinking Prevalence
- 30.1 - 36.8
- 26.8 - 30.0
- 23.5 - 26.7
- 20.6 - 23.4
- 18.1 - 20.5
- 5.9 - 18.0
- 5.8 - 5.8
- Data Unavailable

Days Till Expiration
- > 120
- 31 - 120
- 0 - 30
- Data Unavailable
Observations
Observations
Next Steps

• Explore / interact with map
• Visit the City of Milwaukee problem tavern / bar site
• Learn more about the Common Council
• Visit Common Council calendar to see upcoming hearing dates
Suggestions for Future Research

• Examine the effect that objecting has on the revocation or suspension of a liquor license
  • How often does it work?
  • What has been successful in the past?
Questions for Community Leaders

1. Would this data be useful in your future work?
2. What applications could you see for this data?
3. How could this data be improved so that it is more helpful for you?
Thank you!

Questions?

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References