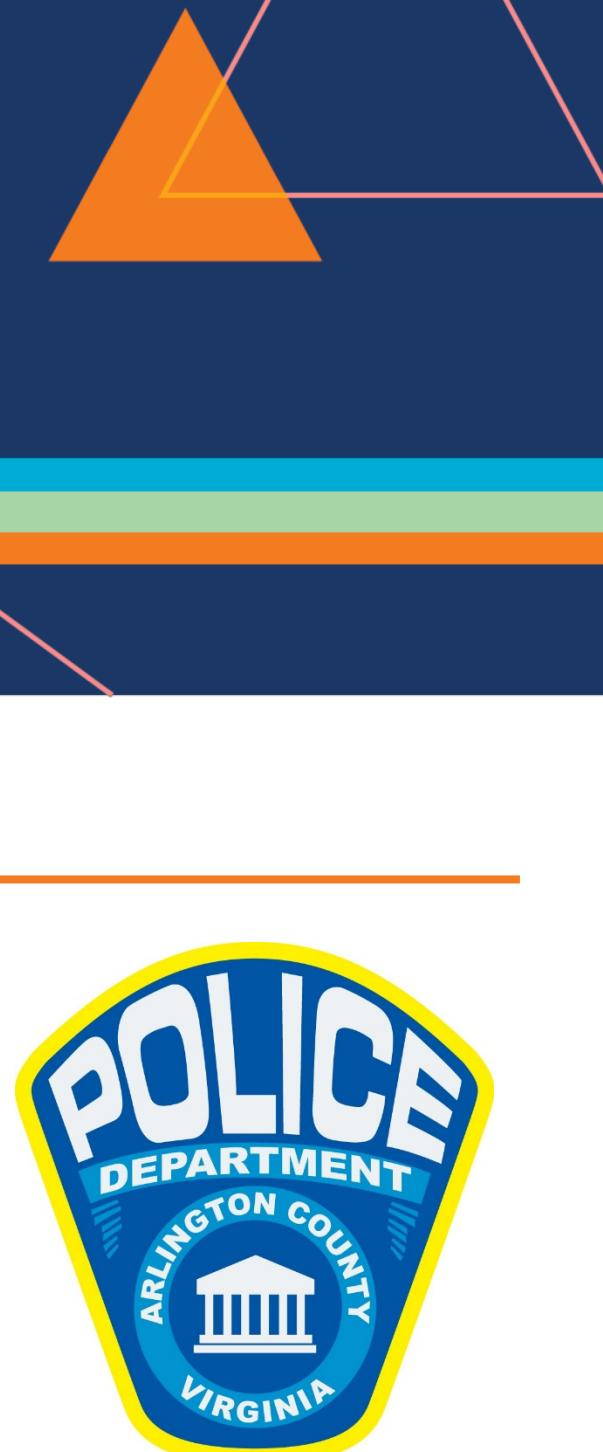
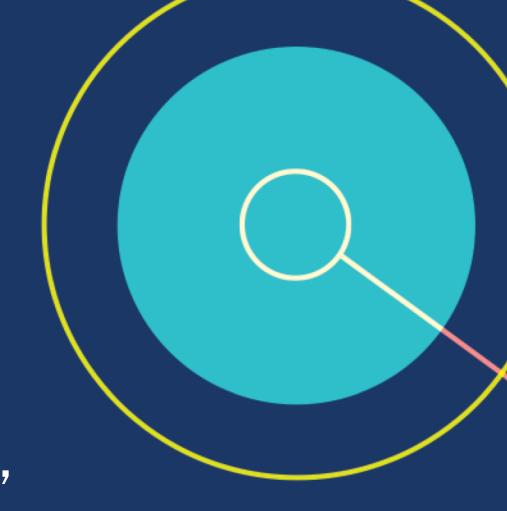


Economic and Social Impact of Arlington Restaurant Initiative

DSPG Team: Victoria Halewicz (University of Illinois at Urbana-Champaign), Kateryna Savchyn (Georgetown University), Jessica Keast (Smith College)

SDAD Team: José Bayoán Santiago Calderón, Gizem Korkmaz, and Aaron Schroeder

Sponsor: Dimitrios Mastoras, Arlington County Police Department



Introduction

The Arlington Restaurant Initiative trains and certifies restaurants and bars to prevent and proactively address nightlife alcohol-related incidents.

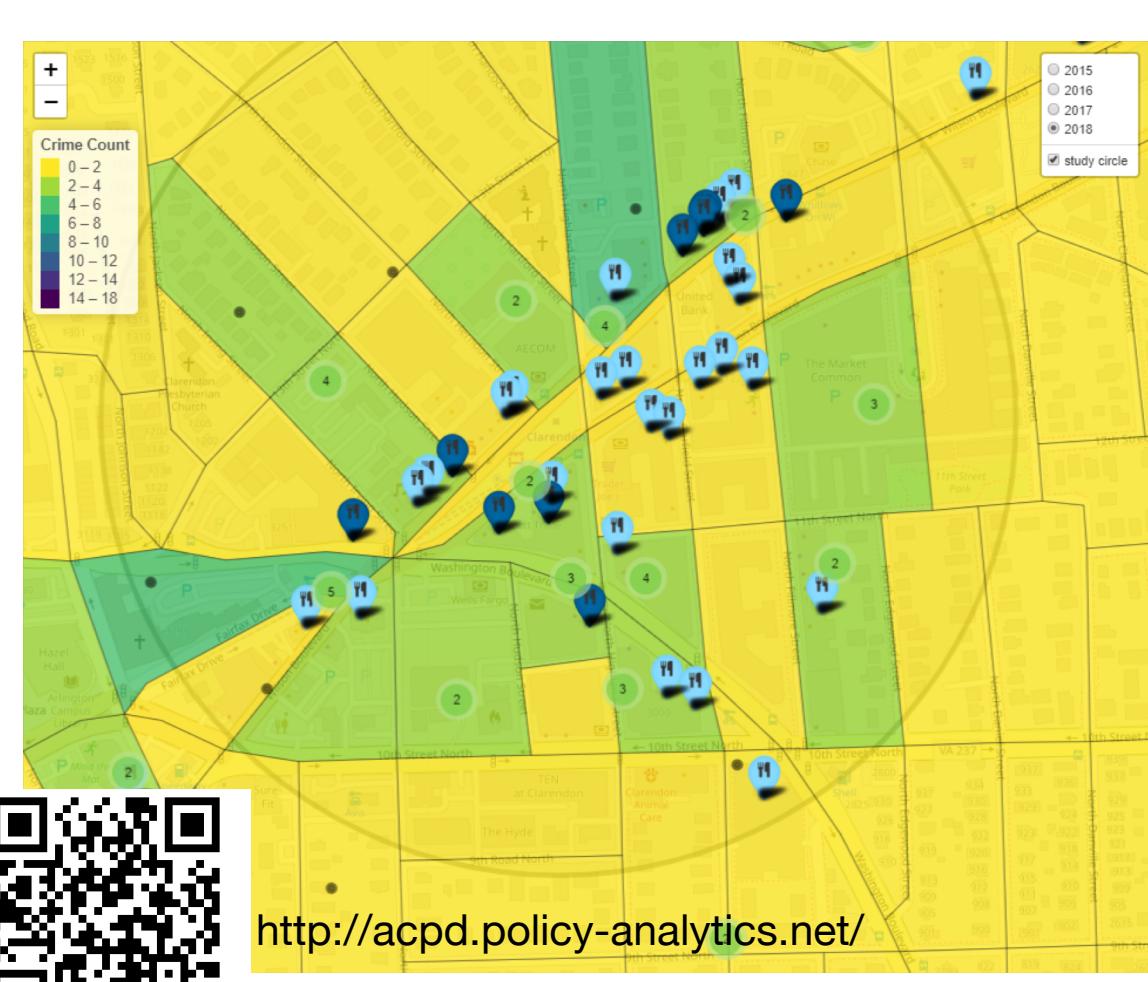
- Is the intervention reducing alcohol-related crime?
- What is the benefit of reducing crimes?

Data Sources

- Arlington County Police Department (ACPD)
 - Police Incident Logs
 - Nightlife Detail Calls for Service
 - Restaurant Accreditation information
- Virginia Alcoholic Beverage Control (ABC)
 - Licenses and Violations
- Yelp Restaurant Features



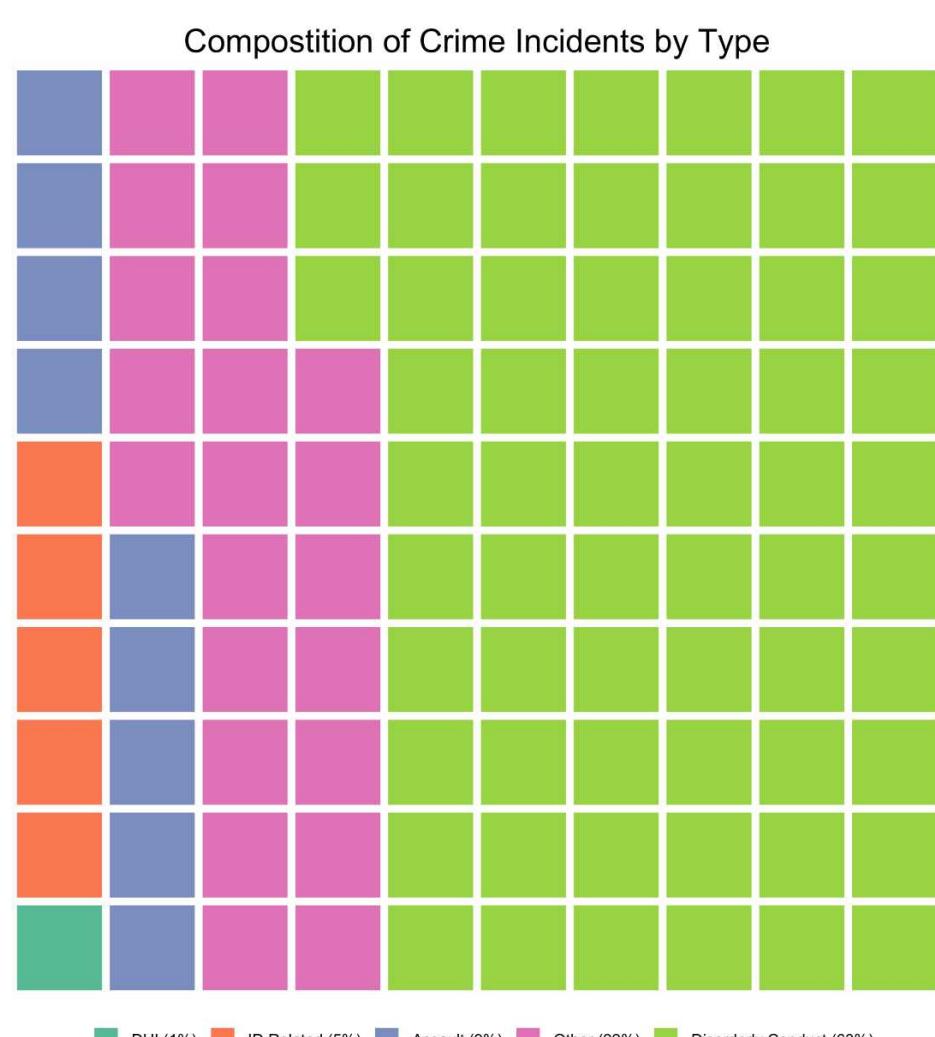
Geospatial Crimes Application



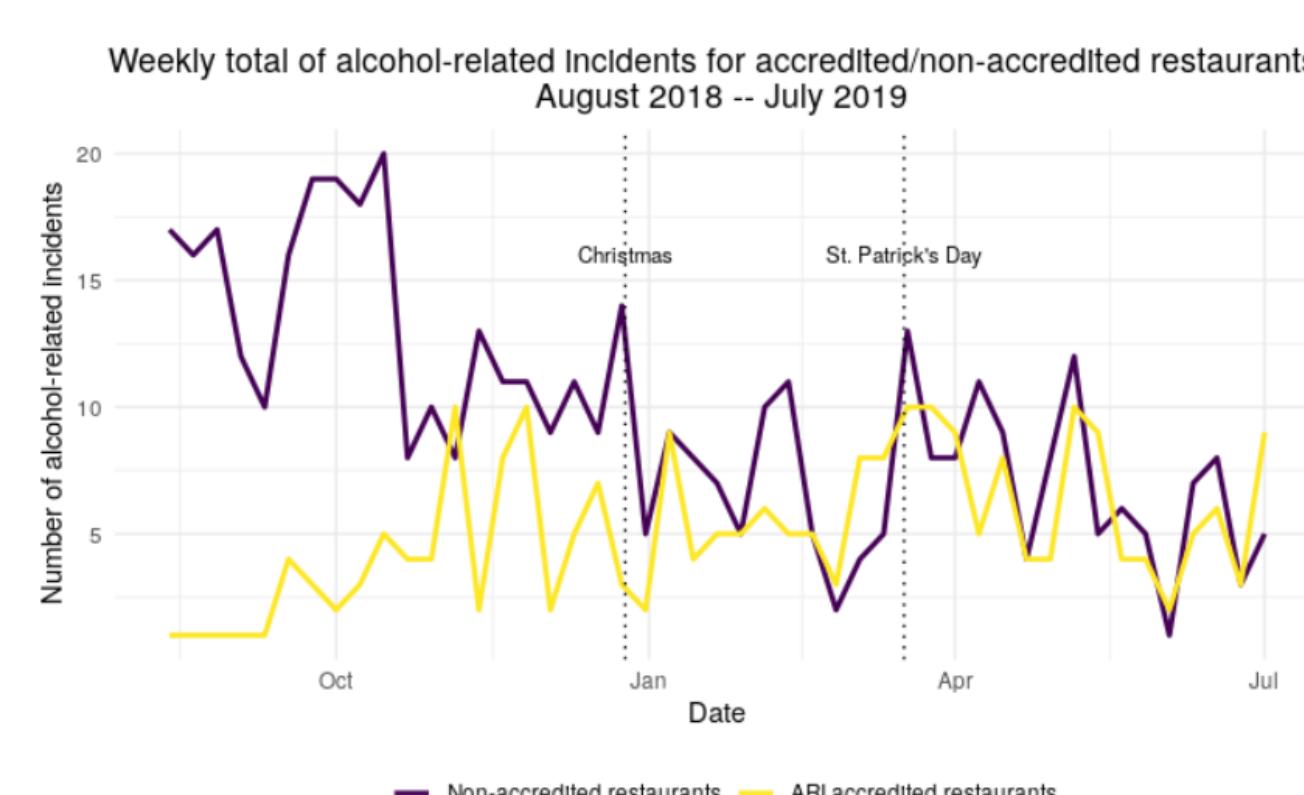
- Spatially explore crimes in Arlington County from 2016 – present
- View and filter data by year, by crime type, and area of interest
- View establishments and ABC violations for restaurants included in the analysis
- Explore incident occurrence by the hour
- View, filter, and export raw data including descriptions and time stamps of incidents

Data Exploration

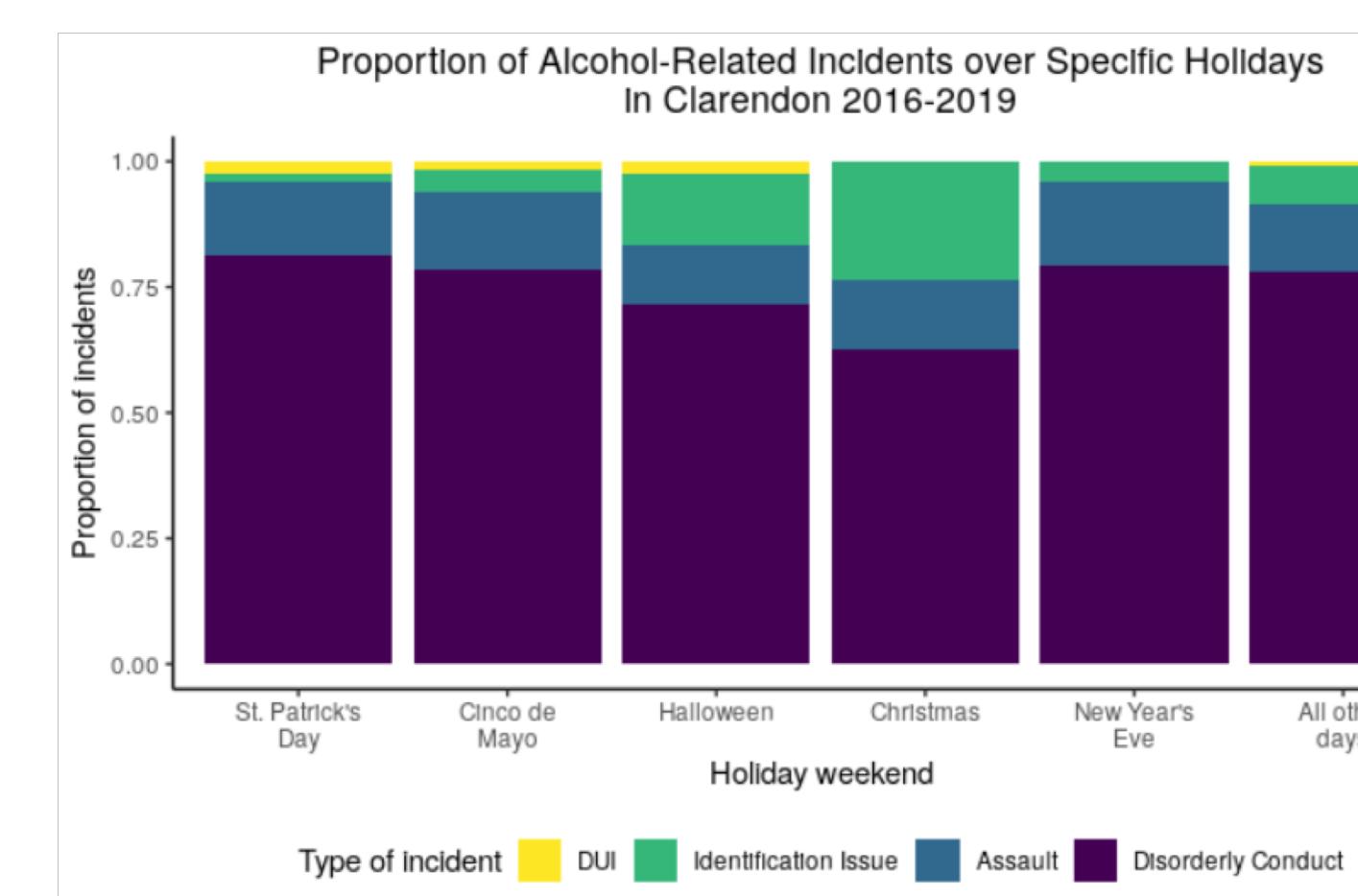
COMPOSITIONS CLARENDON CRIMES



SEASONAL TRENDS



General downward trend of crime across both accredited and non-accredited restaurants. Peak holidays include Christmas and St. Patrick's Day.



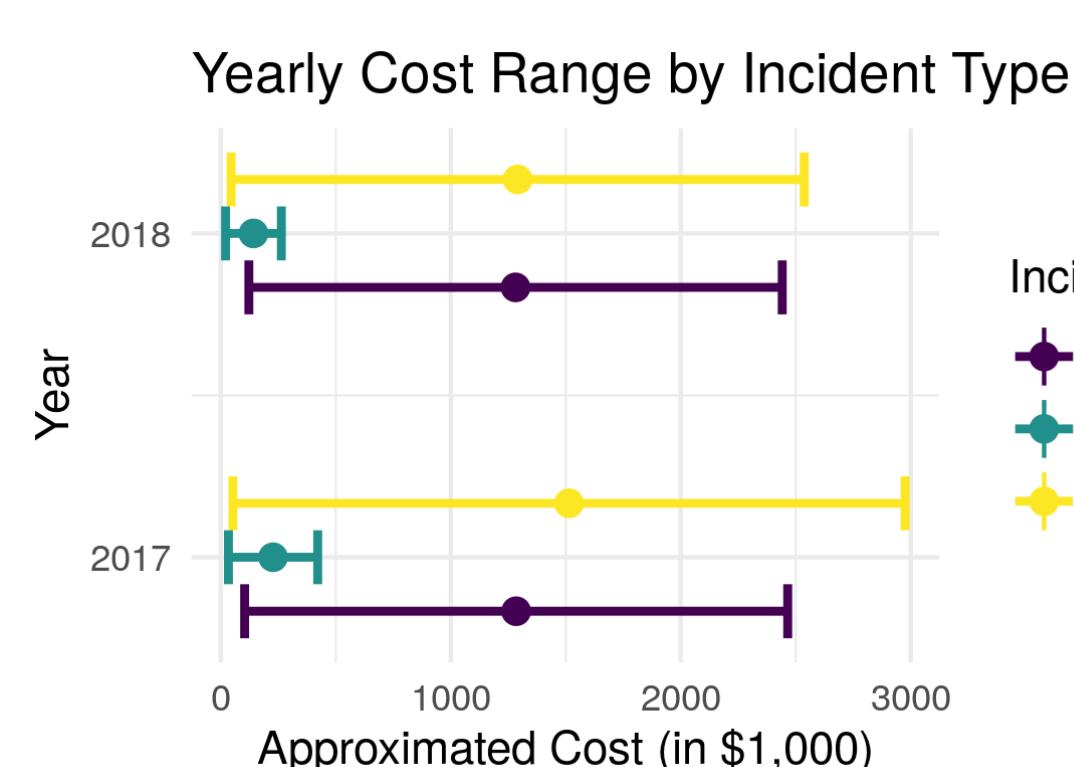
Crime type prevalence differs by holiday. Christmas has least disorderly but greatest identification crimes. Halloween has the most DUIs.

COSTS OF CRIMES

Preliminary crime costs calculated using tangible prices (see example). We used cost estimates from various studies and the number of incidents in Arlington to calculate the minimum and maximum yearly costs for crime types.

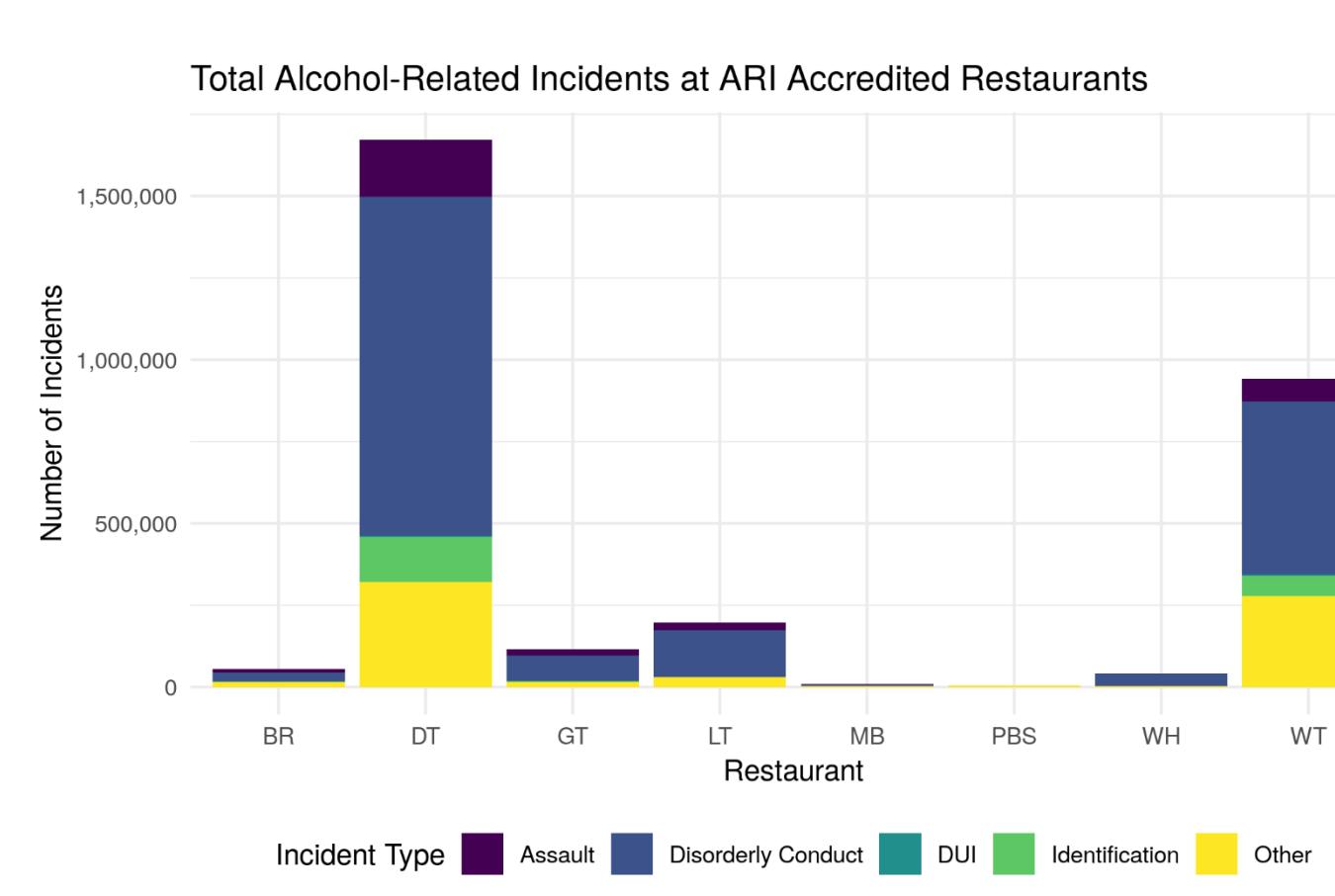
Example of a cost estimation (minimum)

Driving under influence:	
Fine.....	\$250
Jail time.....	\$634
Attorney.....	\$1,900
Court	\$1,100
Car insurance ↑	\$800
Towing vehicle.....	\$170
Mandatory Classes.....	\$250
Total	\$4,134

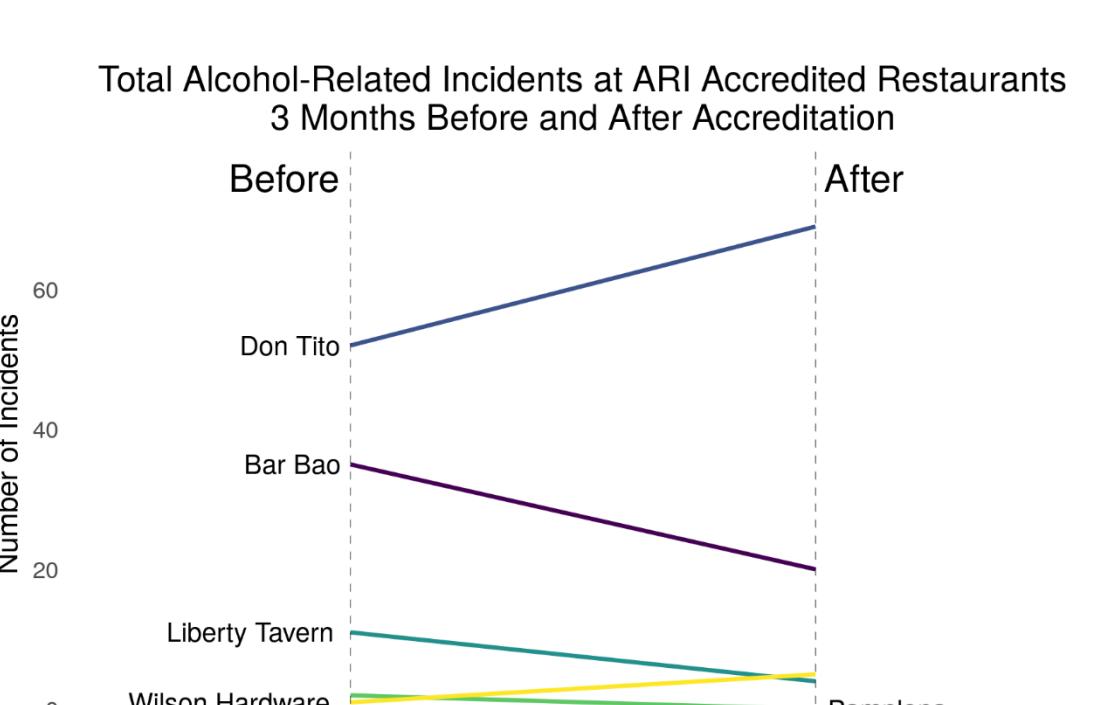


Our next steps will include intangible costs of crime such as psychological distress, impaired productivity, etc.

RESTAURANT SPECIFIC CRIME COUNTS AND FLUCTUATION



Two restaurants in the accreditation program comprise the majority of crime incidents in our database.



While the majority of the restaurants exhibit a decreasing trend in crimes, one establishment's crime incidents continues to rise.

Conclusion and Next Steps

- Retrieve program costs to compare the cost and benefit of the program
- Develop tangible and intangible estimates and incorporate disorderly conduct crimes
- Cost estimates as individual versus government costs to increase accuracy of public savings attributed to the program