Exploring Police Call Incidents in Howard County

Research Questions:
What are spatial patterns of police call incidents, especially hate bias and hit & run incidents in Howard County?
Is there a relationship between establishments with liquor license and these crimes?

Data in Analysis and Methods
Data: Howard County GIS Shape Files
• Howard County
• Police Incidents
• Police Grid
• Howard Liquor Licenses
• Howard Interstates and Howard Highways
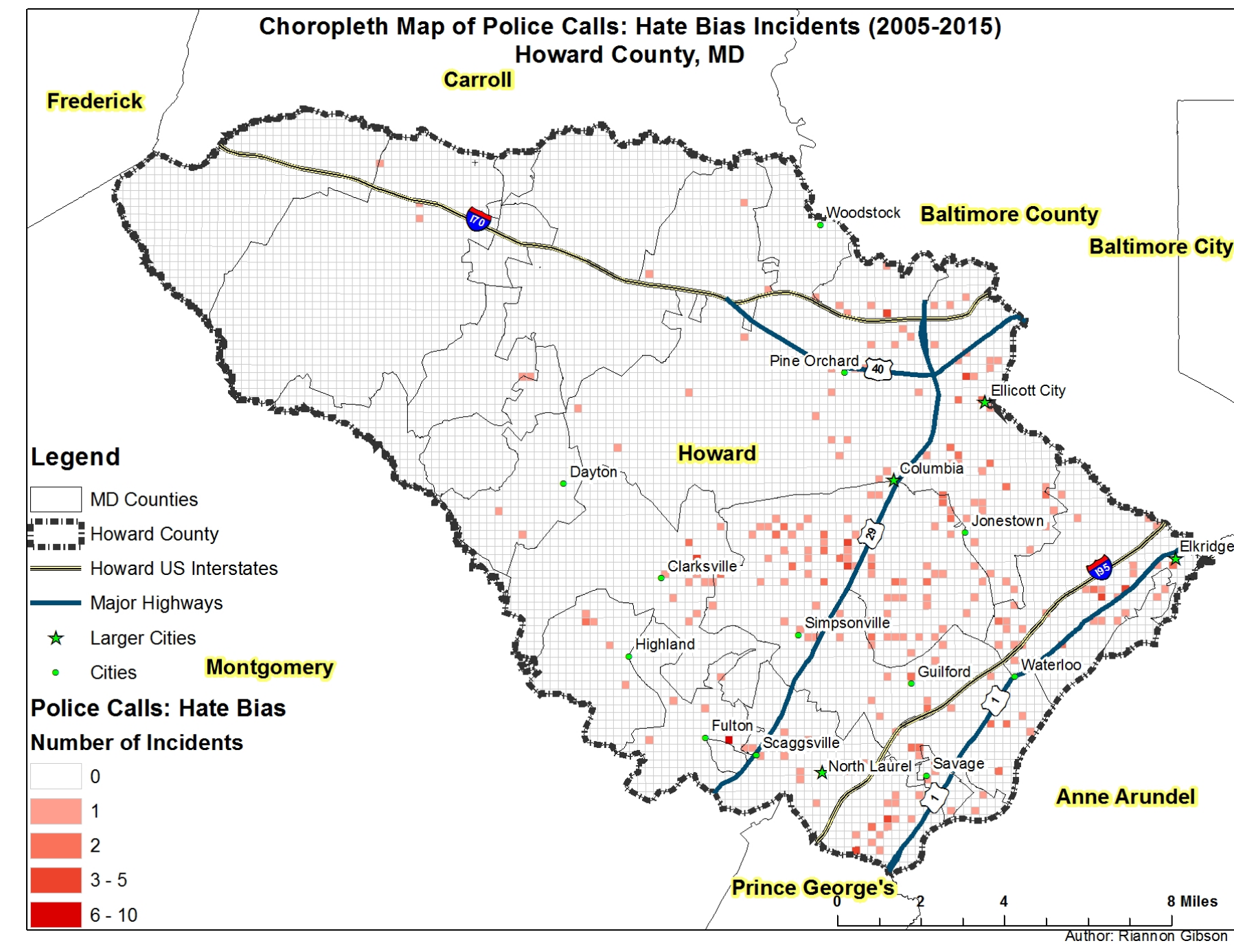• Major Cities and Cities in Howard County
Software & Methods: Excel and ArcMap (Hot Spot analysis)
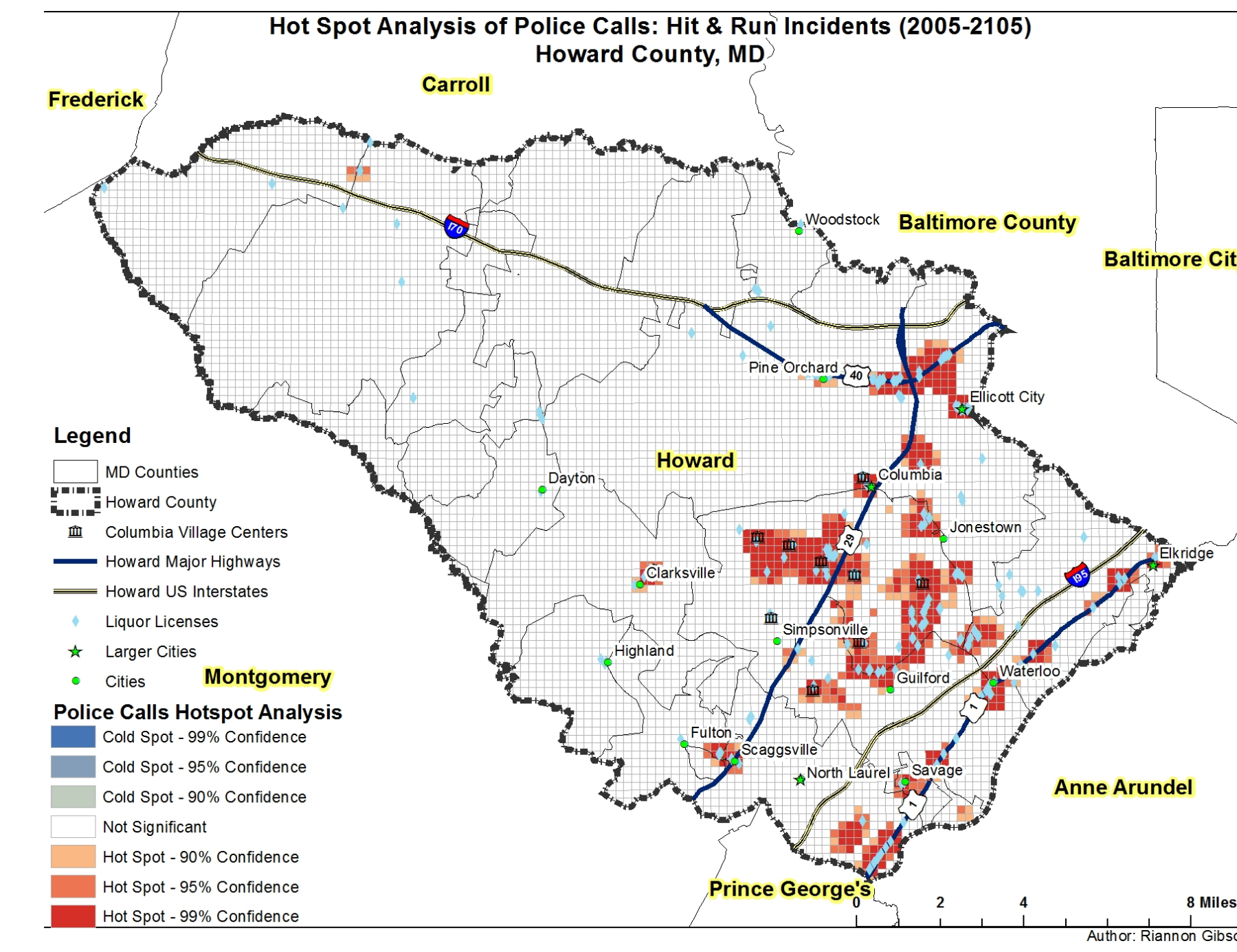
Background History
Density of alcohol outlets and strong association with number of crimes committed in an area (J. W. L. Millar 2008)
In an OLS regression analysis, 7% of variance in violence was explained by alcohol (J. W. L Millar 2008)
The availability of alcohol and other drugs, may affect the level of hate crime occurrences (Cameron 2005)

Conclusion: We can learn from the choropleth and hotspot maps that there are specific spatial patterns of hate bias and hit & run incidents in highly populated areas in cities like Columbia and along the route 1. Among the potential factors that may explain these crime incidents, establishments with liquor licenses on the maps deserve further investigation on their potential contributions to a higher number of these crime incidents.
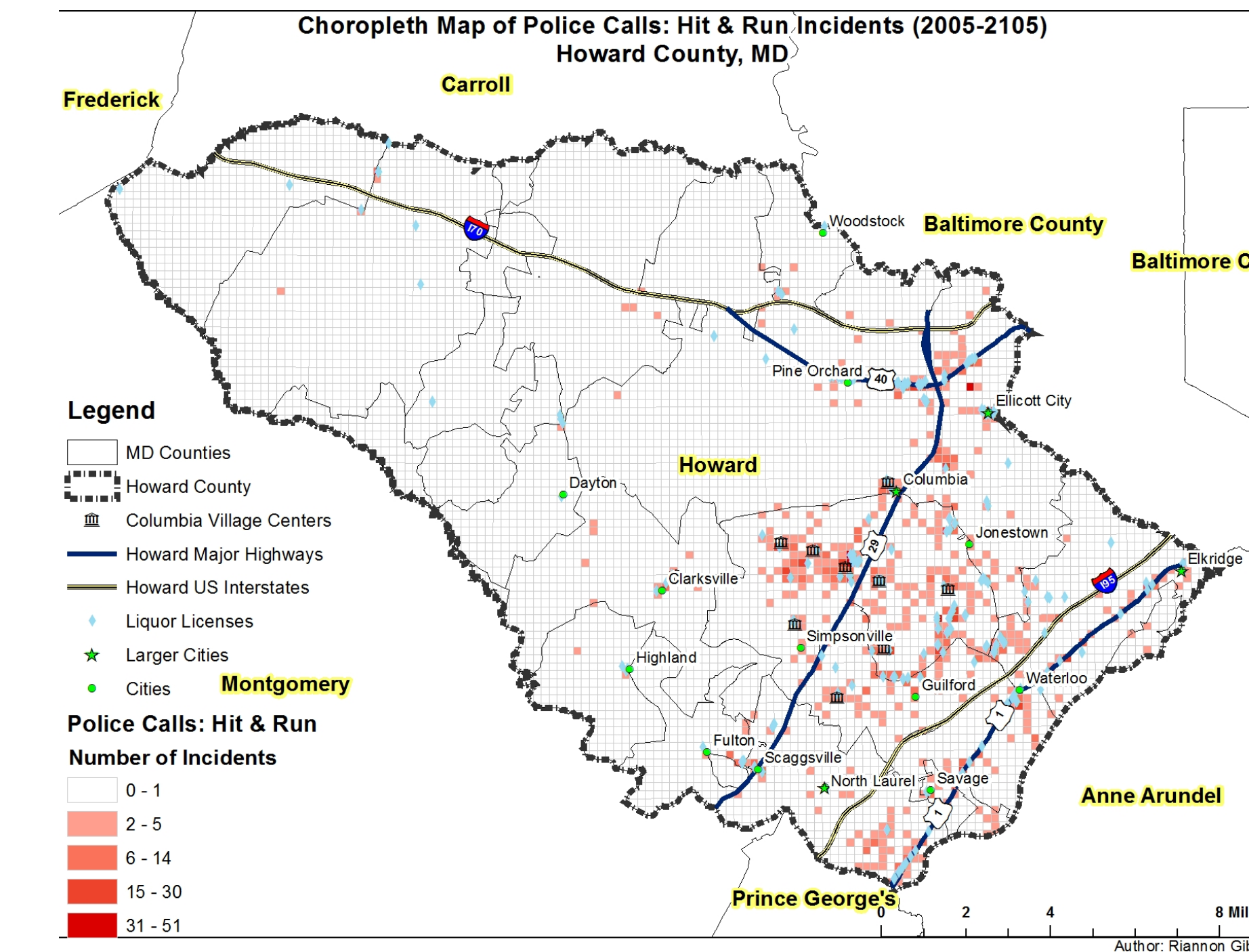
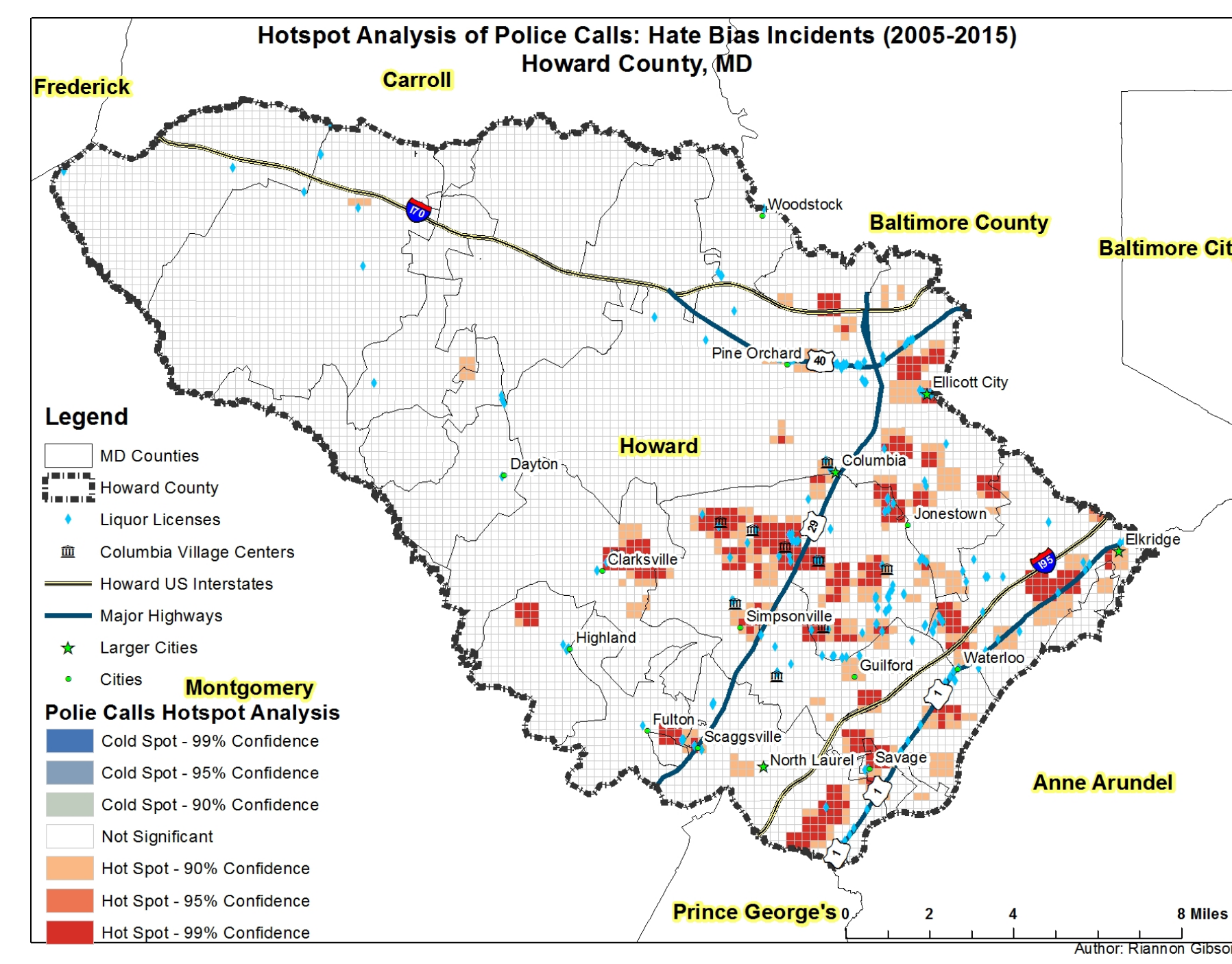## CHOROPLETH MAP: HATE BIAS INCIDENTS IN HOWARD COUNTY, 2005-2015

HOT SPOT ANALYSIS: HIT & RUN INCIDENTS IN HOWARD COUNTY, 2005-2015
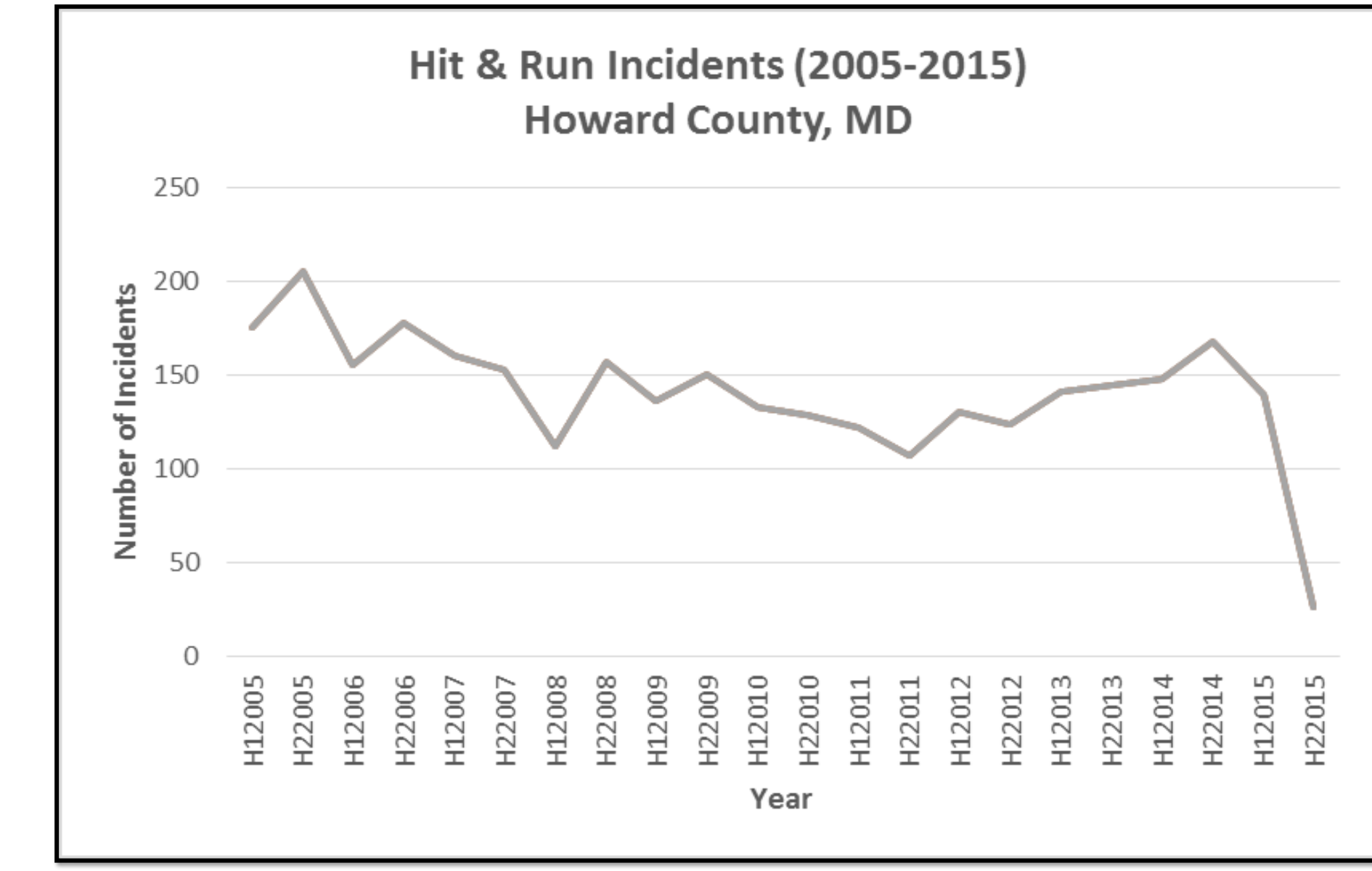

CHOROPLETH MAP: HIT & RUN INCIDENTS IN HOWARD COUNTY, 2005-2015

HOT SPOT ANALYSIS: HATE BIAS INCIDENTS IN HOWARD COUNTY, 2005-2015

LINE CHART: HIT & RUN INCIDENTS IN HOWARD COUNTY, 2005-2015

Works Cited

Lindsay Cameron. (2005). Community Risk Factors for Hate Crimes: Race/Ethnic and Economic Change. The Ralph and Goldy Lewis Center for Regional Policy Studies. UCLA: The Ralph and Goldy Lewis Center for Regional Policy Studies.

Millar, J. W. L. (2008). Beer fronts and crime waves: A GIS analysis of weather, alcohol, and violent crime (Order No. 1456827). Available from ProQuest Dissertations & Theses Global. (304464287).

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