GIS Analysis of Crime in Howard County, Maryland: Destruction of Properties and Break-in

Research Question:
- Is there any spatial pattern of destruction of properties and break-ins in Howard county?
- Are those crime incidents clustered in Howard County? (Outlier & Cluster analysis)

Background Research:
- There is a relationship between age and crime across race, gender, society and time (Hirschi and Gottfredson 1983).
- High schools presence is associated with increase in variety of crime types (Roncek and Faggiani 1985).
- Proximity of middle and high schools in Prince George’s County was associated with higher rate of violent crime at the block level (Roman 2004).
- Youths are more likely to be victims of crime (Rand and Catalano 2007).

Conclusions:
- The two choropleth maps reveal that most of destruction of properties and break-in have occurred in cities, especially Columbia Town Center and along the route one.
- Those crime incidents are also clustered in these areas.
- There are very few outliers.
- As shown in these maps, there might be co-location between schools and these incidents. Further investigation is needed to identify the relationship between schools and crime.

References: