

Property Crime in Albuquerque

Tyler Roller
GEOG 486L

Background/Introduction

- Albuquerque is among the highest crime cities in America. KRQE has reported that car break-ins have doubled since 2015 just on UNM campus
- According to neighborhoodscout.com, Albuquerque has approximately 34,634 property crimes annually and the crime rate per 1,000 residents is 61.94

Background/Introduction

- Using hot spot analysis, I want to analyze crime data in a metropolitan setting to determine areas of high crime.
- With this analysis, users could have information about high property crime areas and possibly resolve crime locally
- The Albuquerque metropolitan area is the area being analyzed

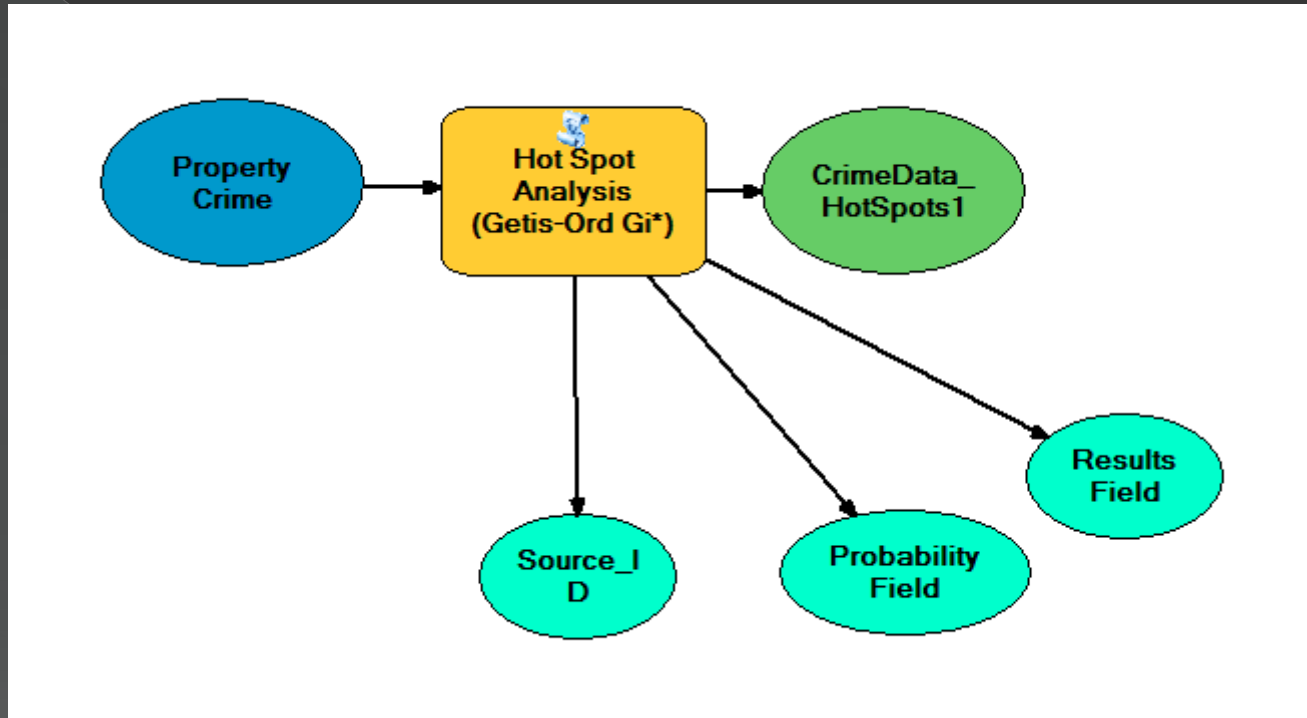
Research Question

- How can certain GIS techniques be used to help other areas of society besides Geography?
- Where in Albuquerque are problem areas for crime?
- How can this information aid local law enforcement in lowering crime rates?

Data

- Locations of Albuquerque Police Stations and Bernalillo County Sheriff Offices
- Albuquerque Police Area Commands
- Ortho photo of the city of Albuquerque for spatial reference
- Albuquerque Neighborhood Associations

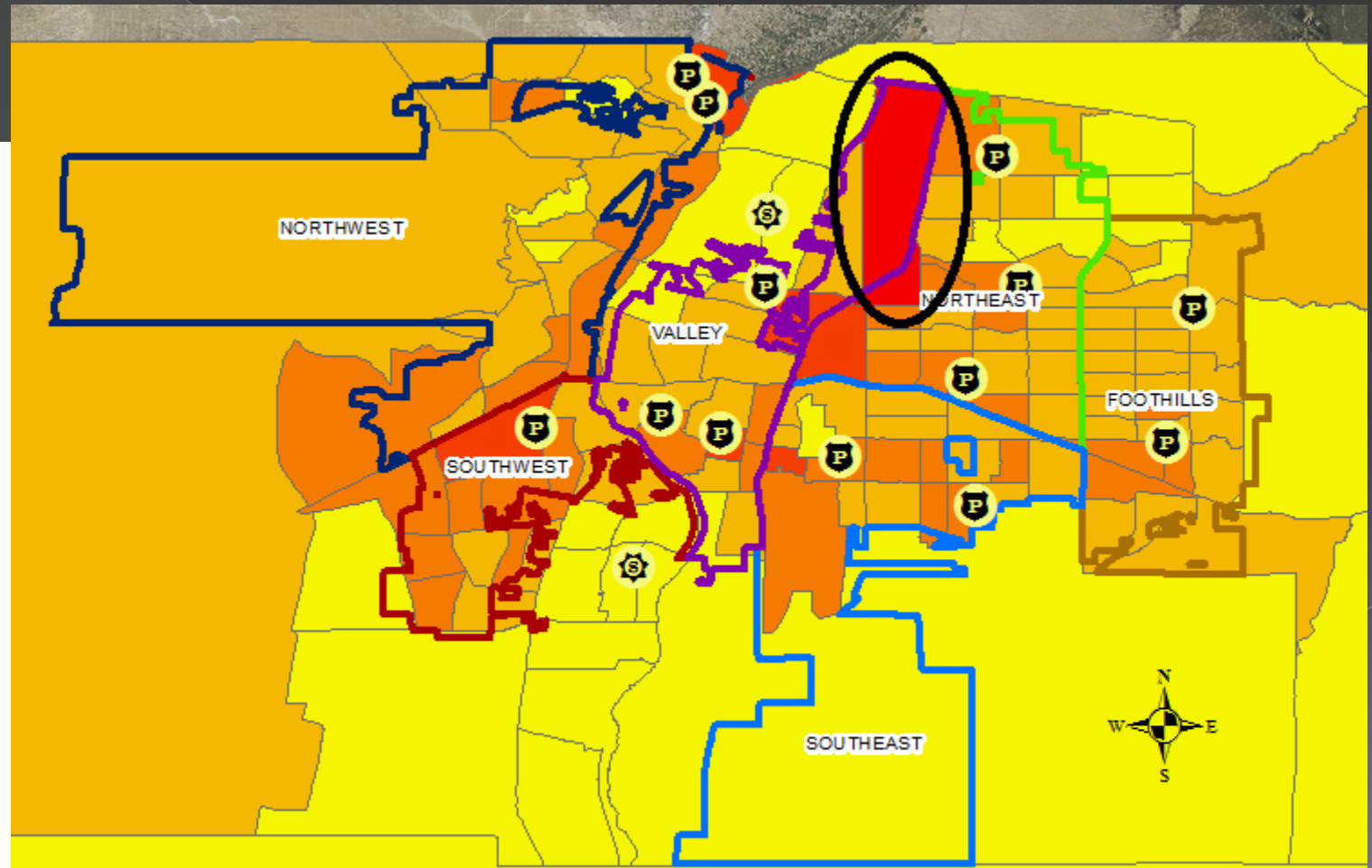
Methodology



- Analyzing areas of high occurrence through hot spot analysis
- Using the provided data, determine what factors may cause areas of high crime
- Suggest ways to address high crime areas

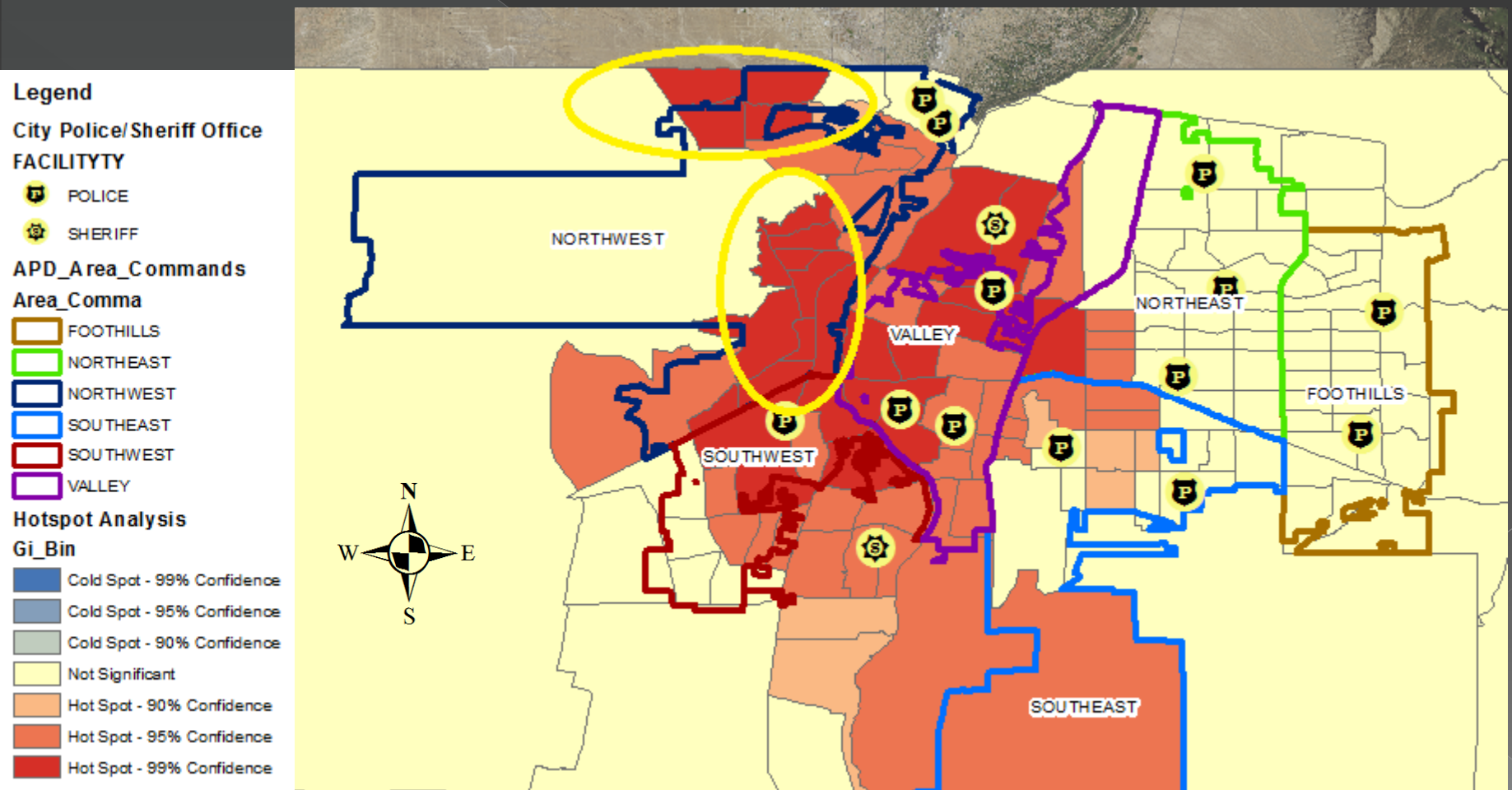
Property Theft

Map of crime data normalized to the total population in 2010



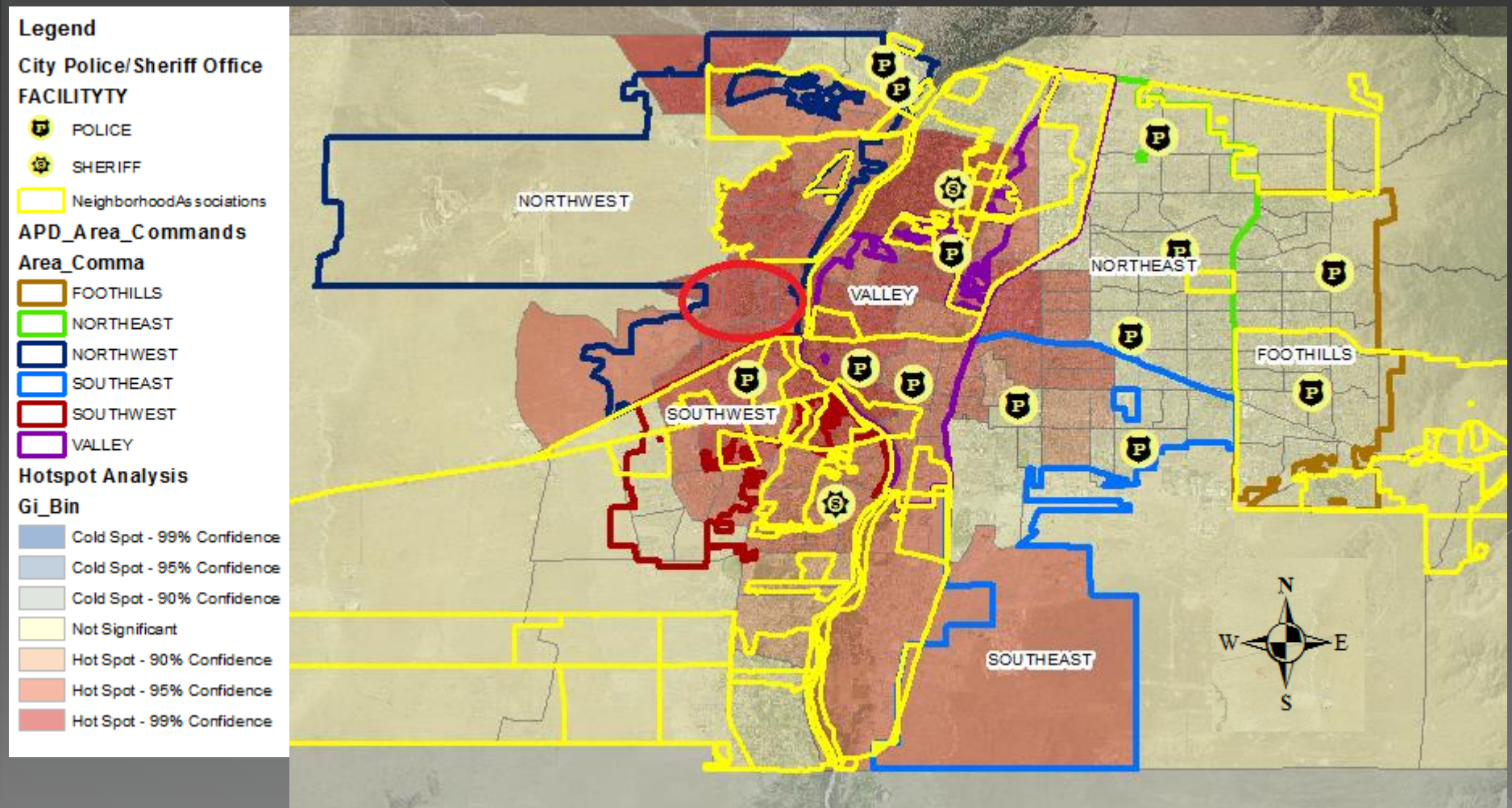
Greatest Occurrence of theft

Hot spot analysis of 2010 crime data



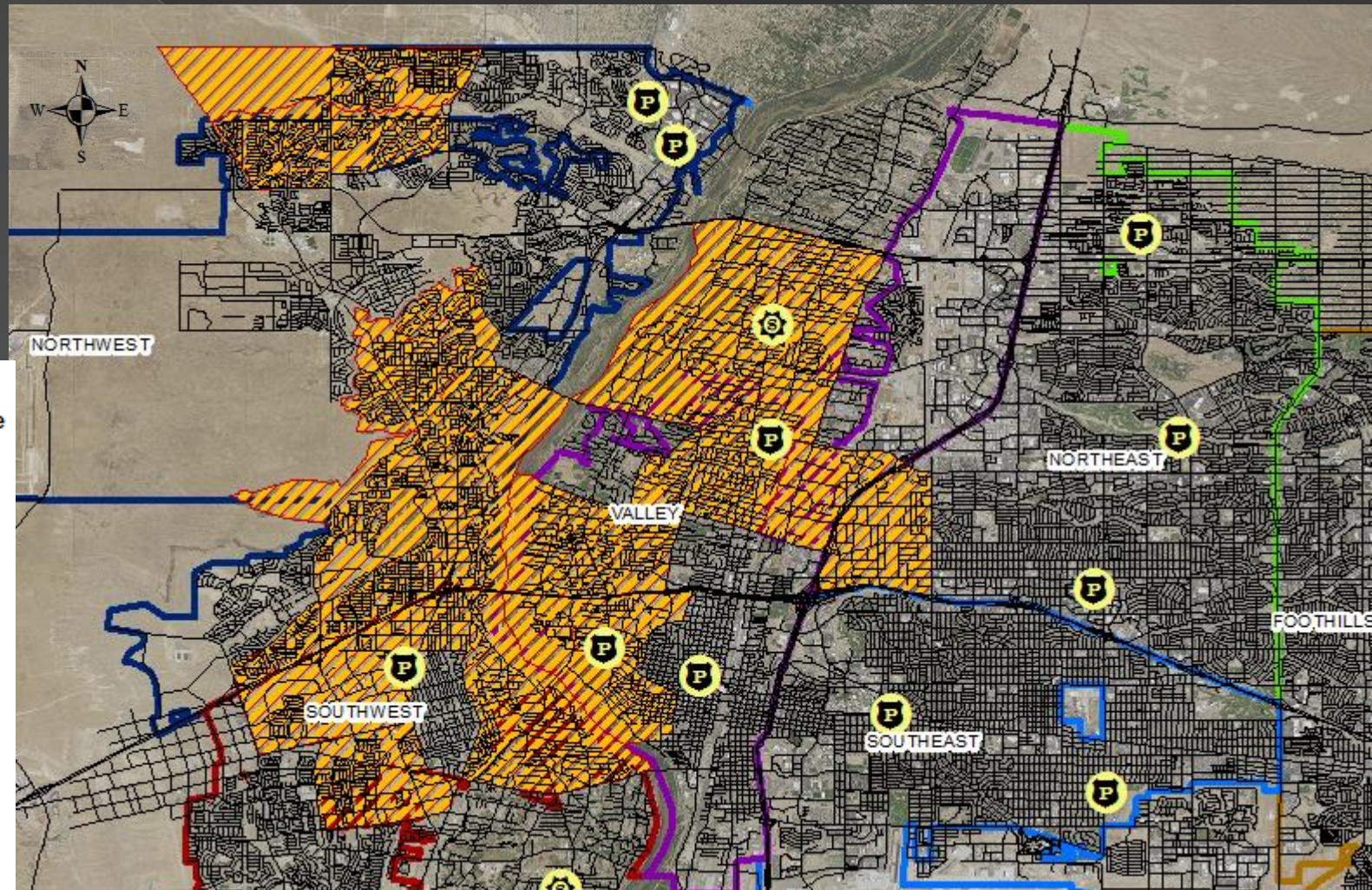
Greatest Occurrence of theft

Determining possible causes of high crime



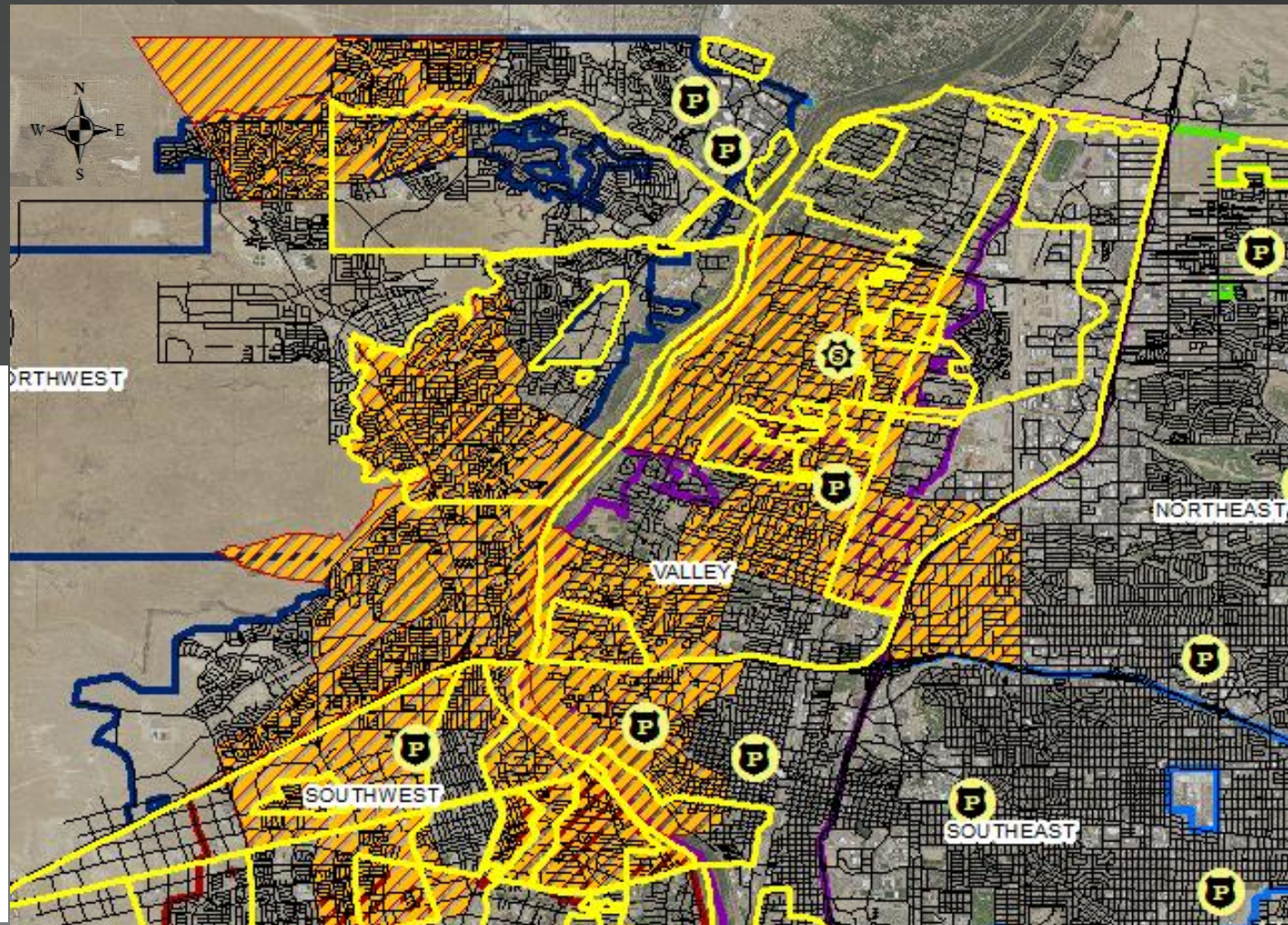
Greatest Occurrence of theft

After creating a hot spot analysis, a new layer was created from areas with the highest z-score rating



Greatest Occurrence of theft

Same map with neighborhood associations layer



How it has changed today

CRIME MAPPING™ Helping You Build a Safer Community

RECEIVE ALERTS

160, Albuquerque, New Mexico, 87110, USA

X

GO

300 Records

Date Range: 4-27-2017 to 5-3-2017 (7 Days)

FILTERS

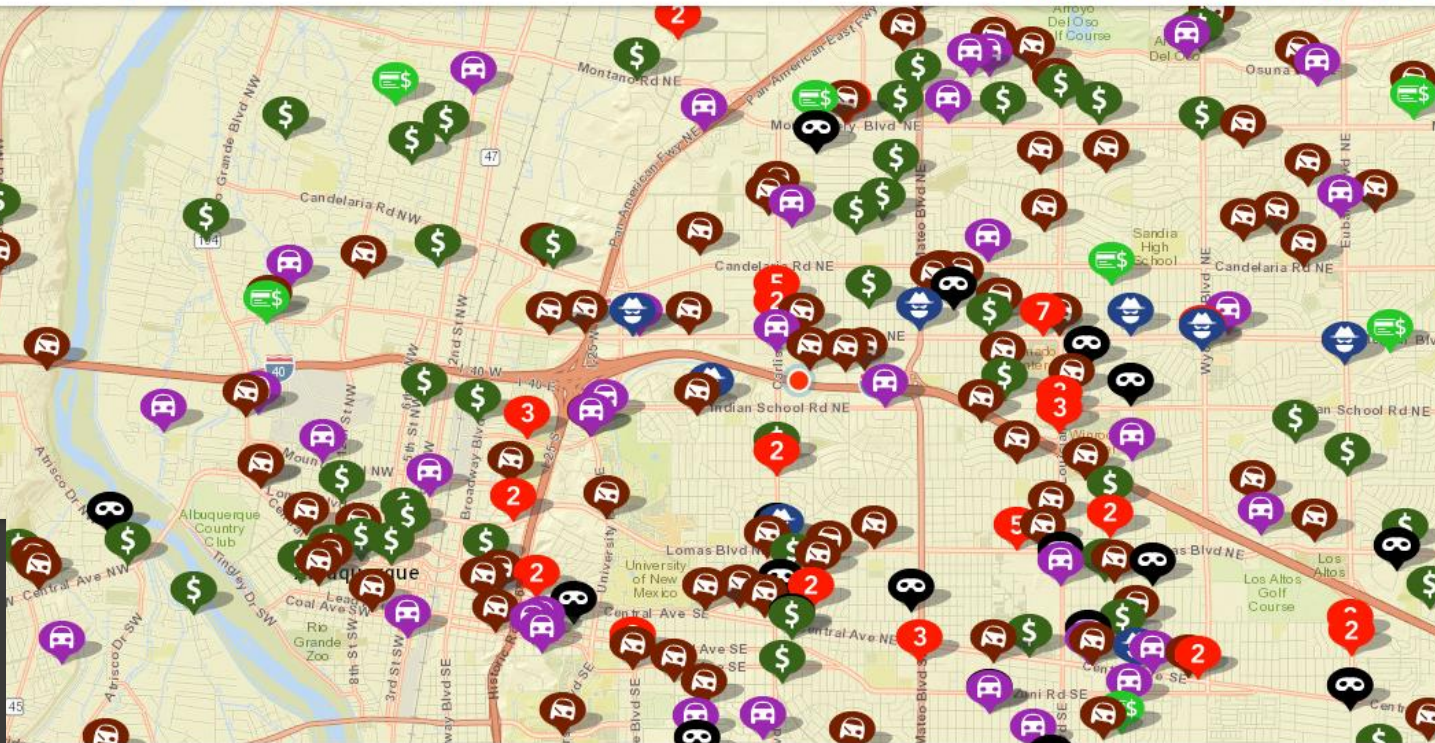
SUMMARY

WHAT

WHERE

WHEN

- Burglary
- Disturbing the Peace
- Drugs / Alcohol Violations
- DUI
- Fraud
- Homicide
- Motor Vehicle Theft
- Robbery
- Sex Crimes
- Theft / Larceny
- Vandalism
- Vehicle Break-In / Theft
- Weapons



2017 updated property crime

From 4-27-2017 to 5-3-2017

Conclusion

- From the 2010 data it was observed that areas that do not have a nearby police station or belong to a neighborhood association are more at risk for property theft
- Comparing the 2010 crime data to the crimemapping.com map, it appears that property crime is shifting towards the central areas of the city.
- For future analysis, another hot spot should be created with up to date crime information
- Solutions from data analysis:
 - Areas with a greater occurrence should be monitored more
 - Neighborhood Associations can monitor their boundaries
 - Areas without an association may want to create an association for their area or join a neighboring association.

References

- <http://www.cabq.gov/police/online-services/crime-statistics/>
- <http://www.cabq.gov/police/online-services/crime-mapping/>
- <https://www.neighborhoodscout.com/nm/albuquerque/crime>
- http://data-cabq.opendata.arcgis.com/datasets/8206e174a09a4212bc257c4a9ef413ed_0?geometry=-110.163%2C34.57%2C-102.753%2C35.916
- http://data-cabq.opendata.arcgis.com/datasets?q=albuquerque&page=7&sort_by=relevance
- <http://rgis.unm.edu/getdata/#>
- <http://data.cabq.gov/publicsafety/policeincidents/nibrAbqCodes.csv>
- <http://www.arcgis.com/home/item.html?id=01f787f6247846a190c7e61f515baf60>
- <https://www.neighborhoodscout.com/nm/albuquerque/crime>
- <http://krqe.com/2017/05/04/car-break-ins-more-than-double-on-unm-campus-since-2015/>