

DTSA 5301 - DATA SCIENCE AS A FIELD



University of Colorado
Boulder

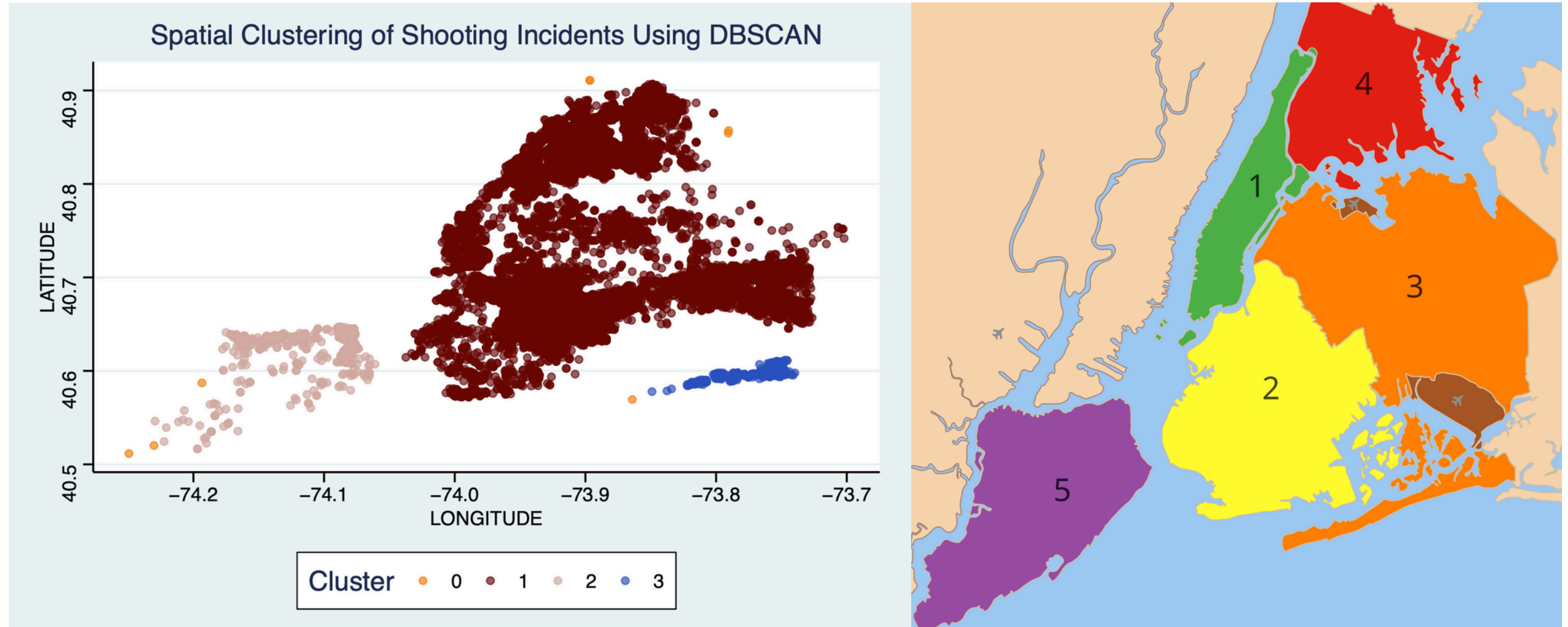
NYPD SHOOTING INCIDENT DATA PITCH DECK

PRESENTED BY FILSAN MUSA

OBJECTIVE

- TO IDENTIFY AND ANALYZE SPATIAL PATTERNS IN THE GEOGRAPHIC DISTRIBUTION OF SHOOTING INCIDENTS ACROSS NEW YORK CITY
- TO EXAMINE TEMPORAL TRENDS IN SHOOTING-RELATED INCIDENTS ACCROSS BOROUGHs

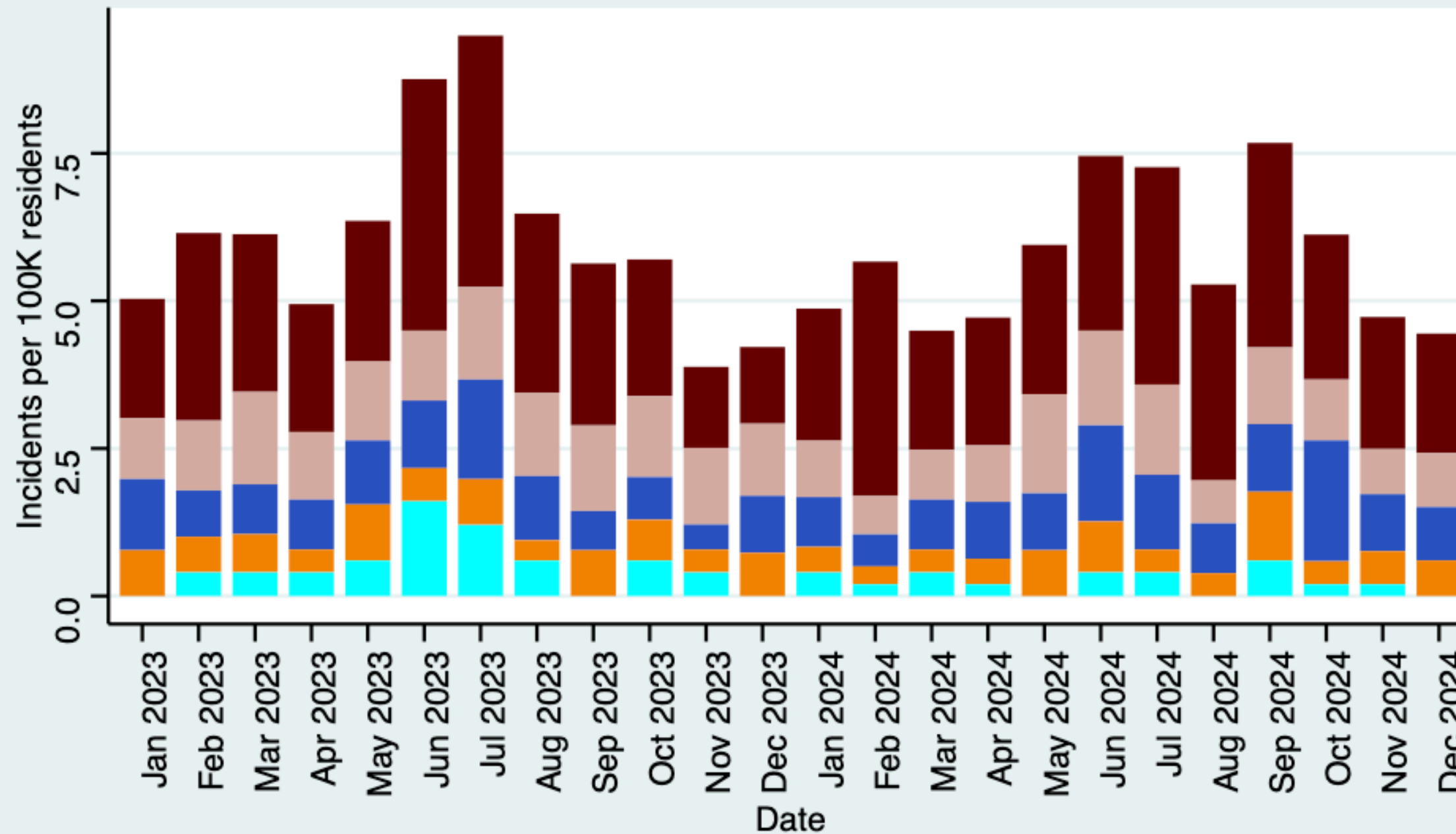
SPATIAL ANALYSIS



1. **Manhattan** (New York County) 2. **Brooklyn** (Kings County) 3. **Queens** (Queens County) 4. **The Bronx** (Bronx County) 5. **Staten Island**

TIME SERIES ANALYSIS

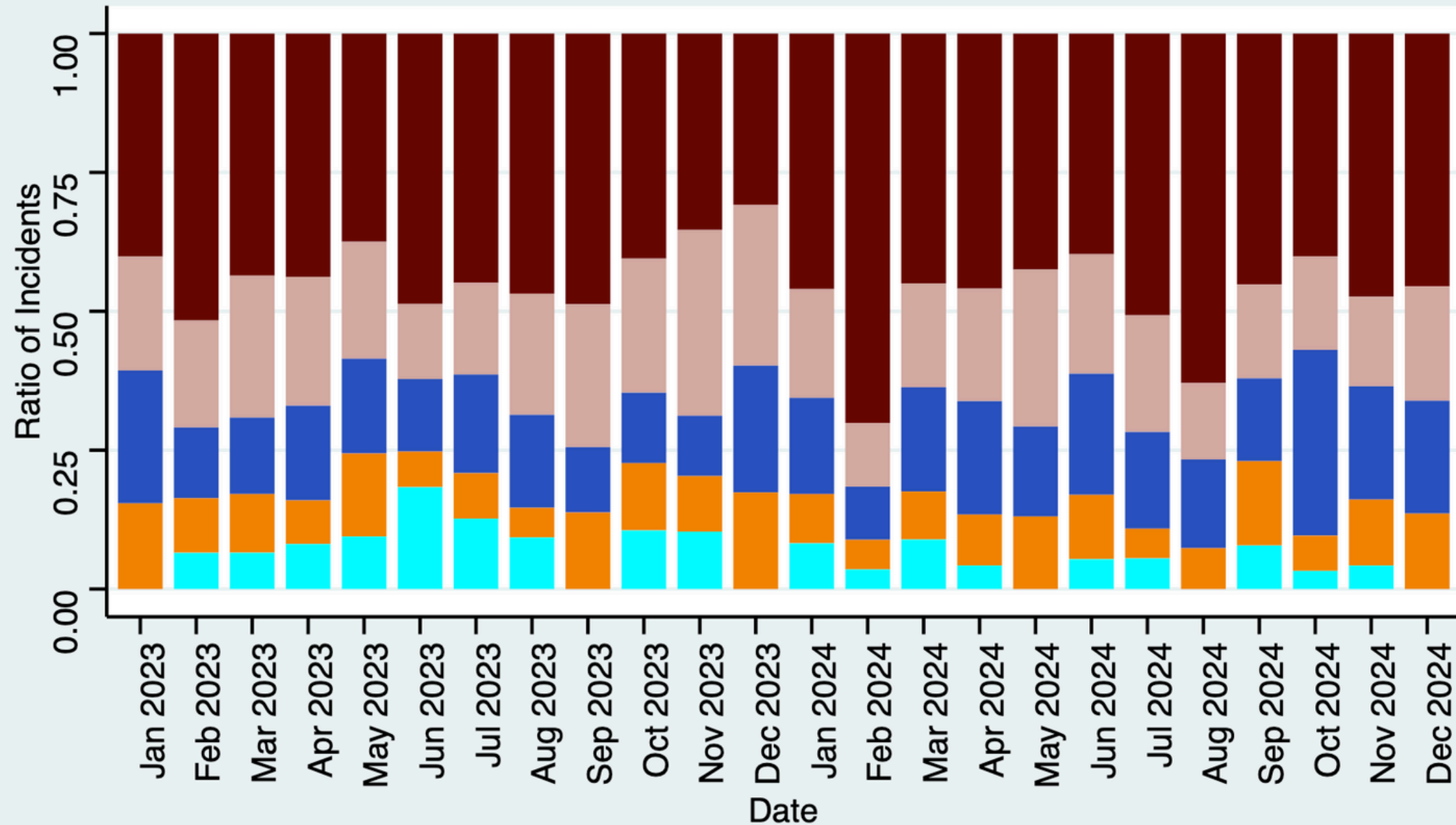
Monthly Incidents per capita by Borough (2023–2024)



Borough BRONX BROOKLYN MANHATTAN QUEENS STATEN

TIME SERIES ANALYSIS (CONT.)

Prop. Monthly Incidents per capita by Borough (2023–2024)



Borough BRONX BROOKLYN MANHATTAN QUEENS STATEN

KEY FINDINGS

DBSCAN MODEL:

- SHOOTINGS WERE MOST CONCENTRATED IN THE BRONX, BROOKLYN, MANHATTAN, AND QUEENS.

TIME SERIES MODEL:

- THE BRONX HAD THE HIGHEST PER CAPITA RATE
- MORE REPORTED SHOOTING IN THE SUMMER, AND LESS IN THE WINTER

SUGGESTION:

- TARGETED INTERVENTIONS ARE NEEDED IN THE BRONX