

For the analysis of the AB 71 (URSUS) data, the Research Center proposes the following methodologies

1. Descriptive Statistics Cross Tabulations of Categories and Incidents

We would provide a brief summary table and short conclusions/interpretations from data on:

- The proportion of cases that involved members of different racial and other identity groups.
- The number of use of force cases that involved:
 - Civilians initiating violence
 - Officers initiating violence
 - Civilians from different identity groups
 - Different types of force used on identity groups
 - Injuries, serious bodily injuries, or death
 - Arrests or Citations

2. Markov Chain Modeling of Transition Probabilities (Graphic)

To illustrate how the decisions made by officers may differ by the ethnicity of the recipient of force, we intend to show how the pattern of interactions for an incident unfolds as a chain of events.

Could ask a question like:

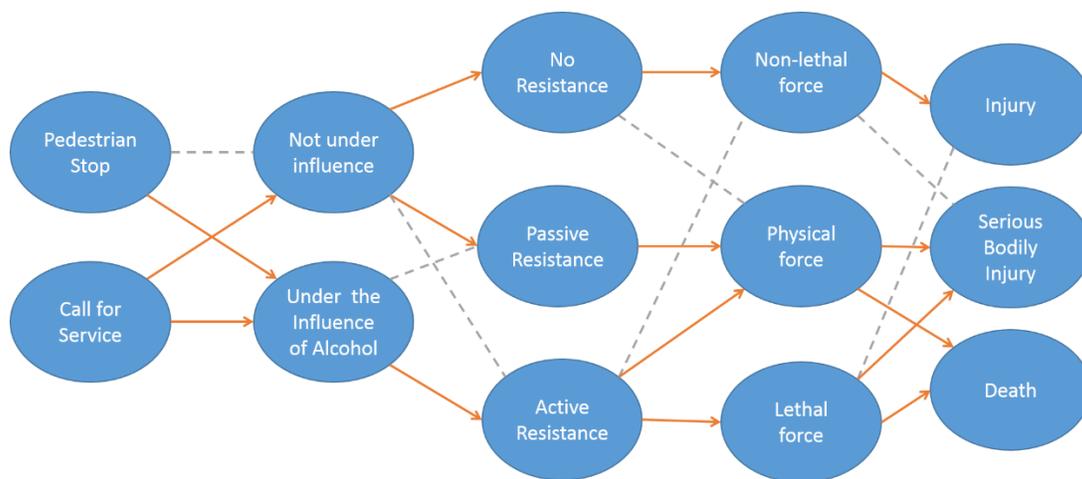
“How do incidents unfold differently for different ethnic groups?”

“Are different uses for force used for different ethnic groups?”

“What initial circumstances show the greatest likelihood for harm across and between ethnic groups?”

If we were to analyze URSUS data using this approach and illustrate the probabilities, the dotted line may indicate a low probability of a transition occurring while a solid orange line represents a high probability.¹

Figure 1: Using Markov Chains to describe URSUS Data (Example)



¹ The definition of these ranges is flexible and could be determined by what settings best represent the data and convey the most information.