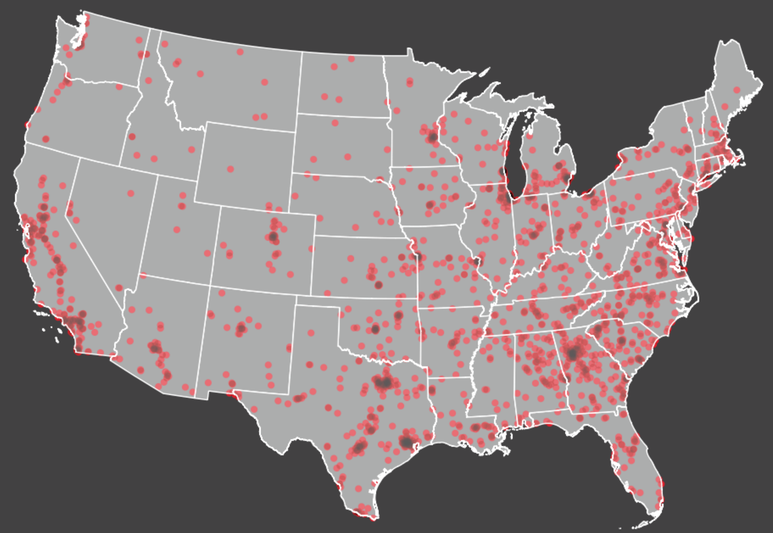
MAPPING FATAL POLICE PURSUITS

A PROPOSAL FOR STATE DATA COLLECTION

Fatal motor vehicle crashes involving police pursuits, 2016-2020



Map created in QGIS 3.22.5. Projected in North America Lambert Conformal Conic - ESRI:102009.

Base map from Census TIGER shapefiles.
Crash data from National Highway Traffic Safety Administration.

- Each dot (25 miles in scaled diameter) represents a single fatal crash

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POLICE PURSUITS WERE INVOLVED IN 455 FATAL MOTOR VEHICLE CRASHES IN 2020.

OVER 2,200 OFFICERS, SUSPECTS, AND CIVILIANS DIED IN PURSUIT-RELATED CRASHES BETWEEN 2016 AND 2020.

Currently, no national database tracks the use of high-speed pursuit as a policing tool. GIS functions can help us law enforcement professionals where and how fatal police pursuits occur, and may serve as a foundation for statewide or national data collection.

The map on the left uses red dots to mark the locations of motor vehicle fatalities involving police pursuit from 2016 to 2020. This data comes from the National Highway Traffic Safety Administration's Fatality and Injury Reporting System Tool (FIRST).

NHTSA defines a police pursuits as: "an event that is initiated when a law enforcement officer, operating an authorized emergency vehicle, gives notice to stop (either through the use of visual or audible emergency signals or a combination of emergency devices) to a motorist who the officer is attempting to apprehend, and that motorist fails to comply with the signal by either maintaining his/her speed, increasing speed, or taking other evasive action to elude the officer's continued attempts to stop the motorist." NHTSA data is pulled from police reports.

HIGHEST NUMBER OF FATALITIES PER CAPITA, 2016-2020:

1 New Mexico
2 Georgia
3 Alabama
4 South Carolina
5 Kansas
6 Oklahoma
7 Missouri
8 Arkansas
9 Texas
10 Virginia

LOWEST NUMBER OF FATALITIES PER CAPITA, 2016-2020:

1 Maine
2 Utah
3 New York
4 New Jersey
5 Hawaii
6 Florida
7 Nevada
8 Washington
9 Alaska
10 Rhode Island

MAPPING TO INFORM PURSUIT POLICY

In 2016, Ohio's governor and district attorney assembled a task force of legislators and law enforcement experts to advance recommendations regarding police pursuit policy. Its recommendations include a call for improved data collection:

"Absent the requirement to forward reports of vehicle crashes to the Ohio Department of Transportation, there is no requirement of law enforcement agencies in the state to report all vehicle pursuits. There is also no central state database for agencies to voluntarily provide vehicle pursuit information. Accordingly, it is recommended that such a data collection site be initiated and maintained, and that collected data be analyzed to further develop best practices in this law enforcement activity."

Since 2016, no such database has been developed.

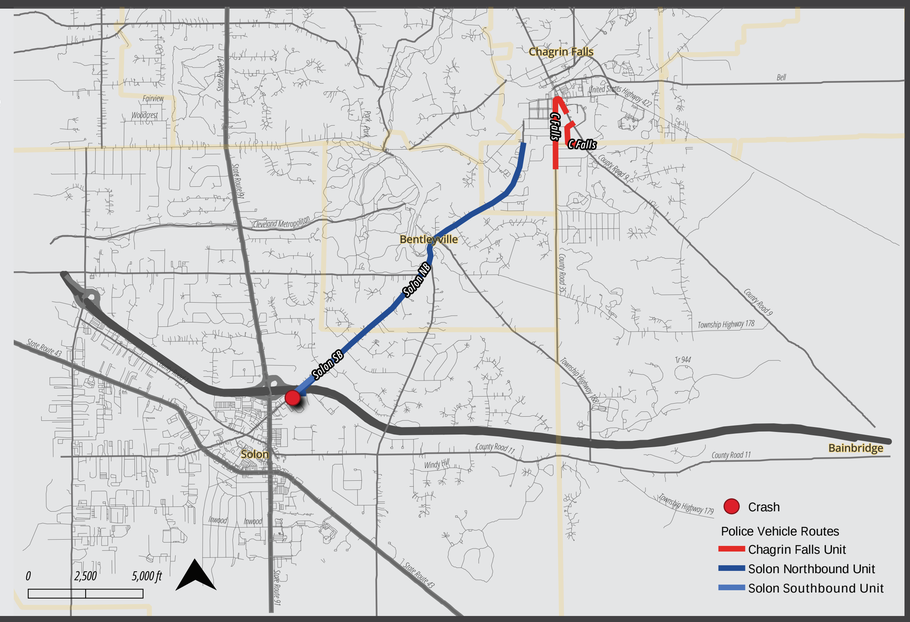
This recommendation may be di cult to implement, in part because of the nature of police pursuits in the state. Not only do police departments work together to continue chases, o cers may travel beyond the bounds of their jurisdictions under mutual aid agreements. The NHTSA collects data on the location of fatal crashes, but no national or state agency compiles data on pursuit routes.

This proposes a concept for illustrating police chases through mapping, using a single fatal chase as an example:

On December 6, 2021, police in Solon, Ohio, pursued a Ford Fusion that has been reported stolen at gunpoint. Officers pursued the suspect northbound at high speeds through nearby Bentleyville and into Chagrin Falls before losing the car. Chagrin Falls followed the Fusion for several blocks at non-pursuit speed before it turned southbound toward Solon again. Solon officers deployed Stop Sticks near the point of the chase's origin. The driver of the Fusion, traveling at approximately 85 miles per hour, hit the strip and crashed into two nearby vehicles. The crash injured two people and killed the 85-year-old passenger of one of the bystander vehicles.

A database regarding pursuit routes would include the following attributes:

- An incident ID referencing all units involved in a single incident
- Paths of police vehicles, including coordinates and distances
- Condition information, including time of day and weather
- Maximum and average speeds
  Suspect information, including potential charges and vehicle type
- Use of tire deflation devices
- Links to all police reports



Map created in QGIS 3.22.5. Projected in NA83/ Ohio North, EPSG: 3734.

Base map from Census TIGER shapefiles and OpenStreetMap data.
Routes digitized from Solon and Chagrin Falls police reports.