

For our project, we want to study the intersection of weather, traffic, and demographics. By combining data from these three fields, we believe we could create an interesting visualization to answer such questions as:

How does weather impact traffic incidents?

Does bad weather make it take longer for police/ambulances to arrive?

Are there areas of the country where bad weather makes a bigger impact?

Do poorer areas have slower first responders?

There are a variety of 'big' data sets in varying sizes, forms, and complexities that we believe would make a good challenge for ingesting, cleaning, and analyzing these topics.

Weather data:

Bigquery-public-data.noaa_historic_severe_storms

<https://console.cloud.google.com/storage/browser/gcp-public-data-nexrad-l3;tab=objects?prefix=&forceOnObjectsSortingFiltering=false>

Other Datasets of Note to be utilized:

Dataset	Usage
Weather Based Datasets:	
NOAA's: NOAA Rapid Refresh: https://aws.amazon.com/marketplace/pp/prodview-cudzt5ffcconu?sr=0-8&ref_=beagle&applicationId=AWSMPContessa#overview	Freely accessible weather forecast data across North America updated with hourly predictions
NOAA's lightning strike dataset: https://console.cloud.google.com/marketplace/product/noaa-public/lightning	Historical lightning strike data providing the origin of recorded lightning strikes on a daily basis starting from 1997
NOAA's Severe storm dataset: https://console.cloud.google.com/marketplace/product/noaa-public/severe-storm-events	Historical major storm data including storm event's location, azimuth, distance, impact, and severity from 1950
Traffic Datasets:	
NHTSA Traffic Fatalities: https://console.cloud.google.com/marketplace/product/nhtsa-data/nhtsa-traffic-fatalities	Traffic Incident Data, including types of cars and roads, the maneuvers that preceded the accident, and the involvement of pedestrians and cyclists.
US Accidents (2016-2023): https://www.kaggle.com/datasets/sobhanmoo/savi/us-accidents	Comprehensive dataset including geospatial location alongside key weather timestamps of traffic accidents
Miscellaneous Linkage Data:	

Census Bureau Data: https://console.cloud.google.com/marketplace/product/united-states-census-bureau/acs?q=search&referrer=search&project=mattbigquerytest1&pli=1	Miscellaneous data that can be used to link traffic data to weather based datasets
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