

## Overview:

- ❑ Signal Four Analytics is a statewide interactive, web-based geospatial crash analytical tool.
- ❑ Developed by and hosted at the University of Florida, Geoplan Center.
- ❑ Application site: [S4Analytics \(signal4analytics.com\)](http://signal4analytics.com)
- ❑ Informational site: [Signal Four Analytics \(ufl.edu\)](http://ufl.edu)

## Target Audience:

- Developed for Florida Government Agencies:  
Law Enforcement, Traffic Engineering, Transportation Planning, School Transportation, Injury Prevention, Universities, Other Organizations related to Traffic Safety. For questions on access, you can refer to the information website and request account section.
  
- Private Contractors/Consultants that are contracted by Florida public agencies.



## Support and Funding:

- Funded by the State of Florida-Florida Traffic Records Coordinating Committee (TRCC)
- TRCC's mission is to improve traffic information systems in the state.
- TRCC manages federal funds available.

[Florida Traffic Records Coordinating Committee \(fltrafficrecords.com\)](http://fltrafficrecords.com)



## Support and Funding:

### TRCC Representatives Include:

Department of Transportation

Department of Health

Department of Highway Safety and Motor Vehicles

Agency for Health Care Administration

Florida Highway Patrol

## Signal Four Analytics Focus:

- Accessibility
- Timeliness
- Utilization
- Geospatial Analytics

## Signal Four Analytics Database Records:

- ❑ Crash Records nearly 7 million from 2011 to date, received nightly from FLHSMV.
- ❑ Citation Records over 35 million from 2011 to date, received nightly from the FCCC.



## GIS Roadway Database:

### GIS Streets:

- Navteq Florida, Unified Basemap

### Crash Mapping

- Law Enforcement Officers on site (30%)

### The rest:

- UF Batch Automatic Geocoding

### Editor Mapping

- UF editor mapping (Orange, Osceola, Seminole)
- Alachua county (in house staff)
- Other

## S4 Features-New Application Launched Dec 2020:

### A. Main Features

1. Public Facing Dashboard
2. Record Search
3. Standard Reports
4. Event Analysis

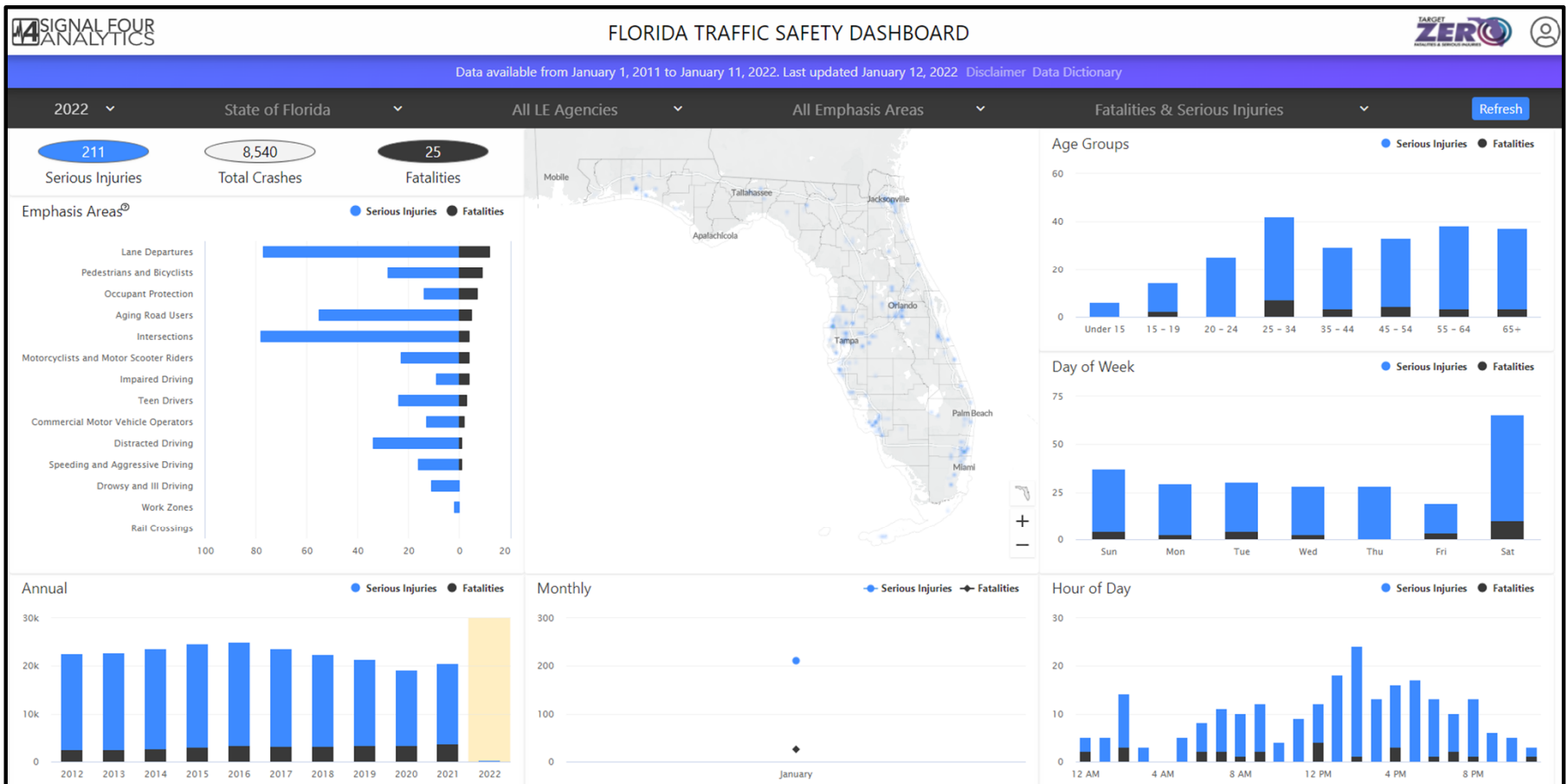
### B. Data Dictionary

### C. Data Download

### D. Future Features

## A. Main Features:

### 1. Florida Traffic Safety Dashboard



Public facing, no login required. Works on modern browsers.



## A. Main Features: 2. Record Search

RECORD SEARCH

Data available from January 1, 2011 to January 11, 2022. Last updated January 12, 2022 [Disclaimer](#) [Data Dictionary](#)

Search Crashes

HSMV AGENCY

Enter HSMV crash report numbers separated by a comma...

Or select a file

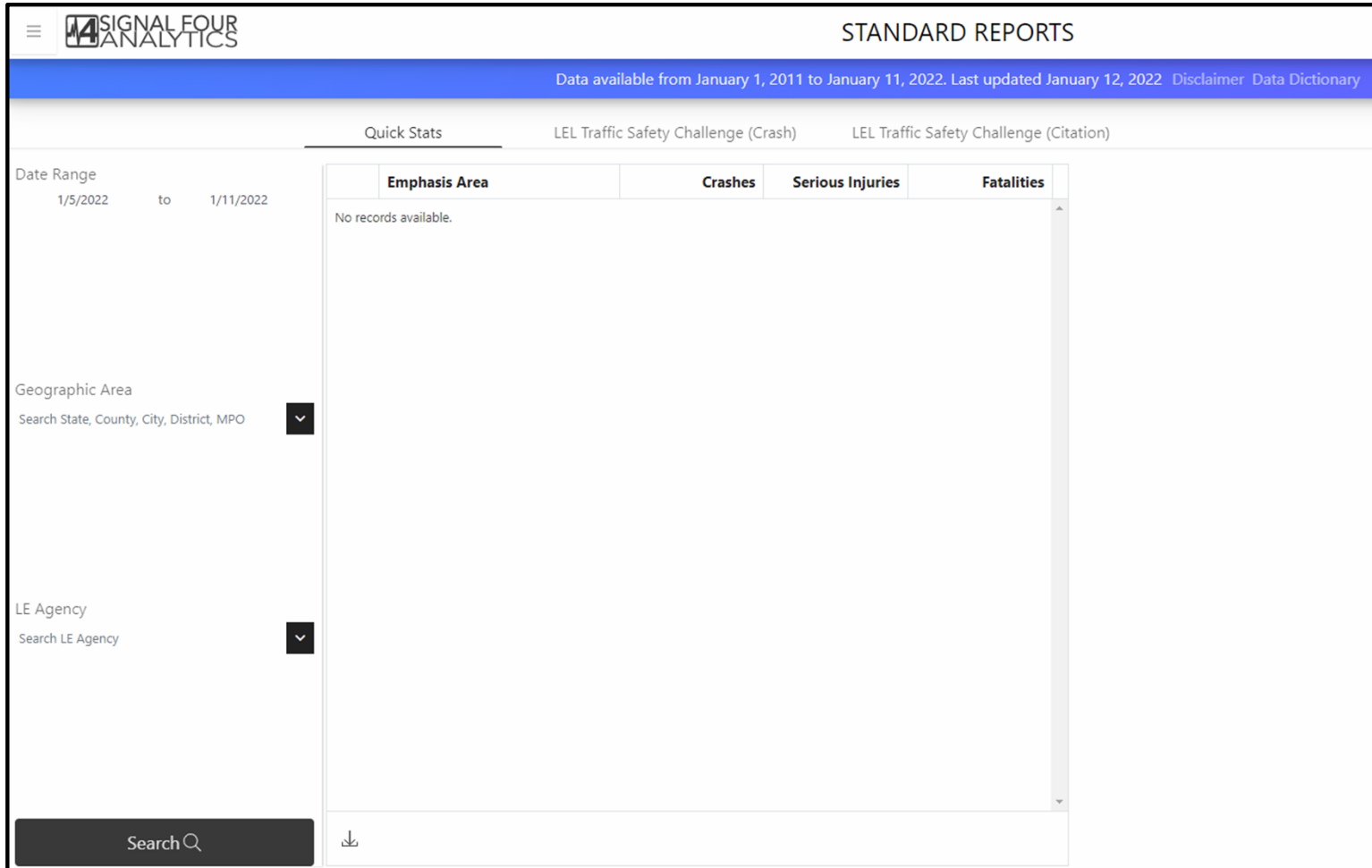
Gulf of Mexico

HSMV Report #	Reporting Agency Case #	Reporting Agency	Crash Date	Crash Time	City	County
No records currently being displayed. Please issue a query...						

Search

Ability to search records by HSMV or Agency Report Number, map/charts/download available.

## A. Main Features: 3. Standard Reports



**STANDARD REPORTS**

Data available from January 1, 2011 to January 11, 2022. Last updated January 12, 2022 [Disclaimer](#) [Data Dictionary](#)

Quick Stats    LEL Traffic Safety Challenge (Crash)    LEL Traffic Safety Challenge (Citation)

Date Range: 1/5/2022 to 1/11/2022

Emphasis Area	Crashes	Serious Injuries	Fatalities
No records available.			

Geographic Area: Search State, County, City, District, MPO

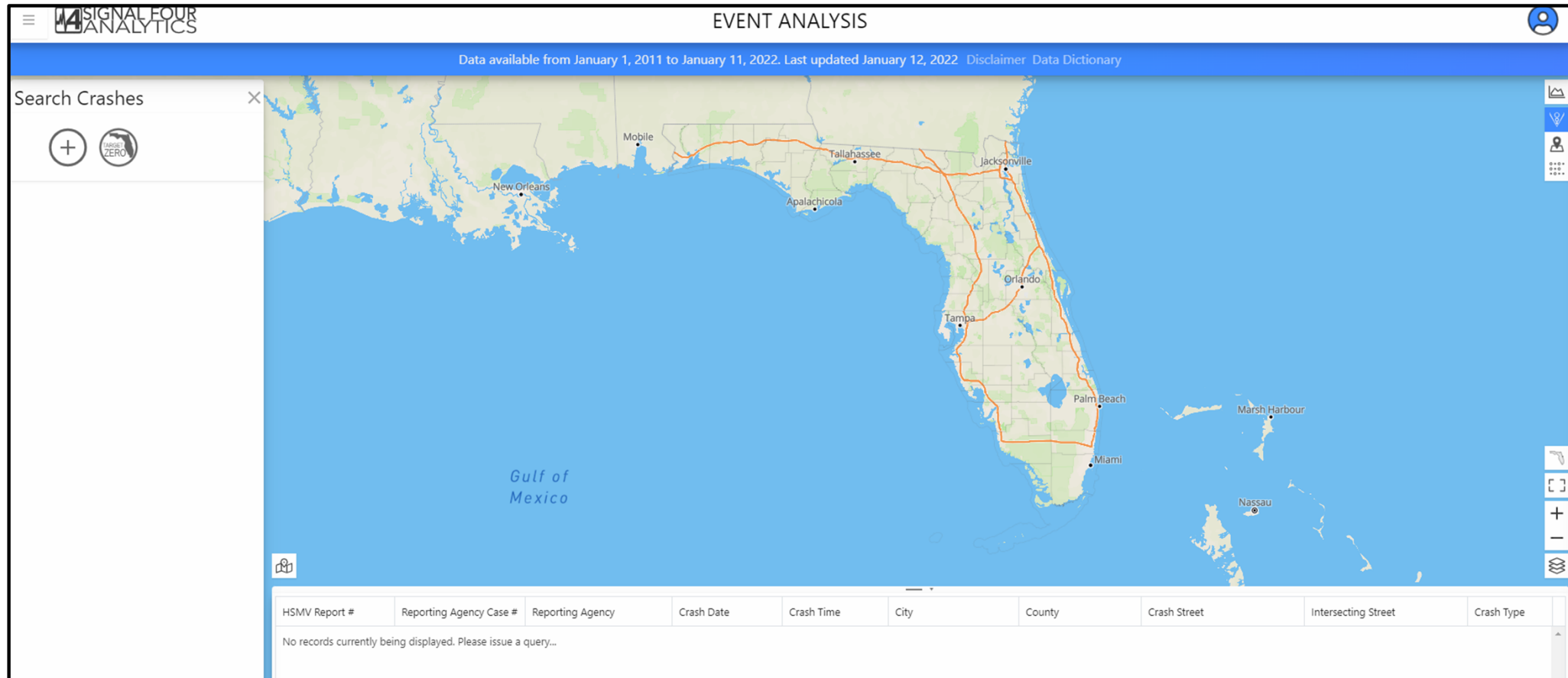
LE Agency: Search LE Agency

Search

[Download](#)

Ability to pull quick stats for concept papers/LEL Challenges, option to download.

## A. Main Features: 4. Event Analysis



EVENT ANALYSIS

Data available from January 1, 2011 to January 11, 2022. Last updated January 12, 2022 Disclaimer Data Dictionary

Search Crashes

HSMV Report # Reporting Agency Case # Reporting Agency Crash Date Crash Time City County Crash Street Intersecting Street Crash Type

No records currently being displayed. Please issue a query...

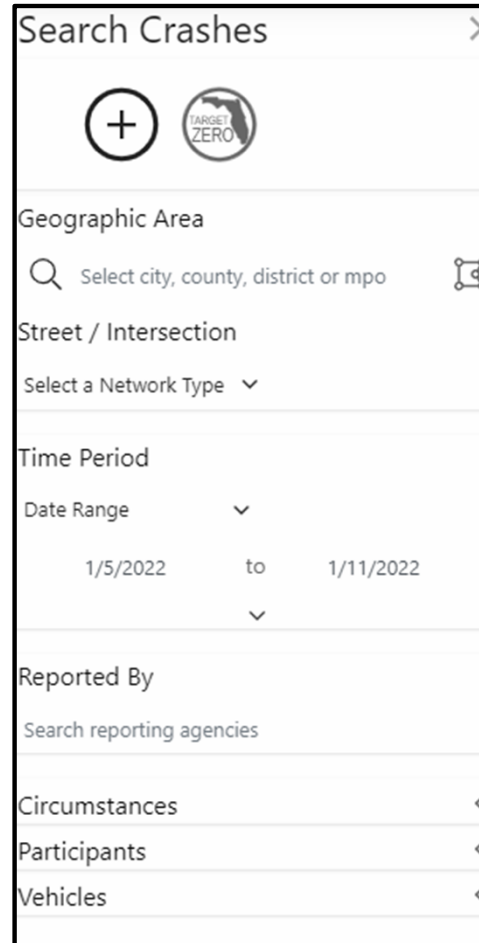
Ability to search by new query/Emphasis Area query, download and expanded filter options.



## A. Main Features:

### 4. Event Analysis Features:

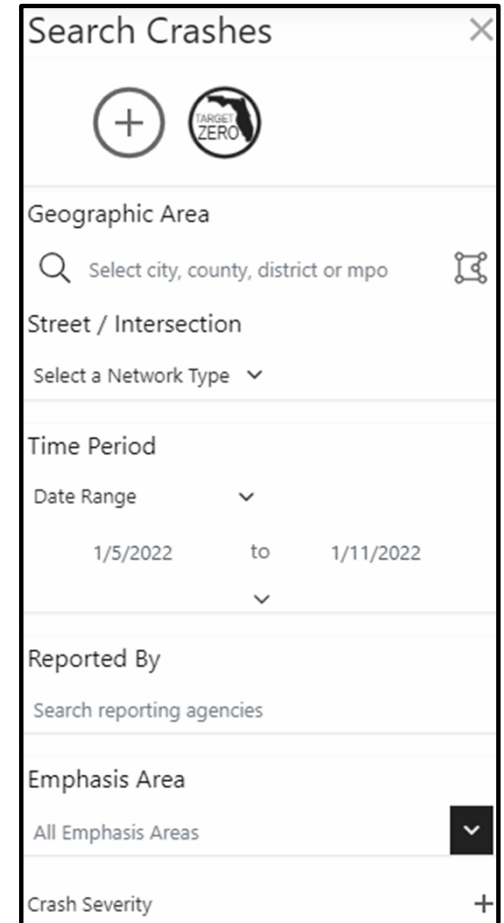
Ability to filter by either a new query option or Emphasis area option.



The 'Search Crashes' form in 'New Query' mode includes the following sections:

- Geographic Area:** A search input field with the placeholder text 'Select city, county, district or mpo' and a location pin icon.
- Street / Intersection:** A search input field.
- Select a Network Type:** A dropdown menu.
- Time Period:** A section containing a 'Date Range' dropdown menu with the selected range '1/5/2022 to 1/11/2022' and a downward arrow.
- Reported By:** A search input field with the placeholder text 'Search reporting agencies'.
- Filtering Options:** A list of categories with left-pointing chevrons: 'Circumstances', 'Participants', and 'Vehicles'.

New Query



The 'Search Crashes' form in 'Emphasis Area Query' mode includes the following sections:

- Geographic Area:** A search input field with the placeholder text 'Select city, county, district or mpo' and a location pin icon.
- Street / Intersection:** A search input field.
- Select a Network Type:** A dropdown menu.
- Time Period:** A section containing a 'Date Range' dropdown menu with the selected range '1/5/2022 to 1/11/2022' and a downward arrow.
- Reported By:** A search input field with the placeholder text 'Search reporting agencies'.
- Emphasis Area:** A dropdown menu with the selected option 'All Emphasis Areas' and a downward arrow.
- Crash Severity:** A dropdown menu with a plus sign icon.

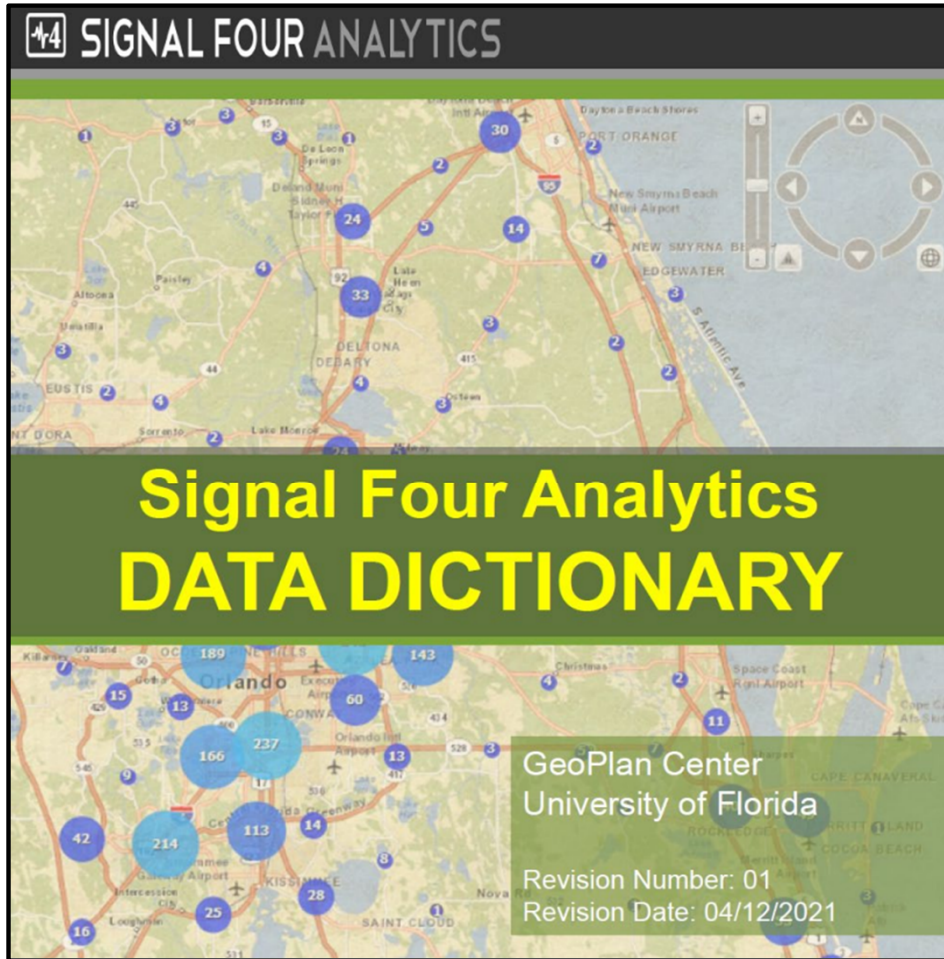
Emphasis Area Query

## A. Main Features:

### 4. Event Analysis Features:

- New Query-Expanded Filter Options by category of:  
Circumstances, Participants, Vehicles
- Emphasis Area Query- Emphasis Area and Crash Severity filter options.
- Common to both:  
Expanded download, multiple legend options, expanded time period, street/intersection/custom network options, custom draw tool, map visualization, multiple basemap options.

## B. Data Dictionary Available

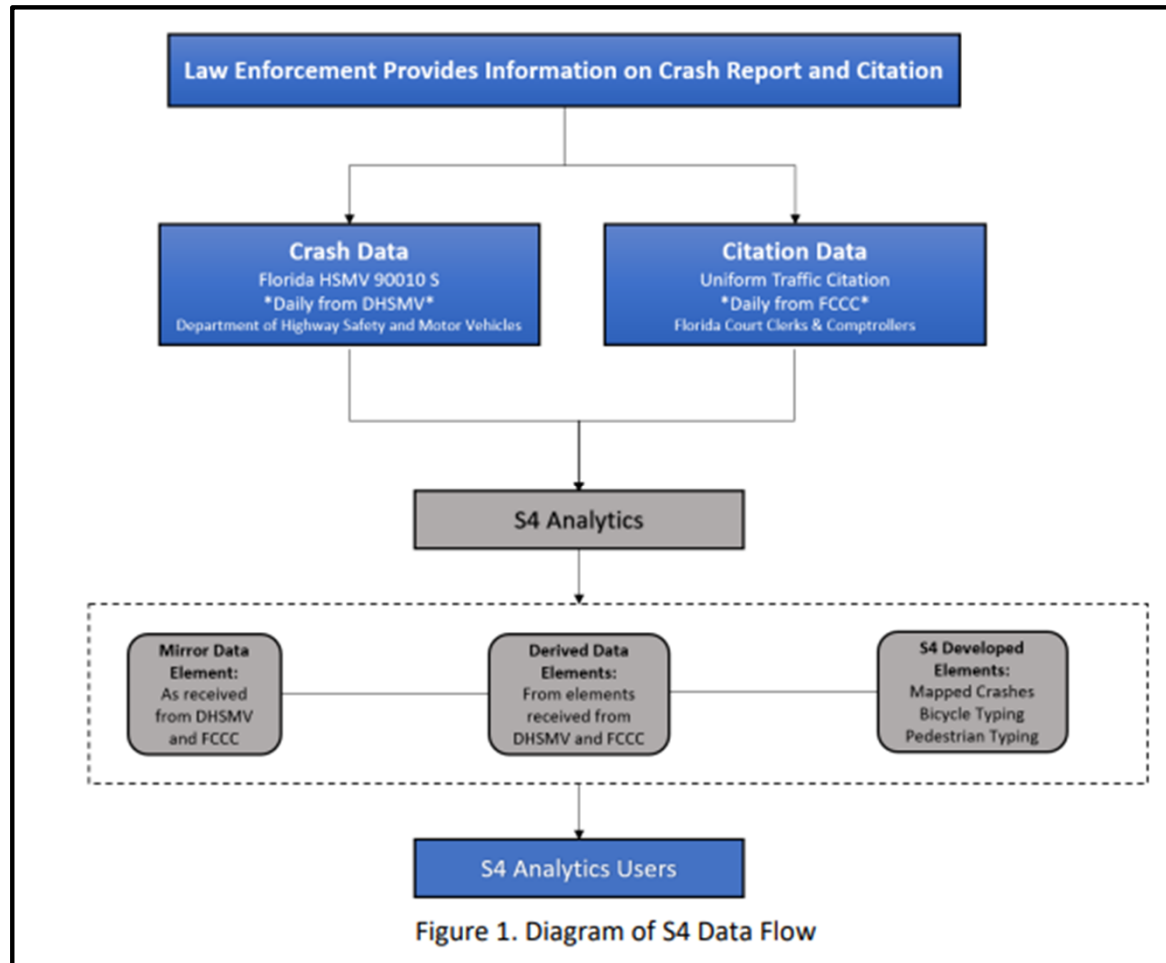


- Table of Contents
- Signal Four Analytics Data Dictionary
- Glossary of Terms
- Appendix
- Table of Index

[S4 Data Dictionary.pdf \(signal4analytics.com\)](https://signal4analytics.com/S4_Data_Dictionary.pdf)

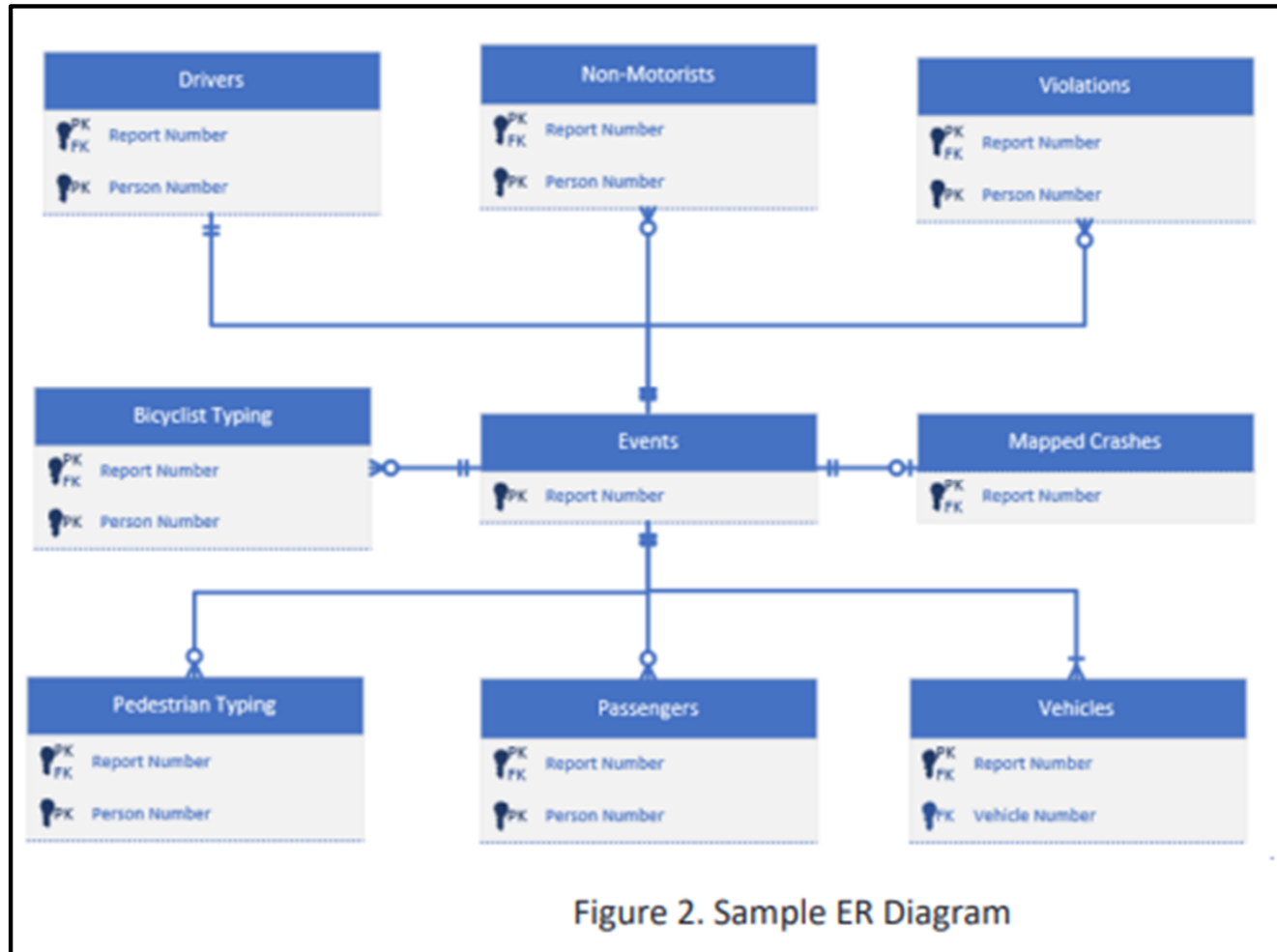
# B. Data Dictionary

## Data Dictionary: Data Flow



# B. Data Dictionary

## Data Dictionary: ER Diagram



# B. Data Dictionary

## Data Dictionary: Sample Page

Group+Element Number. Data Element Name

**Definition:**  
The definition of the element.

---

**Attributes:**

Code	Code Description
1	Attribute one
2	Attribute two

---

**Data Source:** Data Source for this element.

**Author:** Author for this element.

**Comments:**  
A comment about for this element.

**E11. City Code**

**Definition:**  
Florida Department of Highway Safety and Motor Vehicles code which identifies, when used in conjunction with the County Code, the city in which the crash occurred.

---

**Attributes:**

Code	Code Description
1-99	Valid
0	Unknown

---

**Data Source:** Florida Department of Highway Safety and Motor Vehicles

**Author:** Florida Law Enforcement Agency

**Comments:**  
The code consists of 2 digits(See Appendix: City Code).

## C. Data Download

Data Download: Options to select tables separately, mapped crashes and crash reports.

### Select Data to Download

Crash Tables in CSV format (max 800,000 records per table)

- Events (61 records)
- Drivers (118 records)
- Non-motorists (1 records)
- Passengers (21 records)
- Vehicles (129 records)
- Violations (49 records)
- Pedestrian Typing (0 records)
- Bicycle Typing (0 records)

Mapped Crashes in GIS file geodatabase format (max 800,000 crashes)

- Mapped Crashes (49 records)

Police Crash Report in PDF format (max 300 reports)

- Crash Reports (61 records)

Data Dictionary Cancel OK

### Download Job 3754

Crash Tables in CSV format

- ✓ Events (61 records)
- ✓ Drivers (118 records)
- ✓ Non-motorists (1 records)
- ✓ Passengers (21 records)
- ✓ Vehicles (129 records)
- ✓ Violations (49 records)

Mapped Crashes in GIS file geodatabase format

- ✓ Mapped Crashes (49 crashes)

Police Crash Report in PDF format

- ✓ Crash Reports (61 records)

---

We have scheduled your request as **Job #3754**. You will receive an email shortly at [msnow@dcp.ufl.edu](mailto:msnow@dcp.ufl.edu) with the data download link. If you do not receive the email within 2 hours, please email us at [s4-support@ufl.edu](mailto:s4-support@ufl.edu) and include the Job#. Please add [s4-support@ufl.edu](mailto:s4-support@ufl.edu) to your address book to ensure email delivery.

Data Dictionary OK

## C. Data Download

Data Download: Sent to email on file.

The crash data you requested on 9/8/2021 1:42 PM from Signal Four Analytics (job# 3754) is now available for download. The compressed file size is 7.62 MB.

**This file will be available for download for 3 days till 9/11/2021 1:42:30 PM.** If you miss downloading the file by then, you will have to put in a new data download request in Signal Four Analytics.

[Click here to download the data](#)

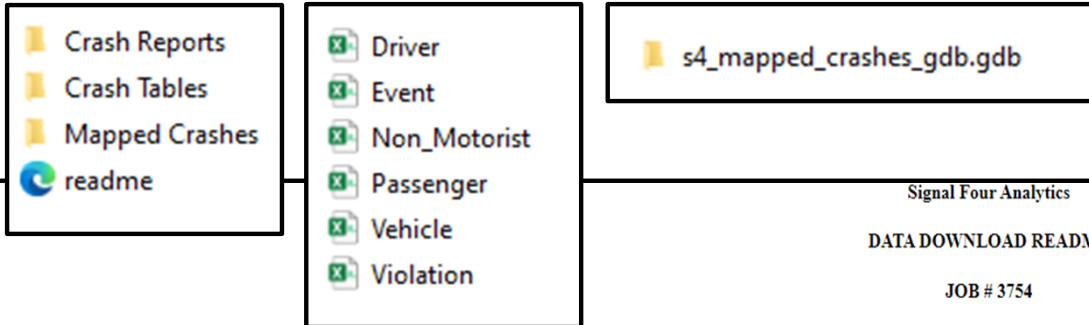
Please contact us at [s4-support@ufl.edu](mailto:s4-support@ufl.edu) for any issues regarding this download and reference the download job# 3754.

Best regards,  
Signal Four Analytics Team  
GeoPlan Center  
University of Florida  
[s4-support@ufl.edu](mailto:s4-support@ufl.edu)



## C. Data Download

Data Download: Crash Tables, Mapped Crashes, Police Reports, Readme File



This folder contains data downloaded from Signal Four Analytics (signal4analytics.com) by user Michele Snow, username msnow, on 9/8/2021 1:42:33 PM. This document explains the folder structure, the query parameters selected, and the files selected for download including the number of records returned by the query in each file.

### DATA FOLDERS

The downloaded data is provided in three folders.

- **Crash Tables** contains the crash data in csv format including events, drivers, non-motorists, passengers, vehicles, violations, bicycle typing and pedestrian typing.
- **Mapped Crashes** contains a GIS file with only the crash records that have been mapped. The unmapped crashes are not included in this file.
- **Crash Reports** contains individual police crash reports in PDF format.

### QUERY PARAMETERS

```
dateTime:
{ startDate: 9/1/2021,
  endDate: 9/7/2021
}
reportingAgency: {
  Gainesville Police Department
}
```

### FILES DOWNLOADED

- Events (61 records)
- Drivers (118 records)
- Non-Motorist (1 records)
- Passengers (21 records)
- Vehicles (129 records)
- Violations (49 records)
- Mapped Crashes (49 crashes)
- Crash Reports (61 reports)

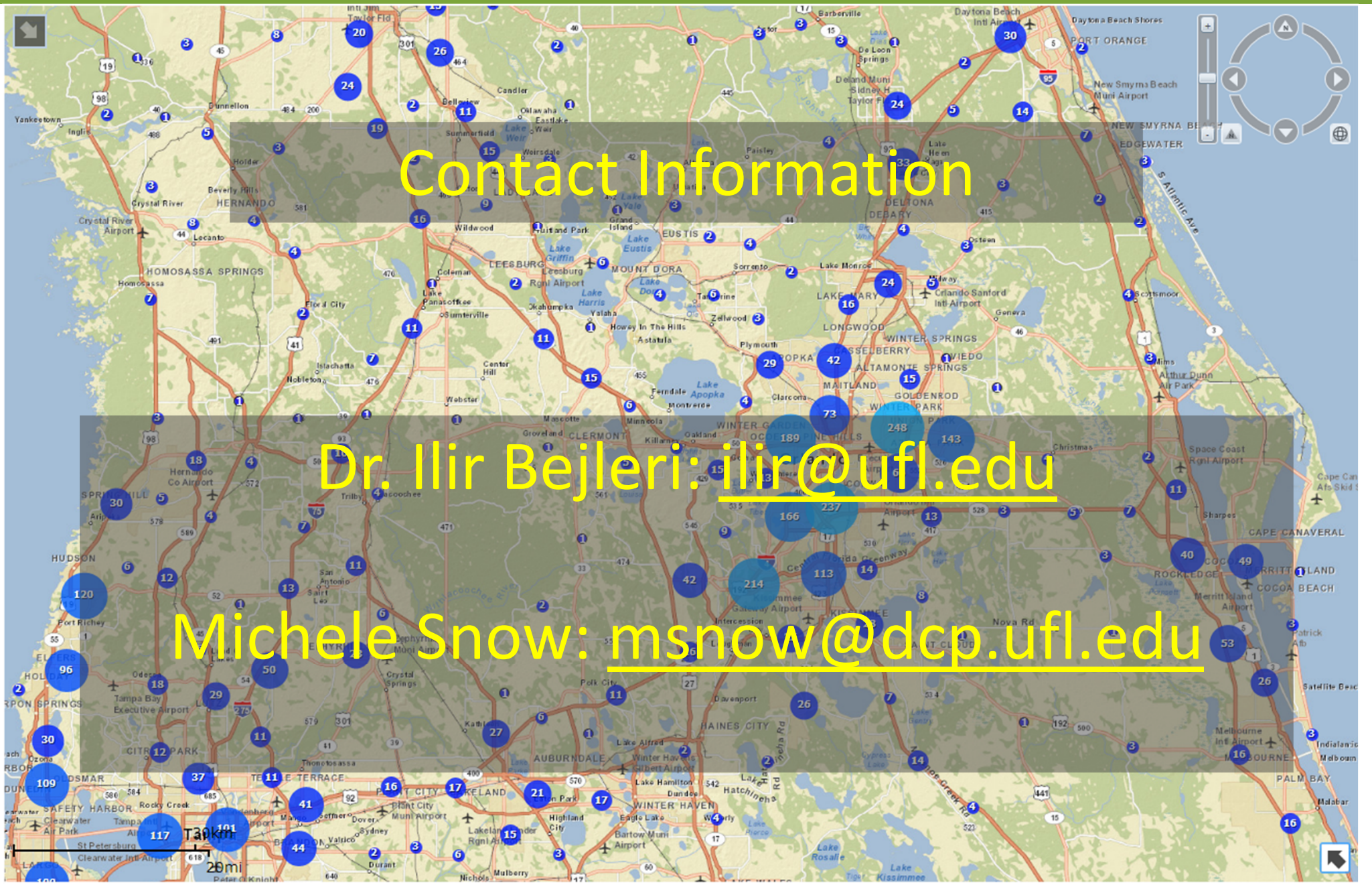
## D. Future Features

- Network Analysis
- Citations
- Saved and Shared Queries
- Improvements to User Management Functionality
- Additional Analytical Features (Power Users)
  
- Integration of DOT's CAR functionality

## Training Link:

[https://ufl.zoom.us/rec/share/7\\_Tiry7g7JXlnRXxh7KKpvXw-FilyQhQZLUMuWC0HIbZ5PW7J4UiA6iO77jtA37S.UW2Xggy3bj6dMEyV?startTime=1638988533000](https://ufl.zoom.us/rec/share/7_Tiry7g7JXlnRXxh7KKpvXw-FilyQhQZLUMuWC0HIbZ5PW7J4UiA6iO77jtA37S.UW2Xggy3bj6dMEyV?startTime=1638988533000)





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