

### 2021-2022 Crash &UTC Data Improvement Grant



### Increase UTC accuracy and completeness by 5% based on the previous year's baselines

Defined "Accuracy" as "No review required" which equals "officer mapped" and "computer confident" and call this "% Accepted as Accurate."

#### Baseline: 10/01/20 – 9/30/21 (675,481 reports)

- Officer mapped 187,529
- Computer confident 159,096
- > 51.31% Accepted as Accurate

#### Current: 10/01/21 - 8/31/22 (632,448 reports)

- Officer mapped 184,050
- Computer confident 149,061
- > 52.67% Accepted as Accurate (or 333,111 of 632,448)



Define a process to provide crash location accuracy reports to LEA on a quarterly basis

FDOT/FLHSMV meeting held on 9/1 to demo FDOT/S4 geolocation process merger.

- Key take aways:
  - How analysts determine accuracy
  - Fatal report that FDOT provides FLHSMV FARS Unit will be added to S4 (pending fully merged roadway data w/in S4)
  - FDOT Goal is to determine collision of crash 5 feet from impact
  - Location data being collected in back end to create location comparison report (FDOT verified, LEA submission, S4)

Define a process to provide crash location accuracy reports to LEA on a quarterly basis

#### Next Steps:

- FLHSMV to coordinate with FDOT on receiving verified location data
- Understand FDOT location comparison report's rating criteria:
  - Foot of distance comparison between the FDOT verified location and original location submission
- Determine how to incorporate this data within LEA ACT quarterly reports

Identify and develop a method to conduct sample-based audits for electronically submitted crash reports to improve the FLHSMV crash system's data quality program.

Samples were received from FHP, PDs, and SOs and include a sampling from all active e-crash vendors.

- ❖ 169 reports were solicited
- ❖ 151 reviewed (84 long forms, 67 Updates), from 67 different agencies
- Methodology:
  - Crash report was broken into 8 sections
  - Total number of 47,146 fields compared
  - Reviewed 151 reports for data element field errors
  - Error Classification: Inaccurate, Incomplete, or as a Uniformity Discrepancy



Identify and develop a method to conduct sample-based audits for electronically submitted crash reports to improve the FLHSMV crash system's data quality program.

#### Results:

- Out of 47,146 data fields reviewed, 11 data fields (or 0.03%) were found to be **Inaccurate**
- Out of 47,146 data fields reviewed, 55 data fields (or 0.06%) were found to be Incomplete
- ❖ Based on 47,146 fixed data fields reviewed, there were 35 additional fields, which is a **Uniformity Discrepancy** of 0.07%

### **Project Objectives- UTC**

Create a survey for stakeholder to determine the accessibility of Citation and Adjudication data for their needs

- The grant team identified citation/adjudication stakeholders
- Created a citation/adjudication stakeholder survey to determine data accessibility needs
- Leadership approval was received, and survey was distributed:
  - On 8/31/22
  - Closes 9/14/22
  - 1,716 users

### Project Objectives- UTC

Establishing a UTC accessibility performance measure and baseline

#### **Next Steps:**

- Await close out to compile and review responses
- ❖ Identify baseline and develop performance metric to improve the accessibility of citation and adjudication data.

### Information to know from Crash Records

#### April – June 2022 Quarterly Statistics

- E-crash percentage = 98.52%
- ❖ 170,643 out of 173,209 crash reports were electronically submitted.
- Crash timeliness for the quarter was 80.45%



### 2021-2022 Crash &UTC Data Improvement Grant





# FFY 2022 Driver and Vehicle Data Quality Improvement Grant Asher Lucas, OPS Project Analyst



### **Grant Objectives Review**

- ➤ Create a project plan and charter to clarify responsibilities to implement project goals.
- ➤ Develop performance measure(s) for the driver records system, including baseline measurements, and establish numeric goals to evaluate performance.
- ➤ Develop performance measure(s) for the vehicle records system, including baseline measurements, and establish numeric goals to evaluate performance.
- ➤ Identify recommendations for ongoing monitoring of data quality management and evaluation for the driver and vehicle system.



### **Overview of Current Status**

- > Project plan was demonstrated previously; charter created shortly after.
- ➤ Determined driver and vehicle data sets, performance measures, baseline measurements, and goals for improvement.
  - ➤ Driver Data measure monitors incidence of duplicate SSNs in our driver records system ("Duplicate SSN Report").
  - ➤ Vehicle Data measure looks at the rate of non-conforming VINs on new and used title issuances ("Invalid VINs Report") in our vehicle records system.
- > Ongoing monitoring recommendation is to use and optimize these reports.
- ➤ More measures are being explored for both systems:
  - > SSN verification
  - DL purge records
  - > Temporary tag fraud identification



### Driver Data – Duplicate SSN Report

- Each individual in our database (DB) should have one unique customer number and one unique SSN.
- After analysis, determined there are records with same SSN, but different customer numbers in our DB. Below are some of the common types:

Type of duplicate SSN	Cause/Reason	Additional Details
Pseudo SSNs	No system checks exist to flag pseudo SSNs (pending)	999-99-9999 excluded from analysis (soft business rule)
Same first, middle, last name	User error	Records need merged/deleted
Different names	Name change, typo, fraud (also pseudo)	



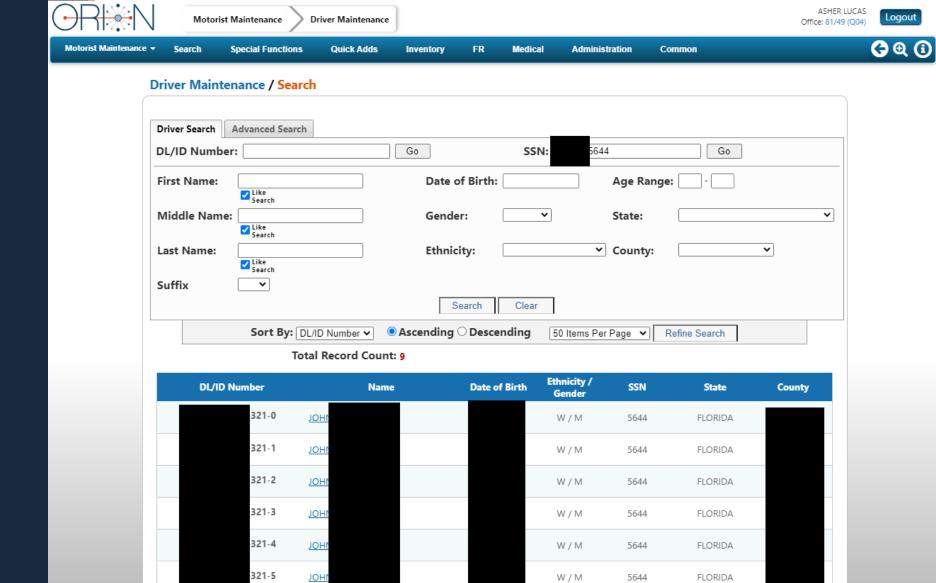
## Driver Data – Duplicate SSN Report (cont.)

- ➤ Main reasons for duplicate (non-pseudo ) SSNs:
  - Same name often indicates exam-only transactions (Road Signs, Road Rules, Class E Vision, etc.)
  - ➤ Name change
    - ➤ This changes license number in most cases, making detection difficult.
  - > Fraud
    - ➤ Usually these SSNs are fairly-obviously fake, e.g. all 1's and 2's, but still accepted by FLHSMV systems because of potential authenticity.
- ➤ Baseline duplicate rate is 0.43% (taken at start of measuring since historical data were unavailable).
- ➤ Created a goal of 5% reduction of baseline rate, or ~0.41% target rate.



#### Driver Data – Duplicate SSN Report (same name)

Nine records for same SSN, all the same person



W/M

W/M

W/M

5644

5644

5644

FLORIDA

FLORIDA

FLORIDA

321-6

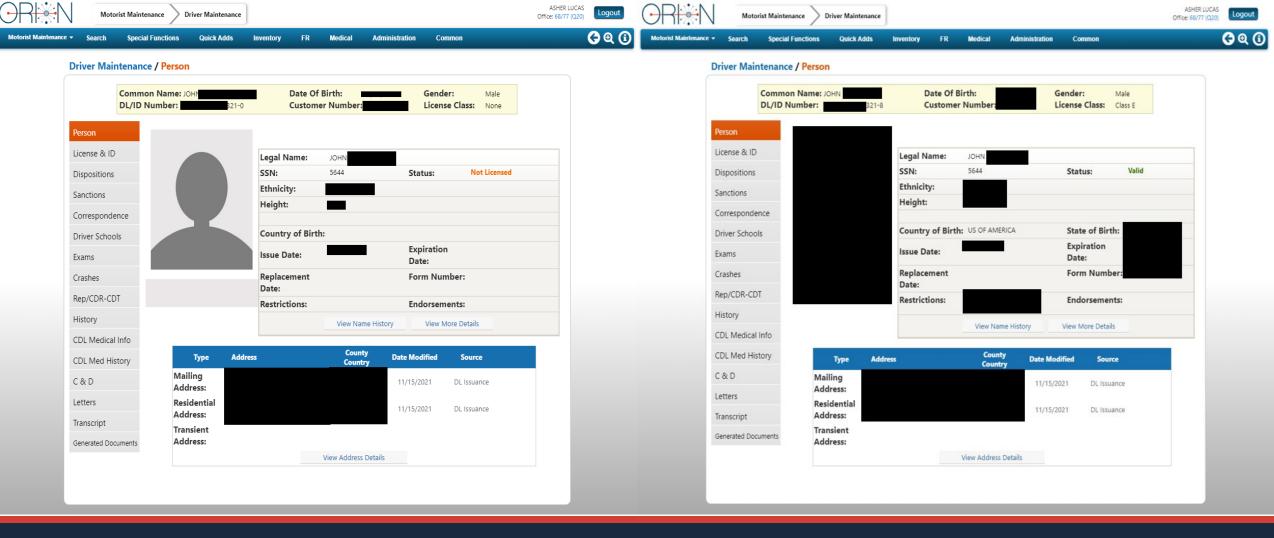
321-7

321-8

1HOL

**1HOL** 





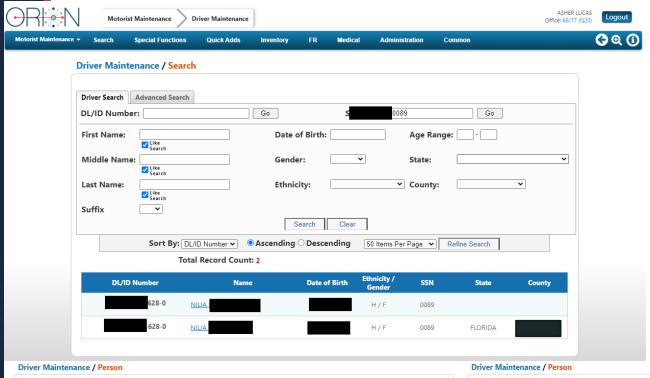
### Driver Data – Duplicate SSN Report (same name)

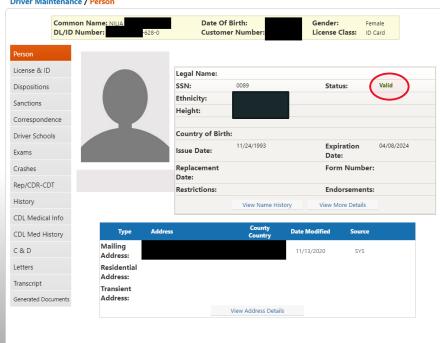
All the records look like the one on the left except the last one, which contains all the customer's relevant data (other records may contain bits and pieces).

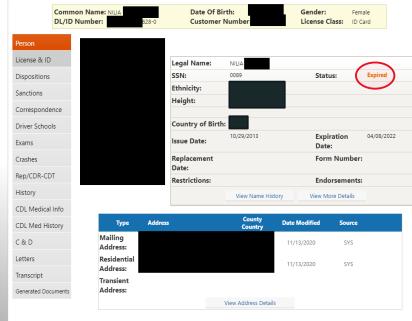


#### Driver Data – Duplicate SSN Report (name change)

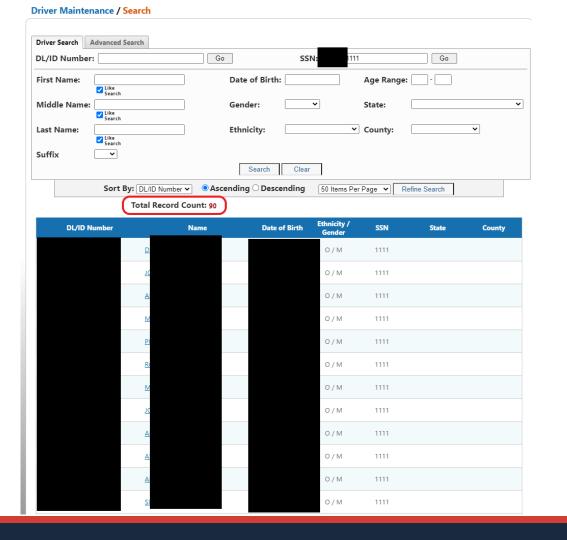
- The license numbers are similar, but not identical (because of different names)
- Makes automated detection more difficult

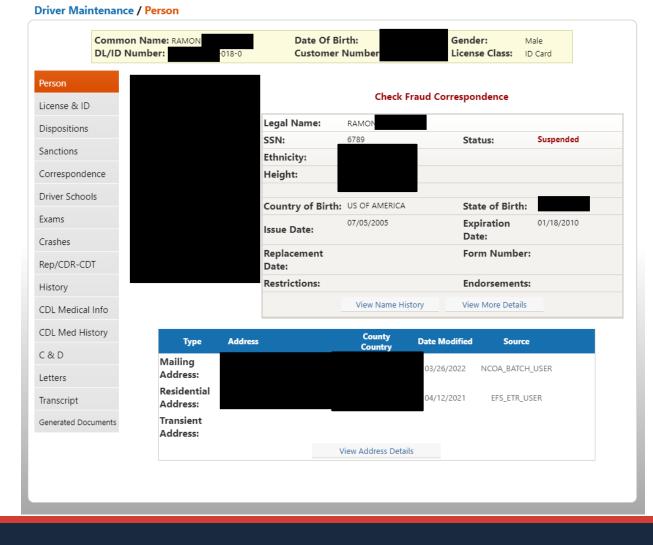












### Driver Data – Duplicate SSN Report (fraud)

Some SSNs are repeated dozens if not hundreds of times. These are often fraudsters.



#### Driver Data – Duplicate SSN Report (cont.)

Weekly snapshots are taken of our records to monitor the number of duplicate SSNs and types.

Duplicate SSN Monitoring by Week													
	Pull date 2022												
	6	13 Jui	ne 20	27	6	Ju 11	ly 18	25	1	8	August 15	22	29
Total Dupe SSN Count	107,282	107,347	103,437	103,144	103,170	103,178	103,188	103,158	103,168	103,065	102,976	102,971	103,094
Weekly Difference in Total Dupe SSN Count		65	-3,910	-293	26	8	10	-30	10	-103	-89	-5	123
All Records	25,093K	25 <b>,11</b> 0K	25 <b>,1</b> 20K	25 <b>,1</b> 33K	25,150K	25 <b>,1</b> 62K	25 <b>,1</b> 76K	25 <b>,1</b> 93K	25,209K	25,224K	25,244K	25,259K	25,275K
Percent Dupes	0.43%	0.43%	0.41%	0.41%	0.41%	0.41%	0.41%	0.41%	0.41%	0.41%	0.41%	0.41%	0.41%
Dupe SSN and Name Records	12,770	12,819	12,747	12,870	12,935	12,979	13,010	13,002	13,014	12,961	12,882	12,854	12,845
Distinct Customers with Dupe Name and SSN	5,037	5,050	5,021	4,962	4,989	5,003	5,009	5,006	5,011	4,984	4,962	4,955	4,949
Names with Associated Dupe SSN	5,037	5,050	5,021	73,930	73,925	73,932	73,918	73,886	73,888	73,809	73,766	73,760	73,789
Weekly Difference in Names with Associated Dupe SSN		13	-29	68,909	-5	7	-14	-32	2	-79	-43	-6	29

Set	Same name	Distinct?
Dupe SSN and Name Records	X	
Distinct Customers with Dupe Name and SSN	X	X
Names with Associated Dupe SSN		X



### Motor Vehicle Data – Invalid VINs Report

- > VINs (on make years after 1982) must conform to standards laid out in 49 CFR Part 565.
  - > There are a variety of standards to conform to that we cannot check, but 3 we can are:

Check digit – position 9 is calculated from characters in the other positions.

1C4AJWBG3ELI90087

"I, O, Q" are not permitted.

-VIN length – VIN must be 17 alphanumeric characters.

- Other conditions:
  - Only vehicle type: "AU" (excluding large trucks, buses, RVs, motorcycles, etc.)
  - Make year after 1982
  - Transaction codes ORT and OUT (original new and used title issuances, respectively)
  - Excludes body codes: 2P, 4P, 6P, 9P, BG, GC (various small EVs, UTVs, golf carts, etc.)
- ▶ Baseline 3-year error rate is 0.263% (May 2019 thru April 2022) with a goal of 5% reduction (~0.250%).



#### Motor Vehicle Data – Invalid VINs (cont.)

Invalid VINs are monitored via a standing query that is refreshed on demand through Tableau.

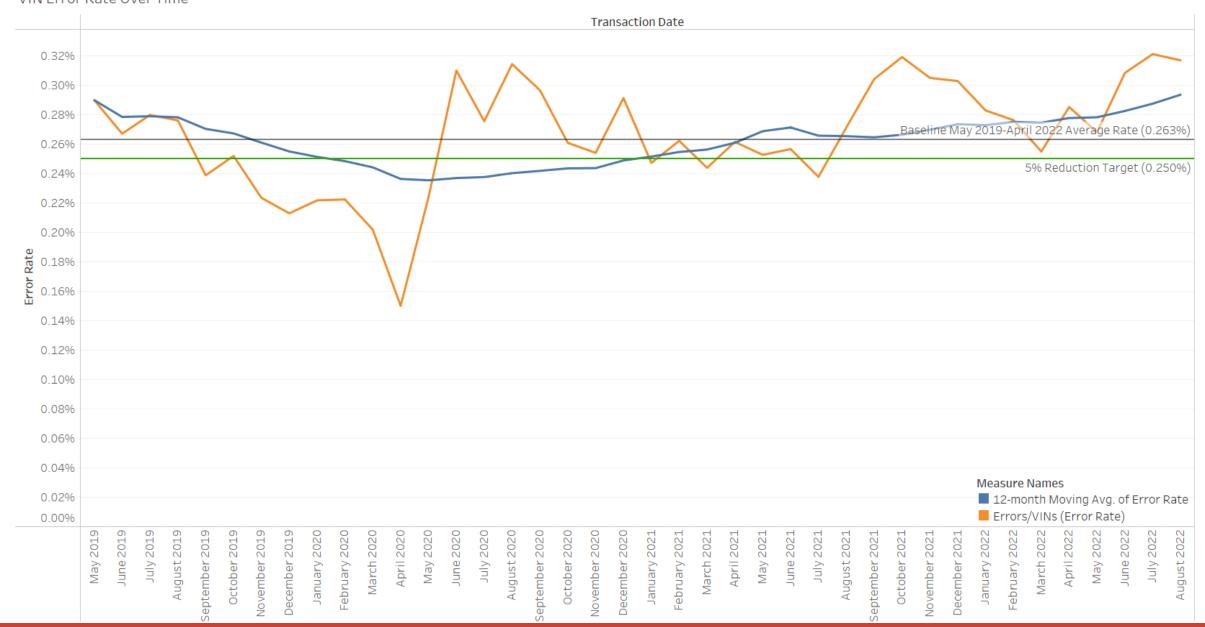
Monthly Invalid VIN Report										
	Transaction Date									
	2022									
	January	February	March	April	May	June	July	August	Total	
All VINs	188,213	172,762	199,394	196,844	188,106	194,084	167,009	207,129	1,513,541	
All Errors	532	477	508	561	504	598	536	656	4,372	
Errors/VINs (Error rate)	0.28%	0.28%	0.25%	0.28%	0.27%	0.31%	0.32%	0.32%	0.29%	
Bad Checkdigit	245	223	244	253	235	265	251	265	1,981	
Invalid Chars (I,O,Q)	54	53	64	51	57	61	60	72	472	
VIN not 17 Chars	233	201	200	257	212	272	225	319	1,919	

- > All VINs all VINs associated with transactions on new and used title issuances (transaction codes ORT and OUT, respectively)
- ➤ All Errors any VIN meeting one of the three error criteria
- > Errors/VINs (Error rate) (All Errors)/(All VINs) \* 100
- > Bad Checkdigit VIN is 17 characters, digit in position 9 does not match output of calculations from other digits/characters
- > Invalid Chars (I,O,Q) VIN is 17 characters and contains the character(s) "I," "O," and/or "Q."
- ➤ VIN not 17 Chars the VIN is shorter or longer than the statutory length of 17 characters.



#### Motor Vehicle Data - Invalid VINs (cont.)







### **Potential Reports for FY23**

#### Driver Data

- SSN Verification Flag
  - ➤ There are three categories of SSN verification:
    - ➤ T SSN is verified
    - ➤ F SSN was not verified
    - Null SSN needs verification
  - We want to monitor transactions where SSNs should be verified and research why they are not being verified.
  - Also take a snapshot of individuals with DL's and verification status (everyone with a DL should be verified).
- DL Purge data
  - There are many customer records that should be purged that have not been. The purge criteria are many, making writing a query very in depth, but there are basically 3 categories: deceased, expired, and non-licensed individuals.

#### **►MV** Data

- > Temp Tag Fraud
  - > Dealers issue multiple (more than 2) temporary registrations (tags) to the same person. Using bad VINs is a way to get around the checks.
  - These permits are generally used on vehicles that can't be registered because of canceled or suspended registrations, insurance or titling problems, or even those that have been stolen and VIN-switched.





### Questions?

Contact: AsherLucas@flhsmv.gov



### Department of Health

Traffic Records Coordinating Council Project Update

**EMS Field Data Collection** 



September 9, 2021

### **EMS Field Data Collection**

### Ty Carhart Project Director

**Brenda Clotfelter Project Manager** 

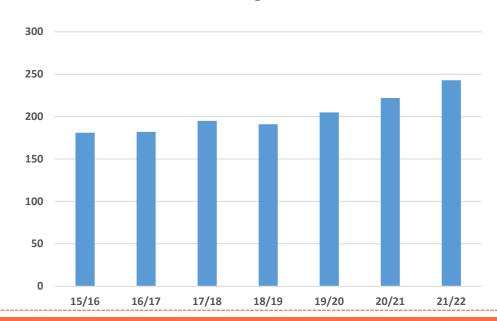
Florida Department of Health



#### **Completeness**

Increase % of EMS agencies submitting to state incident level repository to 90% by 9/30/22

**EMSTARS Agencies** 



80% 3%

303 total agencies 243 in EMSTARS 64 in Aggregate

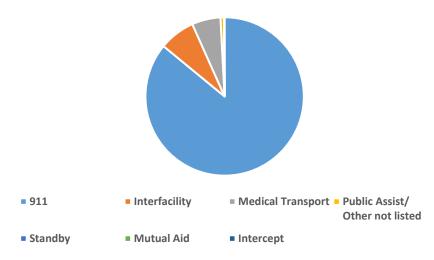


#### **Completeness**

Increase % of EMS emergency run reports submissions to the state repository to 98% by September 30, 2022.

98%





Note: Data Committee is now monitoring measures of all types of runs, not just 911

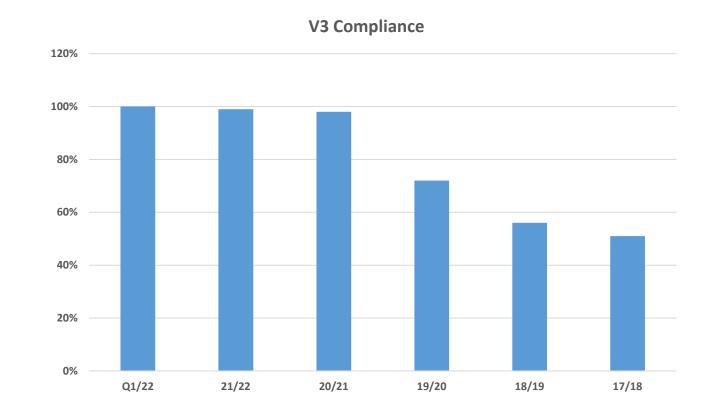


#### **Uniformity**

Increase % of EMS emergency run reports submitted in compliance with NEMSIS Version 3 to 80% by September 30, 2022

100%

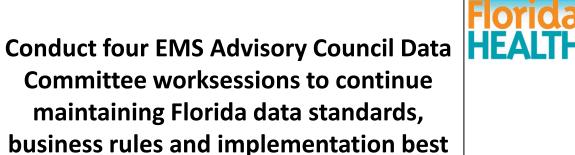
V3.4 = 243



#### **Completeness**

Participate in NEMSIS Technical Advisory
Conference and NASEMSO annual meetings
to finalize the implementation strategy for
National Standards.

- Participate in NEMSIS Technical advisory calls biweekly
- Participation in NASEMSO annual meetings
- Participated in NEMSIS Technical Advisory Conference - Aug



#### **EMSAC Data Committee**

practices consistent with NEMSIS.

- 1/18/22
- 6/15/22
- 9/12 scheduled



### FY 21/22 OBJECTIVES

#### **Accuracy**

Monitor and report (quarterly) on a minimum of three data quality measures

<u>O</u>	Overall NEMSIS Data Quality							
•	Patient Information	97%						
•	Cardiac Arrest	<i>91%</i>						
•	Valid System Times	<i>98%</i>						
•	Cause of Injury	<b>79%*</b>						
•	Clinical Times Recorded	79%*up by 1%						
•	Other incident Information	97%						

#### **Uniformity**

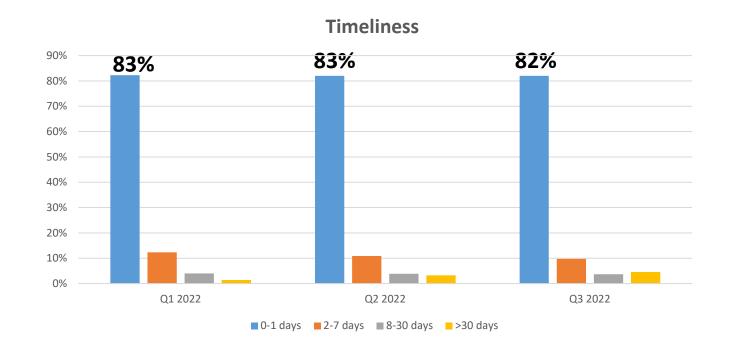
Publish an approved Florida Data Dictionary and business rules for NEMSIS 3.5 by December 1, 2021.

- Data submission policy changes January 2022
- Adoption of Data Dictionary by the Emergency Medical Services Advisory Board (EMSAC) – June 2022
- Develop "defined lists" for target Florida data elements to enhance uniform and quality data collection, procedures & medications
- Business rule development in progress target 11/22
- Updated Data Dictionary to include Business Rules 12/22
- Working with Vendors to ensure V3.5 readiness
- Developing Implementation Tools for EMS agencies for transition



#### **Timeliness**

Increase % of V3
EMS emergency run
reports received
within 10 hours of
the run to 70% by
September 30, 2022



% may vary based on resubmissions

#### **Integration**

### Link two additional data sources to the EMS state repository by September 30, 2022.

**Current integrations within Biospatial** 

- Health Information Exchange
- Crash Records automated feed TBD
- ESSENSE Integration
- Trauma Data
- Florida Stroke Registry in progress



#### **Accessibility**

- Continuing to utilize BioSpatial for repository and data accessibility – Received NEMSIS V3.5 Certification
- Implemented improvements to State EMS
   Strategic Measure Dashboards Site inspections are now based on EMS Measures
- Working to provide additional dashboards for users





September 9, 2022

TRAFFIC AND CRIMINAL SOFTWARE

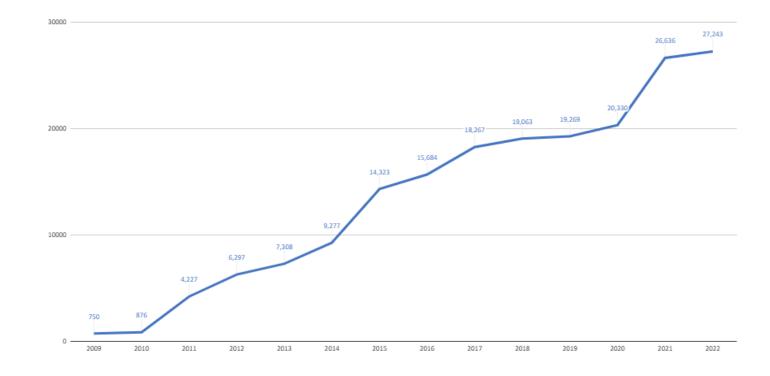


## **TraCS Growth - Users**

## Users

**– 2008: 750** 

**– 2022: 27,243** 



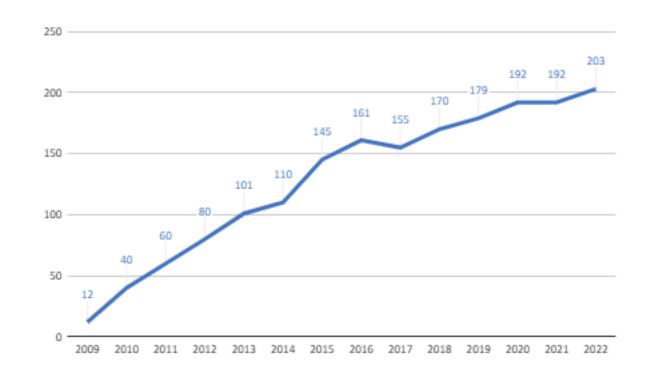


# **TraCS Growth - Agencies**

Agencies

**- 2008: 12** 

-2022:203





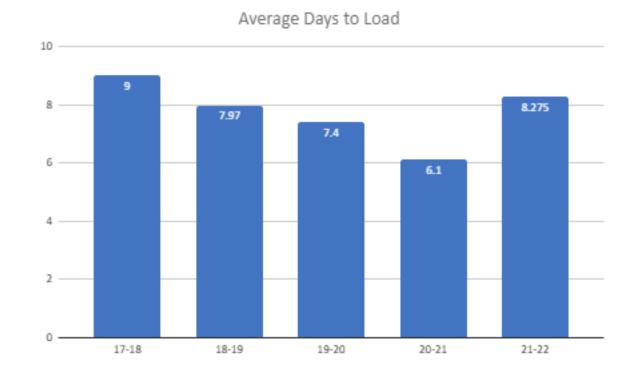
# TraCS Growth – New Agencies

- Calhoun County SO
- Deland PD
- Miami Springs PD
- Nassau County School PD
- New Smyrna Beach PD
- Orlando PD (citation only)
- Walton County Code Compliance



# **Objective 1: Timeliness**

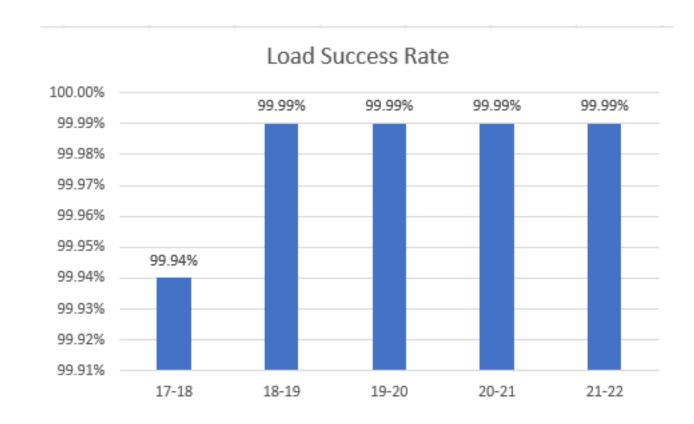
- To encourage TraCS
   agencies to maintain a
   low average delay
   between the initial
   crash date and the
   date on which the
   data is entered into
   state crash databases
   owned by DHSMV.
- FY 21-22, Q1-Q3 average





# **Objective 2: Accuracy**

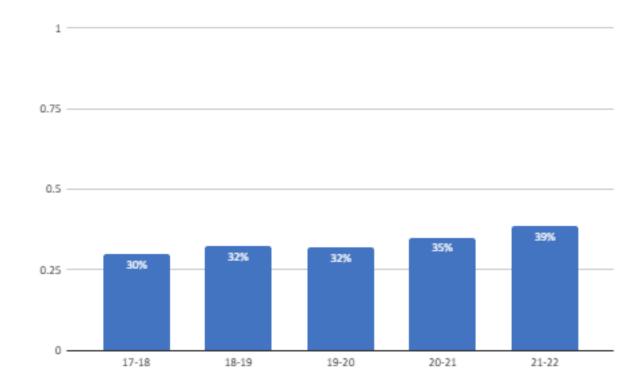
- To maintain the low number of load errors for crash reports submitted electronically to DHSMV using TraCS at less than one percent.
- FY 21-22, Q1-Q3 stats available





# **Objective 3: Completeness**

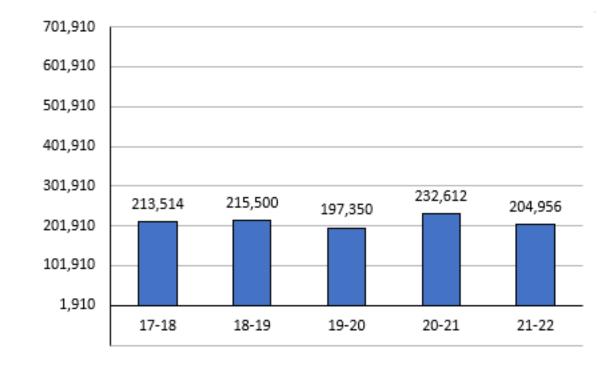
- To maintain or increase the total percentage of statewide crash reports submitted electronically by agencies using the TraCS Florida software.
- FY 21-22, Q1-Q3 stats available





# **Objective 3: Completeness**

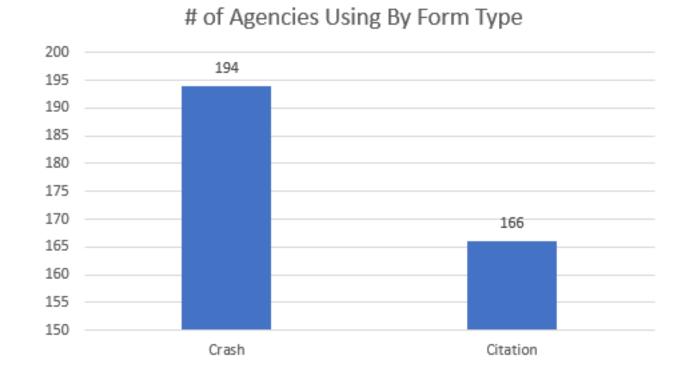
- To maintain or increase
   the total number of
   statewide crash reports
   submitted electronically by
   agencies using the TraCS
   Florida software
- Total crash count of 701,910 is for 2021 obtained from Signal 4 Analytics
- 21-22 Q1-Q3 only





# **Objective 4: Uniformity**

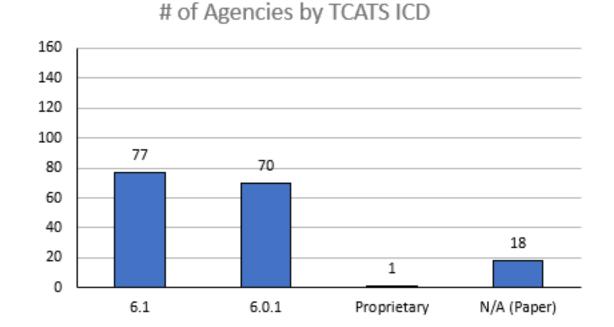
To improve uniformity in data collection methods.





# **Objective 4: Uniformity**

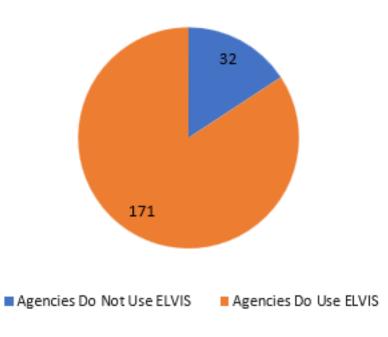
To improve uniformity in data collection methods.





- To maintain the number of agencies using FCIC/NCIC interfaces.
  - Over 99% using an FCIC/NCIC interface

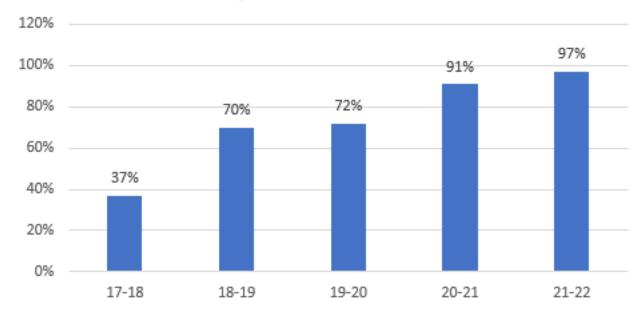
TraCS-ELVIS Integration Use





- To increase the number of TraCS agencies using a location tool to plot accidents on the crash form.
- 196 of 203 TraCS agencies are mandated.

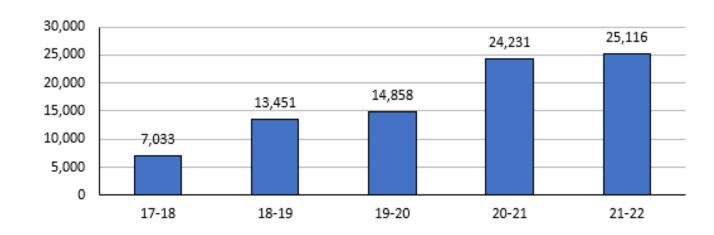






 To increase the number of TraCS users using a location tool to plot accidents on the crash form.

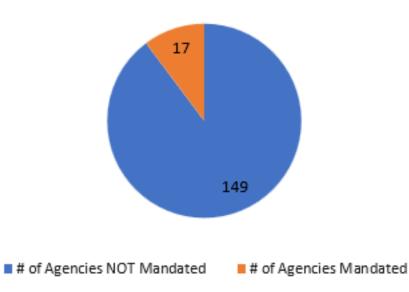
# of Users Mandated to Use Signal 4 Location Tool





Agencies
 mandated to
 use the location
 tool on
 citations.

# of Agencies Mandated to Use Signal 4 Location Tool on Citaitons





- Added functionality to our TraCS interface to allow identifiable test data to be passed
- The following parameters are passed from the location tool and crash report to the Diagram tool:
  - Manner Of Collision
  - First Harmful Event
  - Vehicle number
  - Body type
  - Vehicle Special Function
  - CMV Config
  - Cargo Type
  - Color Code
  - Travel Direction
  - Impact Area
  - Maneuver
  - Non-Motorist Number
  - Non Motorist Description
- In testing, updating roadway information when changes are made to the location through the diagram tool.
- Hoping to complete the build for testing by September 20th.



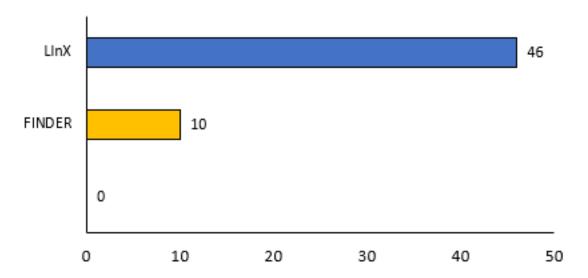
Here is a sample produced from our testing





# LInX/FINDER Participation



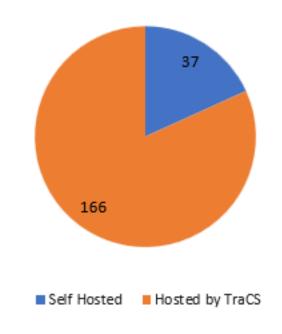




# **Objective 6: Accessibility**

- To maintain a primary data hosting site
  - Hosting data for 166
     agencies at Digital
     Systems Management
     (DSM)

TraCS-Hosted Versus Self-Hosted





# FY 21-22 Development

- Continued development for existing forms
- Signal 4 Diagram Tool Integration
- DRE Form Integration



# **Support Highlights**

 Set up electronic boating citation transmissions from TraCS to FWC



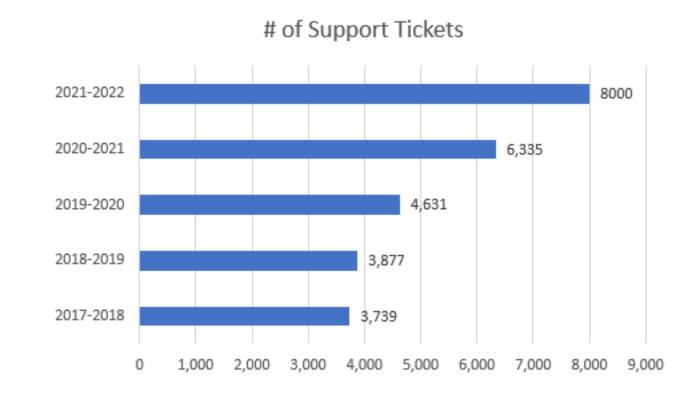
# **New Agencies Coming**

- Edgewater PD Training complete, go live date September 19<sup>th</sup>
- Coral Gables PD Training complete, go live date October 1<sup>st</sup>
- Orlando PD Training Scheduled October 4<sup>th</sup> & 5<sup>th</sup> for crash.
- St Lucie County SO Signed MOU, pending training.
- Port St Lucie PD Signed MOU, pending training.
- Fort Pierce PD Signed MOU, pending training.
- Orange City PD Signed MOU, pending training.
- Fort Lauderdale PD Signed MOU, pending training.
- Bay District Schools PD Signed MOU, pending training.



## **Support Over the Years**

• FY 21-22 is an estimate





# **Symposiums**

- Held a booth at IPTM in June
- Held a booth at the FDOT Law Enforcment Awards Ceremony in July



# FY 22-23 Highlights

- Staff
  - Hire OPS support person
  - Hire OPS clerical position
- Signal 4 Diagram Tool Integration
  - Deploy to agencies
- Signal 4 Location Tool Integration
  - Upgrade everyone to a TraCS version using version 3 versus 2.3
- Citation
  - Test/implement transmissions of citation data directly to FCCC
- Crash
  - Begin work on new crash form using MMUCC 6<sup>th</sup> edition

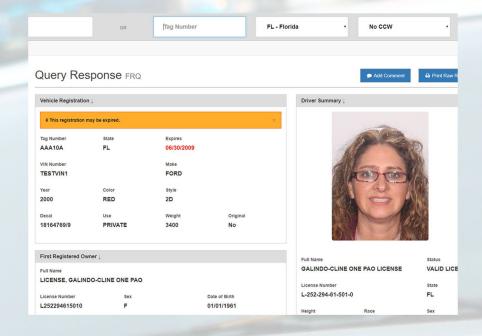


# Thank you for your continued support!

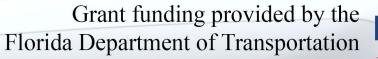


Better Data, Safer Roads.

# ELVIS TRCC UPDATE September 9, 2022









## Welcome!

### **Team Members**

- Dr. Lisa Spainhour, Principal Investigator
- Zoe Williams, Program Manager
- Margaret Edwards, Systems Administrator
- Capt. Bud Dasher, Support

## September 2022 Statistics

### Current ELVIS Usage

- 247 Agencies
- 28,179 user accounts
- 11,075,589 queries run this fiscal year
- Approximately 1,006,000 queries per month
  - Increase of ~38,000 queries per month over April numbers

## FY21-22

### Completeness and Uniformity

 As always, lots and lots of state parser fixes to keep up with changing state formats and ensure elements parse correctly from each state

### Accuracy and Integration

- Integration with external crash and citation vendors to improve data accuracy
  - Completed Integrations
    - TraCS
    - Mark43
    - LexisNexis
    - FINDER
  - Integrations In-Progress
    - Tyler Technologies (New World)
    - Axon RMS

### Accessibility

- New agencies continue to be brought on board
  - Broward County Sheriff's Office
  - Calhoun County Sheriff's Office
  - Deland Police Department
  - Miami Springs Police Department
  - and more...
- Added 25 new agencies this year
  - 4,348 new users
  - Increase in approx. 156,000 queries per month
- Evaluating future hardware requirements based on continuing increase in usage and current limitations
  - Last FY up-time was 99.51% averaged over the entire year
- Seminole County SO backup site installation on hold while we evaluate hardware

## Florida Driver History via FCIC/NCIC

Single most requested feature

Driver History is provided by most states through NLETS

FDLE already supports the KQ query through FCIC/NCIC

Driver History is used to determine the proper charging statute on some offenses

Florida Driver History is only available through DAVID



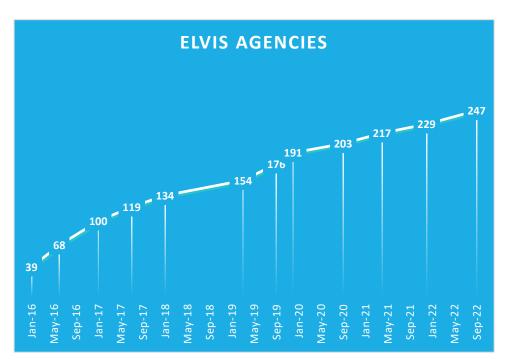
Source: <a href="https://www.nlets.org/our-members/services">https://www.nlets.org/our-members/services</a>

## ELVIS Usage over time, 2016-Present

### Law Enforcement Agencies

• 1/2016: 39

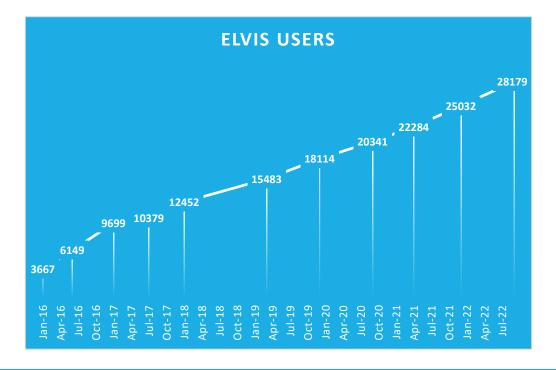
9/2022: 247



#### **User Accounts**

· 1/2016: 3,667

9/2022: 28,179

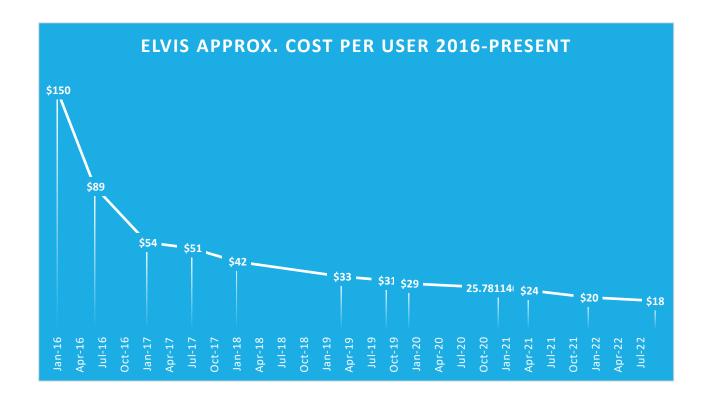


## ELVIS Cost per User

FY21-22 Total Funding Request: \$500,000

Total users (as of 9/9/22): 28,179

Avg. Cost Per User: \$18



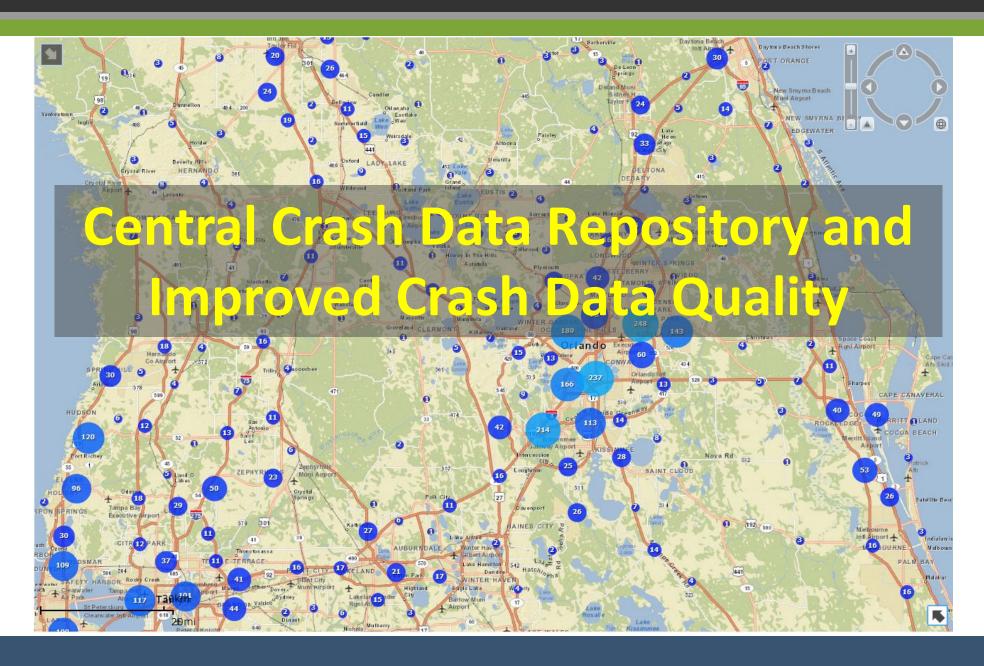
# Thank You

QUESTIONS?

### **MALYTICS**



## **M4** SIGNAL FOUR ANALYTICS



### M4 SIGNAL FOUR ANALYTICS

## <u>Purpose</u>

- 1. Synchronize the FLHSMV & S4 crash databases.
- 2. Eliminate duplicate storage of the crash reports at S4/FDOT.
- 3. Improve FLHSMV process for storing crash diagrams to support high resolution aerial photography.

# 1. Synchronize FLHSMV & S4 crash databases

A) **Light** synchronization is ongoing. Recent stats:

			1		-	
2022	0	1	7	7	2	0
2021	0	0	4	-4	0	-29
2020	0	0	1	1	0	-6
2019	0	0	-22	-20	0	-10
2018	0	0	-1	-6	-1	-6
2017	0	0	0	-2	0	-1
2016	0	0	-1	-3	0	4
2015	-1	0	2	-1	0	0
2014	0	-1	0	-31	-30	2
2013	0	0	-3	-3	-1	0
2012	0	0	0	-2	-14	-8
2011	-1	0	0	0	0	-17
HSMV Totals	7,385,883	270,218	14,269,127	13,095,117	4,836,460	4,836,460
S4 Totals	7,385,881	270,218	14,269,114	13,095,053	4,836,416	4,836,416

A negative number indicates that S4 has less records than FLHSMV and vice versa.

The differences greater than 5 are shown in red.

Data as of September 5, 2022.

# 1. Synchronize FLHSMV & S4 crash databases

B) **Full** synchronization will conduct more in-depth daily comparisons in two ways:

- 1. Use consistent data definitions (ongoing discussions with FLHSMV)
- 2. Measure and compare over 30 different variables

# 2. Eliminate duplicate storage of the crash reports at S4/FDOT

- FLHSMV IT developed the web service for S4 to access the police crash reports directly from FLHSMV.
- Both FLHSMV and S4 completed development and testing of the web service and the process has been finalized in production.
- S4 is <u>now fully using the web service</u>, accessing police crash reports directly from FLHSMV.
- Going forward S4 will no longer store police crash reports

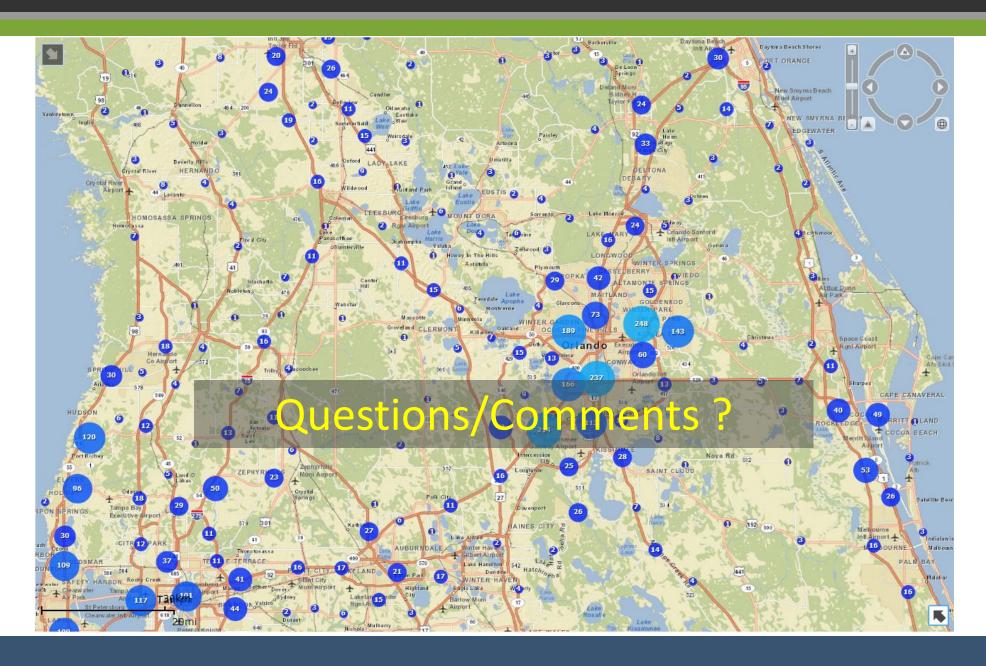
# 3. Improve FLHSMV process for storing crash diagrams to support high resolution aerial photo

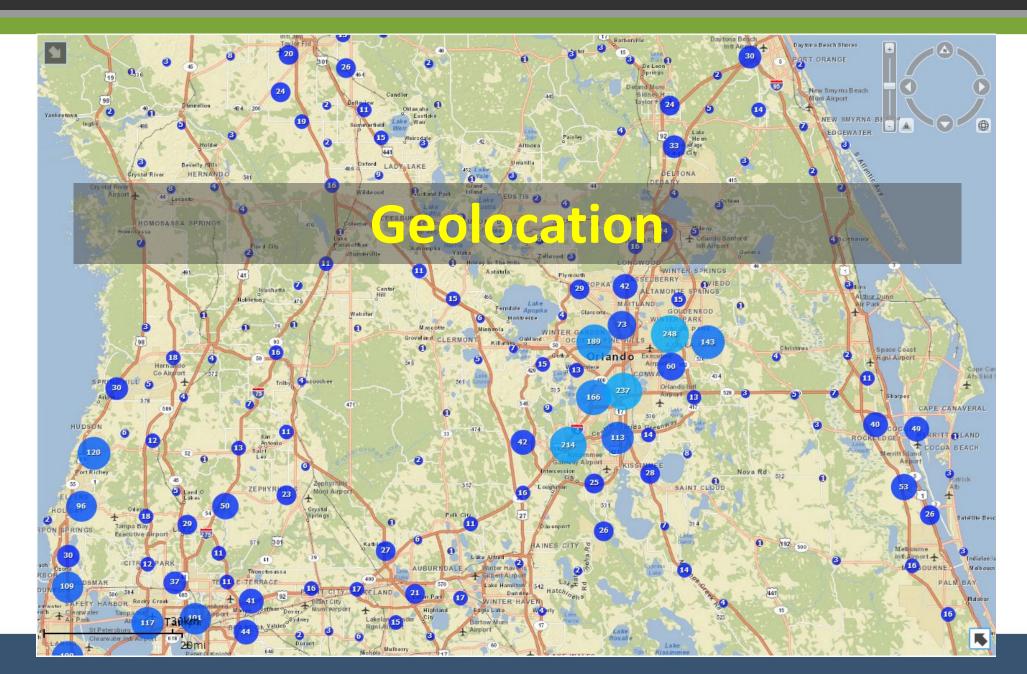
### **Status:**

Problem was converting pdf to tiff image.

Image service does not serve up tiffs but, rather pdfs.

• FLHSMV plans on putting out memo to indicate that using aerial photography is now permitted for crash diagrams.



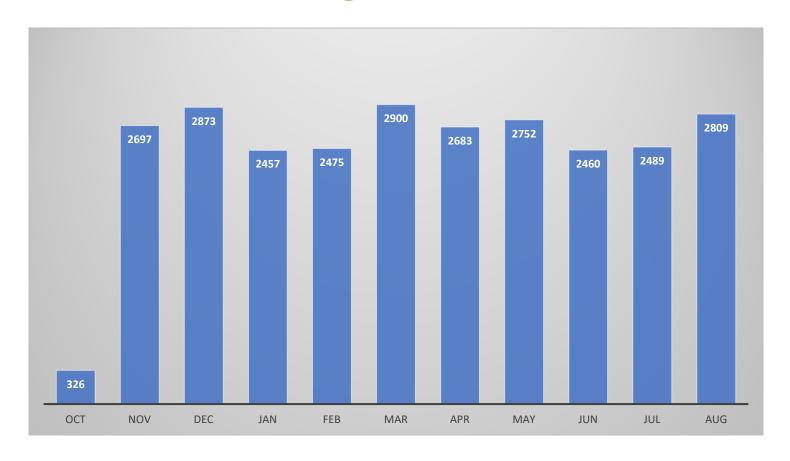


# Overall Geolocation Tool Usage for Crashes

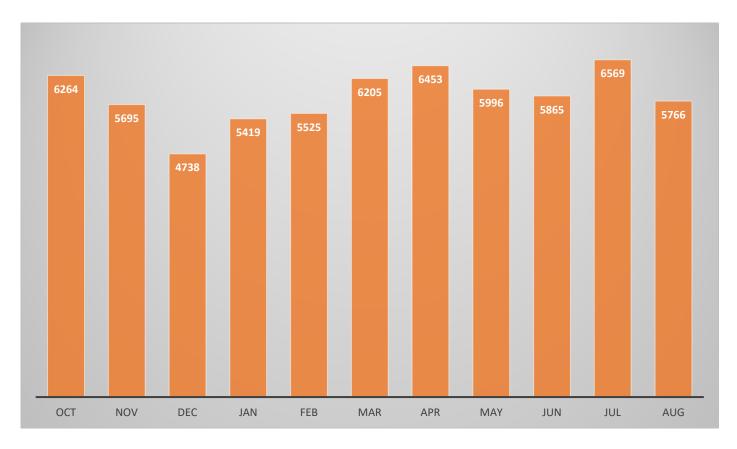
- We are having a glitch with the stats and do not have a chart for all crashes.
- 97% of TraCS agencies are mandated to use Geolocation Tool for Crash Reports (TraCS, 9/8/22)

 Jacksonville Sheriff's Office (SmartCOP) has mandated the use of Geolocation Tool for Crash Reports since November of 2021

# Jacksonville Sheriff's Office (SmartCOP\*) Geolocation Tool Usage for Crashes



# Overall Geolocation Tool Usage for Citations



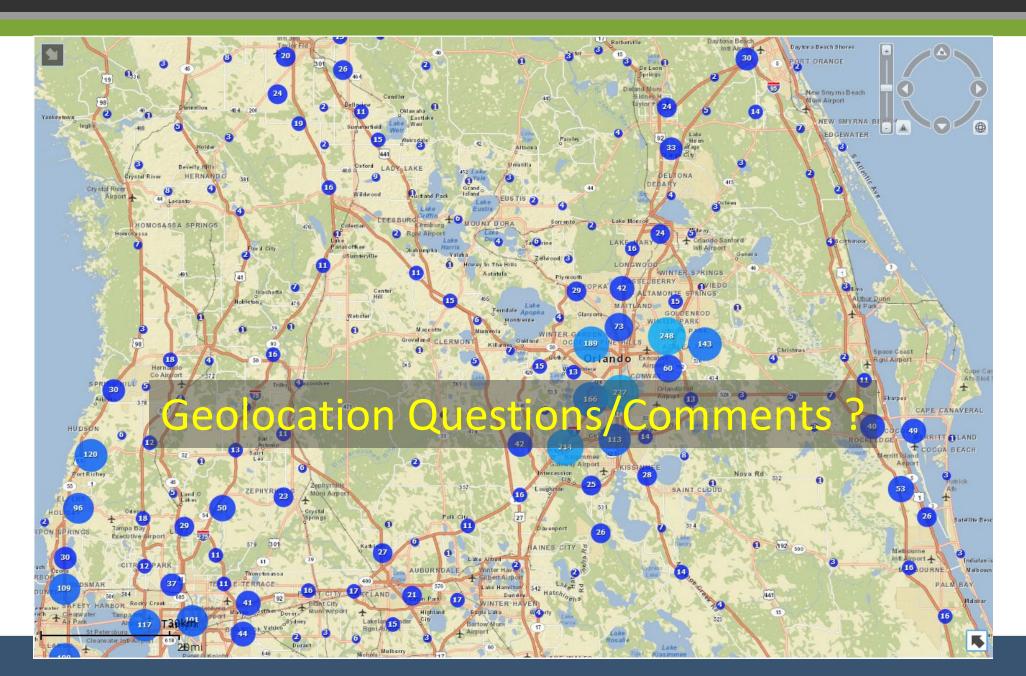
8% of TraCS agencies are mandated to use Geolocation Tool for Citations (TraCS, 9/8/22)

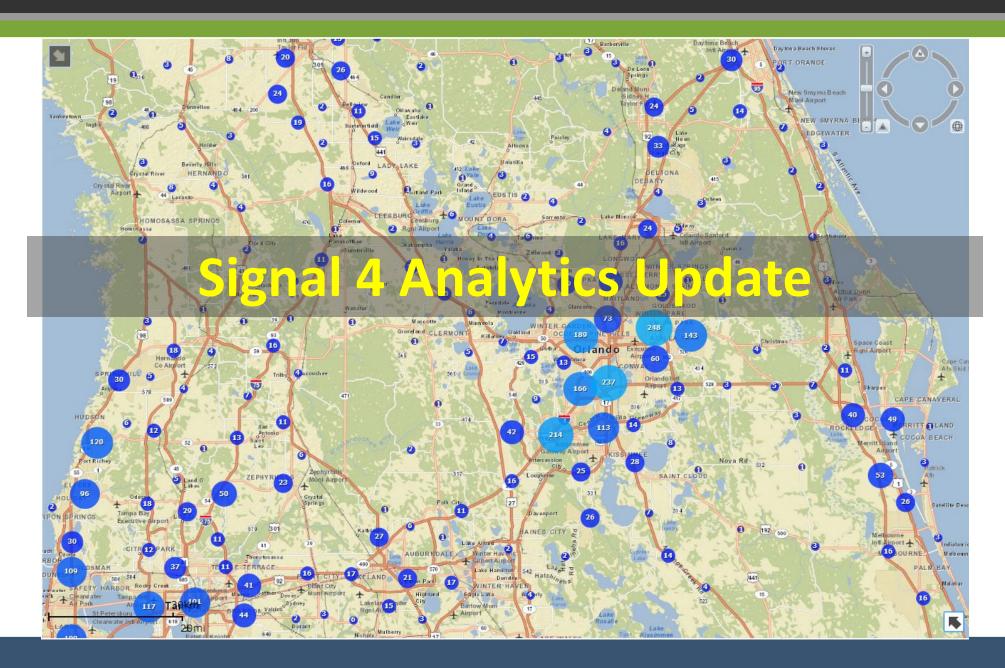
### **Current and Future Activities:**

 Ongoing User and Technical Support: Assist with troubleshooting and coordination efforts.

 Ad hoc statistics provided to FLSHMV upon request.

 SmartCOP expected to update to geolocation v3 and roll out to rest of agencies this coming year.

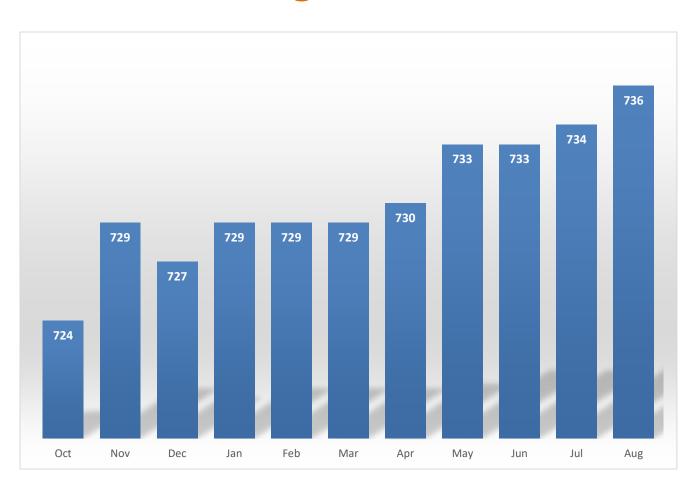




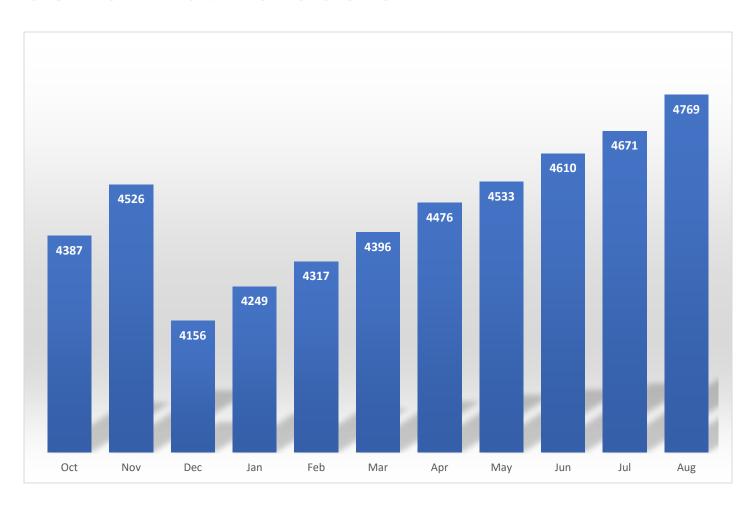
# Signal Four Analytics:

- A. Utilization Statistics
- B. New Features
- C. New Features in Development

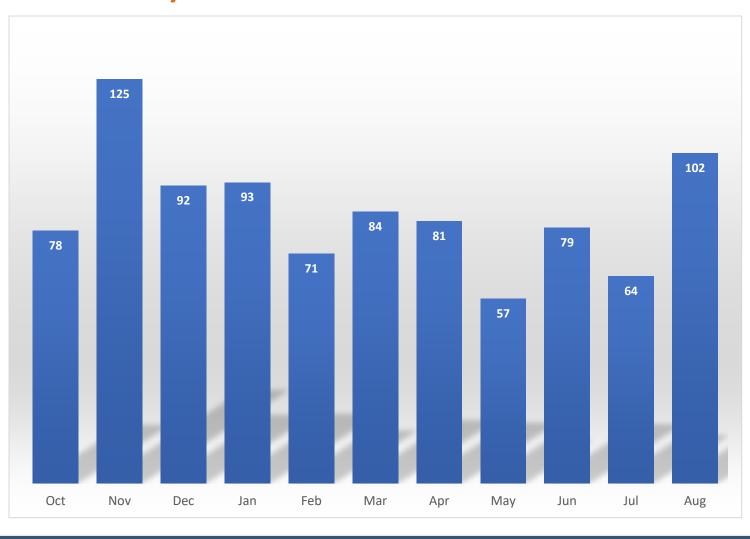
# Number of Public Agencies



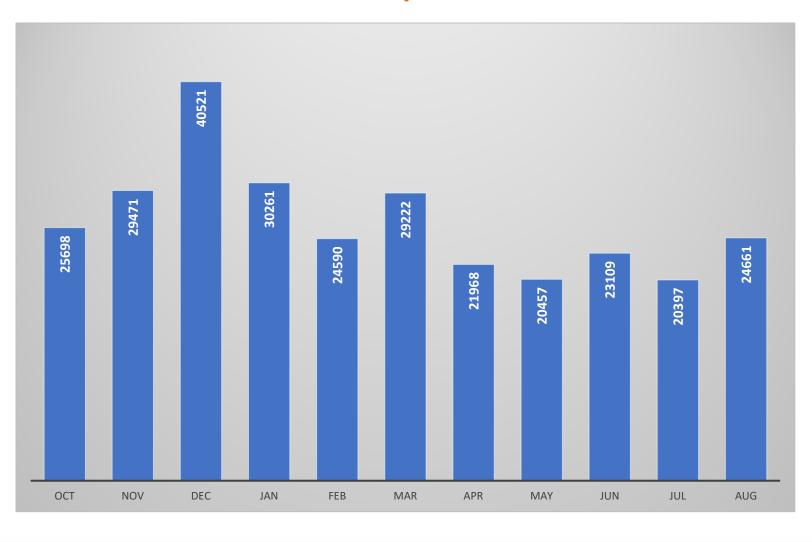
# **Number of Active Users**



# New Users by Month



# Number of Queries/Reports



# Public Dashboard – Google Analytics Unique Pageviews

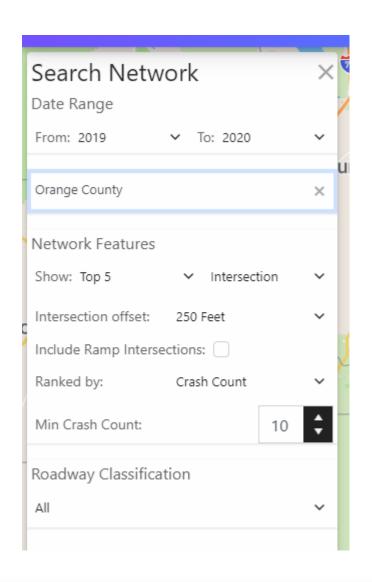


# New Features Completed

- Network Analysis Completed (From Last TRCC Meeting)
- Florida Traffic Safety Report
- Update to Login Screen-Login by Email
- Chart Improvements: Two-Dimensional Bubble Chart, Dynamic Filters
- Ability to save custom geographic areas
- Ability to upload user custom boundaries

# **Network Analysis**





# Florida Traffic Safety Report





#### FLORIDA TRAFFIC SAFETY REPORT

This report is generated by Signal Four Analytics\* based on data available as of 09/06/2022 at 01:17 AM

#### **Overall Crash Summary**

2019	2020	2021 preliminary	2022 to date
3,190	3,342(+04.76%)	3,785(+13.26%)	2,231
18,122	15,617(-13.82%)	16,897(+08.20%)	10,431
746,086	589,790(-20.95%)	703,014(+19.20%)	452,426
	3,190 18,122	3,190 3,342(+04.76%) 18,122 15,617(-13.82%)	3,190 3,342(+04.76%) 3,785(+13.26%) 18,122 15,617(-13.82%) 16,897(+08.20%)

#### Total Crashes By Month

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2019	60,585	60,236	66,938	63,357	64,834	57,619	57,647	64,557	57,478	66,130	61,050	65,655	746,086
2020	61,712	60,364	49,471	27,377	40,280	44,682	46,281	49,010	50,077	54,967	51,147	54,422	589,790
2021	51,025	50,279	60,062	58,604	59,976	58,372	58,050	59,465	59,729	63,376	60,711	63,365	703,014
2022	55,315	57,331	64,813	59,077	57,581	52,384	52,750	50,826	2,349	0	0	0	452,426

#### **Fatalities By Month**

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2019	249	283	321	279	272	252	228	244	243	233	303	283	3,190
2020	287	277	276	217	277	294	238	249	286	310	319	312	3,342
2021	316	333	347	319	330	279	304	315	273	339	307	323	3,785
2022	312	285	357	312	281	240	246	194	4	0	0	0	2,231

#### Serious Injuries By Month

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2019	1,540	1,570	1,688	1,597	1,621	1,368	1,335	1,382	1,409	1,602	1,518	1,492	18,122
2020	1,448	1,324	1,392	839	1,274	1,217	1,192	1,257	1,288	1,515	1,400	1,471	15,617
2021	1,403	1,319	1,546	1,463	1,535	1,310	1,319	1,278	1,308	1,441	1,444	1,531	16,897
2022	1,254	1,350	1,566	1,427	1,325	1,151	1,188	1,118	52	0	0	0	10,431

<sup>\*</sup>Signal Four Analytics is hosted at the University of Florida. For more information please visit Signal Four website at s4.geoplan.ufl.edu, or Signal Four Analytics application at signal4analytics.com, or contact Signal Four team at s4-support@ufl.edu.

# Florida Traffic Safety Report





#### FLORIDA TRAFFIC SAFETY REPORT

This report is generated by Signal Four Analytics' based on data available as of 09/06/2022 at 01:17 AM

#### Total Crashes by Day of Week

Year	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
2019	111,410	73,061	115,073	113,443	116,046	126,310	90,743	746,086
2020	85,389	61,275	88,327	89,298	90,691	98,335	76,474	589,789
2021	102,335	73,071	105,784	106,460	106,277	119,461	89,625	703,013
2022	66,546	46,257	68,629	68,551	69,235	75,053	58,148	452,419

#### Fatalities By Day of Week

Y	ear	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
20	019	380	430	380	434	496	553	517	3,190
20	020	435	442	423	411	517	586	528	3,342
20	021	513	473	446	491	618	632	612	3,785
20	022	302	281	282	275	312	405	374	2,231

#### Serious Injuries By Day of Week

Year	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
2019	2,476	2,452	2,436	2,507	2,951	2,835	2,465	18,122
2020	2,042	2,216	2,162	2,180	2,409	2,455	2,153	15,617
2021	2,282	2,287	2,275	2,341	2,732	2,619	2,361	16,897
2022	1,407	1,416	1,415	1,464	1,624	1,680	1,425	10,431

<sup>\*</sup>Signal Four Analytics is hosted at the University of Florida. For more information please visit Signal Four website at \$4.geoplan.ufl.edu, or Signal Four Analytics application at signal4analytics.com, or contact Signal Four team at s4-support@ufl.edu.



# Florida Traffic Safety Report





#### FLORIDA TRAFFIC SAFETY REPORT

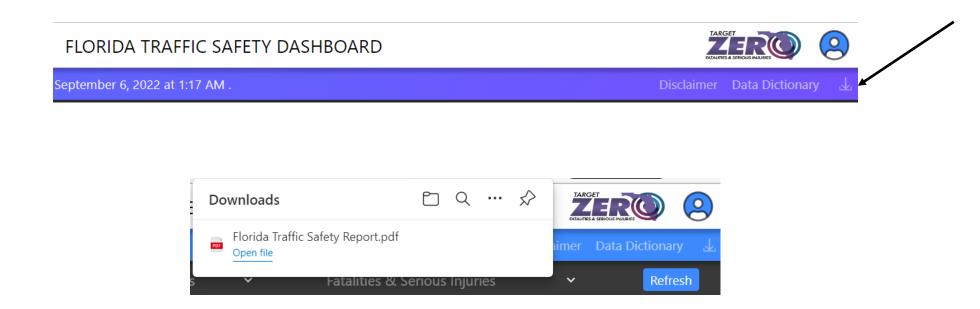
This report is generated by Signal Four Analytics\* based on data available as of 09/06/2022 at 01:17 AM

Emphasis Areas	2019	2020	2021 preliminary	2022 to date
Aging Road Users			preminary	to date
Fatalities Serious Injuries	752 4,224	683 3,314	773 3,638	468 2,258
Commercial Motor Vehicle Opera	itors			
Fatalities Serious Injuries	318 1,148	308 974	377 1,040	210 657
Distracted Driving				
Fatalities Serious Injuries	268 2,942	317 2,754	350 2,730	182 1,711
Drowsy and III Driving				
Fatalities Serious Injuries	59 864	65 787	73 882	58 549
Impaired Driving				
Fatalities Serious Injuries	1,029 1,552	1,129 1,433	1,175 1,457	461 775
Intersections				
Fatalities Serious Injuries	891 6,797	937 5,723	1,047 6,048	587 3,848
Lane Departures				
Fatalities Serious Injuries	1,403 5,934	1,533 5,899	1,728 6,278	1,075 3,827
Motorcyclists and Motor Scooter	Riders			
Fatalities Serious Injuries	575 2,276	584 2,089	632 2,196	401 1,469
Occupant Protection				
Fatalities Serious Injuries	662 1,486	812 1,567	878 1,690	496 1,034
Pedestrians and Bicyclists				
Fatalities Serious Injuries	904 2,335	893 2,058	1,047 2,231	603 1,408
Rail Crossings				
Fatalities Serious Injuries	5 16	7 5	12 13	3 10
Speeding and Aggressive Driving	9			
Fatalities Serious Injuries	390 1,264	424 1,255	527 1,242	309 838
Teen Drivers				
Fatalities Serious Injuries	280 2,202	333 1,782	359 1,936	206 1,267
Work Zones				
Fatalities Serious Injuries	66 358	80 303	54 323	53 181

<sup>\*</sup>Signal Four Analytics is hosted at the University of Florida. For more information please visit Signal Four website at s4.geoplan.ufl.edu, or Signal Four Analytics application at signal4analytics.com, or contact Signal Four team at s4-support@ufl.edu.

# Two way to access it:

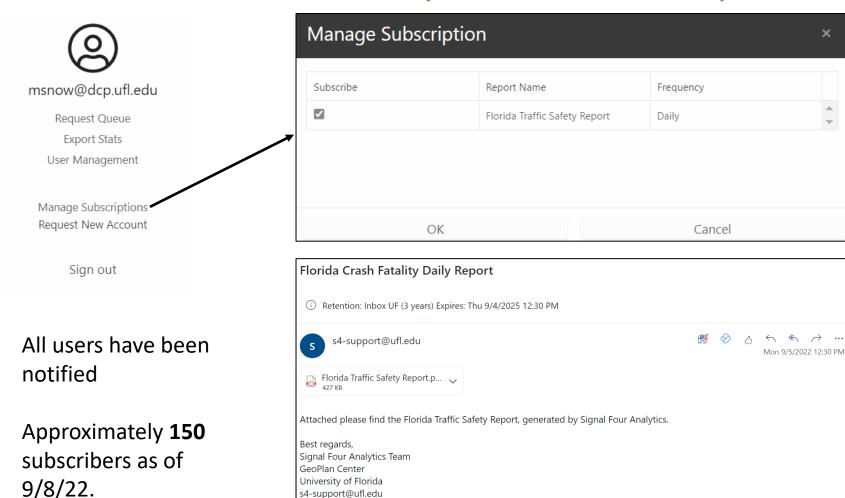
1. Download Directly From Dashboard



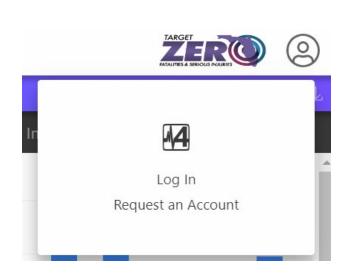
Email notification: Week of 9/6/22.

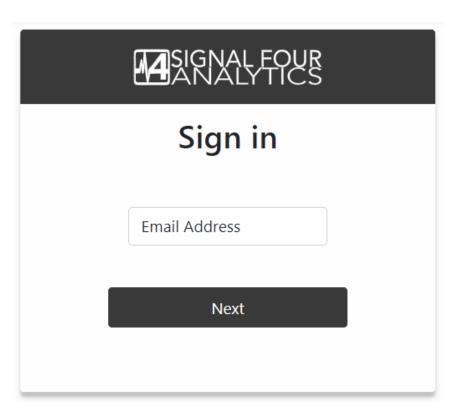
# Two way to access it:

# 2. Access it automatically via Email Subscription

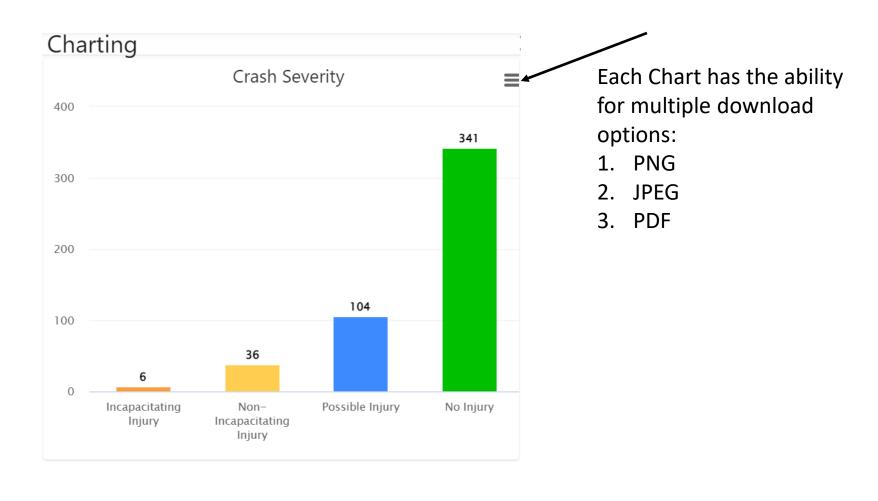


# Update Login Screen By Email Address

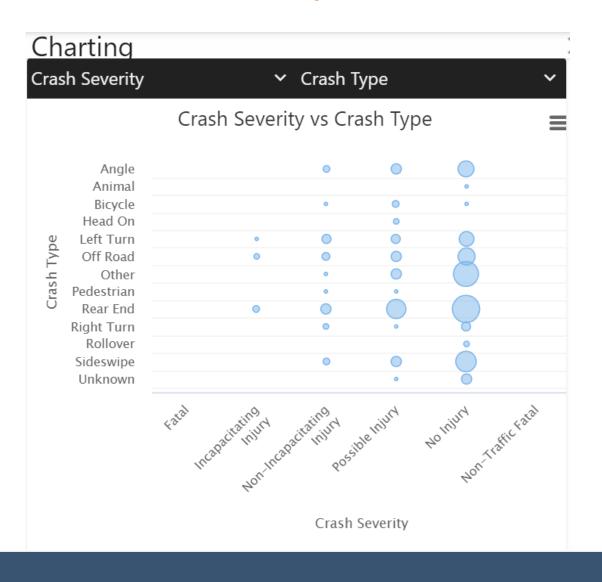




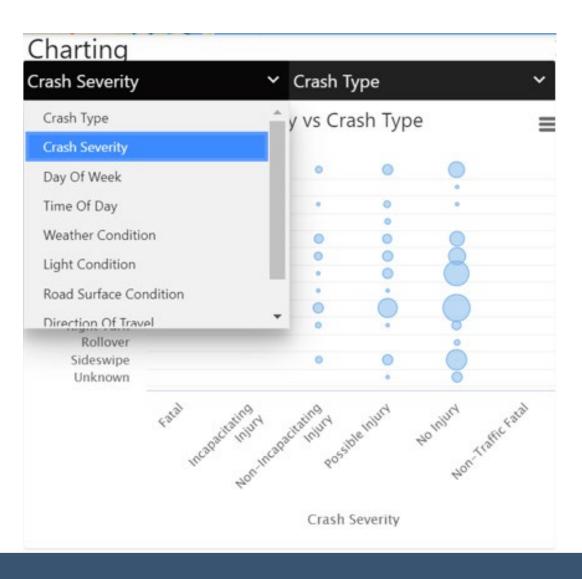
# **Chart Improvements**



# Two-dimensional Dynamic Chart



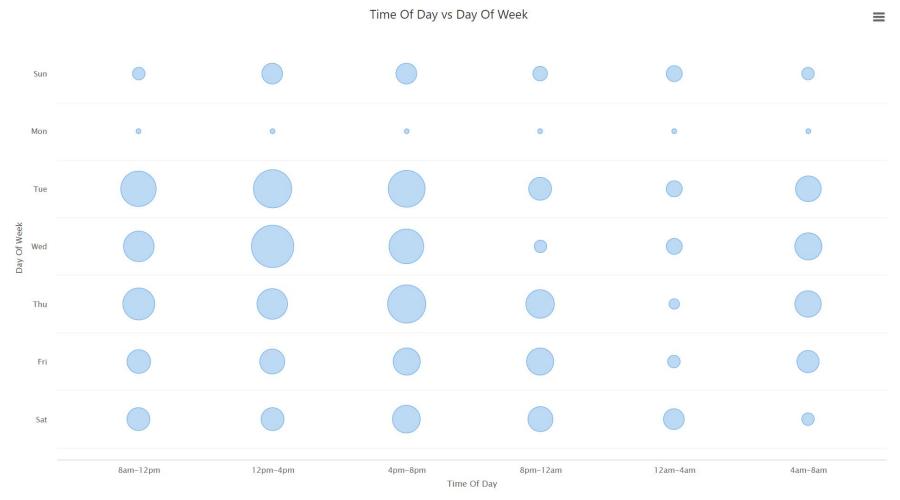
# **Change Field Name**



# **Change Field Name**

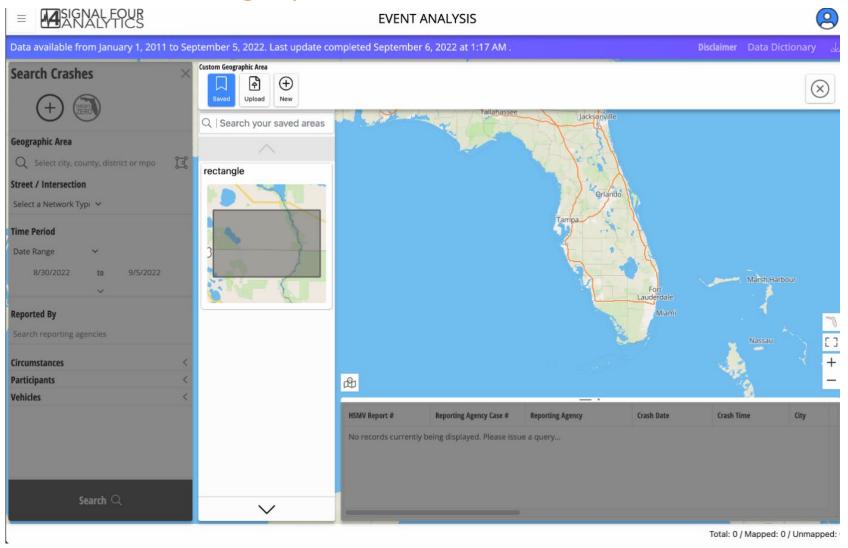


# **Chart Improvements-Dynamic Charting**



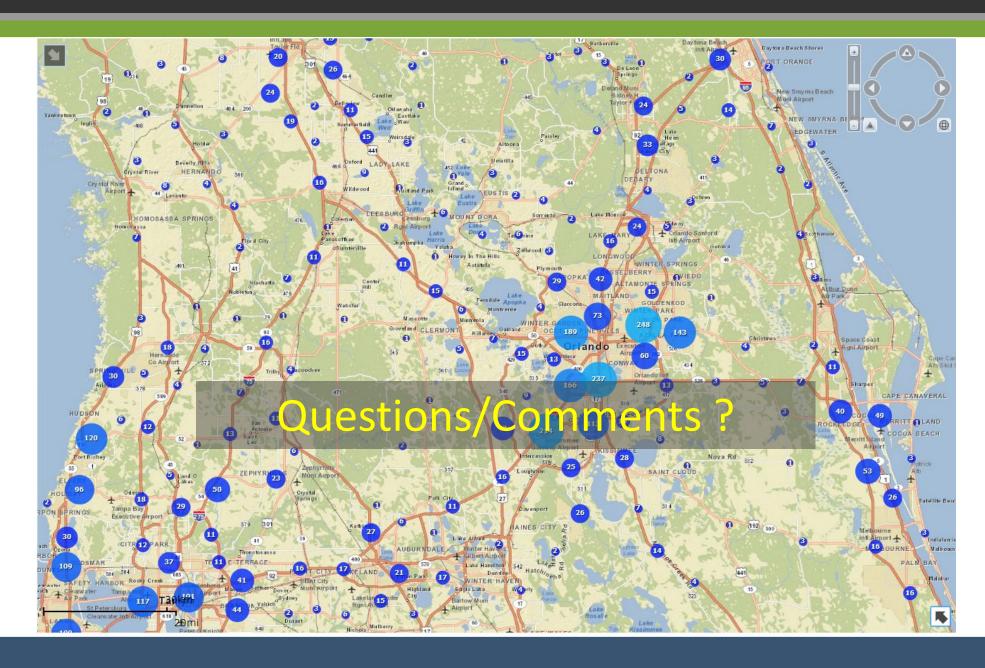
Full Screen Option with filtered options (time of day, day of week)

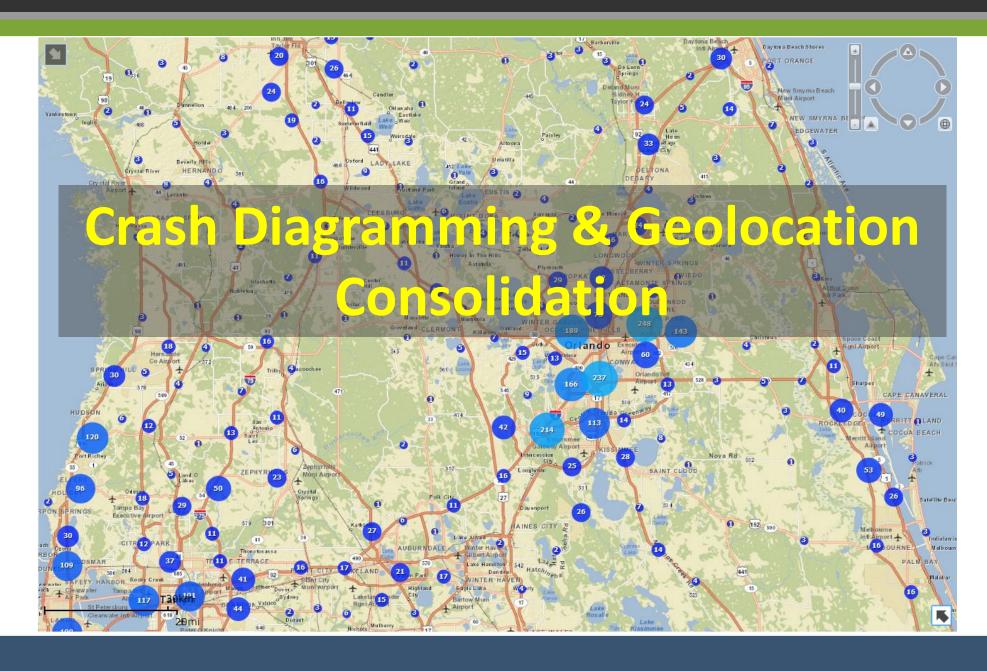
# Save Custom Geographic Features



# New Features In Development

- Ability to save and reuse queries Currently in progress
- Citation Dashboard Discussions in progress to develop requirements.
- Improvements to website: How-To's, Training Vignettes, Webinars
- Development of PBCAT 3.0





# Task 1 – Geolocation-based Crash Diagramming

### Purpose:

- Improve data Accuracy, Time Saving, Efficiency and Consistency
- Ensure consistency between
  - Crash location and crash diagram
  - Relevant crash data elements and crash diagram

# **Features Completed**

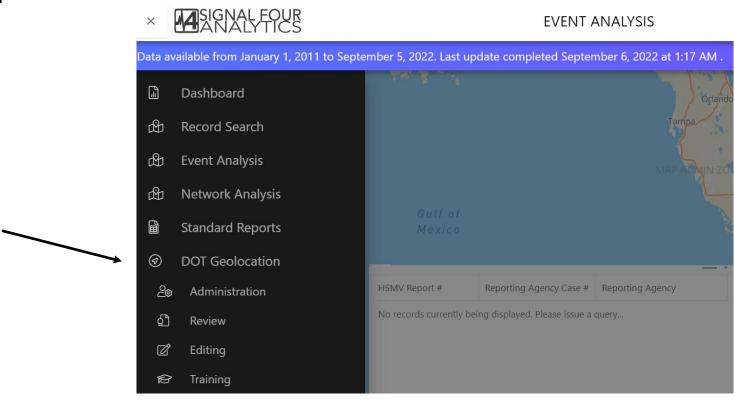
- Complete annotation tools.
- Set up an interactive testing environment.
- Miscellaneous bug fixes and improvements.
- Ability to add trailers to vehicles, new icons, a parking space tool, and various UI improvements.

# Currently in Progress:

- Extensive testing
- Display map scale bar
- Include a measure tool
- Miscellaneous UI improvements
- Training Videos
- Goal for TraCS is to release on beta site at end of September.

#### Task 2 – Geolocation Consolidation

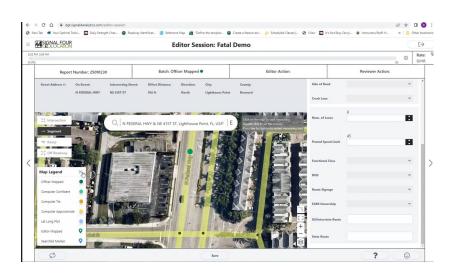
**Purpose:** Unify the geolocation process amongst FDOT, S4 and LE agencies to achieve one consistent statewide geolocation process.



#### **Activities Performed**

Tool went live in production in the beginning of June

FDOT Editors and Reviewers are using the tool for crash geolocation

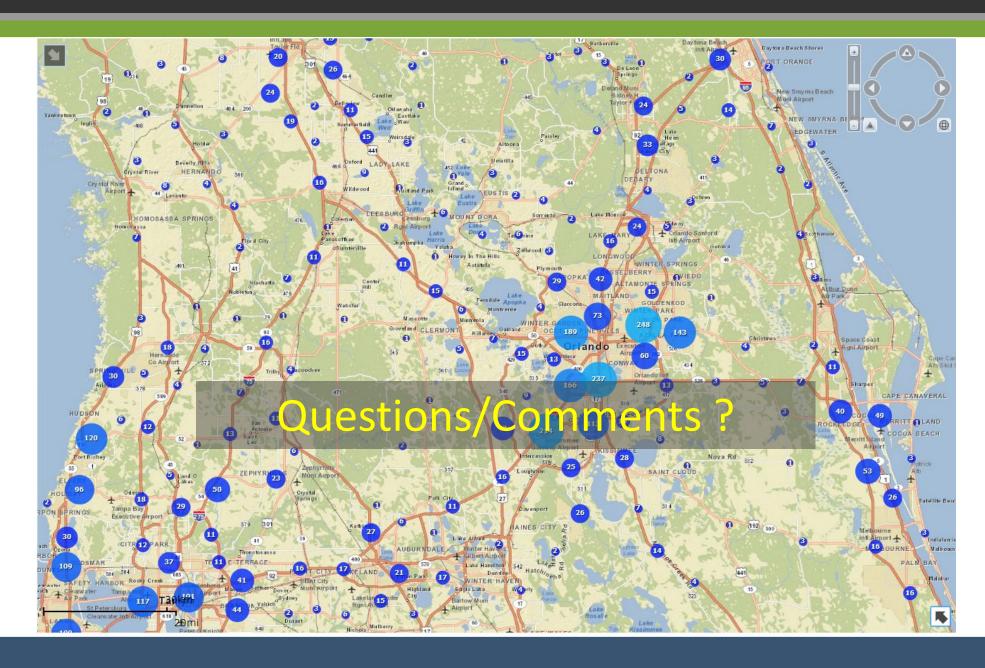


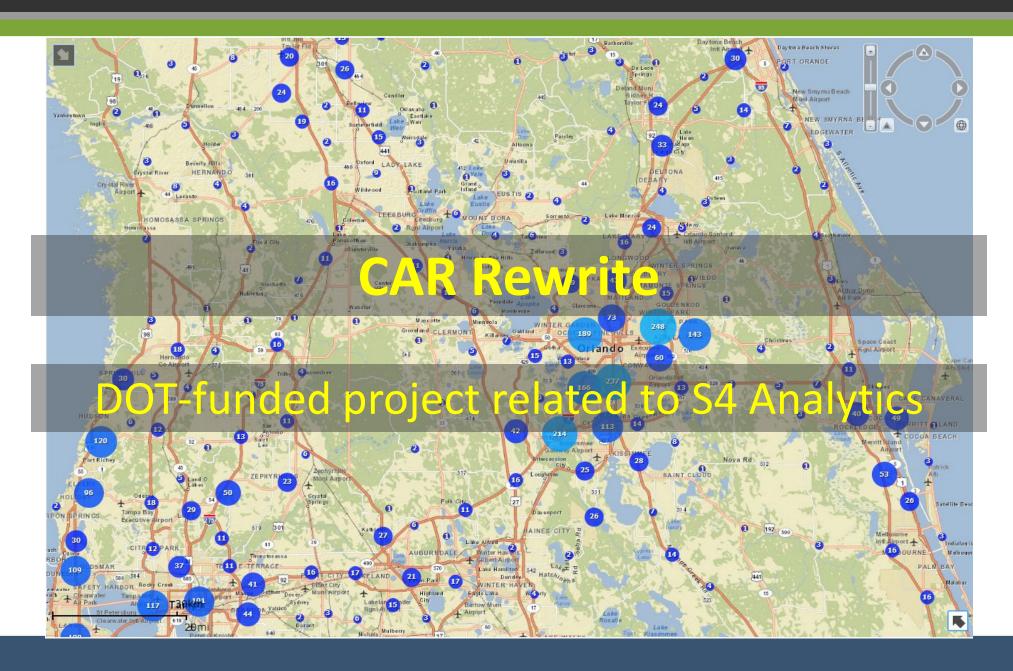
# **Activities In Progress**

- Support for local editors in final testing phase
- Make improvements based on FDOT feedback

# Activities In Progress - PBCAT 3.0 Support

- Finalizing requirements
- Finalizing mockups for the UI
- For FDOT editors PBCAT fields will be additional to the current geolocation functionality
- Include support for PBCAT-only editors





# Project Purpose:

- Expand Signal 4 Analytics with the FDOT CAR system functionality.
- Consolidation of data, analytics, and reporting into one system.

# **Current Status and Ongoing Work**

- Basic Analysis
  - Mockups completed
  - Implementation under way
- Historic and predictive analysis
  - Proof of concept for intersections and segments completed
  - Draft statewide implementation results currently under review
  - UI mockup refinements and completion under way
- Single Sign On (SSO) for FDOT employees completed (avoids the need for S4 username & password for FDOT employees)
- Data consolidation
  - Historic FDOT data imported into S4
  - Modifications to utilize FLARIS 2.1 data structure under way
  - Ongoing work to export data from S4 to FDOT until full implementation completed

