

### 2022-2023 Crash & UTC Data Improvement Grant Presented by Melissa Gonzalez



### **Crash Objective**

Expand the crash data dictionary and/or Uniform Traffic Crash Report Manual to include edit checks and validation rules, links to other data systems and/or data elements populated from other traffic records systems to improve traffic record accuracy and completeness.

### Plan and Logistics:

- Label crash data dictionary elements that are being populated by other traffic records databases
- Work with internal IT to identify any supplemental fields

#### Next Steps:

**OPS Management Analyst** - Advertisement closed 1/13. Received 21 applicants. Interviews to be scheduled

**OPS Coordinator -** Advertisement anticipated.



### **Crash Objective**

Create a performance metric(s) for interfaces with the driver and vehicle systems to improve accuracy of the data submissions to the Crash, UTC, Driver and Vehicle Systems.

### Plan and Logistics:

- Identified driver and vehicle fields being auto populated by LEA for crash and citation reporting
- Request sample data from FLHSMV Data Warehouse
- Compare fields such as DL # /person against the 4 database samples to identify accuracy issues (non matches)

### Next Steps:

Hire/Advertise grant staff to continue efforts



### <u>Uniform Traffic</u> <u>Citation Objective</u>

Successfully implement the S2S System by identifying and resolving duplicate credentials to improve uniformity of driver history data.

### Current Status:

- State-to-State full system implementation conducted 1/13-1/15 with a successful go-live date of 1/17 for the driver history record component.
- Interviews conducted for 2 OPS clerks

### Next Steps:

Appointment process has begun to begin resolving duplicate credentials



### <u>Uniform Traffic</u> <u>Citation Objective</u>

Create a performance metric with respect to preventing and resolving duplicate record processing.

#### Current Status:

Interviews conducted for 2 OPS clerks

Next Steps:

Appointment process has begun to begin resolving duplicate credentials





### 2022-2023 Crash & UTC Data Improvement Grant





### FFY 2023 Driver and Vehicle Data Quality Improvement Grant Asher Lucas, OPS Project Analyst



### Grant

Create a project plan to implement project goals for the driver and vehicle data systems.

Develop at least one performance measure, including baseline measurements, and establish numeric goals to evaluate performance for each of the following:

Driver records system

□ Vehicle records system

□ Identify recommendations for ongoing monitoring of data quality management and evaluation for the driver and vehicle systems.



### Driver Records System

Social Security Number (SSN) Verification Flag – Completeness Measure

- > All DL records should have a SSN Verification Flag.
- Tracking data to establish baseline and determine performance measure goals.

Driver License (DL) Record Purge – Accuracy Measure

- > Are we maintaining records in accordance with our business rules?
- ➤ Three groups:
  - Deceased
  - Expired
  - Not licensed
- Tracking data to establish baseline and determine performance measure goals.



### Vehicle Records System

Temporary Tag Fraud – Accuracy Measure

- Based on transactional data, key fraud indicators (so far):
  - Temp tag : Title ratio
  - After-hours temp tag issuances
  - Dealers exceeding maximum number of temp tag issuances
  - More than 3 temp tag issuances on a single vehicle identification number (VIN)

Working to incorporate confirmed cases of fraud





### **Questions?**

Contact: AsherLucas@flhsmv.gov



### Luis Dominguez Project Director

Brenda Clotfelter Project Manager





### **Completeness**

Increase % of <u>EMS agencies</u> submitting to state incident level repository to 90% by 9/30/23

> 82.35 %



306 Total Licensed Agencies 252 Licensed Agencies in EMSTARS 4 Pending 50 Aggregate



### **Completeness**

Increase % of EMS emergency run reports submissions to the state repository to 100% by September 30, 2023.

> 98 %







### Uniformity

Increase % of EMS emergency run reports submitted in compliance with NEMSIS Version 3.5 to 50% by September 30, 2023



#### V3.4 Compliance – 100%

#### **0%**

Expect agencies to begin transition 1<sup>st</sup> qtr. 2023 V3.4 = 252







	# of			Florida V3.5
Vendor	Agencies	Owned by	NEMSIS v3.5	Validated
ESO Solutions	98		Yes	
Zoll	53		Yes	
Image Trend, Inc.	33		Yes	
Documed	15		No	
EMSCharts, Inc.	10	Zoll	Yes	
SafetyPad	8	ESO	No	
American Medical Response	7		No	
Digitech	7		Yes	
EPR Systems USA Inc	5		Yes	
Truamasoft LLC	5		Yes	
Emergency Reporting	4	Zoll	No	
EMS Consultants Ltd.	4		No	
Cloud PCR LLC	2		No	
Metro pcr - Saffire Software	2		Yes	In validation
Stryker formerly Physio-Control (Sansio)	2		No	
			No - In	
			Compliance	
Creatie FMS - non compliant to Florida	1		Testing	
FIREHOUSE Software, A Xerox Solution	-		No	
	-			In validation
Beyond Lucid			Yes	testing

### V3.5 Implementatio n Planning

Vendor State of Readiness



# **DETTER DATA. BETTER CARE.**

#### **EMS Data Standard Version Timeline**



#### Legend

**Consensus:** Stakeholders review and reach agreement on revisions. **Software Build:** Software developers create and release tools for the new version. **Live:** Version is complete, software is available, and data can be submitted to the TAC. **Continuing to accept data:** Records in this version are accepted by the TAC. **Discontinued:** Records in this version are no longer accepted by the TAC.

January 2023, supersedes previous drafts. Calendaring represents approximate start/end dates and should not be construed to represent a set schedule. Actual schedules will be developed as milestones approach.

#### Type of Release

Informational Release: Includes corrections to the dictionary (e.g., typos, comments, update links). The release is "backwards compatible" (e.g., ePCR record generated in v3.5.0 is valid in v3.5.1).

Minor Release: Includes changes that are more permissive to the data standard (e.g., new optional elements or changing an error to a warning). The release is "backwards compatible".

Major Release: Includes changes that may be more restrictive (e.g., upgrading an element from state or optional to national). This release is NOT "backwards compatible" to the previous version.

**Critical Patch:** Corrects security or functionality that seriously compromises the daily function of the standard. Released as needed.



### FY 22/23 Objectives

#### **Uniformity/Accuracy**

Publish an update to the Florida Data Dictionary with business rules for NEMSIS 3.5 by September 30, 2023.

- Completed Updated Data Dictionary to include Iteration 1 Business Rules and Defined lists for procedures and medications
- Working on Iteration 2 Business Rules to include in Data Dictionary
- ✓ Working with Vendors to ensure V3.5 readiness
- Developing Implementation Tools for EMS agencies for transition



### **Completenes**

S

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

- Participate in NEMSIS Technical advisory calls – biweekly
- Participate in NASEMSO calls monthly or as scheduled

Conduct four EMS Advisory Council Data Committee worksessions to continue maintaining Florida data standards, business rules and implementation best practices consistent with NEMSIS.

 ✓ EMSAC Data Committee 1/18/23



### FY 22/23 OBJECTIVES

### Accuracy

Monitor and report (quarterly) on a minimum of three data quality measures in addition to the NEMSIS data quality measures by September 30, 2023 (Measure data quality around 3 state Clinical performance measures).

#### **Overall NEMSIS Data Quality**

- Patient Information 97%
- Cardiac Arrest 89% -2
- Valid System Times 98%
- Injury Information 78% 1
- Clinical Times Recorded 80% +1
- Other incident Information 97%

NEMSIS V3 Data Quality Dashboard 2/1/23 **90%** 

 Identification of clinical performance measures in progress



# EMS Field Data

### We appreciate your continued support.



Brenda Clotfelter

Data Unit / Bureau of Emergency Medical Oversight

727-424-4530

Brenda.clotfelter@flhealth.gov



#### **Timeliness**

Increase % of V3 EMS emergency run reports received within 10 hours of the run to 70% by September 30, 2023



**85%** 

Q4/2022

% may vary based on resubmissions



### FY 22/23 Objectives

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- Store to enable enhanced dashboard reporting
  - Continuing to utilize biospatial for repository and data accessibility
    - Increase provider utilization of Biospatial reporting from 10% to 50%

Implementing improvements to DOH Operational Data

- Implemented improvements to State EMS Strategic Measure Dashboards on biospatial
- Working to provide additional dashboards for users
- Working on development of enhanced training of dashboards





### Accessibilit

**y** Work in Progress

### **Timeliness**

Increase % of agency Demographic records resubmissions received every 30 days by September 30, 2023

- Defining measurements 3/23
- Developing baseline target 3/23
- Monitoring/Reporting on measurements – 4/23



### FY 22/23 Objectives

#### Integration

Link two additional data sources to the EMS state repository by September 30, 2023.

#### **Current integrations within Biospatial**

- Health Information Exchange
- Crash Records automated feed TBD
- ESSENSE Integration
- Trauma Data (no formal linkage)
- Florida Stroke Registry in progress
  - Requirements 3/1/23
  - / Implementation 4/1/23





### **Contact Information**



Brenda Clotfelter Data Unit / Bureau of Emergency Medical Oversight 727-424-4530 Brenda.clotfelter@flhealth.gov





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# February 3, 2023 **TRAFFIC AND CRIMINAL SOFTWARE**



## **TraCS Growth - Users**

- Users
  - 2008: 750
  - 2023: 27,744





# **TraCS Growth - Agencies**

Agencies

 – 2008: 12

- 2023: 209





### **TraCS Growth – Agencies**

LEAs Participating in FDOT Traffic Safetey Grants



TraCS LEAs - 205 Total LEAs - 351



## **TraCS Growth – New Agencies**

- Coral Gables PD
  - Officially submitting crashes electronically and no longer mailing in paper!



# **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.
- \*as of 9/2022

10 9 9 7.97 R 7.4 6.1 5.5 5 3 2 1 Ο 17-18 18-19 19-20 20-21 21-22

Average Days to Load



# **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.
- \*as of 9/2022



Load Success Rate



# **Objective 3: Completeness**

- To maintain or increase the total percentage of statewide crash reports submitted electronically by agencies using the TraCS Florida software.
- \*as of 9/2022



% of Reports Submitted by TraCS



# **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 703,667 is for 10/1/21-9/30/22 obtained from Signal 4 Analytics



# of Reports Submitted by TraCS


# **Objective 4: Uniformity**

 To improve uniformity in data collection methods.





# **Objective 4: Uniformity**

- To improve uniformity in data collection methods.
- 24 agencies submitting paper in Broward and Volusia counties





- To maintain the number of agencies using FCIC/NCIC interfaces.
  - ELVIS/TraCS use vs. other vendors

TraCS-ELVIS Integration Use





- To increase the number of TraCS agencies using a location tool to plot accidents on the crash form.
  - 11 agencies do not use our crash form
  - 6 have the mandate turned off
    - Bay County Schools PD
    - Cottondale PD
    - Graceville PD
    - Hialeah Gardens PD
    - Kenneth City PD
    - Valparaiso PD
  - Palm Beach County SO has the mandate turned on as of 1/24/2023!

% of Agencies Mandated to Use Signal 4 Location Tool





 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



# of Agencies NOT Mandated
# of Agencies Mandated



#### Signal 4 Diagram Tool

- RECAP-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
- Roadway information now updates on crash report when changes are made to the location through the diagram tool.



Here is a sample produced from our testing





 The diagram tool usage data now populates to a web-based report via a web service

#### **S4 Crash Diagram Statistics**



Start Date		
1/1/2023		
End Date		
1/30/2023		
Location Name		

#### 01/01/2023 through 01/30/2023

Agency Name	Form Submit Count	User Submit Count	TraCS Users
Apopka Police Department	7	3	110
Boynton Beach Police Department	7	1	164
Bradenton Beach Police Department	1	1	11
Coral Gables Police Department	24	1	242
Deland Police Department	1	1	77
Panama City Police Department	29	1	160
Plantation Police Department	4	2	200
Rockledge Police Department	5	2	62
Seminole County Sheriffs Office	9	3	496
Total # of Forms Submitted:	87		



- Agencies Using Signal 4 Diagram Tool
- 9/30/22-1/30/23

Agency Name	Total Count
Apopka Police Department	8
Boynton Beach Police Department	25
Bradenton Police Department	1
Chiefland Police Department	14
Clearwater Police Department	14
Coral Gables Police Department	50
Deland Police Department	1
Lee County Sheriffs Office	243
Miami Police Department	69
Panama City Police Department	535
Pembroke Park Police Department	89
Plantation Police Department	4
Plant City Police Department	43
Rockledge Police Department	110
Seminole County Sheriff's Office	9
Tarpon Springs Police Department	73
Total Report Count	1288



## **LInX/FINDER** Participation

Agencies Sharing Data w/ FDLE





## **Objective 6: Accessibility**

- To maintain a primary data hosting site
  - Hosting data for 175 agencies at Digital Systems Management (DSM)

TRACS-HOSTED VERSUS SELF-HOSTED





# FY 22-23 Highlights

- Staff
  - Hire OPS support person
- Signal 4 Diagram Tool Integration
  - Continue to deploy to agencies
- Signal 4 Location Tool Integration
  - Upgrade everyone to a TraCS version using version 3 versus 2.3
    - UTC on TCATS 6.0.1 and updates to old crashes only using 2.3
- Citation
  - Test/implement transmissions of citation data directly to FCCC
    - Projected go live March 2023
- Crash
  - Begin work on new crash form using MMUCC 6<sup>th</sup> edition
    - Only if FLHSMV is ready



# FY 22-23 Highlights

 Support & Development
 by Issue
 Tracker
 Count





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# Thank you for your continued support!

Questions? Amy Pontillo phone: 850-509-2381 email: amyc@tracsflorida.org



#### Better Data, Safer Roads.

FAMU-FSU College of Engineering

## ELVIS TRCC UPDATE February 3, 2023

	OR	Tag Number		FL - Florida	•	No CCW	
Query Res	ponse FRQ					Add Comment	🔒 Print Raw I
Vehicle Registration	ļ			Driver	Summary :		
8 This registration ma	y be expired.			×			
Tag Number	State	Expires				Par Atripe	-
AAA10A	FL	06/30/2009			1		0
VIN Number		Make					12.
TESTVIN1		FORD			18/10	an the	
Year	Color	Style				40	(TRI)
2000	RED	2D			The second		0.44
Decal	lise	Waight	Original				163
18164769/9	PRIVATE	3400	No		S.		
First Registered Own	er į			Full Na	110		Status
Full Name				GALIN	DO-CLINE OF	NE PAO LICENSE	VALID LIC
LICENSE, GALIND	O-CLINE ONE PAO			Licentre	Number		State
Licenze Number	Say		Date of Birth	L-252	-294-61-501-0		FL
L252294615010	F		01/01/1961				
				Height		Race	Sex

Grant funding provided by the Florida Department of Transportation



ELVIS USER FORUM, 2018, DAY 1

## Welcome!

**Team Members** 

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

## February 2023 Statistics

#### **Current ELVIS Usage**

- 253 Agencies
- 29,722 user accounts
- 4,734,889 queries run this fiscal year
- Nearly 1.2M queries per month
  - Increase of ~83,000 queries per month over September numbers

#### FY22-23

#### 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 continues to be expanded and improved
  - TraCS
  - Mark43
  - LexisNexis
  - FINDER
  - Others

#### Security Features

Investigating new advanced authentication methods and auditing capabilities

#### • Accessibility

- New agencies continue to be brought on board
  - Cocoa Beach Police Department
  - Flagler Beach Police Department
  - Wakulla County Sheriff's Office
- Added 3 new agencies since September meeting
  - 546 new users
  - Increase of approx. 80,000 queries per month since last TRCC meeting
- 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

#### ELVIS Usage over time, 2016-Present

#### Law Enforcement Agencies

- 1/2016: 39
- 2/2023: 253



User Accounts

1/2016: 3,667

• 2/2023: 29,722



#### ELVIS Cost per User

FY22-23 Total Funding Request: \$508,000

Total users (as of 2/2/23): 29,722

Avg. Cost Per User: \$17



## Thank You

QUESTIONS?

ELVIS TRCC UPDATE, FEB 2023

#### **MA SIGNAL FOUR**



## Projects

- Geolocation and Crash Diagramming to Improve Crash Data Location, Timeliness, and Quality (S4 Geolocation & S4 Diagram)
- 2. Expanding Accessibility, Utilization, and Data Integration of Signal 4 Analytics **(S4 Analytics)**
- 3. Car Rewrite (DOT funded)

#### **Mal Signal Four**



## Geolocation & Diagramming Tasks

- a) Geolocation for LE (S4 Geolocation)
- b) Crash Report Diagramming (S4 Diagram)
- c) FDOT Geolocation (DGT)

#### **SIGNAL FOUR** GEOLOCATION



### **SIGNAL FOUR** GEOLOCATION

**Mandated Agencies** 

- TraCS
  - 99% for crash
  - 8% for citations

- SmartCOP
  - Jacksonville SO for crashes

## **SIGNAL FOUR** GEOLOCATION

## **Current and Future Activities:**

- Revising tool to support the most up-to-date version of Navteq
- Ongoing user and technical support
- Still waiting on SmartCOP upgrade to v3 in order to roll out to rest of SmartCOP agencies
- Working to develop process to reach to agencies of other vendors

#### **SIGNAL FOUR** DIAGRAM



#### M SIGNAL FOUR DIAGRAM

#### S4 Diagram Purpose

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

### M SIGNAL FOUR DIAGRAM

#### **Recent Activities**

- Close to 1,300 TraCS crash reports have used the S4 Diagram since September.
- Continued extensive testing and refinements
- Finalizing training videos
- Performing updates based on feedback

Agency	Diagram Count
Panama City Police Department	506
Lee County Sheriff's Office	243
Rockledge Police Department	105
Pembroke Park Police Department	89
Tarpon Springs Police Department	73
Miami Police Department	69
Plant City Police Department	43
Coral Gables Police Department	26
Boynton Beach Police Department	18
Chiefland Police Department	14
Clearwater Police Department	12
Apopka Police Department	1

## M SIGNAL FOUR DIAGRAM

#### **Planned Activities**

- Training next week for 19 agencies
- Full release of the tool to these 19 agencies asap
- Release the tool to more TraCs agencies in the next two 2-3 months
- Develop process to reach out to agencies of other vendors

**Agencies for Next Week's Training** Altamonte Police Department **Apopka Police Department Boynton Beach Police Department Bradenton Police Department Charlotte County Sheriff's Department Chiefland Police Department** Clearwater Police Department **Coral Gables Police Department Deland Police Department** Fort Myers Police Department Lee County Sheriff's Office Miami Police Department Panama City Police Department Pembroke Park Police Department Plant City Police Department Rockledge Police Department Seminole County Sheriff's Department Tallahassee Police Department Tarpon Springs Police Department

#### **SIGNAL FOUR** FDOT GEOLOCATION



### **SIGNAL FOUR** FDOT GEOLOCATION

#### **FDOT Geolocation Purpose**

Unify the geolocation process across FDOT, S4 and LE agencies to achieve one consistent statewide geolocation process

## **SIGNAL FOUR** FDOT GEOLOCATION

#### Status

- In use for about 7 months
- Continued refinement and improvements
- Expansion for local editor/reviewer capabilities


## **SIGNAL FOUR** FDOT GEOLOCATION

## **Activities In Progress**

- Finalizing PBCAT 3.0 bike/ped crash typing
- Review the requested improvement from DOT, prioritize and start on them after PBCAT 3.0 is operational

## **MAL FOUR**





## Number of Public Agencies



#### **19** new agencies from January 2022

As of 2/2/23

## Number of Active Users



About 810 new users from January 2022

As of 2/2/23

## New Users by Month



#### On average about 76 new users per month

As of 2/2/23

# Number of Queries/Reports



In average about 22,600 queries/reports per month

As of 2/2/23

## Public Dashboard – Unique Pageviews



#### On average about 8,900 pageviews per month

As of 2/2/23, Source: Google Analytics

## **Ongoing Activities**

- Requirements in development for Citations Dashboard
- Develop a process with LEL Group for training
- Update the analytics database to support PBCAT 3.0
- Revise user eligibility to data and crash report based on new FLHSMV requirements
- Planning a training webinar in the second quarter



## **MAL FOUR**



## **M**SIGNAL FOUR

## Purpose

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

## **M**SIGNAL FOUR

## **Current Status and Ongoing Work**

- Basic Analysis for final testing by the end of February
- Predictive Network Screening currently under DOT review
- FDOT data migration and conversion to FLARIS 2.1 in testing
- Historic Network Screening is work in progress



#### Search Crashes

DOT Roadway

Vehicles

## **Basic Analysis**

 Filters based on specific street or intersection

+ TARGET	
Time Period	
Date Range	~
1/25/2023	to 1/31/2023
	~
Location	
Geographic Boundar	у
Administrative	Custom
Q Type to select a	a city, county, district or
	~
Specific Street or Ir	ntersection
None 🗸	
None	
Intersection	
Street	cies
Custom Network	<

X

<

<

#### Specific Street or Intersection



#### Specific Street or Intersection



## Data grid

Injury Summary	jury Summary Common Attributes FDOT Attributes										
HSMV Report #	Reporting Agency Case #	Reporting Agency	Crash Date	Crash Time	City	County	Crash Street				
24625297	220003167	Lake Wales PD	12/6/2022	8:30 PM	Lake Wales	Polk	SR-60	•			
24625305	220003160	Lake Wales PD	12/5/2022	6:26 PM	Lake Wales	Polk	HWY 27				
24625306	220003204	Lake Wales PD	12/10/2022	8:43 AM	Lake Wales	Polk	N SCENIC HWY				
24646372	22-983839	Hillsborough Co SO	12/9/2022	8:26 AM	Unincorporated	Hillsborough	GIBSONTON DR				
24646374	22-984940	Hillsborough Co SO	12/9/2022	2:29 PM	Unincorporated	Hillsborough	CR-672				
24646486	22-985367	Hillsborough Co SO	12/9/2022	5:10 PM	Unincorporated	Hillsborough	W FLETCHER AVE				
24646505	22-988118	Hillsborough Co SO	12/10/2022	1:14 PM	Unincorporated	Hillsborough	SUMMERALL RD	-			

## **MAL FOUR ANALYTICS**

## Injury summary table

Injury Summary	Common At	tributes FDOT Attributes					
		Total	Fatal Crashes	Serious Injury Crashes	Injury Crashes	Property Damage Only Crashes	
Crashes		695716	3206	12717	147796	531997	*
Fatalities (within 30 Days)		3446	3446	0	0	0	
Incapacitating Injuries		15924	684	15240	0	0	
Non-Incapacitating Injurie	es	73057	901	2938	69218	0	
Possible Injuries		159407	628	3735	155044	0	
No Injuries		1415554	2573	11653	186062	1215266	
Non-Traffic Fatalities		192	1	4	38	149	

## FDOT required attribute table

Injury Summary	Common Attri	butes <b>FDO</b>	Attributes			Ŧ							
HSMV Report #	DOT Roadway ID	Milepost #	Nearest Inters	section Name	State Road Name	Average Da	ily Traffic	Year	Month	Day	Hour	Roadwa	y Type Category
Alcohol Involv	Alcohol Involv First Harmful Event Manner of Collision Lighting Condition Weather Condition Road Surface Roadway Conditions DOT Site Location Side of Road												
Vehicle 1 Special H	unction V	ehicle 1 Maneuve	er Vehicle	1 Driver Action 1	Vehicle 1 D	river Age	Vehicle 2	2 Directio	n Vehicle	2 Body Iy	/ Ve	ehicle 2 Spe	ecial Function
NM Description	NM Lo	cation	NM Prior Act	tion N	M Action 1	NM Act	ion 2	١	NM Age		Vehicles I	nvolv	

## Data Extracts

## **Previous version**

#### Select Data to Download

Crash Tables in	CSV format	(max 800 (	00 records	ner table)
Clusif lubics III				per tuble

□ Events

Drivers

 $\Box$  Non-motorists

□ Vehicles

 $\Box$  Violations

Pedestrian Typing

Bicycle Typing

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

□ Mapped Crashes

Police Crash Report in PDF format (max 300 reports)

Crash Reports

#### Download Crash Data

Crash Event	
FDOT Roadway	New version
Driver	
Non-Motorist	
Passenger	
🗌 Vehicle	
Violation	
🗌 Pedestrian Typing	
Bicycle Typing	
Geolocation (GIS file)	
Joined Tables (Excel, max 800,000 recon	r <u>ds per table)</u>
Crash Event & FDOT Roadway 8	ι Vehicle 1&2 and Driver 1&2
🔲 Vehicle & Driver & Passenger (p	artial)
Police Crash Reports (PDF, max 300 rep	<u>ports)</u>
<u>Readme File (Excel)</u>	
🗹 Query parameters, disclaimer, c	lata dictionary
🗌 Add a note	



Data Dictionary



**Predictive Network Screening** 

## Search Predictive Data

X

Thine Ferroa		
Single Year	Multi Year	
Last Year	×	~
Geographic Area		
State of Florida	×	~
Roadway Type		
All Roadways	×	~
Network Type		
Network Type Segments	×	~
Network Type Segments Measurement Type	×	~
Network Type Segments Measurement Type Average Crash Frequency	×	~
Network Type Segments Measurement Type Average Crash Frequency Show	×	~



X

## Search Predictive Data

# Time Period Single Year Last Year Koadway Type State Highway System

#### Network Type

Segments X V

#### Measurement Type

Crash Rate	×	$\sim$

#### Show

Top 5

× ×

Single Year	Multi Year
Last Year	× v
Last Year	
2020	
2019	
2018	
2017	
2016	

#### Measurement Type

Crash Rate	×	~
Average Crash Frequency		

#### Crash Rate

EPDO (Equivalent Prop Damage Only Avg

Critical Rate

Single Year	Multi Year	_
Five years 2017-2021	× ~	
Three years 2019-2	2021	
Five years 2017-20	21	

#### Measurement Type

Crash Rate	×	~
EPDO (Equivalent Prop Damage Only Avg		•
Excess predicted average crash frequency using SPFs		
Expected average crash frequency with EB adjustments	y	I
Excess average crash frequency w EB adjustments	vith	•



Shape Length	Crash Seg Cat	Roadway Id	BMP	EMP	Context Classification	Number of Lanes	Median Type	Max Speed	AADT 2021	Crash Rate
756.358629	R RAMP	26130002	-0	0.4	None	None	None	None	112.38	51.8726
2034.02527	R 1 U	26110000	8.6	9.9	C2	2.0	None	55.0	910	7.1463
721.721292	R 2 D	26030000	13	14	C3C	2.0	02	40.0	4262.06	4.3002
333.412954	U 2 D	26020000	20	20	C2	2.0	08	55.0	16920	3.9079
246.389038	U 2 D	26070000	14	14	C3C	3.0	02	35.0	48084.81	3.3494

## **Mail SIGNAL FOUR ANALYTICS**

Intersection results



Crash Int Cat	Signalized	Stop Control	Number of Legs	AADT Major	AADT Minor	Intersection Geometry	Intersection ID	Crash Rate_2
IS R 1 U	Ν	Ν	3	114	82	Υ	25775840	13.9782
IS R 2 D	Ν	Y	4	450	400		25266770	6.4464
IS U 3 D	Y	Y	5	18600	361		25266717	5.6352
IS R 1 U	Ν	Y	4	2600	750		25773116	4.907
IS R 2 D	Ν	Y	4	650	126		25266764	3.5306

## **Mail SIGNAL FOUR**



## **Mail SIGNAL FOUR**



## Safe System Implementation of Florida's Strategic Highway Safety Plan



ACHIEVING FLORIDA'S TARGET OF ZERO FATALITIES AND SERIOUS INJURIES



Brenda Young, P.E. State Safety Engineer



## Florida Strategic Highway Safety Plan



# **FDOT's Focused Initiatives:**





INTERSECTIONS

**PEDESTRIAN / BICYCLIST** 







## **NHTSA Data: Driver Related Factors**







## Safe System Approach – Human Factors



# Zero is our goal. A Safe System is how we get there.



These 5 elements work **TOGETHER** to anticipate human error and provide successive layers of defense to **PREVENT** driver errors from occurring and **MINIMIZE THE SEVERITY** of a crash when those errors occur. Target: ZERO <u>fatalities</u> and <u>serious injuries</u>.





# SAFE ROADS: Engineering for Human Factors

Florida annually receives approximately \$130 million from FHWA for safety infrastructure on ALL public roadways. FDOT leverages a three-pronged approach to install proven countermeasures to maximize the impact of those investments:







# **Key Strategic Investments**

### FDOT dedicates resources for statewide systematic improvements:

- To address pedestrian safety, \$100M improved roadway illumination levels and nighttime visibility of pedestrians at over 2,500 intersections
- To address lane departure crashes, \$60M provides systematic statewide deployment of sinusoidal ground-in rumble strips on the state highway system – for a total of 3,085 CL miles of high-speed, rural, two-lane, 50+ mph roadways without audible vibratory treatments.
- To address **pedestrian and bicyclist safety**, \$14M will improve 88 selected movable bridges by installing hardened gates and advanced detection systems.
- To address lane departure crashes, \$2.6M will complete the statewide WWD Enhanced Pavement Marking initiative.
- \$30M expanded our WWD Detection Systems inventory. To start, the \$15M in FY 25 will help us gain LED signs/detection at 63 ramps statewide





# **Evaluating Effectiveness**





# SAFE ROAD USERS: Influencin Education for Human Factors



#### **REASONS FOR BEHAVIORS:**

- » Speed while driving to make up time on the road, and thrill seeking
- » Drive distracted due to the need for constant connection to family, friends, and employers via mobile devices
- » The aggression of other drivers affects their driving behavior as well, especially tailgating. Life challenges such as stress, time management, and thrill-seeking lead to this behavior.



**Paid Media:** Targeted social, digital billboards, gas pump videos, audio and video streaming, web, radio



**Earned Media:** Launch/press events, articles in news platforms, partner agency publications/platforms



**Owned and Shared Media:** FDOT website, publications, offices, rest areas, signs, and social media

## **Community Outreach Materials**







# **Evaluating Effectiveness**

If you do not engage and influence your customer, your marketing program has failed. Awareness is not action.

## **Traditional Media Metric:**

 Impressions – how many people could have seen the message (each time counts)

## **Advanced Metrics:**

- Engagements reactions, comments, shares, link clicks
- Engagement rates ratio of those who engaged of those who could have seen it

## Additional Key Performance Indicators via Surveys:

## KNOW

- The facts
- Self-recognition of responsibility
- Power to act

# FEEL

- Changed attitudes
- Injunctive norms
- Perceived susceptibility to behavior/belief



- Self-reported behavior/belief
- Behavior/belief intention




## SAFE SPEEDS: Engineering for Human Factors

### Speed and Survivability: Kinetic Energy Management







# **Speed and Driver's Vision**

#### Driver's Peripheral Vision at 10-15 MPH



#### **Driver's Peripheral Vision at 20-25 MPH**



#### **Driver's Peripheral Vision at 30-35 MPH**



#### **Driver's Peripheral Vision at over 40 MPH**







# Speed, Distance, and Ability to Stop or Yield







# **Engineering for Speed**



### FDOT Design Manual, Speed Management Chapter and Establishment of Target Speed Policy

"This bulletin requires use of the target speed in the consideration of design speed selection, to provide greater application of context-based design principles in support of roadway safety."

"This Bulletin introduces revisions to the FDOT Design Manual (FDM) and the Project Development and Environment Manual (PD&E Manual) to implement target speed on projects where a design speed is required."





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# SHOW BEHIND THE WHEEL



Set phone on "Do not Disturb".



Show compassion to yourself and others.



Leave earlier to avoid being late.





Give fellow drivers the benefit of the doubt.



Focus on getting to the ones you love.



Preset your romantic playlist.

## Let's Get Everyone *Home This Valentine's Day*





TargetZeroFL.com

## Thank You!

### Brenda Young, P.E., CPM

State Safety Engineer <u>brenda.young@dot.state.fl.us</u>

For more information, visit: <u>www.TargetZeroFL.com</u>