

Introduction to Crash Analysis

DOTD Highway Safety Section



www.dotd.la.gov

Introduction

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- @ Highway Safety since 2015



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Agenda

- Introduction
- Initialization
- Crash Querying
- Site Analysis
- Quality Assurance
- Benefit-Cost



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CARTS Crash Tool

- Not an everything tool
- Statistics & SHSP Dashboards >
CARTS.LSU.edu > Data Reports
- Focused on project development
- Most modules finished
 - Crash Query
 - Quality Assurance
 - Site Analysis
 - Benefit-Cost
- More Training in the near future



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HSIP

<https://highways.dot.gov/safety/hsip>

Highway Safety Improvement Program (HSIP)

The Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned roads and roads on tribal land. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads with a focus on performance.

The HSIP is legislated under Section 148 of Title 23, *United States Code* (23 U.S.C. 148) and regulated under Part 924 of Title 23, Code of Federal Regulations (23 CFR Part 924). The HSIP consists of three main components, the Strategic Highway Safety Plan (SHSP), State HSIP or program of highway safety improvement projects and the Railway-Highway Crossing Program (RHCP). In addition, some states also have a High Risk Rural Roads (HRRR) program if they had increasing fatality rate on rural roads.



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New Crash Report 2022


- New Collision Manner
 - Right-overtake
 - Left against flow
 - Backing x3
 - Unknown
- More details
 - Non-Motorists
 - Commercial Motor Vehicles
 - Intersections
- Cyclists are Non-Motorists



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Gaining Access


Send Access requests to <DOTDCrashData@LA.gov>



The screenshot shows a web browser with the address bar containing 'carts.lsu.edu'. Below the browser, the website header includes 'LSU.edu' and a 'Login' button. The main content area features the title 'Center for Analytics & Research in Transportation Safety' and a navigation menu with items: 'About Us', 'News & Events', 'Projects', 'Data Reports', and 'Louisiana eCrash'. The DOTD logo is visible in the bottom left corner.

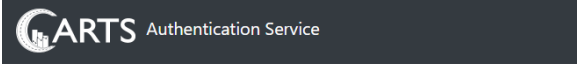
Center for Analytics & Research in Transportation Safety

About Us ▾ News & Events ▾ Projects ▾ Data Reports ▾ Louisiana eCrash ▾



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Gaining Access




CARTS Authentication Service

Login


Choose how to login



Login with CAS (LAeCrash)

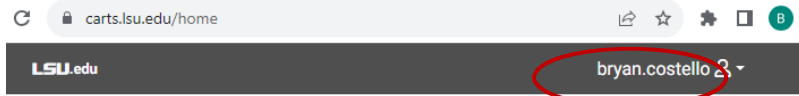


CARTS



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Gaining Access



Center for Analytics & Research in Transportation Safety

About Us ▾ News & Events ▾ Projects ▾ Data Reports ▾ Louisiana eCrash ▾ Portal



Gaining Access

About Us ▾ News & Events ▾ Projects ▾ Data Reports ▾ Louisiana eCrash ▾ Portal

AdHoc Query Tool



Application that allows the user to write queries against the data warehouse and find results that match those queries.

Open

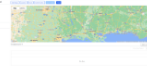
CARTS User Administration



Manage individual users and their access, Organizations and Sub-Organizations.

Open

Crash Query Tool



Provides DOTD engineers with a toolset to more easily identify and analyze problematic roadway areas by crash volume, severity, and other factors.

Open



Gaining Access

This crash data tool has been developed by the Office of Planning, Highway Safety Section of DOTD for crash analysis purposes. The data contained herein is prepared solely for the purpose of identifying, evaluating, and planning safety enhancements and/or strategies of crash sites. This is pursuant to Section 148 of Title 23 of the United States Code and was implemented utilizing federal-aid highway funds. Therefore, the data is not subject to discovery nor may be admitted into evidence in a Federal or State court proceeding or considered in any action against DOTD or the state of Louisiana.

DOTD makes no representation as to the accuracy, adequacy, reliability, availability or completeness of the Law Enforcement Agency crash reports or the data collected from them. DOTD is not responsible for any errors or omissions in such reports or data. DOTD is not liable for any loss or damage incurred by any party as a result of the use of the crash reports or data collected from them.

The data contained herein is not the official report of the circumstances of a particular crash. The crash report and data contained within is owned and maintained by the investigating agency. To obtain an official copy of a crash report, contact the state or local law enforcement agency that created it.

Pursuant to Louisiana Revised Statute 32:398, unless specifically authorized by the State of Louisiana, third parties shall not sell or distribute any compiled data owned by the state of Louisiana.

Questions or concerns, should be directed to the DOTD Highway Safety Section at dotd-highwaysafety@la.gov or by calling (225) 379-1214.



Orientation

Total Crashes: 0 Fatal Injury Crashes: 0 Injury Crashes: 0 Property Damage Only Crashes: 0 **bryan.costello**

Crash Query Tool

Date Range Location Route Control Section Load Crashes Reset

Map Satellite Terrain

0 mapped out of 0

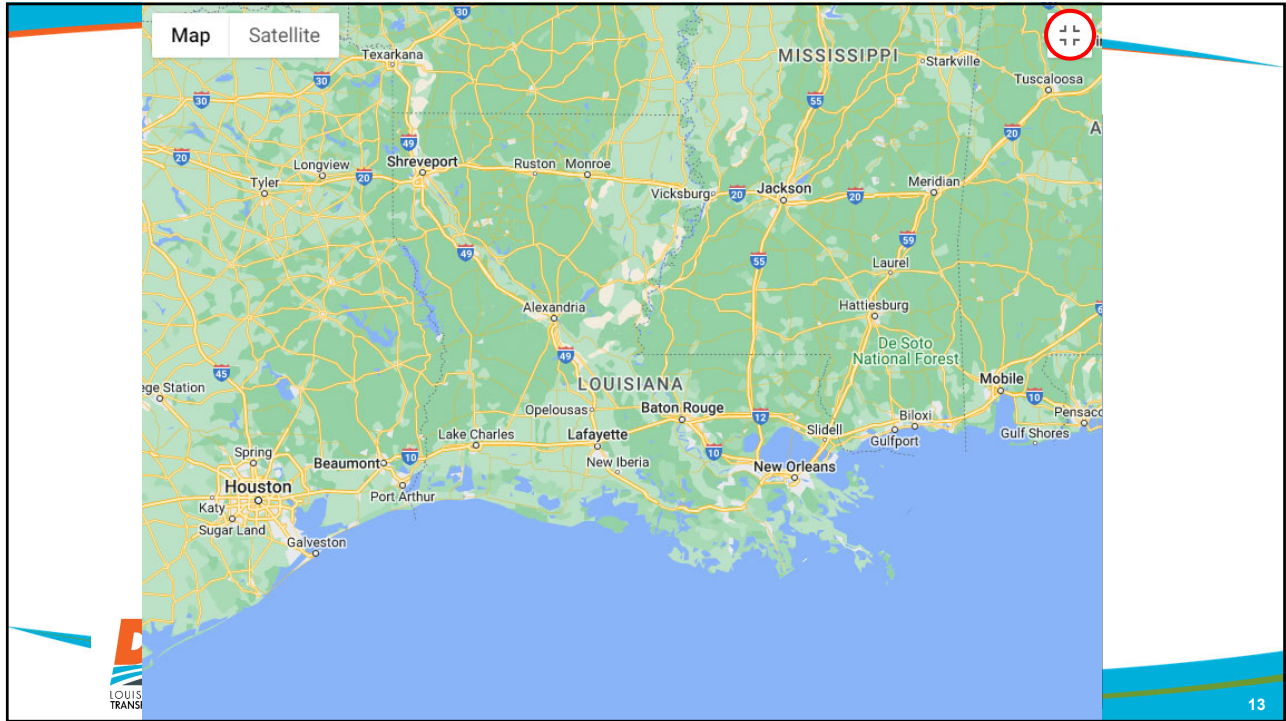
MAP ICON LEGEND

Clear Filters

Mapped	Crash Number	Year	Severity	Manner of Collision	Control Section
(All)			(All)	(All)	

No data





Orientation

Total Crashes: 0 Fatal Injury Crashes: 0 Injury Crashes: 0 Property Damage Only Crashes: 0 bryan.costello

Crash Query Tool

Map Satellite

Terrain

102. Angle - Left Into Flow
103. Angle - Right Into Flow
202. Front To Front - Right Against Flow
501. Sideswipe - Right Against Flow
980. Other
999. Unknown

Severity

- Not Reported
- Property Damage-Only
- Possible Injury
- Suspected Minor Injury
- Suspected Serious Injury
- Fatal Injury

Manner of Collision

- 101. Angle - Left Across Flow
- 105. Angle - Perpendicular/Other Angle
- 201. Front To Front - Left Against Flow
- 500. Sideswipe - Left Against Flow
- 100. Angle - Left Overtake
- 104. Angle - Right Overtake
- 300. Front To Rear - Rear End
- 400. Backing - Rear To Front
- 401. Backing - Rear To Rear
- 402. Backing - Rear To Side
- 503. Sideswipe - Left Overtake
- 504. Sideswipe - Right Overtake
- 505. Sideswipe - With Flow
- 200. Front To Front - Head On
- 502. Sideswipe - Against Flow
- 000. Not a Collision Between Two Motor Vehicles

MAP ICON LEGEND



Orientation

Total Crashes: 0 Fatal Injury Crashes: 0 Injury Crashes: 0 Property Damage Only Crashes: 0 bryan.costello

Crash Query Tool Date Range Location Route Control Section Load Crashes Reset

> Query
> Summary
> Tools
> View
> Project
> Help

Terrain

0 mapped out of 0

Clear Filters

Mapped	Crash Number	Year	Severity	Manner of Collision	Control Section
(All)			(All)	(All)	

No data

Column Chooser

- Year
- Severity
- Manner of Collision
- Control Section
- Log Mile
- Roadway Departure



Orientation

Total Crashes: 0 Fatal Injury Crashes: 0 Injury Crashes: 0 Property Damage Only Crashes: 0 bryan.costello

Crash Query Tool Date Range Location Route Control Section Load Crashes Reset

> Query
> Summary
> Tools
> View
> Project
> Help

Contact Us
Feedback
Status

Documentation
eCrashManual

Release Notes

0 mapped out of 0

Clear Filters

Mapped	Crash Number	Year	Severity	Manner of Collision	Control Section
(All)			(All)	(All)	

No data

MAP ICON LEGEND



Documentation



eCrash Manual

Code	Name	Description
100	Angled / skewed	An intersection of roads where the angle between the roads is significantly more or less than 90°.
101	Roundabout / traffic circle	Circular traffic patterns in which yield control uses all entries, circulating vehicles have right of way, pedestrian access only allow across the legs of the roundabout behind the yield line and circulation is counter-clockwise and passes to the right of the central island. Intersections where vehicles must travel around a circle to continue on the same road or leave on any intersecting road.
102	Perpendicular	An intersection of roads where the angle between the roads is almost nearly 90°.
970	Not applicable	Not applicable.



Orientation

Total Crashes: 0 Fatal Injury Crashes: 0 Injury Crashes: 0 Property Damage Only Crashes: 0 bryan.costello

Crash Query Tool

Date Range Location Route Control Section Load Crashes Reset

> Query
 > Summary
 > Tools
 > View
 > Project
 > Help

0 mapped out of 0

MAP ICON LEGEND

Clear Filters

Mapped	Crash Number	Year	Severity	Manner of Collision	Control Section
(All)			(All)	(All)	

No data

Agenda

- ✓ Introduction
- ✓ Initialization
 - Crash Querying
 - Site Analysis
 - Quality Assurance
 - Benefit-Cost

Limits - Time

- Most recent: 6 to 18 months ago
- Minimum: 3 years
- Preferred: 5 years
- Consistency
 - Similar operations
 - No major construction

Limits - Segments

- Considerations
 - Too small may be too close to randomness
 - Too large may be too close to average

- Suggested limits

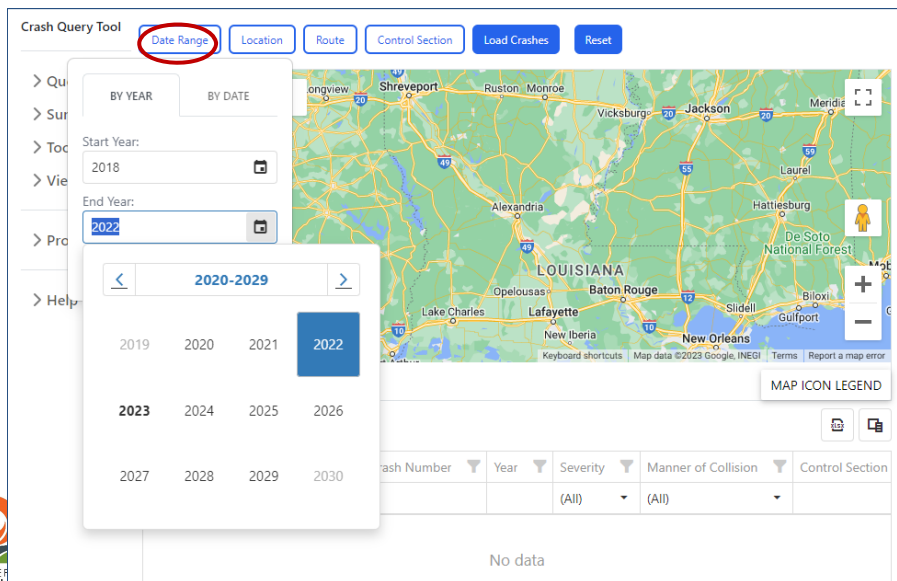
(miles)	Urban	Rural	Class
Minimum	0.4	0.6	Highways
Maximum	2	8	
Best	Between interchanges		Freeways

- If an end-point is at an intersection, trim it to avoid the intersection's functional area

Limits - Intersections

- Considerations
 - Too small, may not capture all crashes
 - Too large, may perform extra QA
- Minimum: 150 feet*
- *but do not include other intersections
- Include all of the turn-lanes & taper*
- If too close to another intersection, consider splitting the distance between intersections

Crash Querying



The screenshot displays the "Crash Query Tool" interface. The "Date Range" button is circled in red. Below it, a calendar pop-up is open, showing the date range from 2020 to 2029. The year 2022 is highlighted in blue. The background shows a map of Louisiana with various cities and highways labeled. Below the map, there are dropdown menus for "Crash Number", "Year", "Severity", "Manner of Collision", and "Control Section". The "Year" dropdown is currently set to "(All)".

Crash Number	Year	Severity	Manner of Collision	Control Section
		(All)	(All)	

No data

Crash Querying

Crash Query Tool

> Query
 > Summary
 > Tools
 > View
 > Project
 > Help

District: Select...
 Parish: Select...
 City: Select...

0 mapped out of 0

MAP ICON LEGEND

Clear Filters

Mapped	Crash Number	Year	Severity	Manner of Collision	Control Section
(All)			(All)	(All)	

No data



Crash Querying

Crash Query Tool

> Query
 > Summary
 > Tools
 > View
 > Project
 > Help

Highway Type: Select...
 Highway Number: Select...
 Milepoint From: 0
 Milepoint To: 0
 LRS ID: Select...

0 mapped out of 0

MAP ICON LEGEND

Clear Filters

Mapped	Crash Number	Month	Year	Day of Week	Severity	Log Mile
(All)					(All)	

No data



Crash Querying

The screenshot shows the 'Crash Query Tool' interface. At the top, there are buttons for 'Date Range', 'Location', 'Route', 'Control Section', 'Load Crashes', and 'Reset'. The 'Control Section' button is circled in red. Below these buttons is a navigation menu with options: '> Query', '> Summary', '> Tools', '> View', '> Project', and '> Help'. The main area features a map with a 'Map' and 'Satellite' toggle. A dropdown menu for 'Control Section' is open, showing '007-07' with a close button. Below the dropdown are 'Logmile From:' (0) and 'Logmile To:' (13.529) fields, and a 'CLOSE' button. The map shows a region around New Orleans, Louisiana. Below the map, it says '0 mapped out of 0' and 'MAP ICON LEGEND'. There is a 'Clear Filters' button and a table with columns: 'Mapped', 'Crash Number', 'Year', 'Severity', 'Manner of Collision', and 'Control Section'. The table shows '(All)' for 'Mapped', '(All)' for 'Severity', and '(All)' for 'Manner of Collision'. Below the table, it says 'No data'. In the bottom left corner, there is a logo for 'DO LOUISIANA DEPARTMENT OF TRANSPORTATION & INFRASTRUCTURE'. In the bottom right corner, the number '27' is displayed.

Crash Querying

The screenshot shows the 'Crash Query Tool' interface. At the top, there are buttons for 'Date Range', 'Location', 'Route', 'Control Section', 'Load Crashes', and 'Reset'. The 'Load Crashes' button is circled in red. Below these buttons is a navigation menu with options: '> Query', '> Summary', '> Tools', '> View', '> Project', and '> Help'. The main area features a map with a 'Map' and 'Satellite' toggle. A dropdown menu for 'Control Section' is open, showing '450-05' with a close button. Below the dropdown are 'Logmile From:' (2) and 'Logmile To:' (3) fields, and a 'CLOSE' button. The map shows a region around Lafayette, Louisiana. Below the map, it says '0 mapped out of 0' and 'MAP ICON LEGEND'. There is a 'Clear Filters' button and a table with columns: 'Mapped', 'Crash Number', 'Year', 'Severity', 'Manner of Collision', and 'Control Section'. The table shows '(All)' for 'Mapped', '(All)' for 'Severity', and '(All)' for 'Manner of Collision'. Below the table, it says 'No data'. In the bottom left corner, there is a logo for 'DO LOUISIANA DEPARTMENT OF TRANSPORTATION & INFRASTRUCTURE'. In the bottom right corner, the number '28' is displayed.

Crash Querying

Total Crashes: 55 Fatal Injury Crashes: 0 Injury Crashes: 19 Property Damage Only Crashes: 36 bryan.costello

Crash Query Tool [Date Range] [Location] [Route] [Control Section] [Update] [Reset]

Map Satellite ABC 123 ice cream Lou's Trailer Sales Juneau Metalworks

55 mapped out of 55

Mapped	Year	Severity	Manner of Collision	Control Section
<input checked="" type="checkbox"/>	2018	104-(O) PROPERTY DAMAGE ONLY	505-SIDESWIPE - SAME DIRECTION	450-
<input checked="" type="checkbox"/>	2018	104-(O) PROPERTY DAMAGE ONLY	505-SIDESWIPE - SAME DIRECTION	450-
<input checked="" type="checkbox"/>	2018	104-(O) PROPERTY DAMAGE ONLY	300-FRONT TO REAR - REAR END	450-



Crash Querying

Total Crashes: 0 Fatal Injury Crashes: 0 Injury Crashes: 0 Property Damage Only Crashes: 0 bryan.costello

Crash Query Tool [Date Range] [Location] [Route] [Control Section] [Load Crashes] [Reset]

Map Satellite Terrain

0 mapped out of 0

Mapped	Crash Number	Year	Severity	Manner of Collision	Control Section
(All)			(All)	(All)	

No data



Crash Querying

Crash Query Tool

Date Range Location Route Control Section Load Crashes Reset

Query

- Basic
- Spatial
- By Search Area
- By Point**

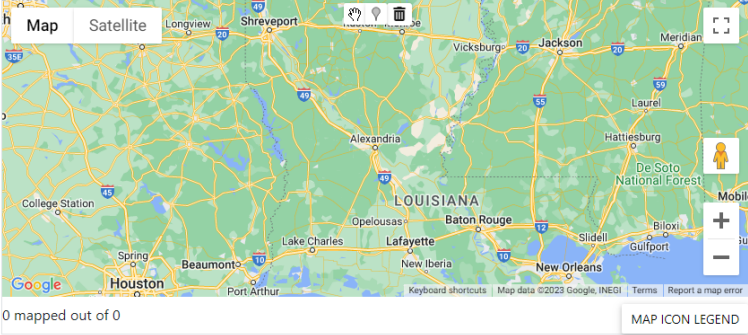
Summary

Tools

View

Project

Help



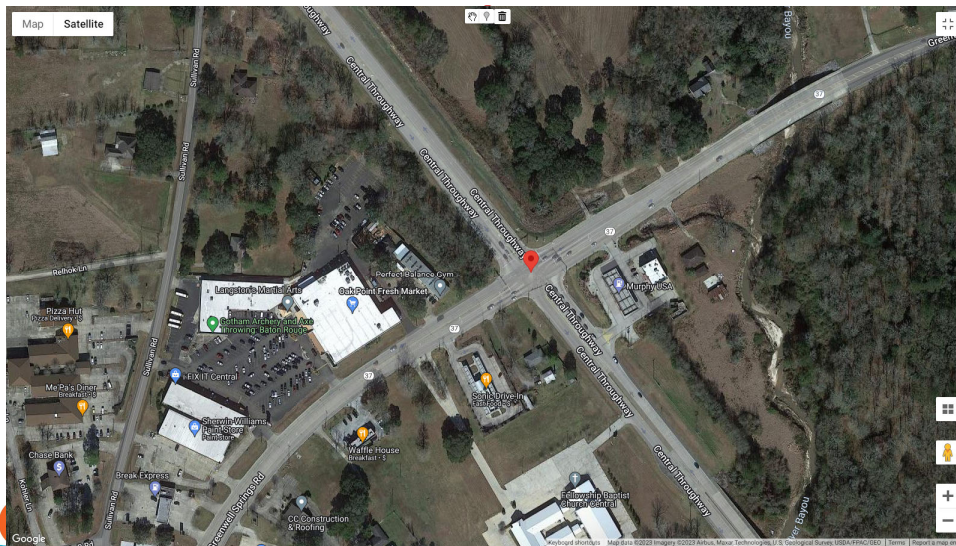
0 mapped out of 0

Clear Filters

Mapped	Year	Severity	Manner of Collision	Cont
(All)		(All)	(All)	

No data

Crash Querying



Map Satellite

Google

Crash Querying

Crash Query Tool

Date Range Location Route Control Section Load Crashes Reset

Query

- Basic: Lat/Long: 30.514872,-91.026334
- Spatial: Within: 200 feet
- By Search Area
- By Point

Summary Tools View Project Help

0 mapped out of 0

MAP ICON LEGEND

Mapped	Year	Severity	Manner of Collision	Cont
(All)		(All)	(All)	

No data



Crash Querying

Total Crashes: 126 Fatal Injury Crashes: 1 Injury Crashes: 33 Property Damage Only Crashes: 92 bryan.costello

Crash Query Tool

Date Range Location Route Control Section Reset

Query

- Basic
- Spatial
- By Search Area
- By Point
- Summary**
- Tools
- View
- Project
- Help

126 mapped out of 126

MAP ICON LEGEND

Mapped	Year	Severity	Manner of Collision	Cont
(All)		(All)	(All)	
✓	2022	104-(O) PROPERTY DAMAGE ONLY	505-SIDESWIPE - SAME DIRECTION	-1
✓	2018	103-(C) POSSIBLE INJURY	200-FRONT TO FRONT - HEAD ON	254-
✓	2018	104-(O) PROPERTY DAMAGE ONLY	101-ANGLE - LEFT OPPOSITE DIREC...	254-



Crash Querying

Total Crashes: 126 Fatal Injury Crashes: 1 Injury Crashes: 33 Property Damage Only Crashes: 92 bryan.costello

Crash Query Tool

Query: Basic
 Spatial: Within 200 feet of latitude 30.514872, longitude -91.026334
 2018-1-1 to 2022-12-31

By Search Area [Map Icon]

By Point	Hour	Tot Acc	Fatal Acc	Injury Acc	PDO Acc	Num Fatalities	Num Severe Injuries(B)	Num Moderate I
Summary	0	3	0	1	2	0	0	
Alcohol	1	1	0	0	1	0	0	
Control Section	5	2	0	1	1	0	0	
Day of Week	6	7	0	4	3	0	0	
Hour	7	9	0	1	8	0	0	
Intersection Crash	8	9	0	2	7	0	0	
Parish	9	6	0	0	6	0	0	
Pedestrian Relation To Roadway	10	2	0	1	1	0	0	
Route	11	12	0	2	10	0	0	
Type of Collision	12	4	0	0	4	0	0	
Work Zone	13	7	0	3	4	0	0	
	14	4	0	2	2	0	1	
	15	14	0	3	11	0	0	



Crash Querying

Total Crashes: 126 Fatal Injury Crashes: 1 Injury Crashes: 33 Property Damage Only Crashes: 92 bryan.costello

Crash Query Tool

Query: Basic
 Spatial: Within 200 feet of latitude 30.514872, longitude -91.026334
 2018-1-1 to 2022-12-31

By Search Area [Map Icon]

By Point	Hour	Tot Acc	Fatal Acc	Injury Acc	PDO Acc	Num Fatalities	Num Severe Injuries(B)	Num Moderate I
Summary	0	3	0	1	2	0	0	
Tools	1	1	0	0	1	0	0	
View	5	2	0	1	1	0	0	
Query	6	7	0	4	3	0	0	
	7	9	0	1	8	0	0	
Project	8	9	0	2	7	0	0	
	9	6	0	0	6	0	0	
Help	10	2	0	1	1	0	0	
	11	12	0	2	10	0	0	
	12	4	0	0	4	0	0	
	13	7	0	3	4	0	0	
	14	4	0	2	2	0	1	
	15	14	0	3	11	0	0	



Crash Querying

Total Crashes: 126 Fatal Injury Crashes: 1 Injury Crashes: 33 Property Damage Only Crashes: 92 bryan.costello

Crash Query Tool Date Range Location Route Control Section Reset

Query
 Basic
 Spatial
 By Search Area
 By Point
 Summary
 Tools
 View
 Project
 Help

126 mapped out of 126 MAP ICON LEGEND

Clear Filters

Mapped	Year	Severity	Manner of Collision	Cont
(All)	(All)	(All)	(All)	
<input checked="" type="checkbox"/>	2022	104-(O) PROPERTY DAMAGE ONLY	505-SIDESWIPE - SAME DIRECTION	-1
<input checked="" type="checkbox"/>	2018	103-(C) POSSIBLE INJURY	200-FRONT TO FRONT - HEAD ON	254-
<input checked="" type="checkbox"/>	2018	104-(O) PROPERTY DAMAGE ONLY	101-ANGLE - LEFT OPPOSITE DIREC...	254-



Crash - Tools

- Query: 2020 & Zachary
- Filter: Severity: A, B; C (No K or O)

Total Crashes: 409 Fatal Injury Crashes: 0 Injury Crashes: 108 Property Damage Only Crashes: 301 bryan.costello

Crash Query Tool Date Range Location Route Control Section Update Reset

Query
 Summary
 Tools
 Cluster Crashes
 Heat Map
 View
 Project
 Help

108 mapped out of 108 MAP ICON LEGEND

Clear Filters

Mapped	Crash Number	Year	Severity	Manner of Collision
(All)			(All)	(All)



Crash - Tools

Total Crashes: 409 Fatal Injury Crashes: 0 Injury Crashes: 108 Property Damage Only Crashes: 301 bryan.costello

Crash Query Tool [Date Range] [Location] [Route] [Control Section] [Update] [Reset]

> Query
> Summary
Tools
Cluster Crashes
 ON
Heat Map
 OFF
> View
> Project
> Help

108 mapped out of 108

MAP ICON LEGEND

Clear Filters



Crash - Tools

Total Crashes: 409 Fatal Injury Crashes: 0 Injury Crashes: 108 Property Damage Only Crashes: 301 bryan.costello

Crash Query Tool [Date Range] [Location] [Route] [Control Section] [Update] [Reset]

> Query
> Summary
Tools
Cluster Crashes
 OFF
Heat Map
 ON
> View
> Project
> Help

108 mapped out of 108

MAP ICON LEGEND

Clear Filters



Agenda

- ✔ Introduction
- ✔ Initialization
- ✔ Crash Querying
 - Site Analysis
 - Quality Assurance
 - Benefit-Cost

Create Project

Crash Query Tool

Date Range Location Route Control Section Reset

Map Satellite

Query

- Basic
- Spatial
 - By Search Area
 - By Point
- Summary
- Tools
- View

Project

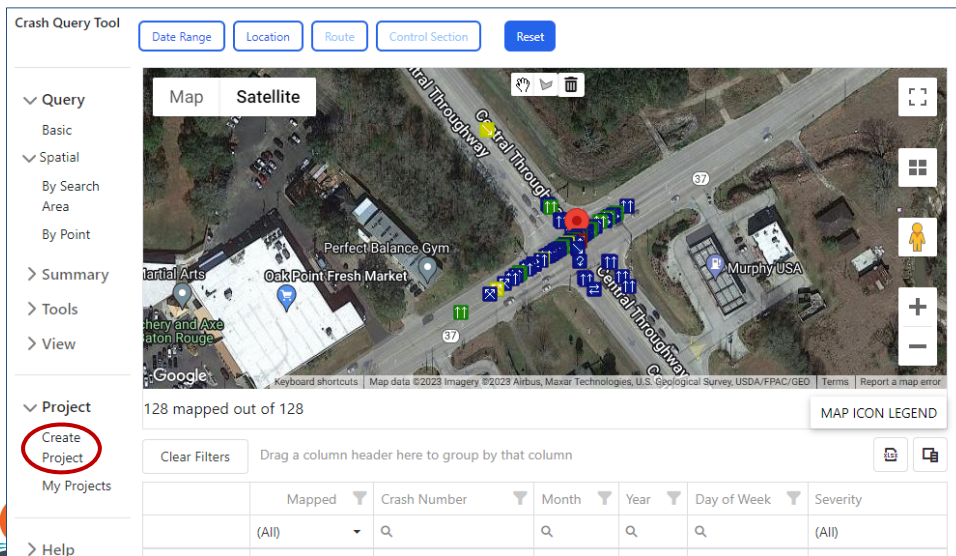
- Create Project**
- My Projects

128 mapped out of 128

MAP ICON LEGEND

Clear Filters Drag a column header here to group by that column

	Mapped	Crash Number	Month	Year	Day of Week	Severity
	(All)	Q	Q	Q	Q	(All)



Create Project

New Project

Project Name: LA 37 at Central Thwy

Analysis Type:
Intersection Analysis
Roadway Segment Analysis

CREATE **CANCEL**

My Projects

Crash Query Tool

Date Range Location Route Control Section Reset

Map Satellite

128 mapped out of 128

Mapped	Crash Number	Month	Year	Day of Week	Severity
(All)	Q	Q	Q	Q	(All)

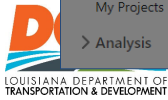
My Projects

New Project
✕

Project Name	Analysis Type	Created By	Created On	Date Modified	
LA 37 at Central Thwy	Intersection Analysis	bryan.costello	10/31/2023	10/31/2023	Load Delete

5 10 20
1 2 3

CANCEL



Crash Analysis

Crash Query Tool

Date Range
Location
Route
Control Section
Load Crashes
Reset

- > Query
- > Summary
- > Tools
- > View
- Project
- Analysis
- Intersection
- > Help

Map Satellite

+
-

110 mapped out of 110
MAP ICON LEGEND

Clear Filters
Load Saved Filter
Save Filter
Drag a column header here to group by that column

Reviewed	Mapped	Manner of Collision	Severity
(All)	(All)	(All)	(All)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	101-ANGLE - LEFT OPPOSITE DIRECTION	102-(B) SUSPECTED MIN



Intersection Analysis

Crash Query Tool

Pattern Recognition Analysis - Intersection


1 Project Name2 Inputs3 Parameters4 Review

Project Name

Analysis Date

NEXT STEP

- > Query
- > Summary
- > Tools
- ▼ View
 - Query
- > Project
- ▼ Analysis
 - Intersection
- > Help



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Intersection Analysis

Crash Query Tool

Pattern Recognition Analysis - Intersection

1 Project Name2 Inputs3 Parameters4 Review

Date Range

Start Date

Rural/Urban

Rural

Urban

End Date

Number of Lanes

2

4

6

Signalized/Unsignalized

Signalized

Unsignalized

Divided/Undivided

Divided

Undivided


Number of Legs

3

4

PREVIOUS STEP NEXT STEP

- > Query
- > Summary
- > Tools
- ▼ View
 - Query
- > Project
- ▼ Analysis
 - Intersection
- > Help



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Intersection Analysis

Crash Query Tool

Pattern Recognition Analysis - Intersection

1 Project Name 2 Inputs 3 Parameters 4 Review

> Query

> Summary

> Tools

▼ View

Query

> Project

▼ Analysis

Intersection

> Help

Aadt Major
Select...

- GREENWELL SPRINGS - NaN
- LA 37 - 20524
- CENTRAL - 10217
- LA 37 - 20521
- CENTRAL - 10217

PREVIOUS STEP NEXT STEP



Intersection Analysis

Crash Query Tool

Pattern Recognition Analysis - Intersection

1 Project Name 2 Inputs 3 Parameters 4 Review

> Query

> Summary

> Tools

▼ View

Query

> Project

▼ Analysis

Intersection

> Help

Aadt Major
LA 37 - 20524

Aadt Minor
CENTRAL - 10217

Percent Limit
0.901

Include BCA:

PREVIOUS STEP NEXT STEP



Intersection Analysis

Crash Query Tool

Pattern Recognition Analysis - Intersection

> Query1 Project Name2 Inputs3 Parameters4 Review

> Summary

> Tools

View

Query

> Project

Analysis

Intersection

> Help

Inputs

Project Name: LA 37 at Central Thwy

Analysis Date: 11/1/2023

Urban: Urban

Divided: Divided

Num Legs: 4

End Date: 12/31/2022

Parameters

AADT Major: 20524

AADT Minor: 10217

Percent Limit: 0.901

Include BCA:

Num Lanes: 4

Signalized: Signalized

Start Date: 1/1/2018

Run Analysis
PREVIOUS STEP

51



Intersection Analysis

Crash Query Tool

Pre-Production

Pattern Recognition Analysis - Intersection

> Query1 Project Name2 Inputs3 Parameters4 Review

> Summary

> Tools

View

Query

> Project

Analysis

Intersection

> Help

Inputs

Project Name: LA 37 at Central Thwy

Analysis Date: 11/1/2023

Urban: Urban

Divided: Divided

Num Legs: 4

End Date: 12/31/2022

Parameters

AADT Major: 20524

AADT Minor: 10217

Percent Limit: 0.901

Include BCA:

Num Lanes: 4

Signalized: Signalized

Start Date: 1/1/2018

Run Analysis
PREVIOUS STEP
VIEW RESULTS

52

Success - Catscan Calculation finished successfully.

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Outputs – Filters

- Filters-out crashes that does not meet the below criteria
- **Segment**
 - Within Grid
 - Intersection = No
- **Intersection**
 - Within Grid
 - (Rural) Intersection = Yes



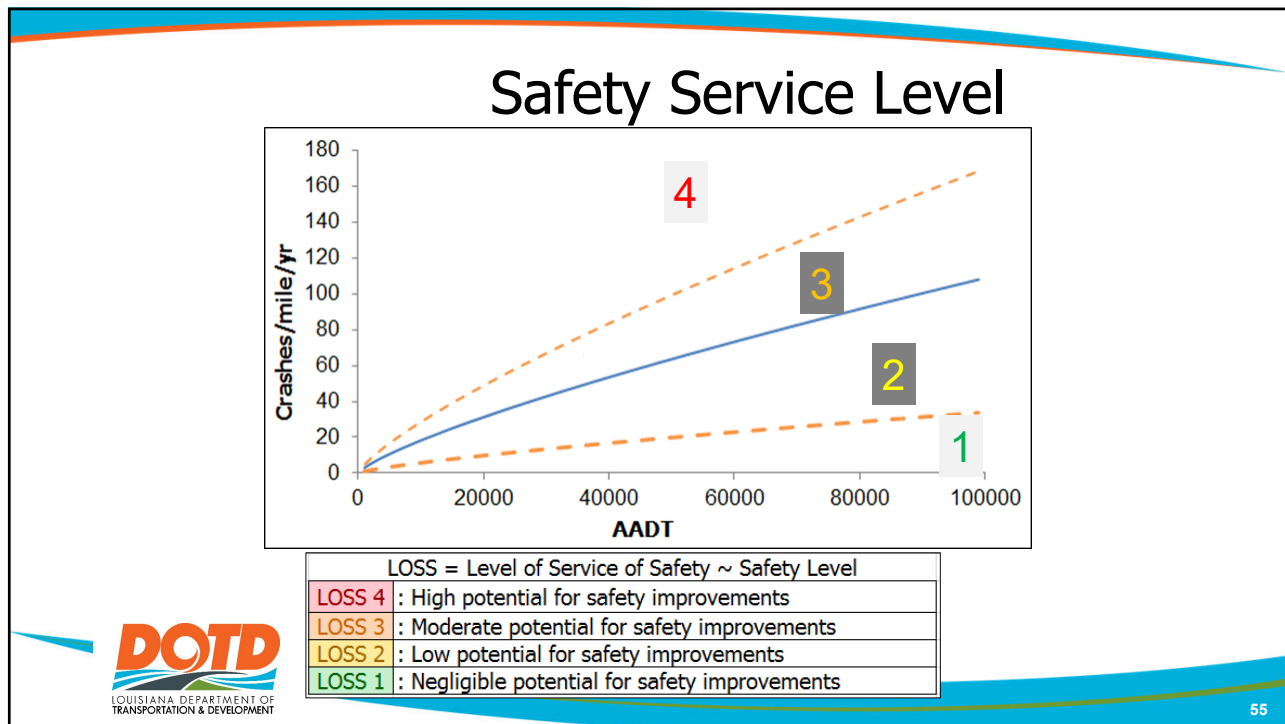
Pattern Recognition Analysis

- Crash attribute as Binomial Trial
- $P(X \leq x) = B(x, n; p) = \sum_{i=0}^x \frac{n!}{(n-i)! i!} p^i (1-p)^{n-i}$

- Each trial compares: subject % v. class %

Code	Crash Types	Obs %	State %	Δs > Pct Lmt	Code	Other Factors	Obs %	State %	Δs > Pct Lmt
A	Pedestrian	0.74%	0.78%	0 0%	A	Non Coll	5.45%	9.44%	31 44%
B	Pedalcycle	0%	0.45%	0 0%	B	Rear End	53.22%	51.78%	2 3%
C	Atv	0%	0.01%	0 0%	C	Head On	0.74%	0.66%	25 35%
D	Motorcycle	0.74%	0.81%	0 0%	D	Rt Angle	5.45%	6.12%	0 0%
E	Parked	0.25%	1.12%	0 0%	E	Left Turn-e	1.73%	1.4%	0 0%
F	Not Fixed	0%	0.8%	0 0%	F	Left Turn-f	10.15%	2.59%	57 80%
G	Vertical Fixed	1.73%	1.83%	27 38%	G	Left Turn-g	1.73%	1.79%	5 7%
H	Structures	0.25%	0.71%	0 0%	H	Right Turn-h	4.7%	2.18%	51 72%
J	Train	0%	0.03%	0 0%	I	Right Turn-i	0.74%	0.18%	14 20%
K	Other Veh	0%	1%	0 0%	J	S Swipe(sd)	13.61%	19.58%	9 13%
M	Bus	0%	0.49%	0 0%	K	S Swipe(od)	0.5%	0.39%	7 10%
N	Animal	0%	0.74%	0 0%	Z	Other	1.98%	3.9%	0 0%
P	Other Fixed	1.24%	2.06%	7 10%	RD	Road Depart.	5.94%	10.22%	21 30%
Q	Transport	2.72%	5.83%	1 1%	LC	Dark w/o Lights	3.22%	5.22%	39 55%
R	3+ Vehicles	6.19%	7.9%	0 0%	Alc	Alcohol	4.21%	2.66%	47 66%
T	Miscellaneous	0.5%	1.14%	0 0%	Wet	Wet Surface	12.62%	15.18%	0 0%





Intersection Analysis

Code	Category	Obs %	State %	>PRT	Code	Category	Obs %	State %	>PRT
A	Pedestrian	0%	0.59%	No	A	Non Coll	5%	3.31%	No
B	Pedalcycle	0%	0.42%	No	B	Rear End	41%	45.66%	No
C	Atv	0%	0.03%	No	C	Head On	2%	0.93%	Yes
D	Motorcycle	0%	0.75%	No	D	Rt Angle	5%	14.91%	No
E	Parked	1%	0.89%	No	E	Left Turn-e	0%	2.32%	No
F	Not Fixed	1%	0.25%	No	F	Left Turn-f	34%	8.26%	Yes
G	Vertical Fixed	1%	1.02%	No	G	Left Turn-g	1%	2.04%	No
H	Structures	0%	0.1%	No	H	Right Turn-h	7%	2.73%	Yes
J	Train	0%	0.02%	No	I	Right Turn-i	0%	0.43%	No
K	Other Veh	0%	1.22%	No	J	S Swipe(sd)	4%	12.59%	No
M	Bus	0%	0.74%	No	K	S Swipe(od)	1%	0.51%	No
N	Animal	0%	0.13%	No	Z	Other	0%	6.31%	No
P	Other Fixed	1%	0.74%	No					
Q	Transport	8%	4.52%	Yes					
R	3+ Vehicles	4%	5.95%	No					
S	Small Veh	52%	59.57%	No					
T	Miscellaneous	0%	0.3%	No					
U	Medium Veh	28%	21.94%	Yes					
X	Error	4%	0.82%	Yes					

Safety Comparison

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Intersection Analysis

Safety Comparison

Observed:	100.0	Crashes/yr
Predicted (SPF):	18.76	Crashes/yr
Over-dispersion:	4.59	
Weighted Adjustment:	0.2	
Observed:	100.0	Crashes/mile/yr
Expected (SPF+EB):	84.03	Crashes/mile/yr
Safety Service Level:	LOSS 4	
Expected Percentile:	100.0%	
80th Percentile:	25.46	Crashes/mile/yr
Predicted (SPF):	18.76	Crashes/mile/yr
20th Percentile:	11.29	Crashes/mile/yr



Intersection Analysis

Observed:	30.0	Crashes/yr
Predicted (SPF):	5.64	Crashes/yr
Over-dispersion:	4.72	
Weighted Adjustment:	0.46	
Observed:	30.0	Crashes/mile/yr
Expected (SPF+EB):	18.91	Crashes/mile/yr
Safety Service Level:	LOSS 4	
Expected Percentile:	99.97%	
80th Percentile:	7.64	Crashes/mile/yr
Predicted (SPF):	5.64	Crashes/mile/yr
20th Percentile:	3.43	Crashes/mile/yr



Segment Analysis

- Query:
 - 2018 to 2022
 - US 61 C-S 007-07 from LM 2.3 to 3.9

Total Crashes: 39 Fatal Injury Crashes: 1 Injury Crashes: 9 Property Damage Only Crashes: 29 bryan.costello

Crash Query Tool Date Range Location Route Control Section Load Crashes Reset

Map Satellite

39 mapped out of 39

MAP ICON LEGEND

Clear Filters Load Saved Filter Save Filter Drag a column header here to group by that column

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Segment Analysis

New Project

Project Name: test US 61 C-S 007-07 from LM 2.3 to 3.9

Analysis Type: (dropdown menu open)

Intersection Analysis

Roadway Segment Analysis

CREATE CANCEL

Mapped	Intersection	Manner of Collision	Severity	Control Section	Log Mile	Roadway
(All)	(All)	(All)	(All)	(All)	(All)	(All)
✓	NO	000-NOT A COLLISION BETWEEN TWO ...	104-(O) PROPERTY DAMAGE ONLY	007-07	3.867	

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Segment Analysis

Total Crashes: 39 Fatal Injury Crashes: 1 Injury Crashes: 9 Property Damage Only Crashes: 29 bryan.costello

Crash Query Tool Date Range Location Route Control Section Load Crashes Reset

Map Satellite

39 mapped out of 39

MAP ICON LEGEND

Clear Filters Load Saved Filter Save Filter Drag a column header here to group by that column

Reviewed	Mapped	Intersection	Manner of Collision	Severity
(All)	(All)	Q	(All)	(All)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NO	300-FRONT TO REAR - REAR END	104-(0) PROPERTY DAMAGE ON



Segment Analysis

Total Crashes: 39 Fatal Injury Crashes: 1 Injury Crashes: 9 Property Damage Only Crashes: 29 bryan.costello

Crash Query Tool

Pattern Recognition Analysis - Roadway

1 Project Name 2 Inputs 3 Parameters 4 Review

Project Name: test US 61 C-S 007-07 from LM 2.3 to 3.9

Analysis Date: 11/7/2023

NEXT STEP



Segment Analysis

Total Crashes: 39 Fatal Injury Crashes: 1 Injury Crashes: 9 Property Damage Only Crashes: 29 bryan.costello

Crash Query Tool

Pattern Recognition Analysis - Roadway

1 Project Name 2 Inputs 3 Parameters 4 Review

Route: US 61

Control Section*: 007-07

Logmile From: 2.3

Logmile To: 3.9

Highway Class*: Urban 4-Lane Divided

Start Date: 1/1/2018

End Date: 12/31/2023

PREVIOUS STEP NEXT STEP



Segment Analysis

Total Crashes: 39 Fatal Injury Crashes: 1 Injury Crashes: 9 Property Damage Only Crashes: 29 bryan.costello

Crash Query Tool

Pattern Recognition Analysis - Roadway

1 Project Name 2 Inputs 3 Parameters 4 Review

Aadt: 18,378

Delta: 0.6

Sigma: 0.02

Percent Limit: 0.9

Include BCA:

PREVIOUS STEP NEXT STEP



Segment Analysis

Total Crashes: 39 Fatal Injury Crashes: 1 Injury Crashes: 9 Property Damage Only Crashes: 29 bryan.costello

Crash Query Tool

Pattern Recognition Analysis - Roadway

Success - Catscan Calculation finished successfully.

1 Project Name 2 Inputs 3 Parameters 4 Review

Inputs

Project Name: test US 61 C-S 007-07 from LM 2.3 to 3.9

Analysis Date: 11/7/2023

Route: US 61 Control Section*: 007-07

Logmile From: 2.3 Logmile To: 3.9

Highway Class*: Urban 4-Lane Divided

Start Date: 1/1/2018 End Date: 12/31/2023

Parameters

AAADT: 18378 Delta: 0.6


Sigma: 0.02 Percent Limit: 0.9

Include BCA:

Run Analysis

PREVIOUS STEP

VIEW RESULTS



Segment Analysis

Total Crashes: 39 Fatal Injury Crashes: 1 Injury Crashes: 9 Property Damage Only Crashes: 29 bryan.costello

Crash Query Tool

Pattern Recognition Analysis

Export to PDF

Control Section: 007-07 **Δ:** 0.6 miles

Log-mile from: 2.3 **δ:** 0.02 miles

Logmile-to: 3.9 **Percent Limit:** 0.9


AAADT: 18378 **Possible Δ:** 50

Highway Class: Urban 4-Lane Divided **AAADT Group:** low

Period: 2018 - 2023

Code	Crash Type	Obs %	State %	Deltas > Percent Limit
A	Pedestrian	2.63%	0.89%	0 0%
B	Pedalcycle	0%	0.38%	0 0%
C	Atv	0%	0.05%	0 0%
D	Motorcycle	2.63%	0.93%	0 0%
E	Parked	2.63%	1.7%	0 0%
F	Not Fixed	0%	1.04%	0 0%
G	Vertical Fixed	7.89%	2.85%	20 40%
H	Structures	2.63%	0.57%	0 0%
J	Train	0%	0.05%	0 0%
K	Other Veh	0%	1.15%	0 0%

Code	Other Factors	Obs %	State %	Deltas > Percent Limit
A	Non Coll	28.95%	13.12%	50 100%
B	Rear End	39.47%	41.63%	0 0%
C	Head On	2.63%	0.98%	0 0%
D	Rt Angle	0%	6.12%	0 0%
E	Left Turn-e	2.63%	2.38%	0 0%
F	Left Turn-f	5.26%	2.99%	1 2%
G	Left Turn-g	0%	2.68%	0 0%
H	Right Turn-h	0%	2.13%	0 0%
I	Right Turn-i	0%	0.32%	0 0%
J	S Swipe(sd)	21.05%	20.62%	20 40%



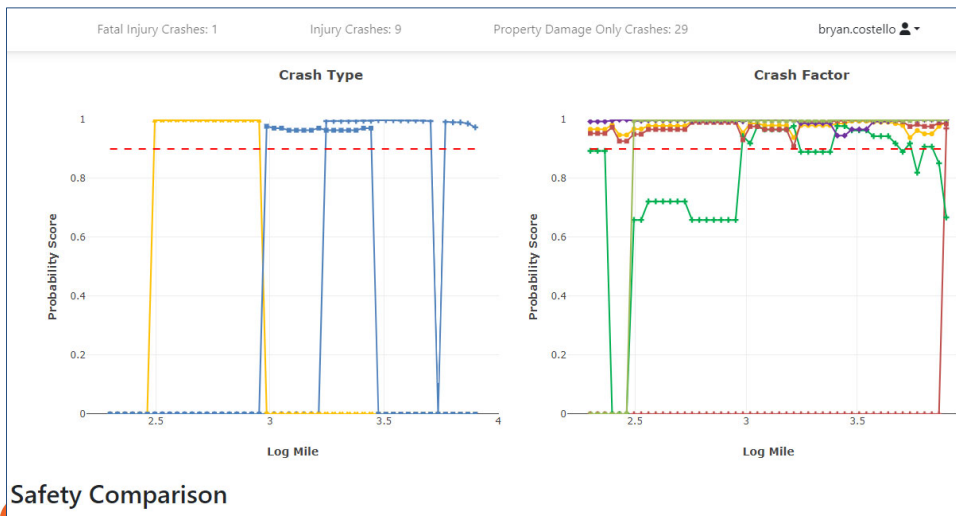
Segment Analysis

Total Crashes: 39 Fatal Injury Crashes: 1 Injury Crashes: 9 Property Damage Only Crashes: 29 bryan.costello

Crash Type						Crash Factor					
Code	Crash Type	Obs %	State %	Deltas > Percent Limit		Code	Other Factors	Obs %	State %	Deltas > Percent Limit	
A	Pedestrian	2.63%	0.89%	0	0%	A	Non Coll	28.95%	13.12%	50	100%
B	Pedalcycle	0%	0.38%	0	0%	B	Rear End	39.47%	41.63%	0	0%
C	Atv	0%	0.05%	0	0%	C	Head On	2.63%	0.98%	0	0%
D	Motorcycle	2.63%	0.93%	0	0%	D	Rt Angle	0%	6.12%	0	0%
E	Parked	2.63%	1.7%	0	0%	E	Left Turn-e	2.63%	2.38%	0	0%
F	Not Fixed	0%	1.04%	0	0%	F	Left Turn-f	5.26%	2.99%	1	2%
G	Vertical Fixed	7.89%	2.85%	20	40%	G	Left Turn-g	0%	2.68%	0	0%
H	Structures	2.63%	0.57%	0	0%	H	Right Turn-h	0%	2.13%	0	0%
J	Train	0%	0.05%	0	0%	I	Right Turn-i	0%	0.32%	0	0%
K	Other Veh	0%	1.15%	0	0%	J	S Swipe(sd)	21.05%	20.62%	20	40%
M	Bus	0%	0.38%	0	0%	K	S Swipe(od)	0%	0.48%	0	0%
N	Animal	0%	2.15%	0	0%	Z	Other	0%	6.53%	0	0%
P	Other Fixed	5.26%	2.95%	15	30%	RD	Road Depart.	28.95%	14.98%	50	100%
Q	Transport	5.26%	5.83%	15	30%	LC	Dark w/o Lights	23.68%	7.46%	50	100%
R	3+ Vehicles	2.63%	5.46%	0	0%	Alc	Alcohol	15.79%	2.7%	44	88%
T	Miscellaneous	5.26%	1.72%	0	0%	Wet	Wet Surface	13.16%	15.91%	0	0%



Segment Analysis



Segment Analysis

Safety Comparison

Observed:	6.33	Crashes/yr
Predicted (SPF):	21.98	Crashes/yr
Over-dispersion:	1.04	
Weighted Adjustment:	0.01	
Observed:	3.96	Crashes/mile/yr
Expected (SPF+EB):	4.08	Crashes/mile/yr
Safety Service Level:	LOSS 2	
Expected Percentile:	24.86%	
80th Percentile:	22.04	Crashes/mile/yr
Predicted (SPF):	13.74	Crashes/mile/yr
20th Percentile:	3.21	Crashes/mile/yr



Segment Analysis

Observed:	1.67	Crashes/yr
Predicted (SPF):	6.7	Crashes/yr
Over-dispersion:	1.28	
Weighted Adjustment:	0.05	
Observed:	1.04	Crashes/mile/yr
Expected (SPF+EB):	1.19	Crashes/mile/yr
Safety Service Level:	LOSS 1	
Expected Percentile:	19.55%	
80th Percentile:	6.59	Crashes/mile/yr
Predicted (SPF):	4.19	Crashes/mile/yr
20th Percentile:	1.22	Crashes/mile/yr



Segment Analysis

Total Crashes: 39 Fatal Injury Crashes: 1 Injury Crashes: 9 Property Damage Only Crashes: 29 bryan.costello

Crash Query Tool **Pattern Recognition Analysis** [Export to PDF](#)

 Δ: 0.6 miles
 &: 0.02 miles
 Percent Limit: 0.9
 Possible Δs: 50
 AADT Group: low

 Analysis Results

Code	Crash Type	Obs %	State %	Deltas > Percent Limit
A	Pedestrian	2.63%	0.89%	0 0%
B	Pedalcycle	0%	0.38%	0 0%
C	Atv	0%	0.05%	0 0%
D	Motorcycle	2.63%	0.93%	0 0%
E	Parked	2.63%	1.7%	0 0%
F	Not Fixed	0%	1.04%	0 0%
G	Vertical Fixed	7.89%	2.85%	20 40%
H	Structures	2.63%	0.57%	0 0%
J	Train	0%	0.05%	0 0%
K	Other Veh	0%	1.15%	0 0%



Agenda

- ✓ Introduction
- ✓ Initialization
- ✓ Crash Querying
- ✓ Site Analysis
 - Quality Assurance
 - Benefit-Cost



Quality Assurance

Recommendations if LOSS-3 or LOSS-4:

- Collision Manner
 - Other
 - Over-represented
- Non-Motorist over-represented
 - Pedestrians
 - Pedalcycle aka Bicycle
- Severity
 - K: Fatal
 - A: Serious
- Intersection
 - True & not geographically at intersection
 - False & geographically at intersection



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Why investigate?

Most data elements from LEOs

~70% - 80% accurate

- Collision Manner – 72.5%
- Location at 0.05 mile threshold – 77.3%
- Intersection – 70.4%
- Without Quality Assurance
 - Analysis ≈ **Maybe True**
- With Quality Assurance
 - Analysis ≈ **Likely True**

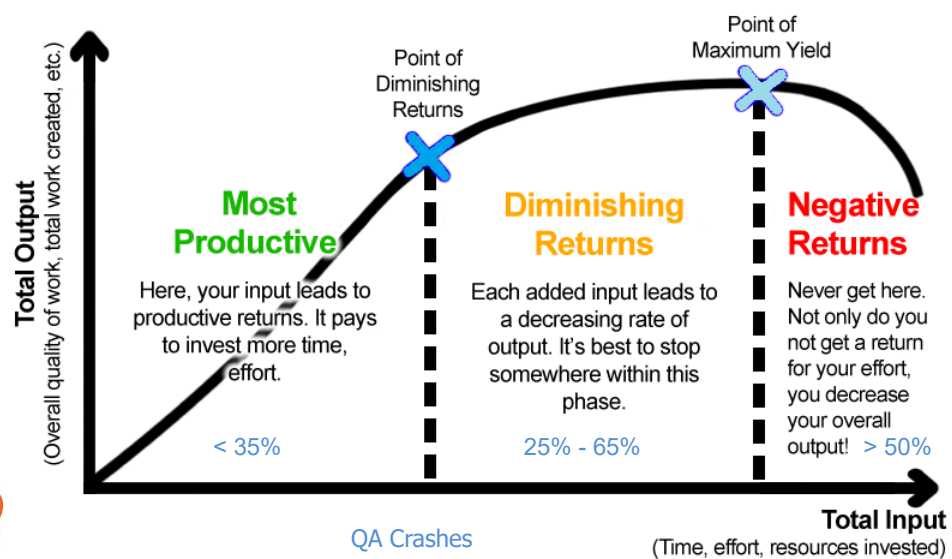


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Why partial investigation?

- No need to review
 - error free crashes
 - not road's fault crashes
 - not over-represented crashes
- Determining mitigation strategies
 - theory of diminishing returns

Why partial investigation?



Quality Assurance

128 mapped out of 128

id	Pedestrian	Lat	Long	Manner of Collision	Roadway Departure
	(All)	Q	Q	(All)	(All)
	<input type="checkbox"/>	30.514831	-91.026382	505-SIDESWIPE - SAME DIRECTION	<input type="checkbox"/>
	<input type="checkbox"/>	30.514865	-91.026319	101-ANGLE - LEFT OPPOSITE DIRECTION	<input type="checkbox"/>
	<input type="checkbox"/>	30.514865	-91.026319	200-FRONT TO FRONT - HEAD ON	<input type="checkbox"/>
	<input type="checkbox"/>	30.514865	-91.026319	101-ANGLE - LEFT OPPOSITE DIRECTION	<input type="checkbox"/>
	<input type="checkbox"/>	30.514865	-91.026319	300-FRONT TO REAR - REAR END	<input type="checkbox"/>

Page 1 of 26 (128 items)

Quality Assurance

id	Pedestrian	Lat	Long	Manner of Collision	Roadway Departure
	(All)	Q	Q	(All)	(All)
	<input type="checkbox"/>	30.514831	-91.026382	505-SIDESWIPE - SAME DIRECTION	<input type="checkbox"/>
	<input type="checkbox"/>	30.514865	-91.026319	101-ANGLE - LEFT OPPOSITE DIRECTION	<input type="checkbox"/>
	<input type="checkbox"/>	30.514865	-91.026319	200-FRONT TO FRONT - HEAD ON	<input type="checkbox"/>
	<input type="checkbox"/>	30.514865	-91.026319	101-ANGLE - LEFT OPPOSITE DIRECTION	<input type="checkbox"/>
	<input type="checkbox"/>	30.514865	-91.026319	300-FRONT TO REAR - REAR END	<input type="checkbox"/>

Page 1 of 26 (128 items)

Quality Assurance

4 mapped out of 4

on	Pedestrian	Lat	Long	Manner of Collision	Roadway Departure	Parish
(All)	<input type="checkbox"/>	30.514865	-91.026319	980-OTHER	<input type="checkbox"/>	EAST BATON RO
	<input type="checkbox"/>	30.514874	-91.026303	980-OTHER	<input checked="" type="checkbox"/>	EAST BATON RO
	<input type="checkbox"/>	30.514849	-91.026349	980-OTHER	<input type="checkbox"/>	EAST BATON RO
	<input type="checkbox"/>	30.514754	-91.0263	980-OTHER	<input type="checkbox"/>	EAST BATON RO



Quality Assurance

4 mapped out of 4

Mapped	Month	Year	Day of Week	Severity
<input checked="" type="checkbox"/> Narrative & Diagram	MAY	2019	MONDAY	104-(O) PROPERTY DA
<input checked="" type="checkbox"/>	JANUARY	2021	WEDNESDAY	104-(O) PROPERTY DA
<input checked="" type="checkbox"/>	NOVEMBER	2018	MONDAY	104-(O) PROPERTY DA
<input checked="" type="checkbox"/>	JANUARY	2018	THURSDAY	104-(O) PROPERTY DA



Quality Assurance



Edit Data

Mapped	Month	Year	Day of Week	Severity
(All)				(All)
<input checked="" type="checkbox"/>	MAY	2019	MONDAY	104-(O) PROPERTY DA
<input checked="" type="checkbox"/>	JANUARY	2021	WEDNESDAY	104-(O) PROPERTY DA
<input checked="" type="checkbox"/>	NOVEMBER	2018	MONDAY	104-(O) PROPERTY DA
<input checked="" type="checkbox"/>	JANUARY	2018	THURSDAY	104-(O) PROPERTY DA



Edit Data

4 mapped out of 4

Control Section	Pedestrian	Lat	Long	Manner of Collision	Roadway Departure	Parish
-02	<input type="checkbox"/>	30.514865	-91.026319	980-OTHER	<input type="checkbox"/>	EAST B
-02	<input checked="" type="checkbox"/>	30.514874	-91.02630	000-NOT A COLLIS	<input checked="" type="checkbox"/>	EAST B
-02	<input type="checkbox"/>	30.514849	-91.026349	980-OTHER	<input type="checkbox"/>	EAST B
-02	<input type="checkbox"/>	30.514754	-91.0263	980-OTHER	<input type="checkbox"/>	EAST B

Edit Data

4 mapped out of 4

Mapped	Month	Year	Day of Week	Severity
<input checked="" type="checkbox"/>	MAY	2019	MONDAY	104-(O) PROPERTY DA
<input checked="" type="checkbox"/>	JANUARY	2021	WEDNESDAY	104-(O) PROPERTY DA
<input checked="" type="checkbox"/>	NOVEMBER	2018	MONDAY	104-(O) PROPERTY DA
<input checked="" type="checkbox"/>	JANUARY	2018	THURSDAY	104-(O) PROPERTY DA

Quality Assurance

Crash Query Tool

Date Range Location Route Control Section Load Crashes Reset

Map Satellite

2 mapped out of 2

MAP ICON LEGEND

Clear Filters Load Saved Filter Save Filter Drag a column header here to group by that column

	Month	Year	Day of Week	Severity	Log Mile	Intersection
	(All)			(All)		
	APRIL	2019	THURSDAY	101-(A) SUSPECTED SERIOUS INJURY	4.522	YES
	APRIL	2022	FRIDAY	100-(K) FATAL INJURY	3.653	YES



Quality Assurance

Crash Query Tool

Date Range Location Route Control Section Load Crashes Reset

Map Satellite

2 mapped out of 2

MAP ICON LEGEND

Clear Filters Load Saved Filter Save Filter Drag a column header here to group by that column

	Mapped	Month	Year	Day of Week	Severity
	(All)				(All)
	<input checked="" type="checkbox"/>	APRIL	2019	THURSDAY	101-(A) SUSPECTED SE
	<input checked="" type="checkbox"/>	APRIL	2022	FRIDAY	100-(K) FATAL INJURY



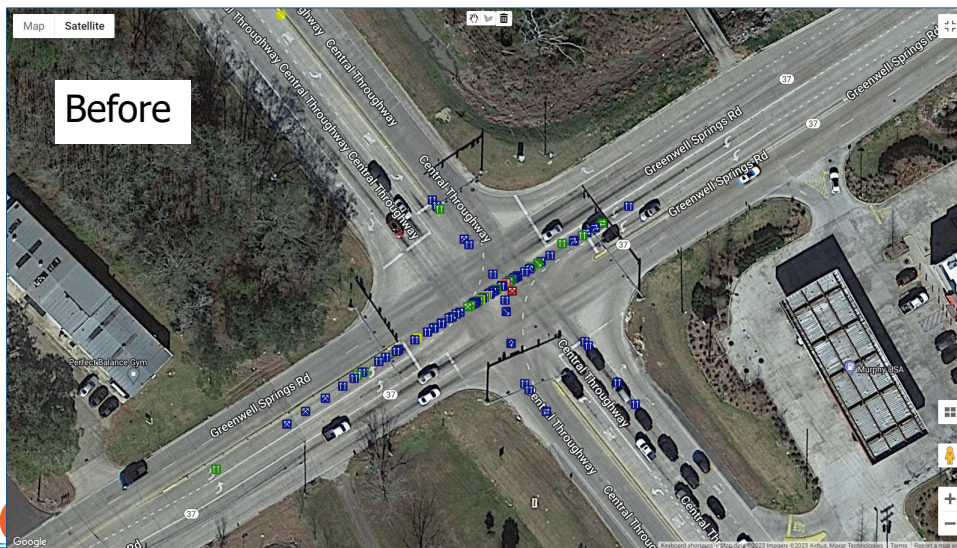
Quality Assurance

25 mapped out of 25

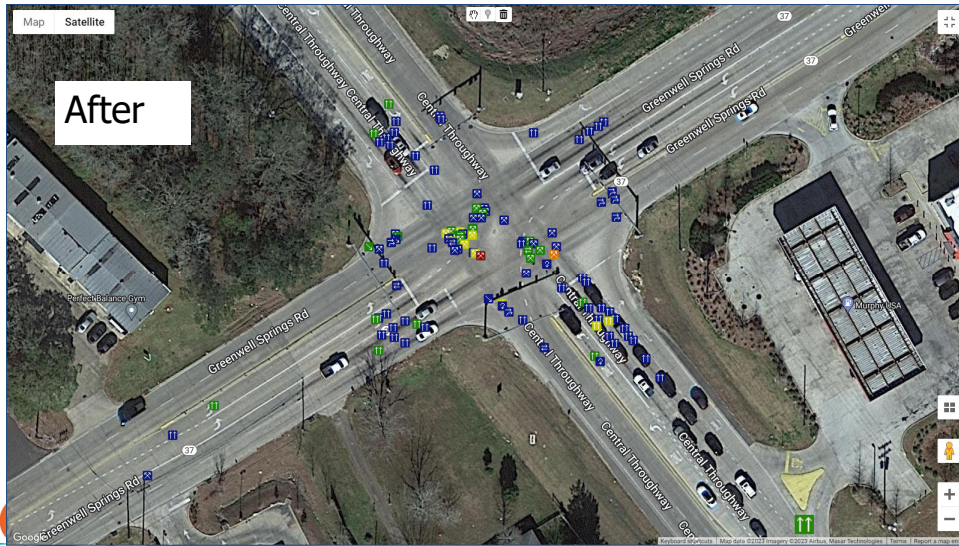
Severity	Log Mile	Intersection	Control Section	Pedestrian	Lat	Lon
104-(C) PROPERTY DAMAGE ONLY	0	NO	-1	<input type="checkbox"/>	30.514831	-91.1
104-(C) PROPERTY DAMAGE ONLY	4.522	NO	254-02	<input type="checkbox"/>	30.514865	-91.1
104-(C) PROPERTY DAMAGE ONLY	4.522	NO	254-02	<input type="checkbox"/>	30.514865	-91.1
103-(C) POSSIBLE INJURY	4.522	NO	254-02	<input checked="" type="checkbox"/>	30.514865	-91.1
104-(C) PROPERTY DAMAGE ONLY	4.522	NO	254-02	<input type="checkbox"/>	30.514865	-91.1



Quality Assurance



Quality Assurance



LOUISIANA DEPARTMENT OF
TRANSPORTATION & DEVELOPMENT

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Agenda

- ✓ Introduction
- ✓ Initialization
- ✓ Crash Querying
- ✓ Site Analysis
- ✓ Quality Assurance
- Benefit-Cost

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Benefit-Cost

Total Crashes: 126 Fatal Injury Crashes: 1 Injury Crashes: 33 Property Damage Only Crashes: 92 bryan.costello

Crash Query Tool

Pattern Recognition Analysis - Intersection

1 Project Name 2 Inputs 3 Parameters 4 BCA Inputs 5 Review

Aadt Major: LA 37 - 20520
Aadt Minor: CENTRAL - 10217
Percent Limit: 0.9024

Include BCA:

PREVIOUS STEP NEXT STEP



Benefit-Cost

Total Crashes: 126 Fatal Injury Crashes: 1 Injury Crashes: 33 Property Damage Only Crashes: 92 bryan.costello

Crash Query Tool

Pattern Recognition Analysis - Intersection

1 Project Name 2 Inputs 3 Parameters 4 BCA Inputs 5 Review

CMF	Cost
CMF for Severity-Fatal Injury: 0.75	Construction Cost: 10,000
CMF for Severity-Suspected Serious Injury: 0.75	Engineering Cost: 0
CMF for Severity-Suspected Minor Injury: 0.75	Right-of-Way Cost: 0
CMF for Severity-Possible Injury: 0.75	Utilities Cost: 0
CMF for Severity-Property Damage-Only: 0.75	Inflation: 3%
Service Life: 20	

PREVIOUS STEP NEXT STEP



Benefit-Cost

Pattern Recognition Analysis - Intersection

Benefit-Cost Analysis Export to PDF

Project Name:	test LA 37 at Central Thwy	Intersection Cl...:	Urban 4-Lane 4-Leg CMF Clearinghouses
Major AADT:	20520	Period:	2018 - 2022
Minor AADT:	10217	Duration:	5 years

Benefit:	\$4,704,723.00
Cost:	\$10,000.00
Benefit-Cost Ratio:	470.47

Code	Category	Obs %	State %	>PRT	Code	Category	Obs %	State %	>PRT
A	Pedestrian	0%	0.59%	No	A	Non Coll	4.03%	3.31%	No
B	Pedalcycle	0%	0.42%	No	B	Rear End	41.13%	45.66%	No
C	Atr	0%	0.03%	No	C	Head On	4.84%	0.93%	Yes
D	Motorcycle	0%	0.75%	No	D	Rt Angle	5.65%	14.91%	No
E	Parked	0.81%	0.89%	No	E	Left Turn-e	0%	2.32%	No
F	Not Fixed	0.61%	0.25%	No	F	Left Turn-f	25%	8.26%	Yes
G	Vertical Fixed	0.81%	1.02%	No	G	Left Turn-g	0.81%	2.04%	No
H	Structures	0%	0.1%	No	H	Right Turn-h	5.65%	2.73%	Yes
J	Train	0%	0.02%	No	I	Right Turn-i	0.81%	0.43%	No
K	Other Veh	0%	1.22%	No	J	S Swipe(sld)	11.29%	12.59%	No
M	Bus	0%	0.74%	No	K	S Swipe(sld)	0%	0.51%	No
N	Animal	0%	0.13%	No	Z	Other	0.81%	6.31%	No




Agenda

- ✓ Introduction
- ✓ Initialization
- ✓ Crash Querying
- ✓ Site Analysis
- ✓ Quality Assurance
- ✓ Benefit-Cost



Demo



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Questions



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