



SCAG Transportation Safety Predictive Modeling Platform Part 1

January 14, 2025



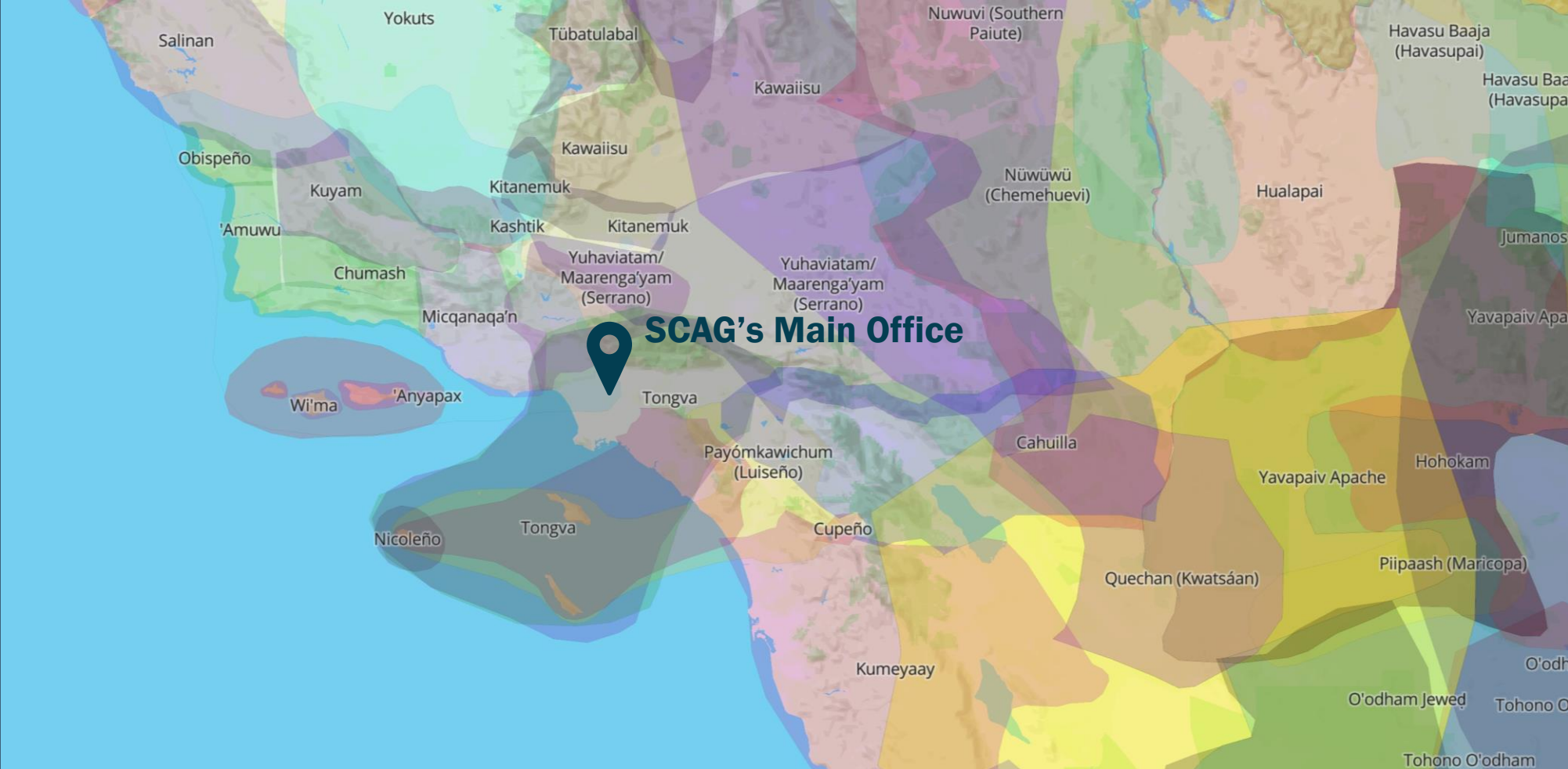
Toolbox
Tuesday

WWW.SCAG.CA.GOV

Housekeeping

1. Meeting length: 1.5 hours
2. This meeting is being recorded
3. All participant lines will be muted
4. At the end of the presentations, there will be a time for Q&A.
5. If you have a question during the presentations, please type it into the chat box.
6. We will log all questions and then voice a selection at the end of the presentations. You may also raise your hand to ask questions at that time.
7. A recording of this webinar and the PowerPoint slides will be available on the SCAG website. We will send a link to everyone who has registered after the event

Land Acknowledgement



Agenda

- Welcome and Introductions Mike Gainor 5 mins
- Overview of Datasets Featured in the Platform Jonah Mckay 15 mins
- Introduction to the 'CRASH' mapping feature Jonah Mckay 30 mins
- Development of queries using the 'CRASH' dataset Jonah Mckay 30 mins
- Q&A Mike Gainor 10 mins

Toolbox Tuesday Two-Part Sessions

- Part 1: Toolbox Tuesday Predictive Modeling and Analysis Platform, on **January 14, 2025, at 1-2:30 p.m.**
- Part 2: Toolbox Tuesday Predictive Modeling and Analysis Platform, on **January 21 2025, at 1-2:30 p.m.**

Meet Our Speaker

- Jonah McKay, Customer Success and Onboarding Lead, Citian Inc.



Why are we here?

Background

■ What is the CRASH Platform?

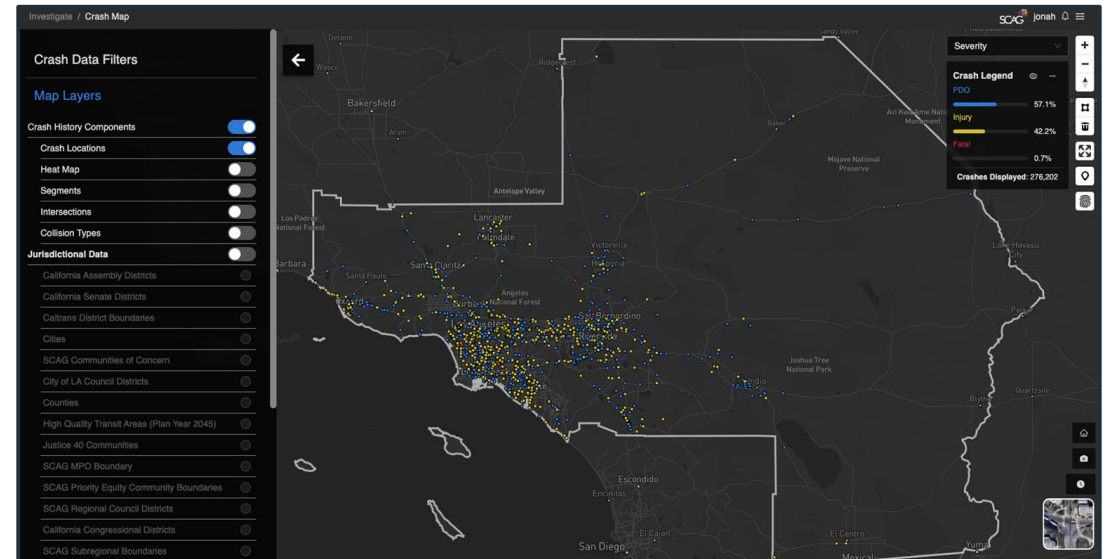
CRASH is a cutting-edge crash analytics and visualization platform that brings you comprehensive traffic crash data management, analysis, and reporting tools.

■ Who is this platform for?

The CRASH Platform is intended for use by SCAG and partner agencies, including cities, counties, and consultants working on their behalf.

■ Where are we in the project?

After an internal SCAG launch and testing phase, we are now entering an initial rollout of the tool to users. Please continue to provide feedback so we can mold the tool to meet regional needs.



CRASH is a comprehensive Crash Analysis Safety Solution that reduces costs and removes barriers while maximizing the accuracy, efficiency, and timeliness of crash safety analysis. Our goal is to improve data quality, simplify existing processes, expedite timeliness, improve coordination, and expand analytical capacity.

Your CRASH Environment:

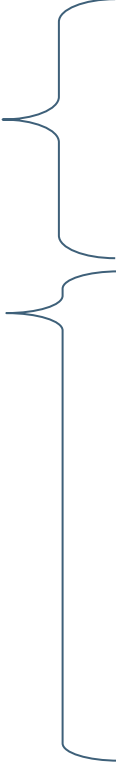
At a Glance

- Crash Reduction through Analysis of Safety Hazards
- Complete traffic safety information center
- Hub for traffic crash data, analysis, and reporting in a digital twin environment
- Leverages artificial intelligence and advanced data analytics to meet traffic safety goals
- Access to accurate, geolocated crash data alongside deep safety insights
- Advanced data analytics to ingest, refine, and audit crash data
- Full suite of dynamic dashboards, query, and reporting tools, that enable users to filter by crash factors, export crash data, and investigate priority corridors

What's included

Functionality

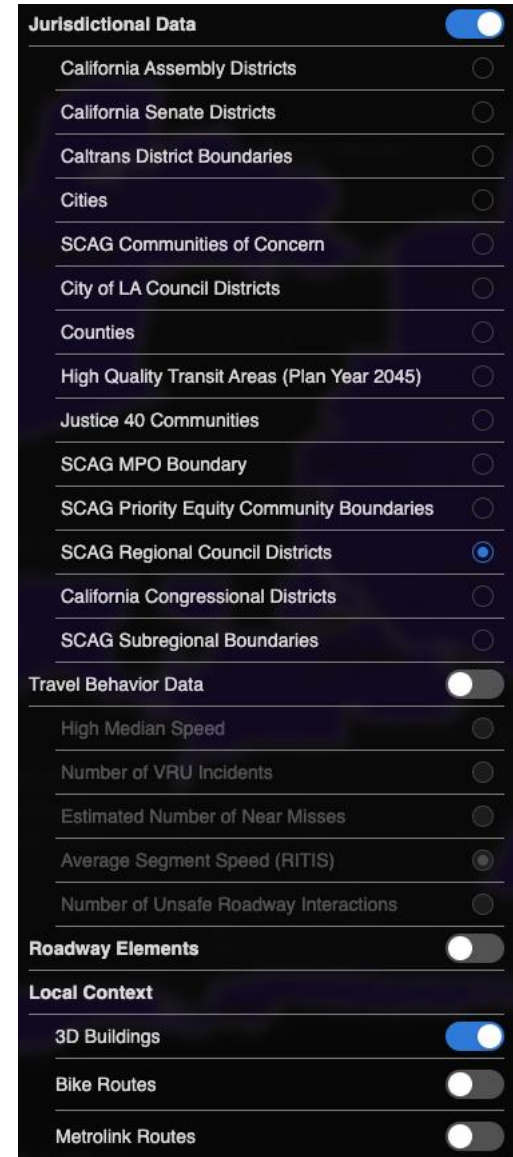
- Automated Data Refinement
- Crash Map
- Custom Queries
- Geometric Statistical Analysis
- Pre-built and Custom Dashboards
- Analyze Areas
- Collision Diagrams
- Network Analysis/Priority Corridors
- Countermeasure Analysis
- Before and After Studies

- 
- Interactive, 3D Digital Twin
 - Fingerprint Equity Analysis
 - Heat Maps
 - Local Context Overlays
 - Benchmarking
 - Spatial Statistics
 - Vision Zero
 - Crash Audit
 - HSIP
 - SHSP
 - Vulnerable Road User

What's included

Data

- **1,128,376 Crashes loaded into system from 2019-2024**
 - Sourced from SWITRS, TIMS
 - Additional crashes post CCRS transition
- **Jurisdictional Data Layers**
 - Assembly Districts
 - Cities
 - Counties
 - J40 Boundaries
 - Regional Council Districts
 - And more
- **Local Context**
 - Bike Routes
 - Metrolink Routes
 - Schools



Crash Data Cleanup

Crash Summaries

■ Total Crashes

Citian was provided with 1,130,643 total crash reports from 1/1/2019 - 9/28/2024

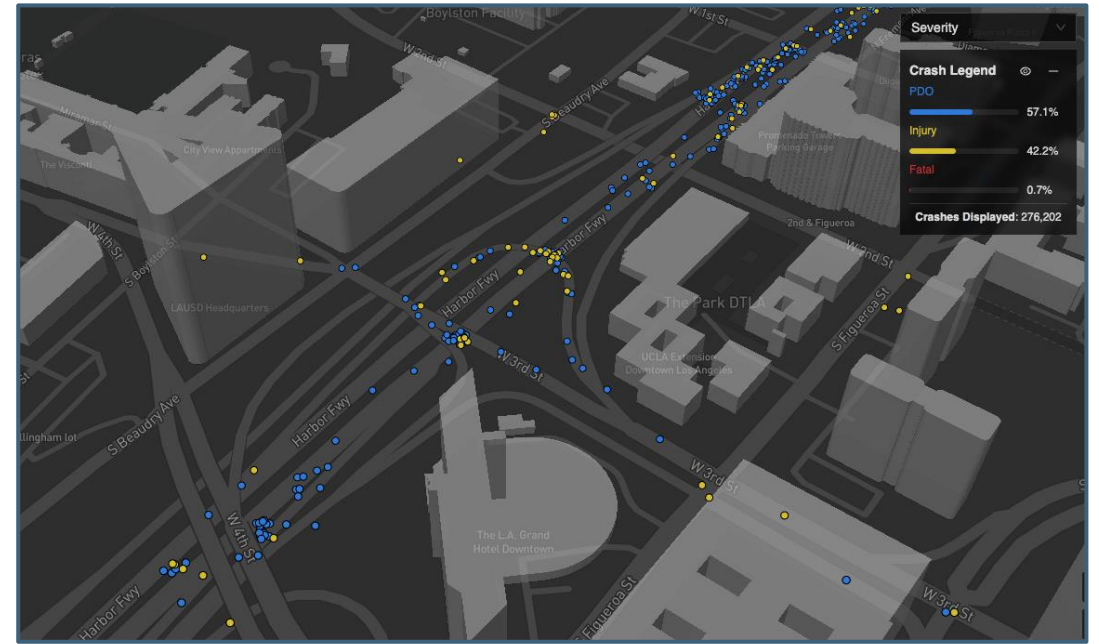
■ Duplicate Crashes

550 crash records were identified as duplicated records with the same date/time and location. These duplicates have been excluded.

■ Collision Type Refinement

CRASH identified collision type using the *First Harmful Event, Manner of Crash, Travel Direction, Maneuver, etc.* fields from crash reports as well as narratives to refine crash data.

- CRASH was able to identify the collision type of 99.87% (1,127,499/1,128,926) of unknown/other crashes



■ Crashes with no Lat/Long

32.7% (369,606 of 1,130,643) of raw crash records provided did not have lat/long data. Citian was able to determine a lat/long for 72% (265,547) of these records as of this round

Citian's data science team continues to work to improve location accuracy.

CRASH Functionality

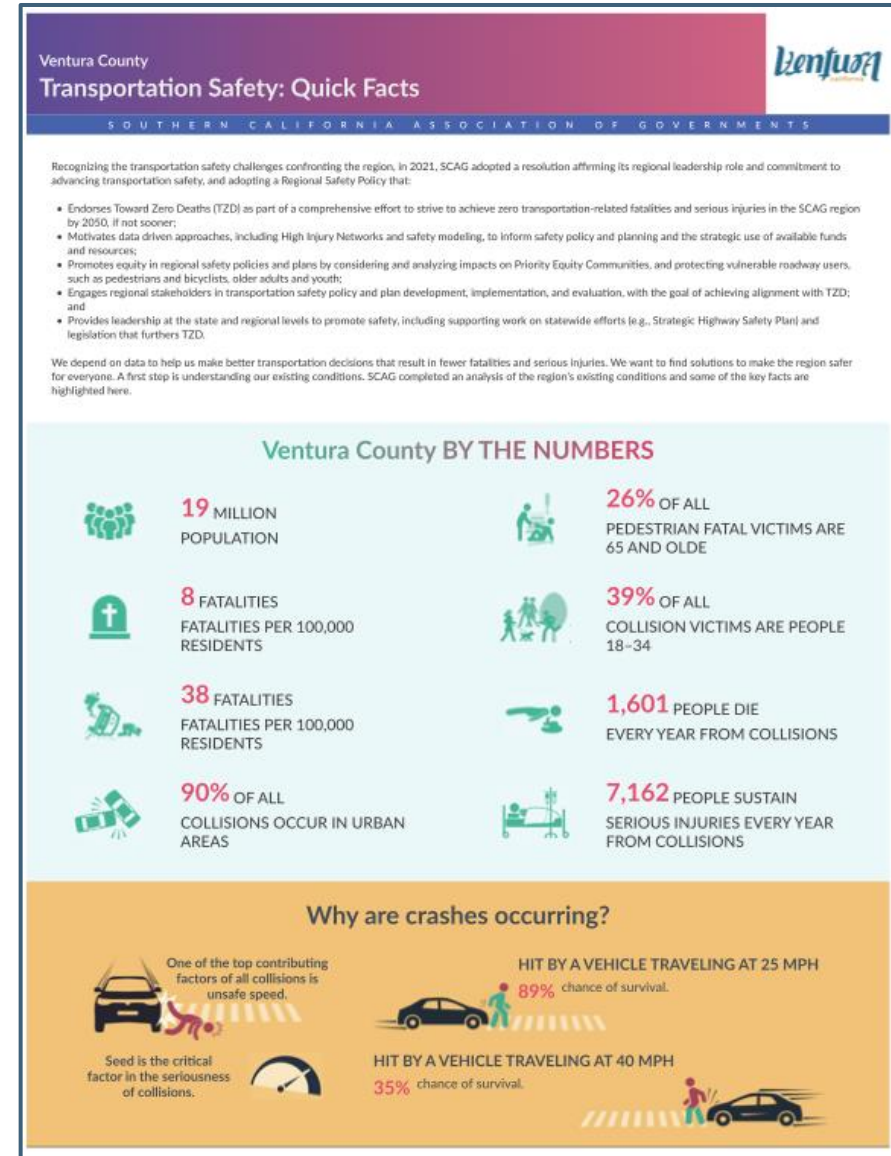
Future Enhancements

■ Automated Fact Sheets

Citian is working to automate quick fact reports such as the the Transportation Safety one-pager shown here.

We are also working to develop a tool that allows users to custom-build these types of reports themselves.

We are also developing the capability to export Before-and-After Studies as a one-page report.



Contact Information

Get in touch

Obtain a Login

✉ Contact Mike Gainor: gainor@scag.ca.gov

Other Questions

🌐 citian.com

✉ helpdesk@citian.com



CRASH

Tell us how we did!

Take a quick 2-minute survey to help us improve future Toolbox Tuesdays!



SCAN ME