UPDATE ON NHTSA'S DATA MODERNIZATION PROJECT

Tina Morgan, NHTSA

DATA MODERNIZATION PROJECT

BETTER DATA. SAFER ROADS.

www.nhtsa.gov

What is Data Mod?

NHTSA's effort to:

- Upgrade the National Automotive Sampling System (NASS)
- Modernize and consolidate related information technology systems

Goal: To affirm NHTSA position as the leader in motor vehicle crash data collection and analysis, by collecting quality data to keep pace with emerging technologies and evolving policy needs.

Current NASS GES

Purpose: **To monitor large scale crash trends and broad crash characteristics**

- Probability-based design
- 60 sites in 26 states
- About 50,000 crashes sampled annually
- 100+ variables coded from police crash reports
- All vehicle types and crash severities

Current NASS CDS

Purpose: To aid in the development and evaluation of passenger vehicle crashworthiness and occupant protection systems.
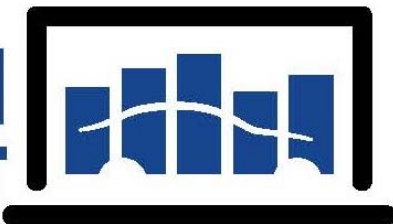
- Probability-based design
- 24 sites in 17 states (subset of GES sites)
- 600+ variables coded from investigation-based data
- Towed passenger vehicle crashes only

Data Modernization Considerations

- Is NASS sample size and design sufficient?
- Is NASS scope too limited?
- What data needs to be collected?
- What data do external stakeholders need?

New Sample Design

- Probability-based (needed for rulemaking)
- Two independent sample systems
- Completed the 3-stage sample design and selected the first and second stage sites
- No intentional overlap between "old" NASS and "new" data collection sites
- Flexibility to add special studies (Peds, Trucks, Motorcycles,…)
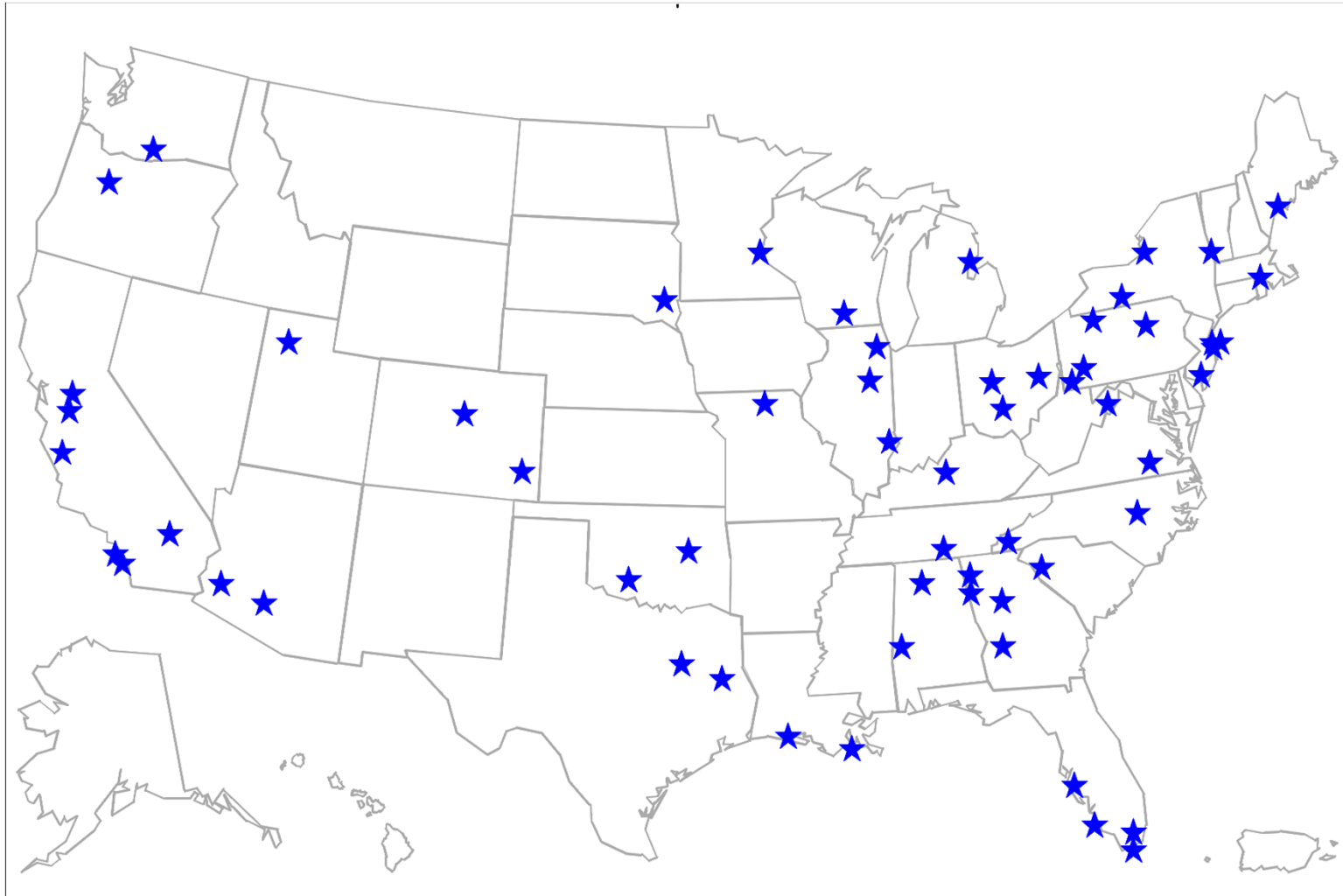- Sample scalability (up or down)

CRSS Sample

- 60 Sites (PSUs) in 31 States
- Larger sites w/more injury crashes
- 392 Police Jurisdictions (~6 PJs/PSU)
- ~50,000 annual cases

CRSS should produce similar or smaller standard errors than the current GES for key estimates.

CRSS 60 Sites

Phase 1 CISS Sample

- 24 Sites (PSUs) in 18 States
- Smaller sites that target late model year vehicles and injury crashes
- 182 Police Jurisdictions (~8 PJs/PSU)
- 4,000 to 4,500 annual cases

Add additional sites as budget permits and add modules for special studies, such as peds, motorcycles, trucks,…

Phase 1 CISS Sites

Total Station and New Software

- Electronically measure distance and slope to a point
- Use to document the scene and vehicle crush
- Provides scalable scene diagram and vehicle momentum analysis
- Ability to create 3D visualization by the end user
- Safety – measurements can be obtained from off the road

Injury Coding Enhancements

- Visual Anatomical Injury Descriptor (VAID)
- Conforms to AIS standards
- Streamlines the injury coding process
- Produces enhanced anatomical 3D diagram
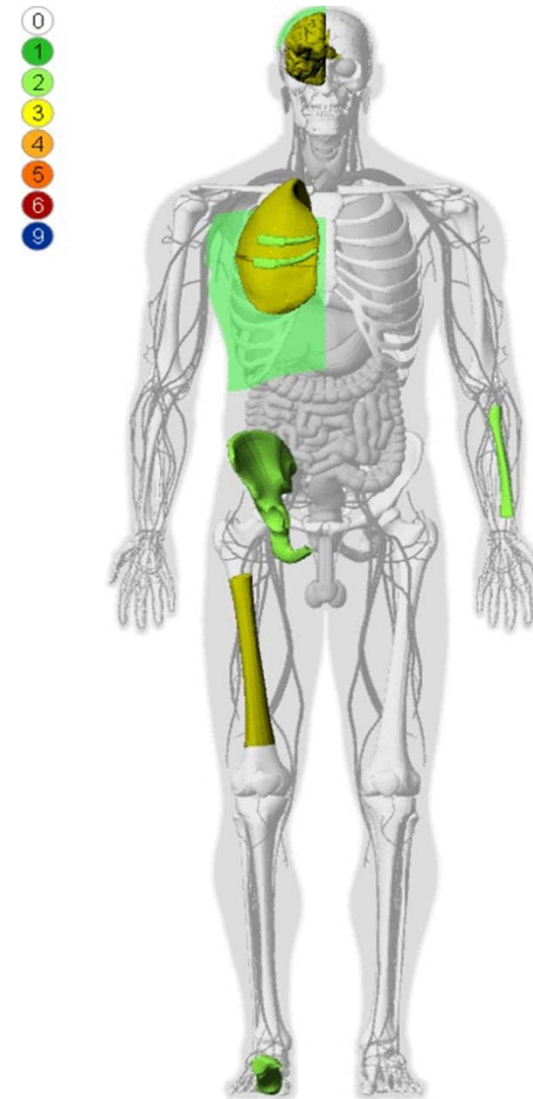
Event Data Recorder Enhancements

- Ability to collect EDR data from most make/models
- Produces a usable, sanitized EDR file

Data Modernization Benefits

- New sample design and sites will enable more precise estimates
- Improved IT delivers more stable, agile and secure operating system
- Leveraging technology for data collection and coding
- Improved data quality
- More data will be available and accessible in multiple file formats to the public (e.g., EDR, scalable scene diagrams)
- Enhanced analytical Web products

Current Implementation Plan

GES to CRSS

- End GES with the 2015 data collection year
- Begin CRSS with the 2016 data collection year

CDS to CISS

- End CDS with the 2015 data collection year
- Begin phasing in CISS data collection in 2015
- Have all 24 Phase 1 CISS sites up and running by January 2017

Discussion and Questions?

Contact information: tina.morgan@dot.gov