November 2014 Update

What is Data Mod?

NHTSA's effort to:

- **Upgrade the National Automotive Sampling System (NASS)**

- **Modernize and consolidate related information technology systems**

<u>**Goal**</u>**: To affirm NHTSA's position as the leader in motor vehicle crash data collection and analysis, by collecting quality data to keep pace with emerging technology and evolving policy needs.**

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DATA MODERNIZATION PROJECT
BETTER DATA. SAFER ROADS.

Purpose: To monitor large scale trends in the characteristics of the nation's crash experience.

- **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**

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**

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Congressional Directive: Modernize

Considerations:

- **Is sample size and design sufficient?**

- **Is scope too limited?**

- **What data needs to be collected?**

- **What data do external stakeholders need?**

**Congress appropriated $25M in FY2012
for NASS modernization.**

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Major Project Components

Survey Modernization	Information Technology Modernization & Consolidation	Implementation & Operations

Survey Modernization Progress

- **Evaluated data needs**
- **Developed sample conceptual design**
- **Collected data for site selection**
- **Completed the 3-stage sample design and selected the first and second stage sites**

New Sample Design

- **Probability-based (needed for rulemaking)**
- **Two independent sample systems**
- **No intentional overlap between "old" and "new" data collection sites**
- **Flexibility to add special studies (peds, trucks, motorcycles, etc.)**
- **Sample scalability**

# *Current Implementation Plan Assumptions*

- **End GES in 2015**

- **Begin CRSS in 2016**

- **End CDS in 2015**

- **Begin phasing in CISS in 2015**

- **New IT for sampling, collection, coding**

- **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.
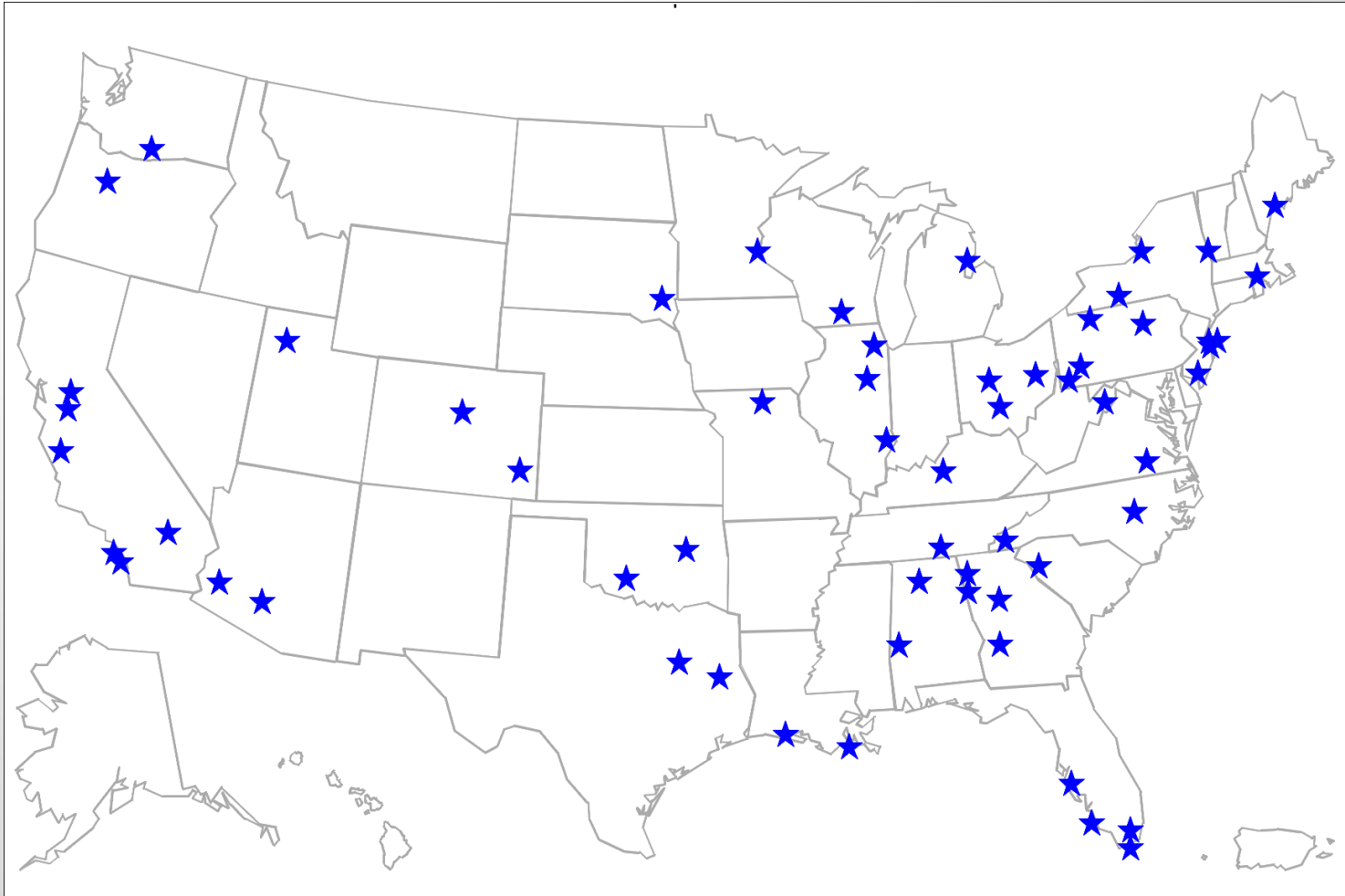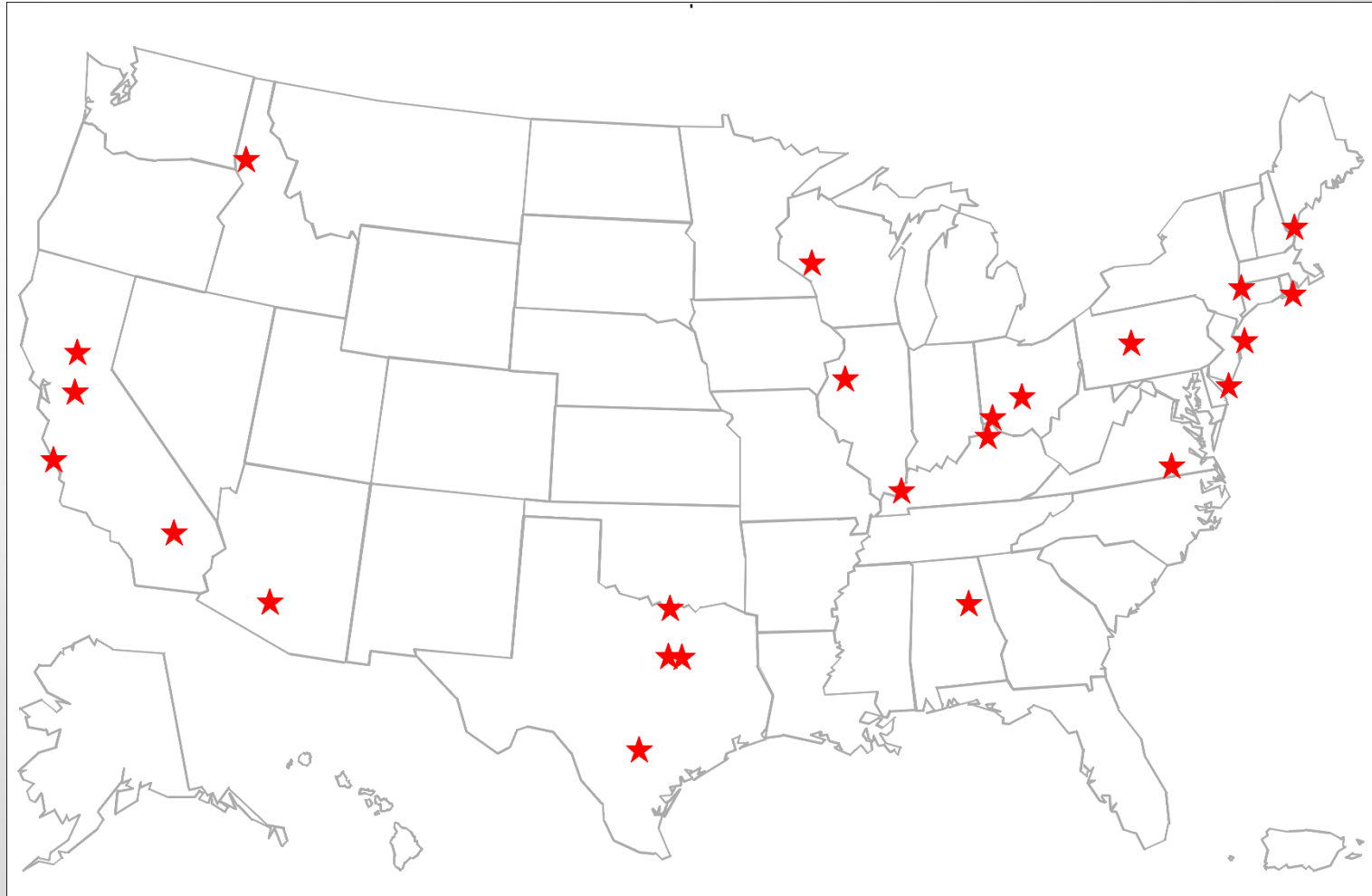
- **24 Sites (PSUs) in 15 States**
- **Smaller sites that target late model year vehicles and injury crashes**
- **176 Police Jurisdictions (~7 PJs/PSU)**
- **4,000 to 4,500 annual cases**

Add additional sites as budget permits and add modules for special studies: peds, motorcycles, etc.

Data Modernization: Major Project Components

Survey Modernization	Information Technology Modernization & Consolidation	Implementation & Operations

- **Began consolidation of system components on a shared environment**

- **Implemented new security features to meet Federal IT security requirements**

- **Implementing electronic form data collection**

- **Planning on enhanced web products**

Data Modernization: Major Project Components

| Survey Modernization | Information Technology Modernization & Consolidation | Implementation & Operations |

Implementation Progress

- **Evaluated and field-tested data collection tools – Total Station, tablets**
- **Finalized variables to be collected in CRSS and Phase 1 CISS**
- **Developed an implementation plan**
- **Developing training materials**
- **Started cooperation process**

Enhancements

SAMPLING

- **Flexible**
- **Scalable**
- **Reflects population**
- **Targets severe crashes**
- **Targets newer vehicles**

IT SYSTEMS

- **Agile**
- **Secure**
- **Reliable**
- **Efficient**
- **Consolidated**

DATA

- **New data: EDR inspection, etc.**
- **More complete**
- **More accurate**
- **More timely**
- **Better QC**
- **New products and services**

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Additions to Public CISS Files

- **EDR data (speed, brake status, belt use)**

- **Tire data**

- **Post-crash measurements**

- **Lateral and vertical rollover crush locations and damage**

- **FMVSS 214 msts. (Door-sill differential)**

- **Occupant contact location(s)**

- **Crash avoidance technologies**

- **Enhanced child safety seat data**

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Example Benefits of CRSS and CISS

- **New IT infrastructure to improve timeliness and enhance online reporting tools**

- **New system sample will enable more precise estimates and more accurate and faster problem identification**

- **More data will be available and accessible to the public, while meeting information security requirements**

- **Additional analytical products and better user documentation**