

Safety and Asset Management **(data)**: A Natural Symbiosis

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U.S. Department of Transportation
Federal Highway Administration

 **Safe Roads for a Safer Future**
Investment in roadway safety saves lives
<http://safety.fhwa.dot.gov>

We <3 data.

So we all want more!

More data is always good.

Right?

**If we can't afford to maintain the data, is
it worth collecting at all?**

Attendee at GIS Peer Exchange, 2011

Share data.



Leverage limited resources.

FHWA Office of Safety Data Programs

Roadway Safety Data Program (RSDP): Capabilities Assessments

Model Inventory Roadway Elements

Value of Investment in Data

Model Inventory Roadway Elements (MIRE)

and

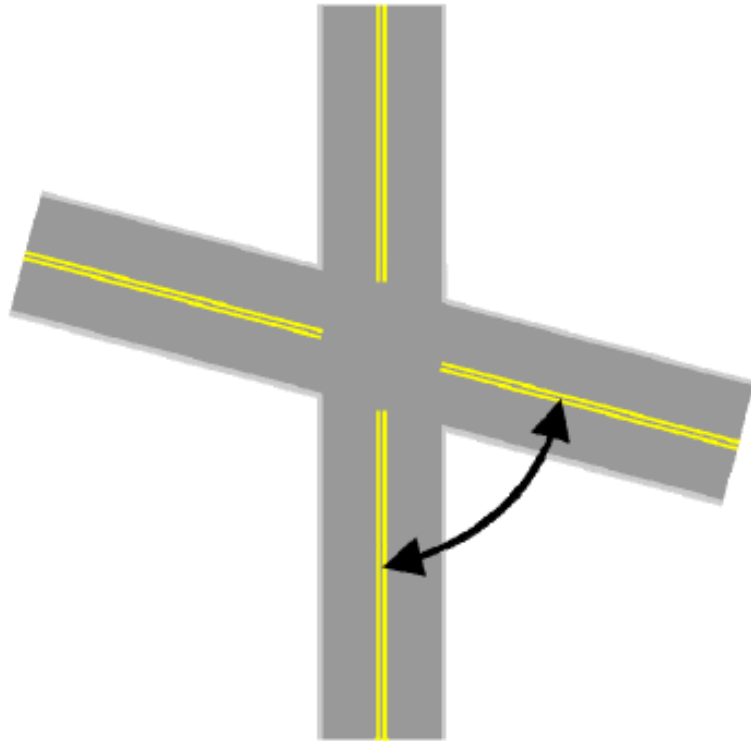
MIRE Management Information Systems (MIRE-MIS)

MIRE: What and Why?

- Listing of **roadway and traffic elements** critical to safety management
- Provides **data dictionary** – definition, attributes, etc.
- Enable user to **merge roadway and traffic data with crash data** to enhance data analysis capabilities.

www.mireinfo.org

Data Element Example



129. Intersecting Angle

Definition: The measurement in degrees of the smallest angle between any two legs of the intersection. This value will always be within a range of 0 to 90 degrees.

Attributes: Degrees

Priority: Critical

HPMS/Tool Requirements:
HSM/IHSDM (Required)

Supplemental Data Sets

- Roadside fixed objects
- Signs
- Speed data
- Automated enforcement devices
- Land use elements related to safety
- Bridge descriptors
- Railroad grade-crossing descriptors
- Safety improvements

MIRE-MIS

- Data management system

 - Mechanisms for data **collection**

 - Process for data handling and **storage**

 - Linkage** among files

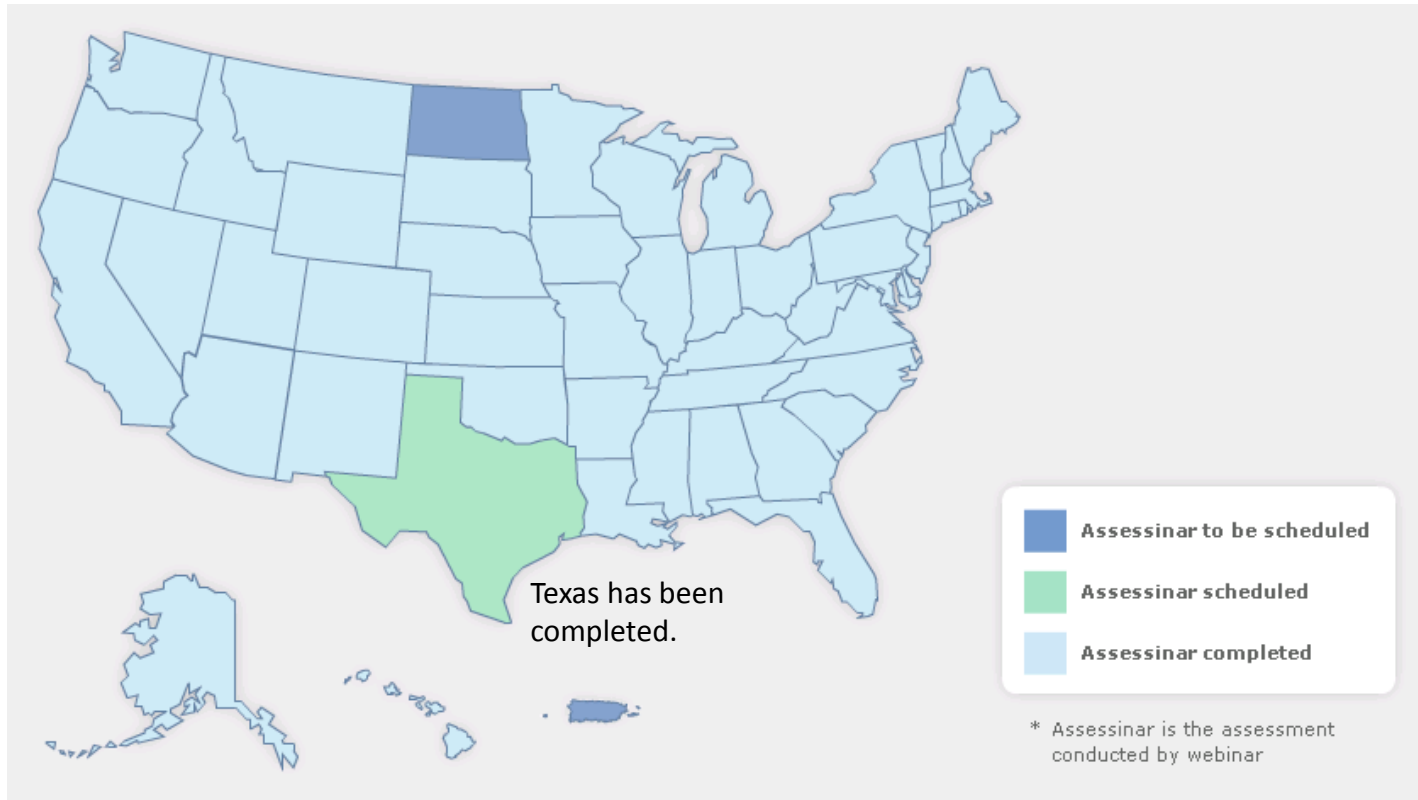
 - Performance** metrics

- Lead Agency Program

 - Determine feasibility of collecting MIRE data,
developing MIS (NH, WA)

Roadway Safety Data Partnership: Capabilities Assessment

RSDP: Capabilities Assessment

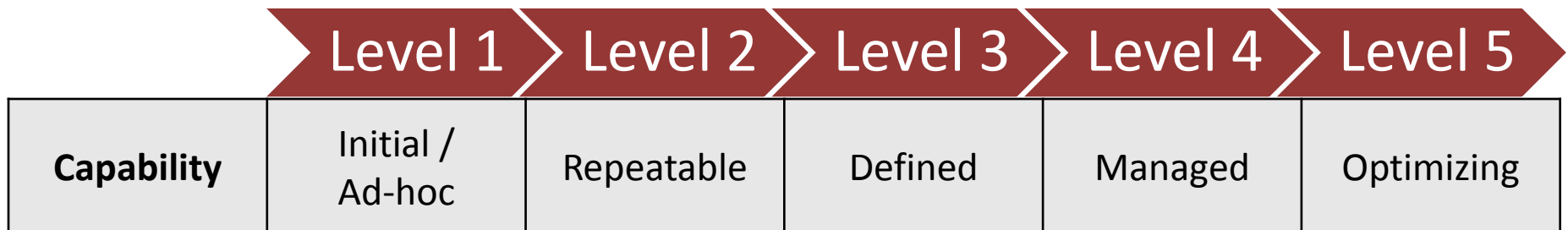


<http://safety.fhwa.gov/rsdp>

Collection | Analysis | Management | Expandability

RSDP: Capabilities Assessment

- **Assess all States**
- **Capability maturity model levels**
 - Current + State-identified desired
- **Develop Action Plan Framework**



RSDP Capabilities Assessment

Midpoint Report Findings:

- Organizational structures impede data integration
Includes challenges with decentralized systems
- Data management is difficult
No platform for discussing across DOT
Need better communication with IT
- Interest on improved data integration for local road data

**Benefits of investing in Data
for Data Driven Safety Programs**

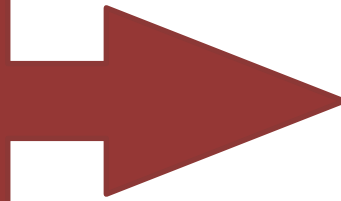
Benefits of Investing in Data for Data-Driven Safety Programs

Principles of
transportation
economics

*FHWA Market
Analysis*

Detailed literature
review

Discussions with
States



Develop
methodologies
that can be
applied to
determine the
benefits of
investing in data

Questions?

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