Pre-Solicitation Webinar for State and Local Government Use of Roadway Safety Tools for Policy and Decision Making

Office of the Under Secretary of Transportation for Policy

Office of the Secretary of Transportation

U.S. Department of Transportation

Webinar Agenda

- Overview of the Safety Data Initiative
- Overview of the Anticipated Solicitation
- Questions & Answers

If a formal solicitation is released requesting a formal proposal, it shall be done so by a USDOT Contracting Officer who has authority to bind the Government on behalf of the Department.

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Overview of the Safety Data Initiative

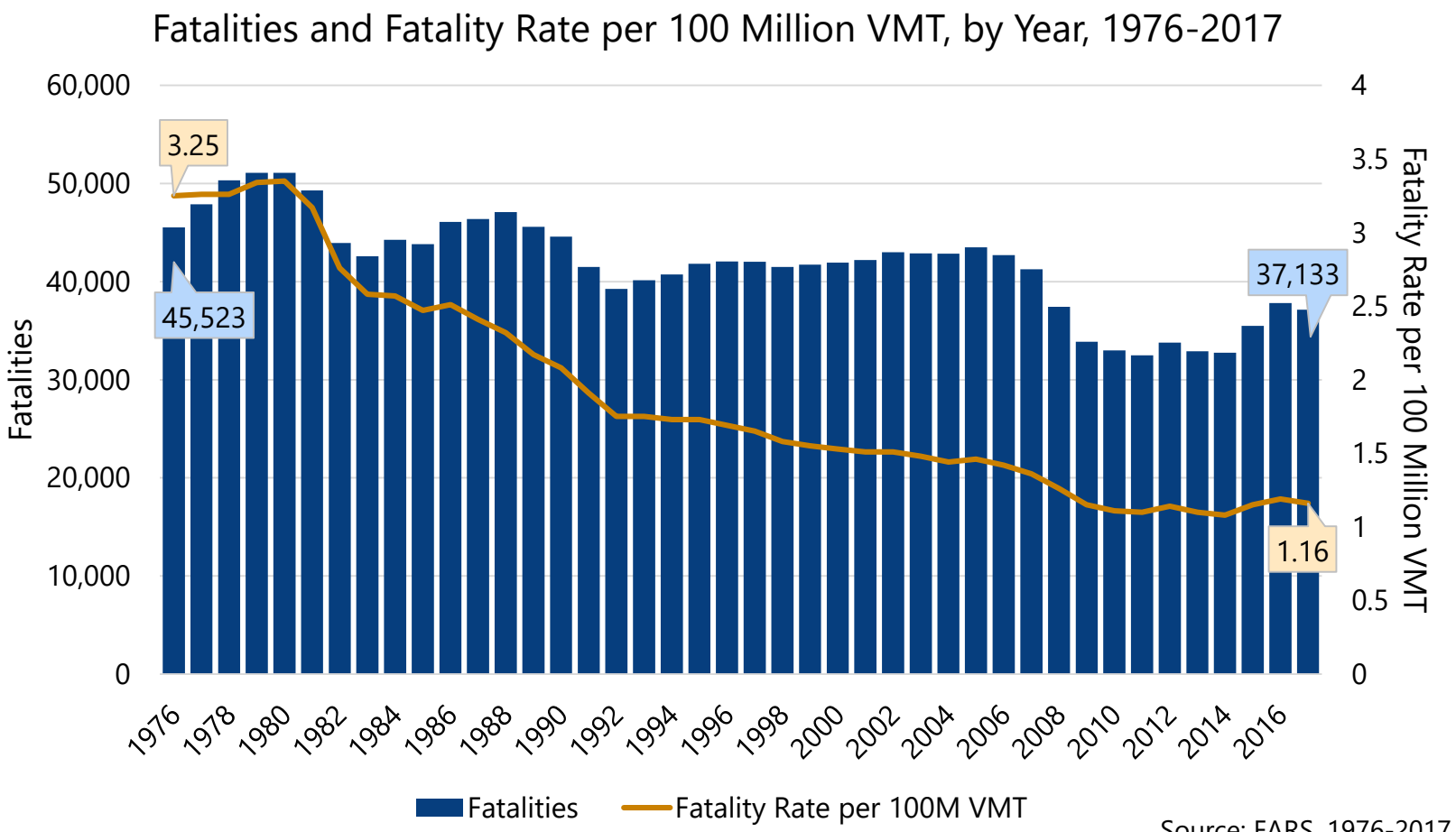
Systemic Safety Approach

Identify risks that contribute to fatalities and serious injuries

Use interventions and countermeasures to mitigate or eliminate identified safety risks

The Problem

We need **better data analysis tools** to understand what is happening on our roadways



Source: FARS, 1976-2017

Safety Data Initiative

- Launched in 2018
- Surface transportation focused
- Intended to build upon and enhance current safety efforts related to data, analysis, and policymaking

- Cross cutting, collaborative effort:
  - Office of the Secretary of Transportation (OST)
    - Policy Office
    - Office of the Chief Information Officer
    - Bureau of Transportation Statistics
  - Federal Highway Administration (FHWA)
  - National Highway Traffic Safety Administration (NHTSA)
  - Other surface operating administrations (OAs)

Focus Areas

Integrate existing DOT data and new "big data" sources

Use advanced data analytics to provide **predictive insights** into safety risks

Create **data visualizations** to help policymakers arrive at solutions

Pilot Projects

- Since launch, the SDI has conducted a number of data intensive pilot projects to:
  - Identify safety challenges
  - Experiment with solutions that inform how to best save lives
  - Improve the way information is conveyed for use by safety practitioners
- More specifics are later in the webinar, but visit www.transportation.gov/SafetyDataInitiative for details

Lessons Learned

- State and local government capabilities, needs, and challenges are different. **Different approaches** are necessary to further the use of safety data for policy and decision making.
- Some state and local governments could benefit from more **basic, fundamental analytic tools** that are easy to use instead of sophisticated but complex products. There is also value in activities such as quality integrated datasets and compelling visualizations.
- State and local governments may have the data, but not the **analytic capacity**. Some may have data but they are unintegrated, or the data quality is not robust.
- Higher capacity state and local governments can **drive innovation** and execute promising practices that could be replicated elsewhere.

Overview of the Anticipated Solicitation

If a formal solicitation is released requesting a formal proposal, it shall be done so by a USDOT Contracting Officer who has authority to bind the Government on behalf of the Department.

Anticipated Approach

OST intends to issue a notice of a **one-time funding opportunity**

OST plans to partner with **state and local governments**, along with their supporting partners

These partnerships may seek to **develop, refine, and implement safety tools** as use cases that address a specific roadway safety problem through funding for technical assistance and peer exchanges

Anticipated Goals

- Improve the **capacity** of state and local governments to use tools and information for safety policy and decision making
- Convert data into safety tools **useful to practitioners**
- Develop and refine safety tools in use cases to **address specific safety problems**
- Accelerate the safety community's ability to derive more value out of data and **apply information** in a meaningful way

How We Are Thinking About Success

- Provide **benefits** to the jurisdiction where it is being applied
- Provide blueprints to **scale and replicate** the tools elsewhere
- Documenting **best practices** and lessons learned in implementation
- Enhance **shared learning** through peer exchanges

Anticipated Work Areas

- OST intends to fund projects in two categories:

A Further develop and refine SDI Beta Safety Tools; or

B Refine and develop other, specific safety tools identified in an application submission

- Intended activities:
  - Perform analysis
  - Develop and refine a safety tool
  - Implement the safety tool
  - Document the work performed
  - Participate in peer exchanges

Category A: Further Develop Tools

- On-the-ground **validation** of SDI Beta Safety Tools
- OST intends to allow applicants to choose from a list of SDI Beta Safety Tools to **further develop and refine**
- Continue the projects as a derivative work product that is **modified and expanded** upon to fit the information needs identified in the application as an applied use case
- Approaches may include new data sources, modified analytic approach, revised visualization, derivative analysis, etc.

SDI Beta Safety Tools Developed

Pedestrian Fatality Risk Map

Solving for Safety Visualization Challenge Tools

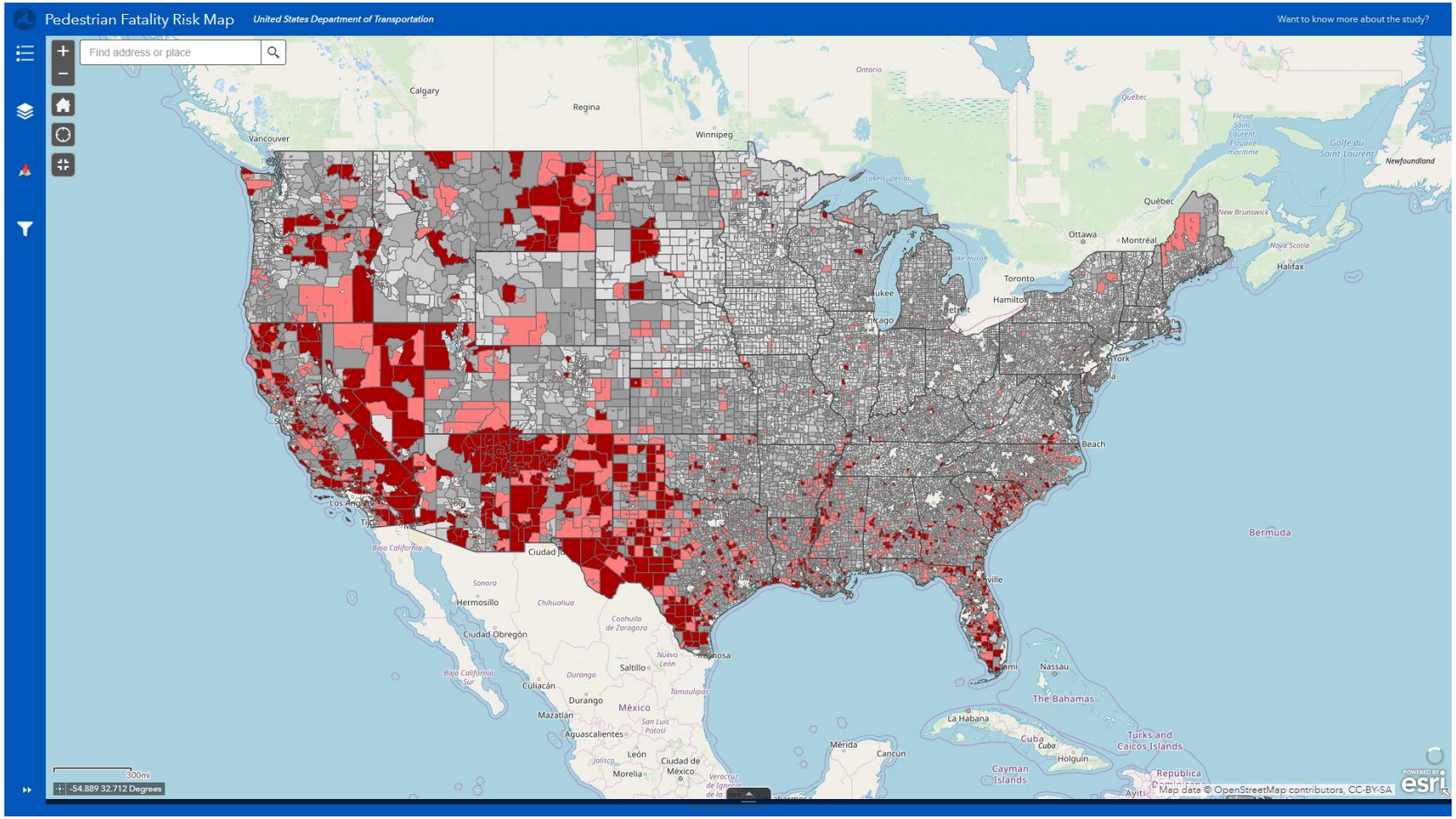
Safety Applications of Waze Data

Fatality Analysis Reporting System (FARS) Visualizations

- Pedestrians
- Speeding-related crashes

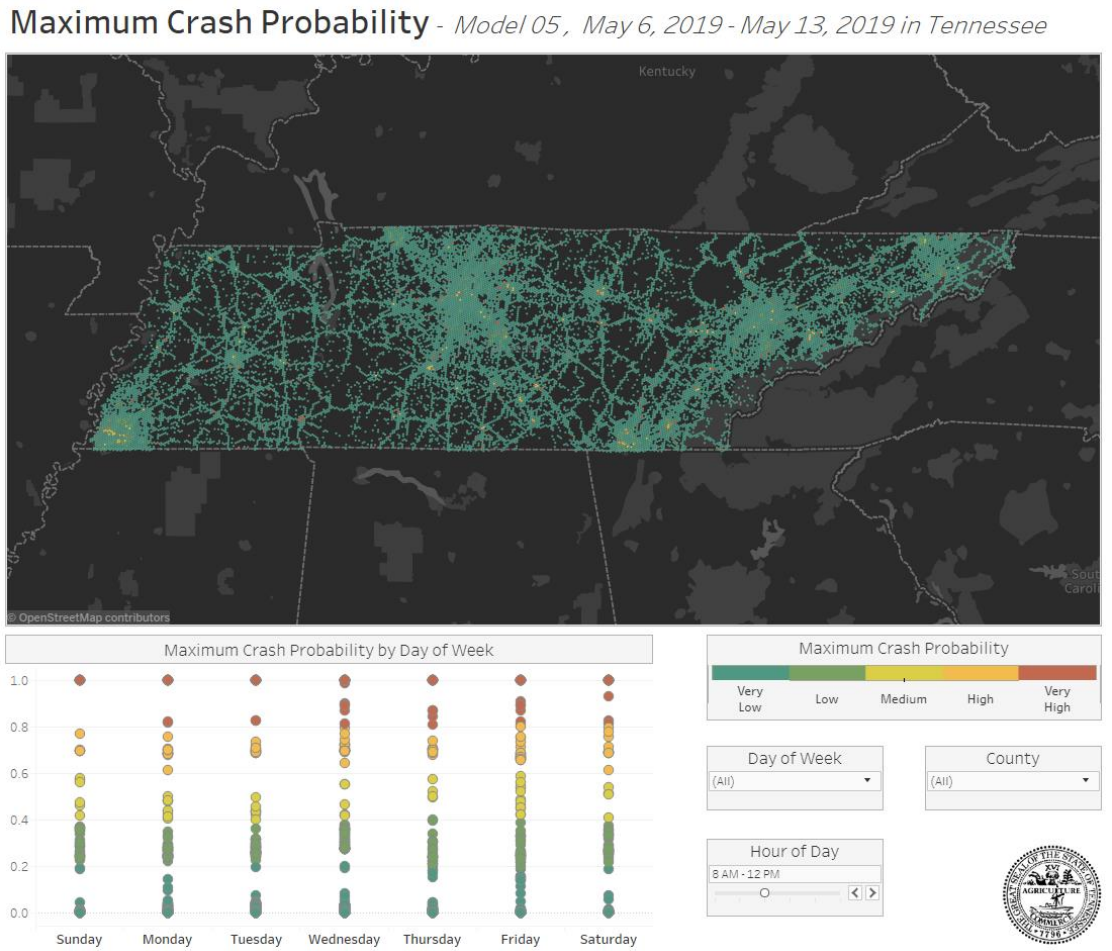
Pedestrian Fatality Risk Map

A national risk model at the U.S. Census tract level leveraging **transportation system** and **built environment** characteristics from multiple data sources



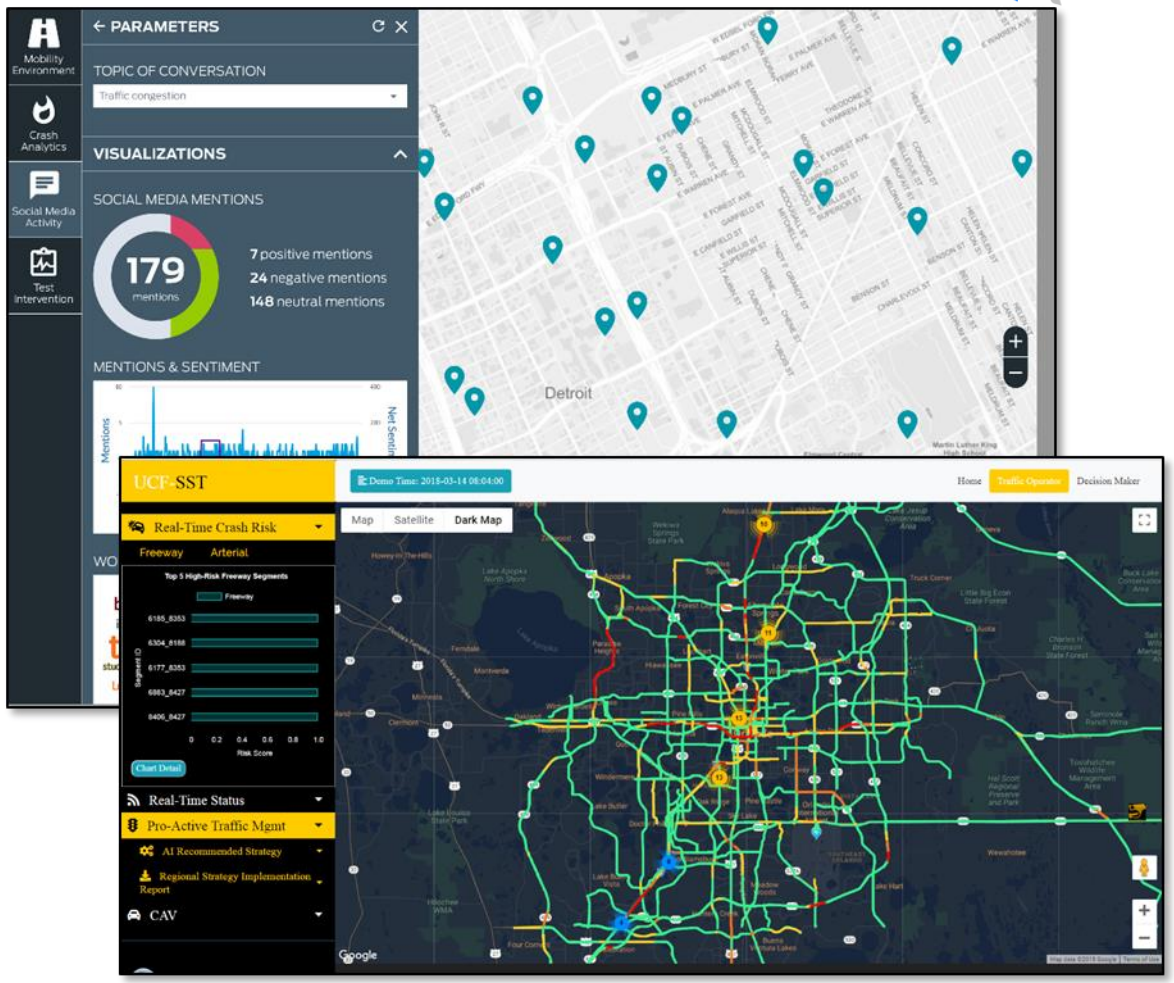
Safety Applications of Waze Data

- First phase correlated Waze information to police-reportable traffic crashes
- Second phase consists of two case studies to develop Waze safety applications using Waze data:
    - Tennessee State Highway Patrol
    - City of Bellevue, Washington



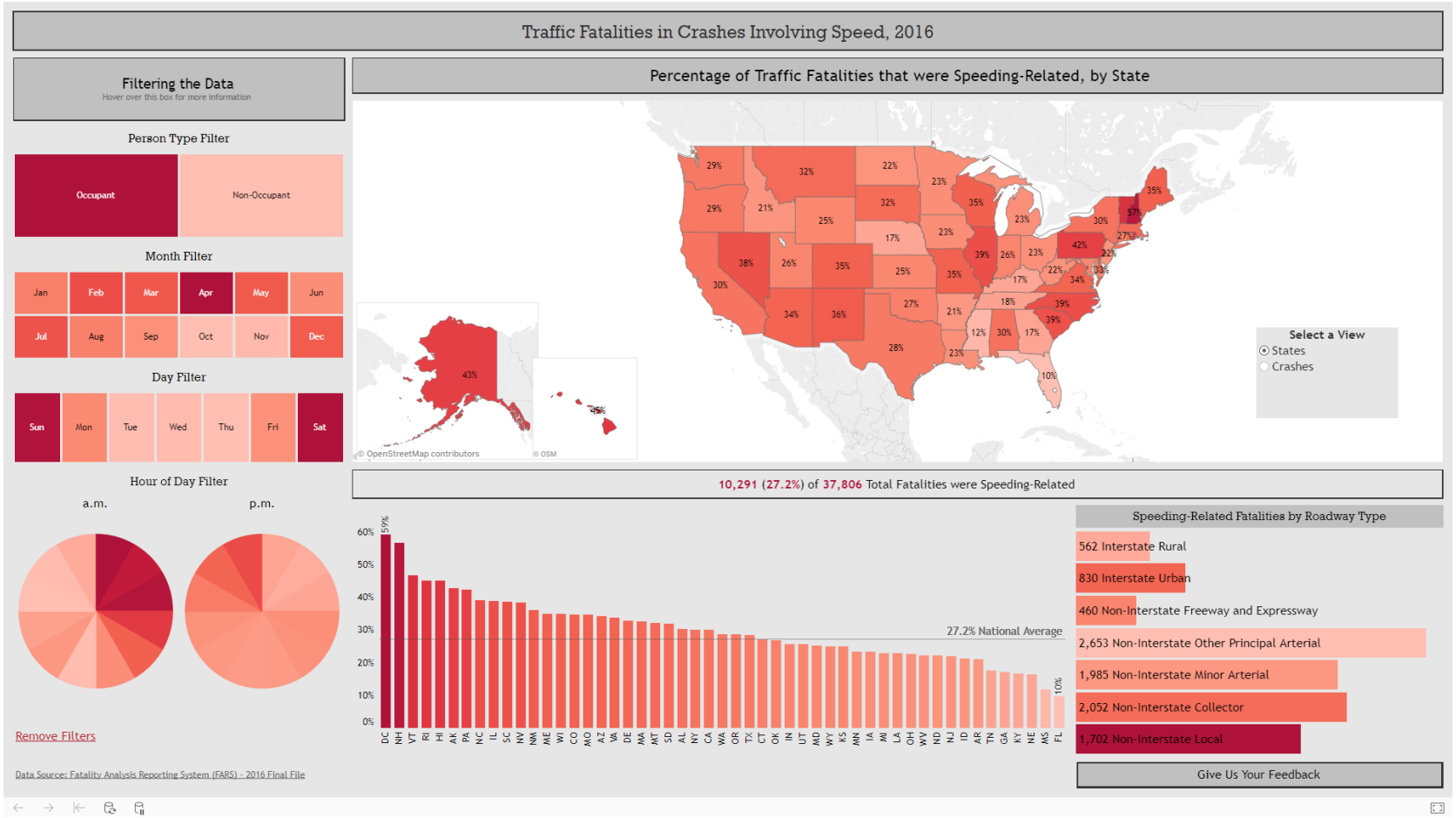
Solving for Safety Visualization Challenge

Multistage, **$350,000 competition** to develop visualization-powered analytical tools to reduce serious crashes to address specific focus areas



FARS Visualizations

Two NHTSA visualizations of the Fatality Analysis Reporting System (FARS) data focus on **speeding** and **pedestrian safety**



Category B: Refine or Develop Other Tools

- Refine and develop other, specific safety tools identified by the applicant
- Initial basic research on the safety problem has **already been explored** by the applicant using data and other information

Anticipated Funding

- Expected to allocate up to **$3 million**, subject to our discretion
- OST anticipates making multiple awards
- Awards are expected to be in the few hundred thousand dollar range, based on the amount requested and project complexity
- OST intends to award at least one (1) project from Category A and B (SDI Beta Safety Tools, and applicant-identified tools)

Anticipated Eligibility

- Intention is for governments to be the primary applicants:
  - State or local governments
  - Metropolitan planning organizations (MPO)
  - Tribal governments
  - Other political subdivisions of a state or local government

Partnerships

- OST intends to encourage partnerships, which may include:
  - Private sector partners
  - Other public agencies
  - Research or academic institution
  - Other transportation stakeholders
- For applicants with limited data science and management capabilities, we expect to offer technical support through the Volpe Center

Timeline

- OST anticipates releasing a solicitation **later this summer**
- Duration of the partnership will be around a year

Questions & Answers

Feedback and Further Questions

www.transportation.gov/SafetyDataInitiative

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