The Office of Highway Policy Information, FHWA

National Travel Monitoring Exposition and Conference (NaTMEC)
June 2018
Thank You!

- Event Organizer and Host
  - Pacific Southwest Region University Transportation Center, USC
  - Dr. Victoria Deguzman, Associate Director, Pacific Southwest Region University Transportation Center, USC
- Planning Committee
  - Co-Chairs
    - Dr. Steve Ritchie, Institute of Transportation Studies (ITS), UC-Irvine
    - Steven Jessberger, Office of Highway Policy Information, FHWA
  - FHWA – Patrick Zhang and Vidya Mysore
  - State – Tennille J. Haberman, William Morgan, Kurt Matias
  - MPO & Local – Scot Brady and Chade Saghir
  - Partner Organizations – Robert Bryson (ASCE), Penelope Weinberger (AASHTO), Sowmya Chadrasekhar (ITE)
  - Private Industry – Olga Selezneva (ARA), Liz Stolz, and Andrew Nichols
Office Organizational Chart

FHWA Office of Highway Policy Information
David Winter, PE

Motor Fuel and Highway Finance
Ralph Davis / Emiliano Lopez
Mike Dougherty
Clarissa Smith
Brian Lomax
Dawn Edwards
Helen Davidson
Vacant
Vacant

Highway System Performance
Chris Allen
Rob Rozycki
Tom Roff
Ron Erickson
Ronald Vaughn, PMP
Justin Clarke, AICP
Jeromy Barnes, GISP
Seemeen Hashem

Travel Monitoring and Surveys
Dr. Tianjia Tang, PE
Steven Jessberger
Danny Jenkins, PE
Dr. Patrick Zhang, PE
Dr. Wenjing Pu, PE
Vacant
Apara Banerjee¹

¹ – Indicates contractor
Our Mission

1) To provide the U.S. DOT, Congress, and the Administration with accurate information products in a timely manner.

2) To inform the development and implementation of, and serve as the foundation for decisions, policies, legislation, programs, and performance goals.

3) To serve as the national source of surface transportation data.

4) To improve the quality, efficiency, and effectiveness of highway data collection and analysis on travelers and the physical, operational and financial condition of our transportation system.
Our Data Programs

- National Performance Management Research Data System
- Highway Performance Monitoring System
- National Household Travel Survey
- Certified Public Road Mileage
- Motor Vehicle Registration
- Traffic Monitoring
- Weigh-in-Motion
- Highway Finance
- Licensed Drivers
- Recovery Act
- Toll Facilities
- Tax Evasion
- Motor Fuel
Our Data Systems

- Fuels and Financial Analysis System-Highways (Fuels and FASH)
- Integrated Transportation Information System (ITIP)
- Highway Performance Monitoring System (HPMS)
- Travel Monitoring and Analysis System (TMAS)
- Vehicle Travel Information System (VTRIS)
- National Household Travel Survey (NHTS)
- Recovery Act Data System (RADS)
- Data Portal (Fuels and FASH v4.0)
Key FHWA Business Uses

- Numerous transportation models
- Performance measurement
- FHWA reports
- Development of new programs and initiatives
- Wide variety of information products
Reports & Transportation Models

- Condition and Performance (C&P) Report to Congress
  - Highway Economic Requirements System (HERS)
  - National Bridge Inventory and Analysis System (NBIAS)
- Truck Size and Weight Study
- Freight Analysis Framework (FAF)
- Highway Cost Allocation Model
- Transportation Analysis Framework (TAF)
  - National Long Distance Passenger Origin Destination
  - Long Distance Passenger Travel Demand Modeling and Simulation
  - Bus Data
- National VMT Projections
Agency Performance Measures

- Highway-Related Fatalities per 100 Million VMT
- Highway-Related Injuries per 100 Million VMT
- % of VMT on NHS with IRI ≤ 170
- % of STRAHTNET Miles with IRI ≤ 170
- Annual Hours of Delay
- Congested Travel
Reports to Congress

Conditions & Performance Report

• Extent of System
• Roadway Condition
• System Performance
• Funding Sources
  • Federal, State, Local, Other
• Expenditures by:
  • Improvement Type & Funding Source
Office Publications

SUMMARY OF TRAVEL TRIPS
2009 National Household Travel Survey

HIGHWAY STATISTICS
2011

OUR NATION’S HIGHWAYS

Uses of Our Data
MONTHLY MOTOR FUEL REPORTED BY STATES

MAY 2016

NATIONAL GASOLINE SALES
JANUARY - MAY 2015 vs. 2016

CHANGE FOR U.S. 2.9%

TRAFFIC VOLUME TRENDS

August 2016

Travel on all roads and streets changed by +3.4% (+9.3 billion vehicle miles) for August 2016 as compared with August 2015. Travel for the month is estimated to be 289.9 billion vehicle miles.

The seasonally adjusted vehicle miles traveled for August 2016 is 289.9 billion miles, a 2.6% (6.5 billion vehicle miles) increase over August 2015. It also represented a 4.5% decrease (-12.2 billion vehicle miles) compared with July 2015.

Cumulative Travel for 2016 changed by +3.1% (+65.3 billion vehicle miles). The cumulative estimate for the year is 2,152.4 billion vehicle miles of travel.

Estimated Vehicle-Miles of Travel by Region - August 2016 - (01 Billions)

Change in Traffic as compared to same month last year.
Traffic Volume Trends (TVT) Report

Uses of Our Data
TVT Report

- Routinely covers over 5,000 counting sites around the US.
- TMAS processes over 400 jobs every week.
- Thanks to more states reporting on time and states continuing to add locations.
- Over 2,800 people that have subscribed to the TVT page in GovDelivery.
- All subscribers automatically get an e-mail once a new report has been posted.
- In May 2018
  - 1\textsuperscript{st} highest number of hits (51,000)
  - 7\textsuperscript{th} highest number of visitors (over 6,200)

Of all FHWA web pages, not including FHWA home page and 404 error page.
Characteristics of Quality Data

- Accurate
- Timely
- Complete
- Meets expectations
- Consistent across States
Why is Timeliness Important?

- Data users require timely data
- Earlier is better
- Commitments to release data and data products:
  - April
    - Preliminary end of year travel data for NHTSA (source: TMAS)
  - August 15
    - Driver License tables
    - Motor Fuel data (MF-21)
    - Travel data (VM-3)
    - HPMS GIS files
  - October 1
    - ARNOLD network for FMIS
    - Final end of year travel data for Safety and NHTSA (source: HPMS)
    - Remaining tables
How do we improve data quality?

- Provide reporting guidance
  - Guide to Reporting Highway Statistics
  - Traffic Monitoring Guide
  - HPMS Field Manual
  - Notice of Proposed Rule Making
- Provide training and technical support
  - Onsite
  - Regional workshops
  - Remote
  - NHI Courses
- National Data QA Team
- New tools and resources
Data Quality - HPMS Scorecard

Score

36.9 out of 50

- Timeliness: 10 out of 10
- Completeness: 14.7 out of 20
- Quality: 12.2 out of 20

Focus Areas

- Timeliness
- Completeness
- Quality

Data Summary

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
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</thead>
<tbody>
<tr>
<td>Number of Data Items</td>
<td>77.00</td>
<td>77.00</td>
</tr>
<tr>
<td>Number of Routes</td>
<td>2,654.00</td>
<td>2,673.00</td>
</tr>
<tr>
<td>Pct. Unmatched Routes</td>
<td>1.81</td>
<td>2.51</td>
</tr>
<tr>
<td>Number of Sections</td>
<td>3,689.00</td>
<td>3,724.00</td>
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<tr>
<td>Pct. Unmatched Sections</td>
<td>2.21</td>
<td>2.51</td>
</tr>
<tr>
<td>Total Center Line Miles*</td>
<td>13,432.16</td>
<td>13,300.24</td>
</tr>
<tr>
<td>Total Lane Miles</td>
<td>17,283.02</td>
<td>17,981.21</td>
</tr>
</tbody>
</table>
Data Quality - HPMS Scorecard
I-80 (WY-NE-IA)

- IRI
- % Trucks
- AADT
- Combo.
- Single
- Lanes
Major Initiatives

- National Household Travel Survey (NHTS)
- Interactive Dashboards
- HPMS Reassessment
- Performance Management
- NPMRDS
- Special Tabulations
  - VMT Forecasts
  - Transportation Analysis Framework
  - TMAS Data
  - Performance Network
- Integrated Transportation Information System (ITIP)
- Data Visualization Center
- Factoids
- Knowledge Center
Interactive Dashboards

Weekday:
Rural_Urban: Rural
Hour 09: 281

Focus Areas

Source: 2016 Traffic Monitoring Analysis System (TMAS)
FHWA, Office of Highway Policy Information
NPMRDS - Observed Speed by Hour of the Day

Focus Areas
Annual Average Speed on Interstate during PM Peak Hour 5:00 pm – 6:00 pm

Annual Average Speed on Interstate during PM Peak Hour 5:00-6:00 PM (Virgina)

Speed
- < 35 mph
- 35-50
- 50-60
- > 60
VMT Forecasts

- Updated earlier this year

### Table 1. Projected Growth in Vehicle Miles Traveled (VMT): Spring 2017

<table>
<thead>
<tr>
<th>Vehicle Class</th>
<th>Low Economic Growth Outlook*</th>
<th>Baseline Economic Growth Outlook*</th>
<th>High Economic Growth Outlook*</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2015 - 2035 (20 Year)</td>
<td>2015 - 2045 (30 Year)</td>
<td>2015 - 2035 (20 Year)</td>
</tr>
<tr>
<td>Light-Duty Vehicles</td>
<td>0.89%</td>
<td>0.61%</td>
<td>1.01%</td>
</tr>
<tr>
<td>Single-Unit Trucks</td>
<td>1.43%</td>
<td>1.24%</td>
<td>1.72%</td>
</tr>
<tr>
<td>Combination Trucks</td>
<td>1.04%</td>
<td>1.05%</td>
<td>1.46%</td>
</tr>
<tr>
<td>Total</td>
<td>0.92%</td>
<td>0.66%</td>
<td>1.07%</td>
</tr>
</tbody>
</table>
Long Distance Travel

http://www.fhwa.dot.gov/policyinformation/analysisframework/

Website includes:

• Traffic Analysis Framework – Final Report
• 2008 and 2040 Trip Tables for:
  • Bus
  • Rail
  • Air
  • Auto (business)
  • Auto (non-business)
• Trips greater than 100 miles
• County (or equivalent) to county level
Office Website

http://www.fhwa.dot.gov/policyinformation/

Focus Areas
Next Up

Monica Gourdine
Associate Division Administrator, California Division, FHWA
Prior:
• ADA, Washington Division
• Florida Division
• Federal Lands Highway Office