

2023 Highway Information Seminar

Monday, December 4 to Friday, December 8

1 pm – 5 pm ET each Day



This 2023 virtual seminar provides training on the latest data needs as related to the Federal-Aid highway program to State and local agency personnel and FHWA division employees who are responsible for collecting, processing, and submitting data and information to the FHWA. Specifically, data needs, technical and policy directives, methods and approaches in dealing with data collection, processing, and submitting will be presented and discussed. The audience for this seminar is state and local agency employees and FHWA division personnel.

The objective of the webinar is to make the Federal-Aid highway program more efficient, transparent, and accountable through accurate and timely data.

6 September 2023

Monday, December 4

Begin	End	Session	Presenters	Description
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Plenary Sessions

1:00 PM	1:10 PM	Opening Remarks	David Winter	Opening remarks from the Director of the FHWA, Office of Highway Policy Information.
1:10 PM	1:40 PM	Welcome	Keith Benjamin	Welcome from the Associate Administrator for the Office of Policy and Governmental Affairs w/ time for Q&As.
1:40 PM	2:10 PM	Office of Policy Studies use of Data	Michael Nesbitt	This session will provide an insight into what data is used by the FHWA, Office of Highway Policy Studies and what products are generated with the data w/ time for Q&As.
2:10 PM	2:45 PM	Office of Highway Policy Information Overview	David Winter	This session will provide an overview of the FHWA, Office of Highway Policy Information, the data collected and what they are used for, and major initiatives.
2:45 PM	3:00 PM	BREAK		

Travel Monitoring and Surveys Division

The goal of these sessions is to enhance and improve attendees' knowledge and ability to obtain credible, consistent, and quality traffic data. Traffic monitoring data collection approaches, processing methods, and reporting coupled with hands-on exercises will be presented to accommodate a diverse audience in terms of both the breadth and depth of the traffic data program. In addition, audiences will hear from invited speakers on practical solutions and successes in delivering various traffic data.

3:00 PM	3:10 PM	Opening	Tianjia Tang	Welcome, Program and Staff Introduction
3:10 PM	3:45 PM	Traffic Monitoring Sensors	Clayton Clark	The session will provide a focused overview of the most common traffic monitoring sensors: the loop and piezo sensors. It will cover their theoretical basis, various field configuration and layouts, and the dos and don'ts of in-field practices. The goal is to introduce basic sensor concepts to entry level traffic monitoring professionals to expediate their acquittance to the profession.

Begin	End	Session	Presenters	Description
3:45 PM	4:00 PM	Traffic Monitoring Analysis System (TMAS) Traffic Data Submittal	Patrick Zhang	This session is intended for state highway agency personnel responsible for submitting the monthly traffic data (volume, class, and WIM) to FHWA through the TMAS system. The session will provide a step by step illustration of how to get the data into TMAS and how to resolve errors that might occur during the submittal. In addition, a summary of typical issues, challenges, solutions will be covered.
4:00 PM	4:15 PM	BREAK		
4:15 PM	4:45 PM	TMAS 3.0 Demo and Features	Steven Jessberger	This session will provide a full TMAS 3.0 feature demo where TMAS's full capabilities will be shown to all the attendees. Items covered include uploading data (including 2022 TMG formatted data), data reviews, data approvals, exporting data, by site QC setting set-up, reports, exports and complete data fundamentals for TMAS 3.0 features. Will include live screen demo of features and image shots from TMAS.
4:45 PM	5:00 PM	AADT and Associated Metadata for HPMS Reporting	Tianjia Tang	This session will cover AADT data reported in HPMS. Aspects of how to obtain AADTs through different approaches and their relationships with the corresponding Metadata will be covered. Specific AADT methods, approaches, and scenarios will be discussed and illustrated.
Eastern Time				

Tuesday, December 5

Begin	End	Session	Presenters	Description
Travel Monitoring and Surveys Division (continued from Monday)				
1:00 PM	1:15 PM	Machine Learning Application in Traffic Monitoring – Unlimited Potential	Shuqing Wang	The term Machine Learning is becoming ubiquitous. Its application has permeated all sectors of our society, and traffic monitoring and data are no exception. This session aims to empower participants to deal with new ways of doing business more effectively by briefly overview some critical and fundamental concepts such as supervised/unsupervised learning, features/labels, and their correspondences in statistics, such as independent/dependent variables and regression analyses.
1:15 PM	1:30 PM	Future Travel Demand – FHWA Vehicle Miles Traveled Projection Model	Clayton Clark	Knowing what happened in the past and keeping up with data on what is going on right now regarding traffic demand are essential. A sense of what might happen in the future is equally critical, if not more important. This session will demonstrate how the FHWA models for future national travel demand

Begin	End	Session	Presenters	Description
				through various econometric models are developed. State and local agencies are welcome to adopt and take advantage of what FHWA has already built. The goal is to show how critical traffic monitoring data are used in model development and increase awareness of such models and importance of traffic monitoring.
1:30 PM	1:40 PM	Collecting e-bike and e-scooter Data	Steven Jessberger	This session will cover e-bike and e-scooter traveler information and how the TMG addresses this data and how best this information can be collected. Attendees will brainstorm and share knowledge and experience how we can research and develop existing methods or new methods to address this data need. The method for reporting this in TMAS will be covered.
1:40 PM	2:00 PM	NHTS Data Applications in State DOT/MPO Decision Making	Danny Jenkins	In this session, a panel of current and past FHWA NextGen NHTS pooled fund study participants will discuss how they have used their NHTS data for their transportation programs. The panel will share key NHTS parameters they use in their state/regional transportation models, highlight examples of how they used their data for specific applications (bike plans, safe routes to school, etc.), and the reasoning of participating in FHWA's pooled fund study program. The goal is to inform how the NHTS data, which is another aspect of traffic data, are collected and used by the community through Federal, state and local partnerships.
2:00 PM	2:20 PM	NHTS On-line Tool Demonstration	Danny Jenkins and Supporting Staff	This session will demonstrate how to use the online NHTS Data Explorer Tool. This tool can be used to analyze travel of specific communities and transportation options (transit, electric vehicles, etc.). Examples of how the data and tool are used to tackle a few new BIL provisions will be illustrated. The session will also provide a number of examples of creating tables to better understand travel based on factors such as race/ethnicity, income, and available transportation modes to name a few. We will also highlight how data from those tables could be used for grant applications and project development for projects funded by the BIL.
2:20 PM	2:30 PM	Connected Vehicle Data – Sharing Our Firsthand Experience	Shuqing Wang	Connected Vehicle (CV) data has been discussed for over a decade. This session is to share our experience working with the CV data in areas of what CV data is, what CV data variables are, and how to take advantage of the CV data to enhance traffic monitoring programs and data to improve highway safety and flow. The presentation will introduce CV data to those interested in the data and who want to know the CV data but never get the chance to have hands-on experience with it.

Begin	End	Session	Presenters	Description
2:30 PM	3:00 PM	BREAK		
3:00 PM	3:25 PM	Effective Individual Vehicle Record (IVR) and Weigh-in-Motion (WIM) Uses and Summaries	Steven Jessberger	This session will detail how to use IVR and WIM to obtain gaps between vehicles for improved safety results from any traffic collection site. Also, the session will show how the new TMG IVR format allows for so much more information and provide reasons why using this format is preferred data storage method for all portable and permanent traffic data sites no matter what is stored at the site. The session will also provide load spectrum results (TMAS WGT 4 report) from few WIM sites, demonstrating the TMAS WIM summary SAWA, new ATW and ATS graphs of actual data from TMAS, how TMAS data can be grouped by site(s), route(s) or roadway functional classification(s) for MEPDG and roadway specific outputs, and the production of TVT and state TVT reports. Lastly, how to use the TMAS overweight summary reports for determining roadways for targeted enforcement activities will be presented
3:25 PM	3:50 PM	HPMS Traffic Data Quality Review - A New Productive and Easy Deployable Tool	Shuqing Wang	Data quality is the lifeline of any data program and HPMS data quality is no exception. The FHWA Office of Highway Policy Information has developed a new productive and easily deployable method to enable traffic data review by comparing traffic data link by link between different HPMS submittals (e.g., different years). A live demo of a 2-year HPMS data comparison be provided to illustrate how the tool works and how to deploy the tool. HPPI is ready to assist any state DOTs who want to use the tool.
3:50 PM	4:20 PM	Invitation Presentations	Eric Katz, FDOT Abhay Nigam, MD DOT Representative	FDOT Bicycle Counting Program Overview MD DOT's Individual Vehicle Record (IVR) Initiate
4:20 PM	4:35 PM	A New Set of Travel Monitoring Data – FHWA Passenger Travel Origin Destination (OD) Data and Tool	Patrick Zhang	This session provides an overview of another set of travel monitoring data known as traveler origin-destination (OD) data. The traditional traffic monitoring program provides vehicle/pedestrian counts at a specific travel path (roads or trails) location. The FHWA NextGen NHTS passenger travel OD data offers information on the number of person trips between two zones (interzonal travel) and within each zone (intrazonal travel). This session showcases the product by covering (1) data products - source data, overview of compilation, and validation methods, and (2) web-based tools that are immediately available for use by attendees. The goal of this session is to increase seminar participants' awareness of this new powerful relevant data and online analytical tools for transportation decision makings.

Begin	End	Session	Presenters	Description
4:35 PM	4:40 PM	A Shout Out for Big Data and Big Data for Traffic Data Estimation Technical Assistance	Steven Jessberger	Pooled Fund Project TPF-5(384) has offered several key insights regarding how to handle big data and big data analytics-based traffic data from third parties. While the study conclusion documents provide some insights regarding data quality reviews and how to carry out data quality reviews, HPPI determines that the complexity of the process and the unique statistical expertise needed warrants this particular technical assistance project where State DOTs and local agencies can request from FHWA's technical contractor Battelle Memorial Institute.
4:40 PM	5:00 PM	Traffic Monitoring Needs and Wrap up	Tianjia Tang + all	This session will cover traffic monitoring needs including R&D works for traffic monitoring in areas of methods, approaches, and alternative ways of gaining traffic data. The session will be interactive. Audience participations and sharing of their experience and thoughts are strongly encouraged. The goal is helping to develop practical, solution-driven, and actionable paths and strategies forward.
Eastern Time				

Wednesday, December 6

Begin	End	Session	Presenters	Description
Motor Fuel and Highway Finance Division The Motor Fuel and Highway Finance Division staff will deliver a series of presentations and discussions focusing on topics including, but not limited to, 500-Series data program improvement efforts, program guidance and reporting requirement updates, and oversight program updates and training.				
1:00 PM	1:10 PM	Opening Remarks	Ronald Vaughn	A welcome and introduction by the Division Chief, and an overview of recent accomplishments, and ongoing and new initiatives.
1:10 PM	1:30 PM	Motor Fuel Program Recent & Planned Enhancements	Mike Dougherty / Debbie Phillips	An overview of efforts to improve the timeliness, completeness, quality, and dissemination of the motor fuel data that is required to be reported both monthly (Form 551M) and annually (Form 556).
1:30 PM	2:00 PM	<u>PLACEHOLDER</u>: Overview of Potential Final Rule Associated with Published Greenhouse Gas (GHG) Notice for Proposed Rulemaking (NPRM)	Policy / Infrastructure / Planning	An overview of the GHG NPRM with a focus on the motor fuel distribution/consumption data that will be used to support this work program and implications for the proposed State-level performance measures to be computed.

Begin	End	Session	Presenters	Description
2:00 PM	2:25 PM	New & Forthcoming Highway Finance Data Reporting Modifications	Clarissa Smith	A recap of the modified State & Local Toll data (Form 539) reporting requirements that were issued in October 2022. This session will also provide an overview new Capital Outlay & Maintenance data (Form 534), and Local Highway Finance data (Form 536) reporting requirements to be implemented in the near-future.
2:25 PM	2:50 PM	Driver Licensing and Motor Vehicle Program Data Reporting Modifications	Allison Weber	A discussion of recently implemented modifications to the motor vehicle and licensed driver forms (i.e., Forms 561, 562, 571, and 566) and related reporting requirements. Additionally, this session will share how this data is utilized by one of FHWA's partnering agencies and the potential financial impacts to States.
2:50 PM	3:05 PM	BREAK		
3:05 PM	3:25 PM	500-Series Data Reporting Guidebook Update	Kasi Reeves	An update on the status of the new guidebook with a focus on current activities, milestones, latest revisions, and next steps.
3:25 PM	3:55 PM	Fuels and Financial Analysis System for Highways (FASH) v4.0 Development Update	Ronald Vaughn / Allison Weber / Clarissa Smith	An update on the status, milestones, schedule, and State agency coordination efforts pertaining to phases 1 and 2 of this application development effort. Next steps and implementation timelines will also be discussed during this session.
3:55 PM	4:25 PM	Highway Use Tax Evasion (HUTE) Grant Program Updates & Procedures	Mike Dougherty	A summary of the most recent Notice of Funding Opportunity (NOFO) coordination effort and available funding. Additionally, an overview of the grant application process and subsequent activities will be provided.
4:25 PM	4:50 PM	VIN & Driver Licensing Data Pilot Project Update	Allison Weber	An update on the status of this initiative with a focus on accomplishments/milestones, pilot State engagement activities, target data structure, sample/test data findings, successes/challenges, and next steps.
4:50 PM	5:00 PM	Q&A (Optional Session)	Ronald Vaughn	Additional optional time to answer questions from the day's sessions.
Eastern Time				



Thursday, December 7

Begin	End	Session	Presenters	Description
Motor Fuel and Highway Finance Division (continued from Wednesday)				
1:30 PM	2:15 PM	Heavy Vehicle Use Tax (HVUT) Program Certification Training	Mike Dougherty	<p>A detailed overview of the HVUT program, and mandated annual certification requirements, and related processes.</p> <p>NOTE: This session is primarily intended for FHWA Division Office staff attendees.</p>
2:15 PM	2:45 PM	Open Forum/Discussion	Ronald Vaughn	An open discussion on annual 500-Series data reporting challenges and the path forward. Participants are strongly encouraged to provide their perspectives on challenges encountered, State program improvement efforts, successes achieved, needs from FHWA, etc.
2:45 PM	3:00 PM	BREAK		
Highway System Performance Division The Highway System Performance Division staff will provide a comprehensive and interactive workshop on the latest requirements, guidance, and information pertaining to the reporting of data to the FHWA via the Highway Performance Monitoring System (HPMS).				
3:00 PM	3:10 PM	Opening Remarks	Chris Allen	Overview of HPMS program the past year, highlighting successes, data collection and future activities.
3:10 PM	3:55 PM	HPMS 9	Tom Roff Justin Clarke	Status of the software.
3:55 PM	4:05 PM	Certified Public Miles (CPM)	Tom Roff	Updated procedures for submitting CPM and issues regarding the Federal Lands Mileage.
4:05 PM	4:35 PM	National Road Network (NRN)	Justin Clarke	Review of the National Road Network model, workflows, and Pilot State projects. USRS?
4:35 PM	4:50 PM	HPMS Pavement Data	Rob Rozycki	Overview of the required pavement data item specifications.
4:50 PM	5:00 PM	Data Assessment Team (D A T)	Terrence Beltz	Overview of third round of D A T reviews and the upcoming year and what to expect.
Eastern Time				

Friday, December 8

Begin	End	Session	Presenters	Description
Highway System Performance Division (continued from Thursday)				
1:00 PM	1:10 PM	Field Inventory Reviews & HPMS Field Manual	Paul Foundoukis	Overview of the Field Inventory Review conducted by the Division Offices and Status of Field Manual publication.
1:10 PM	1:25 PM	Model Inventory of Roadway Elements (MIRE)	TBD	Overview of future MIRE coordination.
1:25 PM	1:40 PM	Financial Management Information System (FMIS)	Tom Roff	Review the FMIS process.
1:40 PM	1:55 PM	National Performance Management Research Data Set (NPMRDS)	TBD	Description of dataset and how it impacts state DOT's.
1:55 PM	2:10 PM	Transportation Performance Management (TPM)	LaToya Johnson	Current status and information.
2:10 PM	3:15 PM	State DOT Best Practices	State DOT's	Topics & Presenters TBD
3:15 PM	3:45 PM	Hot Topics / Open Discussion	All	Additional relevant topics and open discussion
3:45 PM	4:00 PM	BREAK		
Close-out Session				
4:00 PM	5:00 PM	Close-Out	David Winter	Wrap-up and answer any final questions.
Eastern Time				