

HPMS Draft Reassessment Conclusion (UPDATE)

FHWA Highway Information Seminar

Arlington, VA

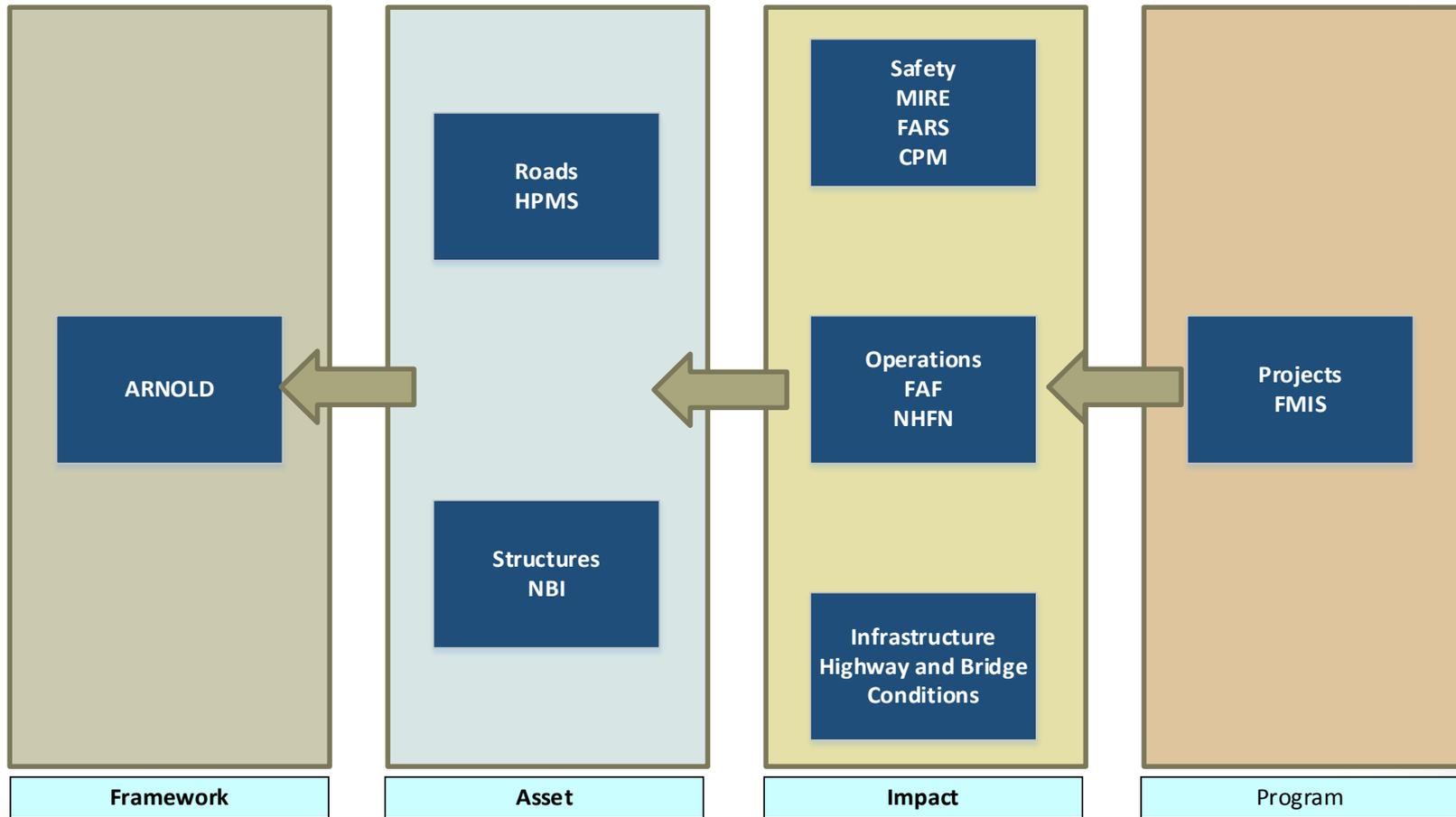
November 16, 2017

The Question

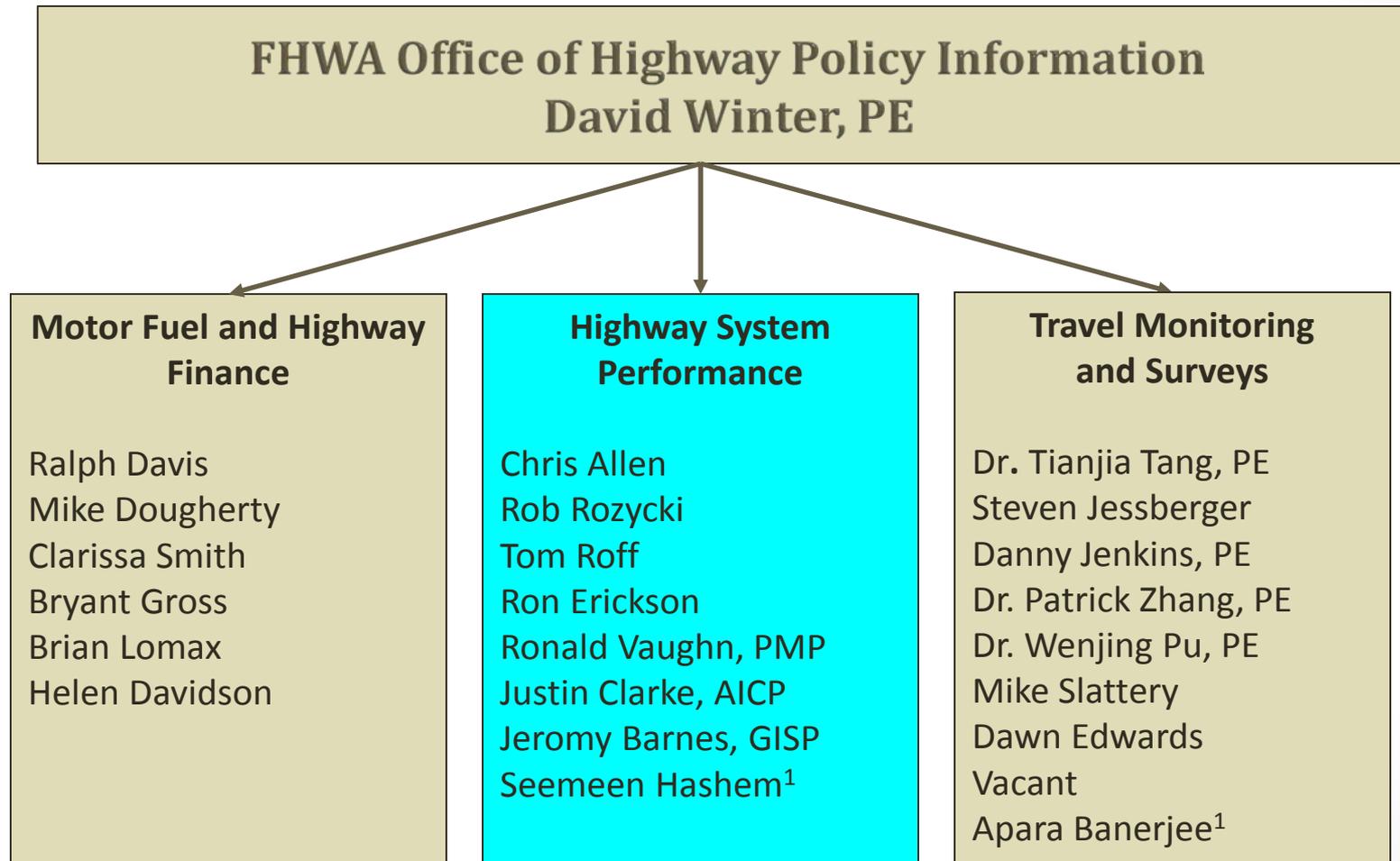
- Is 18.5 Cents per gallon enough to support the surface transportation needs for the United States?



A view of Data at FHWA



Office Organizational Chart



Reassessment Approach

Position Papers

- WHY HPMS data items are needed (key uses, legislation)
- WHAT is needed
- HOW it will be collected and accomplished

DOT Regional Meetings

Identify and Discuss

- Challenges
- Risks
- Opportunities

Recommendations

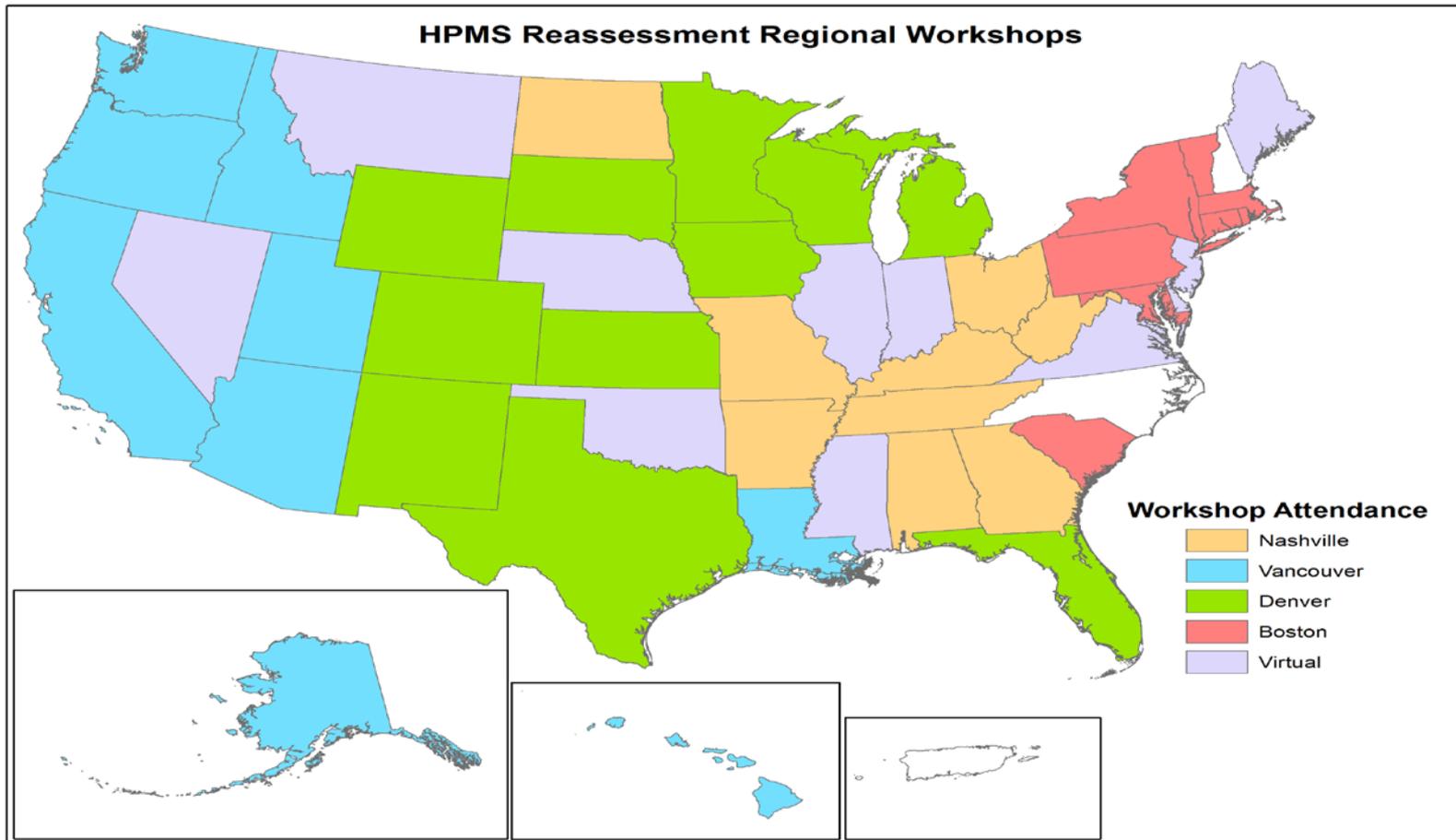
- HPMS changes to meet requirements
- Based on Requirements and DOT Feedback

HPMS Data Model & Final Report

- Supports FHWA and DOT Missions
- Supports the flexible design of HPMS to reduce burden to states



Partner Feedback



Overarching Concepts

- Think Incremental
- Think Alternative Source
- Think Raw
- Think Automation
- Think one to many



Bridge and Pavement

Pavement analysis requires exclusion of highway segments on Bridges

HPMS Should include the Structure ID required on Interstate, NHS, and Samples

Additional Structure IDs at the State's option.

Options to report Pavement attributes as Dual Carriageway

Transportation Performance Measure PM2



Freight

Establish the National Highway Freight Network (NHFN)

HPMS will identify the NHFN as a Data Item. The authority rests with FHWA using ARNOLD as a base framework.
ARNOLD Maturity to support routing on the NHFN

Supports the National Freight Program referenced in the FAST Act.



Safety

Geolocate Crashes

Need a place for data used in Safety Analysis

- Add MIRE Fundamental Data Elements as Data Items
- Add Intersection Data Elements (The goal is to remove HERS Specific Data Items)

Highway Safety Improvement Program (Map-21)



Highway Economic Requirements System (HERS)

Need to Support the HERS Model

National Sample of 15,000 to 20,000 Samples.
NHS Sample.
Alternative source on several data items as appropriate.

Needs Assessment through the Condition and Performance Report



Mature ARNOLD

Dual Carriageway
Representation
Topology
Routing

Connectivity at State Borders

Base geometry as well as the LRS layer
Model recommendation for Intersections

Safety
Freight
Bridge Location

Data Integration
Bridge Location
Traffic Counter Location
Highway Project Location



Alternative Source

Need to fill missing data
Reduce Data Collection Burden
Increase Consistency

- Build Matrix of Potential Alternate Source Opportunities
- Establish source Metadata, Assessment Criteria, Confidence Levels

- Data Areas where State DOTs are not impacted by the results and must have the Authority
- Highway Economic Requirements System(HERS)
- Model Inventory of Roadway Elements(MIRE)



Incremental/Transactions

- Supports Partial Submittal
- More efficient processing and storage
- Temporal analysis
- Streamlined workflow

- Date Banding

- This is and will always be optional for State reporting



Questions / Comments?

42



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HPMS State Panel Discussion

FHWA Highway Information Seminar

Arlington, VA

November 16, 2017

Story from Vancouver



Timeline

- John Formby, Alabama DOT
- Karl Buck, Wisconsin DOT



Let's Talk about...

- Lane Width
- Year of Last Construction
- Turn Lanes
- Percent Green Time
- Widening
Potential/Obstructions



Thank you

