



National Update of MEPDG Activities

North-Central MEPDG User Group Meeting

Ames, Iowa

February 19-20, 2008

Gary Crawford
Federal Highway Administration
Office of Pavement Technology

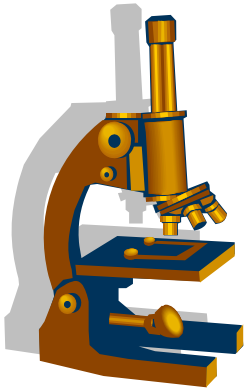
Overview

- Design Guide Implementation Team
- FHWA Workshops
- Lead States Group
- MEPDG State Survey
- Future Implementation Activities



PURPOSE of DGIT

- Team within FHWA created to **support & educate** State highway agencies, Division Offices, and industry in development & implementation of Mechanistic-Empirical Pavement Design



*Facilitating Implementation of
Mechanistic-Empirical Pavement Design*



Design Guide Implementation Team DGIT

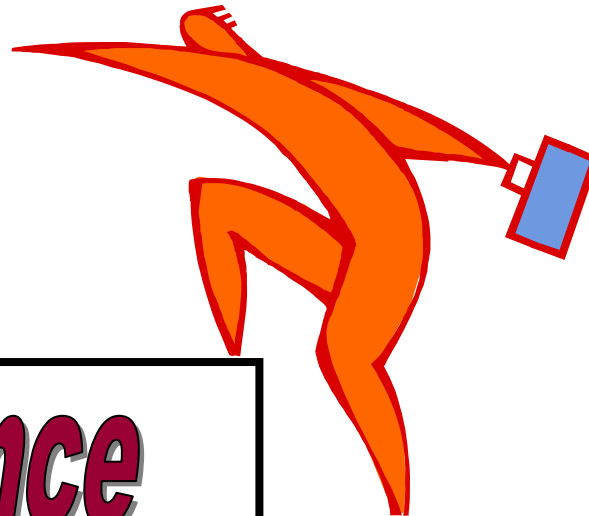
- **Office of Pavement Technology**
 - **Gary Crawford – Concrete Team** – *Group Leader**
 - **Tom Yu – Concrete Team**
 - **Audrey Copeland – Asphalt Team**
- **Office of Asset Management**
 - **Nastaran Saadatmand**
- **Office Of Policy**
 - **Harshad Desai – Travel Monitoring & Survey Division**
- **Resource Center**
 - **Chris Wagner – TST Team**
 - **Angel Correa – TST Team**
- **Division Office**
 - **John Sullivan – Division Administrator – NC**
- **Turner-Fairbank Highway Research Center**
 - **Jim Sherwood – Advanced Models Team**
 - **Jane Jiang – LTPP**

Implementation Strategies

Implement

Enhance

Educate





Design Guide Implementation Team (DGIT) Education Activities

- Introduction to ME Design Workshop(s)
- Traffic in ME Design Workshop(s)
- Materials Inputs to ME Design Workshop(s)
- EICM Workshop(s)

Educate

www.fhwa.dot.gov/pavement/dgit/htm

FHWA DGIT Workshops

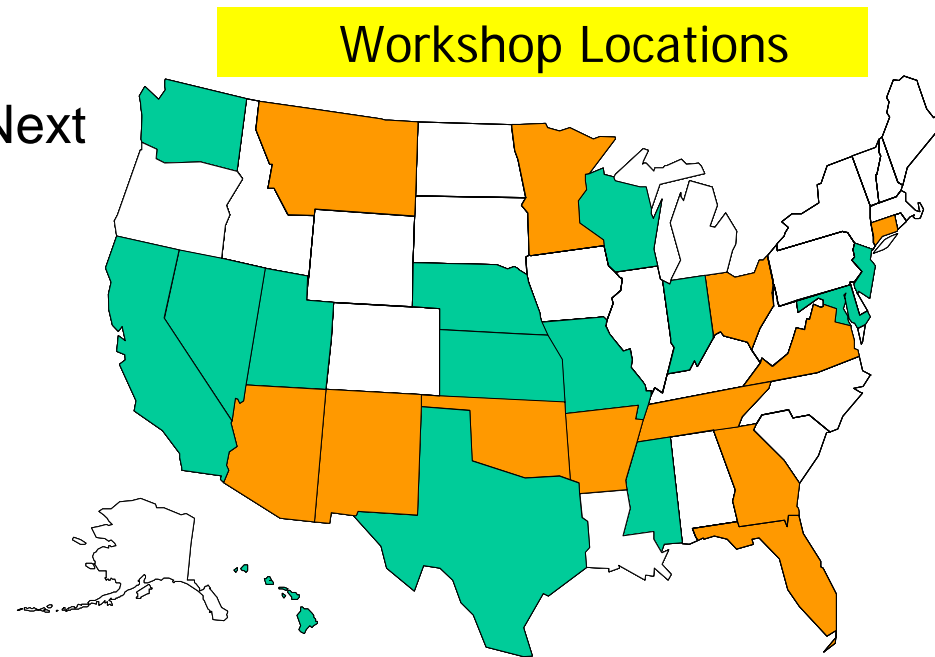
Upcoming

- Local Calibration
- PMS Database Inputs
- Weighing Impacts of MEPDG for Next Generation Traffic Data

Past Workshops

- Introduction to the DG – 8*
- Traffic – 4*
- Materials – 11*
- Climatic Inputs – 12*
- Use of PMS Data for Local Calibration - 1*

*Webcast available



Workshop Webcast Descriptions

www.fhwa.dot.gov/pavement/dgit/dgitcast.cfm

U.S. Department of Transportation
Federal Highway Administration

Search | Feedback

Pavements

Design | Construction | Preservation | Maintenance | Management | Rehabilitation

Technical Guidance | Research | Technology Transfer (T²)

FHWA > Engineering > Pavements > DGIT

Optimize Pavement Performance

Advanced Quality System
Pavement Surface Characteristics
Environmental Stewardship

Webcasts of Design Guide Workshops

FHWA has conducted three different workshops in Connecticut and ConnDOT has webcast each of them over the World Wide Web. In addition to webcasting them live, they were recorded to have a permanent reference that individuals can view the workshops according to their own schedule. Information on the availability of each workshop is included below.

Climatic Considerations for M-E Pavement Design Workshop NEW!

This [one-day workshop](#) will be presented for pavement designers and materials engineers over a live webcast on September 19, 2006. This interactive workshop covers the Enhanced Integrated Climatic Model (EICM) which provides inputs to the MEPDG software. ConnDOT will webcast live starting at 9 am Eastern time at <http://www.ct.gov/dot/fhwa-webcast>

Introductory Design Guide Workshop Available Online

On August 26, 2004 FHWA's Design Guide Implementation Team (DGIT), in conjunction with the National Resource Center, conducted one of its introductory workshops on the Mechanistic-Empirical Guide for the Design of New and Rehabilitated Pavements which was developed under NCHRP 1-37A and was recently released for review. This workshop, which was held in Mystic, CT, was also broadcast by ConnDOT live over the internet with an estimated 200 people participating in the online webcast. ConnDOT has posted the August 26th webcast at www.ct.gov/dot/pavement101. This link will bring you to a website containing the agenda from workshop and once the agenda is brought up, you can click on any of the agenda items to bring up the Windows Media Player, and begin streaming that session. You can scroll forward or backward within the presentation to watch any portion of the presentation that you desire. It will buffer for a few seconds each time and then start playing at that location.

Obtaining Materials Inputs for M-E Design Workshop

This 2-day workshop presented for Materials Engineers, Pavement Design & Pavement Management Engineers, was webcast live on March 30-31, 2005 from Rocky Hill, CT. This interactive workshop covers the materials inputs required for conducting a mechanistic-empirical pavement design using the NCHRP 1-37A software. ConnDOT has posted this webcast at www.ct.gov/dot/pavement102

Executive Summary for Mechanistic Empirical Design

This 30-minute presentation geared toward Chief Engineer/Executives audience was webcast live on September 7, 2005 from Rocky Hill, CT. This presentation discusses the benefits and needs for transitioning your State highway agency to adoption of mechanistic-empirical pavement design. ConnDOT has posted this webcast at [http://www.conndot.ct.gov/sami/john_dangelo.smi&name=John%20D'Angelo%20FHWA](http://www.conndot.ct.gov/media/mainpsa.aspx?url=mms://conndot-video.ct.gov/mediapoint/FHWA/john_dangelo.wmv&sami=http://www.conndot.ct.gov/sami/john_dangelo.smi&name=John%20D'Angelo%20FHWA)

To view the video in Windows media format, you need the [Windows Media Player](#).
To view the video in Real media format, you need the [Real Player](#)

Events

- o [Climatic Inputs to M-E Pavement Design](#)
Various
March - September 2006
- o [Calibration of M-E Pavement Design](#)
Under Development
Planned for Summer 2007
- o [View all Upcoming Pavements Events](#)

Contacts

Chris Wagner
[Resource Center](#)
404-562-3693
christopher.wagner@fhwa.dot.gov

Leslie Myers
[Office of Pavement Technology](#)
202-366-1198
leslie.myers@fhwa.dot.gov

Jim Sherwood
[Turner Fairbank](#)
202-493-3150
jim.sherwood@fhwa.dot.gov

This page last modified on 02/16/06

NHI Courses

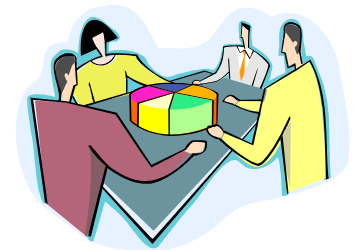
- NHI #131064 – Introduction to Mechanistic Design (Available)
- NHI #131109 - Using Mechanistic-Empirical Pavement Design Guide Software (In Development)
- NHI #132040 – Geotechnical Aspects of Pavements (Available)
- NHI #151018 – Application of Traffic Monitoring Guide (Available)

Educate

Provide forum for discussion on M-E Pavement Design

- **FHWA Community of Practice website**
 - **Established MEPDG User Comments Database**
 - **Maintained by DGIT**
 - **Questions, technical issues raised forwarded to NCHRP**
 - **Success Stories – also need positive feedback**

<http://www.fhwa.dot.gov/pavement/dgit/dgitdata.cfm>





Support Lead States Group

Small business set-aside through FHWA Office of Pavement Technology

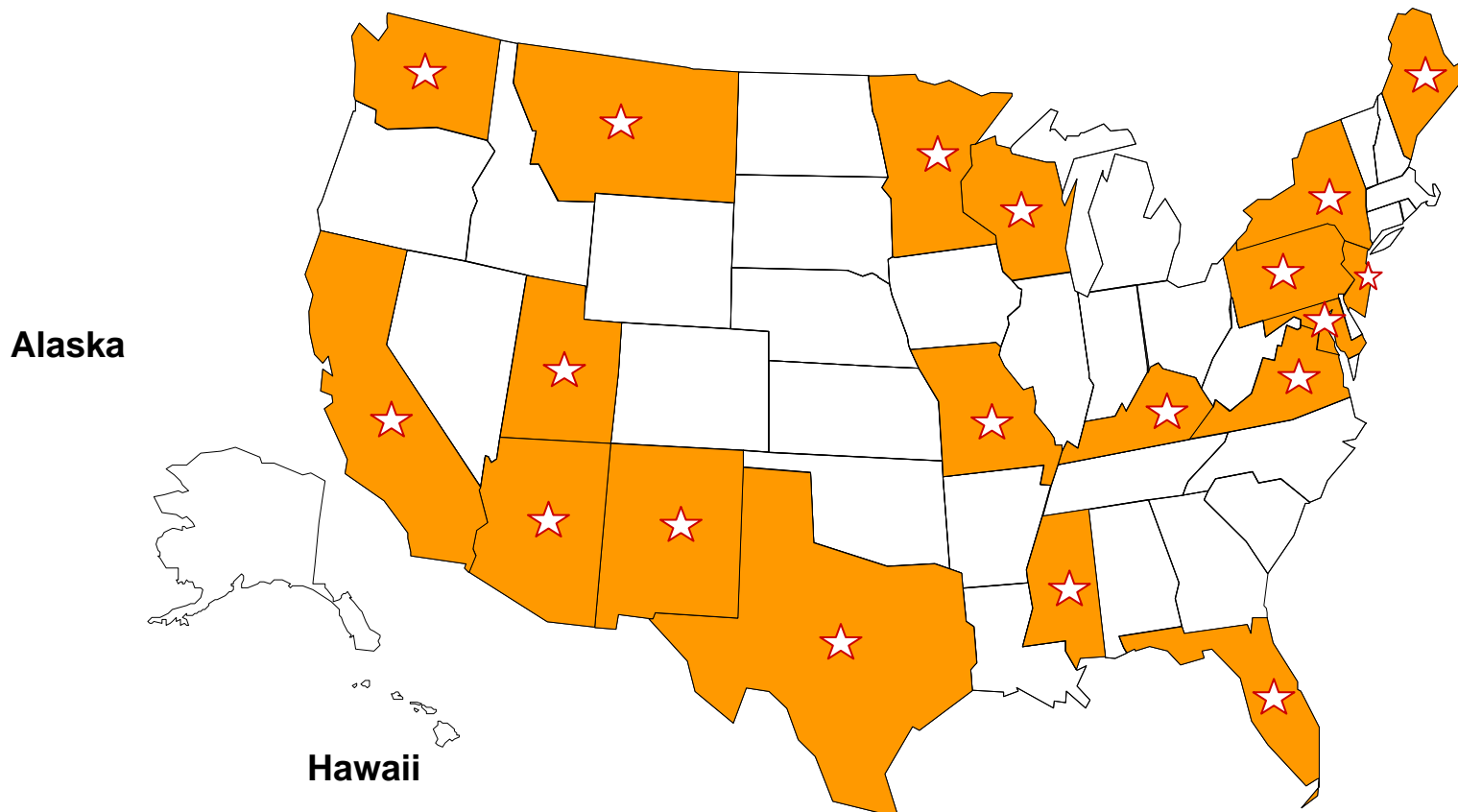
Pavement Design Status Survey: status of design in every state in US for 2006-7 (to update 2003 division office survey)

Collect & Summarize DOT Implementation Plans: few plans already received & will be posted on LSG website, but not concise

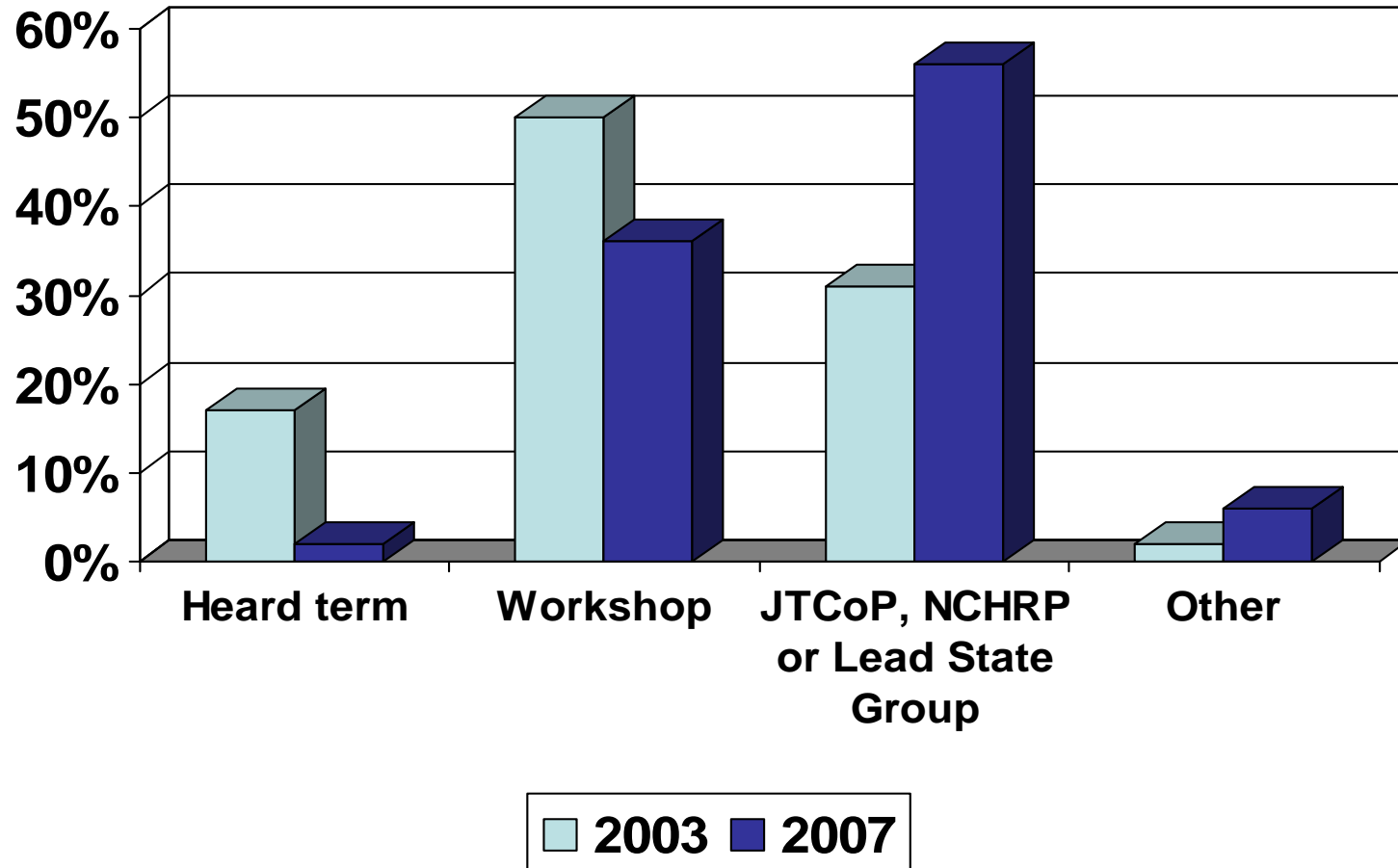
Distribute Technical Briefs

Lead States Group

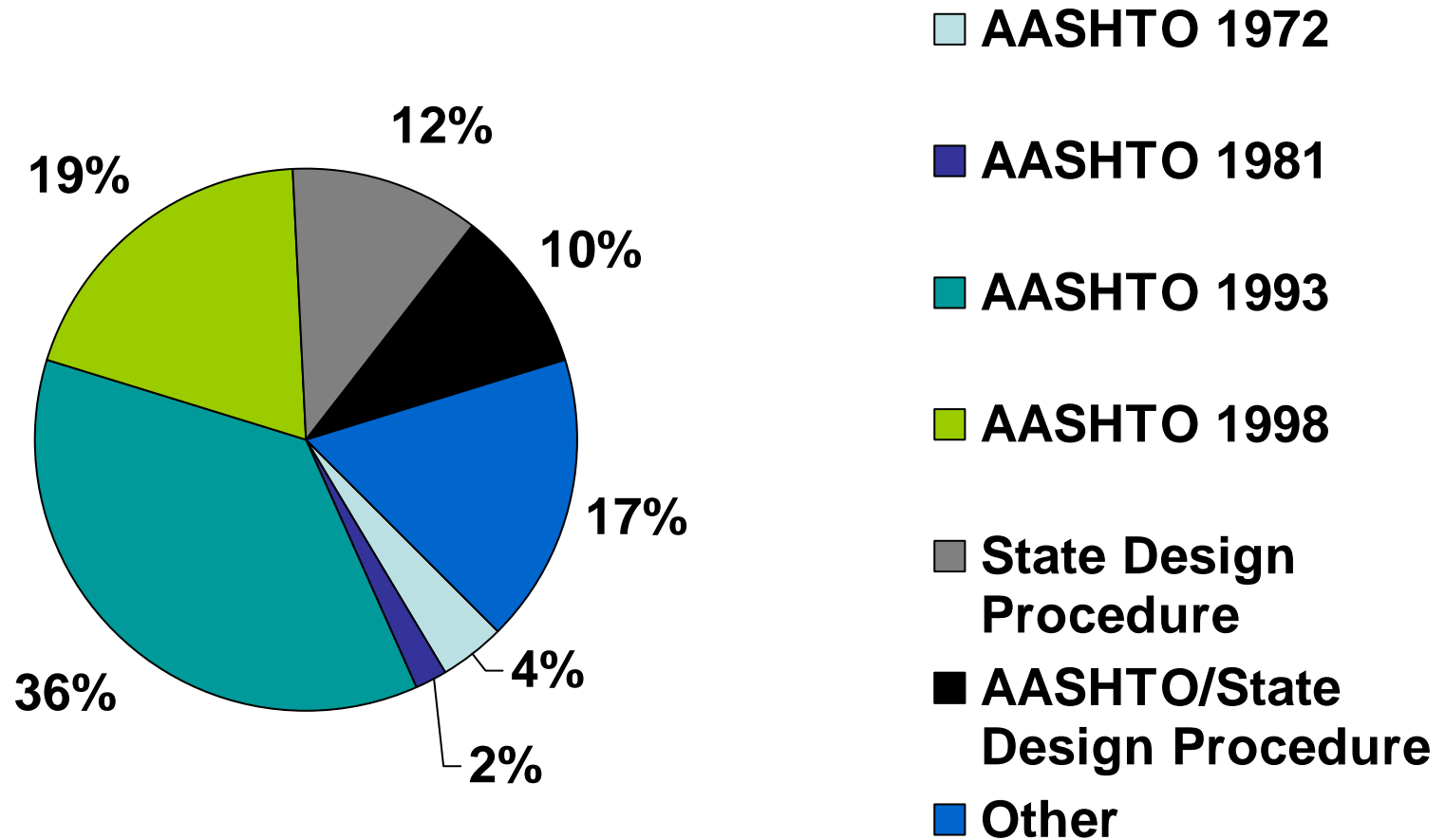
LSG Web site: www.transportation.org/?siteid=77



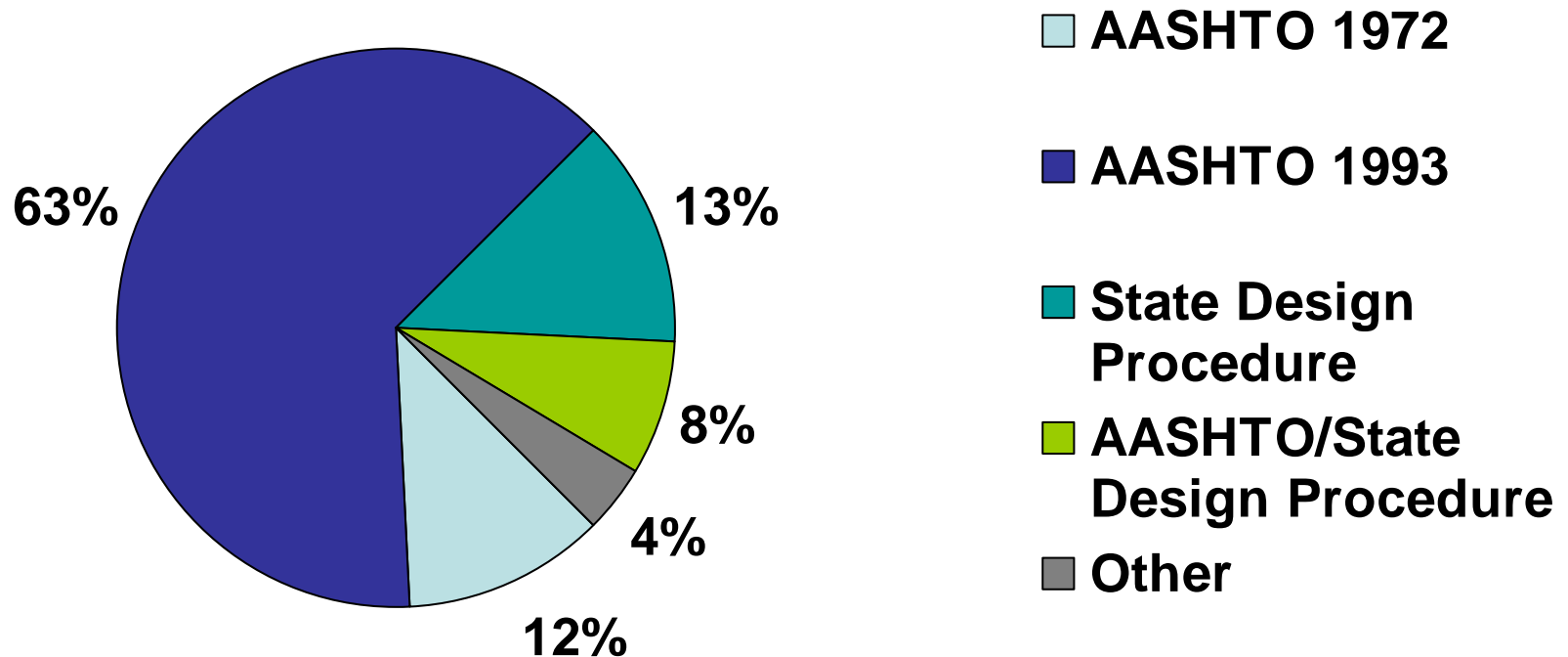
How familiar is state with MEPDG?



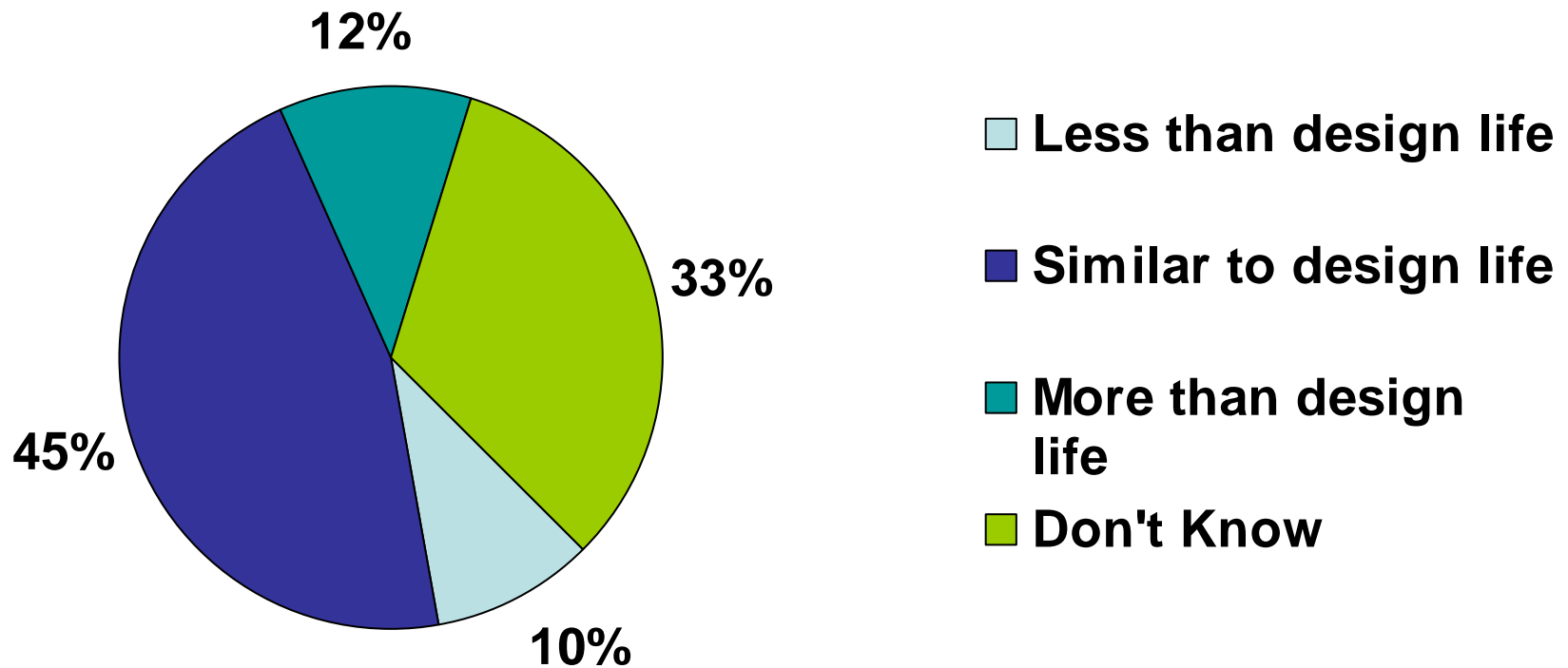
Concrete Design Procedure



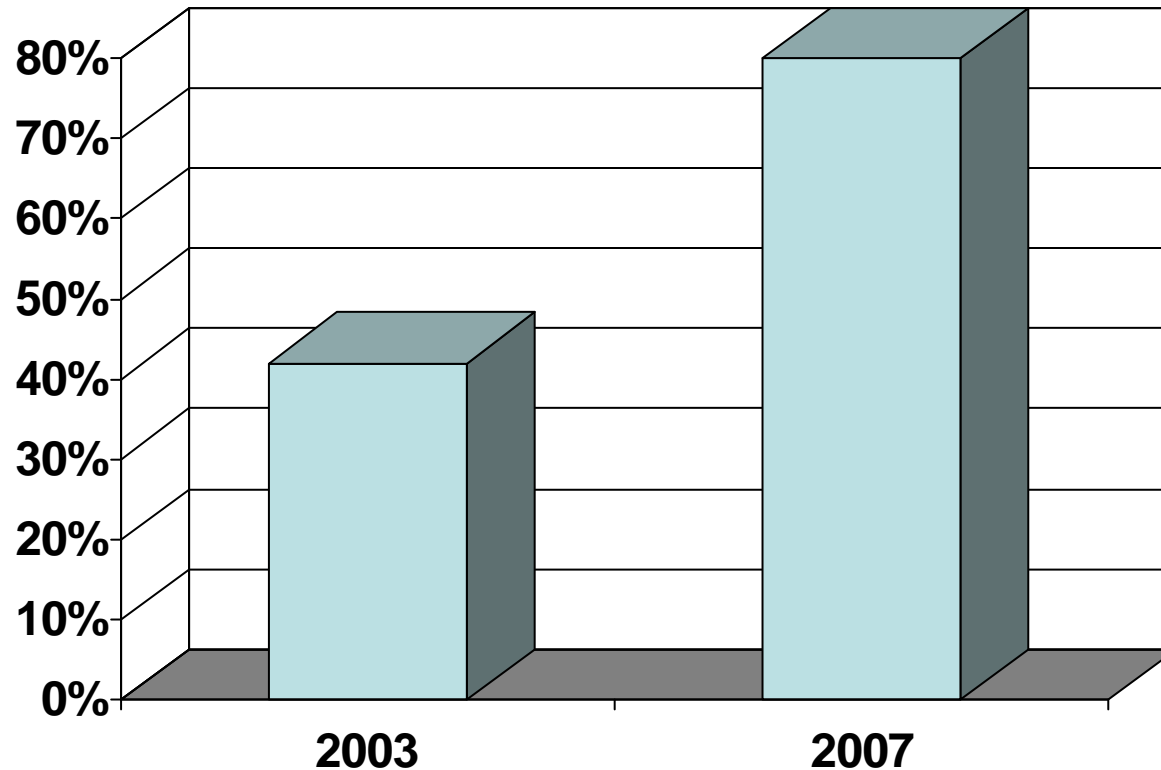
Asphalt Design Procedure



How does actual performance compare to design life?



Does your state have implementation plan?

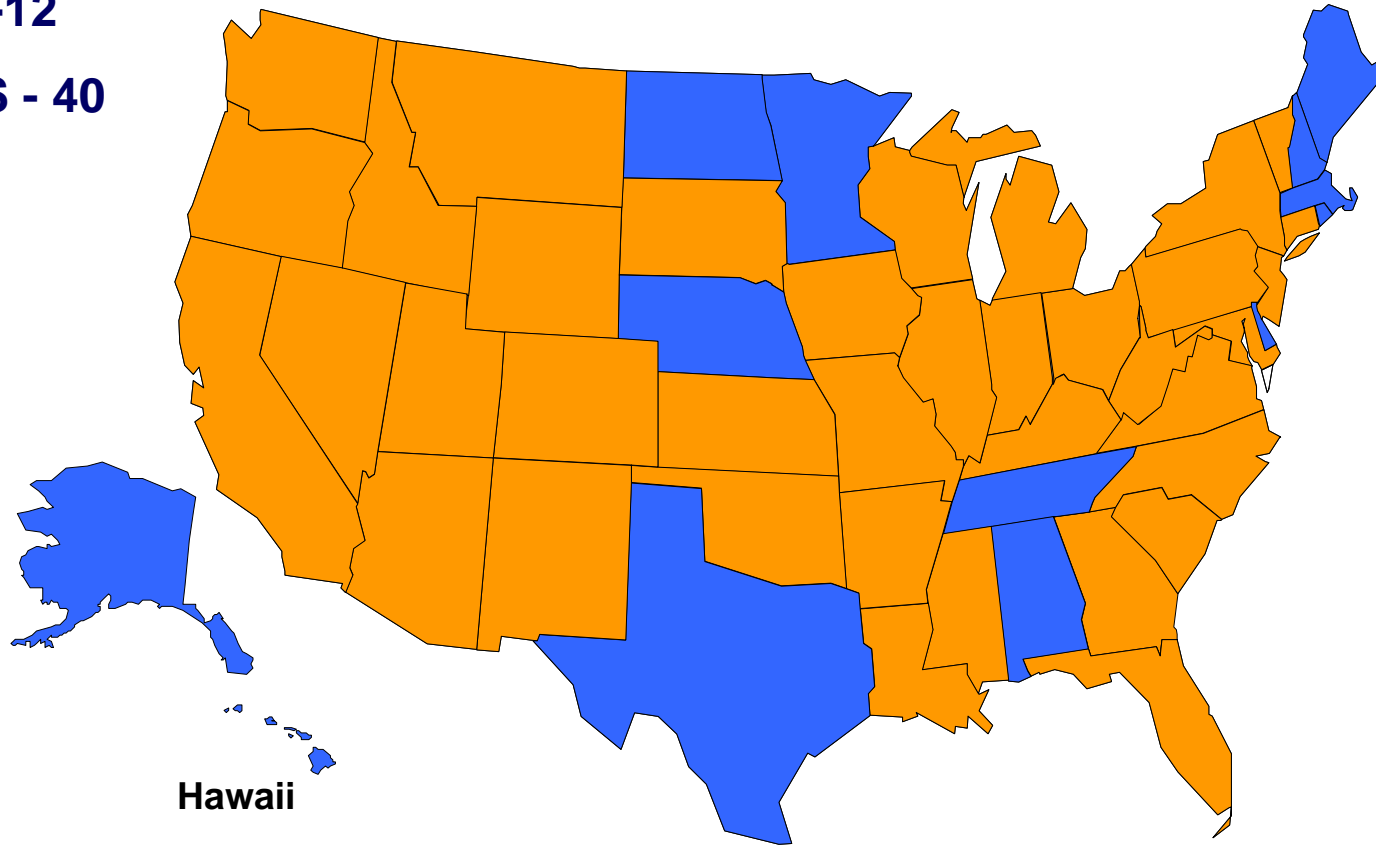


Does SHA Use or Plan to Use MEPDG?



Alaska

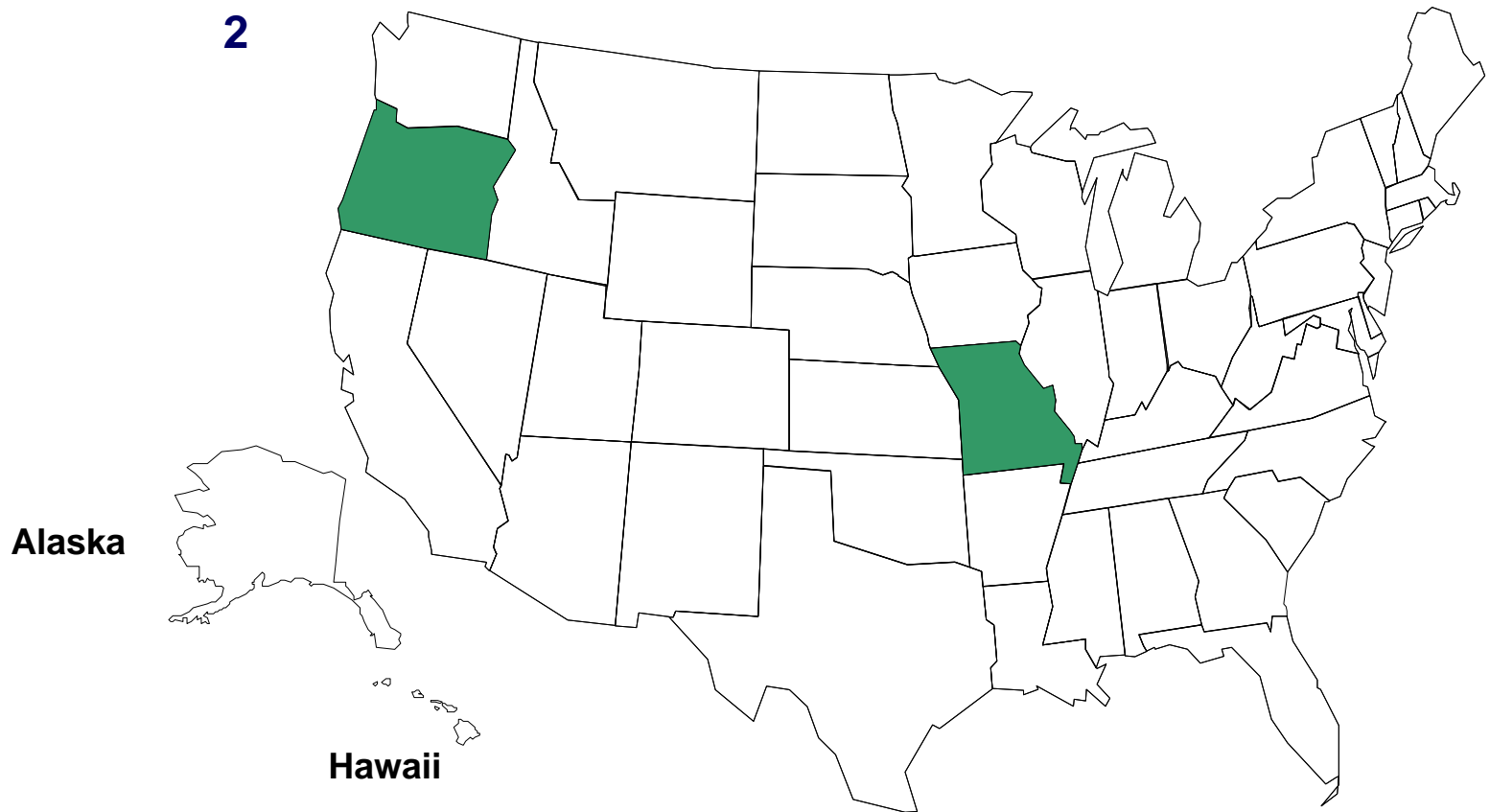
Hawaii



Timeframe for Implementation

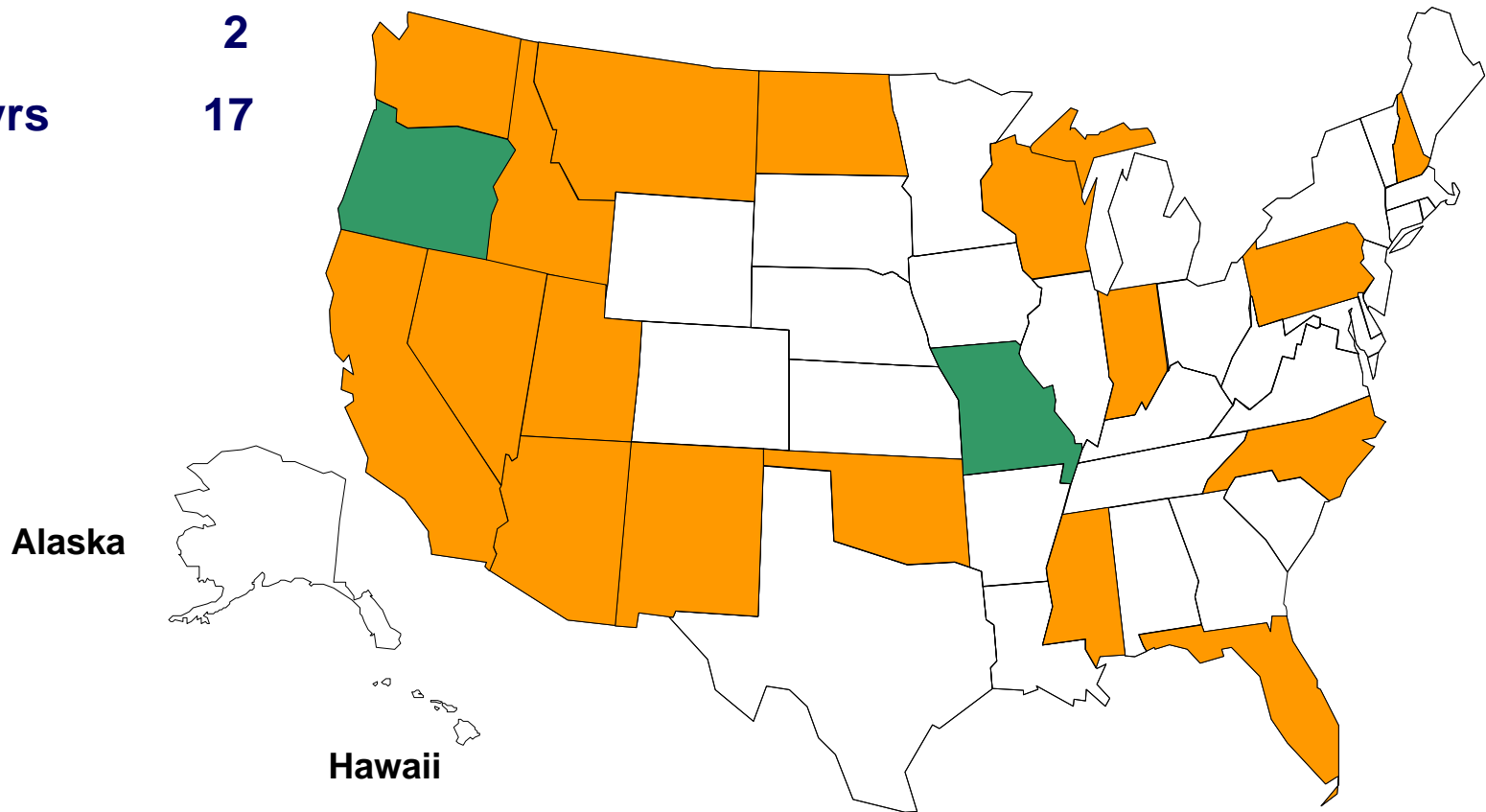
 Using

2



Timeframe for Implementation

Using 2
1 – 3 yrs 17

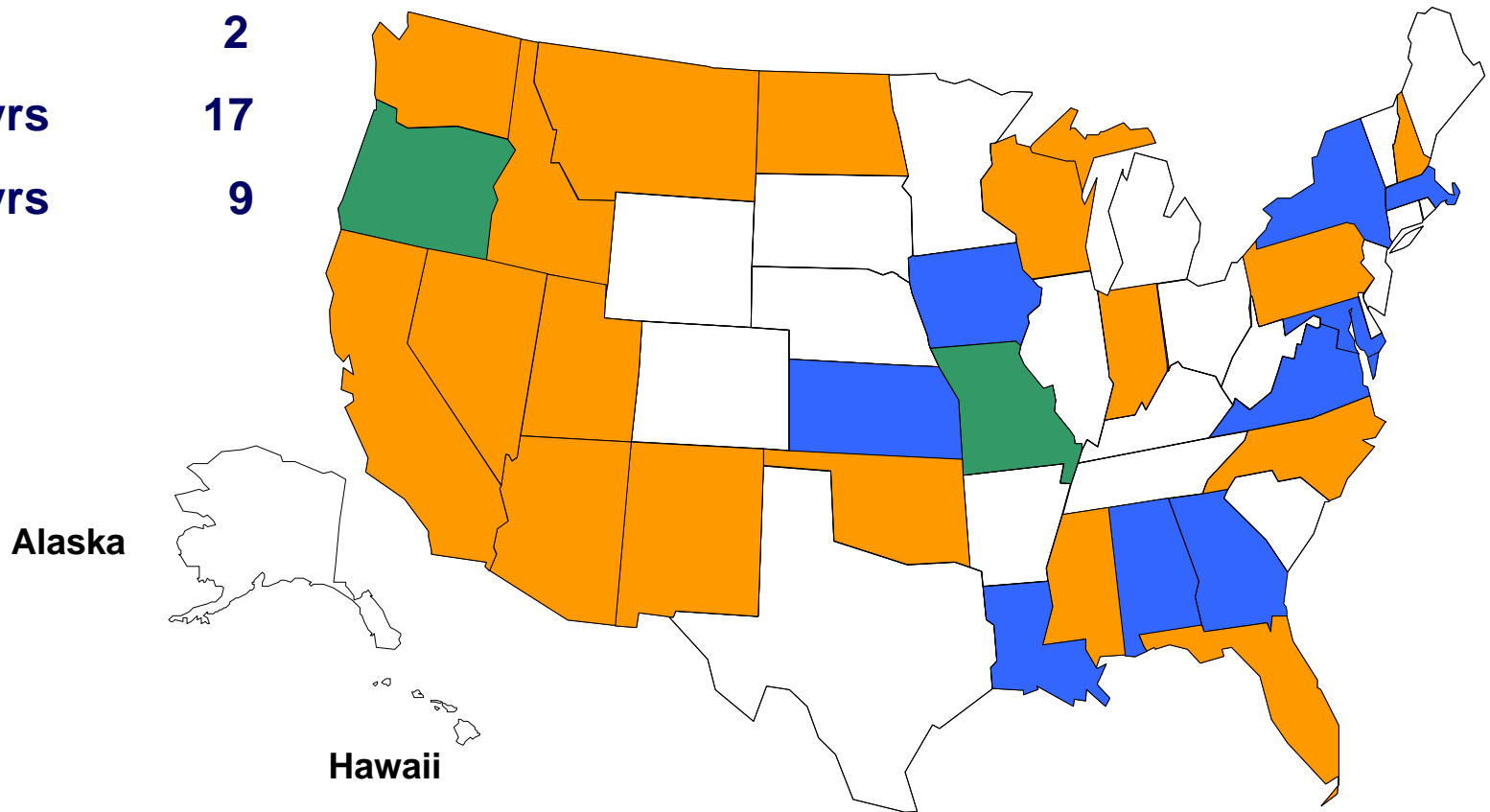


Alaska

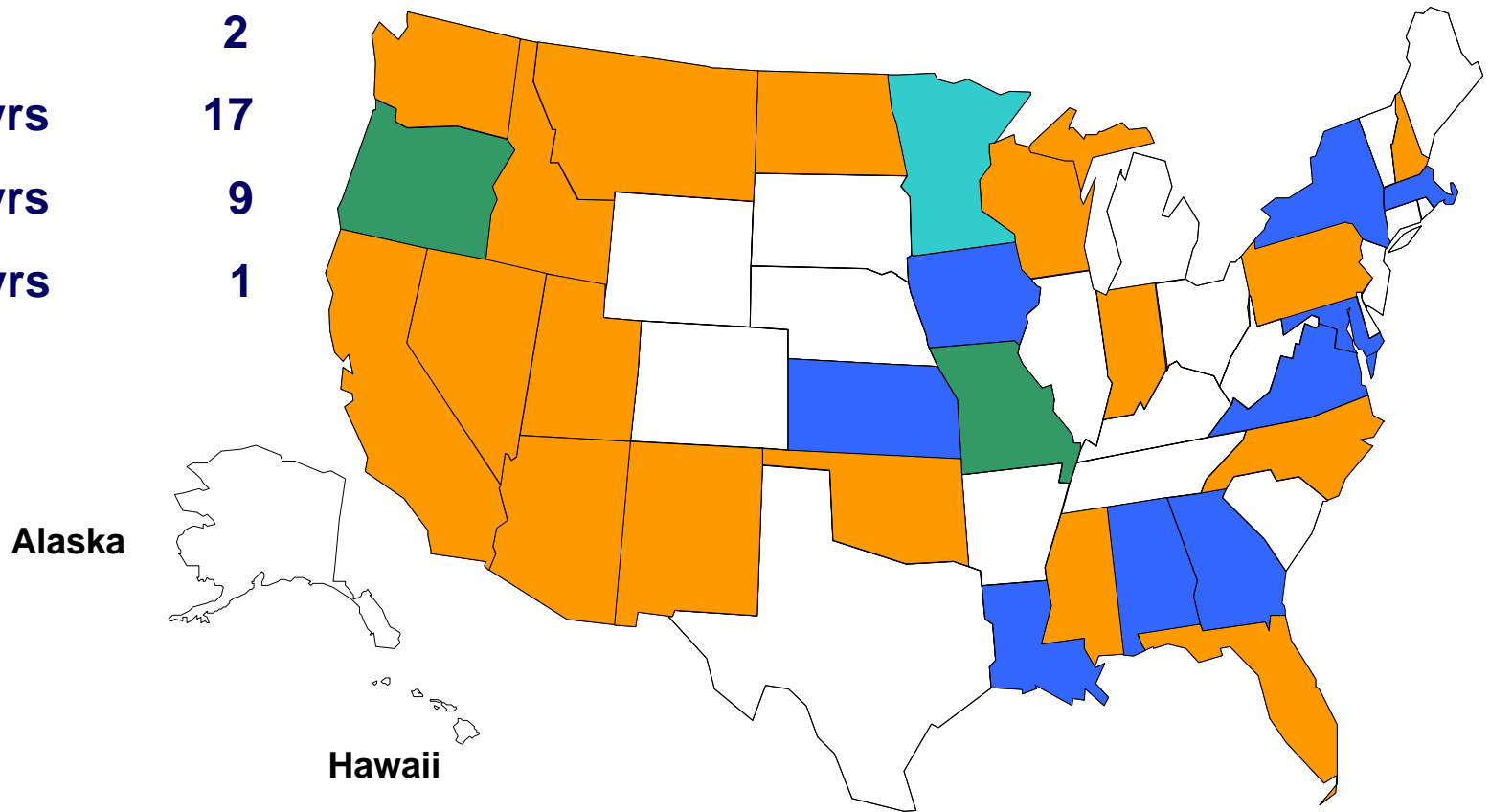
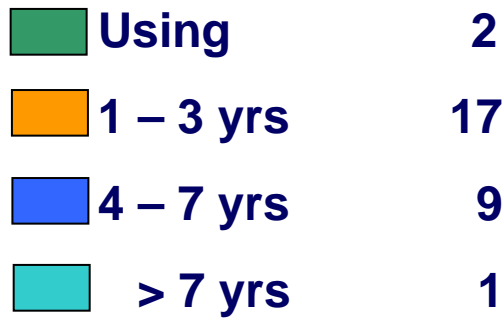
Hawaii

Timeframe for Implementation

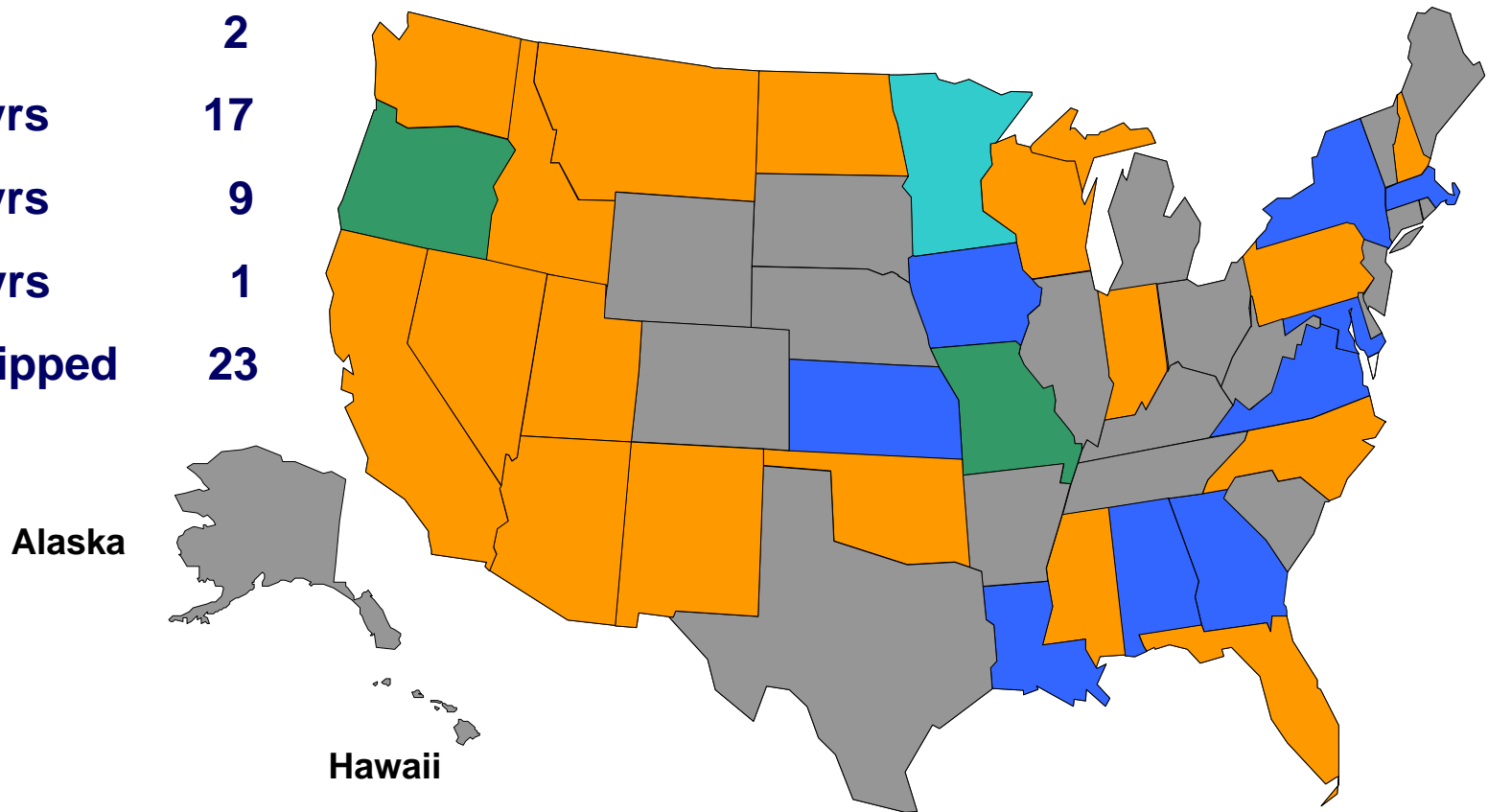
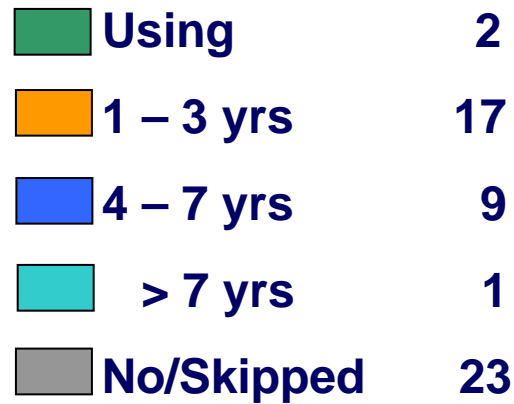
	Using	2
	1 – 3 yrs	17
	4 – 7 yrs	9



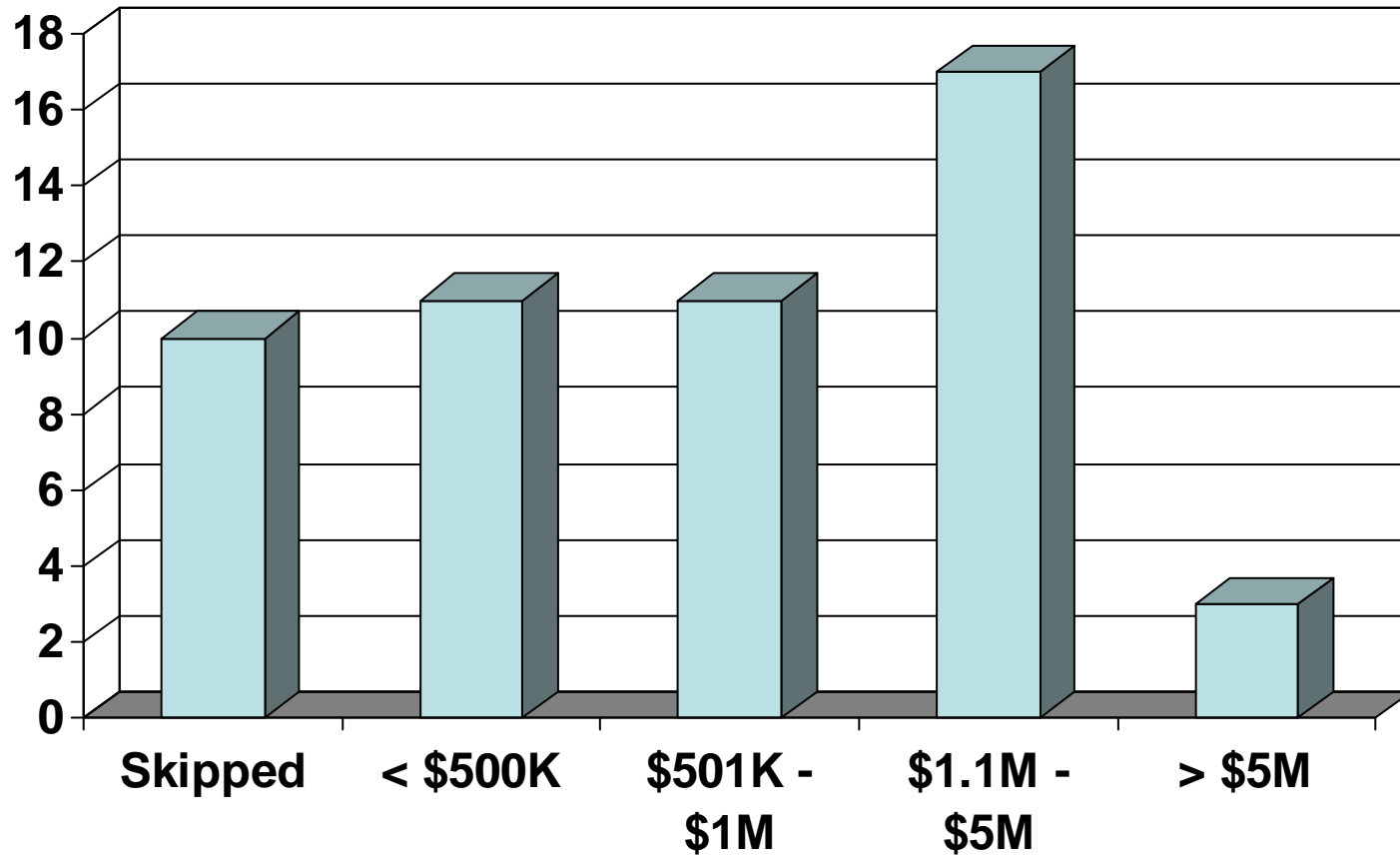
Timeframe for Implementation



Timeframe for Implementation



Anticipated Funding for MEPDG



States Implementation Needs

- Training
- Local Calibration Assistance
- Technical Assistance
- ???

Future Implementation Activities

Support MEPDG State and Regional Research

- Sensitivity Analysis, share results on website
- Local Calibration, Monitored Test Sections
- Encourage Materials Testing for Level 1 inputs
- Pool Fund Studies

Facilitate Regional Activities

- ETG/User Groups
- Regional Calibration Efforts??
- Increased weather data
- Clearinghouse for State Implementation Activities
- Design Guide Catalogs??

DGIT Contact Info



dgит@dot.gov

www.fhwa.dot.gov/pavement/dgit/index.cfm