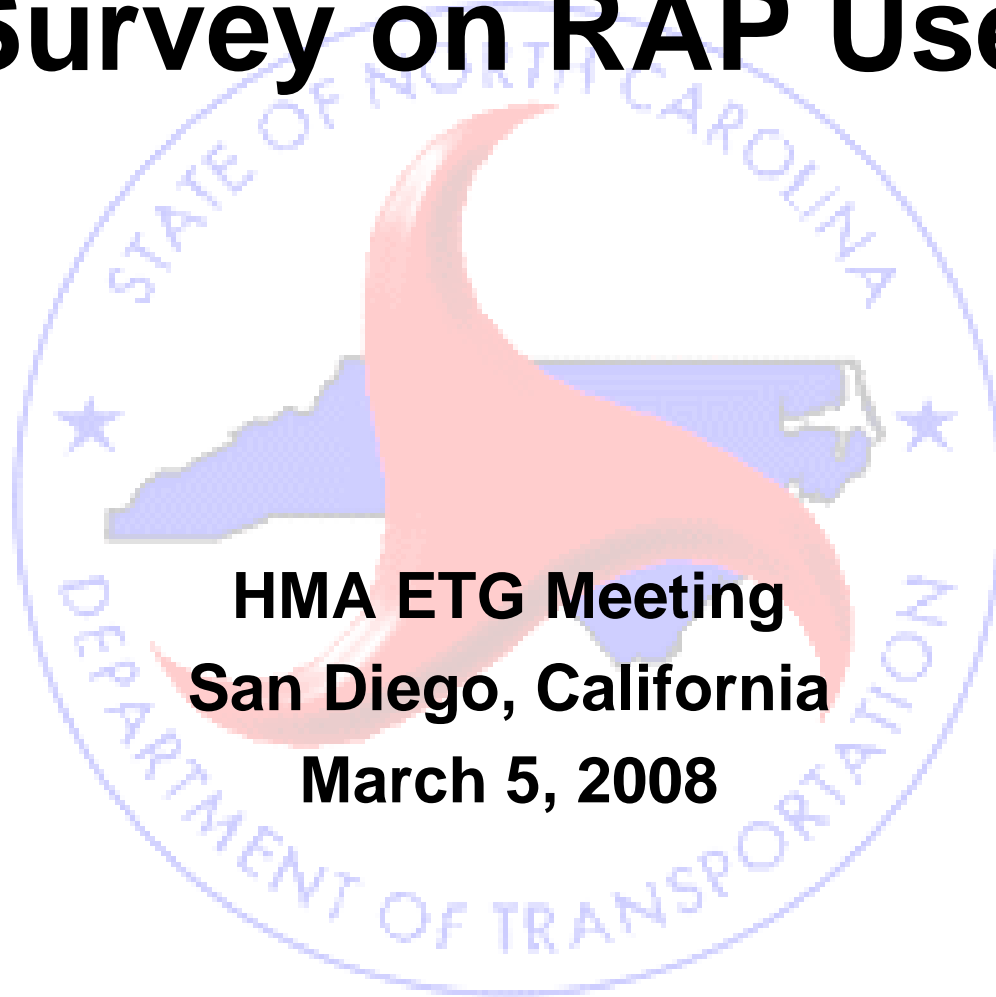


Survey on RAP Use



**HMA ETG Meeting
San Diego, California
March 5, 2008**

Survey Results

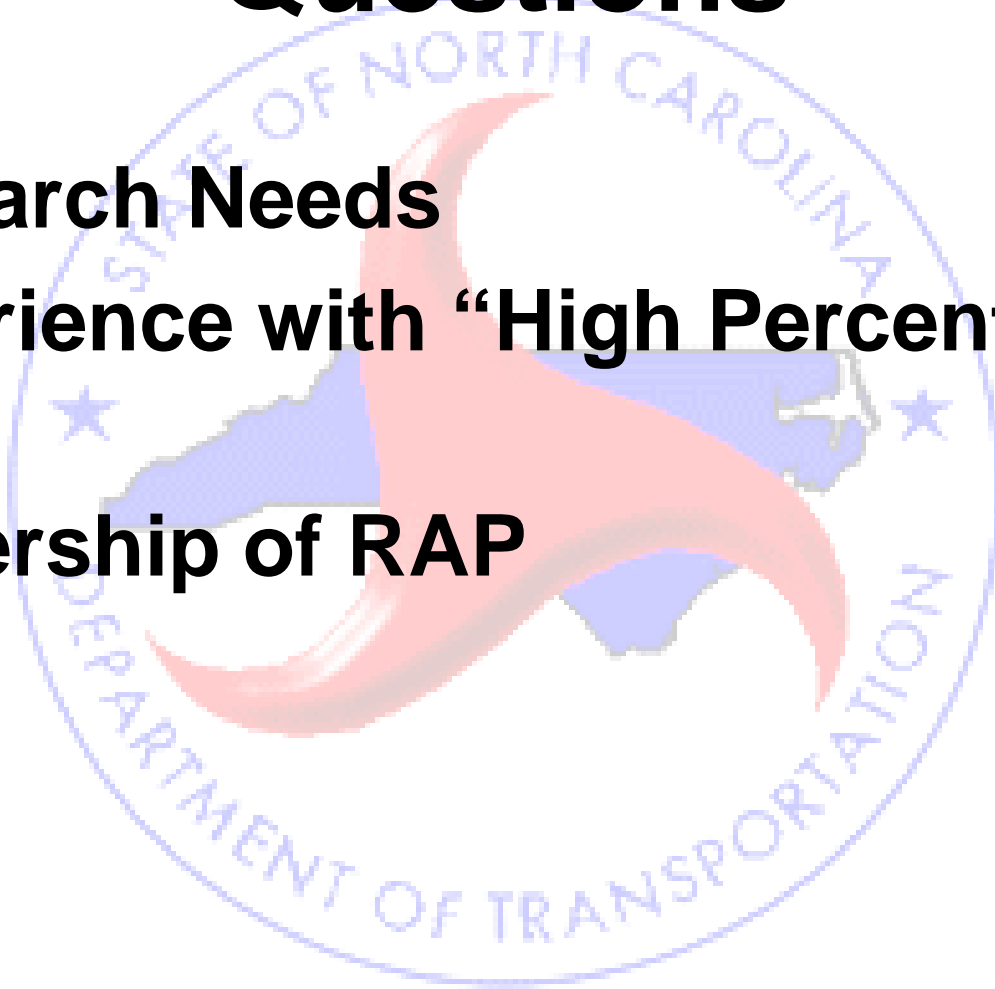
- **51 Responses (Including Ontario)**
- **Data as of Mid 2007**
- **Dependent on Person Responding**
- **Good Baseline for ETG**

Questions

- **% RAP Allowed & Used**
 - Mix Type
 - Plant Type
- **Special Requirements**
- **Major Obstacles**
 - Specifications
 - Industry Use

Questions

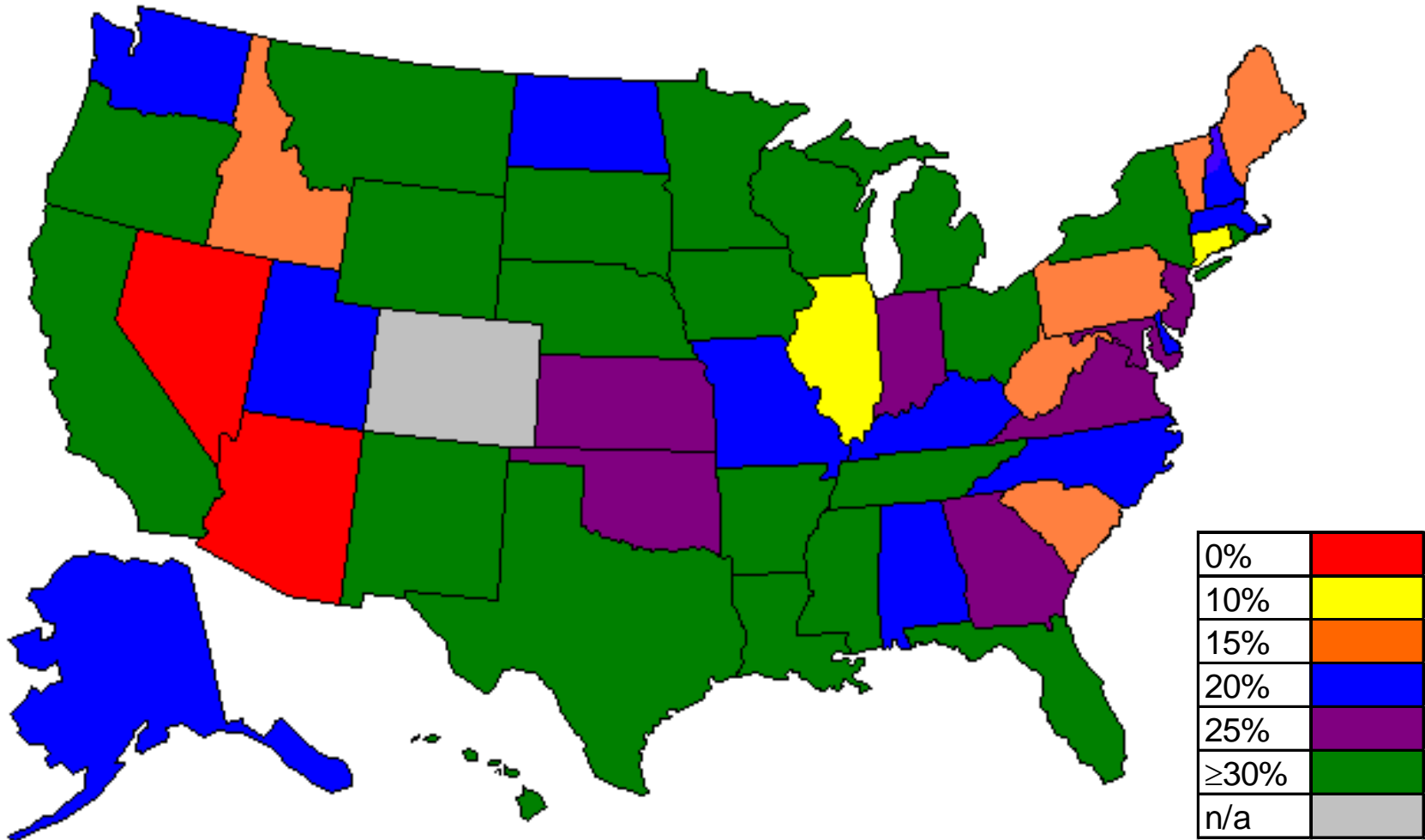
- **Research Needs**
- **Experience with “High Percentage” Use**
- **Ownership of RAP**



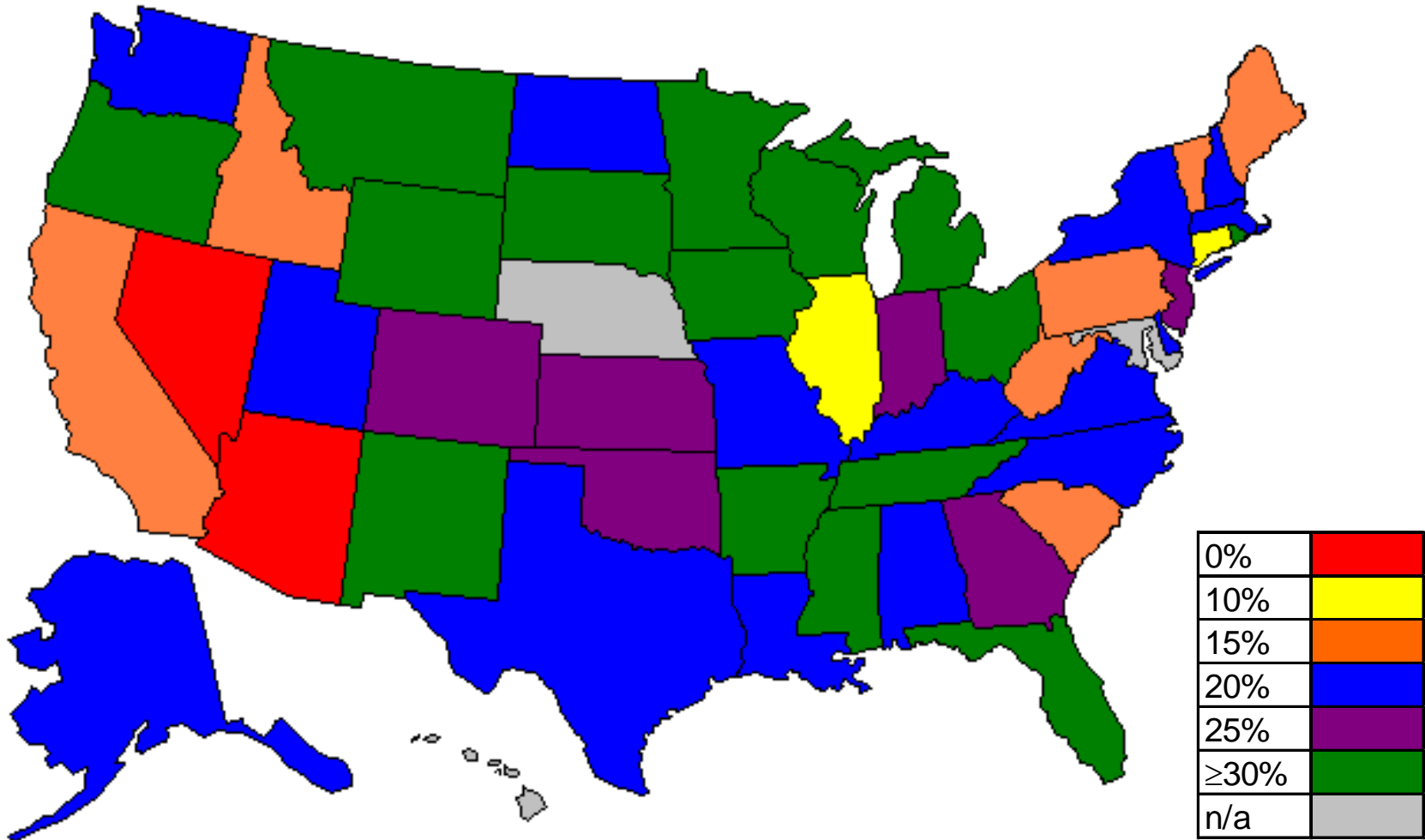
Findings

- **Most States Allowed RAP use**
- **Most Specifications Limited Practical Use of Higher Percentages**
- **Some Differences on Mix Type**
- **Few Limits Based on Plant Type**
 - **Georgia**
 - **Hawaii**
 - **Massachusetts**
 - **New Hampshire**
 - **South Carolina**

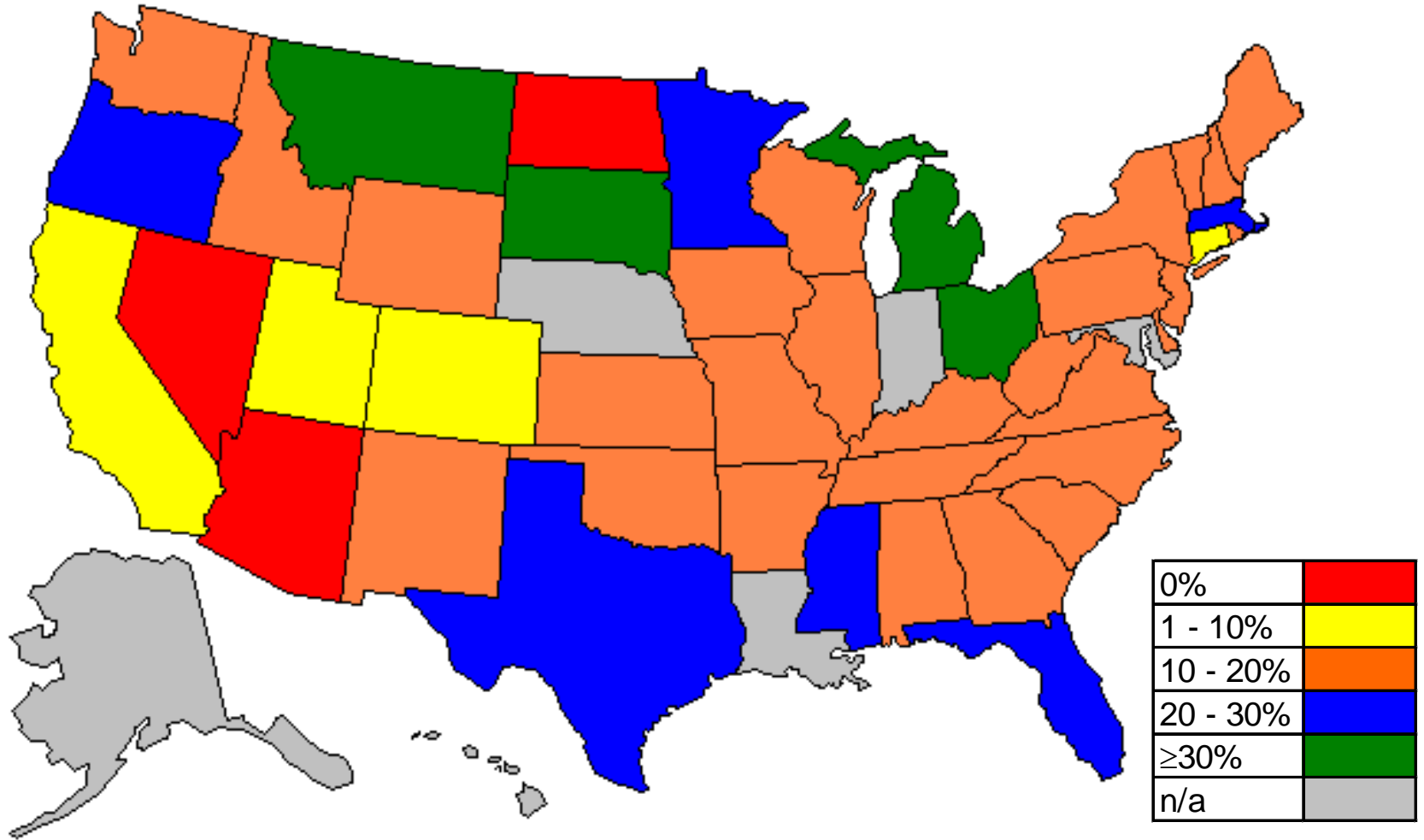
Base Mixes -- Specified



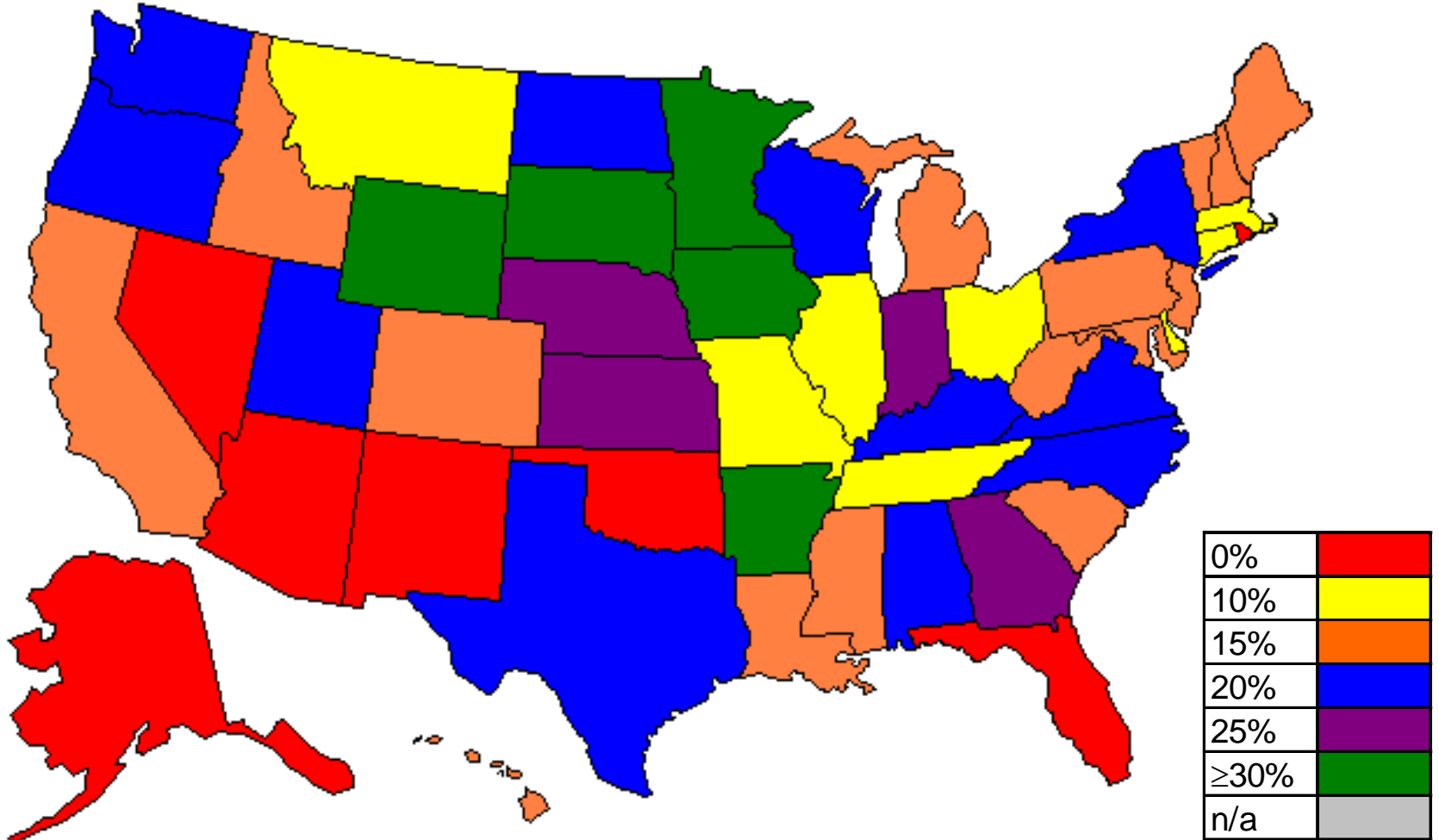
Intermediate Mixes -- Specified



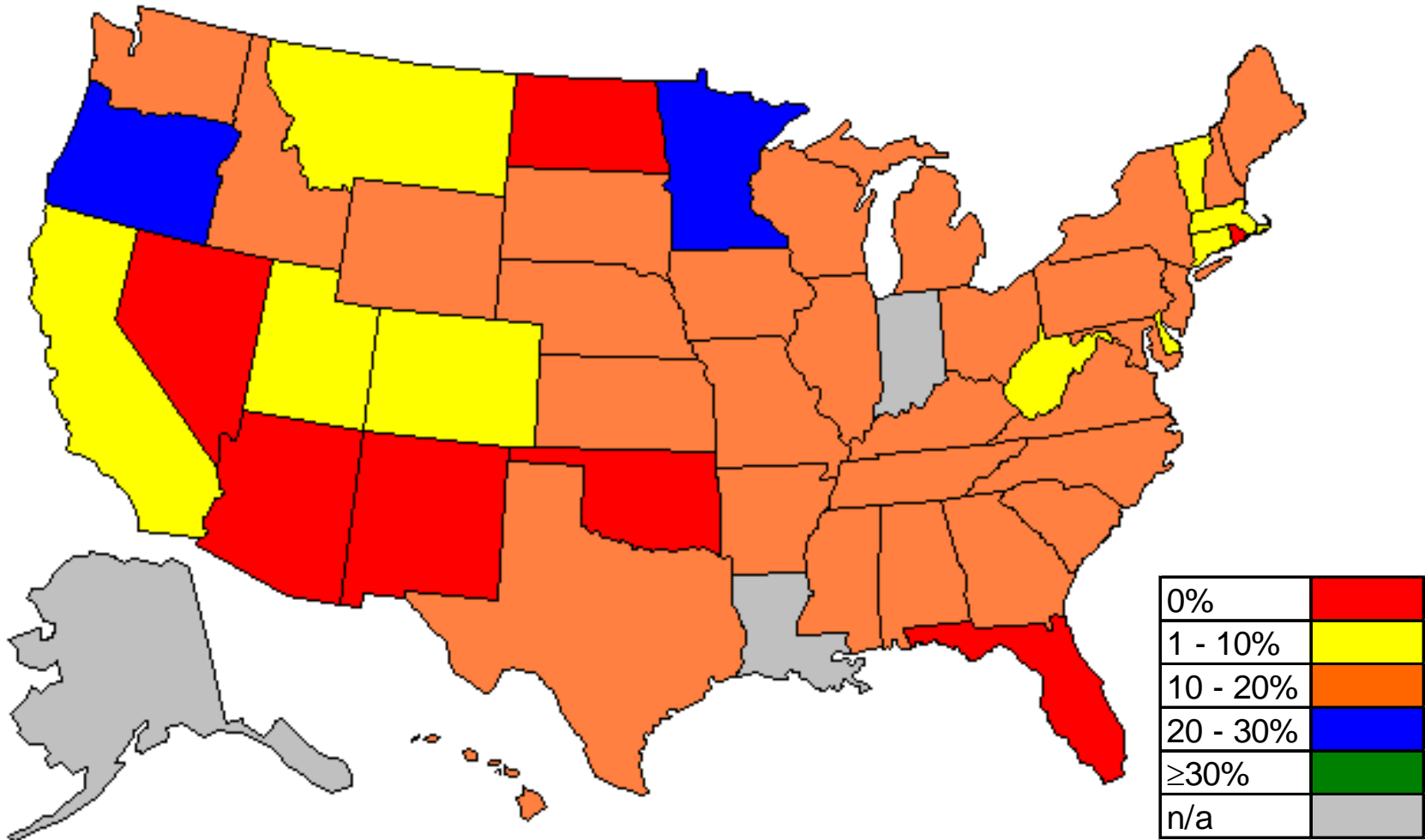
Intermediate Mixes -- Average Use



Surface Mixes -- Specified



Surface Mixes -- Average Use

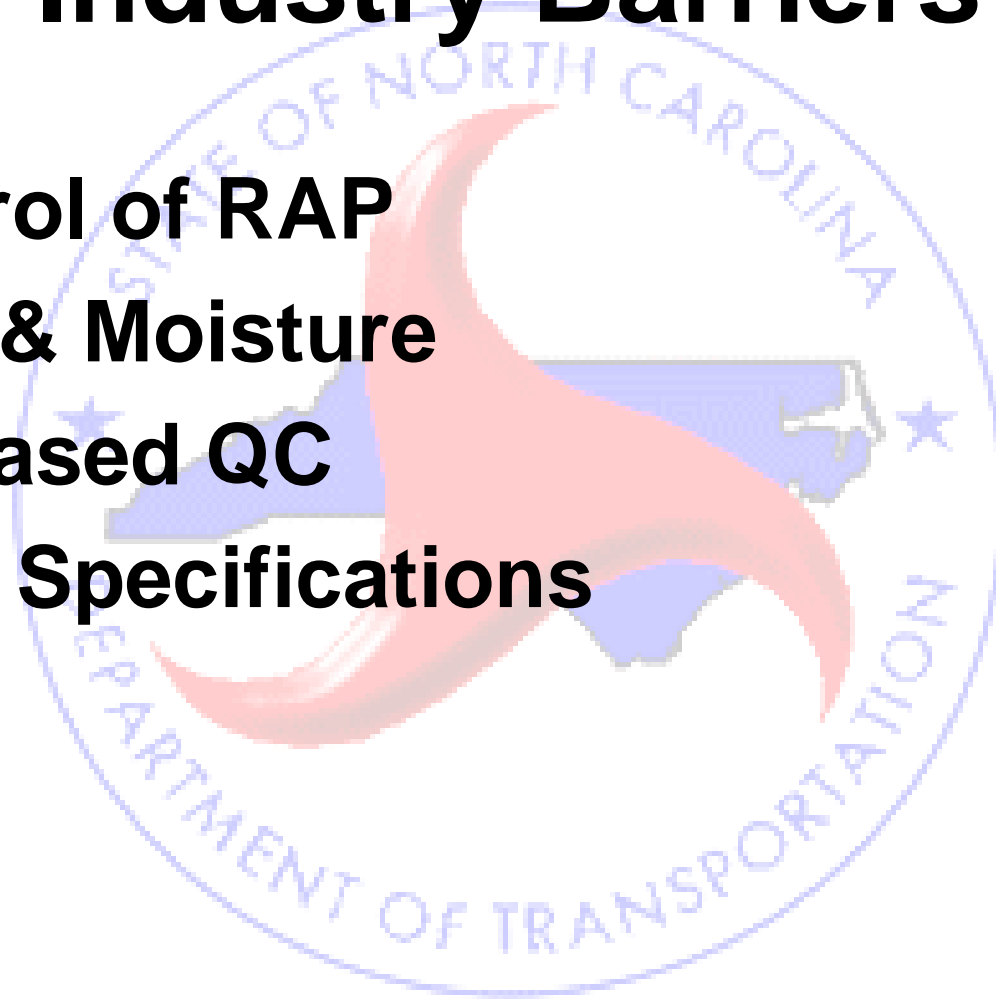


Specification Barriers

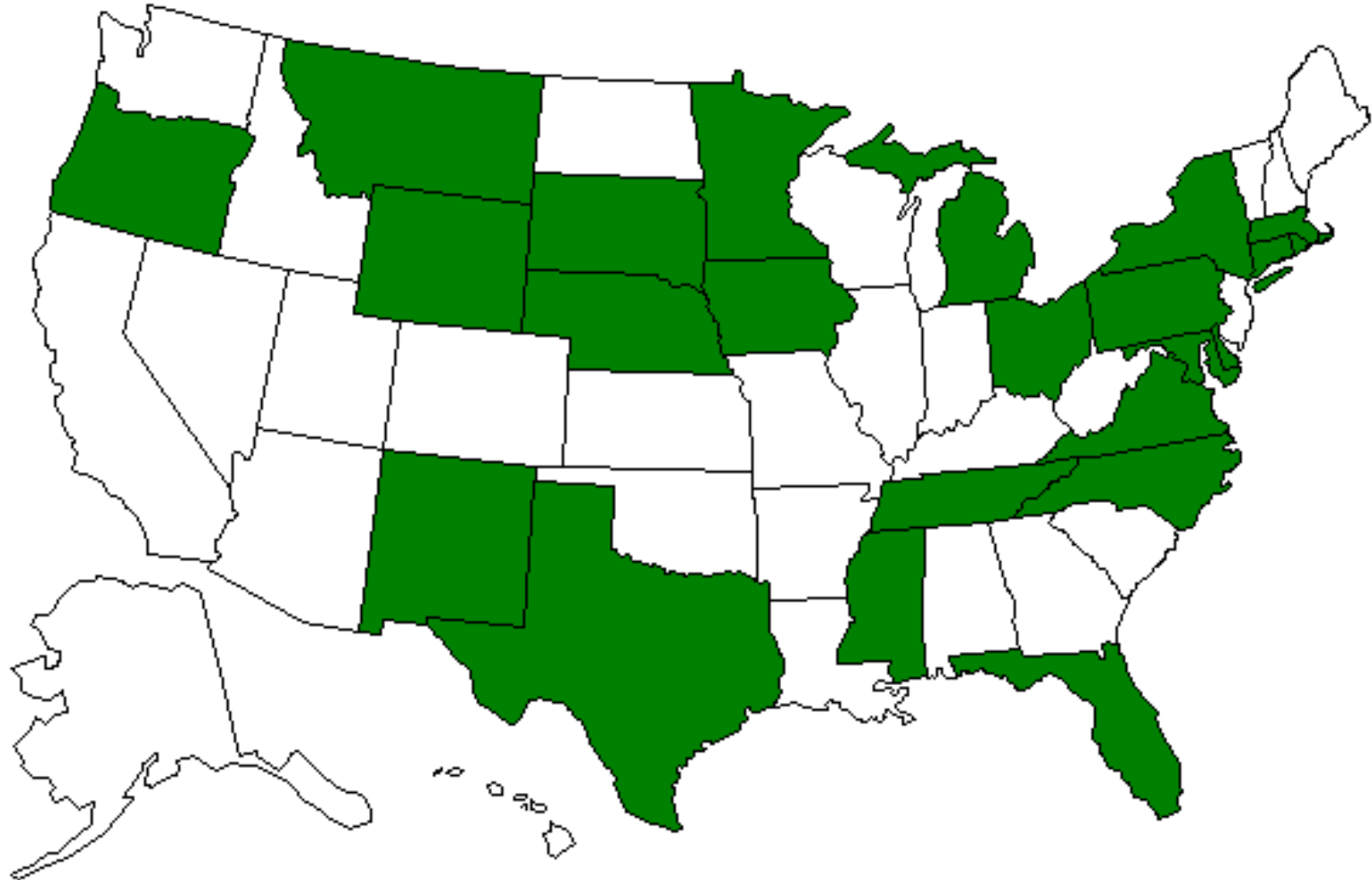
- **Quality Concerns**
- **Consistency of RAP**
- **Durability of Mixes**
- **Ability to Meet Volumetric Requirements**
- **Stiffness of Binder**
- **Use with Polymers**

Industry Barriers

- **Control of RAP**
- **Dust & Moisture**
- **Increased QC**
- **State Specifications**



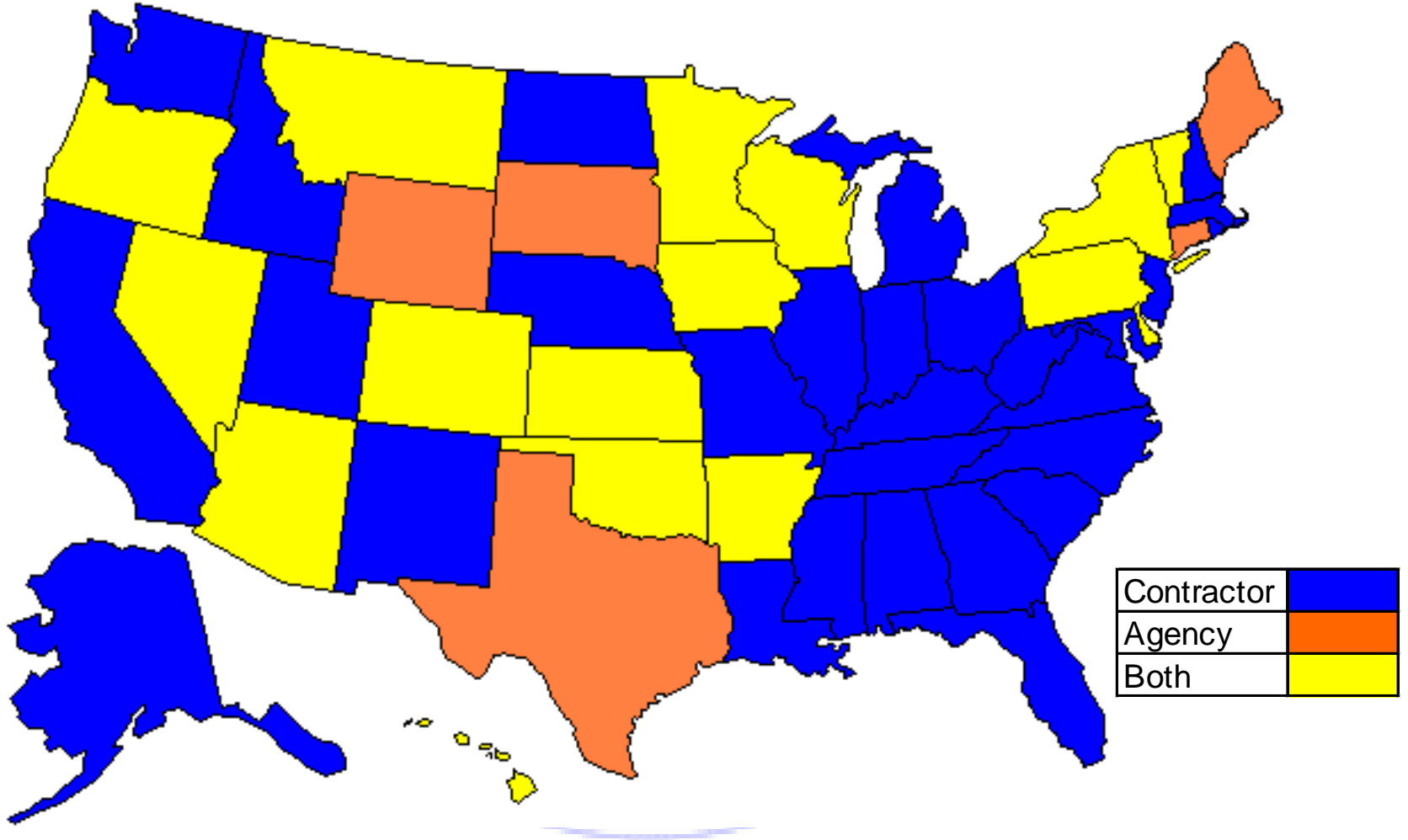
Recent Experience Utilizing >25% RAP



“High RAP” Experience

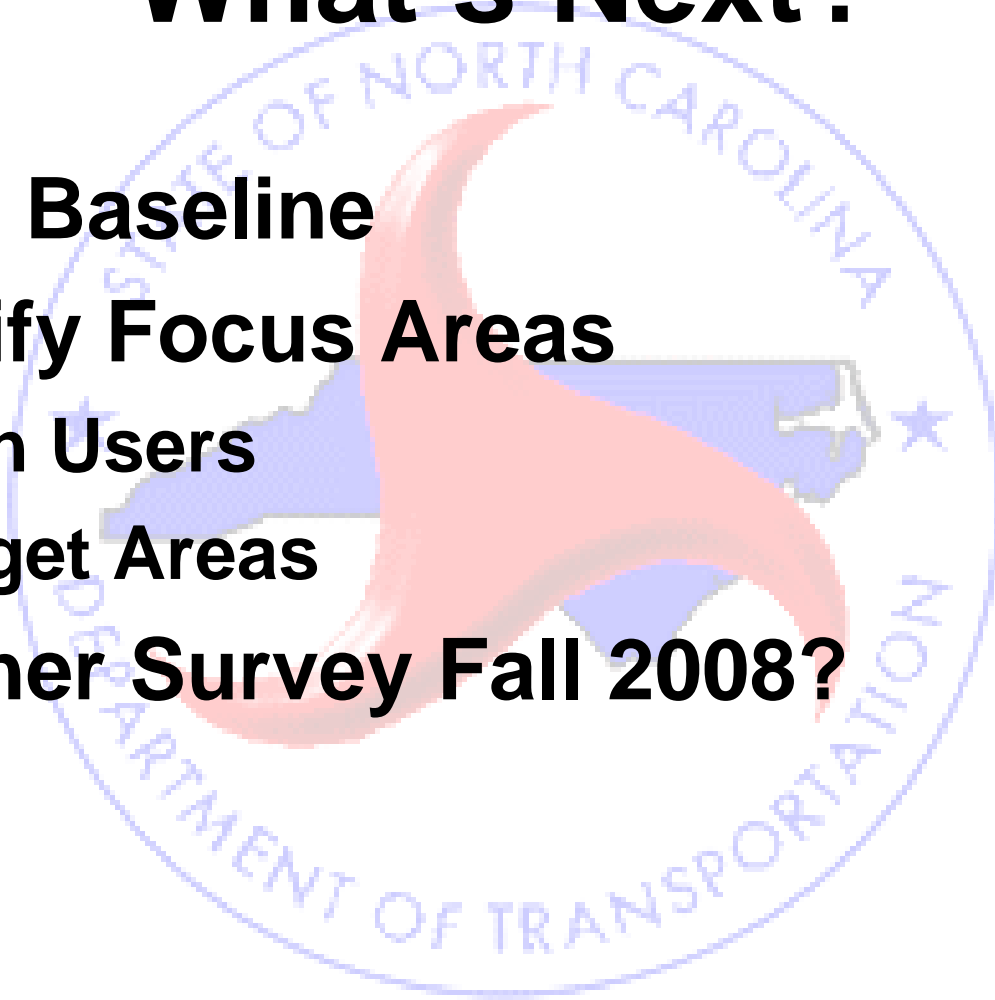
- **Limited Experience**
- **Some Restrictions on Mix Type**
 - **Base Courses More Common**
- **Responses Indicated Interest to Learn More**

Who Retains Ownership of RAP?



What's Next?

- **Good Baseline**
- **Identify Focus Areas**
 - **High Users**
 - **Target Areas**
- **Another Survey Fall 2008?**



Questions?

