



WASHINGTON STATE
COUNTY ROAD
ADMINISTRATION BOARD

Safer Roads Through Better Technology

Drew Woods, Deputy Director

Brian Bailey, Design Systems & UAV Program Manager

Mike Clark, Road Systems Inventory Manager

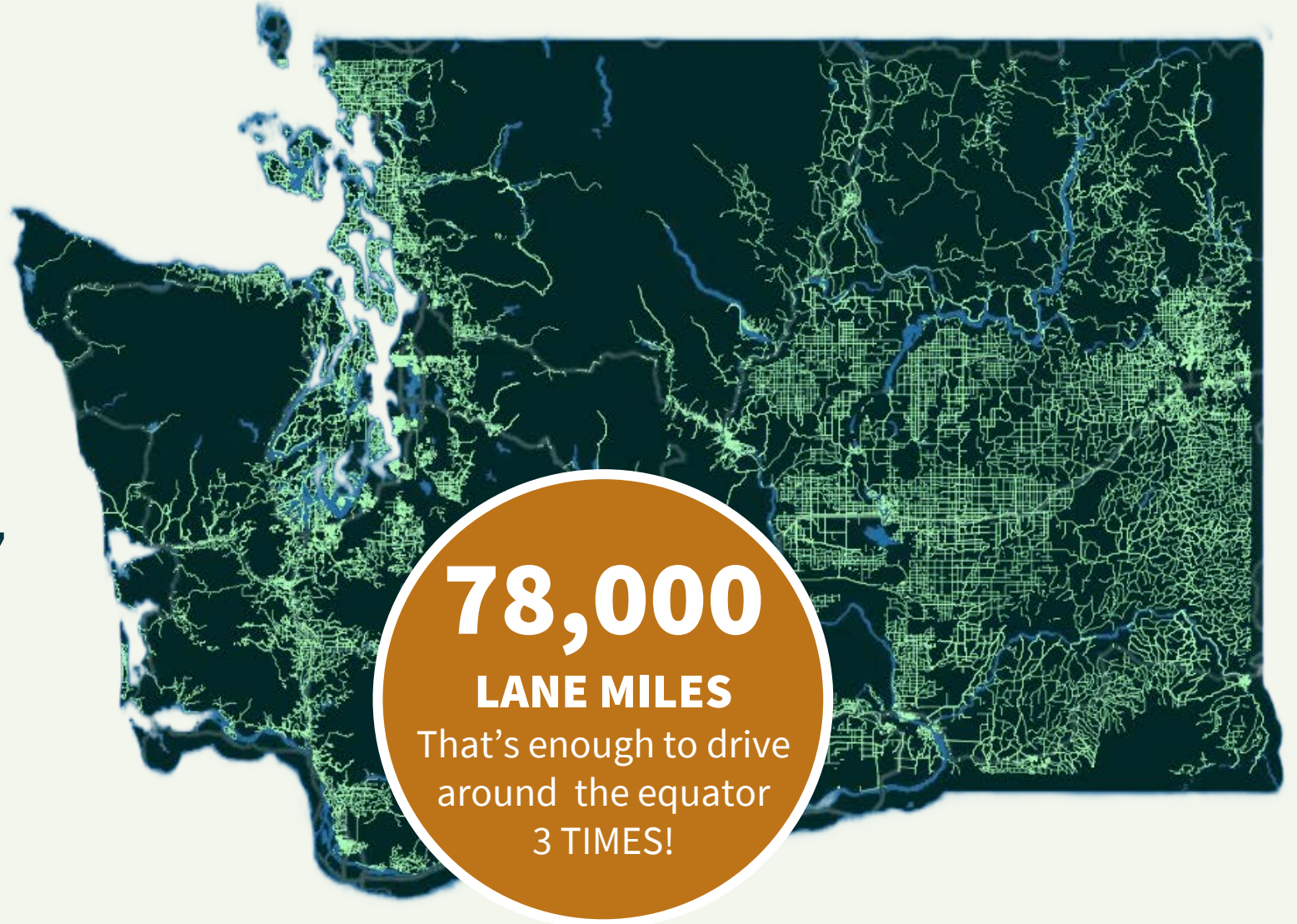
Bree Norlander, Data Quality Assurance and Analysis Manager

Eric Hagenlock, IT Director

Cameron Cole, GIS Manager

Counties are an Integral Part of WA's Transportation System

- County road departments are responsible for over **59%** of all public roads in Washington
- It is a **multi-faceted network** including bridges, ferries, sidewalks, bike lanes, streetlights and other infrastructure in a diverse range of rural and urban environments

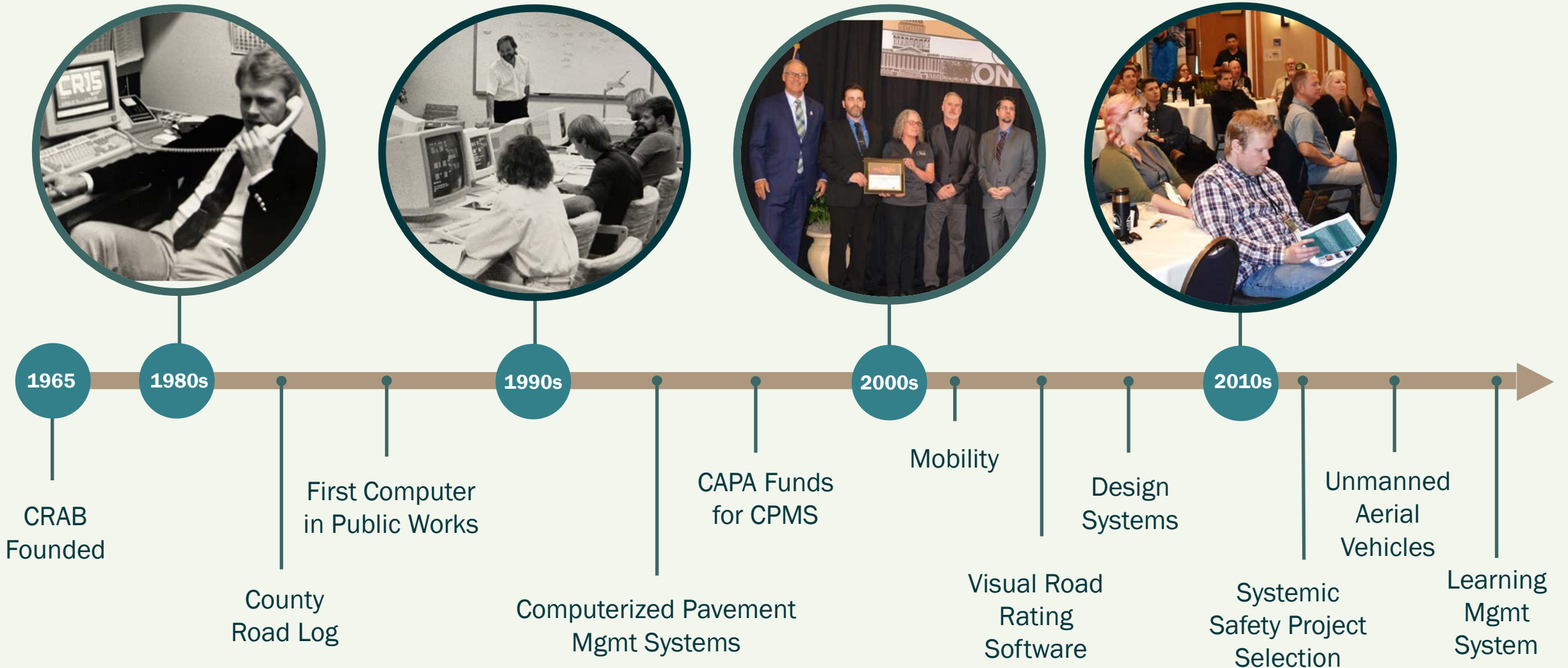


CRAB is an Integral Part of Counties' Success



- **CRAB ensures their success and accountability**, administers funding, collects and certifies statewide data and provides training to reach compliance requirements
- The 9-member board is supported by a staff of 18 highly experienced staff members

A Long History of Technological Innovation and Collaboration



Time for a Revolution! Implementing GIS-Mo

- We engaged with partners including WTSC, WSAC, WSACE, and WSDOT
- The goal was to develop a Transportation Asset Management System (TAMS) tool that would allow counties to perform asset management at a fraction of the cost
- Implementing a TAMS would cost a prohibitive \$1 million for a single county. **For \$1.1 million, CRAB was able to implement GIS-Mo for all 39 counties!**



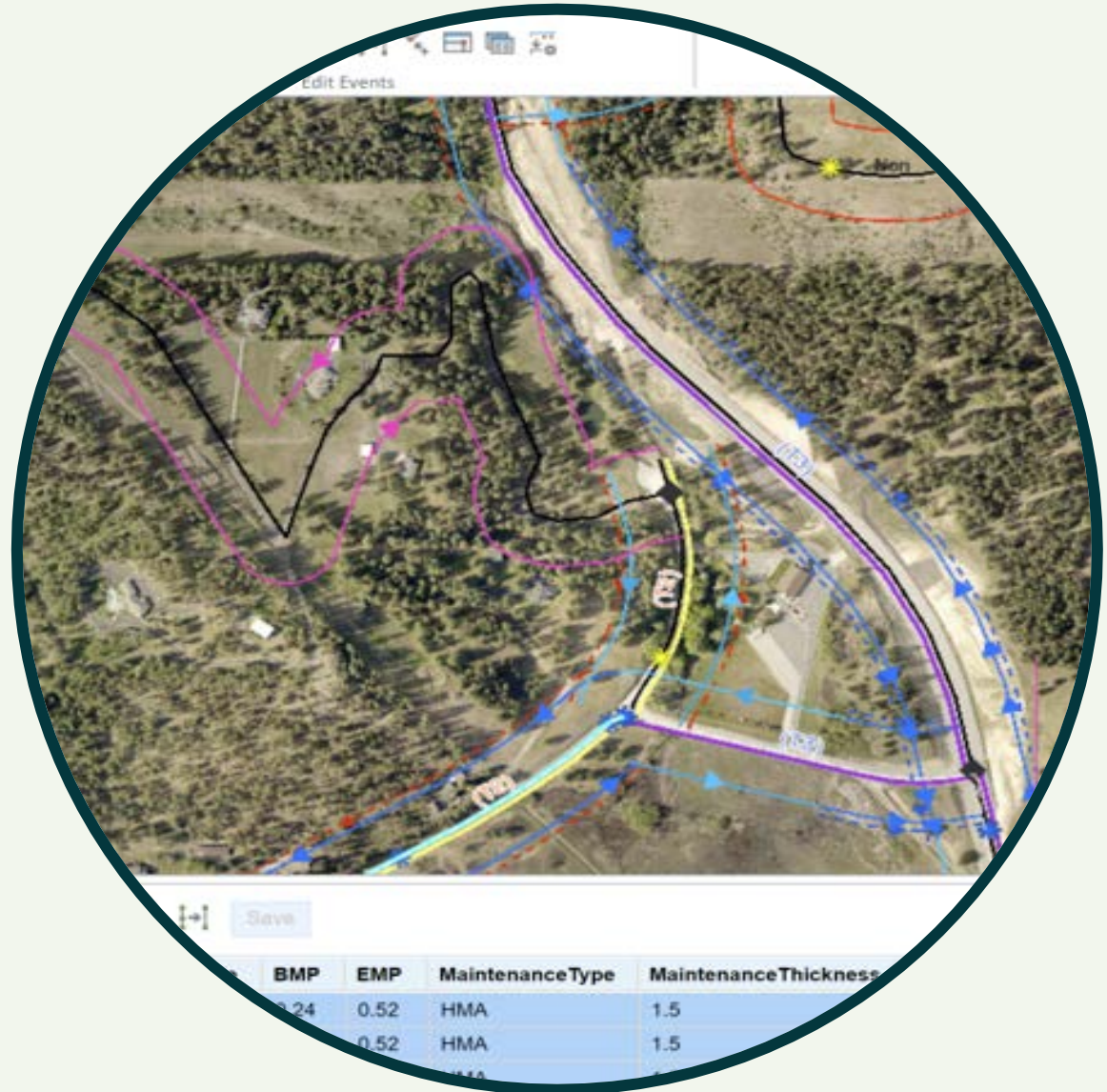
What is GIS-Mo?

- Nope, not this guy!
- GIS-Mo is a **cutting edge, map-based transportation asset management system**
- It is utilized by all 39 counties in Washington State



What is GIS-Mo?

- Map Centric



What is GIS-Mo?

- Map Centric
- **Mobile**



What is GIS-Mo?

- Map Centric
- Mobile
- Dynamic

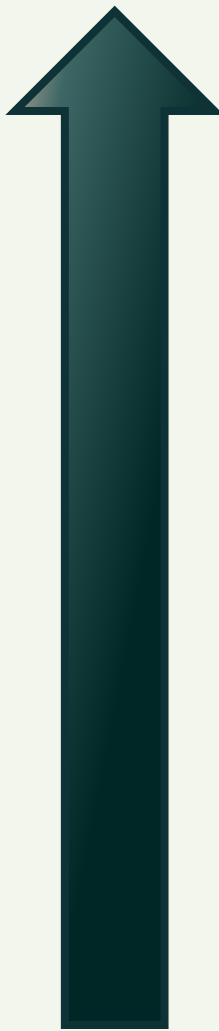


Why is GIS-Mo Important?

- It Provides an Organized, Uniform Model of Data Collection
- It is Compliant with FHWA's Model Roadway Inventory Elements (MIRE) Requirements
- It Represents Authoritative Data
- It is an Innovative Technology



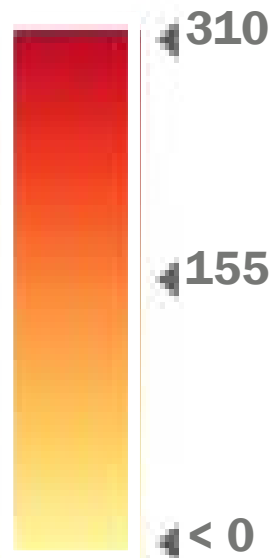
Who Benefits from GIS-Mo? Everyone from the Bottom on Up



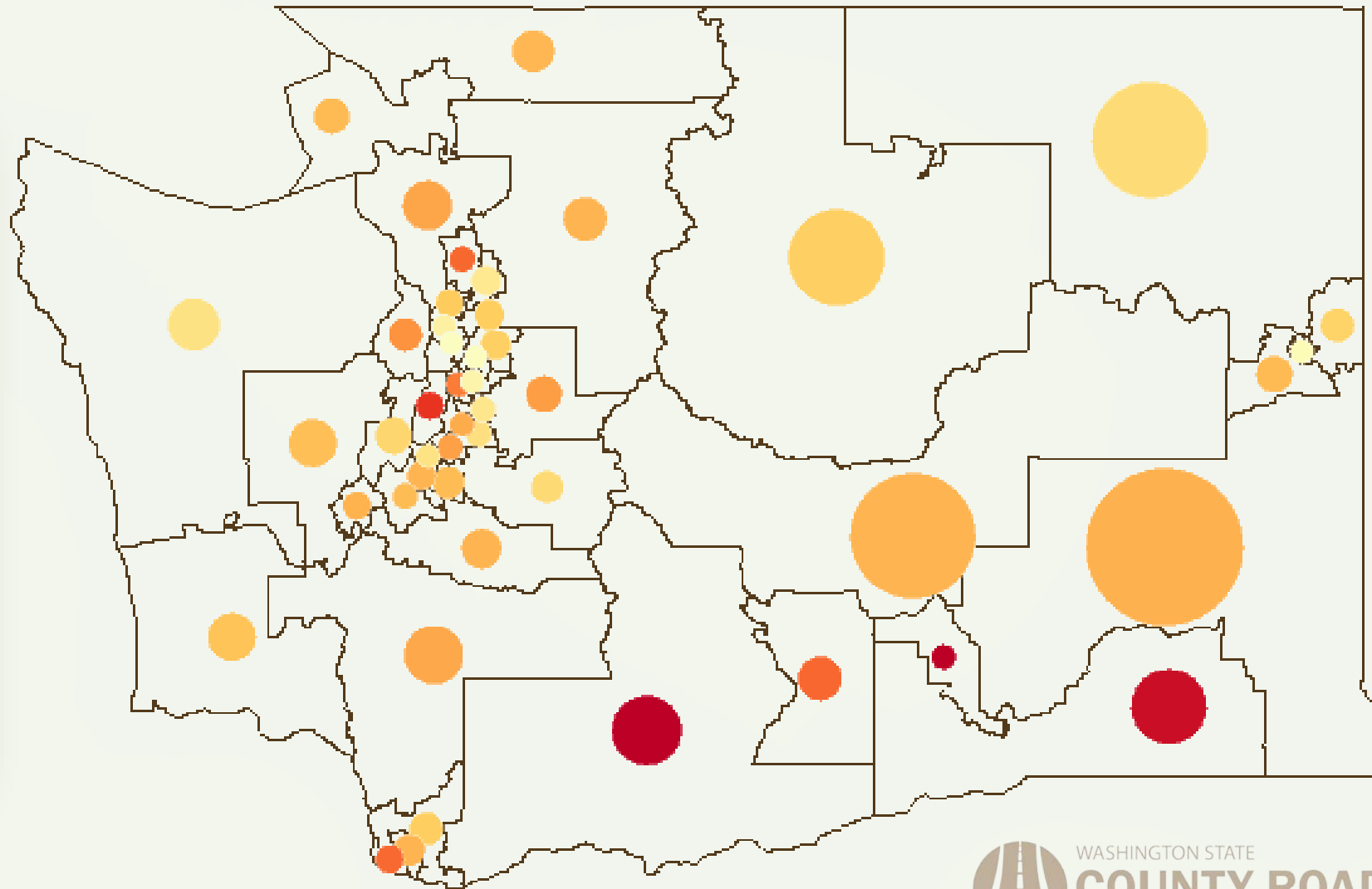
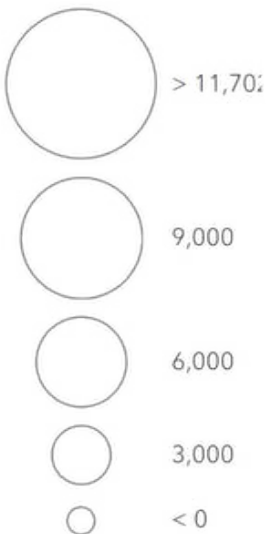
LEGISLATURE	Macro Level Data-Driven Decisions	Federally Compliant Maps (MIRE)	Data Accuracy	Maps Like <u>This</u>!
STATE AGENCIES	Authoritative Data	Integrated Data with State	No Duplicate Data Entry	Data Sharing
COUNTIES	Micro Level Data-Driven Decisions	Integrated Data with GIS-Mo	ROI from Software	Constituents

GIS-Mo in Action: Serious Injury/Fatality Collisions by District

ACCIDENTS
PER HUNDRED MILLION
VEHICLE MILES TRAVELED
(APHMVMT)



COUNTY LANE MILES



GIS-Mo in Action: Serious Injury/Fatality Collisions by District

WA STATE LEGISLATIVE DISTRICT 14

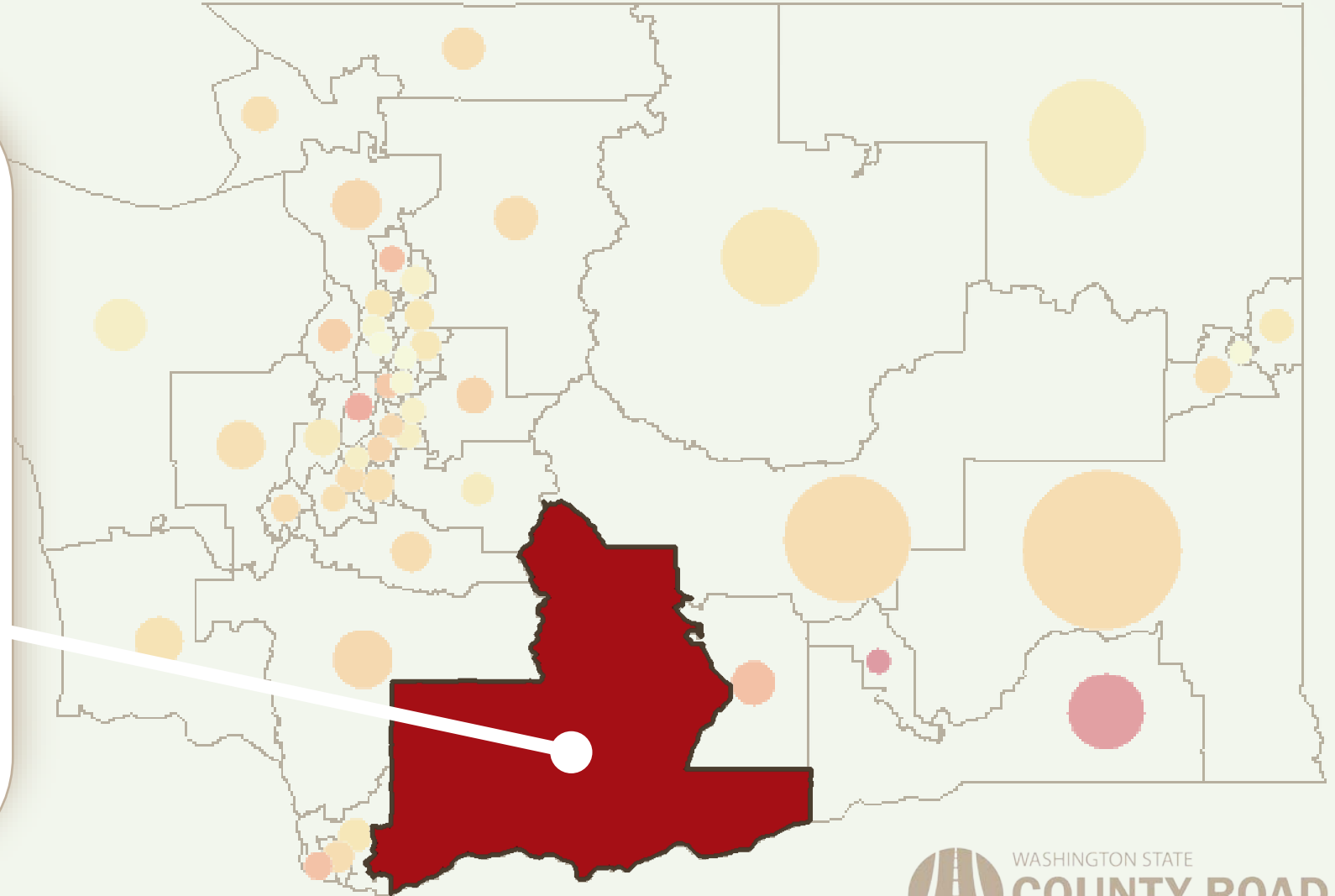
4,054 County Lane Miles

1,385 Collisions

465 Serious Injuries

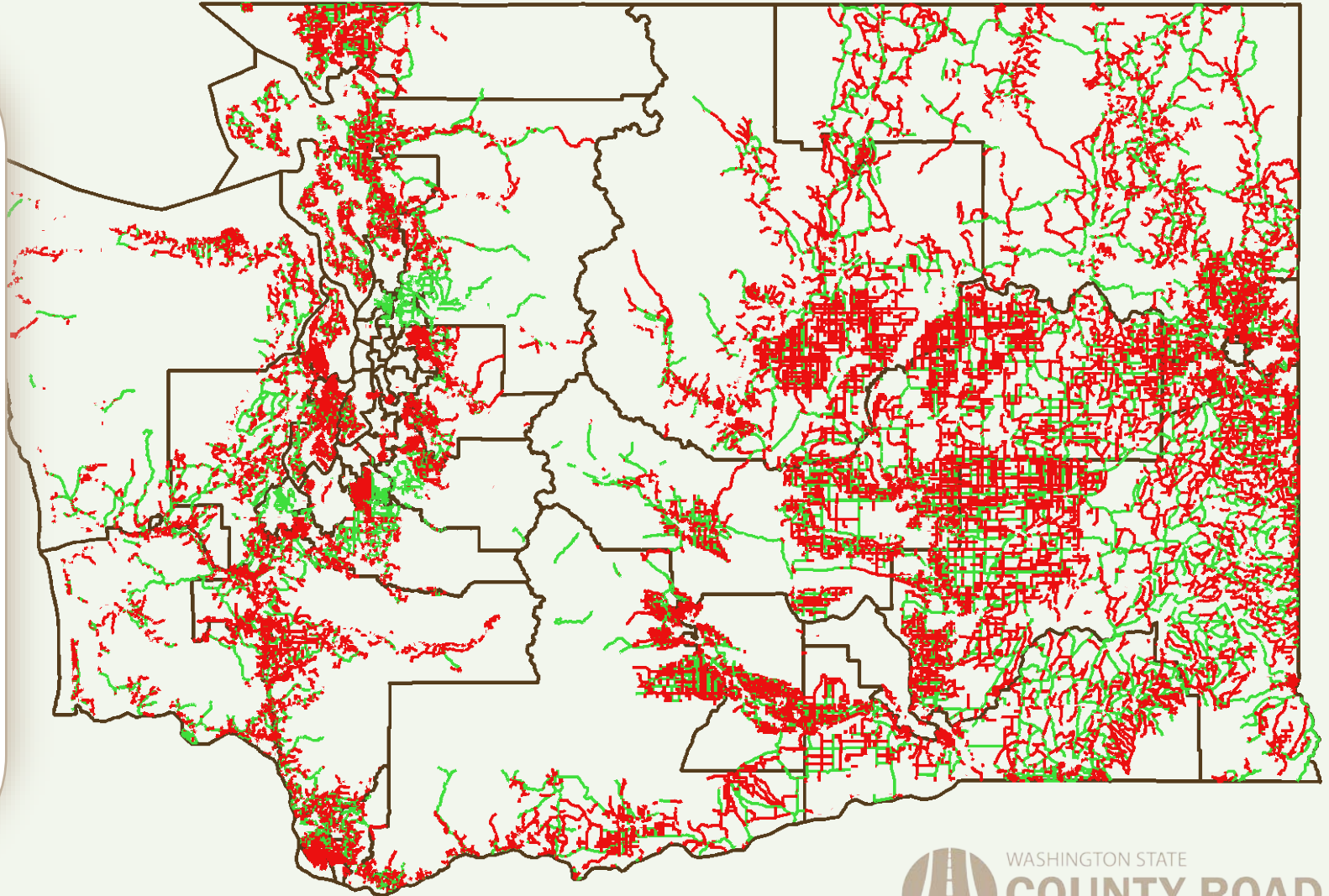
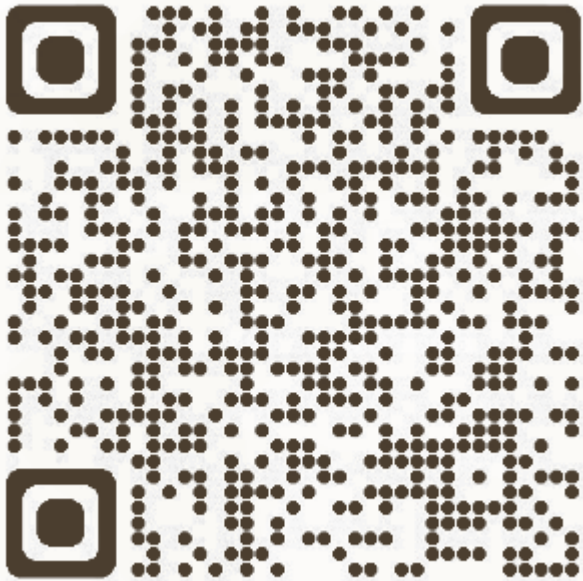
32 Fatalities

375 APHMOVMT



What Does the Data Look Like in YOUR District?

**CHECK OUT OUR
INTERACTIVE DASHBOARD
TO TAKE A LOOK!**



The Problem?

- **Organization Change:
Replaced 20-Year-Old
System**
- **Garbage-in, Garbage-out:
Completeness,
Timeliness, Accuracy, and
Uniformity**



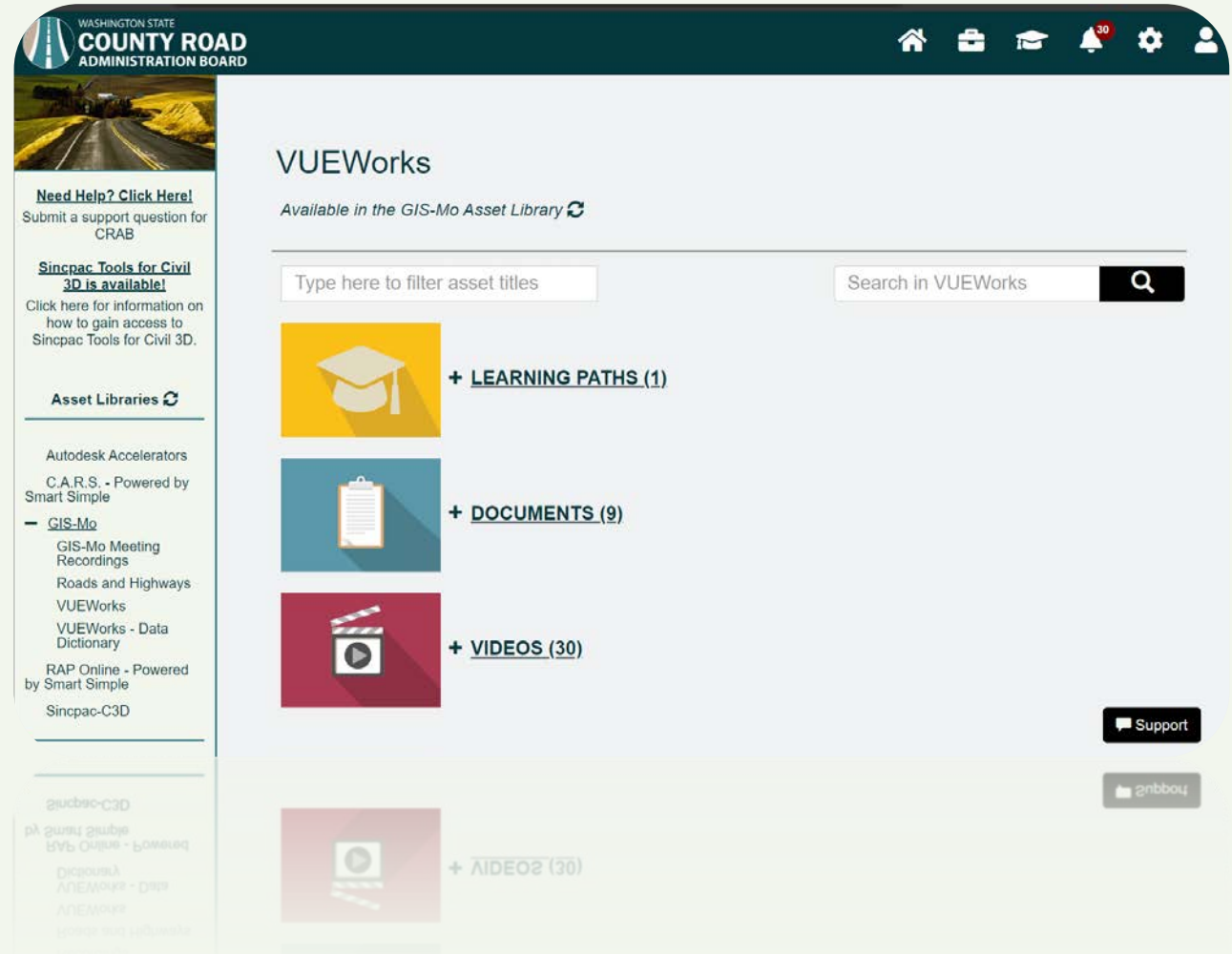
Primary: **Roadway**

Integrated: **Crash, Driver, Vehicle,
Citation, Injury (CLAS)**

WTSC TRGC Grant Project

The Solution?

- **Expand Our Training Programs**
- **Vendor Expert Developed Content for VWs & ESRI**
- **Self-Paced Online Content via Pinnalce LMS**
 - Implemented during COVID with WTSC Grant
 - Unlimited Custom Content Hosting
- **Formal Curriculum for Interactive In-Person and Virtual Training**



WTSC TRGC Grant Project

The Result?

All Content Customized for County Roads

- 10 VUEWorks Manuals
- 10 VUEWorks Instructional Videos
- 2 Learning Paths (ESRI Roads & Highways & VUEWorks Reporting)
- Content Published for Consistency and Effectiveness by IMAGINiT

The screenshot shows the 'VUEWorks - Reporting' learning path page. The header includes the Washington State County Road Administration Board logo and navigation icons. The page title is 'VUEWorks - Reporting' with a subtitle '+0 VUEWorks' and a publication date of 6/4/2024. An 'Enroll in All' button is in the top right. The main content area is titled 'Welcome to the VUEWorks Reporting Learning Path' and explains that the path contains courses for preparing reports. It lists 'Overall Learning Objectives' (prepare detailed reports) and 'Courses' (Reporting and Advanced Dynamic Reports). A 'Learning Path Prerequisites' section shows 'None'. The 'Approximate Duration' is 90 min. A 'Show Less...' link is at the bottom. Below the main content is a 'COURSES' section with three course cards: 'Reporting Introduction' (with 'Drop Enrollment' and 'Go to Course' buttons), 'Dynamic Report Data Sources' (with an 'Enroll' button), and 'Advanced Dynamic Reports' (with 'Drop Enrollment', 'Go to Course', and 'Support' buttons). 'Expand All' and 'Collapse All' links are at the top right of the courses section.

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More ▾

VUEWorks - Reporting

+0 VUEWorks

Published by Brian Bailey on 6/4/2024

3 Courses

Enroll in All

Welcome to the VUEWorks Reporting Learning Path

This Learning Path contains courses that will teach you how to prepare reports through VUEWorks.

Each course can be taken individually or in the sequence presented.

Overall Learning Objectives

Upon completion, you will be able to:

- Prepare detailed reports for assets and Work Orders.

Courses

Enrolling in the Learning Path will add the following courses to your *Current Enrollments* list:

- Reporting
 - Reports Manager
 - Traditional Reports
 - Dynamic Reports
- Advanced Dynamic Reports
 - Road Rating Status
 - Road Rating Status Variable & Sum Function
 - Calculated Fields

Learning Path Prerequisites

- None

Approximate Duration
90 min

Show Less...

COURSES

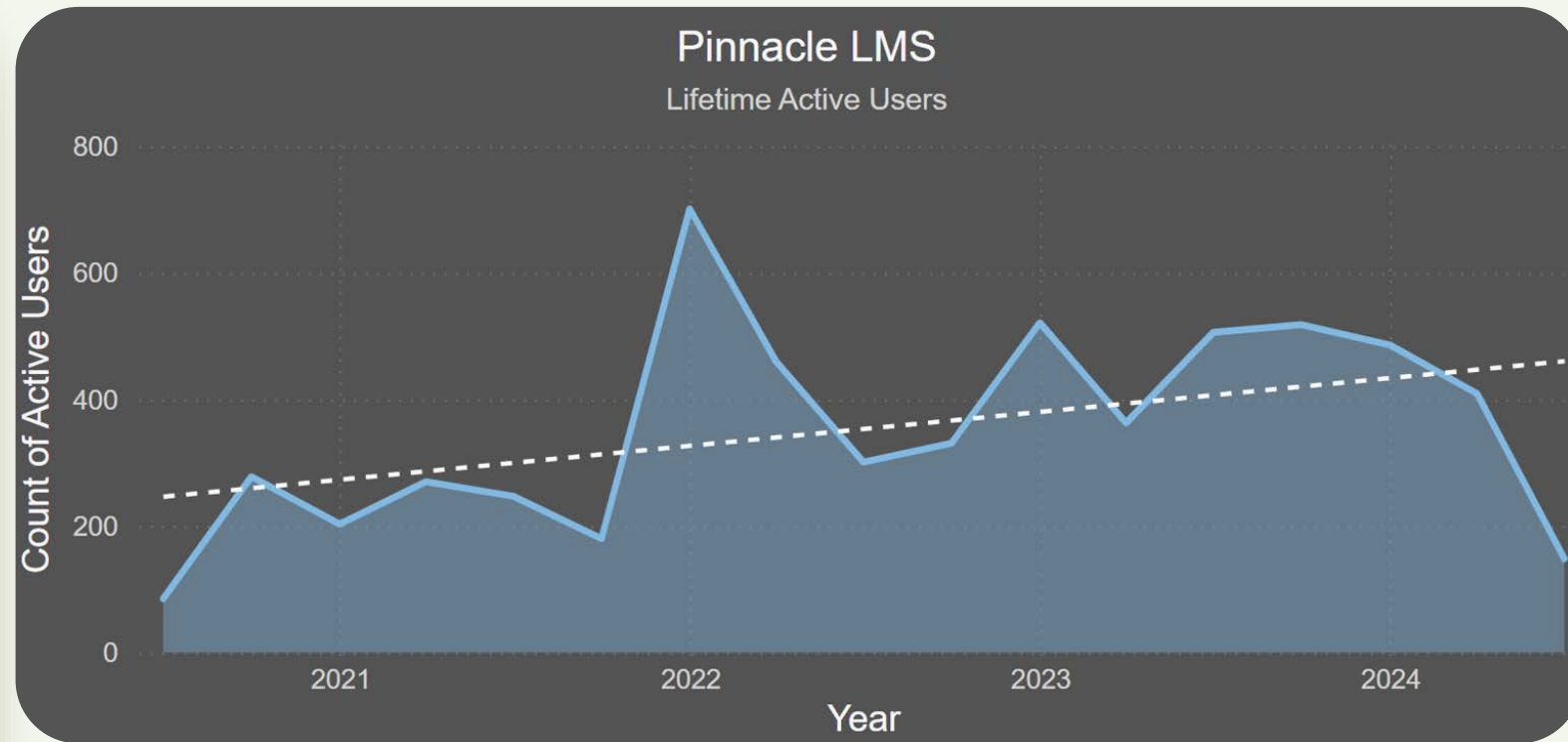
Expand All Collapse All

- + Reporting Introduction
 - Drop Enrollment
 - Go to Course
- + Dynamic Report Data Sources
 - Enroll
- + Advanced Dynamic Reports
 - Drop Enrollment
 - Go to Course
 - Support

Pinnacle Series Learning Management System

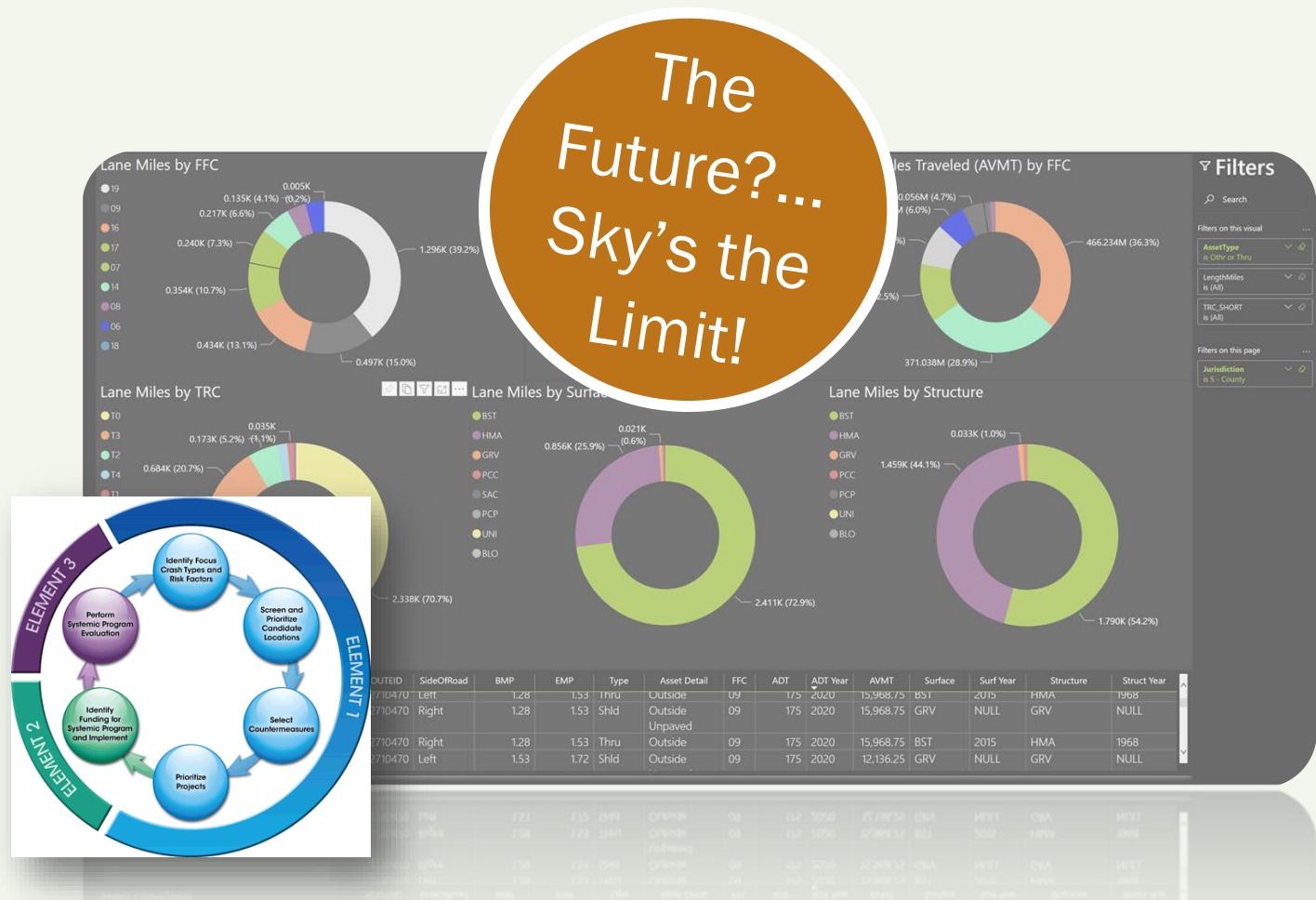
Pinnacle Series LMS

- **Consistent Usage in Lifetime Reporting w/Spike when New GIS-Mo Added**



The Future of County Roadway Traffic Safety Data

- 100% MIRE FDE Completeness by 2026
 - *MIRE 2.1 New August 2024!*
 - *County Road Dashboards Coming Soon!*
- GIS to GIS CLAS Integration
- HPMS and LAPR Integration
- Artificial Intelligence / Machine Learning for FHWA System Safety Project Selection Tool (or similar)
- Traffic Volume Data Provider Integration (VMT & APMVM)





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