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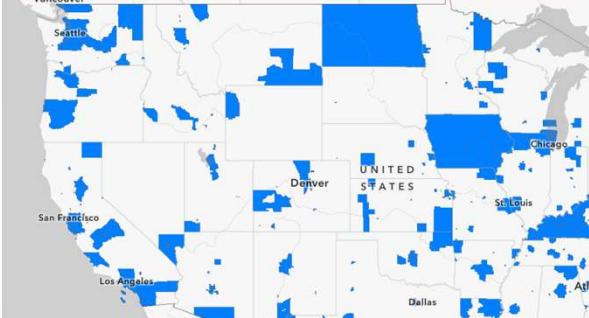


Delivering 97 Individualized Safety Action Plans

Iowa Transportation Conference
August 27, 2026



Safe Streets and Roads for All (SS4A) FY22 Grant Awards



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We got funds, but how will we do it?!

- SS4A Grant Awarded to ICEA (the Iowa County Engineers Association)
 - 2022 application cycle (award announced in January 2023)
 - State match assistance: \$500k



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The Mission:



Develop Individualized Safety Action Plans (SAPs) for 97 (of 99) Counties in Iowa

Why? SAPs can be used as the “Action Plan” component in a SS4A Implementation Grant

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What is a SAP?

- Over half the serious injuries and fatalities occur on the local system
- County roads are less forgiving
 - Narrow pavement, steep side slopes, less clear zone
- Individualized plan tailored to each county (or city)
- Assesses crash risk on paved roadways
 - Segments, curves, intersections
- Final result
 - Prioritized list of safety infrastructure projects
 - Recommended safety countermeasures

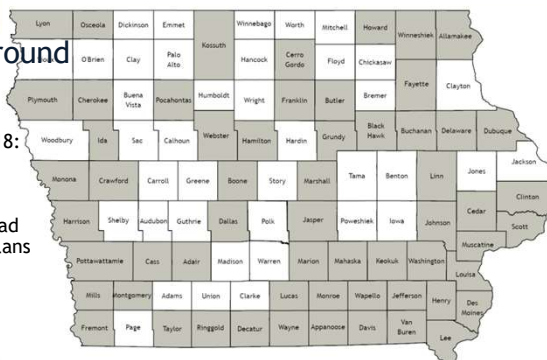
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A Multi-disciplinary Effort



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A map of Iowa showing all 99 counties. The counties are labeled with their names. The map is color-coded by region: Northwest (blue), North (green), Northeast (yellow), West (orange), Central (red), and South (purple).

Background

- 2015-2018: 59 Iowa Counties develop Local Road Safety Plans

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Project Stakeholders

- Mahaska County
- ICEA
- Kimley-Horn
- Intrans
- LT Leon

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And Most Importantly... the County Engineers!



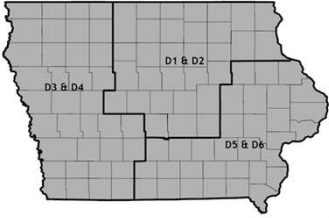
A grid of logos for the county engineers of Iowa. The logos are arranged in a 5x10 grid, with the last cell empty. Each logo represents a different county and its engineer.

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How do we do it?

- Districts divided for **three lead project engineers**
- Counties divided into **two groups** for workshop and production timelines



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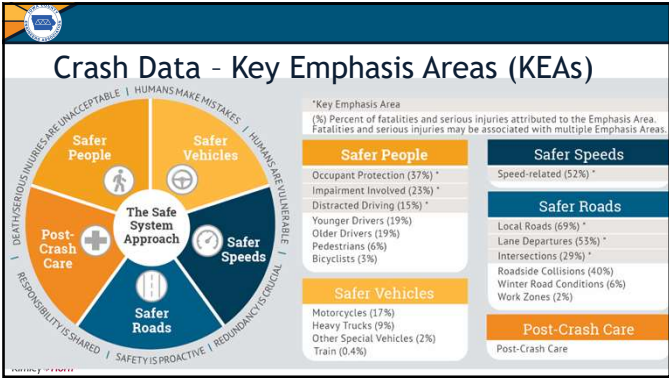
Data Collection/Requests

• STOP signs	• Roadway jurisdiction clarifications
• Curve chevrons	• 911 address database
• Centerline rumble strips	• Photos of County
• Edgeline and/or shoulder rumble strips	• County logo
• Transverse rumble strips	• Relevant County safety documents
• Safety edges	

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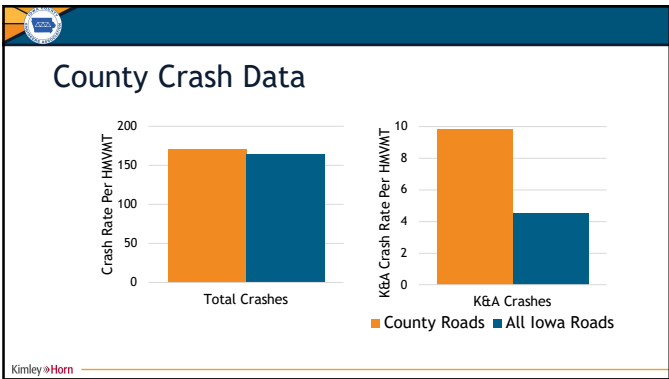


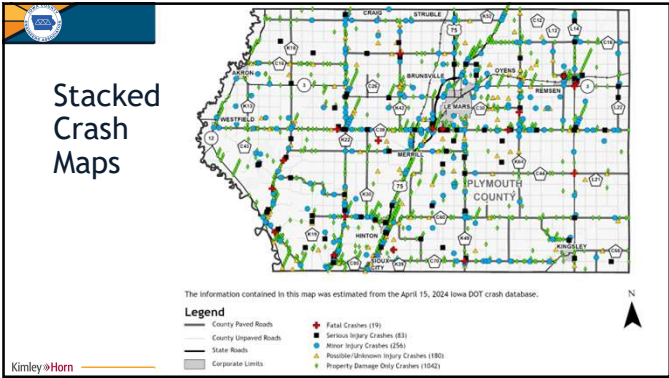
Crash Data Analysis, Risk Factors, and Recommendations



County KEA Statistics

Safe Systems Category	Emphasis Area	County			Statewide Totals			Iowa DOT Key Emphasis Area
		Fatal & Serious Injury	% of Total	Rank	Fatal & Serious Injury	% of Total	Rank	
Safer People	Occupant Protection	7	54%	4	3,428	40%	5	X
	Impairment Involved	3	23%	8	2,042	24%	7	X
	Distracted Driving	2	15%	10	1,264	15%	11	X
	Younger Drivers	2	15%	10	1,582	18%	9	
	Older Drivers	4	31%	6	1,628	19%	8	
	Pedestrians	0	0%	14	511	6%	14	
	Bicyclists	0	0%	14	199	2%	15	
Safer Speeds	Speed-Related	6	46%	5	4,547	53%	2	X
	Local Roads	10	77%	1	6,405	74%	1	X
Safer Roads	Lane Departures	9	69%	2	4,537	52%	3	X
	Intersections	2	15%	10	2,532	29%	6	X
	Roadside Collisions	8	62%	3	3,540	41%	4	
	Winter Road Conditions	0	0%	14	512	6%	13	
	Work Zones	0	0%	14	166	2%	16	





Risk Factor Analysis

- Risk Factors customized to the county's data:

Segment Risk Factors	Intersection Risk Factors	Curve Risk Factors
Traffic volume*	Distance from previous stop sign	Traffic volume*
Pavement and shoulder width	Intersection skew	Curve radius
Potential for Crash Reduction	Horizontal curvature	Shoulder width
Access density CMF*	Traffic volume*	Access management
Curve density*	Minor street volume*	Pavement condition
Pavement condition	Access management	Crash experience
Crash experience	Crash experience	
	Intersection configuration	
	Potential for Crash Reduction	

*Individualized to Counties (Percentiles)

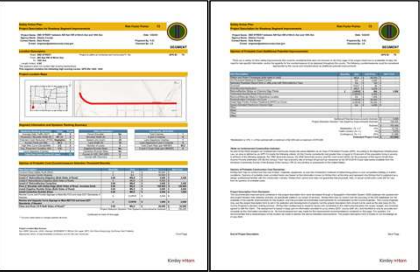
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Project Selections

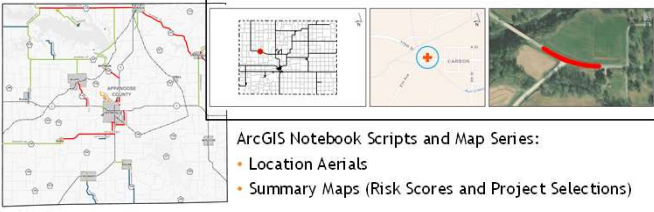
- Refined through conversation with county engineers:

Segment Projects	Intersection Projects	Curve Projects
Road Safety Audit/Access Control Analysis	ICE and Implement Results	4" or 6" Retroreflective Edgelines/Centerlines
4" or 6" Retroreflective Edgelines/Centerlines	Destination Lighting	Paved Shoulders (2')
Paved Shoulders (2')	Upgrade Signs and Markings	Edgeline/Centerline Rumble Strips
Edgeline/Centerline Rumble Strips	Transverse Rumble Strips	Upgrade/Provide Signage
County Engineer Discretion	County Engineer Discretion	County Engineer Discretion
Flatten & Widen Foreslopes	Provide Turn Lanes	Retroreflective Strips on Chevron
Guardrail	Realign to Reduce Skew	Transverse Rumble Strips
Remove/Relocate Hazardous Object	Bypass Lane	High Friction Surface Treatment
		Speed Activated Flashers

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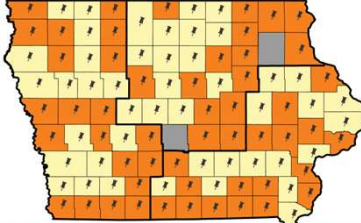


Excel Macro
Project Sheet
production:
Over 2,900
project sheets!



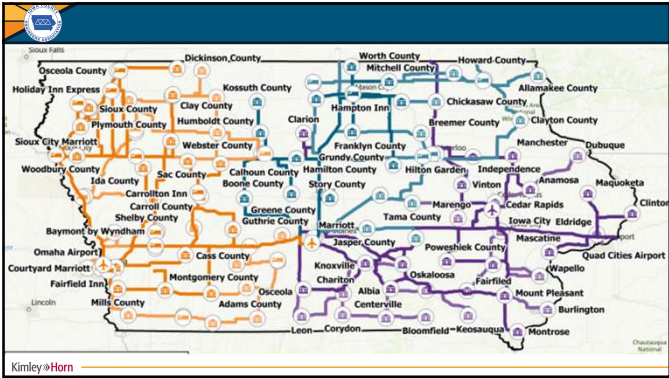
ArcGIS Notebook Scripts and Map Series:

- Location Aerials
- Summary Maps (Risk Scores and Project Selections)

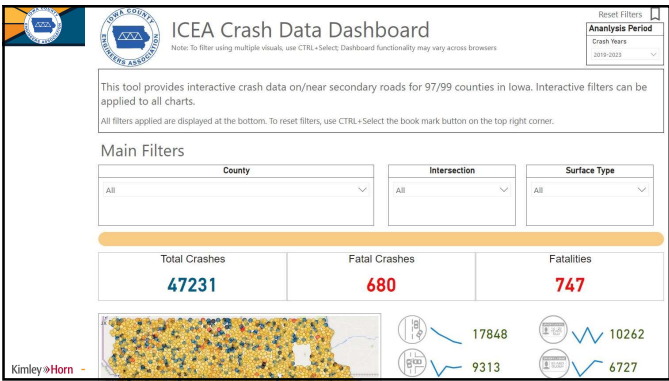


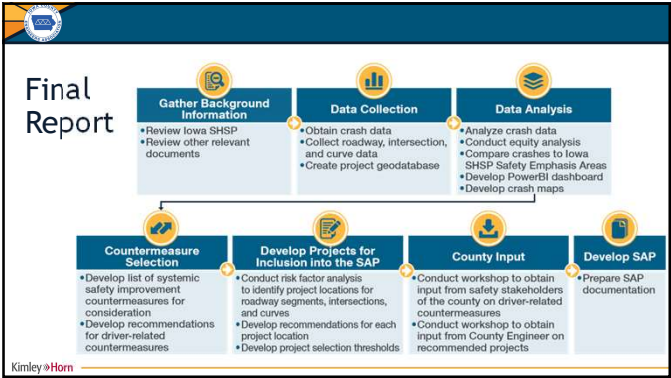
Safety Action Planning Workshops

- In-Person facilitated stakeholder workshops - why in person?









Equity Analysis

- Adjusted to meet federal guidelines
 - Spatial Analysis is used to efficiently identify if a project is in an "Equity Area"
- Equity Areas were originally identified with the following tools:
 - Climate and Economic Justice Screening Tool
 - Equitable Transportation Communities
- After the release of the 2025 SS4A NOFO, the definition for "Areas of Persistent Poverty" is used

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Wrap-Up



SAPs - What does the future hold?

- 97 counties committed to the *planning grant*
- Several have applied for an *implementation grant (FY25/26)*
- **Planning and Demonstration Grants**
(Used to fund the development of the SAPs)
- **Implementation Grants**
(With the completion of the SAPs, the counties were eligible to apply for these funds)
- Proposed legislation to extend the program, potential for a shift toward implementation



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1 Project, 97 County Plans, 18 Months

What it took...

- 873 documents printed, QC'ed, and mailed to Iowa
- 9,210 individual project sheet iterations created and reviewed
 - 2,946 final project sheets
- Effort from 75 Kimley-Horn employees
 - 20 offices across 16 states
- 47 hotel reservations
- 24 round-trip flights
- Excel tracking spreadsheets... too many to count





Any Questions?



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