



EAST-WEST GATEWAY  
Council of Governments

# Gateway to Safer Roadways

St. Louis Regional  
Safety Action Plan

IPATH 2025

Shawn Leight



# Today's Agenda

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What is SS4A

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Study Approach

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Engagement

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Crash Analysis

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Policy Review

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Goal and Implementation Strategy



# Safe Streets and Roads For All (SS4A)

- USDOT program to reduce fatal & serious injury crashes (2021 IIJA)
- Funding goes to local communities
- \$5 Billion over 2022-2026
- Two Grant Types:
  - Planning and Demonstration
  - Implementation (**Safety Action Plan Required**)



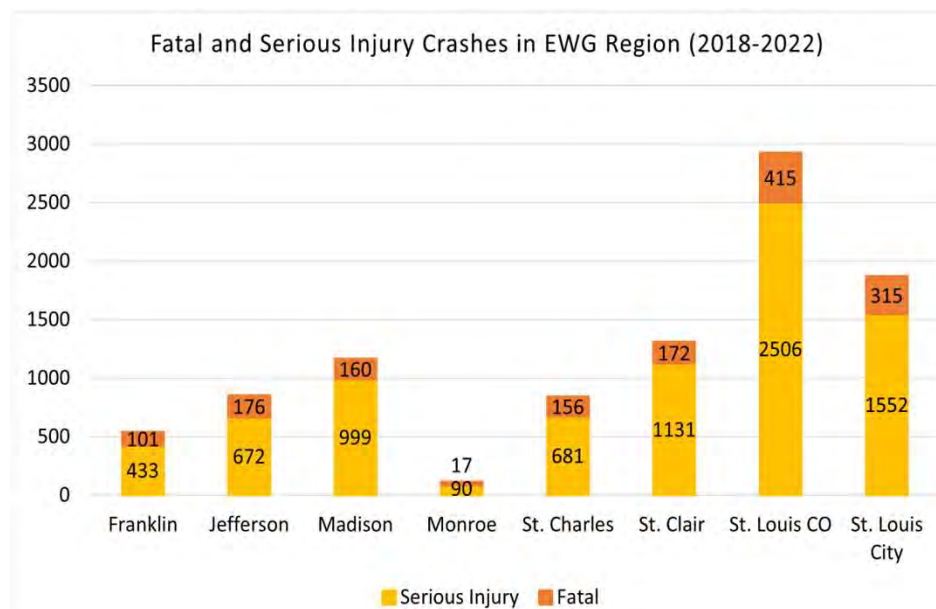
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# The Need

- Roadway crashes are the **leading cause of death for ages 8-20** and second leading cause of death from unintentional injury in the United States. (NHTSA 2016).
- The St. Louis Region ranks above peer regions in fatal crashes per 100 MVM (EWG 2021).
  - St. Louis = 1.06
  - Peer Average = 1.04
  - Minneapolis = 0.63

2018-2022  
EWG Region = 9,576 Fatal & Serious  
Crashes (~1,915 per year)



# Safe Streets and Roads For All (SS4A)



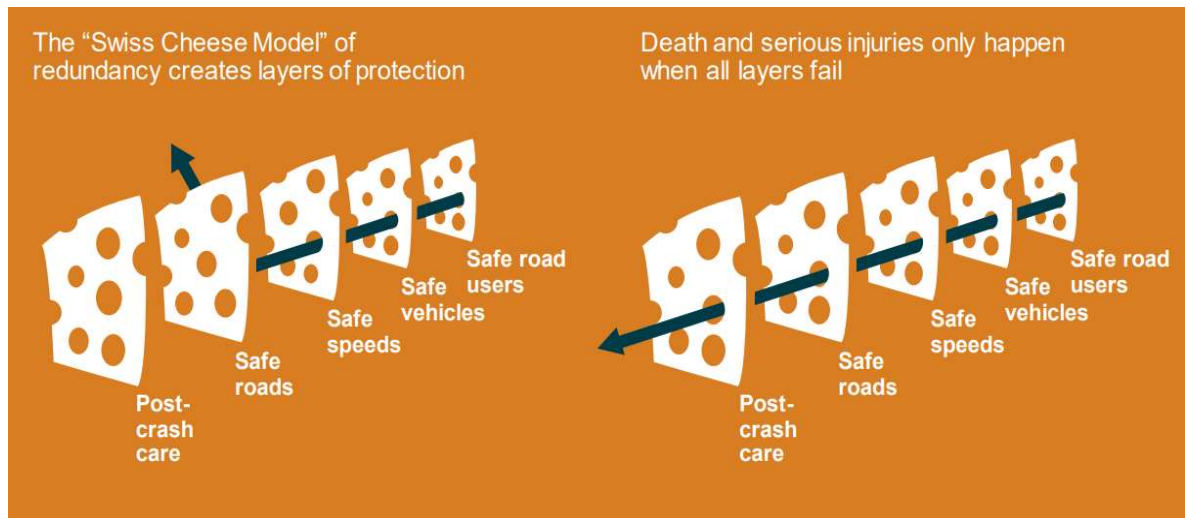
- East-West Gateway received a planning grant to develop a regional comprehensive safety action plan
- EWG region includes 5 counties in Missouri and three in Illinois.
- Aggressive schedule to complete.



# Plan Study Approach



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# Engagement - County Stakeholder Groups



## Franklin & Jefferson County

Franklin County  
Jefferson County  
Jefferson County Sheriff's Department  
MoDOT  
Arnold  
Crystal City  
Sullivan  
Washington

## Illinois Tri-County

Madison County  
Monroe County  
St. Clair County  
Monroe County Emergency  
Management  
IDOT  
Alton  
Belleville  
Collinsville  
Columbia  
Fairview Heights  
Granite City  
Maryville  
O'Fallon  
Waterloo

## St. Charles County

St. Charles County  
MoDOT

## St. Louis County

St. Louis County (STL County) Department of Planning  
STL County Department of Transportation  
STL County Health Department  
MoDOT  
Berkley  
Brentwood  
Chesterfield  
Chesterfield Police Department  
Creve Coeur  
Creve Coeur Police Department  
Kirkwood  
Webster Groves  
Thriving Communities Program

## City of St. Louis

City of St. Louis (City) Street Department  
City Board of Public Service  
City Planning & Urban Design Agency  
City Office of the Mayor  
City Office of the Disabled  
Board of Alderman  
MoDOT  
St. Louis Metropolitan Police Department  
City Transportation Mobility Plan Team



# Engagement - *Regional Task Force*



## Safe Road Users

Automobile Club of Missouri  
Bi-State Development/ Metro Transit  
Great Rivers Greenway  
Traffic Injury Research Foundation  
Trailnet

## Safe Roads

County Engineers and Administrators  
Federal Highway (FHWA) Missouri  
FHWA Illinois  
Illinois Department of Transportation (IDOT)  
Missouri Department of Transportation (MoDOT)

## Enforcement

Illinois State Highway Patrol  
Missouri State Highway Patrol  
Missouri Eastern Region Law Enforcement Liason

## Equity

Generate Health STL  
Urban League  
Transform 314

## Post-Crash Care

St. Charles County Ambulance District



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# Safety Analysis

# Safety Analysis

Existing Crashes & Risk Assessment

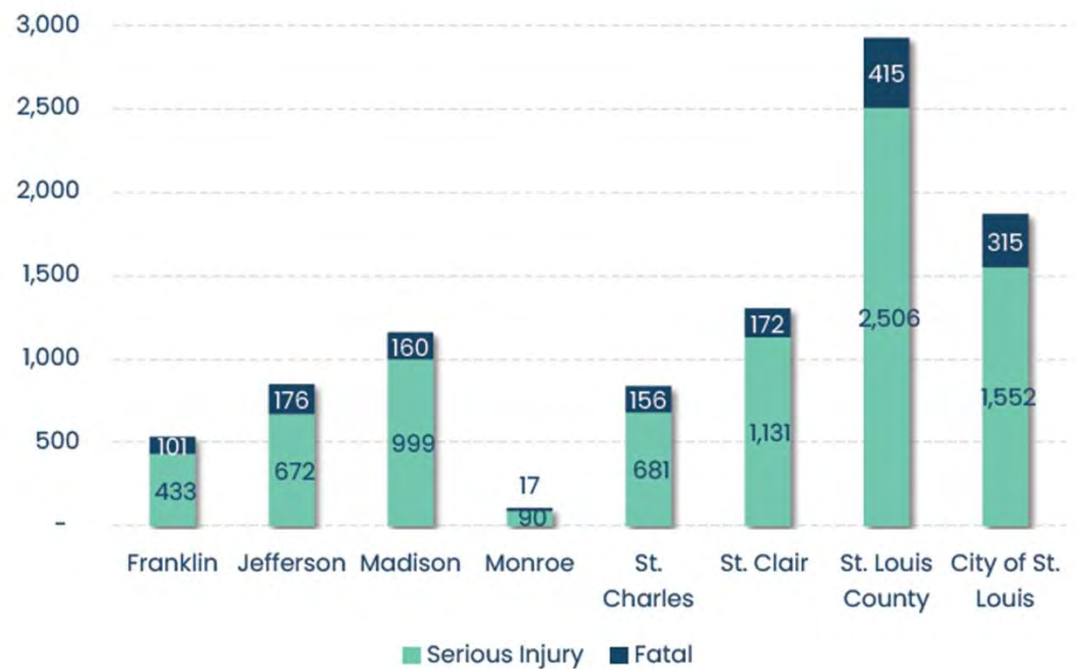
High Injury Networks



## Existing Crashes

- Missouri and Illinois Crash Data
- 2018-2022
- ~350,000 Total Crashes
- SS4A Focuses on Fatal and Serious Injury (KSI) Crashes
  - ~9,600 KSI crashes over the 5 years

KSI Crashes in EWG Region by County



# Crash Risk Analysis

- Identify Trends for high-risk characteristics
  - Age
  - Time of Day, Day of Week
  - Day of Week and Month
  - Weather Condition - Mostly Dry
  - Lighting Conditions



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mon	95	59	72	95	91	111	130	117	100	121	109	113
Tue	99	74	86	93	108	106	115	103	115	128	115	102
Wed	88	60	101	83	96	120	119	117	132	132	118	110
Thu	94	67	104	113	102	124	114	108	120	120	102	108
Fri	103	97	107	101	153	145	147	135	136	136	137	111
Sat	101	86	103	126	161	152	140	144	153	153	111	113
Sun	102	91	114	119	158	125	134	149	162	162	100	118

Figure 22. Fatal and Serious Injury Crashes in the EWG Region by Month and Day (2018 - 2022)

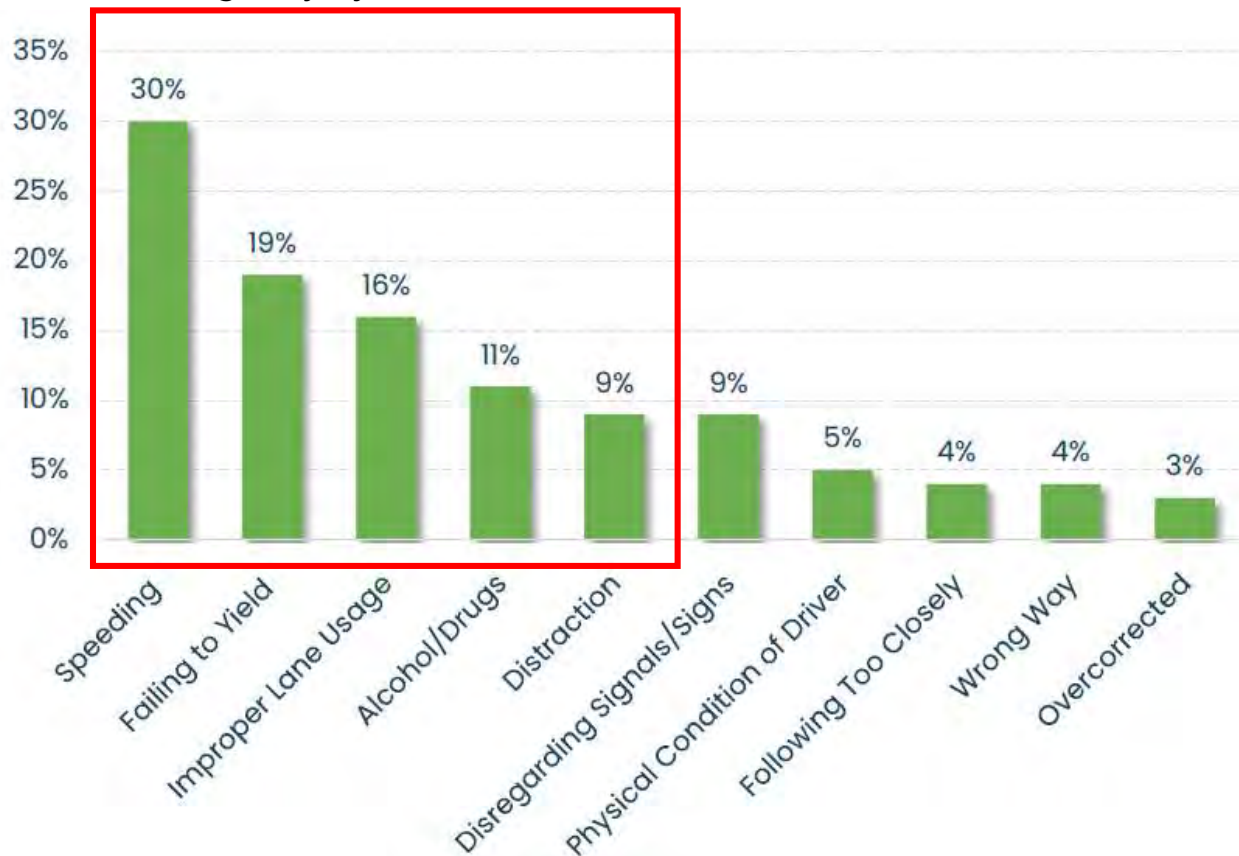
	Mon	Tue	Wed	Thu	Fri	Sat	Sun
5:00 AM	25	17	21	28	31	39	28
6:00 AM	30	33	46	46	43	29	24
7:00 AM	48	52	57	45	29	29	23
8:00 AM	54	51	56	42	41	28	26
9:00 AM	33	30	46	42	44	43	28
10:00 AM	49	47	36	40	46	36	46
11:00 AM	56	51	45	60	52	44	56
12:00 PM	68	80	62	65	51	59	57
01:00 PM	51	51	67	64	64	67	53
02:00 PM	69	87	79	81	83	79	77
03:00 PM	100	77	86	93	96	93	82
04:00 PM	74	85	89	80	102	64	89
05:00 PM	86	82	98	77	104	94	102
06:00 PM	68	88	71	68	101	98	107
07:00 PM	66	78	63	72	92	75	94
08:00 PM	52	74	65	68	99	82	87
09:00 PM	53	50	65	57	106	106	69
010:00 PM	52	55	57	59	76	94	55
011:00 PM	38	45	43	38	78	67	55
12:00 AM	42	34	31	25	45	84	86
1:00 AM	30	21	25	27	40	86	107
2:00 AM	19	21	18	31	27	72	60
3:00 AM	24	11	22	25	23	49	53
4:00 AM	19	16	18	14	18	33	40

Figure 23. Fatal and Serious Injury Crashes in the EWG Region by Day of Week and Time (2018 - 2022)



# Crash Risk Analysis: Contributing Factors

High Injury Networks



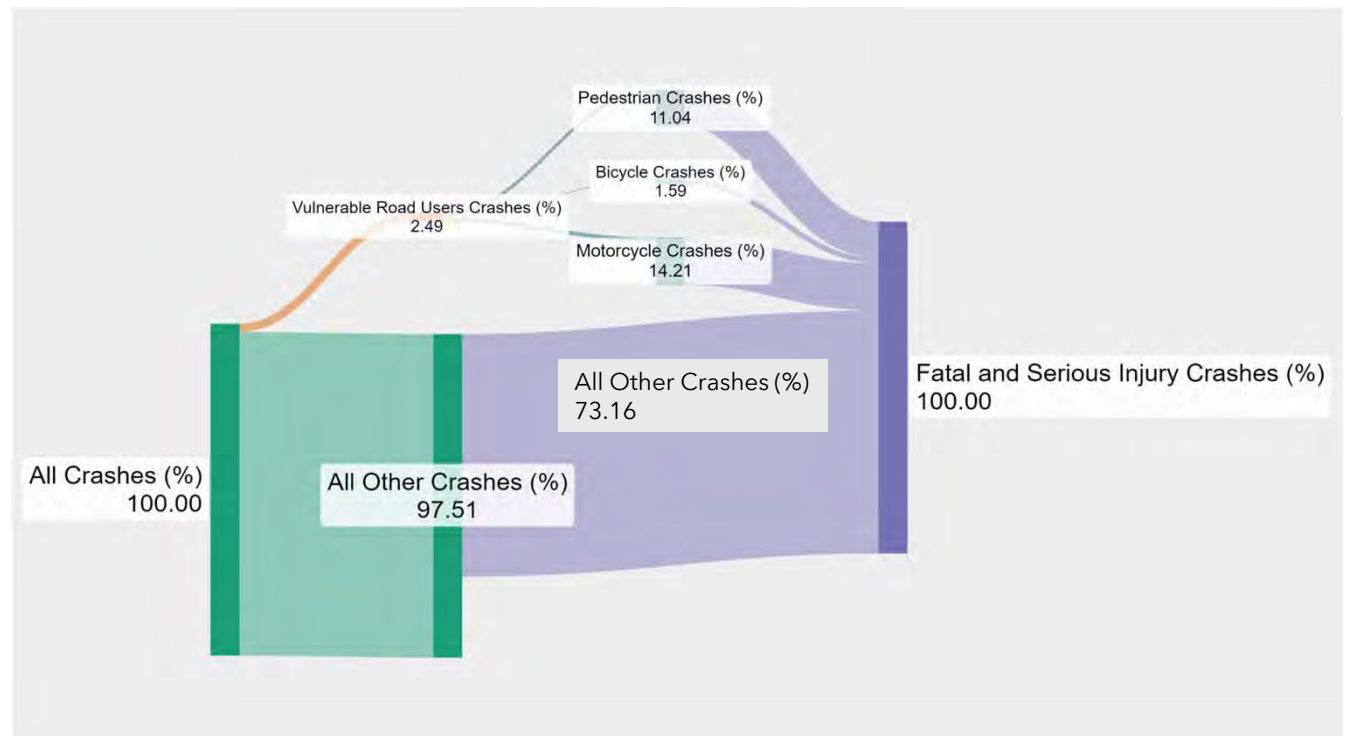
The St. Louis Region ranks 4th highest in peer regions for speed related fatal crashes per 100 MVM (EWG 2021)

- St. Louis= 0.49
- Peer Ave= 0.32
- Nashville=0.18



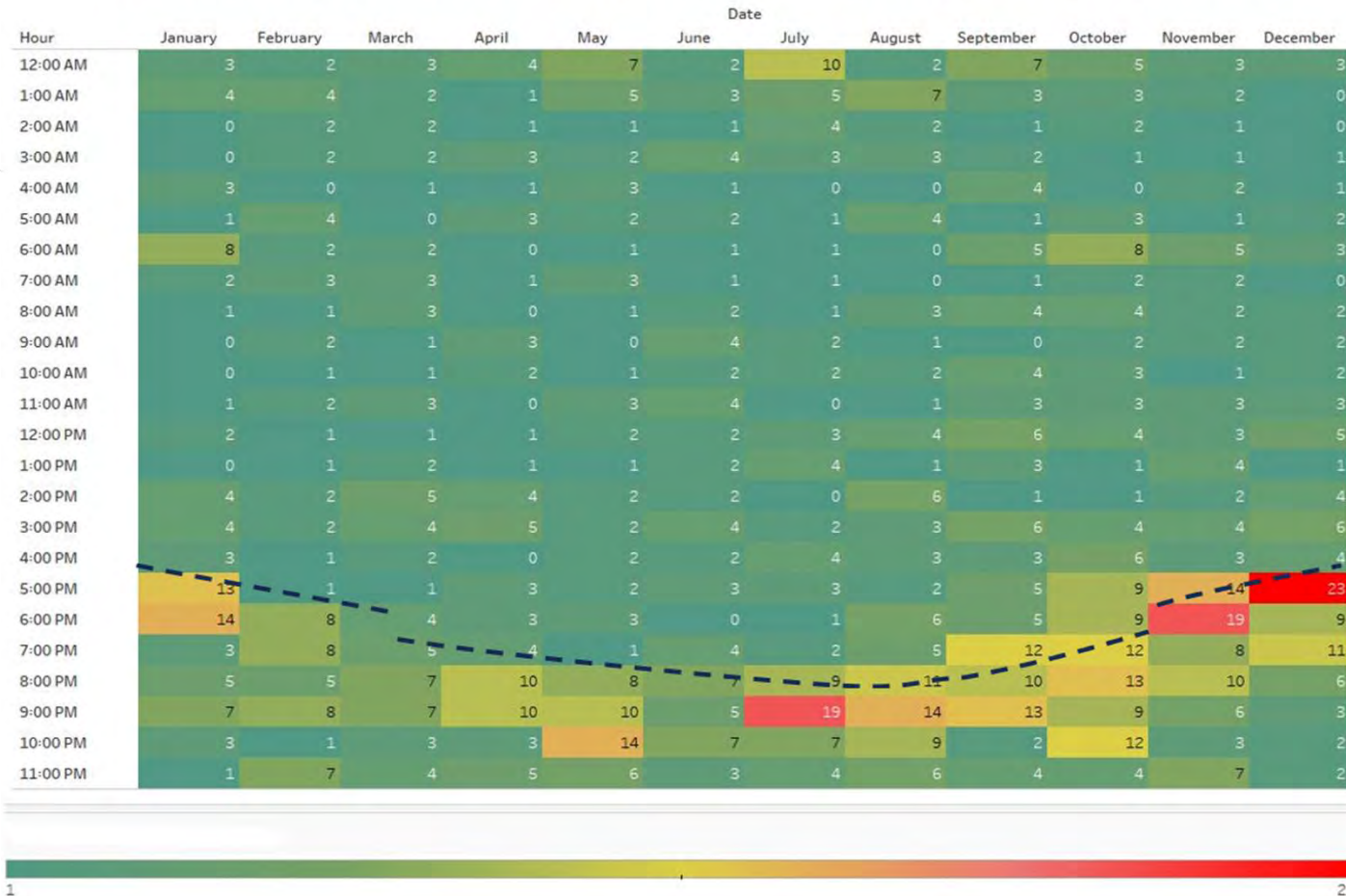
# Over-Represented in Fatal and Serious Injury, EWG Region (2018-2022)

- Pedestrians
- Bicyclists
- Motorcycles

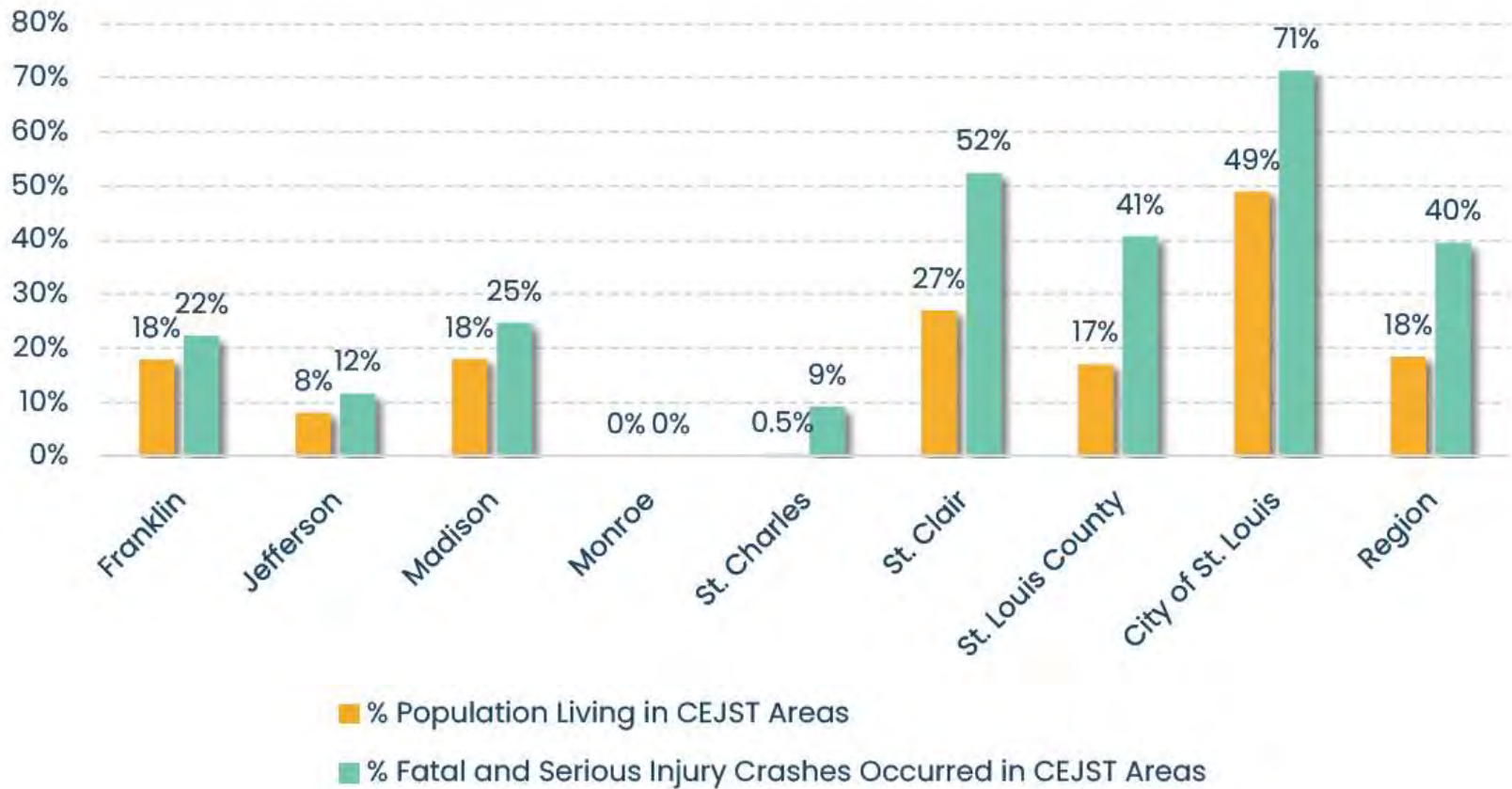


# Pedestrian Crashes (KSI) by Time of Day (2018-2022)

Fatal and Serious Injury Pedestrian Crashes by Month and Hour of the Day (EWG Region) (2018-2022)



# Fatal and Serious Injury Crashes Occurring in Disadvantaged Areas (2018-2022)



# Intent of High-Injury Network (HIN)

*Identify the network(s) of roadways in the EWG region associated with the most frequent fatal & serious injury (KSI) crashes over the last five (5) years (2018-2022) for use as part of planning and funding future projects, programs, and policies.*



# Approach to HIN Development



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*Utilize a Geographic Information System (GIS) approach to perform spatial analysis correlating crash locations, quantities, and attributes to nearby transportation system elements and other areas of interest to visualize the results on an interactive map.*



# Elements of HIN Analysis



## Crash

- 9,600 Fatal & Serious Injury (KSI) crashes
- Weighted Fatalities 1.5x higher



## Roadway

- More than 26,000 miles of roadways
- Included over 177,000 road segments
- 5,855 segments with KSI crashes



## Intersection

- Used road segment nodes to create over 79,000 intersections
- 3,548 intersections with KSI crashes



## Location

- Included 8 County Metro STL Region
- More than 200 Municipalities
- Over 600 Census Tracts used for Equity Analysis



# Crash Spatial Analysis

*Crashes were attributed to Intersections based on radius*

*Crashes were associated to nearest road Segment*

*Road segments were combined into Corridors*



# Five High-Injury Networks

All Modes

(All Roads except Interstate/ramps) (~80% of KSI Crashes)

Vulnerable Road Users

(Pedestrian & Bicyclist)

Underserved Communities

(Climate and Economic Justice Screening Tool (CEJST))

Top 5 Contributing Factors (Speeding, Failing to Yield, Improper Lane Usage, Alcohol/Drug, Distraction)

Interstate

(~20% of KSI Crashes)



# HIN Scoring Approach & Examples

*\*Percentile methodology allows for "data-driven" upper & lower limits applying a consistent approach across each different HIN developed\**



**Max. Value**

**Top 10% of HIN Results**  
(>90th Percentile)

**Top 10-25% of HIN Results**  
(>75th Percentile)

**Top 25-50% of HIN Results**  
(>50th Percentile)

**Lower 50% of HIN Results**  
(Min. Value > 0)

All Modes Corridors (KSI Crashes/Yr/Mi)	VRU Peds Corridors (KSI Crashes/Yr/Mi)	Underserved Corridors (KSI Crashes/Yr/Mi)	CF Speeding Corridors (KSI Crashes/Yr/Mi)
<b>3.82</b>	<b>1.40</b>	<b>3.82</b>	<b>1.54</b>
<b>0.68</b>	<b>0.37</b>	<b>1.24</b>	<b>0.32</b>
<b>0.39</b>	<b>0.23</b>	<b>0.72</b>	<b>0.20</b>
<b>0.20</b>	<b>0.13</b>	<b>0.34</b>	<b>0.12</b>
<b>0.06</b>	<b>0.06</b>	<b>0.07</b>	<b>0.06</b>



# HIN All Modes Corridors | KSI Crashes Summary

## REGIONAL

**Top 10% of HIN Results**  
(>90th Percentile)

**Top 10-25% of HIN Results**  
(>75th Percentile)

**Top 25-50% of HIN Results**  
(>50th Percentile)

**Lower 50% of HIN Results**  
(<50th Percentile)

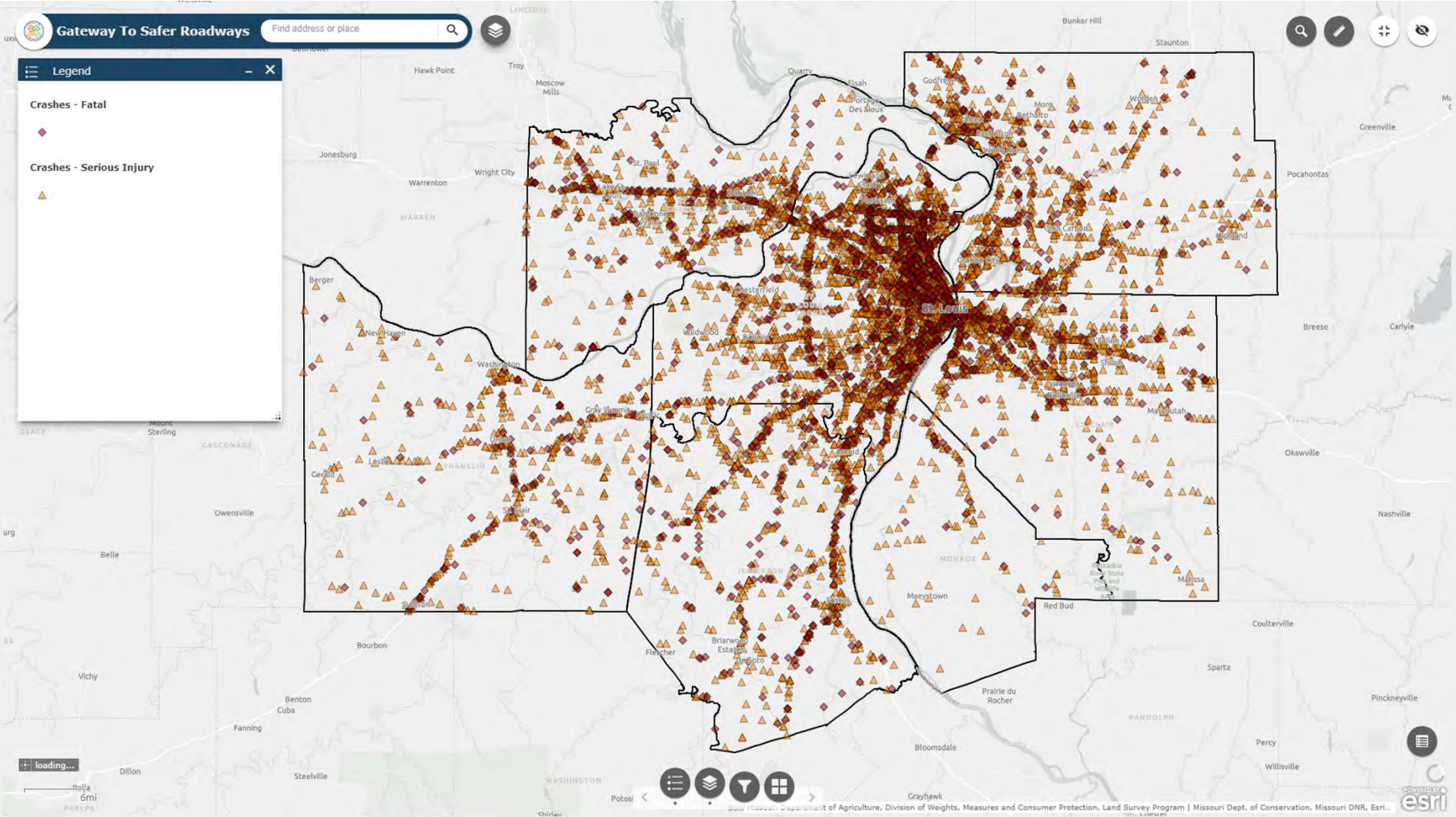
**TOTALS**

No. of KSI Crashes	% HIN KSI Crashes
2,452	39%
1,452	23%
1,262	20%
1,184	19%
6,350	100%

→ 62%



# KSI Crashes (2018-2022)

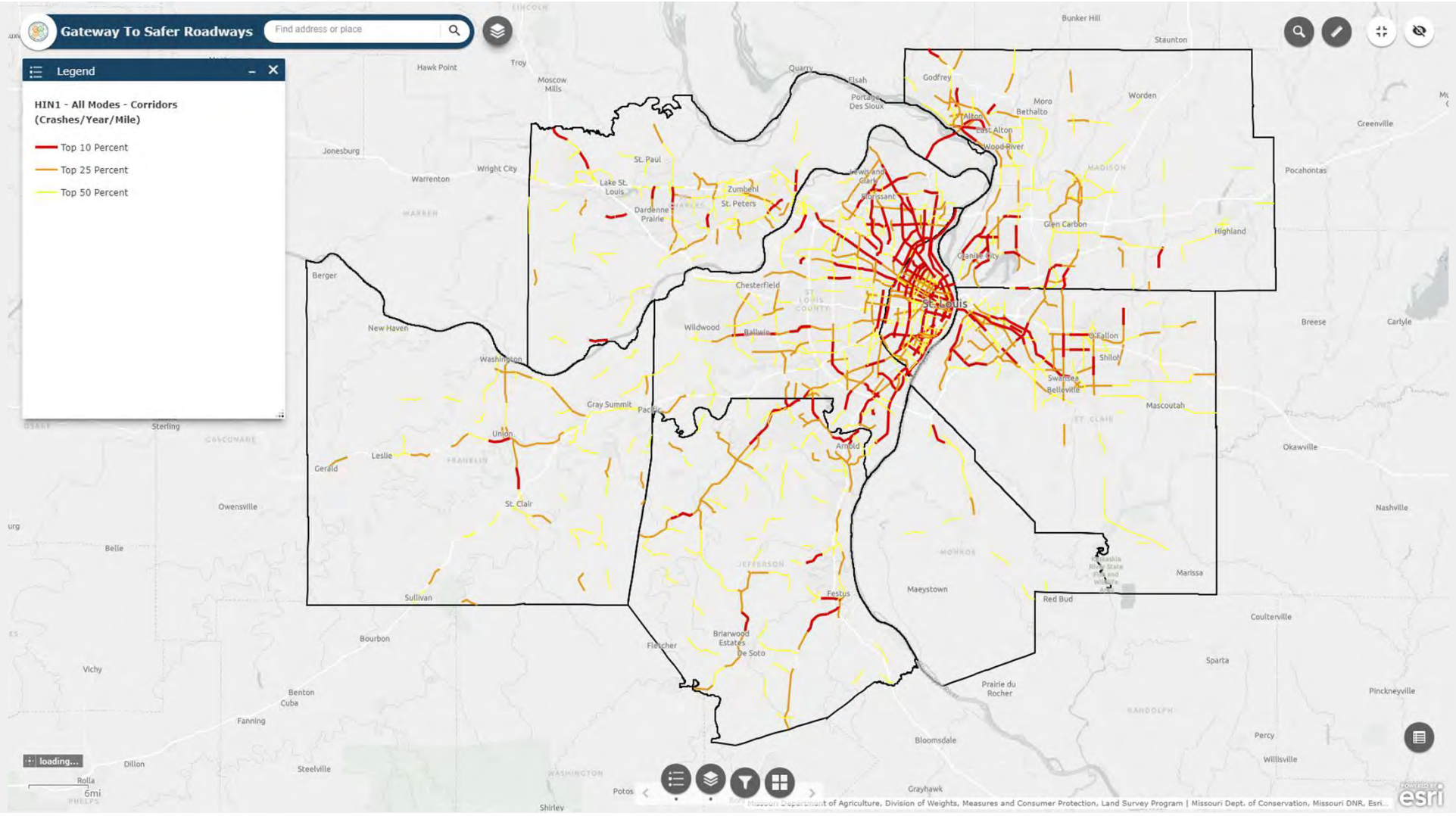


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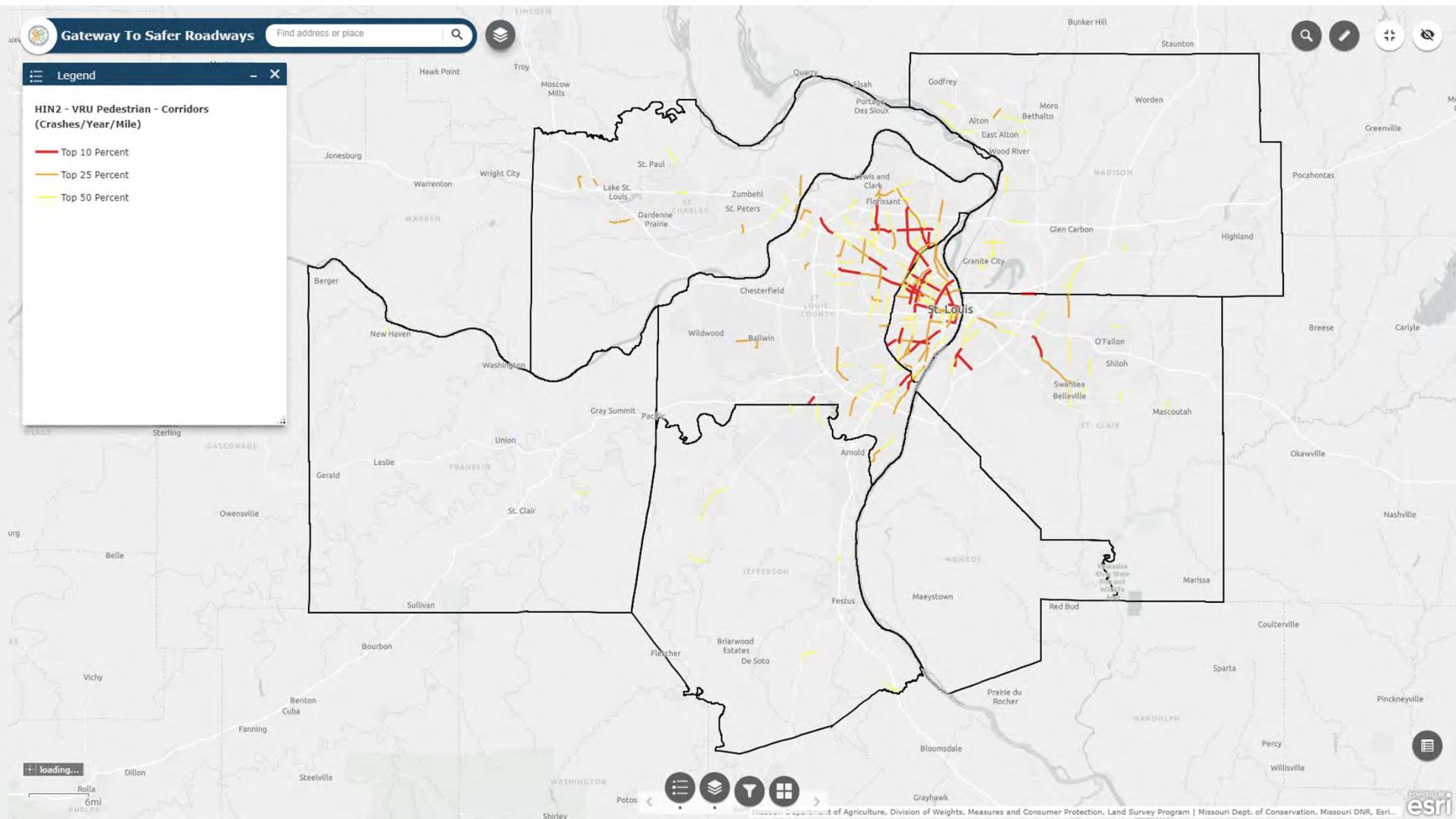
# HIN 1: All Modes Corridors



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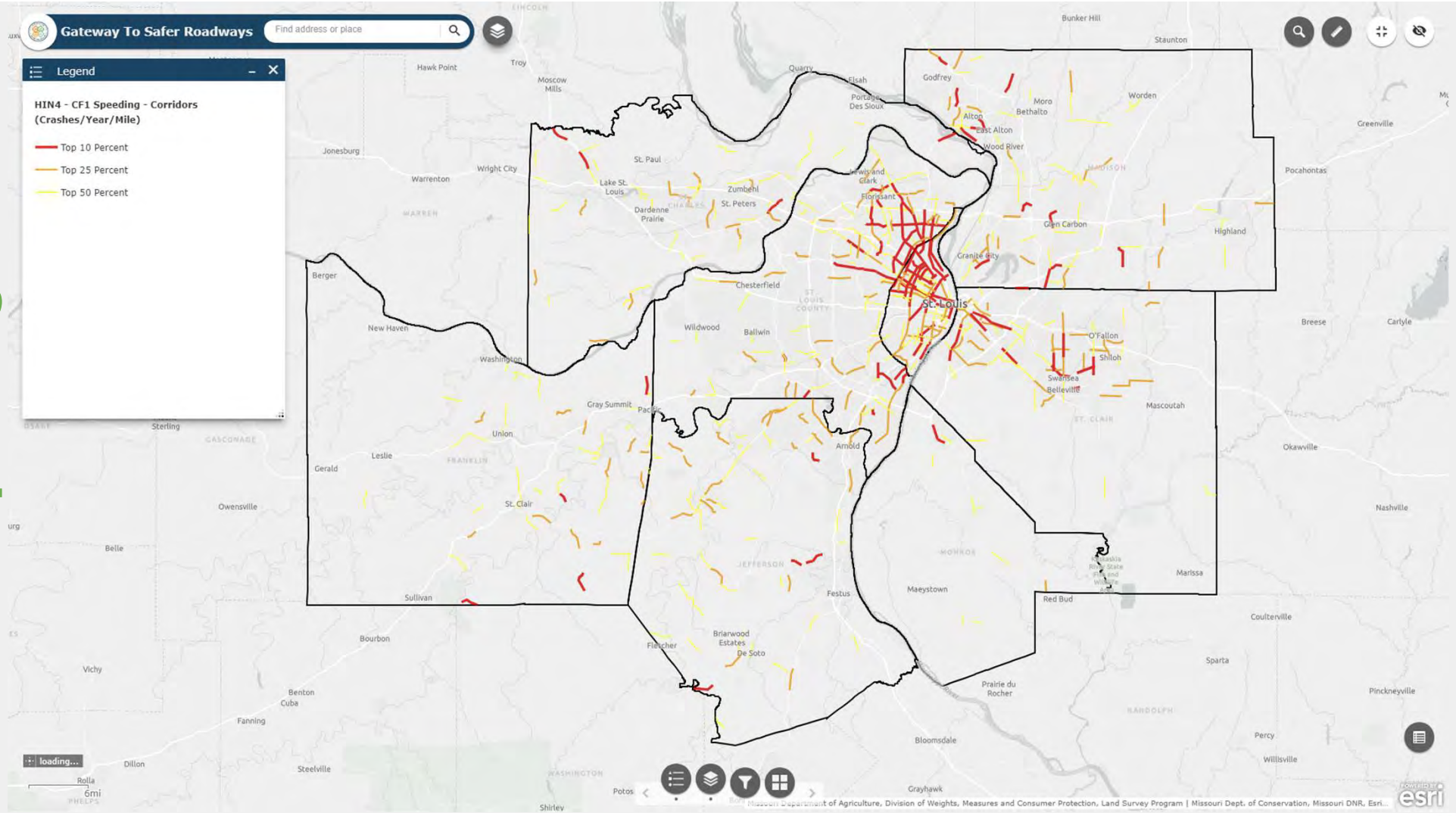
# HIN 2: VRU Peds Corridors



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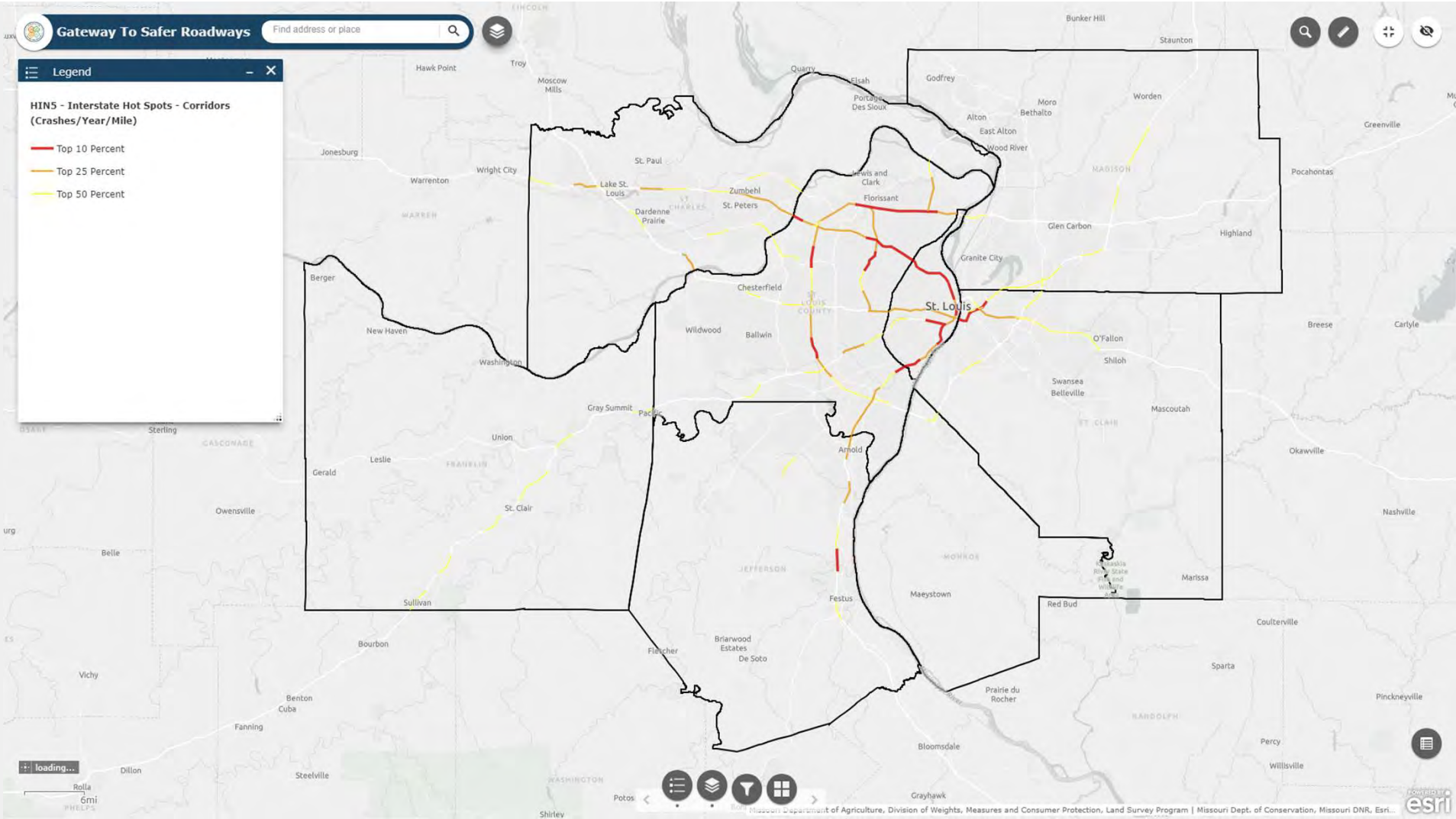
# HIN 4: CF Speeding Corridors



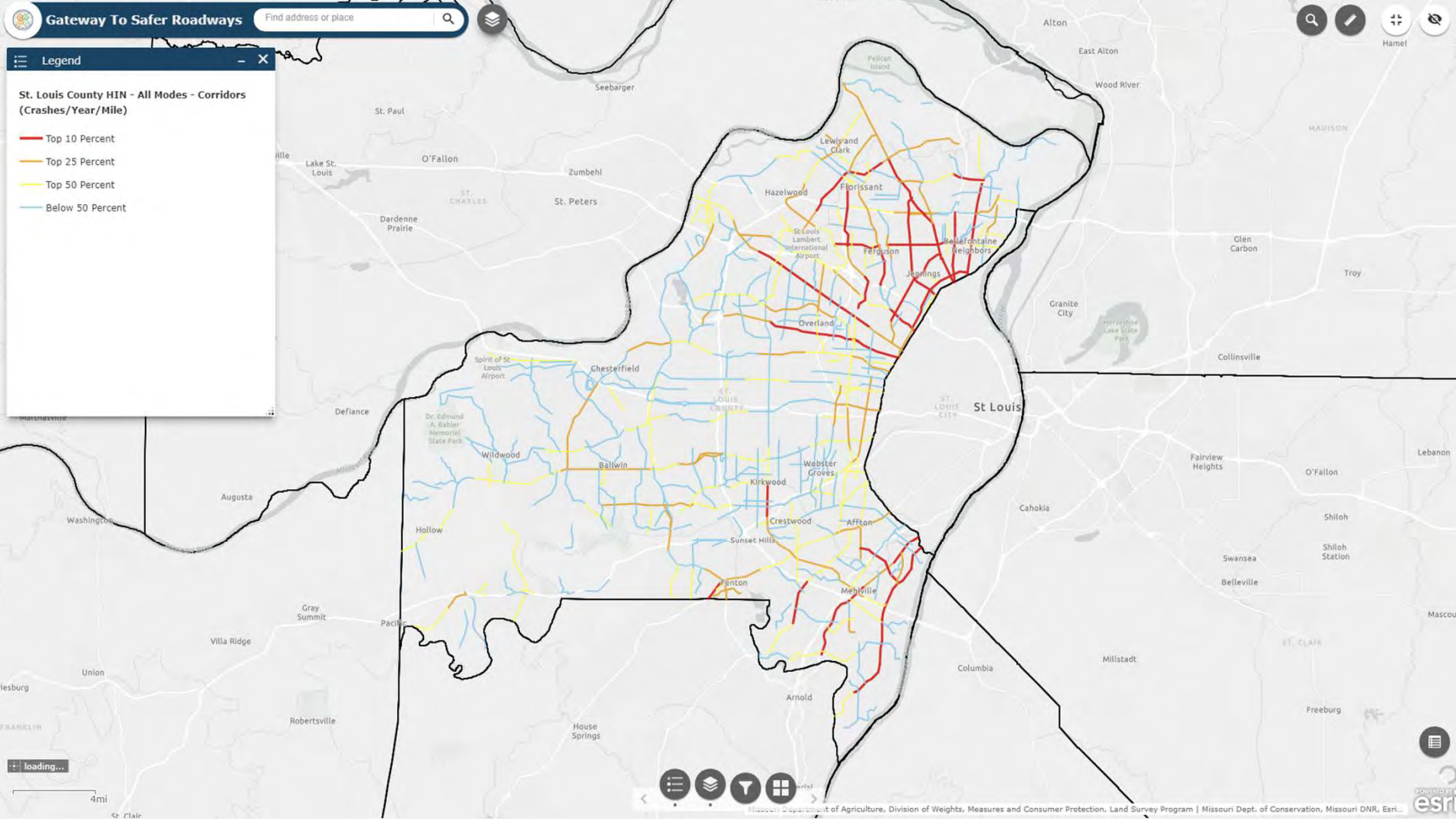
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# HIN 5: Interstate Corridors



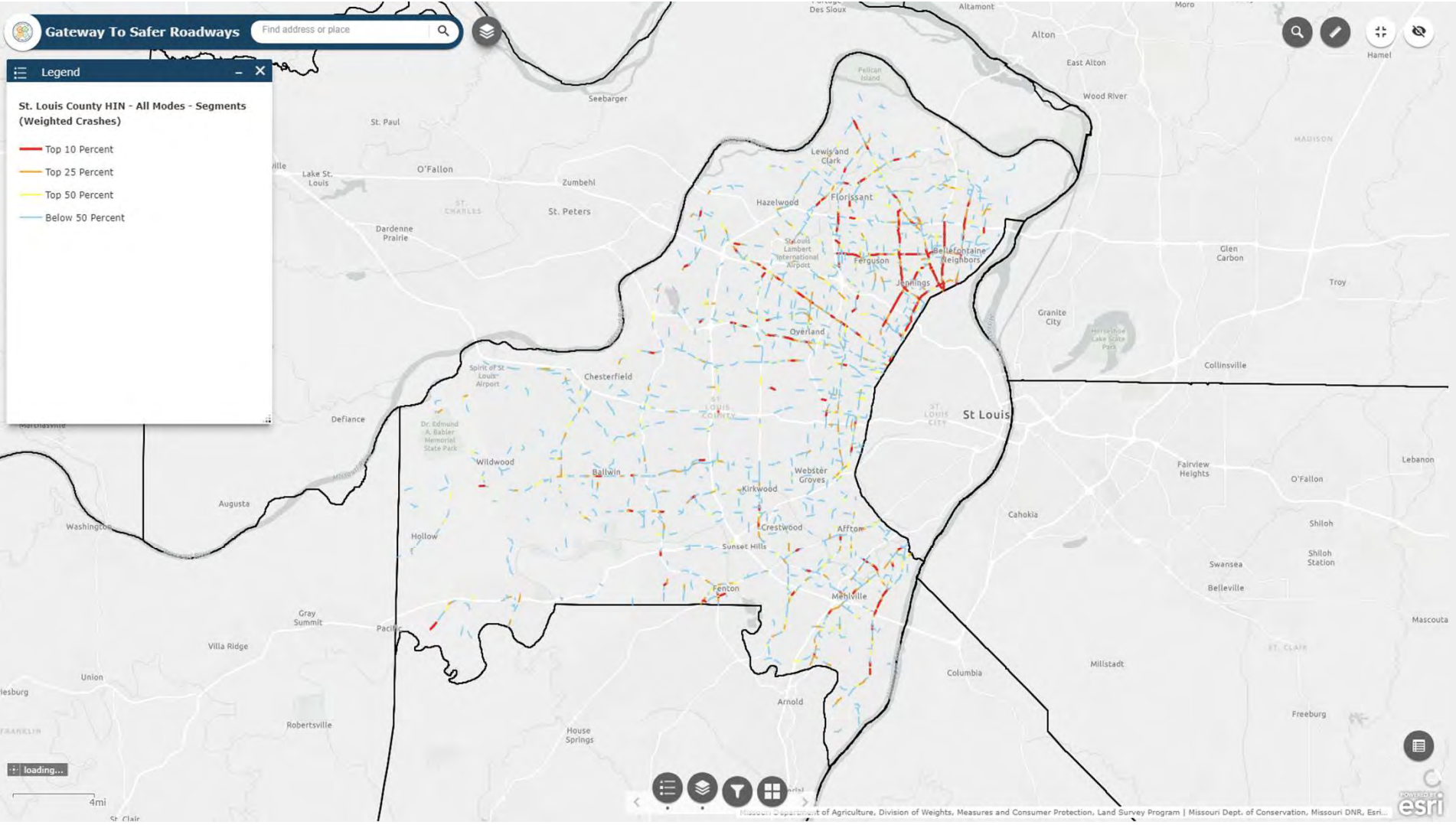
# HIN 1: STL County Corridors



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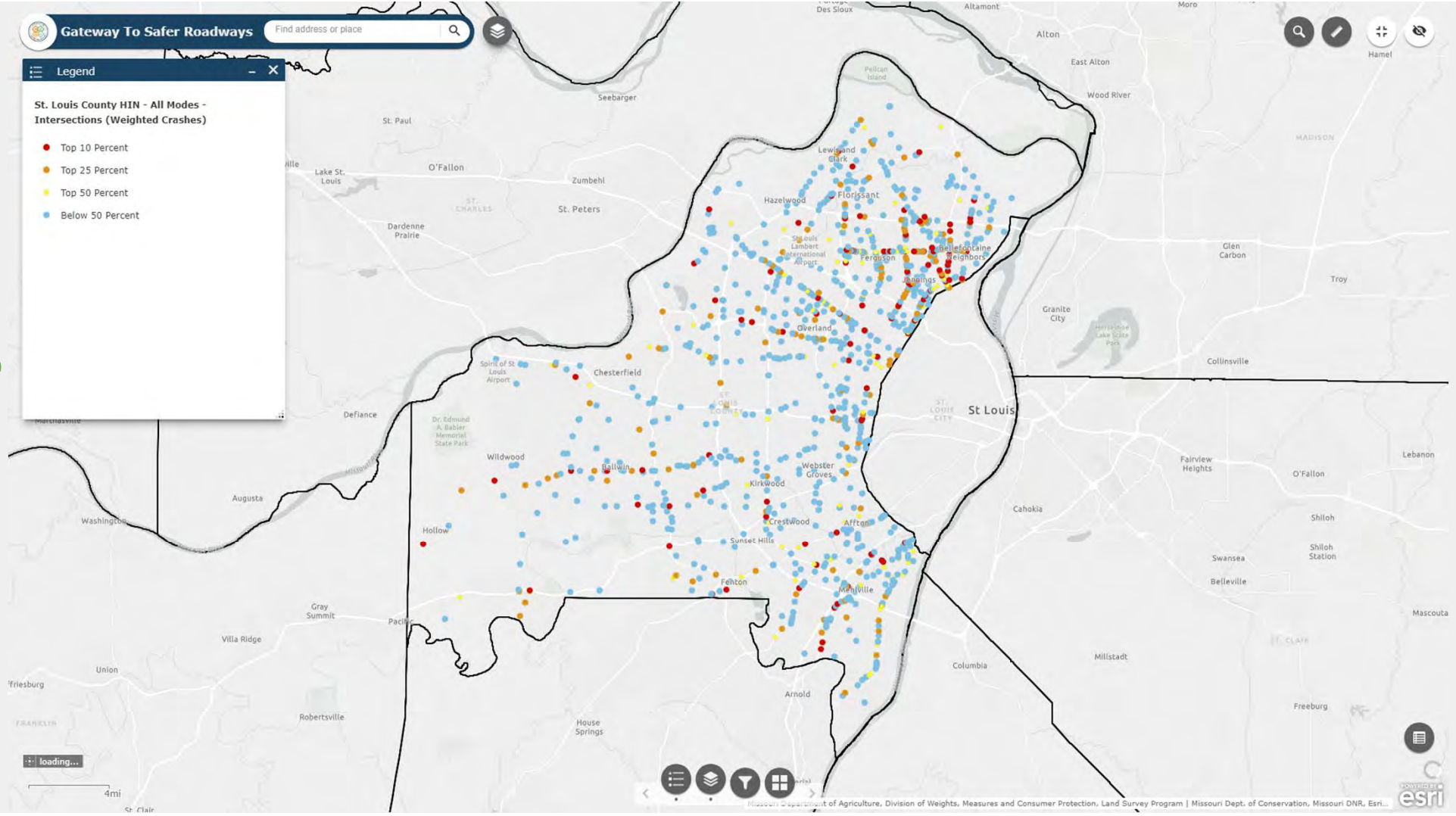
# HIN 1: STL County Segments



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# HIN 1: STL County Intersections



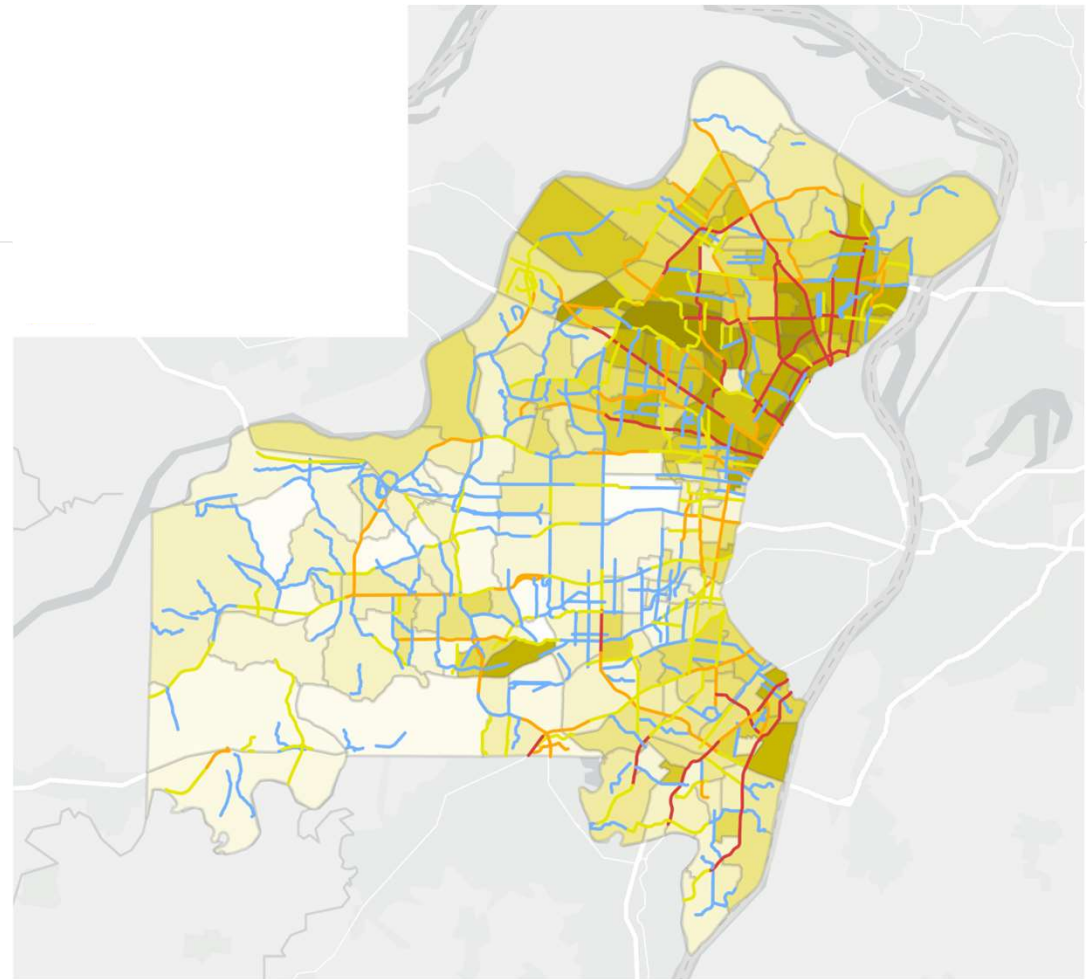
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# St. Louis County HIN & Household Income

- Top 10 Percent
- Top 25 Percent
- Top 50 Percent
- Below 50 Percent

Percentage of Population  
Living Below 200% Poverty  
Line



# Priority Lists

## Priority List: Regional Corridors

#	Wtd. KSI/Yr/Mi # (#Fatal) [#SI]	Corridor Name	Extents	Length (Mile)	County	Municipality	Recent/Planned Projects	Other Top 10% High-Injury Network List
1	5.28 (9) [34]	West Florissant Ave	Acme Ave to Emerson Ave	1.80	City of St. Louis	St. Louis		Pedestrian, Underserved, Speeding, Fail to Yield, Improper Lane Use
2	4.40 (12) [28]	MO 367 (Lewis and Clark Blvd)	Northumberland Dr to City/County Line	2.09	St. Louis County	St. Louis	MoDOT RSA from I-270 to Halls Ferry Circle (FY 2026)	Pedestrian, Underserved, Speeding, Fail to Yield, Improper Lane Use, Alcohol/Drug, Distraction
3	3.53 (14) [30]	Halls Ferry Rd	Halls Ferry Cir to Empire Dr	2.89	St. Louis County	Castle Point	MoDOT/St. Louis Co. Safety Design Build 2 (at St. Cyr)	Pedestrian, Underserved, Speeding, Fail to Yield, Improper Lane Use, Alcohol/Drug
4	3.48 (4) [29]	MO 115 (Natural Bridge)	Shreve Ave to Prairie Ave	2.01	City of St. Louis	St. Louis	Recent improvements between Shreve and Jefferson	Pedestrian, Underserved, Speeding, Improper Lane Use
5	3.29 (6) [27]	West Florissant Ave	Thatcher Ave to Solway Ave	2.19	St. Louis County	Dellwood	West Florissant Great Streets Project (WFGS)	Pedestrian, Underserved, Speeding, Fail to Yield, Improper Lane Use, Alcohol/Drug
6	2.93 (5) [35]	Kingshighway Blvd	West Florissant Ave to Cote Brilliante Ave	2.90	City of St. Louis	St. Louis	City of STLARPA resurfacing & safety	Pedestrian, Underserved, Speeding, Fail to Yield
7	2.89 (8) [20]	MO 115 (Natural Bridge)	Shreve Ave to Chevrolet Ave/ Hamilton Ave	2.21	City of St. Louis	St. Louis		Pedestrian, Underserved, Speeding, Fail to Yield
8	2.83 (5) [24]	IL 3 (Mississippi Ave)	8th St to Cahokia St	2.31	St. Clair	Cahokia	IL 3 Relocation to Monsanto Ave (25-29 MYP); Queeny Ave Intersection Improvements (local project)	Underserved, Speeding
9	2.83 (6) [24]	West Florissant Ave	Halls Ferry Rd to Thatcher Ave	2.50	St. Louis County	Unincorporated		Pedestrian, Underserved, Speeding, Fail to Yield, Improper Lane Use
10	2.47 (9) [17]	Chambers Rod	Elizabeth Ave to Winkler Dr	2.45	St. Louis County	Dellwood	WFGS project includes improvements at Chambers including pedestrian and transit. Plan for road diet, buffered bike lanes and roundabout Elizabeth to Forestwood. Needs funding for final design and construction.	Pedestrian, Underserved, Speeding, Fail to Yield, Improper Lane Use, Alcohol/Drug
11	2.47 (2) [34]	Kingshighway Blvd	Cote Brilliante Ave to I-64 WB Ramps	2.99	City of St. Louis	St. Louis	City of STLARPA resurfacing & safety	Pedestrian, Underserved, Speeding, Fail to Yield, Distraction
12	2.38 (4) [25]	MO U (Lucas & Hunt Rd)	Halls Ferry Rd to West Florissant Ave	2.60	St. Louis County	Jennings	MoDOT/St. Louis Co. Safety Design Build 2 (at Hord Ave)	Underserved, Speeding, Fail to Yield, Alcohol/Drug
13	2.38 (2) [23]	West Florissant Ave	Woodstock Rd to Acme Ave	2.18	St. Louis County	St. Louis	2 separate projects that will include ped equipment upgrades at existing signals and bus pad upgrades.	Pedestrian, Underserved, Speeding, Fail to Yield
14	2.36 (6) [17]	MO 367 (Lewis and Clark Blvd)	I-270 to Northumberland Dr	2.21	St. Louis County	Bellefontaine Neighbors	MoDOT RSA from I-270 to Halls Ferry Circle (FY 2026)	Underserved, Speeding, Fail to Yield, Improper Lane Use, Alcohol/Drug



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# Systemic Treatments

- Areas of Focus
  - Roadway Departure (45%)
  - Intersections (38%)
  - Vulnerable Road Users (14%)
  - Speed Management



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## Speed Management



[Appropriate Speed Limits for All Road Users](#)



[Speed Safety Cameras](#)

## Pedestrian/Bicyclist



[Bicycle Lanes](#)



[Crosswalk Visibility Enhancements](#)



[Medians and Pedestrian Refuge Islands in Urban and Suburban Areas](#)



[Pedestrian Hybrid Beacons](#)



[Road Diets \(Roadway Reconfiguration\)](#)



[Walkways](#)

## Roadway Departure



[Enhanced Delineation for Horizontal Curves](#)



[Longitudinal Rumble Strips and Stripes on Two-Lane Roads](#)



[Roadside Design Improvements at Curves](#)



[SafetyEdge<sup>SM</sup>](#)



# Policy Review & Goal

# Regional Needs and Opportunities

## 9 Policy/Programming Needs & Opportunities

- 1 Speeding
- 2 Seatbelt Use
- 3 Helmet Use
- 4 Distracted Driving
- 5 Driver Impairment
- 6 Red Light Running
- 7 Bike/Pedestrian Safety
- 8 Unlicensed Drivers
- 9 Roadway Departure



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# Regional Policy and Program Recommendations

## Safe Road Users

1. High school based road safety campaigns
2. Driver/Motorcycle license training in Missouri high schools
3. Public awareness roadway safety campaigns
4. Employer based safe driver training programs
5. Strengthen roadway safety laws in Illinois and Missouri
6. Promote existing seatbelt laws and encourage local governments in Missouri to pass primary seatbelt laws

## Safe Roads

7. Review/Revise local engineering, planning and development policies, codes, and regulations
8. Incorporate transportation technology
9. Improve maintenance and operations
10. Support mobility for the elderly and disabled

## Safe Vehicles

11. Telematics for fleet operators
12. Mandatory traffic safety devices for offenders
13. In-vehicle traffic safety devices for families
14. Size considerations of vehicles in public agency fleets

## Enforcement

15. Automated enforcement (speed, red light running)
16. Enhanced enforcement (speed, seatbelt, red light running, impairment)



# Mapping the 16 Recommendations to the 9 areas of Need and Opportunity

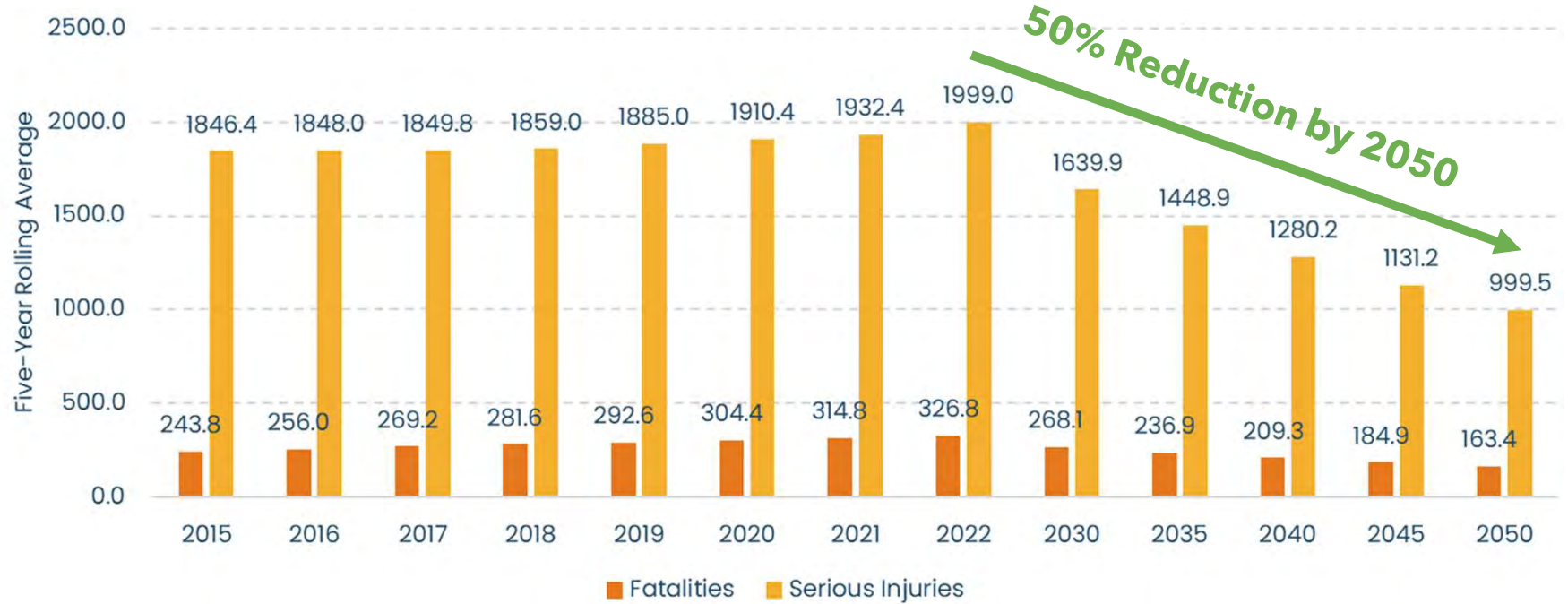
	Speeding	Seatbelt Use	Helmet Use	Distracted Driving	Impaired Driving	Red Light/ Stop Sign Running	Vulnerable Road User Safety	Unlicensed Drivers	Roadway Departure
1. High School Road Safety Campaigns	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. High School Driver License Training	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Public Roadway Safety Campaigns	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Employer Safe Driver Programs	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Roadway Safety Laws in IL and MO		✓	✓	✓					
6. Promote MO Local Seatbelt Laws		✓							
7. Local Roadway Policies	✓					✓	✓		✓
8. Transportation Technology	✓					✓	✓		✓
9. Maintenance and Operations	✓					✓	✓		✓
10. Mobility for Seniors & Persons with Disabilities							✓		
11. Fleet Telematics	✓	✓		✓					
12. Safety Devices for Traffic Offenders	✓				✓				
13. Traffic Safety Devices for Families	✓	✓		✓	✓				
14. Public Agency Fleet Vehicle Size							✓		
15. Automated Enforcement	✓					✓			
16. Enhanced Enforcement	✓	✓		✓	✓	✓			



Gateway to Safer Roadways



# Proposed Goal: Reduce crash fatalities and serious injuries by 50% by 2050 with a commitment to ultimately eliminate roadway deaths



Gateway to Safer Roadways



# The plan to reach **50% reduction by 2050**

- High-Injury Networks
  - Corridors, Intersections, Hot Spots
- Systemic Treatments
  - Roadway Departure, Intersections, Bike/Ped
- Policy and Programming
  - 16 Recommendations in 4 Areas



## The plan to reach **50% reduction by 2050**

	% Complete	% Regional KSI	% Effective	% KSI Reduced
Top 10% HIN (Red)	95%	30%	75%	20%
Top 25% HIN (Orange)	95%	20%	50%	10%
Systemic	50%	95%	20%	10%
Policy and Programs	50%	95%	20%	10%
				50%



# Achieving 50% by 2050: We all Have a Role

- **By 2030**

- **HIN:** Address top 5% of HIN
- **Systemic:** Pilot 2-4 new systemic treatments county-wide
- **Policy/Program:** Kick-start 2-4 priority policy recommendations

- **By 2035**

- **HIN:** Address top 10% of HIN
- **Systemic:** Implement 4-6 systemic treatments county-wide
- **Policy/Program:** Implement 4-6 policy recommendations

- **By 2050**

- **HIN:** Address top 25% of HIN
- **Systemic:** Implement relevant systemic treatments county-wide
- **Policy/Program:** Implement relevant policy recommendations



# 2025 SS4A NOFO

The Department of Transportation has released the 2025 NOFO  
Available Funding:

- \$580 million is available for Implementation Grants
- \$402 million is available for Planning and Demonstration Grants

**Application Deadline:** June 26, 2025, at 5:00 PM EDT

SS  
4A





EAST-WEST GATEWAY  
Council of Governments



# THANK YOU

## Questions?

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Learn more at:

[ewgateway.org/gtsr/](http://ewgateway.org/gtsr/)

Home > Gateway to Safer Roadways

### GATEWAY TO SAFER ROADWAYS

Eliminating fatalities and serious injury crashes on the Region's roadways.




East-West Gateway Council of Governments' (EWG) transportation safety initiative focuses on providing a safer transportation system for all users. As part of EWG's long-range transportation planning process, safety was listed as one of the Guiding Principles in the Long-Range Transportation Plan, Connected 2050.

EWG tracks the progress of transportation safety to ensure that investments in the transportation system reduce both traffic fatalities and serious injuries in absolute

**PRESS RELEASE**

[EWG Releases Gateway to Safer Roadways: St. Louis Regional Safety Action Plan](#)




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