Regional Transportation Partners Meeting

East-West Gateway Council of Governments

Maryland Heights

October 4, 2018

EAST-WEST GATEWAY
Council of Governments

Creating Solutions Across Jurisdictional Boundaries

Presentation Overview

- East-West Gateway: Who We Are and What We Do

- East-West Gateway's Long-Range Transportation Plan

- National and State Trends Influencing Transportation Planning

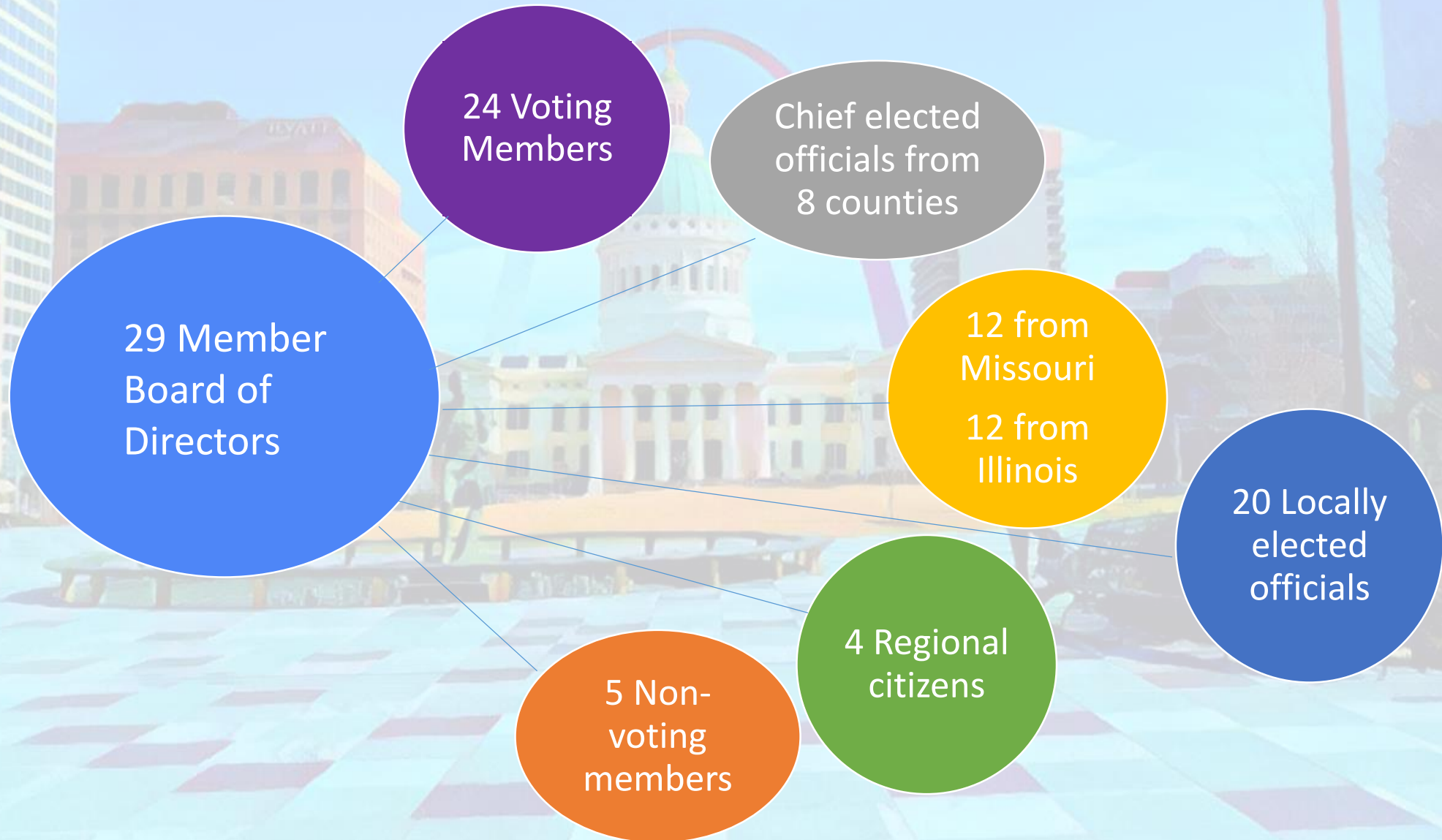- Performance-Based Planning and Programming

- Next Steps

East-West Gateway Council of Governments

WHO WE ARE

- Membership organization for local governments in St. Louis Region
- Formed in 1965 to cooperatively solve problems across jurisdictions
- Metropolitan Planning Organization (MPO)
- Comprehensive, Cooperative and Continuing Planning

East-West Gateway Board of Directors

24 Voting Members

Chief elected officials from 8 counties

29 Member Board of Directors

12 from Missouri

12 from Illinois

20 Locally elected officials

5 Non-voting members

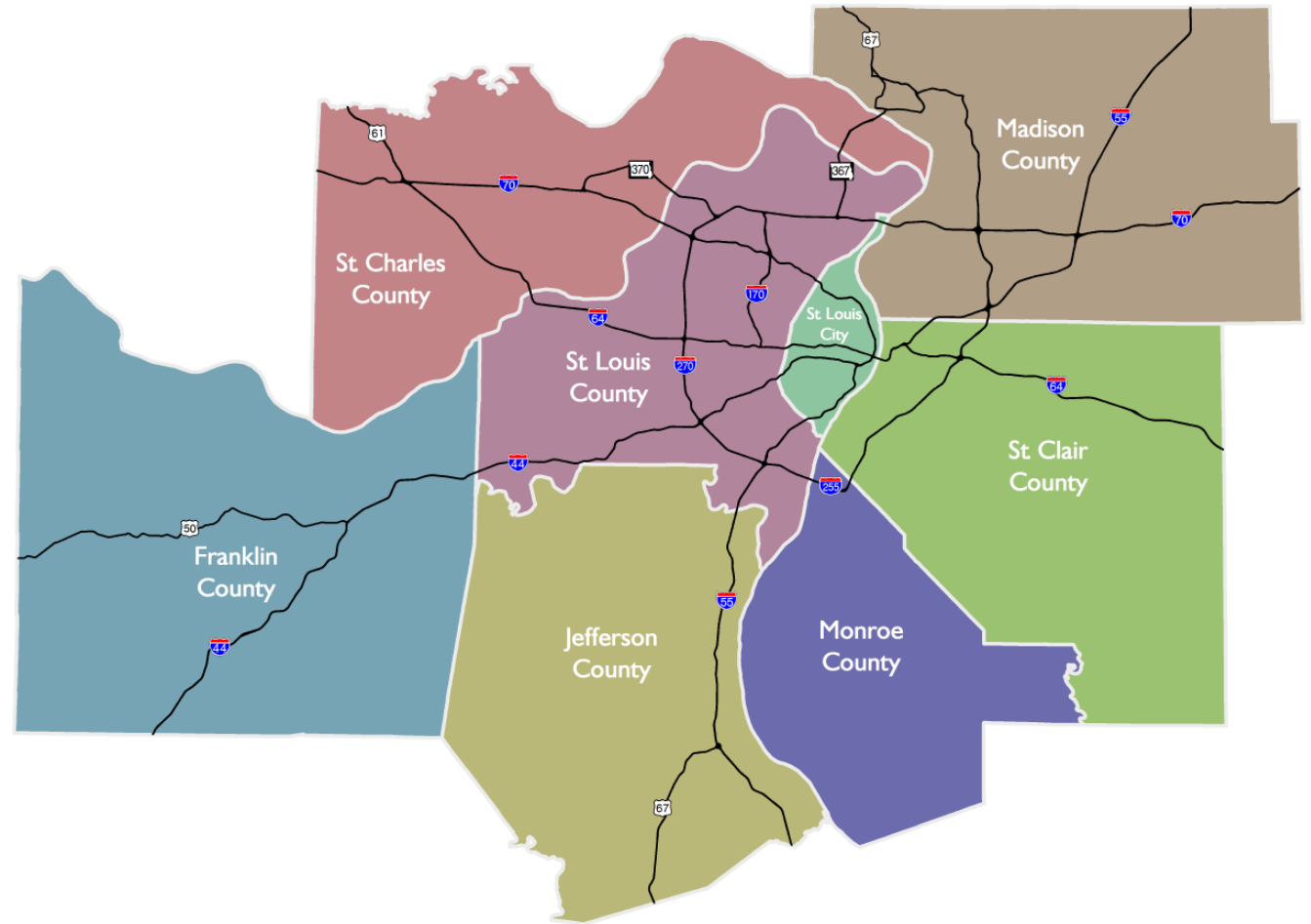4 Regional citizens

East-West Gateway Region

8 Counties

203 Municipalities

2.6 million people

$141 billion dollar economy

150,000 businesses

10,612 miles of roads

758 miles of the federal interstate system

Transportation Planning

EWG's 10 Guiding Principles

|		
	Preserve and Maintain the Existing System	Ensure the transportation system remains in a state of good repair.
	Support Public Transportation	Invest in public transportation to spur economic development, protect the environment and improve quality of life.
	Support Neighborhoods & Communities	Connect communities to opportunities and resources across the region.
	Foster a Vibrant Downtown & Central Core	Improve access to and mobility within the central core by all modes to increase the attractiveness of St. Louis and strengthen the regional economy.
	Provide More Transportation Choices	Create viable alternatives to automobile travel by providing bicycle and pedestrian facilities.
	Promote Safety and Security	Provide a safe and secure transportation system for all users.
	Support a Diverse Economy with a Reliable System	Reduce congestion and improve travel time reliability to support the diverse economic sectors of the region.
	Support Quality Job Development	Support the growth of wealth producing jobs that allow residents to save and return money to the economy.
	Strengthen Intermodal Connections	Support freight movement and connections that are critical to the efficient flow of both people and goods.
	Protect Air Quality and Environmental Assets	Encourage investments that recognize the linkages between the social, economic, and natural fabric of the region.

Long-Range Transportation Plan

- Every 4 years

- Principles and strategies to guide transportation decisions

- Investment plan

- Air quality conformity

Transportation Planning
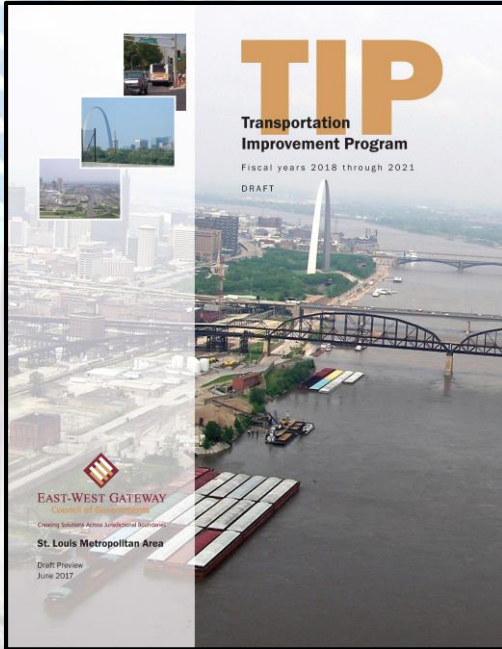
Transportation Improvement Program (TIP)

- Updated Annually

- 4 year program

- Federally funded and Regionally Significant Projects

FY2018-2021 TIP

- 761 projects

- $2.23 billion in federal, state, local, and private funding

- 51% of program on preserving existing infrastructure

But First…

How pleased are you to be here today?

41%	1.	Totally
19%	2.	100%
31%	3.	Very
9%	4.	Completely
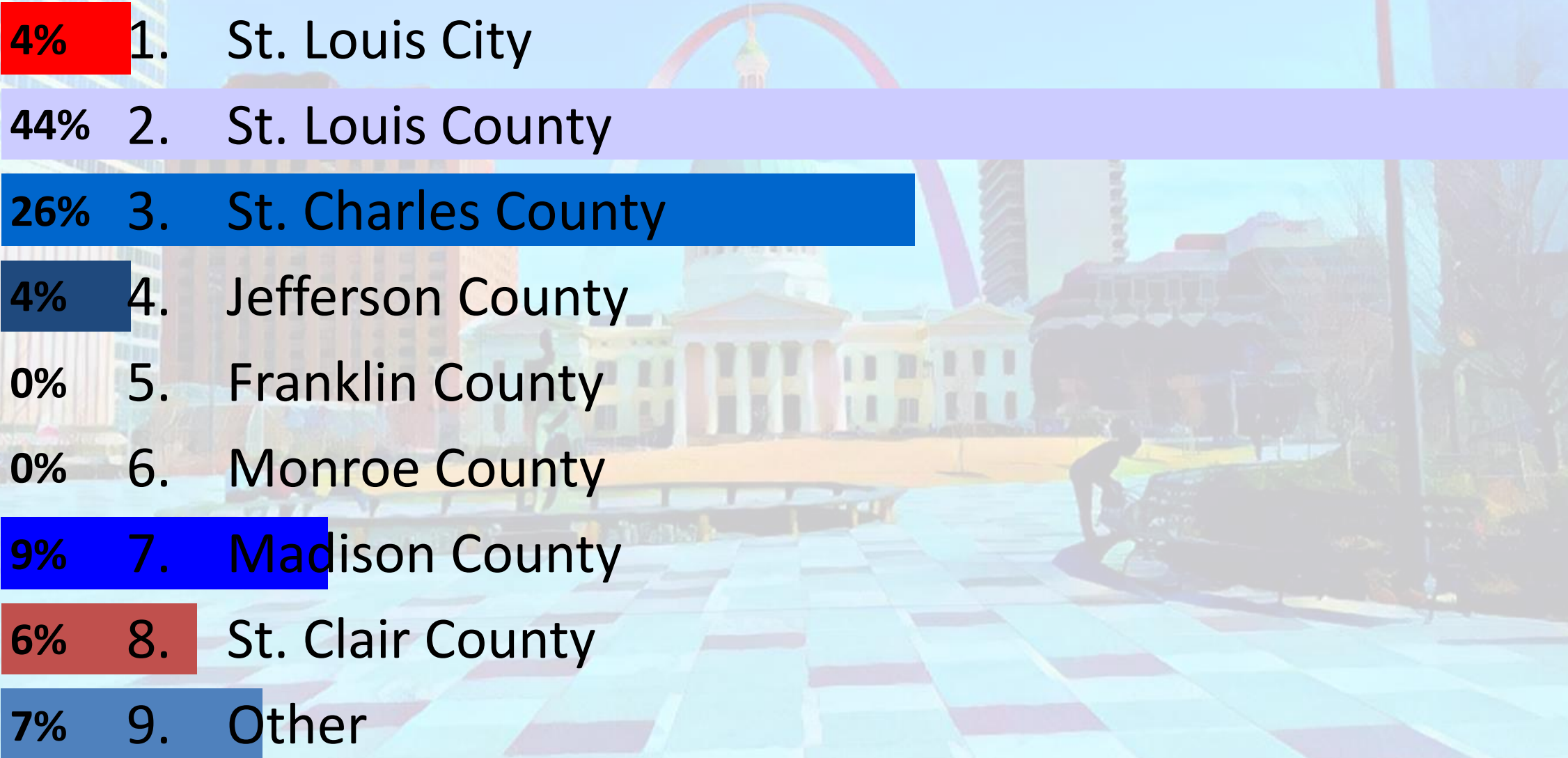
What is your affiliation?

40% 1.   Private Sector

28% 2.   Local Government

17% 3.   State Government

0% 4.   Federal Government

5% 5.   Non-profit

1% 6.   University

8% 7.   Other

Which County do you live in?

4% 1. St. Louis City

44% 2. St. Louis County

26% 3. St. Charles County

4% 4. Jefferson County

0% 5. Franklin County

0% 6. Monroe County

9% 7. Madison County

6% 8. St. Clair County

7% 9. Other

Connected2045, East-West Gateway's Long-Range Transportation Plan

East-West Gateway is charged with developing a performance-based long-range transportation plan

⬇

Connected2045

Regional Context

Principles and strategies to guide transportation decisions

Investment Plan

Air Quality Conformity

Long-Range Transportation Plan

- Updated every four years
- Identifies current and future needs based on population projections and travel demand
- Projects must be included in the long-range plan to receive federal funding
- Plan must be fiscally constrained
- Plan must be performance-based (FAST Act)

Connected2045:
10 Guiding Principles

- Derived from public engagement with citizens and regional leaders
- Used to establish policy-focused strategies
- Align with federal and state goals
- Provide more complete understanding of the transportation system and its impacts

EWG's 10 Guiding Principles

	Preserve and Maintain the Existing System	Ensure the transportation system remains in a state of good repair.
	Support Public Transportation	Invest in public transportation to spur economic development, protect the environment and improve quality of life.
	Support Neighborhoods & Communities	Connect communities to opportunities and resources across the region.
	Foster a Vibrant Downtown & Central Core	Improve access to and mobility within the central core by all modes to increase the attractiveness of St. Louis and strengthen the regional economy.
	Provide More Transportation Choices	Create viable alternatives to automobile travel by providing bicycle and pedestrian facilities.
	Promote Safety and Security	Provide a safe and secure transportation system for all users.
	Support a Diverse Economy with a Reliable System	Reduce congestion and improve travel time reliability to support the diverse economic sectors of the region.
	Support Quality Job Development	Support the growth of wealth producing jobs that allow residents to save and return money to the economy.
	Strengthen Intermodal Connections	Support freight movement and connections that are critical to the efficient flow of both people and goods.
	Protect Air Quality and Environmental Assets	Encourage investments that recognize the linkages between the social, economic, and natural fabric of the region.

Connected2045 Investment Plan

- Considered 50 projects costing $9 billion

- Fiscal constraint
  - 28 priority projects
  - $4 billion

- $27 billion for ongoing operations/maintenance, transit operations

Funded Project Locations

St. Louis Metropolitan Area

March 2015

Project Period

— 2016-2025

— 2026-2035

— 2036-2045

— Main Road

— Interstate Highway

▭ County Boundary

— Major River

MADISON COUNTY

ST. CHARLES COUNTY

CITY OF ST. LOUIS

ST. LOUIS COUNTY

FRANKLIN COUNTY

JEFFERSON COUNTY

MONROE COUNTY

ST. CLAIR COUNTY

0   5   10
Miles
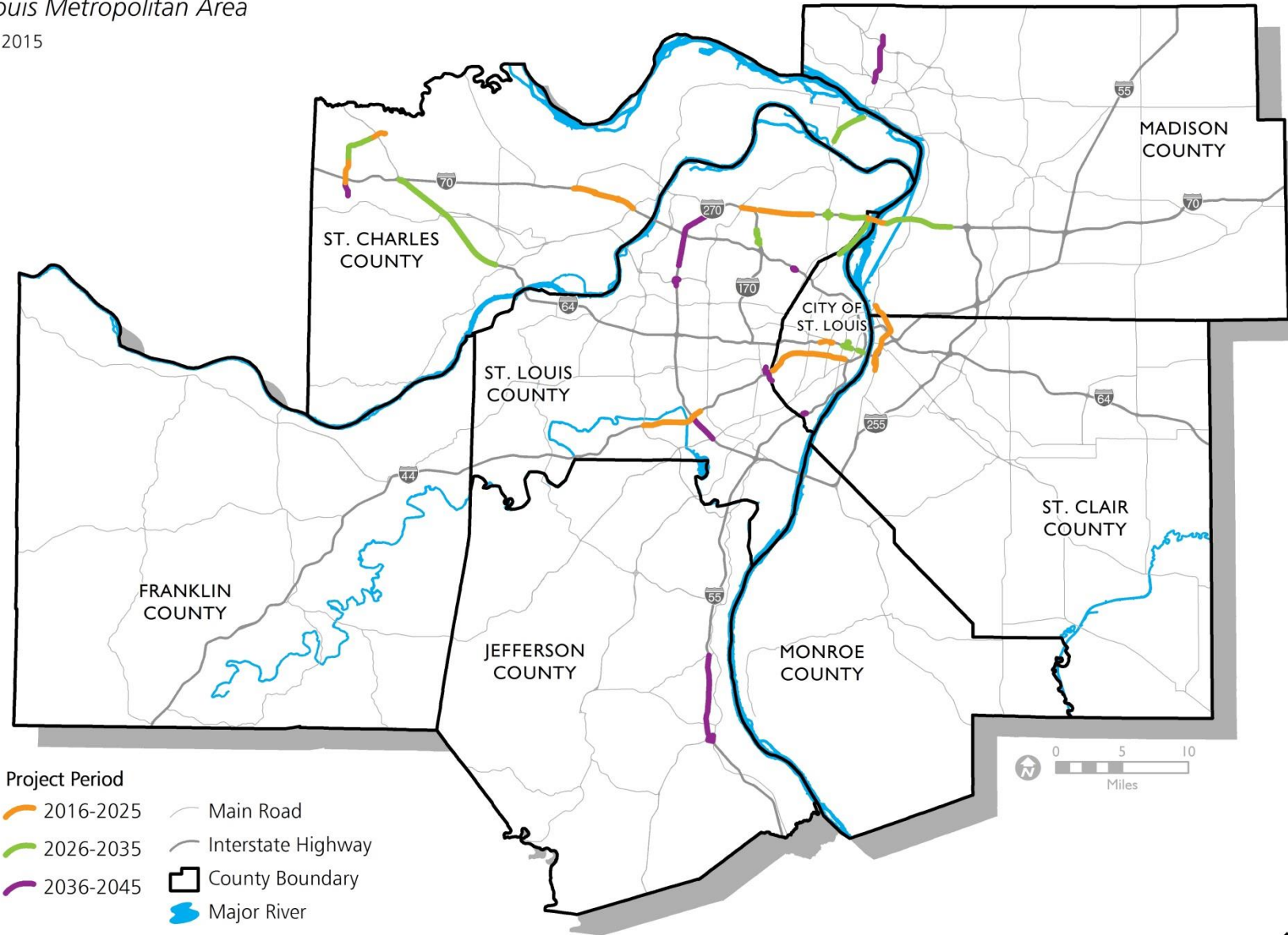
Source: East-West Gateway Council of Governments

EAST-WEST GATEWAY
Council of Governments

National and State Trends

Gas prices are falling fast

by Chris Isidore @CNNMoney

June 22, 2017: 10:12 AM ET

BUSINESS NEWS SEPTEMBER 27, 2018 / 12:10 AM / 4 DAYS AGO

U.S. gasoline prices at seasonal four-year high ahead of midterm elections

Highway Trust Fund is on fumes and time is running out

Innovations

Fatal e-scooter accident emerges just as California legalizes riding without a helmet

Driverless Cars Will Dramatically Change Where And How We Live

The Case Against Driverless Cars

Lax safety laws, public skepticism, and privacy concerns are among the issues that could pump the brakes on the autonomous-vehicle market.

Chris Neiger (TMFNewsie)
Sep 28, 2018 at 6:00AM

Will Driverless Cars Make the Roads More Safe or Less Safe?

By Mike White - September 25, 2018

National Context - VMT
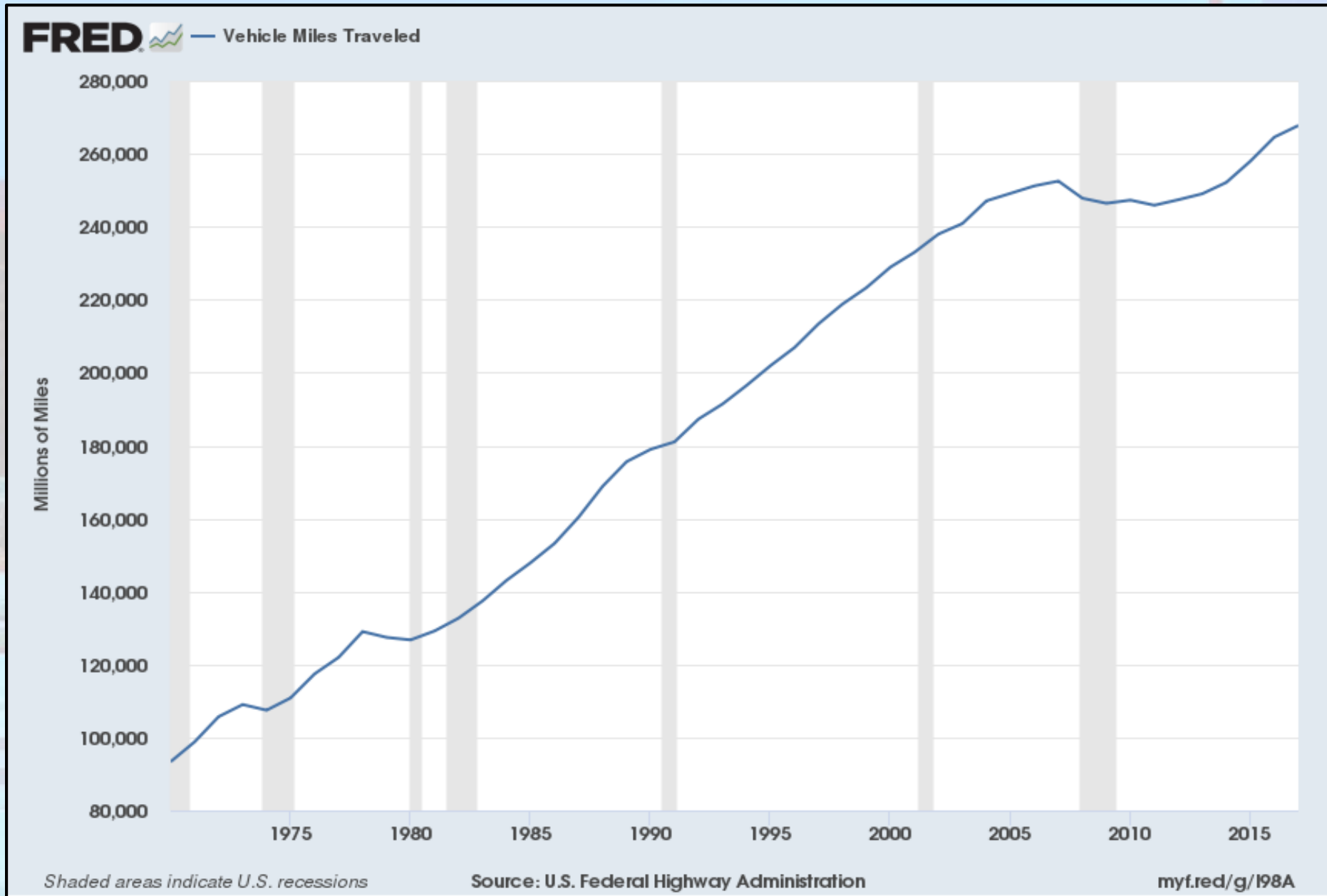
Source: Federal Reserve Bank of St. Louis

National Context - Funding

Source: Congressional Budget Office

Spending on Transportation and Water Infrastructure
Public spending by level of government, 1956–2014

State and local government

Federal government
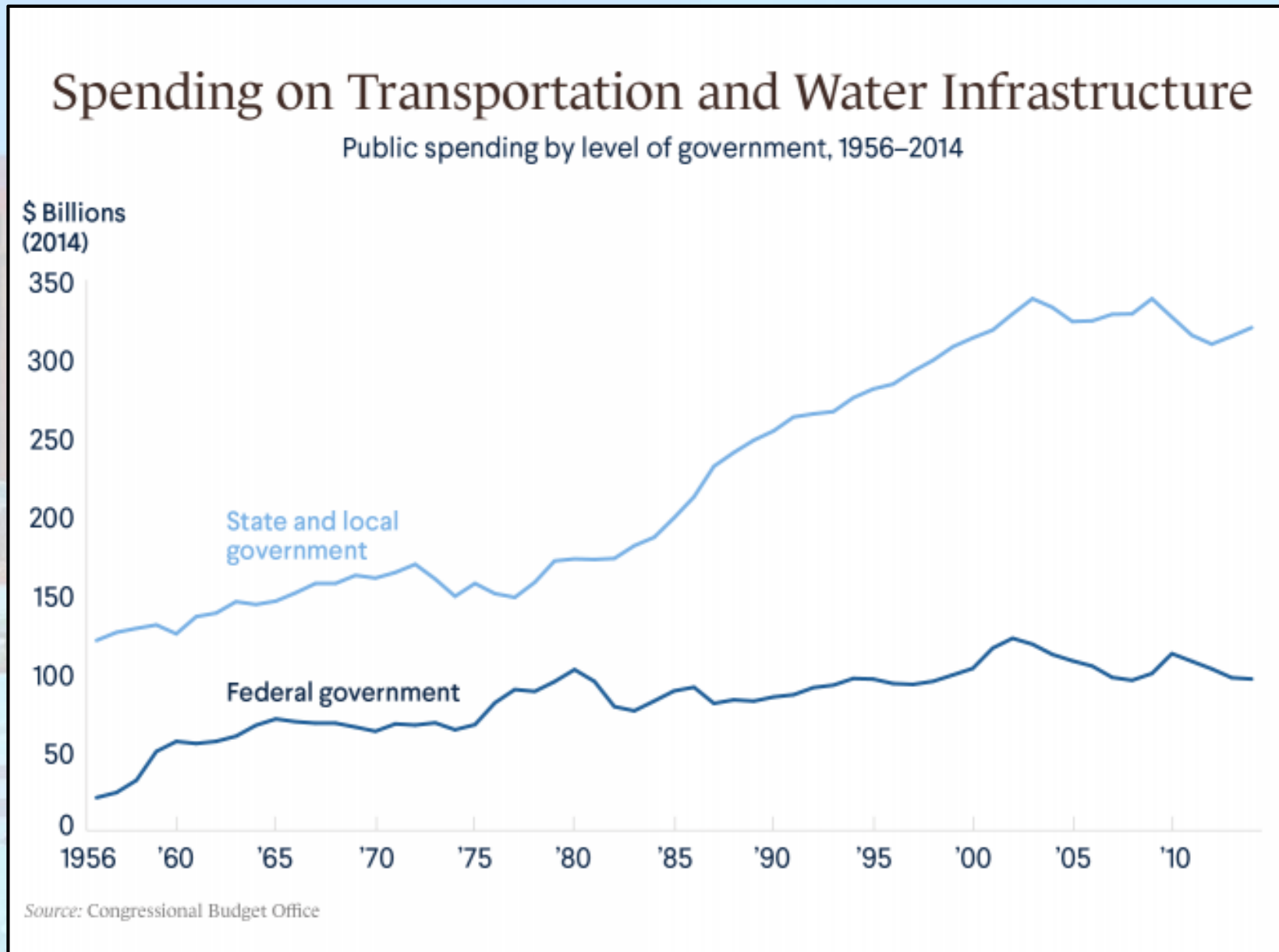
Source: Congressional Budget Office

National Context – Highway Trust Fund

Projected Highway Trust Fund Shortfalls
($ billion)
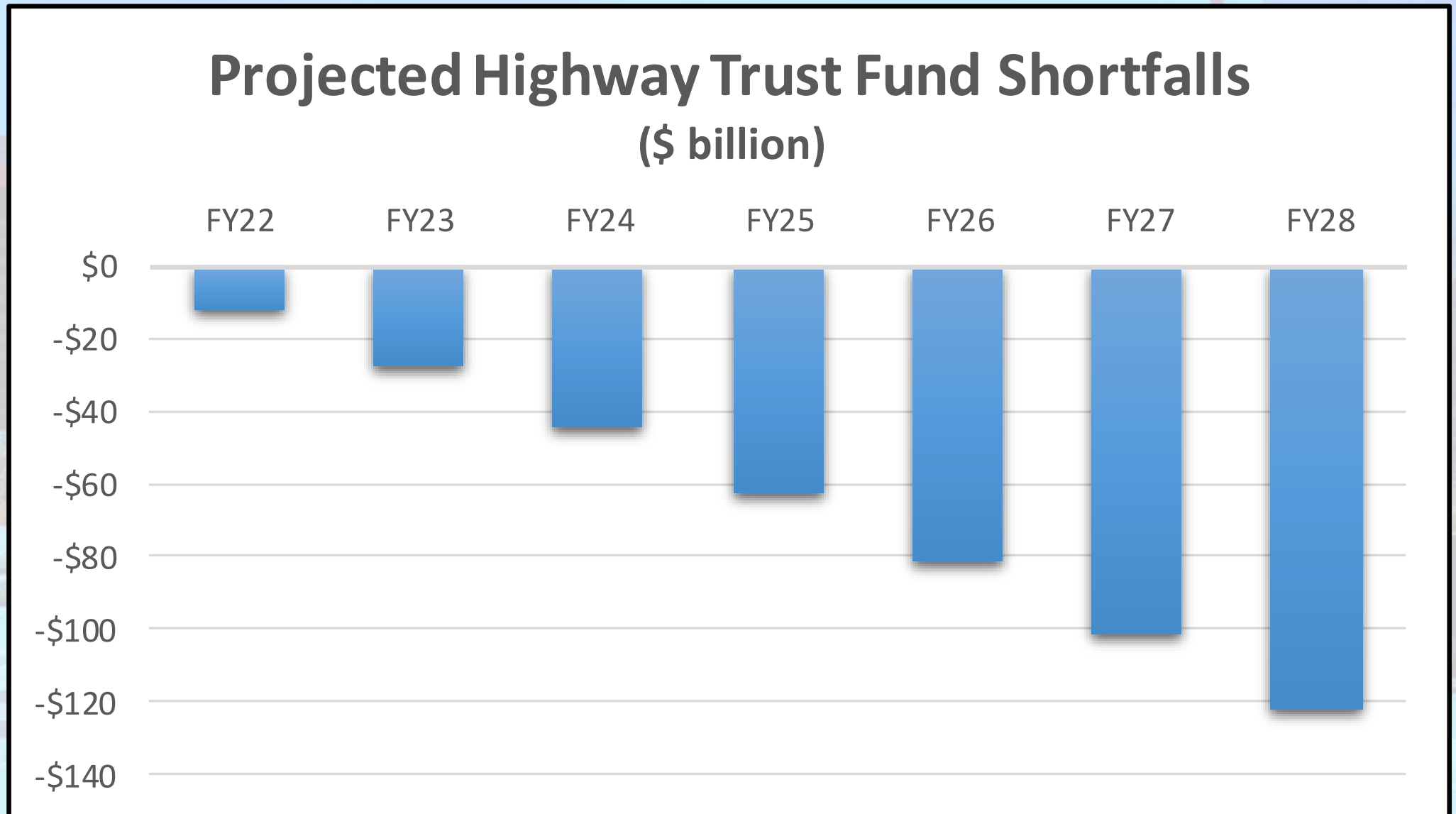
Source: Eno Center for Transportation

Global Gasoline Prices, September 2018
(in $/gallon)
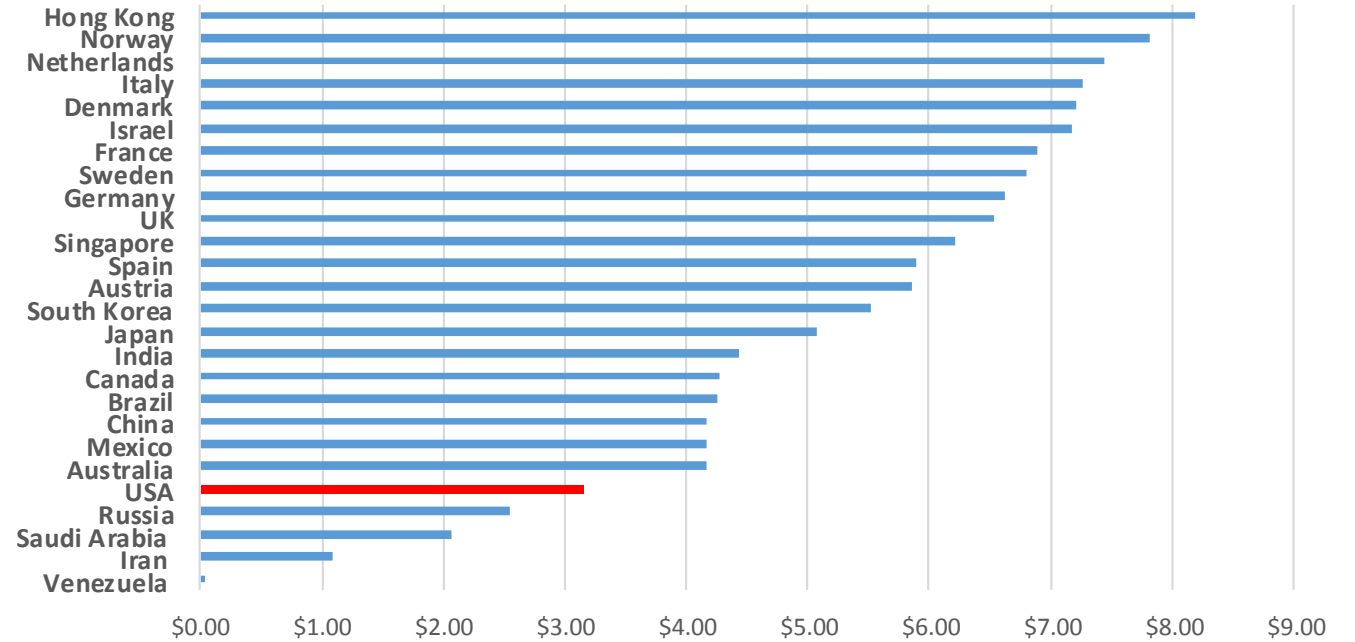
Source:
www.globalpetrolprices.com

Potential Opportunities As Connected and Automated Vehicle Technology is Deployed

- Improved safety

- Increased capacity, reduced congestion

- Improved connections with transit

- New funding and financing mechanisms

- Expanded mobility for those currently unable to drive

- Increased efficiency for freight movement through improved efficiency and applications such as freight platooning

St. Louis Region
Emerging Transportation
Technology Strategic Plan

June 2017

Prepared for
East-West Gateway Council of Governments
by
ICF

Potential Challenges As Connected and Automated Vehicle Technology is Deployed

- Safety in a mixed fleet environment during early deployment
- Cybersecurity issues
- Increased vehicle miles traveled
- Competition with public transit
- Impacts to current funding and financing mechanisms
- Potential for deployment to disadvantage some transportation system users
- Certain transportation investments may become obsolete

Missouri context - VMT

Missouri VMT Trend
(in Millions of Miles)
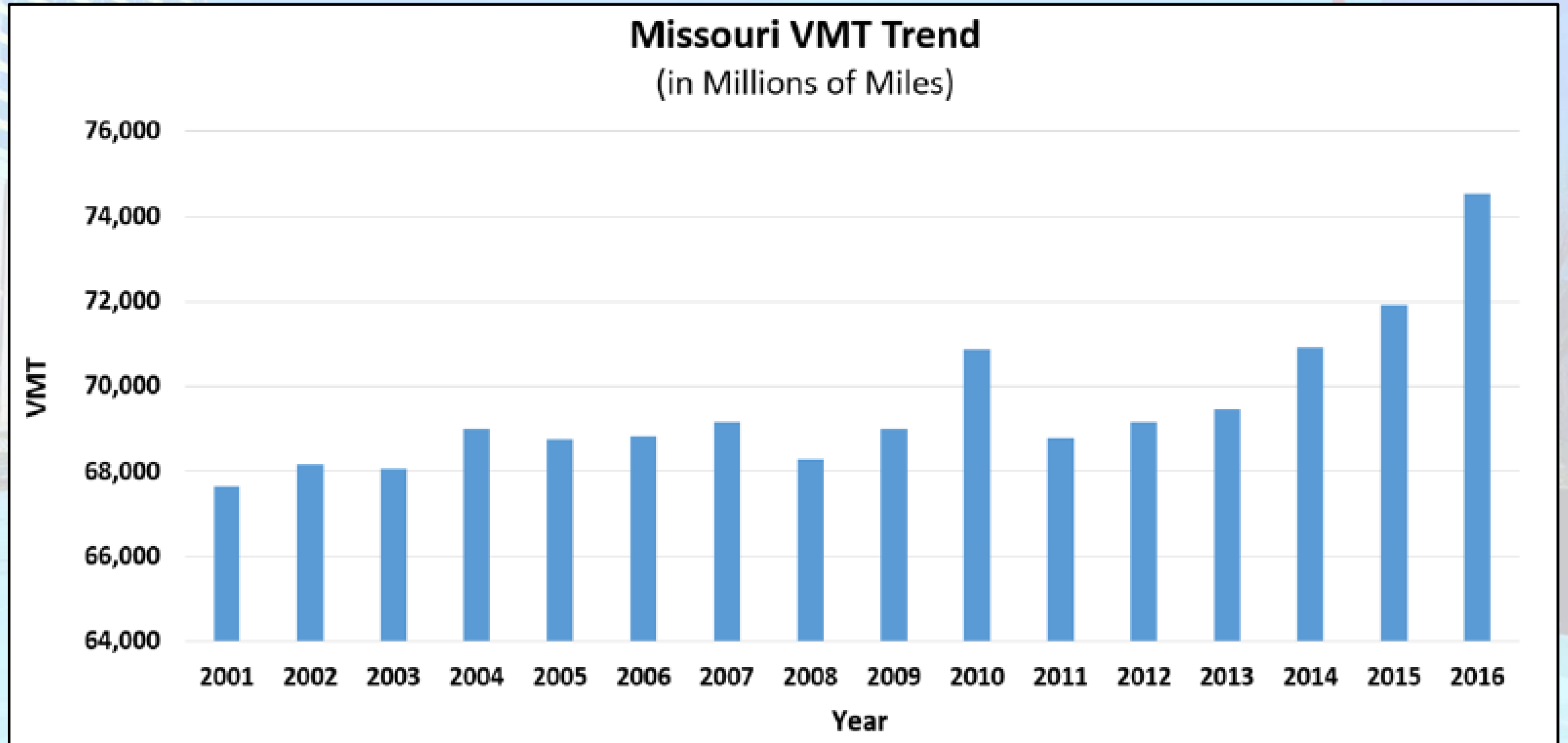
Source: Missouri Long-Range Transportation Plan

Missouri context - Fleet
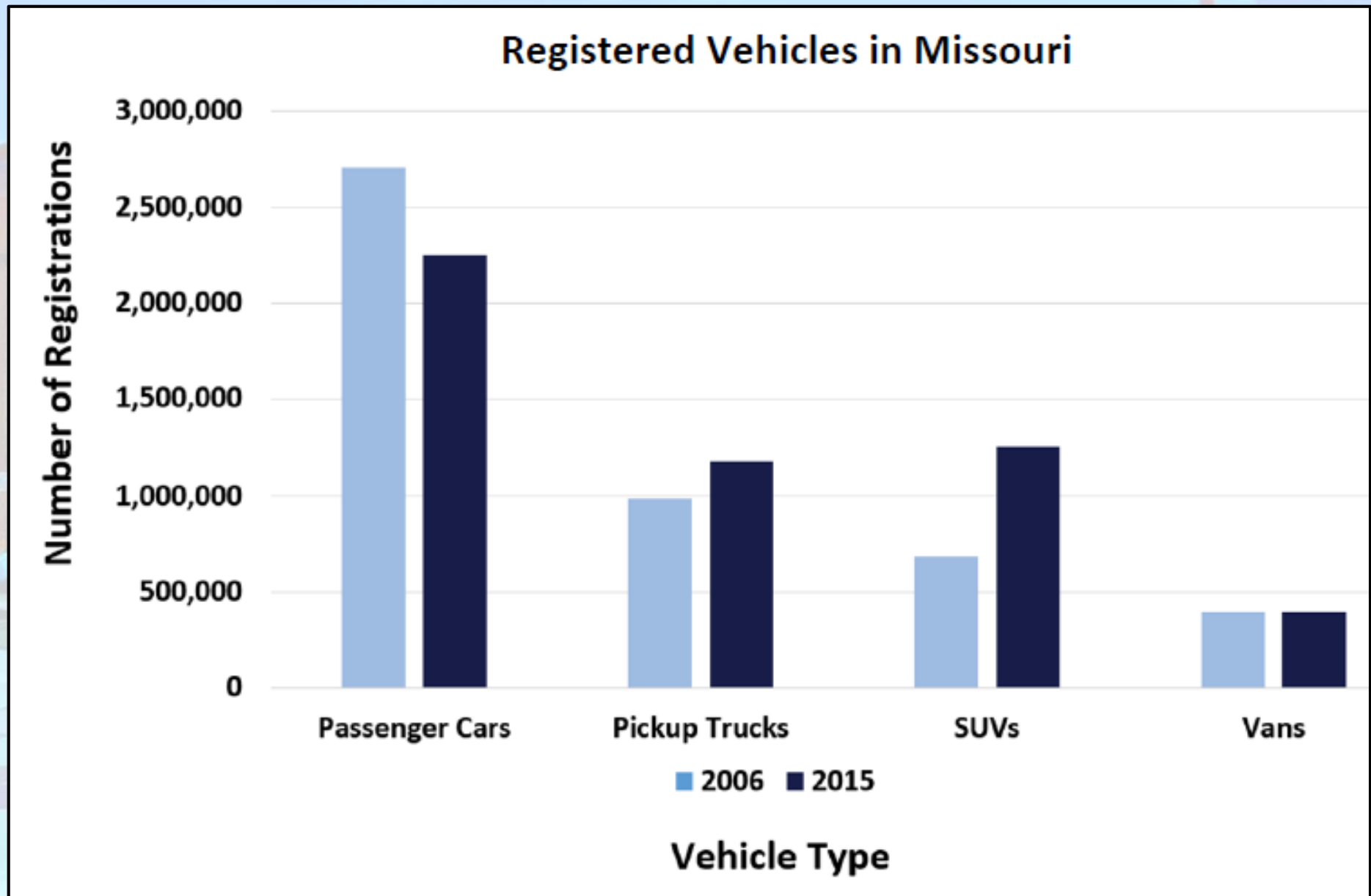
Source:
FHWA/Missouri
Long-Range
Transportation Plan

Registered Vehicles in Missouri

Missouri context - Revenue

Figure 4.2 - Gallons of Fuel Taxed in Missouri (billions)

Source: Missouri Long-Range Transportation Plan
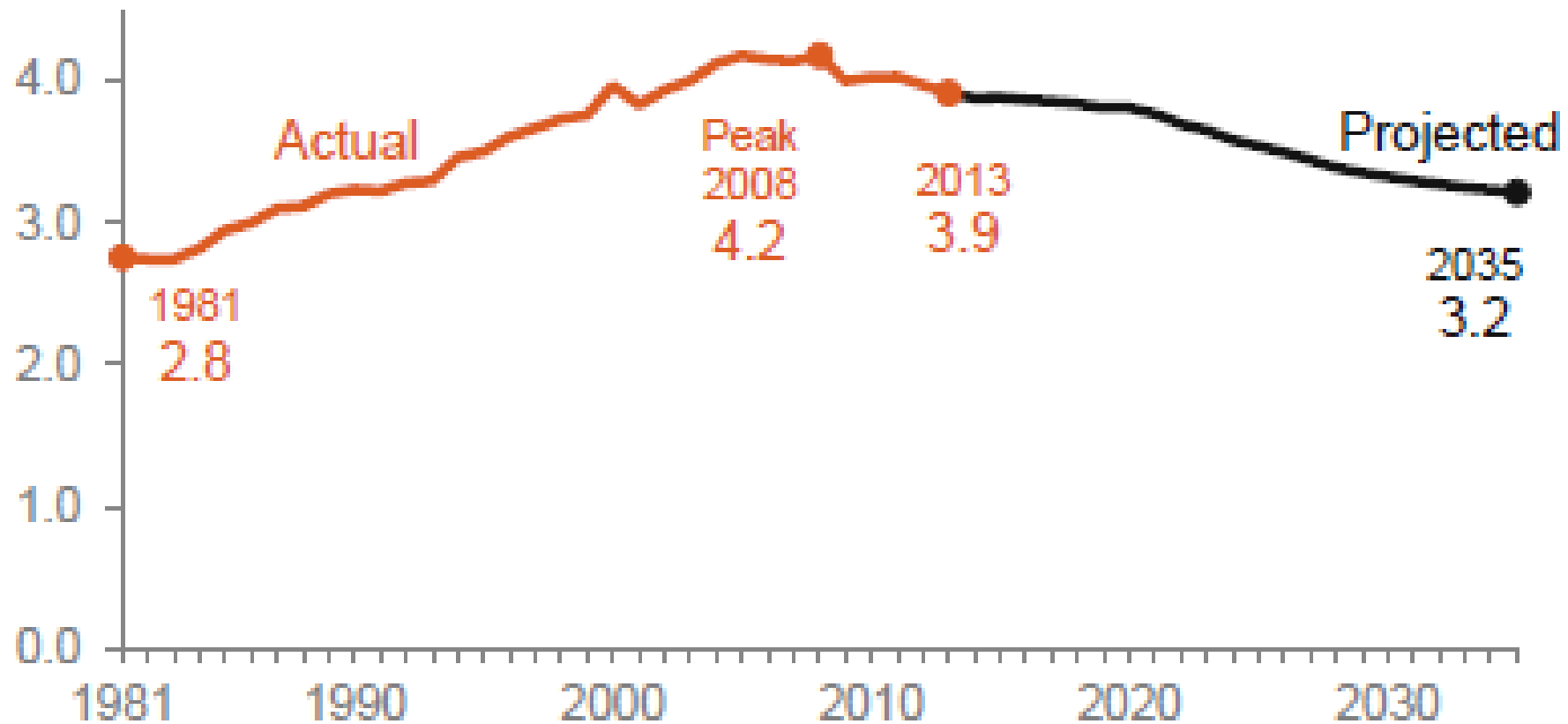
Based on what you just heard, do you think our transportation system is currently prepared to address the challenges of the future?

5% 1. Yes

84% 2. No

11% 3. Not Sure/ Don't Know

Trends Impacting Transportation Planning

- Demographic Changes – Aging population, Millennials
- Increased freight movement
- New transportation technologies
- Poverty and racial disparity
- Aging and deteriorating infrastructure
- Jobs moving away from the urban core
- Climate Change/ Poor Air Quality
- Uncertain transportation funding
- Volatile energy prices

Which three trends do you think will most impact the transportation system in the future? (Choose 3)?

23% 1. **Demographic Changes** – Aging population, Millennials

32% 2. **Increased freight movement**

52% 3. New transportation technologies

6% 4. Poverty and racial disparity

55% 5. Aging and deteriorating infrastructure

15% 6. Jobs moving away from the urban core

3% 7. Climate Change/ Poor Air Quality

45% 8. Uncertain transportation funding

8% 9. Volatile energy prices

1% 10. Other

Performance-Based Planning and Programming
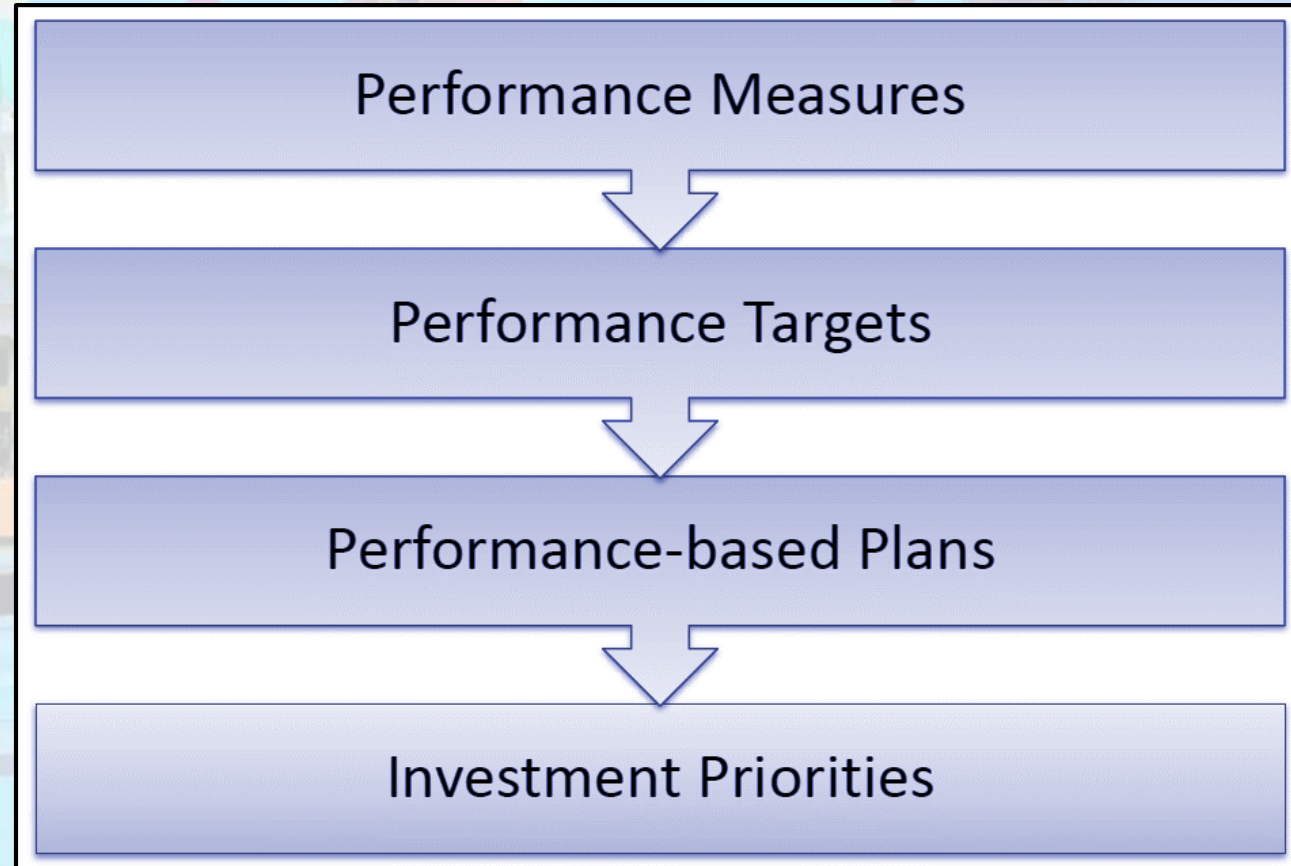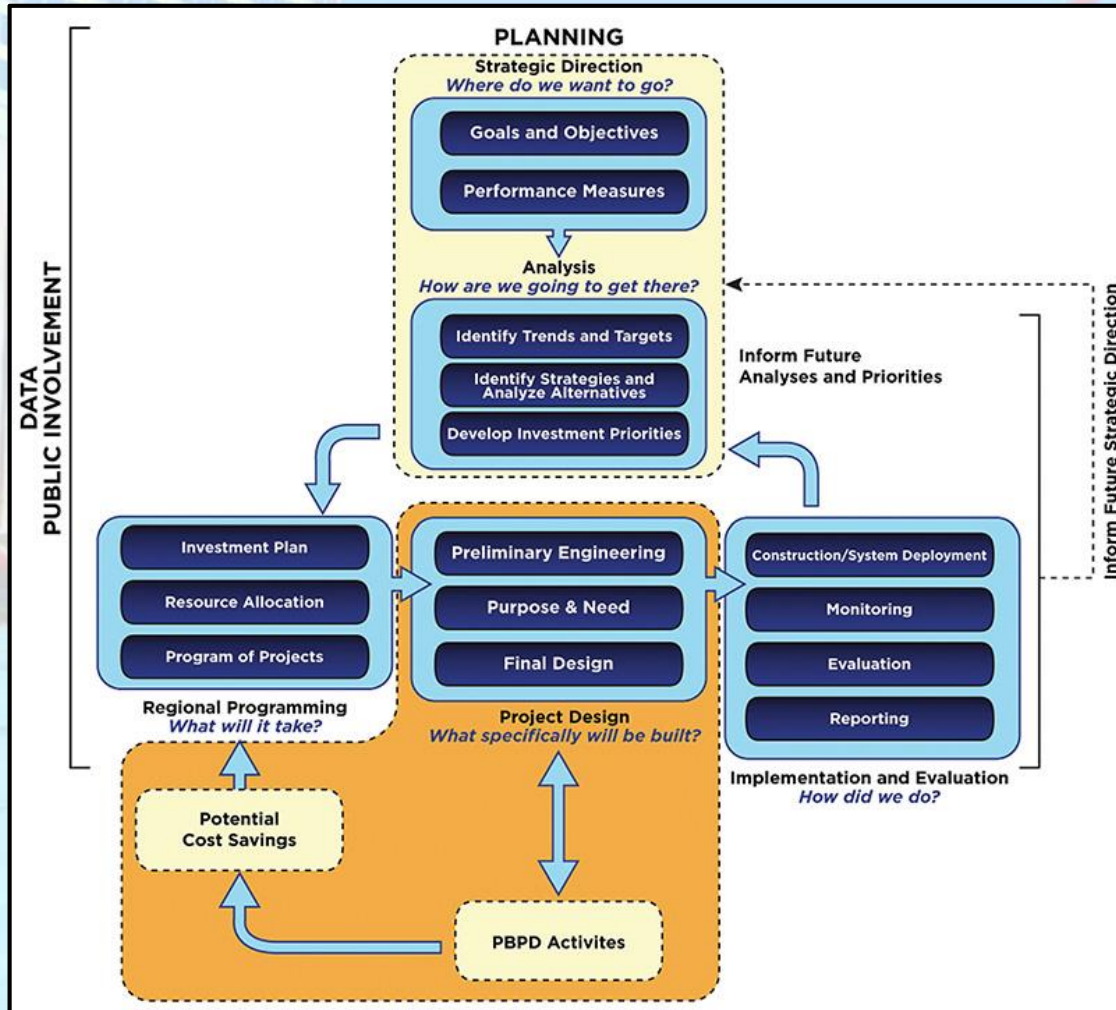
Background

- MAP-21 (and subsequently the FAST Act) required establishment of national goals, performance measures, and accountability in planning and funding transportation investments (FAST Act §§ 1116, 1406; 23 U.S.C. 119, 148, 150, 167)

  – Safety
  – Infrastructure condition
  – Congestion reduction
  – System reliability
  – Freight movement and economic vitality
  – Environmental sustainability
  – Reduced project delivery delays

  ➡ Improved Accessibility and Mobility

Why Performance-Based Planning And Programming?

Performance-based planning and programming (PBPP) refers to the application of performance management within the planning and programming processes of transportation agencies to **achieve desired performance outcomes** for the multimodal transportation system

- Improved investment decision making
- Improved return on investments and resource allocation
- Demonstrates link between funding and performance
- Improved system performance

FAST Act: Performance-Driven, Outcome-Based Planning and Programming
FAST Act §§ 1116, 1406; 23 U.S.C. 119, 148, 150, 167

- Federal ➡ State ➡ Metropolitan
  - FAST Act identifies national goal areas
  - USDOT establishes performance measures
  - States set performance targets
  - MPOs set performance targets
  - State and metro plans describe how programs and project selection will achieve targets
  - **As the Metropolitan Planning Organization for the St. Louis region, East-West Gateway is charged with developing a performance-based long-range transportation plan, as well as a corresponding project evaluation structure for developing the Transportation Improvement Program (TIP) (23 USC 134 G).**

Performance Goals and Measures

- **Safety** - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads   [23 U.S.C. 134, 135, 148, 150]
  - Number of Fatalities
  - Rate of Fatalities per 100 million Vehicle Miles Traveled (VMT)
  - Number of Serious Injuries
  - Rate of Serious Injuries per 100 million VMT
  - Number of Non-motorized Fatalities and Non-motorized Serious Injuries

  5-year rolling averages

Safety Data and Targets

STATE OF MISSOURI AND EAST-WEST GATEWAY
REGION TRAFFIC FATALITIES 2011-2017

	2011	2012	2013	2014	2015	2016	2017
State of Missouri	786	826	757	766	870	947	934
EWG Region	227	247	233	240	272	288	302
EWG MO	162	171	157	173	196	224	226
EWG IL	65	76	76	67	76	64	76

— EWG IL   — EWG MO   — EWG Region   — State of Missouri
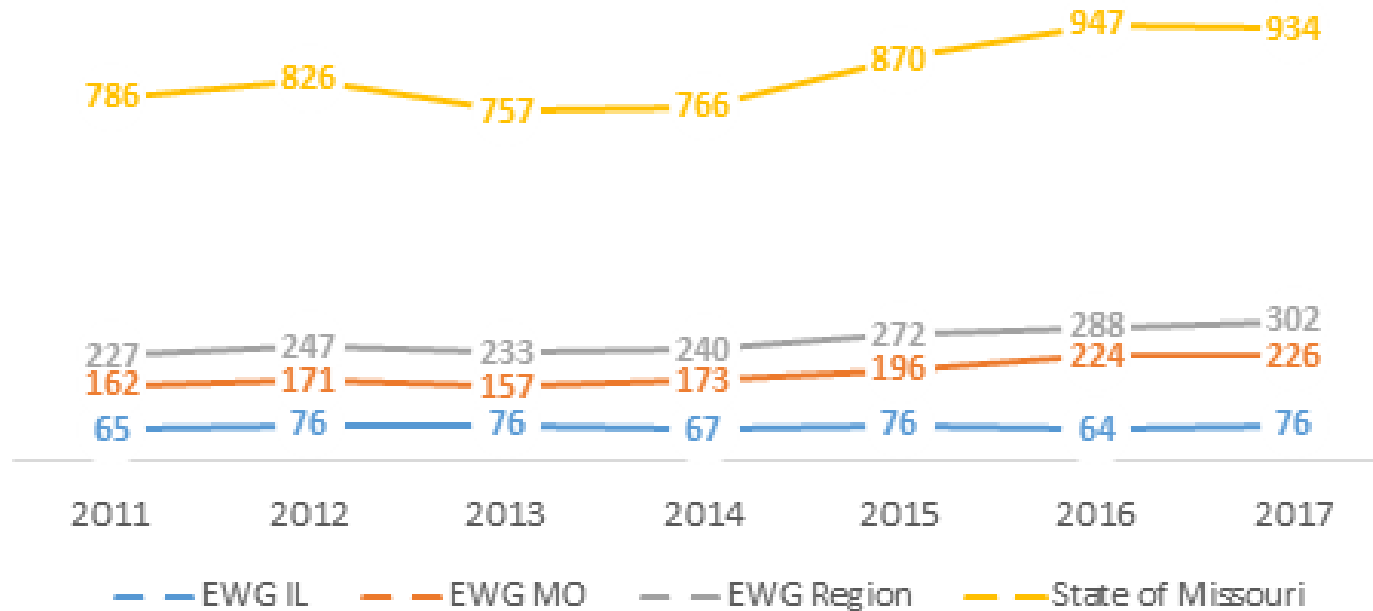
Missouri State Safety Targets	2018	2019
Fatality Injury Reduction	7%	9%
Serious Injury Reduction	4%	5%
Reduction of Bike/Ped Fatalities & Serious Injuries	4%	4%

EWG Safety Targets	2018	2019
Fatality Injury Reduction	2%	TBD
Serious Injury Reduction	2%	TBD
Reduction of Bike/Ped Fatalities & Serious Injuries	2%	TBD

Examples of Roadway Safety Issues

- Distracted Driving

- Impaired Driving

- Bicycle/Pedestrian Accidents and fatalities

- Enforcement issues, e.g. speeding, red light/stop sign running

- Infrastructure, e.g. lack of shoulders, signals, rumble strips
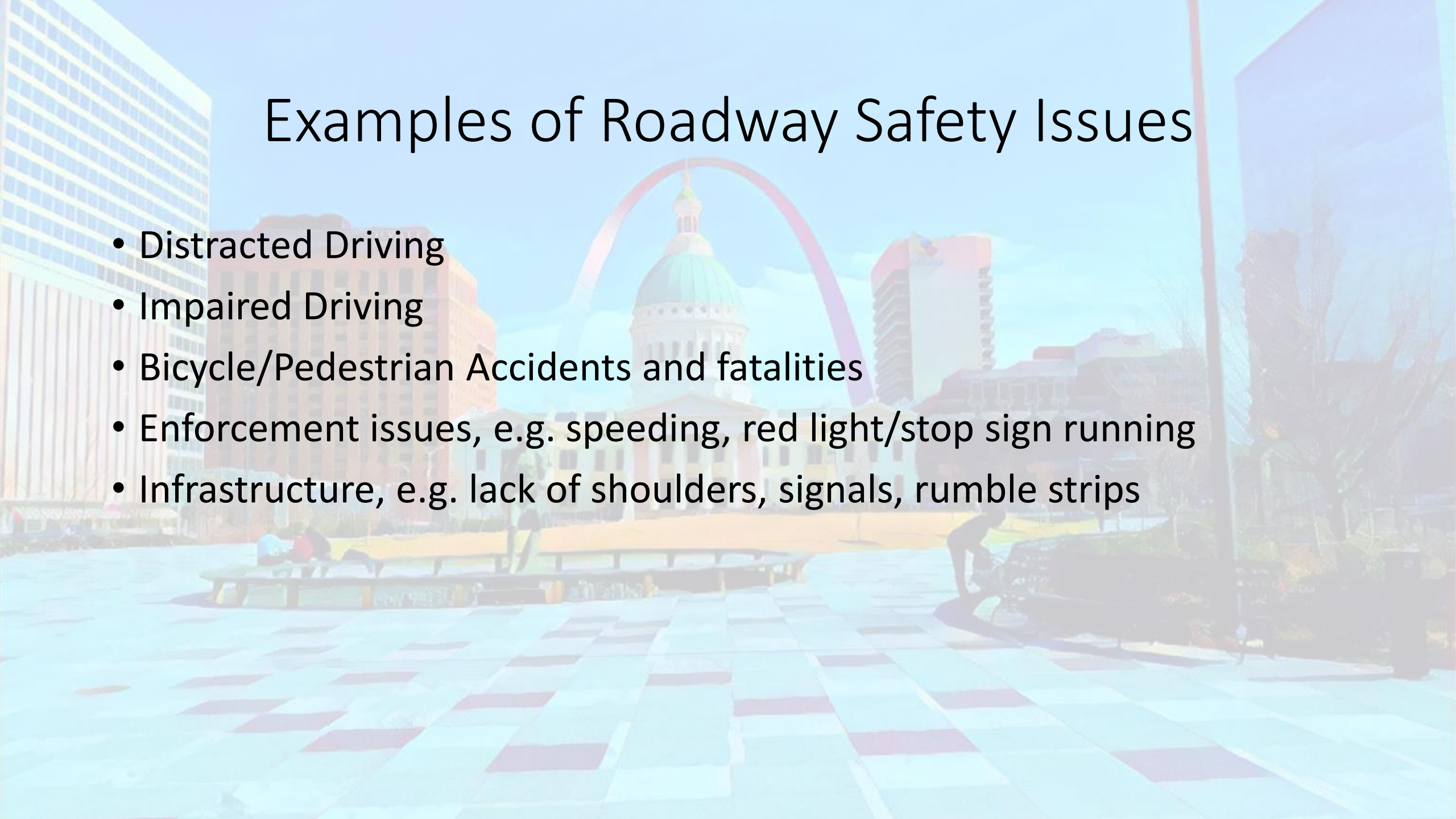
What are the most pressing highway safety issues for the region to address (select 2)

79% 1. Distracted Driving
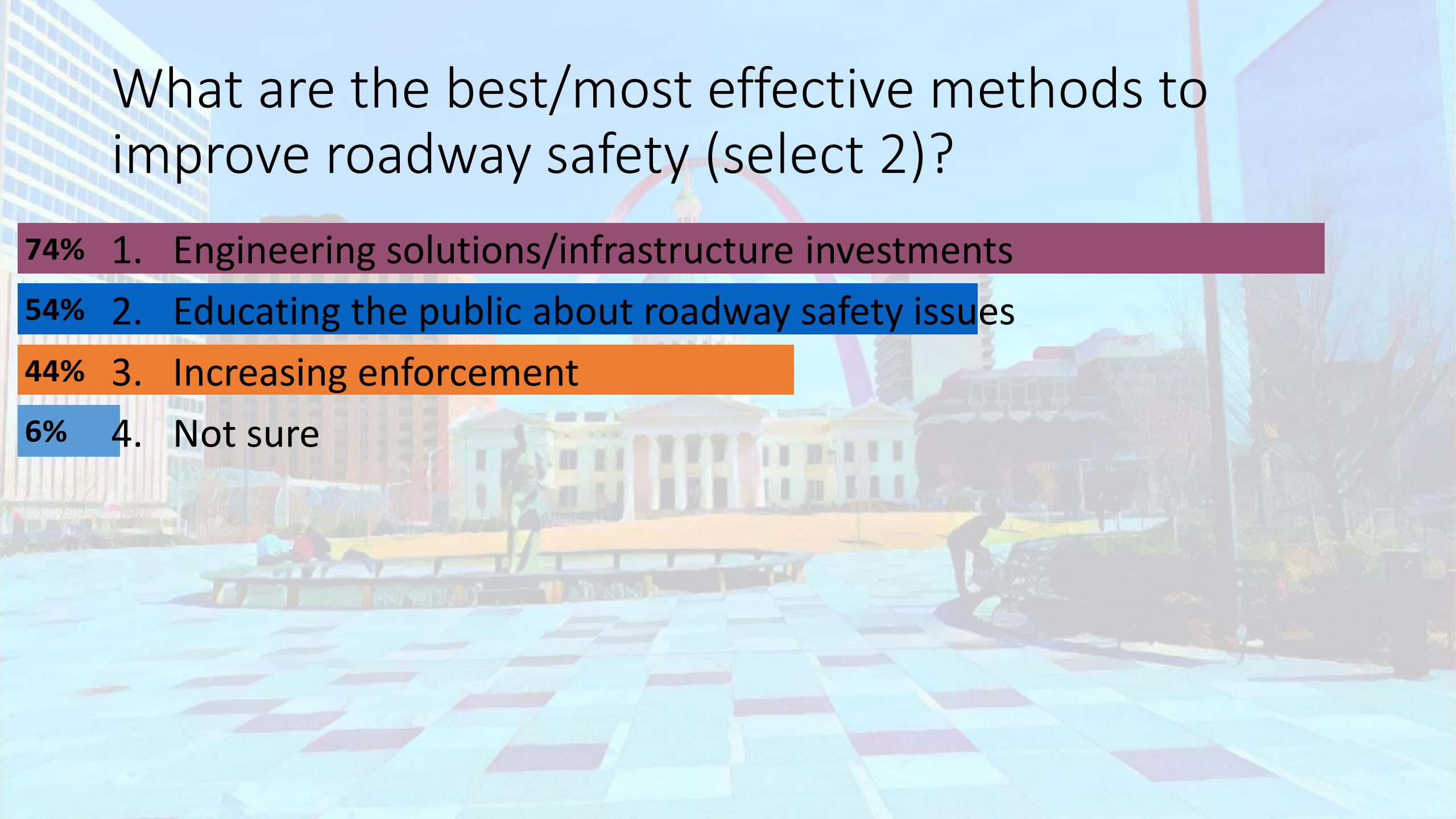
26% 2. Impaired Driving

11% 3. Bicycle/Pedestrian accidents/fatalities

24% 4. Enforcement issues

47% 5. Infrastructure (shoulders, signals, rumble strips, etc.)

What are the best/most effective methods to improve roadway safety (select 2)?

74% 1. Engineering solutions/infrastructure investments

54% 2. Educating the public about roadway safety issues

44% 3. Increasing enforcement

6% 4. Not sure

Is the St. Louis Region doing enough to improve safety on our roadways?

13% 1. Yes

63% 2. No

24% 3. Not Sure
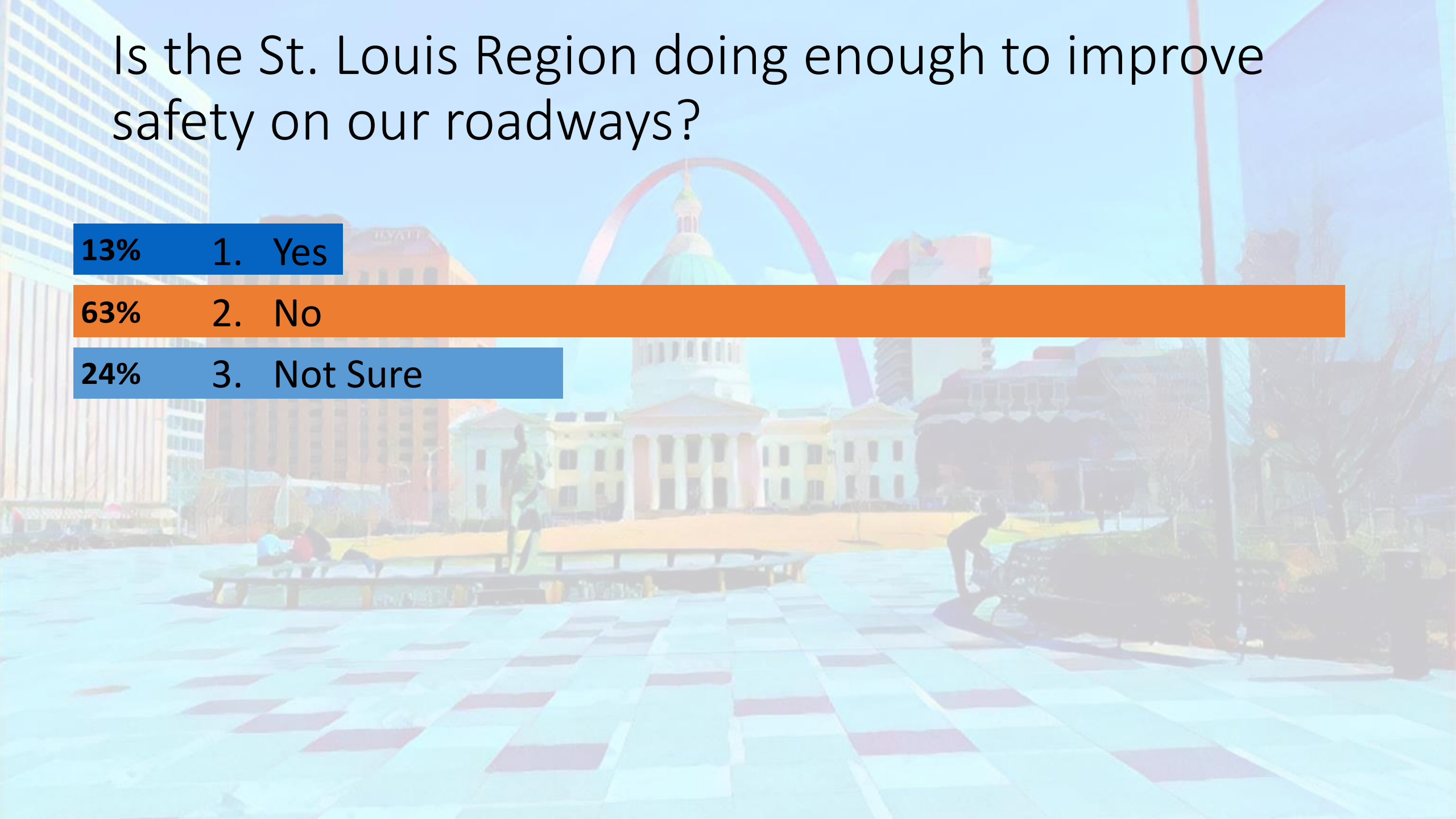
Performance Goals and Measures

- **Infrastructure Condition** - To maintain the highway infrastructure asset system in a state of good repair [23 CFR 490]
  - Pavement Condition
    - Percentage of pavements on the Interstate System in Good condition
    - Percentage of pavements on the Interstate System in Poor condition
    - Percentage of pavements on the non-Interstate National Highway System (NHS) in Good condition
    - Percentage of pavements on the non-Interstate NHS in Poor condition
  - Bridge Condition
    - Percentage of NHS bridges classified as in Good condition
    - Percentage of NHS bridges classified as in Poor condition
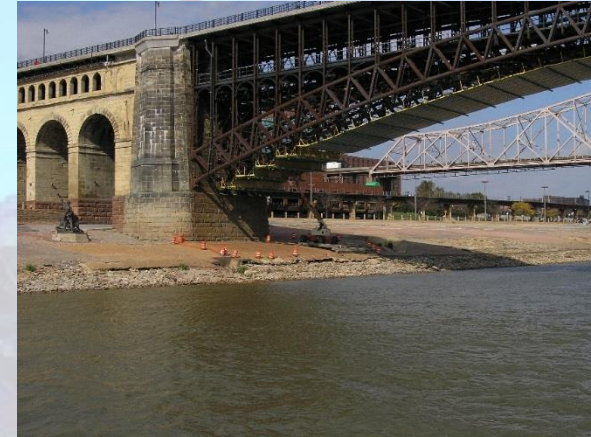
Pavement and Bridge Condition Targets

	MO Statewide			EWG Missouri Counties		
	Baseline	2020	2022	Baseline	2020	2022
Interstate Good	77.5%	n/a	77.5%	70.7%	n/a	TBD
Interstate Poor	0.0%	n/a	0.0%	0.0%	n/a	TBD
Non-Interstate NHS Good	61.1%	61.1%	61.1%	39.2%	TBD	TBD
Non-Interstate NHS Poor	1.0%	1.0%	1.0%	3.5%	TBD	TBD
% Bridges Good Condition	34.0%	30.9%	30.9%	31.4%	TBD	TBD
% Bridges Poor Condition	7.1%	7.1%	7.1%	9.2%	TBD	TBD

How should we prioritize investments in preservation?

16% 1. Focus primarily on interstate highways

14% 2. Focus primarily on major arterials

65% 3. Divide resources equally between highways and arterials

5% 4. Not sure

How should we prioritize investments in preservation?

26% 1. Prioritize bridges

8% 2. Prioritize roadways

61% 3. Divide resources equally between roadways and bridges

5% 4. Not sure

How comfortable are you with the region setting declining targets for infrastructure preservation?

6% 1. Very comfortable

9% 2. Somewhat comfortable

3% 3. Neutral

31% 4. Somewhat uncomfortable

50% 5. Very uncomfortable

% Bridges Good Condition			
	34.0%	30.9%	30.9%

1% 6. Not sure
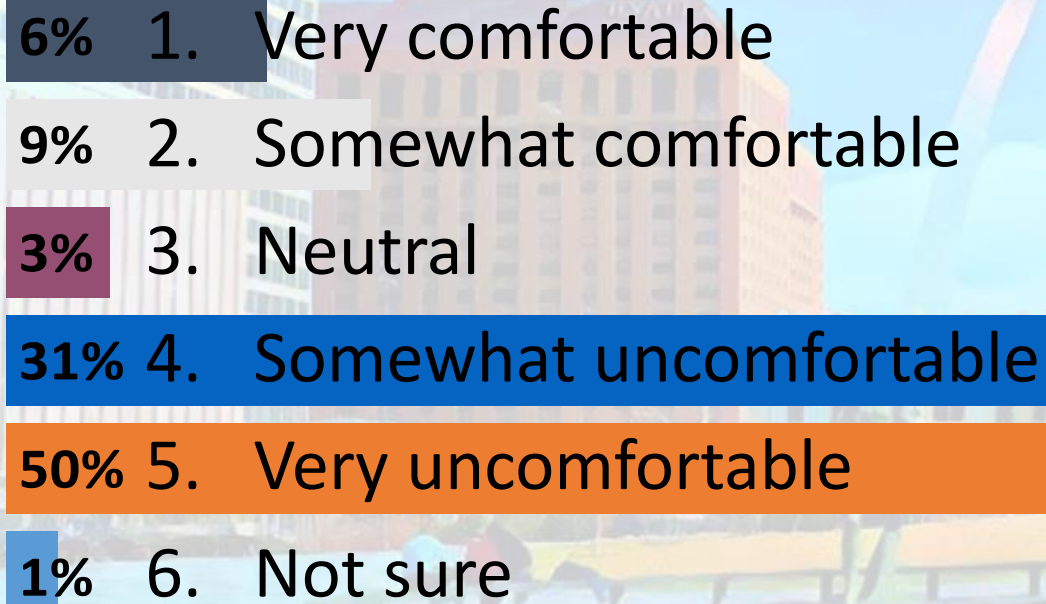
Performance Goals and Measures

- **System Reliability** - To improve the efficiency of the surface transportation system [23 CFR 490]
  - Percent of person miles traveled on the Interstate System that are reliable
  - Percent of person miles traveled on the non-Interstate NHS that are reliable
  - Annual hours of peak-hour excessive delay (PHED) per capita
  - Percent of non-single-occupant vehicle travel

- **Freight Movement and Economic Vitality** - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development [23 CFR 490]
  - Truck Travel Time Reliability Index

Reliability Targets

	MoDOT			EWG		
	2017 Baseline	**2019**	**2021**	**2017 Baseline**	**2019**	**2021**
Percent of Reliable Person-Miles Traveled on the Interstate	**91.6%**	**88.9%**	**87.1%**	**86.9%**	TBD	TBD
Percent of Reliable Person-Miles Traveled on the Non-Interstate NHS	**92.3%**	n/a	**87.8%**	**86.3%**	TBD	TBD
Truck Travel Time Reliability Index	1.25	1.28	1.30	1.54	TBD	TBD
Annual Hours of PHED	9.5	n/a	9.5	9.5	n/a	9.5
Percent of non-SOV Travel	17.8%	16.7%	17.0%	17.8%	16.7%	17.0%

Reliability Compared

Region	Interstate Reliability	Non-Interstate NHS Reliability
Memphis	96.4%	92.5%
Cleveland	91.0%	88.4%
Kansas City	90.4%	90.9%
St. Louis	86.9%	86.3%
Detroit	73.9%	78.7%
Minneapolis	69.2%	79.8%
Chicago	66.3%	83.3%
Atlanta	64.1%	72.4%
Los Angeles	59.3%	68.7%
Washington, DC	56.7%	76.7%

How should the region address transportation system reliability (select 3)?

43% 1. Add capacity

39% 2. New technologies

41% 3. Preservation of the existing system

22% 4. Reduce incident response and clearance times

14% 5. Maintain transit system on-time performance

2% 6. Improve special event management

6% 7. Work zone management

16% 8. Expand transit

4% 9. Ramp metering

How should the region prioritize investments in reliability?

51% 1. Focus primarily on interstate highways

31% 2. Focus primarily on major arterials

18% 3. Not sure

How should the region prioritize investments in reliability?

51% 1. Focus on the needs of daily commuters

39% 2. Focus on the needs of freight and economic development

11% 3. Not sure

How comfortable are you with the region setting declining targets for system reliability?

5% 1. Very comfortable

8% 2. Somewhat comfortable

3% 3. Neutral

38% 4. Somewhat uncomfortable

43% 5. Very uncomfortable

2% 6. Not sure

	MoDOT		
	2017 Baseline	2019	2021
Percent of Reliable Person-Miles Traveled on the Interstate	91.6%	88.9%	87.1%
Percent of Reliable Person-Miles Traveled on the Non-Interstate NHS	92.3%	n/a	87.8%

Performance Goals and Measures

- **Environmental Sustainability/CMAQ** - To enhance the performance of the transportation system while protecting and enhancing the natural environment [23 CFR 490]
  - Total emissions reduction (on-road mobile sources)
    - Volatile Organic Compounds (VOC)
    - Nitrogen Oxides (NOx)
    - Particulate Matter (PM 2.5)
    - Carbon Monoxide (CO)

CMAQ: 2018 Ozone Season

- Ozone is an irritant that damages lung tissue, aggravates heart and respiratory disease and can even cause problems for healthy individuals who spend a lot of time outdoors.

- As of September 27, 2018
  - 14 days
  - 53 exceedances
  - All monitors have recorded exceedances

- Season ends October 31, 2018

EAST-WEST GATEWAY
Council of Governments
Creating Solutions Across Jurisdictional Boundaries

How should the region address air quality issues (select 3)?

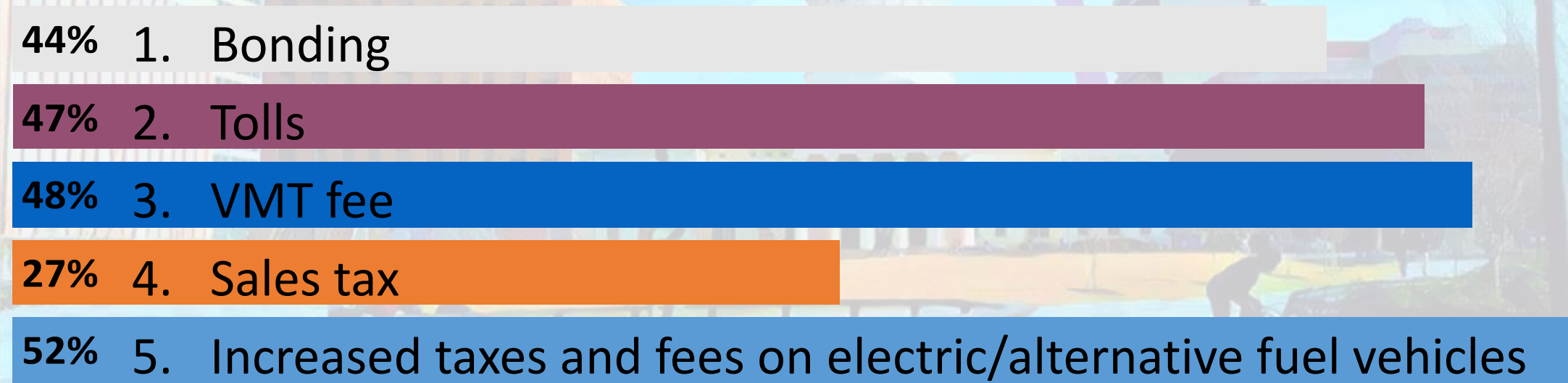| %		
23%	1.	Add capacity
54%	2.	New technologies
23%	3.	Preservation of the existing system
12%	4.	Incident management
17%	5.	Bike/ped investments
28%	6.	Transit investments
32%	7.	Intersection improvements
42%	8.	Traffic signal optimization
6%	9.	Ramp metering

Brief Recap

- Long-Range Transportation Plan
- National and State Context
- Performance Measures
  - Safety
  - Preservation
  - System Reliability
  - Freight/Economic Development
  - Air Quality

MAP-21 Goals	MoDOT Goals	IDOT Goals	EWG's 10 Guiding Principles	
Infrastructure Condition	Taking care of the system	Preserve and Manage the Existing System	**Preserve and Maintain the Existing System**	Ensure the transportation system remains in a state of good repair.
Safety	Safety	Improve Transportation Safety	**Promote Safety and Security**	Provide a safe and secure transportation system for all users.
Congestion Reduction & System Reliability	Economic Development	Address Congestion and Maximize Efficiency and Effectiveness through Operations	**Support a Diverse Economy with a Reliable System**	Reduce congestion and improve travel time reliability to support the diverse economic sectors of the region.
Freight Movement & Economic Vitality	Economic Development	Provide for Efficient Freight Movement	**Strengthen Intermodal Connections**	Support freight movement and connections that are critical to the efficient flow of both people and goods.
Environmental Sustainability		Ensure a Compatible Interface of the System with Environmental, Social, Energy and Land Use Considerations	**Protect Air Quality and Environmental Assets**	Encourage investments that recognize the linkages between the social, economic, and natural fabric of the region.

Map 36: Funded Project Locations

St. Louis Metropolitan Area
March 2015
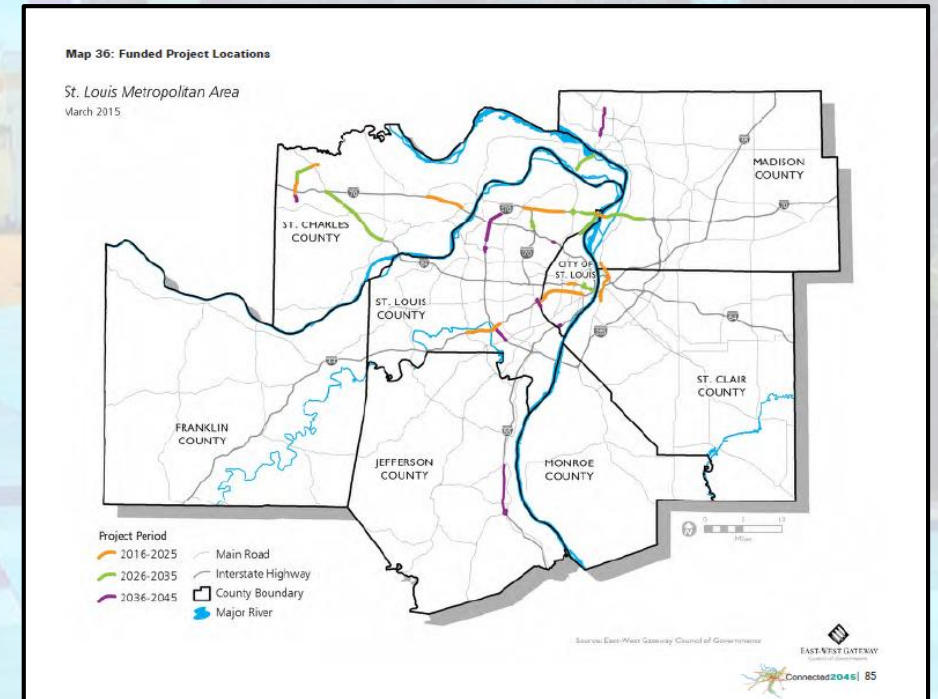
Given that even a potential increase in the motor fuel tax may not be enough to adequately fund transportation in the region, would you favor any of these additional funding strategies (select up to 5)

44% 1. Bonding

47% 2. Tolls

48% 3. VMT fee

27% 4. Sales tax

52% 5. Increased taxes and fees on electric/alternative fuel vehicles

Bonding produces benefits more quickly but reduces future revenues. Should the region rely on bonding for major projects (as was done for the I-64 reconstruction and new Mississippi River Bridge) or practice pay-as you-go funding?

48% 1. Bonding for major projects

43% 2. Pay-as-you-go

10% 3. Not sure

Which of these goal areas do you think is LEAST important when making transportation investment decisions for the region?

6%   1.   Preserving and Maintaining the Existing Transportation System

59%   2.   Improving air quality

8%   3.   Promoting Economic Development and freight movement

19%   4.   Reducing Congestion/Ensuring Reliability

8%   5.   Improving Safety

Which of these goal areas do you think is MOST important when making transportation investment decisions for the region?

49%   1.   Preserving and Maintaining the Existing Transportation System

3%   2.   Improving air quality

21%   3.   Promoting Economic Development and freight movement

17%   4.   Reducing Congestion/Ensuring Reliability

9%   5.   Improving Safety

Which of these goal areas do you think is 2nd MOST important when making transportation investment decisions for the region?

23% 1. Preserving and Maintaining the Existing Transportation System

8% 2. Improving air quality

31% 3. Promoting Economic Development and freight movement

30% 4. Reducing Congestion/Ensuring Reliability

8% 5. Improving Safety

Which of these goal areas do you think is 3rd MOST important when making transportation investment decisions for the region?

11%   1.   Preserving and Maintaining the Existing Transportation System

4%   2.   Improving air quality

24%   3.   Promoting Economic Development and freight movement

37%   4.   Reducing Congestion/Ensuring Reliability

24%   5.   Improving Safety

Next Steps

Questions?

Peter Koeppel
peter@ewgateway.org
http://www.ewgateway.org/transportation-planning/long-range-planning/
314-421-4220

Take EWG's Long-Range Plan Survey:
https://bit.do/connected2045