System Performance Dashboard Update

CONNECTED 2050

Guiding Principles

Connected 2050: Long-Range Transportation Plan (LRTP)

Guiding principles establish a vision to guide transportation system evaluation and decision-making

Performance Based Planning

Guiding Principles

Project Evaluation

System Performance

Investment Plan / TIP

EWG incorporates performance-based planning into the long-range transportation planning process to achieve desired performance outcomes for the multimodal transportation system. This includes:

1. a strategic policy direction established through **guiding principles**,
2. transportation **project evaluation criteria** to assess alignment of transportation projects to the guiding principles,
3. the development of an **investment plan** allocation,
4. and on-going monitoring, evaluation, and reporting on **system performance** to help to inform future cycles of planning.

System Performance Measures

Guiding Principles	PM #	Performance Measure	Desired Trend	Federal Measure
Economic Vitality	M1	Regional employment	▲	No
	M2	Real gross domestic product	▲	No
Thriving Neighborhoods and Communities	M3	Residential vacancy (percent of census tracts exceeding a vacancy threshold)	▼	No
	M4	Percent of population with housing and transportation costs over 45% of income (based on the median household income of each census tract)	▼	No
A Vibrant Downtown and Central Core	M5	Employment in the central core	▲	No
	M6	Population living in the central core	▲	No
A Healthy and Sustainable Environment	M7	Annual days reaching "unhealthy for sensitive groups" or above on the Air Quality Index (for ozone & PM2.5 combined)	▼	No
	M8	GHG emissions from on-road transportation	▼	No
	M9	Emissions reduction (NOx and VOC)	— *	Yes
Safe and Secure	M10	Roadway fatalities	▼	Yes
	M11	Roadway fatality rate	▼	Yes
	M12	Roadway serious injuries	▼	Yes
	M13	Roadway serious injuries rate	▼	Yes
	M14	Non-motorized fatalities and serious injuries	▼	Yes
	M15	Transit fatalities	▼	Yes
	M16	Transit injuries	▼	Yes
	M17	Transit safety events	▼	Yes
Choices and Access for All	M18	Non-single occupant vehicle mode share	▲	Yes
	M19	Percent of workers with a transit commute travel time under 45 minutes	▲	No
	M20	Transit ridership (annual unlinked transit trips)	▲	No

Guiding Principles	PM #	Performance Measure	Desired Trend	Federal Measure
Seamless, Efficient, and Reliable	M21	Percent of workers with commute travel time under 45 minutes	▲	No
	M22	Peak hour excessive delay per capita	▼	Yes
	M23	Percentage of person-miles traveled on the Interstate system with reliable travel time	▲	Yes
	M24	Percentage of person-miles traveled on the non-Interstate NHS with reliable travel time	▲	Yes
	M25	Truck Travel Time Reliability index	▲	Yes
	M26	On-time performance for public transit	▲	No
Well-Maintained and Resilient	M27	Percent of Interstate pavement in good condition	▲	Yes
	M28	Percent of Interstate pavement in poor condition	▼	Yes
	M29	Percent of non-Interstate NHS pavement in good condition	▲	Yes
	M30	Percent of non-Interstate NHS pavement in poor condition	▼	Yes
	M31	Percent of NHS bridge deck area in good condition	▲	Yes
	M32	Percent of NHS bridge deck area in poor condition	▼	Yes
	M33	Percentage of vehicle met or exceeded Useful Life Benchmark for non-revenue vehicles	▼	Yes
	M34	Percentage of vehicle met or exceeded Useful Life Benchmark for revenue vehicles	▼	Yes
	M35	Percentage of track segments under performance restriction	▼	Yes
	M36	Percentage of facilities assets with condition rating below 3.0 on FTA TERM Scale	▼	Yes
	M37	Mean distance between transit major mechanical failures	▲	Yes
Equitable	EI38	Disparity in diesel particulate matter exposure	▲ to 100	No
	EI39	Disparity in bicycle / pedestrian fatalities	▲ to 100	No
	EI40	Disparity in access to jobs	▲ to 100	No

How were these measures selected?

- 25 measures are **federally required** as part of transportation performance management requirements
  - Set targets for these measures that are approved by the Board of Directors annually, biennially, or every four years based on federal requirements
- 15 measures support additional **regional** goals that address transportation and transportation related areas
- **Data availability** and long-term maintainability
- Easily explainable and understood
- Tied to a desired outcome (desired increase or decrease)

System Performance Dashboard

- Interactive
- Updated annually
  - June 2024 last update
- Website
  - https://www.ewgateway.org/transportation-planning/long-range-transportation-planning/lrp-performance-dashboard/

Dashboard Insights

Examples

Transportation Safety

- Roadway fatalities and injuries continue to increase year over year.

- Fatalities on transit remain low and injuries show a decreasing trend.
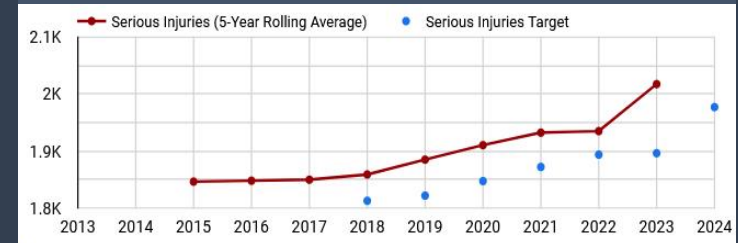
Policy Questions Raised

- Do we need to increase focus/spending on roadway safety improvements?

- Are we measuring the impact of recent roadway safety projects to evaluate if projects meet their crash reduction goals?
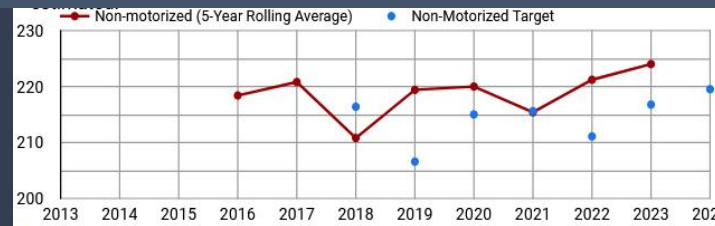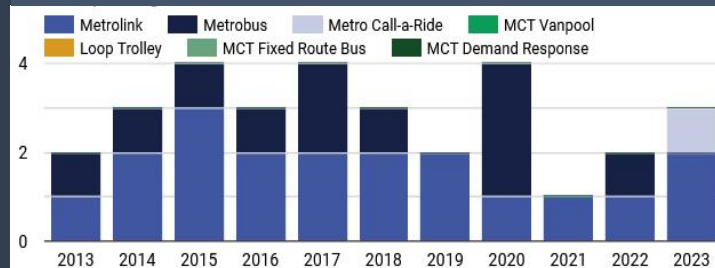
M10: Roadway Fatalities
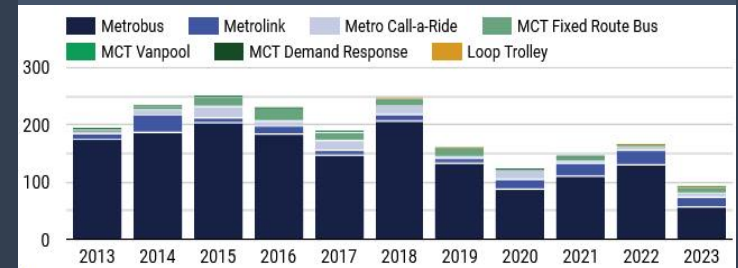

M12: Roadway Serious Injuries

M14: Non-Motorized Fatalities and Serious Injuries

M16: Transit Fatalities


M16: Transit Injuries

Economy

Trends

- Average annual employment growth rate (1.11% from 2013)

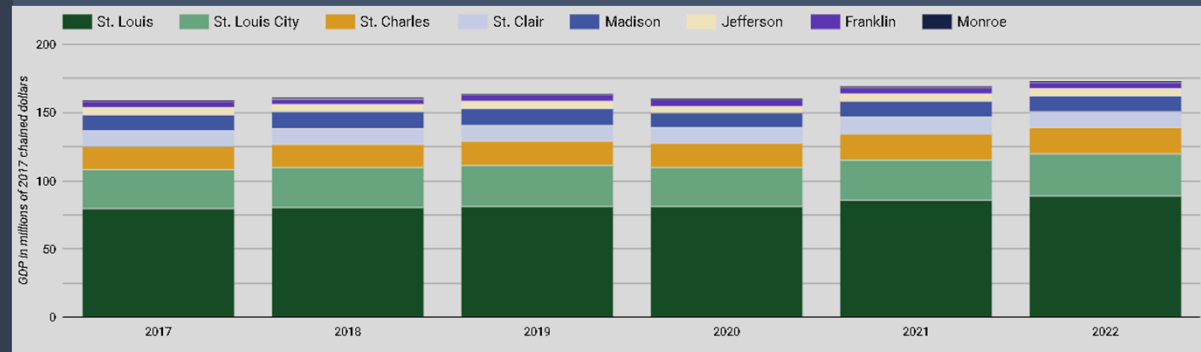- Average annual GDP growth rate (1.86% from 2018)

Policy Questions Raised

- How can we better understand and evaluate potential economic impacts from transportation projects?

- Does a transportation project promote regional growth or only reallocate growth within the region?

M1: Regional Employment
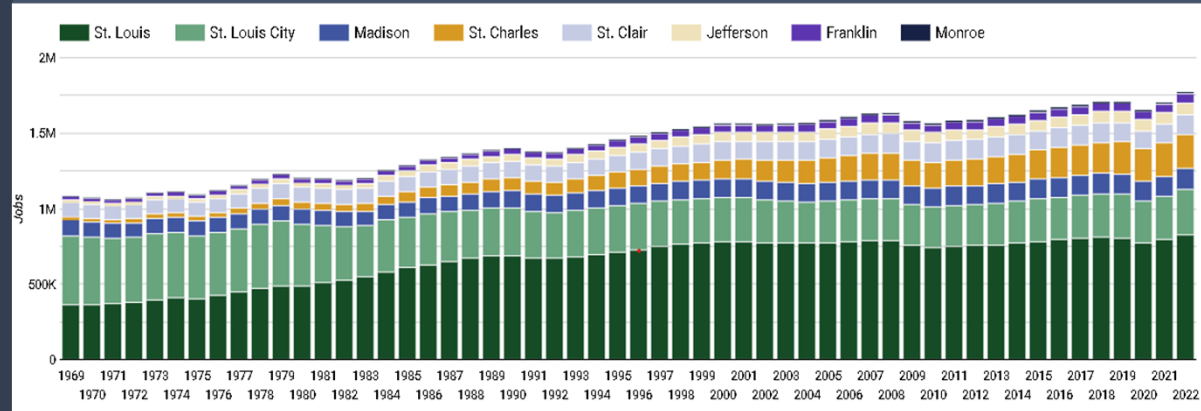
M2: Gross Domestic Product (GDP)

Change in Gross Domestic Product per Capita

Percent change, in chained 2017 dollars, 2017-2022

|		
1	San Jose	40.4
2	San Francisco	28.3
3	Seattle	20.3
4	Austin	19.9
5	Denver	19.4
6	Miami	18.4
7	Phoenix	18.3
8	Salt Lake City	16.8
9	San Diego	16.6
10	Nashville	15.9
11	Tampa	15.5
12	Boston	14.7
13	Dallas	14.1
14	Los Angeles	14.0
15	New York	13.0
16	Birmingham	12.4
17	Riverside	12.2
18	Portland	11.5
19	Jacksonville	11.2
20	Las Vegas	10.9
21	Orlando	10.5
22	Raleigh	10.3
23	Louisville	10.1
24	San Antonio	10.0
25	Sacramento	9.7
26	Indianapolis	9.0
27	**St. Louis**	**8.9**
	United States	**8.7**
28	Atlanta	8.1
29	Richmond	7.5
30	Cleveland	7.3
31	Washington, D.C.	7.0
32	Columbus	6.9
33	Memphis	6.2
34	Charlotte	5.9
35	Chicago	5.6
36	Milwaukee	5.5
37	Buffalo	5.2
38	Kansas City	5.1
39	Minneapolis	4.9
40	Detroit	4.4
41	Cincinnati	3.9
42	Baltimore	3.9
43	Houston	2.4
44	Providence	2.4
45	Philadelphia	2.2
46	Pittsburgh	1.1
47	Virginia Beach	0.7
48	Hartford	-0.5
49	Oklahoma City	-3.0
50	New Orleans	-3.2

Congestion and Reliability

Trends

- Congestion decreased and reliability increased during the pandemic. Post-pandemic congestion levels remain below pre-pandemic levels.

Policy Questions Raised

- Despite reduction in congestion, the percent of workers with long commute times is increasing, likely due to increasing distances between jobs and residences, how can we change our growth patterns to address this issue?
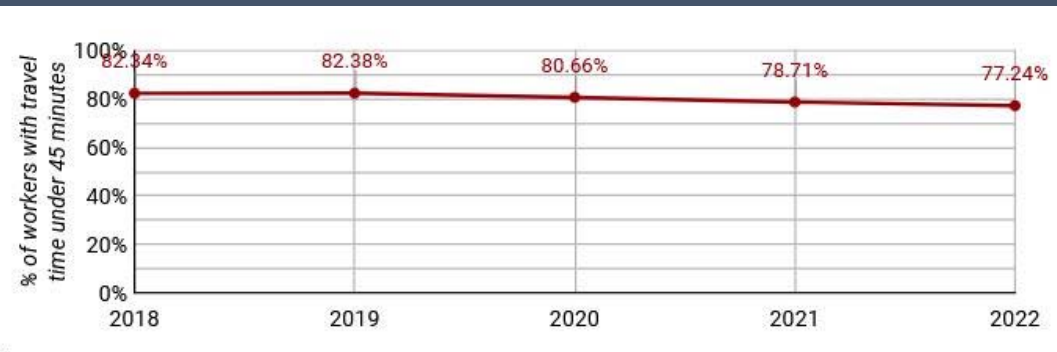
M22: Peak Hour Excessive Delay (PHED)
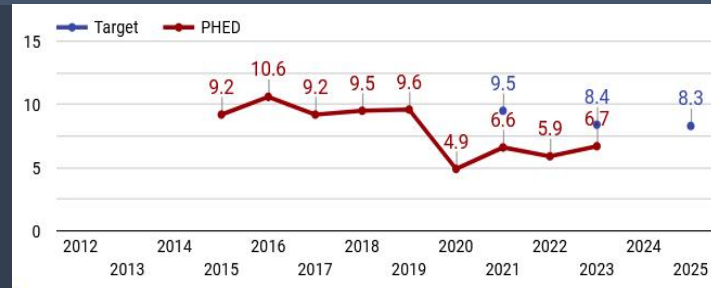
M23: Interstate Reliability

M21: Commute Travel Time under 45 Minutes

Transportation Assets

Trends

- Both DOTs are rapidly driving down the % of NHS bridges in poor condition.

- Metro revenue vehicles in good condition but many non-revenue vehicle have exceeded useful life.
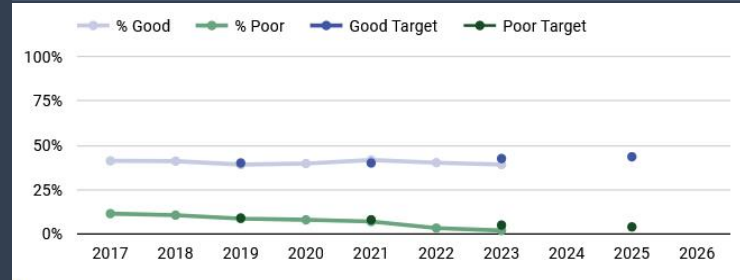
Policy Questions Raised

- How can the region finance new non-revenue vehicles?

- Can the region continue to keep pace with bridge maintenance needs?

M31/32:NHS Bridge Conditions - MO
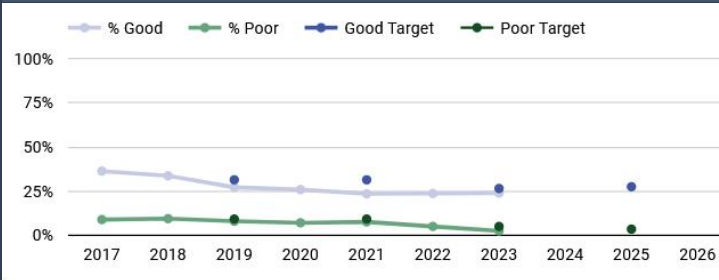
M31/32: NHS Bridge Conditions - IL

M33 and M34: % of Vehicle that Exceed Useful Life Benchmark (ULB) - Metro

| Equipment Type	ULB (Years)	FY22 Total Equipment	FY22 % Equipment beyond ULB
Bus	14	392	10%
Van	8	123	27%
Light Rail Vehicle	31	87	0%
Under 1 Ton	8	113	73%
Over 1 Ton	14	85	52%
Trailers	14	42	40%
Snow Remove Equipment	14	38	53%
TUG/Mule Vehicles	14	4	75%
Forklift	14	14	79%
Off-Road Equipment	14	54	41%

Environment

Trends

- Long-term decreasing trend in poor air quality days.

- GHG Emissions from the transportation sector are rising.

Policy Questions Raised

- How can we leverage the regional climate action plan to address GHG emissions in transportation?

M7:Days Reaching "Unhealthy for Sensitive Groups" or Above on Air Quality Index
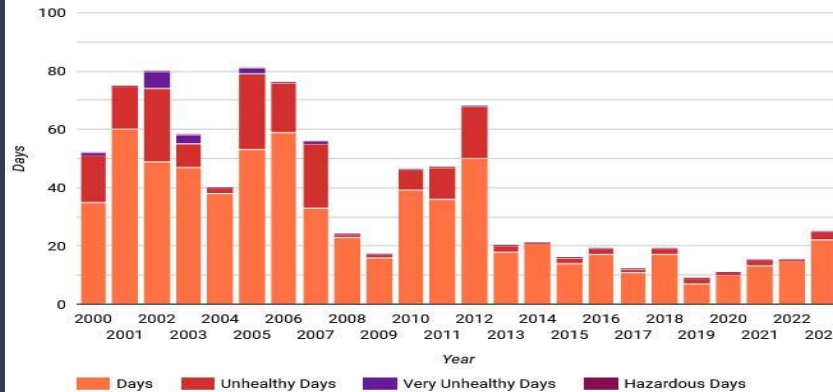
2015 Ozone Standard

Non-Attainment

2008 Ozone Standard

Maintenance

M8:GHG Emissions – Transportation Sector
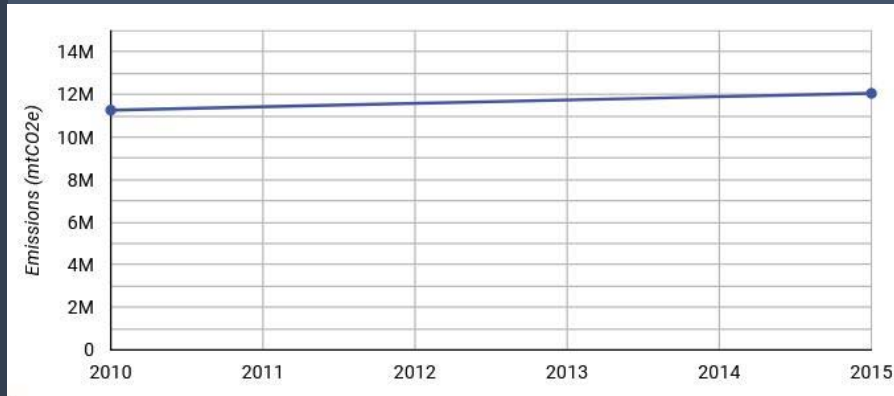
Summary

- System Performance Dashboard available on EWG's website
- Provides a visual representation of metrics that provides insights into the performance of the regional transportation system and other associated measures
- Continuously monitored and updated annually
- Designed to support data-driven policy changes and decisions

Questions?