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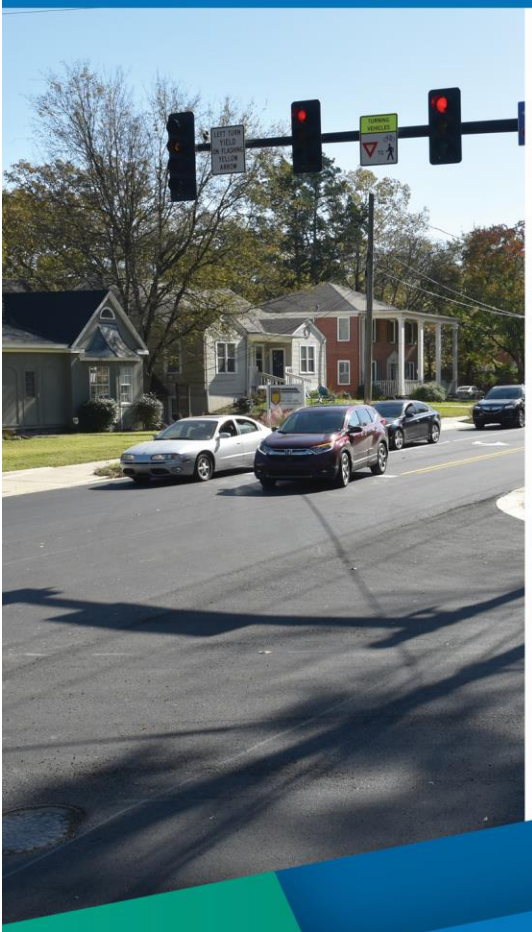
CENTRAL MISSISSIPPI
PLANNING AND DEVELOPMENT DISTRICT

2050 Metropolitan Transportation Plan | Jackson MPO



Technical Report #3

Transportation Performance Management

DRAFT – September 2025

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CENTRAL MISSISSIPPI
PLANNING AND DEVELOPMENT DISTRICT

Central Mississippi Planning & Development District

2050 Metropolitan Transportation Plan

This Plan was prepared as a cooperative effort of the U.S. Department of Transportation (USDOT), Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Mississippi Department of Transportation (MDOT), and local governments in partial fulfillment of requirements in Title 23 USC 134 and 135, amended by the IIJA, Sections 11201 and 11525, October 1, 2021. The contents of this document do not necessarily reflect the official views or policies of the USDOT.

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1.0 Introduction

The 2050 Metropolitan Transportation Plan for the Central Mississippi Planning and Development District (CMPDD) follows the principles of Performance-Based Planning and Programming and related federal regulations as described in the Infrastructure Investment and Jobs Act. These regulations require all Metropolitan Planning Organizations (MPOs) to track specific transportation performance measures related to national goals and to either set their own targets for these measures or support state targets.

Federal regulations also require establishment of responsibilities related to development and maintenance of performance measures and targets between MPOs, each state's Department of Transportation (DOT), and transit agencies through Memoranda of Understanding. These memoranda were established for cooperatively developing, sharing, and reporting information related to performance measures and performances targets.

Performance-Based Planning and Programming refers to the methods transportation agencies use to apply performance management as standard practice in their planning and programming processes. The goal of these methods is to ensure that transportation investment decisions help meet established goals. To meet federal requirements, states will invest resources in projects to achieve individual targets that make collective progress toward national goals. MPOs, through their Metropolitan Transportation Plan and Transportation Improvement Program, must also work toward meeting individual targets or supporting state targets.

This report addresses the specific performance measures required by federal transportation performance management regulations. It also discusses future actions that the MPO can take to improve regional performance and further support state targets. A more complete assessment of current transportation conditions by mode can be found in *Technical Report #2: State of Current Systems*.

1.1 National Goal Areas and Measures

Through the federal rule-making process, the Federal Highway Administration (FHWA) requires state DOTs and MPOs to monitor the transportation system using specific performance measures associated with the national goal areas prescribed in MAP-21 and continued in subsequent transportation legislation. These performance measures, their goal, and the data used to measure performance are listed below.

Safety Performance (PM1)

Goal: To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.

Performance Measurement:

1. Number of fatalities
2. Fatality rate (per 100 million vehicle miles traveled)
3. Number of serious injuries
4. Serious injury rate (per 100 million vehicle miles traveled)
5. Number of non-motorized fatalities and non-motorized serious injuries

Bridge/Pavement Performance (PM2)

Goal: To maintain the highway infrastructure asset system in a state of good repair.

Performance Measurement:

1. Percentage of pavements on the Interstate System in good condition
2. Percentage of pavements on the Interstate System in poor condition
3. Percentage of pavements on the non-Interstate National Highway System (NHS) in good condition
4. Percentage of pavements on the non-Interstate NHS in poor condition
5. Percentage of NHS bridges classified as in good condition
6. Percentage of NHS bridges classified as in poor condition

System Performance (PM3)

Goal: To maintain the suitability and reliability of the transportation system while providing good air quality.

Performance Measurement:

1. Percent of person-miles traveled that are reliable (Interstate)
2. Percent of person-miles traveled that are reliable (Non-Interstate NHS)
3. Truck Travel Time Reliability
4. Percent of Non-Single Occupancy Vehicle Travel
5. Annual Hours of Peak-Hour Excessive Delay
6. Volatile Organic Compound (VOC) Reduction
7. Nitrogen Oxides (NOx) reduction

1.2 Transit Goal Areas and Measures

Transit Asset Management Performance (TAM)

The Federal Transit Administration (FTA) requires that public transit fund recipients, including states, local authorities, and public transportation operators, establish performance targets for safety and state of good repair. They must also develop transit asset management and safety plans and report their progress toward achieving targets. These operators must share information with MPOs and states so that all plans and performance reports are coordinated. JTRAN, the public transit operator, has developed information and targets for the following three state of good repair performance measures:

1. **Rolling Stock:** The percentage of revenue vehicles (by type) that exceed the useful life benchmark.
2. **Equipment:** The percentage of non-revenue service vehicles (by type) that exceed the useful life benchmark.
3. **Facilities:** The percentage of facilities (by group) that are rated less than 3.0 on the Transit Economic Requirements Model Scale.

Transit Safety

In addition to TAM, the FTA requires the establishment of Public Transportation Agency Safety Plans. These plans require certain operators of public transportation systems that receive federal funds under FTA's Urbanized Area Formula Grants to develop safety plans that include the processes and procedures to implement Safety Management Systems.

Since JTRAN receives federal financial assistance under the Urbanized Area Formula Program (49 U.S.C. § 5307) that operates public transportation, it is required to set safety performance targets consistent with FTA regulations.

1.3 Federal Requirements

Targets

- The CMPDD, as the MPO for the Jackson Metropolitan Planning Area, is required to establish performance targets no later than 180 days after the Mississippi Department of Transportation (MDOT) or JTRAN set their respective performance targets.
- For each performance measure, the MPO reviewed the state targets and voted to support them.
- CMPDD, MDOT, and JTRAN must coordinate performance measure targets to ensure consistency to the fullest extent practicable.

Reporting

- The Metropolitan Transportation Plan update must describe the performance measures and targets, evaluate the performance of the transportation system, and report on progress made in subsequent plan updates.
- The Transportation Improvement Program must link investment priorities to the targets in the Metropolitan Transportation Plan and describe, to the fullest extent practicable, the anticipated effect of the program on achieving established targets.
- The CMPDD must also report to MDOT the baseline roadway transportation system condition, performance data, and progress toward achieving targets.

Assessments

- FHWA and FTA will not directly evaluate the region's progress toward meeting performance measure targets. However, the CMPDD region's performance will be assessed as part of regular cyclical transportation planning process reviews.
- FHWA and FTA will determine if MDOT and JTRAN have met or made significant progress toward selected targets for the transportation system.

The scorecards on the following pages display the MPO's baseline performance and comparisons to state baseline performance and targets.

1.4 MPO Area Performance Measure Scorecards

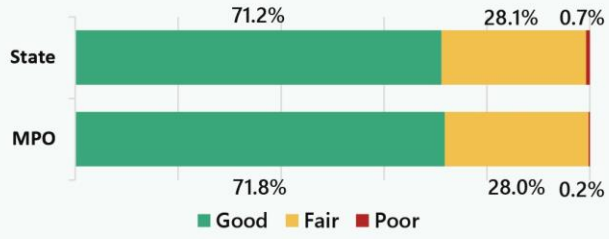
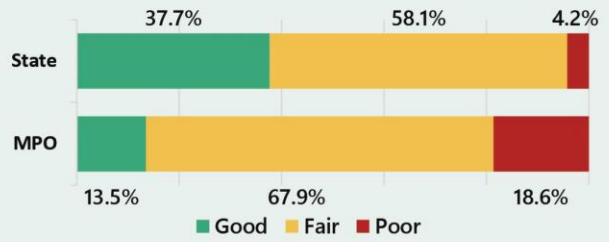
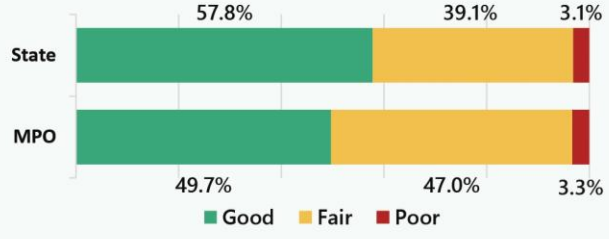
Transportation Performance Management Scorecard

Legend

Safety Performance Measures (PM1)					
Measure	Five-Year State Rolling Average	Five-Year MPO Rolling Average	Target	Score	Analysis Description
Number of Fatalities	719.2	83.2	757.0		The number of fatalities within the region is less than 12% of the overall state average.
Rate of Fatalities (per 100 Million Vehicle Miles Traveled)	1.780	1.599	1.860		The rate of fatalities within the region meets the state target and performs better than the state average.
Number of Serious Injuries	3,064.0	589.0	3,217.0		The number of serious injuries within the region comprises 19% of the overall state average.
Rate of Serious Injuries (per 100 Million Vehicle Miles Traveled)	7.577	11.360	7.920		The rate of serious injuries within the region is nearly one and a half times higher than the state average and does not meet the state target.
Number of Non-Motorized Fatalities & Serious Injuries	281.8	52.2	271.0		The number of non-motorized fatalities and serious injuries within the region is less than 19% of the overall state average.

Source: Fatality Analysis Reporting System (FARS); MDOT (2019-2023)

Bridge/Pavement Performance Measures (PM2)

Measure	Trends	Target	Score	Analysis Description
Pavements of the Interstate System		Good ≥55.0%		The percent of Interstate pavements in Good condition within the region meets the state target but is in need of improvement to stay ahead of the state trend.
		Poor ≤5.0%		The percent of Interstate pavements in Poor condition within the region meets the state target and performs better than the state trend.
Pavements of the Non-Interstate NHS		Good ≥20.0%		The percent of Non-Interstate pavements in Good condition within the region does not meet the state target and performs almost three times worse than the state trend.
		Poor ≤10.0%		The percent of Non-Interstate pavements in Poor condition within the region does not meet the state target and performs almost five times worse than the state trend.
NHS Bridges		Good ≥45.0%		The percent of NHS bridges in Good condition by deck area in the region meets the state target but performs worse than the state trend.
		Poor ≤5.0%		The percent of NHS bridges in Poor condition by deck area in the region meets the state target but performs worse than the state trend.

Source: MDOT, National Bridge Inventory (NBI) (2024)

System Performance Measures (PM3)					
Measure	State Trend	MPO Trend	Target	Score	Analysis Description
Percent of Person-Miles Traveled on the Interstate that are Reliable	99.9%	100.0%	93.0%		The percent of reliable person-miles traveled on the Interstates in the region meets the state target and performs better than the state trend.
Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable	94.3%	84.9%	85.0%		The percent of reliable person-miles traveled on the Non-Interstate NHS routes in the region does not meet the state target and performs worse than the state trend.
Truck Travel Time Reliability (TTTR) Index on the Interstate	1.15	1.18	1.40		The TTTR within the region meets the state target but performs slightly worse than the state trend.
Peak Hour Excessive Delay (PHED)	Not Applicable in the CMPDD MPO Planning Area				
Non-Single Occupancy Vehicle Travel (SOV)	Not Applicable in the CMPDD MPO Planning Area				

Source: National Performance Management Research Data Set (NPMRDS) (2023)

Transit Asset Management (TAM)					
Measure	**Asset Category**	**MPO Trend**	**Target**	**Score**	**Analysis Description**
JTRAN Vehicle Asset Inventory					
Percent of Revenue Vehicles Exceeding Useful Life Benchmark (ULB)	Buses 	56%	60%		All minivans within the region are beyond their Useful Life Benchmark. Otherwise, the region meets its target for vehicles.
	Cutaway Buses 	24%	60%		
	Minivans 	100%	50%		
Equipment					
Percent of Non-Revenue Service Vehicles Exceeding Useful Life Benchmark (ULB)	Trucks & Other Rubber Tire Vehicles 	56%	50%		The percent of non-revenue trucks exceeding the ULB does not meet the target.
Facilities					
Percent of Facilities Rated Under 3.0 on the Transit Economic Requirements Model (TERM) Scale	Administrative Office/Sales Office 	0%	50%		All of the facilities are rated above 3.0 on the TERM Scale.
	Bus Transfer Center 	50%	0%		Half of the facilities are rated under 3.0 on the TERM Scale.
	Maintenance Facility (Service & Inspection) 	0%	50%		All of the facilities are rated above 3.0 on the TERM Scale.
	Vehicle Fueling Facility 	0%	50%		All of the facilities are rated above 3.0 on the TERM Scale.
	Passenger Facilities 	100%	25%		All of the facilities are rated under 3.0 on the TERM Scale.
Infrastructure					
Not Applicable in the CMPDD MPO Planning Area					

Source: National Transit Database (NTD) (2019-2023)

Transit Safety					
Measure	Mode	Five-Year MPO Rolling Average	Target	Score	Analysis Description
Number of Fatalities by Mode	Non-Fixed Route Bus	0.00	0.00		The number of fatalities by Non-Fixed Route Bus meets the target.
	Fixed Route Bus	0.20	0.00		The number of fatalities by Fixed Bus Route exceeds the target.
Rate of Fatalities per 100,000 Total Vehicle Revenue Miles by Mode	Non-Fixed Route Bus	0.00	0.00		The rate of fatalities per 100,000 total vehicle revenue miles by Non-Fixed Route Bus meets the target.
	Fixed Route Bus	0.03	0.00		The rate of fatalities per 100,000 total vehicle revenue miles by Fixed Bus Route exceeds the target.
Number of Injuries by Mode	Non-Fixed Route Bus	10.60	6.00		The number of injuries by Non-Fixed Route Bus exceeds the target.
	Fixed Route Bus	6.40	7.00		The number of injuries by Fixed Bus Route meets the target but is in need of improvement.
Rate of Injuries per 100,000 Total Vehicle Revenue Miles by Mode	Non-Fixed Route Bus	2.01	1.83		The rate of injuries per 100,000 total vehicle revenue miles by Non-Fixed Route Bus exceeds the target.
	Fixed Route Bus	1.60	0.99		The rate of injuries per 100,000 total vehicle revenue miles by Fixed Bus Route exceeds the target.

Source: National Transit Database (NTD) (2019-2023)

Transit Safety

Measure	Mode	Five-Year MPO Rolling Average	Target	Score	Analysis Description
Number of Safety Events by Mode	Non-Fixed Route Bus	6.00	6.00		The number of safety events by Non-Fixed Route Bus meets the target but is in need of improvement.
	Fixed Route Bus	10.40	7.00		The number of safety events by Fixed Bus Route exceeds the target.
Rate of Safety Events per 100,000 Total Vehicle Revenue Miles by Mode	Non-Fixed Route Bus	1.88	1.69		The rate of safety events per 100,000 total vehicle revenue miles by Non-Fixed Route Bus exceeds the target.
	Fixed Route Bus	1.57	0.99		The rate of safety events per 100,000 total vehicle revenue miles by Fixed Bus Route exceeds the target.
Mean Distance Between Major Mechanical Failures by Mode	Non-Fixed Route Bus	67,991	130,000		The mean distance between major mechanical failures by Non-Fixed Route Bus meets the target.
	Fixed Route Bus	238,421	239,000		The mean distance between major mechanical failures by Fixed Bus Route meets the target but is in need of improvement.
Collision Rate by Mode	Non-Fixed Route Bus	0.69	*	*	*
	Fixed Route Bus	0.19	*	*	*

Source: National Transit Database (NTD) (2019-2023)

Transit Safety					
Measure	Mode	Five-Year MPO Rolling Average	Target	Score	Analysis Description
Pedestrian Collision Rate by Mode	Non-Fixed Route Bus	0.06	*	*	*
	Fixed Route Bus	0.00	*	*	*
Vehicular Collision Rate by Mode	Non-Fixed Route Bus	0.63	*	*	*
	Fixed Route Bus	0.19	*	*	*
Transit Worker Fatality Rate by Mode	Non-Fixed Route Bus	0.00	*	*	*
	Fixed Route Bus	0.00	*	*	*
Transit Worker Injury Rate by Mode	Non-Fixed Route Bus	0.57	*	*	*
	Fixed Route Bus	0.69	*	*	*

Source: National Transit Database (NTD) (2019-2023)

Transit Safety					
Measure	Mode	Five-Year MPO Rolling Average	Target	Score	Analysis Description
Assaults on Transit Workers by Mode	Non-Fixed Route Bus	0.00	*	*	*
	Fixed Route Bus	0.00	*	*	*
Rate of Assaults on Transit Workers by Mode	Non-Fixed Route Bus	0.00	*	*	*
	Fixed Route Bus	0.00	*	*	*
Major Events by Mode	Non-Fixed Route Bus	1.00	*	*	*
	Fixed Route Bus	0.00	*	*	*
Major Events Rate by Mode	Non-Fixed Route Bus	0.19	*	*	*
	Fixed Route Bus	0.00	*	*	*

Source: National Transit Database (NTD)

In April 2024 FTA published an update to the National Safety Plan. The update established new performance measures to improve safety of public transportation systems. Each transit agency subject to PTASP regulations must revise its Agency Safety Plan to address the new safety performance measures during the next annual review and update cycle of the Agency's Safety Plan. This section will be updated once targets have been established by JTRAN.

2.0 Future MPO Actions

2.1 Safety Performance (PM1)

The MPO did not meet the target for the rate of serious injuries, however, this is not unexpected or uncommon for urbanized areas due to their higher populations and traffic volumes. It does, however, represent a notable increase from the previous Metropolitan Transportation Plan, and, within the region, the serious injury crash rate remains higher than in other areas. Despite only representing sixteen percent of Mississippi's population, the region accounts for nineteen percent of serious injury crashes. This increase is significant compared to the prior Metropolitan Transportation Plan.

To support the state targets and help improve statewide performance, the MPO can explore ways to reduce fatalities and serious injuries on its roadways. Strategies to reduce fatality and serious injury rates include:

- Keep roadways and bridges maintained and as congestion-free as possible.
- Work with state and local officials, as well as other safety stakeholders, to reduce fatalities and serious injuries on roadways.
- Coordinate with MDOT to develop their state Highway Safety Improvement Program.
- Ensure that transportation projects and safety improvements are coordinated with the state Strategic Highway Safety Plan.
- Identify safety programs that may be implemented.
- Consider how projects placed in the Transportation Improvement Program will impact safety.
- Increase the implementation of Complete Streets to reduce congestion, lower speeds, and provide safer facilities for non-motorized users.
- Conduct driver education and safety enforcement campaigns which include monitoring seatbelt usage, distracted driving, and DUI involvement.
- Implement the projects and strategies identified in the recently completed Safe Streets and Roads For All plan.

2.2 Bridge/Pavement Performance (PM2)

The MPO meets established pavement condition targets for Interstate systems and the target for bridges in Poor Condition; however, it does not meet the targets for non-Interstate National Highway System pavements. However, a significant number of bridges within the region are in Fair Condition and are expected to deteriorate over time. Actions and strategies the MPO can undertake to maintain or improve bridge and pavement conditions include:

- Prioritize timely repairs and pavement resurfacing on routes with deteriorating pavement conditions.
- Work with state and local stakeholders to identify and repair pavement cracking, rutting, potholes, etc.
- Reduce or eliminate heavy vehicle traffic on roadways with poor pavement conditions by establishing designated truck routes on roadways with better pavement conditions.
- Use the local Intelligent Transportation System infrastructure to monitor roadway conditions and redirect drivers to less congested routes to reduce vehicle loads and pavement condition deterioration.
- Employ Travel Demand Management strategies.
- Prioritize repairs on bridges in Poor Condition, followed by those in Fair Condition, to avoid the need for route closures and emergency repairs. These bridges should be prioritized through the plan's operation and maintenance budget.

Where possible, the MPO can coordinate with MDOT to apply for applicable federal grants for bridge repairs and maintenance. While there is no guarantee of receiving these funds, grants would allow the MPO to expedite bridge repairs and update as many bridges as possible to Good Condition.

2.3 System Performance (PM3)

The National Performance Management Research Dataset data shows that non-Interstate National Highway System networks within the region fall below the state target and need improvement. However, the data shows that the interstate systems meet the state target and outperform the state trend. The 2023 National Performance Management Research Dataset showed that I-55 southbound had several roadway segments with a Truck Travel Time Reliability greater than the state target of 1.4. This result, however, is likely caused by roadway construction.

Actions the MPO may take to improve and support reliability measures include:

- Encourage law enforcement to remove crashes from travel lanes to reduce congestion.
- Use Intelligent Transportation System to advise motorists of roadway conditions and redirect drivers to less congested routes.
- Implement signal coordination projects to reduce congestion.
- Schedule roadway work at off-peak times.
- Employ Travel Demand Management strategies.
- Develop roadway projects that provide parallel routes and increase the connectivity of the roadway system. Alternative routes can also be used in the event of roadway closure or congestion.
- Promote the use of Complete Streets design concepts and provide additional non-motorized and public transportation options.

2.4 Transit Asset Management Performance

Of the vehicles operated by JTRAN, vans, minivans, and non-revenue vehicles do not meet the established State of Good Repair targets. To upgrade their fleet and bring it up to State of Good Repair targets, JTRAN will need to incorporate newer vans, minivans, and non-revenue vehicles while phasing out older vehicles.

Of the JTRAN facilities, none rate below 3.0 on the Transit Economic Requirements Model scale. To maintain this performance, JTRAN should continue regular maintenance efforts in the facilities to upgrade and/or fix any elements requiring repair.

2.5 Transit Safety

As JTRAN is a recipient and sub-recipient of federal financial assistance under the Urbanized Area Formula Program (49 U.S.C. § 5307) that operates public transportation, it is required to set safety performance targets for the following measures:

1. **Fatalities:** Total number of reportable fatalities and rate per vehicle revenue miles by mode.
2. **Injuries:** Total number of reportable injuries and rate per vehicle revenue miles by mode.
3. **Safety Events:** Total number of reportable events and rate per vehicle revenue miles by mode.
4. **System Reliability:** Mean distance between major mechanical failures by mode.

The FTA states that:

> "Each transit provider is required to review its agency safety plan annually and update the plan, including the safety performance targets, as necessary. The MPO is not required to set new transit safety targets each year but can choose to revisit the MPO's safety targets based on the schedule for preparation of its system performance report that is part of the Metropolitan Transportation Plan."

To improve performance, CMPDD can coordinate with JTRAN to consider the following actions:

- Keep the roadways and bridges maintained and as congestion-free as possible, reducing the chance of collisions and crashes.
- Work with state and local officials, as well as other safety stakeholders and JTRAN, to reduce the frequency and severity of transit-related incidents.
- Coordinate with MDOT during development of the state's Highway Safety Improvement Program to place emphasis on transit-related safety concerns.
- Ensure that transit projects and safety improvements are coordinated with the state's Strategic Highway Safety Plan.
- Identify safety programs and educational opportunities that may be implemented by transit providers, and coordinate with state and local partners to secure funding to implement these programs.
- Identify educational opportunities to teach drivers of personal vehicles how to share the road with transit vehicles.
- Consider how projects in the Transportation Improvement Program will improve transit service and safety.