



RETHINKING TRANSPORTATION

Metropolitan Transportation Plan

Major Update

Performance Management Plan



KIPDA PERFORMANCE MANAGEMENT PLAN

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KIPDA PERFORMANCE MANAGEMENT PLAN

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KIPDA PERFORMANCE MANAGEMENT PLAN

PURPOSE

The Louisville, Kentucky-Southern Indiana MPO (Metropolitan Planning Organization), Kentuckiana Regional Planning and Development Agency (KIPDA), has developed this Performance Management Plan (PMP) to utilize the framework established by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) by incorporating the National Performance Measures and Planning Factors as defined by MAP-21, the Moving Ahead for Progress in the 21st Century Act. MAP-21 provides a strong emphasis on performance-based transportation planning and requires states and MPOs to incorporate performance measures, objectives, and targets into planning and programming.

Per MAP-21, MPOs must transition to a performance-driven, outcome-based program that focuses on national transportation goals, increases accountability and transparency of the Federal-Aid Highway Program, and improves project decision-making. Once federal rule making is complete, KYTC and INDOT will have one year to develop measures and targets consistent with the federal guidance. Six months later, KIPDA must finalize its performance measures and targets in conjunction with the federal rules and state performance measures. Coordination among agencies at all levels is crucial in this process.

This PMP is an essential part of the Metropolitan Transportation Plan and will incorporate the following:

- Baseline Data
- Data Collection Plan
- Goals and Objectives
- Performance Measures
- Performance Targets
- Reporting Processes
- Appropriate roles and responsibilities of KIPDA and its partner agencies

This PMP will be reflected in KIPDA's planning documents, including:

- Metropolitan Transportation Plan (MTP)
- Metropolitan Transportation Improvement Program (TIP)
- Congestion Management Process (CMP)
- Unified Planning Work Program (UPWP)
- Incorporating Security into the Louisville (KY-IN) Metropolitan Transportation Planning Process
- Coordinated Human Services Transportation Plan (CHSTP)
- And any other relevant planning documents, programs, and procedures.

MAP-21 elevated performance measures to a cornerstone in transportation planning at the MPO-level. While the performance measures will be most associated with the Metropolitan Transportation Plan, they will thread their way through most of the planning activities we do at KIPDA, particularly the Transportation Improvement Program, which is a subset of the MTP. The MTP and TIP must include, to the maximum extent practical: a discussion of the anticipated effect of the improvement program toward achieving the performance targets established in the transportation plan, and they must link investment priorities to the performance targets. This ensures that projects both in the long-term and short-term planning documents are addressing the goals and objectives agreed upon by the community's stakeholders and are facilitating the MPO's performance targets.

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States and MPOs are required to report their progress to federal agencies on a regular basis. States will be required to report every two years and MPOs will be required to report every four years. In the unfortunate circumstance that KIPDA does not achieve their established goals, the consequence may be a redirection of funding towards the failing targets. Therefore, this PMP is crucial to ensuring all future projects have the opportunity to receive funding.

A Memorandum of Agreement (MoA) by and between KIPDA, the Indiana Department of Transportation (INDOT), the Kentucky Transportation Cabinet (KYTC), and the Transit Authority of River City (TARC) outlines this Performance Management Plan. Any changes to the plan must be agreed upon by all parties and must be approved by KIPDA's Transportation Policy Committee. KIPDA will finalize the Performance Management Plan no later than 180 days following the establishment of performance measures by KYTC, INDOT, and TARC.

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NATIONAL GOALS AND PERFORMANCE MEASURES

At a minimum, federal law requires KIPDA to incorporate the National Goals and Performance Measures and the performance measures of the State of Indiana and the Commonwealth of Kentucky. However, KIPDA may include a range of additional goals, objectives, and performance measures beyond the national and states' goals. This allows the MPO to focus on addressing specific issues that this particular region faces that may not be a primary focus for other regions.

The following are the National Goals and Performance Measures set forth by the U.S. Department of Transportation (USDOT), which have been categorized into several sections:

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

- Reducing fatalities and serious injuries in motor vehicle accidents are the primary focus of this goal. The safety of all public roads should be assessed. Projects should identify strategies to minimize the exposure of the public, personnel, and property to hazards and unsafe conditions.

Infrastructure Condition: to maintain the highway infrastructure asset system in a state of good repair.

- Pavement condition and bridge condition on the Interstate and Non-Interstate National Highway System (NHS) systems are the primary focus, but states and MPOs are encouraged to include all infrastructure assets within their right-of-way and may include roads other than on the NHS.

Congestion Reduction: to achieve a significant reduction in congestion on the National Highway System.

- The Congestion Management Process will play an integral role in developing strategies to meeting the national and state goals. As of July 2015, the National Performance Measures for Congestion Reduction have not been released. When the rule is finalized, this PMP will be amended to reflect them.

System Reliability: to improve efficiency of the surface transportation system.

- Travel time reliability and state of good repair standards are expected to be a primary focus of this goal. As of July 2015, the National Performance Measures for System Reliability have not been released. When the rule is finalized, this PMP will be amended to reflect them.

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.

- The primary focus of this goal is improving the freight transportation system so that goods movement and economic activity can be stimulated.

Environmental Sustainability: to enhance the performance of the transportation system while protecting and enhancing the natural environment.

- Climate change-related goals that address on-road mobile source emissions such as the reduction of air pollution and meeting air quality standards are the primary focus of this goal.

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Reduced Project Delivery Delays: to reduce costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion.

- Eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices and collaboration is the primary focus of this goal.

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STATES' GOALS AND PERFORMANCE MEASURES

The KIPDA MPO is a bi-state agency, thus must incorporate the performance measures of both the state of Indiana and the Commonwealth of Kentucky. Because the National Goals have not yet been finalized, the state goals are still in progress. KIPDA and the states will collaborate, share data, conduct analysis, and assist each other in the reporting process. The states must establish their performance measures twelve months following the finalization of the national goals. As of August 2015, the projected date for states to finalize their performance measures is late-2016. When the states have finalized their goals, they will be outlined in this PMP.

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KIPDA GOALS AND OBJECTIVES

KIPDA's Metropolitan Transportation Plan, called "Connecting Kentuckiana," has documented the goals and objectives that were identified by stakeholders and committees in the KIPDA planning process. This PMP takes those goals one step further by implementing performance measures and setting targets to achieve the "Connecting Kentuckiana" goals. This PMP is not just a KIPDA staff-created document; working groups consisting of stakeholders and committee approval have pushed this process forward.

The following are the "Connecting Kentuckiana" goals and objectives approved by the KIPDA's Transportation Policy Committee:

Improve public transit connectivity to identified Community Access Clusters, including, but not limited to, high density employment, high density residential, high density retail, commerce centers, and Access to Education.

- By 2020, increase by 20% the number of identified clusters of high density employment, high density shopping, and/or high density housing served by public transit.
- Increase the number of spaces in Park and Ride Lots by 40% by 2025.
- By 2025 increase the number of park and ride lots with dedicated bicycle access by 10%.
- By 2025 increase the number of park and ride lots with pedestrian access by 20%.

Improve the connectivity of the pedestrian network.

- By 2025, increase by 10% pedestrian walkways within identified Community Access Clusters (including, but not limited to, high density employment, high density residential, high density retail, and Access to Education clusters) and to public transit stops.

Improve the connectivity of bicycle facilities.

- By 2025, increase by 10% the number of identified Community Access Clusters (including high density employment, high density retail, or high density residential areas) within 3.0 miles of each other are connected via dedicated bicycle facilities by adding new facilities, filling gaps in existing facilities, and improving access to transit stops on functionally classified roadways.

Increase safety for all users.

- By 2025, reduce by 20% the ratio of all crashes to regional Vehicle Miles Traveled with high priority given to reducing crashes involving bicycles and pedestrians.

Manage and reduce roadway congestion where appropriate.

- Maintain or improve current Level of Service on freeway and interstate roadway miles with a current Level of Service of D or worse through 2040.
- Maintain or improve current Level of Service on arterial roadway miles with a current Level of Service of D or worse through 2040.

Increase the availability and efficiency of person based multi-modal options.

- Increase system wide transit ridership by 20% by 2025.
- Reduce by 20% the identified gaps in pedestrian walkways along functionally classified roadways by 2025.
- Reduce by 20% the identified gaps in bikeways along functionally classified corridors by 2025.

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Maintain the existing transportation network in a state of good repair.

- By 2025, increase the percentage of functionally classified roadways in a state of good repair by 10%.
- Reduce the number of functionally obsolete bridges.
- Reduce the number of bridges that are structurally deficient by 50% by 2025.
- Rehabilitate 10 miles of sidewalks on functionally classified roadways by 2025.
- Rehabilitate 10 miles of curbs on functionally classified roadways by 2025.
- Reduce the average age of the public transit fleet to 7 years by 2025.

Ensure timely and efficient movement of freight within, departing, and entering the region.

- Maintain or improve current Level of Service on roadway miles included on the KIPDA Freight Network through 2040.
- By 2025, reduce by 10% the number of locations on the KIPDA Freight Network and within 1.0 miles of identified clusters of freight distributors where roadway geometry (turning radii, lane width, shoulder width, roadway curvature, etc.) contributes to delay or hinders freight truck access to and from destinations.

Influence positive economic impacts.

- Reduce the average headway time on public transit by 40% for those routes that connect Environmental Justice/Title VI areas and high density residential areas, to identified high density employment, major employers, and high density shopping areas by 2025.
- Provide appropriate transportation options to 70% of areas identified as high density employment and/or with identified moderate to significant employment growth forecasts by 2040.

Reduce and/or mitigate negative environmental impacts, including climate change.

- Meet or exceed mobile source budgets in State Implementation Plans for Air Quality with each update and amendment to the Metropolitan Transportation Plan.

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KIPDA PERFORMANCE MEASURES

Federal law (MAP-21) requires KIPDA to incorporate the National Goals and Performance Measures and the performance measures identified by KYTC and INDOT into their own performance-based transportation planning. However, at the discretion of the Transportation Policy Committee, KIPDA may include additional goals, objectives, and performance measures beyond the national and states' goals. This allows the MPO to focus on addressing specific issues that this particular region faces that may not be a primary focus for other regions. KIPDA has encompassed the national goals into their performance measures. Once the state goals have been finalized, KIPDA will encompass those into the PMP as well.

The following are the performance measures set forth by the KIPDA Transportation Policy Committee, which have been categorized into several sections: transit, pedestrian, bicycle, safety, roadways, environmental/air quality, and economic impact.

Table 1, titled "Baselines, Targets, and Goals," identifies the performance measure, baseline data and an explanation, the proposed target, and the goal. If the baseline and goal is identified as "to be determined," then that particular performance measure will appear in the data collection plan later on in this document.

Table 2, titled "Responsible Agency, Review Frequency, and Data Replication," identifies the performance measure, the agency responsible for collecting and/or analyzing the data, the proposed review frequency, and an explanation of how the data was analyzed so that it may be replicated in the future.

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TABLE 1: BASELINES, TARGETS, AND GOALS

TRANSIT					
PERFORMANCE MEASURE		BASELINE - CURRENT STATUS		PROPOSED TARGET	GOAL
T1	High Density Employment Clusters Served by Transit	76.01%	of land area within high density employment clusters are within 1/4 mile of a transit stop.	Increase by 20% by 2025	91.21%
	High Density Shopping Clusters Served by Transit	82.62%	of land area within high density shopping clusters are within 1/4 mile of a transit stop.		99.14%
	High Density Housing Clusters Served By Transit	TBD	Percent of land area within high density housing clusters are within 1/4 mile of a transit stop.		TBD
T2	Number of Park and Ride Lot Spaces	7,073	Park and Ride Lot spaces in the KIPDA region, including official and unofficial lots.	Increase by 40% by 2025	9,902 spaces
T3	Number of Park and Ride Lots with dedicated bicycle access	13	Park and Ride Lots have dedicated bicycle access.	Increase by 10%	14 lots
T4	Number of Park and Ride Lots with pedestrian access	26	Park and Ride Lots have pedestrian access.	Increase by 20%	31 lots
T5	Transit ridership	13,441,405	riders boarded TARC Buses during calendar year 2013.	Increase 20% by 2025	16,129,686 riders
T6	Average age of public transit fleet	8	years was the average age of TARC fleet in 2013.	Reduce average to 7 years by 2025	7 years
T7	Average headway time between Environmental Justice Areas/High Density Housing, Shopping, Employment, and Major Employers	TBD	Average headway time between EJ/HD Housing, Shopping, Employment, and Major Employers.	Reduce by 40% by 2025	TBD

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PEDESTRIAN					
PERFORMANCE MEASURE		BASELINE - CURRENT STATUS		PROPOSED TARGET	GOAL
P1	Amount of pedestrian walkways within Community Access Clusters	TBD	feet/miles of pedestrian walkways within Community Access Clusters.	Increase by 10% by 2025	TBD
P2	Reduce number of crashes involving pedestrians	518	total crashes involving pedestrians in the region from 2009-2013.	“High Priority,” TBD	TBD
P3	Reduce number of gaps in pedestrian network	TBD	feet/miles of gaps in the pedestrian network.	Reduce by 20% by 2025	TBD

BICYCLE					
PERFORMANCE MEASURE		BASELINE - CURRENT STATUS		PROPOSED TARGET	GOAL
B1	Number of Community Access Clusters (within 3 mi.) connected by dedicated bicycle facility	TBD	Number of community access clusters connected by dedicated bicycle facilities.	Increase by 10% by 2025	TBD
B2	Reduce number of crashes involving bicyclists	208	total crashes involving bicyclists in the region from 2009-2013.	“High Priority,” TBD	TBD
B3	Reduce number of gaps in bicycle network	TBD	feet/miles of gaps in the bicycle network.	Reduce by 20% by 2025	TBD

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SAFETY					
PERFORMANCE MEASURE		BASELINE - CURRENT STATUS		PROPOSED TARGET	GOAL
S1	Ratio of crashes per 100 million VMT	369	crashes in the MPO region per 100 million VMT, 5-year rolling average from 2009-2013.	Reduce by 20% by 2025	295
S2	Number of fatalities	104	fatalities for the MPO region, 5-year rolling average, 2009-2013.	"High Priority," TBD	TBD
S3	Rate of fatalities per 100 million VMT	0.97	fatalities in the MPO region per 100 million VMT, 5-year rolling average from 2009-2013.	"High Priority," TBD	TBD
S4	Number of serious injuries	1,031	serious injuries in the MPO region, 5-year rolling average, 2009-2013.	"High Priority," TBD	TBD
S5	Rate of serious injuries per 100 million VMT	9.59	serious injuries per 100 million VMT, entire MPO region, 5-year rolling average 2009-2013.	"High Priority," TBD	TBD

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ROADWAYS					
PERFORMANCE MEASURE		BASELINE - CURRENT STATUS		PROPOSED TARGET	GOAL
R1	Maintain or improve LOS on freeway and interstate miles with LOS D or worse	30.80%	of freeway and interstate miles were at LOS D, E, or F in 2012. 120 miles (out of 390 total miles) were congested.	Maintain or improve LOS	≤ 30.80%
R2	Maintain or improve LOS on arterial miles with LOS D or worse	13.50%	of arterial miles were at LOS D, E, or F in 2012. 104 miles (out of 769 total miles) were congested.	Maintain or improve LOS	≤ 13.50%
R3	Percentage of pavements in "Good" condition on the Interstate NHS System	TBD	Follow the states' lead	TBD	TBD
R4	Percentage of pavements in "Good" condition on the Non-Interstate NHS system	TBD	Follow the states' lead	TBD	TBD
R5	Percentage of pavements in "Poor" condition on the Interstate NHS System	TBD	Follow the states' lead	TBD	TBD
R6	Percentage of pavements in "Poor" condition on the Non-Interstate NHS System	TBD	Follow the states' lead	TBD	TBD
R7	Percentage of bridges on the NHS System that are in "Good" condition	TBD	Follow the states' lead	TBD	TBD
R8	Percentage of bridges on the NHS System that are in "Poor" condition	TBD	Follow the states' lead	TBD	TBD
R9	Maintain or improve roadways on the KIPDA Freight Network at LOS D or worse	20.40%	of KIPDA freight network were at LOS D, E, or F in 2012. 166.27 miles (out of 813.83 total miles) were congested.	Maintain or improve LOS	≤ 20.40%
R10	Number of locations on KIPDA Freight Network within 1.0 mile of freight cluster where roadway geometry and/or restrictions impede freight movement	TBD	Number of locations on the KIPDA Freight Network where roadway geometry impedes freight movement.	Reduce by 10%	TBD

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ENVIRONMENTAL / AIR QUALITY					
PERFORMANCE MEASURE		BASELINE - CURRENT STATUS		PROPOSED TARGET	GOAL
E1	Meet or do better than mobile source budgets in SIP	TBD	MTP Air Quality Analysis	Meet or do better	TBD

ECONOMIC IMPACT					
PERFORMANCE MEASURE		BASELINE - CURRENT STATUS		PROPOSED TARGET	GOAL
EI1	Provide transportation options (transit, bicycle, and pedestrian) to current high density employment clusters and areas with moderate to significant employment growth.	TBD	Percent of employees in high density employment clusters within 1/4 mile of a transit stop.	70% of high density employment clusters and areas with moderate to significant employment growth (combined) with transportation options	TBD
		TBD	Percent of employees in high density employment clusters within 1 mile of a dedicated bicycle facility.		
		TBD	Percent of functionally classified roadways within employment cluster that have pedestrian accommodations on at least one side of the roadway.		

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TABLE 2: RESPONSIBLE AGENCY, REVIEW FREQUENCY, AND DATA REPLICATION

TRANSIT				
PERFORMANCE MEASURE		AGENCY RESPONSIBLE FOR COLLECTING DATA	PROPOSED REVIEW FREQUENCY	DATA REPLICATION
T1	High Density Employment Clusters Served by Transit High Density Shopping Clusters Served by Transit High Density Housing Clusters Served By Transit	<ul style="list-style-type: none"> • High Density Clusters: KIPDA • Route schedules and stops: TARC • Analysis: KIPDA 	Update with new MTP, every 4 years	<ul style="list-style-type: none"> • Calculated the total amount of land area of every high density cluster. Then calculated the amount of land area within every high density cluster that was within 1/4 mile of a transit stop to get a ratio. • High Density Housing analysis incomplete. See data collection plan. TBD.
T2	Number of Park and Ride Lot Spaces	<ul style="list-style-type: none"> • Park and Ride Lots: TARC 	Every 2 years	Used GIS attribute table to count the number of spaces in each Park and Ride Lot.
T3	Number of Park and Ride Lots with dedicated bicycle access	<ul style="list-style-type: none"> • Park and Ride Lots: TARC • Bicycle Facility Inventory: KIPDA, with assistance from LPAs 	Update with new MTP, every 4 years (after initial baseline data collection)	Used a combination of GIS and aerial photos to determine whether Park and Ride Lots had dedicated bicycle access. An official bicycle facilities inventory is needed.
T4	Number of Park and Ride Lots with pedestrian access	<ul style="list-style-type: none"> • Park and Ride Lots: TARC • Pedestrian Facility Inventory: KIPDA, with assistance from LPAs 	Update with new MTP, every 4 years (after initial baseline data collection)	Used a combination of GIS and aerial photos to determine whether Park and Ride Lots had pedestrian access. An official pedestrian facilities inventory is needed.
T5	Transit ridership	<ul style="list-style-type: none"> • Ridership: TARC 	Every 2 years	TARC provides this data on an as-needed basis.
T6	Average age of public transit fleet	<ul style="list-style-type: none"> • Age of fleet: TARC 	Every 2 years	Data from TARC Title VI Program Update-2013.
T7	Average headway time between Environmental Justice Areas/High Density Housing, Shopping, Employment, and Major Employers	<ul style="list-style-type: none"> • High Density Clusters: KIPDA • Route schedules and stops: TARC • Analysis: KIPDA 	Update with new MTP, every 4 years (after initial baseline data collection)	Further analysis required on high density housing and environmental justice routes. See data collection plan. TBD.

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PEDESTRIAN					
PERFORMANCE MEASURE		AGENCY RESPONSIBLE FOR COLLECTING DATA	PROPOSED REVIEW FREQUENCY	DATA REPLICATION	
P1	Amount of pedestrian walkways within Community Access Clusters	<ul style="list-style-type: none"> • Community Access Clusters: KIPDA • Pedestrian Facilities Inventory: KIPDA, with assistance from LPAs 	Update with new MTP, every 4 years (after initial baseline data collection)	A regional pedestrian facilities inventory is unavailable. See data collection plan. TBD.	
P2	Reduce number of crashes involving pedestrians	<ul style="list-style-type: none"> • Kentucky crash data: KYTC • Indiana crash data: ARIES database • Analysis: KIPDA 	Every 2 years	Average number of pedestrian crashes from 2009-2013.	
P3	Reduce number of gaps in pedestrian network	<ul style="list-style-type: none"> • Pedestrian Facilities Inventory: KIPDA, with assistance from LPAs 	Update with new MTP, every 4 years (after initial baseline data collection)	A regional pedestrian facilities inventory is unavailable. See data collection plan. TBD.	

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BICYCLE					
PERFORMANCE MEASURE		AGENCY RESPONSIBLE FOR COLLECTING DATA	PROPOSED REVIEW FREQUENCY	DATA REPLICATION	
B1	Number of Community Access Clusters (within 3 miles) connected by dedicated bicycle facility	<ul style="list-style-type: none"> • Community Access Clusters: KIPDA • Bicycle Facilities Inventory: KIPDA, with assistance from LPAs 	Update with new MTP, every 4 years (after initial baseline data collection)	A regional bicycle facilities inventory is unavailable. See data collection plan. TBD.	
B2	Reduce number of crashes involving bicyclists	<ul style="list-style-type: none"> • Kentucky crash data: KYTC • Indiana crash data: ARIES database • Analysis: KIPDA 	Every 2 years	Average number of bicycle crashes from 2009-2013.	
B3	Reduce number of gaps in bicycle network	<ul style="list-style-type: none"> • Bicycle Facilities Inventory: KIPDA, with assistance from LPAs 	Update with new MTP (after initial baseline data collection)	A regional bicycle facilities inventory is unavailable. See data collection plan. TBD.	

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SAFETY					
PERFORMANCE MEASURE		AGENCY RESPONSIBLE FOR COLLECTING DATA	PROPOSED REVIEW FREQUENCY	DATA REPLICATION	
S1	Ratio of crashes per 100 million VMT	<ul style="list-style-type: none"> • Kentucky crash data: KYTC • Indiana crash data: ARIES database • Analysis: KIPDA 	Every 2 years	Sum of all crashes 2009-2013 divided by sum of VMT 2009-2013.	
S2	Number of fatalities	<ul style="list-style-type: none"> • Kentucky crash data: KYTC • Indiana crash data: ARIES database • Analysis: KIPDA 	Every 2 years	5 year average fatality count for the entire MPO region.	
S3	Rate of fatalities per 100 million VMT	<ul style="list-style-type: none"> • Kentucky crash data: KYTC • Indiana crash data: ARIES database • Analysis: KIPDA 	Every 2 years	Sum of fatalities 2009-2013 divided by sum of VMT 2009-2013.	
S4	Number of serious injuries	<ul style="list-style-type: none"> • Kentucky crash data: KYTC • Indiana crash data: ARIES database • Analysis: KIPDA 	Every 2 years	5 year average serious injury count for the entire MPO region.	
S5	Rate of serious injuries per 100 million VMT	<ul style="list-style-type: none"> • Kentucky crash data: KYTC • Indiana crash data: ARIES database • Analysis: KIPDA 	Every 2 years	Sum of serious injuries 2009-2013 divided by sum of VMT 2009-2013.	

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ROADWAYS				
PERFORMANCE MEASURE		AGENCY RESPONSIBLE FOR COLLECTING DATA	PROPOSED REVIEW FREQUENCY	DATA REPLICATION
R1	Maintain or improve LOS on freeway and interstate miles with LOS D or worse	<ul style="list-style-type: none"> • Congestion data: KIPDA 	Update with new MTP, every 4 years	Calculated the total number of freeway and interstate miles and then calculated just the number of miles at LOS D or worse to get a ratio.
R2	Maintain or improve LOS on arterial miles with LOS D or worse	<ul style="list-style-type: none"> • Congestion data: KIPDA 	Update with new MTP, every 4 years	Calculated the total number of arterial miles and then calculated just the number of miles at LOS D or worse to get a ratio.
R3	Percentage of pavements in "Good" condition on the Interstate NHS System	<ul style="list-style-type: none"> • Pavement Condition: KYTC, INDOT 	Update with new MTP, every 4 years (after initial baseline collection)	Follow states' lead since KIPDA does not have the capability to calculate this.
R4	Percentage of pavements in "Good" condition on the Non-Interstate NHS system	<ul style="list-style-type: none"> • Pavement Condition: KYTC, INDOT 	Update with new MTP, every 4 years (after initial baseline collection)	Follow states' lead since KIPDA does not have the capability to calculate this.
R5	Percentage of pavements in "Poor" condition on the Interstate NHS System	<ul style="list-style-type: none"> • Pavement Condition: KYTC, INDOT 	Update with new MTP, every 4 years (after initial baseline collection)	Follow states' lead since KIPDA does not have the capability to calculate this.
R6	Percentage of pavements in "Poor" condition on the Non-Interstate NHS System	<ul style="list-style-type: none"> • Pavement Condition: KYTC, INDOT 	Update with new MTP, every 4 years (after initial baseline collection)	Follow states' lead since KIPDA does not have the capability to calculate this.
R7	Percentage of bridges on the NHS System that are in "Good" condition	<ul style="list-style-type: none"> • Bridge Condition: KYTC, INDOT 	Update with new MTP, every 4 years (after initial baseline collection)	Follow states' lead since KIPDA does not have the capability to calculate this.

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R8	Percentage of bridges on the NHS System that are in "Poor" condition	<ul style="list-style-type: none"> • Bridge Condition: KYTC, INDOT 	Update with new MTP, every 4 years (after initial baseline collection)	Follow states' lead since KIPDA does not have the capability to calculate this.
R9	Maintain or improve roadways on the KIPDA Freight Network at LOS D or worse	<ul style="list-style-type: none"> • Congestion data: KIPDA 	Update with new MTP, every 4 years	Calculated the total number of miles on the KIPDA Freight Network and then calculated just the number of miles at LOS D or worse to get a ratio.
R10	Number of locations on KIPDA Freight Network within 1.0 mile of freight cluster where roadway geometry and/or restrictions impede freight movement	<ul style="list-style-type: none"> • Roadway Status Inventory: KIPDA, with assistance from KYTC, INDOT 	Update with new MTP, every 4 years (after initial baseline data collection)	A regional freight network inventory is unavailable. See data collection plan. TBD.

ENVIRONMENTAL / AIR QUALITY

ENVIRONMENTAL / AIR QUALITY					
PERFORMANCE MEASURE		AGENCY RESPONSIBLE FOR COLLECTING DATA	PROPOSED REVIEW FREQUENCY	DATA REPLICATION	
E1	Meet or do better than mobile source budgets in SIP	<ul style="list-style-type: none"> • Air Quality Data: APCD • Analysis: KIPDA 	Update with new MTP, every 4 years (after initial baseline data collection)	Conduct air quality analysis for the MTP. See data collection plan. TBD.	

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ECONOMIC IMPACT

PERFORMANCE MEASURE		AGENCY RESPONSIBLE FOR COLLECTING DATA	PROPOSED REVIEW FREQUENCY	DATA REPLICATION
EI1	Provide transportation options (transit, bicycle, and pedestrian) to current high density employment clusters and areas with moderate to significant employment growth.	<ul style="list-style-type: none"> • High Density Clusters: KIPDA • Pedestrian Facilities Inventories: KIPDA, with assistance from LPAs • Bicycle Facilities Inventory: KIPDA, with assistance from LPAs 	Update with new MTP, every 4 years (after initial baseline data collection)	A regional pedestrian and bicycle facilities inventory is unavailable. See data collection plan. TBD.

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REPORTING PROCESS

MAP-21 requires states and MPOs to report their progress to the relevant federal agencies including the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). Here are the appropriate roles and responsibilities of agencies when it comes to the reporting process:

States must report on their performance progress every two years. There are some instances in which the MPO will rely on the states for data, and there are other instances in which the states will rely on the MPOs for data; therefore, KIPDA will assist the states in reporting their performance progress if necessary.

KIPDA will report on their performance progress every four years with the update of the MTP. MPOs do not report directly to the federal agencies except at their Federal Certification Review, which occurs every four years. KIPDA will report achievements in the MTP and report these achievements to the states, which will get folded in to the states' reporting processes to the federal agencies. The MPO report to the states must include:

- An evaluation of the condition and performance of transportation system,
- A discussion of progress achieved in meeting performance targets in comparison with the performance in previous reports,
- An evaluation of how preferred scenario has improved conditions and performance, where applicable,
- And an evaluation of how local policies and investments have impacted costs necessary to achieve performance targets, where applicable.

One of the most important aspects of the PMP is tracking progress on achieving the goals and objectives, which will inform stakeholders on the state of the transportation system relative to the characteristics that they value the most. KIPDA will provide progress reports to their committees to update them on the status of the performance measures. Decision-makers will be able to make more informed decisions when they are regularly updated on the progress towards achieving the targets that they approved. The relevant transportation working groups should utilize these progress reports to more efficiently allocate their limited funding resources to projects and programs that are most likely to address the goals and objectives. KIPDA also plans to engage the public on an on-going basis relative to the status of target achievement. The reporting process shall enable the public to better comprehend the status of their community's transportation needs. A well-informed public will be useful when it comes to asking for their feedback and analyzing how well KIPDA is addressing the transportation issues that people face on a regular basis. KIPDA recognizes the importance of updating their committees, stakeholders, and the general public on how well the system is performing relative to the performance measures. It was these committees and stakeholders who approved the goals, objectives and performance measures. In the future, as we meet our targets or as new problems arise, KIPDA may have to shift their goals and objectives to address the issues that are most important to the public and the stakeholders in the region.

Once performance measures and targets are finalized at all levels: national, state, and MPO level; KIPDA's targets cannot be amended until halfway through the reporting period. For example, if the goal has already been met after two years, targets can be adjusted higher. Conversely, if the goal is not likely to be met due to unrealistic targets or unforeseen circumstances, KIPDA is allowed to adjust their targets downward in order to increase the feasibility that the goal will be reached. This is to give KIPDA

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the chance to reach their targets. A potential consequence to not reaching the targets is a redirection of funding towards failing targets. Federal agencies may not allow certain projects or programs to receive funding if other performance measures are failing.

Any modifications to the Performance Management Plan must receive approval from the Transportation Policy Committee and all agencies in the MoA: KYTC, INDOT, and TARC.

This PMP will be revised when KIPDA receives new data, when targets may need to be adjusted, when the states adjust their targets, and with every update of the MTP. At a minimum, KIPDA staff expects to review the PMP every two years, or more often as needed.

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DATA COLLECTION PLAN

The Data Collection Plan plays an integral role in the overall Performance Management Plan. While there is a plethora of data available to the states and MPOs, certain data is still unavailable. This Data Collection Plan will establish a strategy for collecting the data to identify the baseline condition and set targets for every performance measure.

Data and analytical tools play a critical role throughout the Performance-Based Planning approach. Conducting system or project analysis will require a suite of approaches, tools, and methodologies. Data are a foundation for:

- Selecting feasible performance measures
- Understanding current system performance (developing a baseline)
- Developing and tracking performance changes over time (monitoring conditions)
- Setting targets and goals
- And evaluating the effectiveness of implemented strategies

While KIPDA will largely be responsible for collecting, organizing, and analyzing the data used to assess the progress on meeting goals and objectives, partner agencies will also be tasked with providing KIPDA certain data. Collaboration is critical between KIPDA, KYTC, INDOT, TARC, all LPAs within the region, and any other agencies that could provide and/or analyze relevant data.

The following is an outline of the general data collection process:

- Developing Baselines
- Collecting Data
- Strategy for Collecting Unavailable Data
- Data Sources
- Targets and Goal Setting
- Review Frequency

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DEVELOPING BASELINES

A baseline condition is developed to create a reference point from which progress (or lack thereof) can be measured. While performance measures require specific baseline information in order to set targets and address the goals and objectives, there is a multitude of data that needs to be updated even before a baseline can be set. This information includes:

- A description of the multimodal transportation system, including:
 - Highways
 - Transit
 - Freight
 - Multimodal and Intermodal Facilities
 - Bicycle and Pedestrian Networks
 - Integrated management and operations of transportation systems and facilities
- Information on existing system conditions and performance
- Collecting data on:
 - Population
 - Land Use
 - Travel
 - Employment
 - Economic activity
 - System performance
 - Traffic counts
 - Travel-time studies
 - Vehicle Miles Traveled (VMT)
 - Levels of traffic congestion and delay
 - Crash data
 - Mode shares
- Factors and trends that may influence the future:
 - Future challenges and risks
 - Evolving data collection technologies and modeling capabilities
 - Demographic shifts
 - Discrepancies between projected needs and projected revenues.
 - Congestion and its consequences (economic, quality of life, etc.)
 - Environmental challenges
 - Air quality
 - Climate change
 - Risk from severe weather events
 - Water quality
 - Safety challenges
 - Changes in technology that will enhance the efficiency of the transportation system
 - Long-term shifts in travel behavior and choices.
- Revenue projections
 - Providing realistic funding and revenue forecasts throughout the entire process ensures that all stakeholders understand the limits of funding to support implementation of projects and strategies. Fiscal constraint is crucial to the MTP and the TIP.

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COLLECTING DATA

Out of the 30 performance measures that KIPDA has identified, 15 currently have a baseline set. The following list outlines what data was used in establishing each performance measure's baseline:

- **Transit 1a:** land area of high density employment clusters, land area within ¼ mile of a transit stop
- **Transit 1b:** land area of high density shopping clusters, land area within ¼ mile of a transit stop
- **Transit 2:** number of Park and Ride Lot spaces
- **Transit 3:** number of Park and Ride Lot spaces with dedicated bicycle access
- **Transit 4:** number of Park and Ride Lot spaces with pedestrian access
- **Transit 5:** number of riders boarding TARC buses in calendar year 2013.
- **Transit 6:** average age of TARC fleet

- **Pedestrian 2:** number of crashes involving pedestrians in the region

- **Bicycle 2:** number of crashes involving bicyclists in the region

- **Safety 1:** number of crashes per 100 million VMT
- **Safety 2:** number of fatalities, 5-year average
- **Safety 3:** number of fatalities per 100 million VMT, 5-year average
- **Safety 4:** number of serious injuries, 5-year average
- **Safety 5:** number of serious injuries per 100 million VMT, 5-year average

- **Roadways 1:** percent of freeway and interstate miles at LOS D, E, or F
- **Roadways 2:** percent of arterial miles at LOS D, E, or F
- **Roadways 9:** percent of KIPDA Freight Network at LOS D, E, or F

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STRATEGY FOR COLLECTING UNAVAILABLE DATA

Out of the 30 performance measures that KIPDA has identified, 15 currently do not have a baseline set due to unavailable data. Due the magnitude of data collection, it is not possible to collect all missing data in the short-term. This section will identify the types of data that are missing, strategies for collecting data, the agencies responsible for collecting it, and a time frame in which the baseline shall be identified. These time frames shall be reasonable but aggressive, as KIPDA wants to make progress on meeting their performance targets and goals and objectives as soon as possible.

The following list outlines what data is unavailable for each performance measure without a baseline:

- **Transit 1c:** high density housing data needs further analysis
- **Transit 7:** high density housing data and consistent environmental justice transit routes need further analysis
- **Pedestrian 1, Pedestrian 3:** a regional pedestrian facilities inventory is unavailable
- **Bicycle 1, Bicycle 3:** a regional bicycle facilities inventory is unavailable
- **Economic Impact 1:** regional pedestrian and bicycle facilities inventories are unavailable
- **Roadways 3 through Roadways 8:** follow states' lead on pavement and bridge conditions since KIPDA does not have the capability to calculate this
- **Roadways 10:** a regional freight network inventory is unavailable
- **Environmental/Air Quality 1:** MTP air quality analysis is currently in progress

Several performance measures rely on the same unavailable data: pedestrian and bicycle facilities. MPOs nationwide are facing the issue of a lack of data on pedestrian and bicycle facilities despite the fact that there is a push towards alternative modes of transportation. Whereas VMT data for cars is readily available, data about demand for pedestrian and bicycle facilities is less prevalent. A data collection plan for bicycle and pedestrian facilities is crucial to keep up with the community's needs. This is just one example of how unavailable data needs to be collected as soon as possible in order to address the national and state goals.

The following is a list of what type of data is currently unavailable to KIPDA, how many performance measures are affected by the unavailability of the data, and a plan for identifying baseline data in order to set targets as soon as possible:

- **Follow states' lead on pavement and bridge conditions:** (6 performance measures)
 - Timeframe to identify baseline data: 2 years
 - KIPDA will be following the states' lead when it comes to collecting, analyzing, and reporting data on pavement and bridge conditions.
- **Pedestrian facilities inventory:** (3 performance measures)
 - Timeframe to identify baseline data: 3 years
 - Ideally, by the next update of the MTP, KIPDA will have a regional pedestrian facilities inventory in order to measure the progress on the targets involving pedestrian performance measures. KIPDA may need assistance from LPAs in the region to complete this data collection.
- **Bicycle facilities inventory:** (3 performance measures)
 - Timeframe to identify baseline data: 3 years

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- Ideally, by the next update of the MTP, KIPDA will have a regional bicycle facilities inventory in order to measure the progress on the targets involving bicycle performance measures. KIPDA may need assistance from LPAs in the region to complete this data collection.
- **High density housing data:** (2 performance measures)
 - Timeframe to identify baseline data: 1 year
 - High density housing data needs further analysis.
- **Freight network inventory:** (1 performance measure)
 - Timeframe to identify baseline data: 3 years
 - Ideally, by the next update of the MTP, KIPDA will have a regional freight network inventory in order to measure the progress on the targets involving freight movement performance measures. KIPDA may need assistance from KYTC and INDOT to complete this data collection.
- **Inconsistency of minority transit routes:** (1 performance measure)
 - Timeframe to identify baseline data: 1 year
 - Environmental justice routes need further analysis
- **Metropolitan Transportation Plan air quality analysis:** (1 performance measure)
 - Timeframe to identify baseline data: 1 year
 - Conduct air quality analysis for the MTP

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DATA SOURCES

KIPDA, KYTC, INDOT, TARC, Local Public Agencies and other relevant agencies in the KIPDA region shall collaborate on collecting, sharing, and analyzing data for performance measures and review. Table 2 above, titled “Responsible Agency, Review Frequency, and Data Replication,” outlines a proposal for which agencies are responsible for collecting data for each performance measure and where this data can be found.

It is crucial for the KIPDA MPO to use as similar data as possible as other MPOs from Kentucky and Indiana. KIPDA will use the same data that is used in developing the statewide performance measures to develop their local ones. Given the bi-state nature of the MPO, it may be difficult to compile identical data between the states. Therefore some performance measures, particularly the ones that rely directly on the states’ data, may be separated and analyzed by the individual states and not combined. Standardized data collection and analysis will create consistency among the Kentucky and Indiana MPOs, thus making it possible to share or expand upon the data. KIPDA, KYTC, and INDOT are encouraged to utilize the same performance data when generating long- and short-range plans; collaboration between the states will be essential.

The following is a list of data needs and their sources organized by the agency responsible for collecting the data:

- **KIPDA:**
 - High density employment, shopping, and housing clusters
 - Community Access Clusters
 - Pedestrian facilities inventory
 - Bicycle facilities inventory
 - Congestion data
 - Freight network inventory

- **KYTC:**
 - Kentucky crash data, including fatalities and serious injuries
 - Pavement conditions
 - Bridge conditions
 - Assist KIPDA with freight network inventory

- **INDOT:**
 - Pavement conditions
 - Bridge conditions
 - Assist KIPDA with freight network inventory

- **TARC:**
 - Route schedules and stops
 - Park and Ride Lots
 - Transit ridership
 - Age of transit fleet

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- **LPAs:**
 - Assist KIPDA with pedestrian facilities inventory
 - Assist KIPDA with bicycle facilities inventory

- **Other relevant agencies:**
 - ARIES database: Indiana crash data, including fatalities and serious injuries
 - Louisville Metro Air Pollution Control District: air quality data

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TARGETS AND GOAL SETTING

Setting targets first relies on the baseline information of the region's current conditions. Next, analysis will be done to assess expected future performance. Targets are based on anticipated conditions, attainable performance levels, and the priorities of the KIPDA committee members and community stakeholders. Committee members and working groups should collaborate to identify the targets. The targets should be aggressive but feasible. States, MPOs, and public transportation providers must coordinate, to the maximum extent practical with KIPDA in selecting a target to ensure for consistency.

Within twelve months of the DOT final rule on performance measures, states are required to set performance targets in support of those measures. Within 180 days of the states or providers of public transportation setting performance targets, MPOs are required to set performance targets in relation to the performance measures (where applicable).

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REVIEW FREQUENCY

Some performance measures can be reviewed more often due to the ongoing nature of data collection. Others will need to be reviewed less frequently due to the magnitude of data collection. At a minimum, all performance measures will be updated every 4 years, with the MTP update.

In instances where significant changes are expected or the data is updated on a more frequent basis, the progress towards achieving targets shall be reviewed every two years. Since the states have to report their own progress every two years, some of the MPOs performance targets may have to be reviewed as frequently as well, in order to assist the states with their own progress reports.

The following is a list of data needs organized by how often they shall be reviewed:

- **Review every two years:**
 - Kentucky crash data, including fatalities and serious injuries
 - Indiana crash data, including fatalities and serious injuries
 - Transit route schedules and stops
 - Park and Ride lots
 - Transit ridership
 - Age of transit fleet

- **Review every four years:**
 - High density employment, shopping, and housing clusters
 - Community Access Clusters
 - Pedestrian facilities inventory
 - Bicycle facilities inventory
 - Congestion data
 - Freight network inventory
 - Pavement conditions
 - Bridge conditions
 - Louisville Metro Air Pollution Control District: air quality data

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