

TEXARKANA METROPOLITAN PLANNING ORGANIZATION

2019 FREIGHT MOBILITY PLAN



October 2019

TABLE OF CONTENTS

Chapter 1: Introduction	1
Chapter 2: Economic Analysis and Trends	9
Chapter 3: Commodity Flows	18
Chapter 4: Freight System Assets, Condition, and Performance	22
Chapter 5: Freight Investment Scenarios	45
Chapter 6: Future Economic Development and Impacts of Freight Investment	59
Chapter 7: Funding for Implementation	70
Chapter 8: Action Plan	76
Appendix A: FMP Project List with Costs and Potential Funding Source	87
Appendix B: Project List Funding Categories	94
Appendix C: SWOT Analysis Workshop Memo	98
Appendix D: Stakeholder Prioritization of Freight Issues	107
Appendix E: 2017 Texarkana Regional Industry Sectors by Total Output	108

LIST OF FIGURES

Figure 1: Texarkana MPO Study Area	4
Figure 2: Texarkana Metro Area Employment by Industry (July 2018); Texas Workforce Commission	11
Figure 3: Comparison of GDP Growth Trends among Metro Areas; 2012-2017; U.S. Bureau of Economic Analysis	13
Figure 4: Texarkana Metro Area Employment Growth; 2010-2019; Texas Workforce Commission	14
Figure 5: Texarkana Metro Area Employment Growth by Industry; 2014-2018; Texas Workforce Commission	15
Figure 6: Comparison of Unemployment Rate Trends among Metro Areas; 2015-2017; Texas Workforce Commission	16
Figure 7: Comparison of Shovel-Ready Industrial Land Prices; 2017; Workforce Solutions Northeast Texas	17
Figure 8: Freight Truck Volume; 2020; TX and AR Travel Demand Models	25
Figure 9: Texas and Arkansas State Freight Networks	26


Figure 10: Bridge Condition; 2018; Federal Highway Administration (FHWA) National Bridge Inventory	28
Figure 11: Bridge Vertical Clearance; 2019; TxDOT	29
Figure 12: Poor Pavement Condition; 2017; FHWA Highway Performance Monitoring System	30
Figure 13: Peak Period Congestion (Level of Service); 2020; TX and AR Travel Demand Models	32
Figure 14: Number of Crashes involving Trucks in the Texarkana MPO Study Area; 2013-2017	34
Figure 15: Hotspots of Crashes involving Trucks; Texarkana MPO Study Area; 2013-2017	37
Figure 16: Fatal/Serious Injury Crashes Involving Trucks; Texarkana MPO Study Area; 2013-2017	38
Figure 17: Truck Parking Facilities/Rest Areas	39
Figure 18: Railroads by Owner; 2019; Bureau of Transportation Statistics	41
Figure 19: Vehicle Crashes at Rail Crossings; 2013-2017	43
Figure 20: 4th Street at UP Rail Crossing	42
Figure 21: Freight-Dependent Industry Employment Clusters; 2017; U.S. Census Bureau	57
Figure 22: Top 10 Industries by Employment Growth; Transportation System Performance Investment Scenario; IMPLAN	62
Figure 23: Top 10 Value Added Industry Sectors; Transportation System Performance Investment Scenario; IMPLAN	65
Figure 24: Top 10 Industries by Employment Growth; Strategic Economic Growth Investment Scenario; IMPLAN	67
Figure 25: Top 10 Value Added Industry Sectors; Strategic Economic Growth Investment Scenario; IMPLAN	69

LIST OF TABLES

Table 1: Texas and Arkansas Statewide Freight Plan Goals	3
Table 2: Texarkana MPO Policy Board Membership	5
Table 3: FMP Steering Committee Membership	6
Table 4: List of Freight-Dependent Industries	10
Table 5: Gross Domestic Product (Millions of Dollars); 2012-2017; US Bureau of Economic Analysis	12
Table 6: Gross Domestic Product Growth; 2012-2017; US Bureau of Economic Analysis	12
Table 7: Comparison of Population and GDP; 2017; U.S. Bureau of Economic Analysis and U.S. Census Bureau	13
Table 8: Inbound/Outbound Cargo Shipments; 2020-2040; TX and AR Travel Demand Models	20
Table 9: Texarkana Region Top Trading Partners; 2020; TX and AR Travel Demand Model.	21
Table 10: Comparison of Truck Hours of Delay and Associated Costs; 2017; Texas A&M Transportation Institute	33
Table 11: Railroad Track Miles in Texarkana MPO Study Area by Owner; 2019; Bureau of Transportation Statistics	40
Table 12: Project List – Freight Transportation System Performance Investment Scenario	48
Table 13: Project List – Strategic Economic Growth Investment Scenario	55
Table 14: Industry Output Growth by Sector; Transportation System Performance Investment Scenario; IMPLAN	63
Table 15: Industry Output Growth by Sector; Strategic Economic Growth Investment Scenario; IMPLAN	68
Table 16: FMP Projects Included in Texarkana MPO 2019-2022 TIP or Implementation/Short-term Stages of the Texarkana MPO 2045 MTP	79
Table 17: FMP Projects to Consider Moving into Short-term Stage of the 2045 MTP Program of Projects	80
Table 18: FMP Projects Included in Medium-term Stage of the Texarkana MPO 2045 MTP	84
Table 19: FMP Projects to Consider moving into Medium-term Stage of the 2045 MTP Program of Projects	84

CHAPTER 1

INTRODUCTION



The Texarkana Freight Mobility Plan (FMP) is a guide for how the Texarkana Metropolitan Planning Organization (MPO) plans to promote the safe and efficient movement of freight and support freight-related economic growth opportunities in the MPO study area (Figure 1). The FMP identifies freight transportation system deficiencies and needs in the Texarkana MPO study area and provides a program of freight-related initiatives and projects to address the identified needs. The FMP also provides an overview of the region's economy and discusses how freight system investment can potentially help facilitate economic growth in the Texarkana MPO Metropolitan planning Area (MPA).

PURPOSE AND GOALS

The main purpose of the FMP is to improve the multimodal freight transportation system within the Texarkana MPO MPA. The MPO aims to do this by maintaining and improving travel times and reliability for freight transport in the region. Mitigating travel time delays and ensuring reliability on the freight system is critical to freight industry as on-time and just-in-time deliveries are key components of success. In order for freight industry to continue to thrive in the Texarkana study area, freight transport vehicles need to be able to reach the businesses to which they provide goods quickly, when the goods are expected, and without delay. Maintaining an efficient and reliable freight transportation system keeps costs down for businesses that rely on the region's freight system and allows them to be more competitive.

In addition, it is important that freight vehicles can make it to their destinations safely. A safe freight system not only reduces the potential for serious injuries and additional costs, but it also ensures that the study area's transportation system is reliable and allows these businesses to be more competitive.

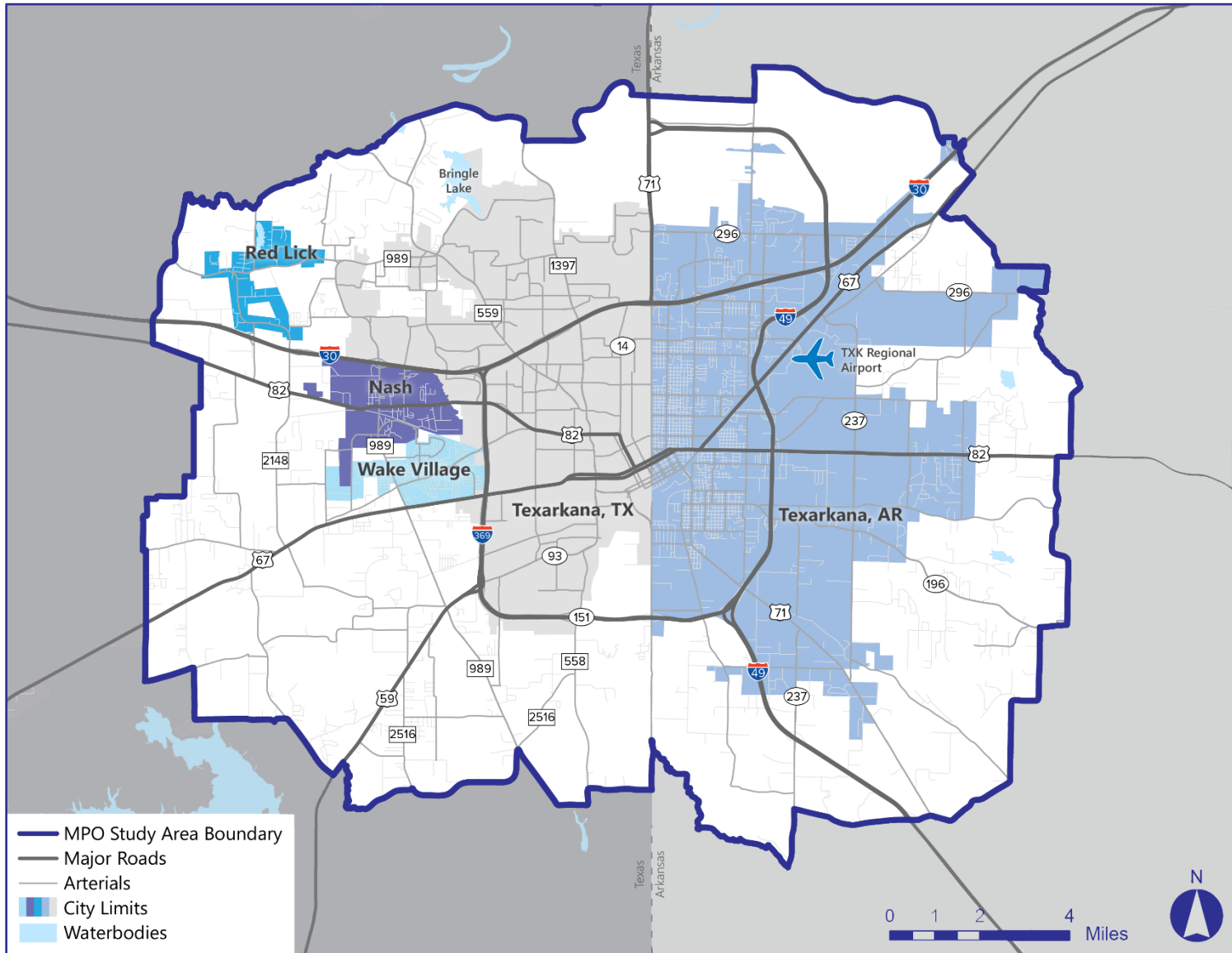
In addition, it is important to support economic growth opportunities related to freight and other development initiatives in the MPO MPA. By achieving these goals, the MPO hopes to expand employment opportunities and improve the quality of life for those living in communities within the region.

In addition to these region-specific goals, the FMP also aims to support statewide freight plans developed by the Texas Department of Transportation (TxDOT) and Arkansas Department of Transportation (ARDOT), which in turn support national freight planning goals. Because the supply chains that support the movement of goods in the region typically include statewide, national, and international freight networks, it is important to ensure that the FMP supports these state and national freight plans. For these reasons, this FMP also adopts the relevant planning goals of both the Texas Freight Mobility Plan 2017 and the Arkansas State Freight Plan 2017 (Table 1).

Table 1: Texas and Arkansas Statewide Freight Plan Goals

Texas Freight Mobility Plan Goals	Arkansas State Freight Plan Goals
Safety – Improve multimodal transportation safety.	Safety and Security – Improve statewide safety by funding projects that reduce total and serious injury crashes, reduce vulnerability, and improve resiliency of the system.
Economic Competitiveness – Improve the contribution of the Texas freight transportation system to economic competitiveness, productivity and development.	Economic Competitiveness – Improve intermodal transportation system connectivity, efficiency, and mobility to support existing industries and strengthen national and regional economic competitiveness.
Asset Preservation and Utilization – Maintain and preserve infrastructure assets using cost-beneficial treatment.	Infrastructure Condition – Invest in existing infrastructure to maintain and preserve the existing system.
Mobility and Reliability – Reduce congestion and improve system efficiency and performance.	Congestion, Reduction, Mobility and System Reliability – Invest in the multimodal transportation system to improve mobility, connectivity, accessibility, and reliability for people and goods.
Multimodal Connectivity – Provide transportation choices and improve system connectivity for all freight modes.	
Stewardship – Manage environmental and TxDOT resources responsibly and be accountable in decision-making.	
Customer Service – Understand and incorporate citizen feedback in decision-making processes and be transparent in all TxDOT communications.	
Sustainable Funding – Identify sustainable funding sources for all freight transportation modes.	

Figure 1: Texarkana MPO Study Area



TEXARKANA MPO

Texarkana MPO is the administrative agency responsible for continuous, comprehensive, and coordinated transportation planning for the region. The MPO provides a forum for citizens and elected officials to be involved in the metropolitan transportation planning process, which guides the investment of federal transportation funding. Texarkana MPO consists of a policy board, a technical committee, and MPO staff. The Texarkana MPO Policy Board is comprised of elected and appointed officials, including local, city-level, state-level, and federal-level personnel. The purpose of the Policy Board is to set the MPO’s transportation policies as well as approve and adopt all transportation planning activities and programs, including this FMP, for the MPO. Table 2 lists the Policy Board membership as of October 2019.

Table 2: Texarkana MPO Policy Board Membership

Name	Title	Jurisdiction
Barbara Miner	Council Member	City of Texarkana, AR
Steven Hollibush	Council Member – Ward 3	City of Texarkana, AR
Kenny Haskin	City Manager	City of Texarkana, AR
Cathy Harrison	Judge	Miller County, AR
Sunny Farmahan	Senior Transportation Planner	ARDOT
Steve Frisbee	District 3 Engineer	ARDOT
Robert Bunch	Chairman / Mayor	City of Nash, TX
Sheryl Collum	Mayor	City of Wake Village, TX
Mary Hart	Council Member – Ward 2	City of Texarkana, TX
Shirley Jaster	City Manager	City of Texarkana, TX
Bob Bruggeman	Mayor	City of Texarkana, TX
Thomas Whitten	Vice-Chairman / County Commissioner	Bowie County, TX
Mike Anderson	District Engineer	TxDOT
Deanne Simmons	Director of Transportation Planning & Development	TxDOT
Chris Brown	Executive Director	Ark-Tex Council of Governments

FMP STEERING COMMITTEE

To guide the development of the FMP, the MPO recruited a steering committee of technical experts. The role of the steering committee was to provide the FMP project team with local knowledge and expertise regarding freight transportation and economic conditions, as well as to provide feedback on draft materials and products. Members of the FMP steering committee, many of which are also MPO Technical Committee members, are listed in Table 3.

Table 3: FMP Steering Committee Membership

Name	Title	Jurisdiction
Lisa Thompson	Public Information Officer	City of Texarkana, TX
David Orr	Director of Planning & Community Development	City of Texarkana, TX
Mary Beck	City Planner	City of Texarkana, AR
Jim Roberts	City Administrator	City of Wake Village, TX
Doug Bowers	City Administrator	City of Nash, TX
Mark Compton	Transportation Manager	Ark-Tex Council of Governments
Mary Beth Rudel	Deputy Director	Ark-Tex Council of Governments
Katie Martin	Advance Planning Engineer	TxDOT
Paul Wong	Area Engineer	TxDOT
Christopher Dillaha	Metropolitan Planning Coordinator	ARDOT
Carl Teel	Road Department Administrator	Miller County, AR
Thomas Witten	County Commissioner – Pct. 2	Bowie County, TX

STAKEHOLDER PARTICIPATION

As part of the FMP, Texarkana MPO hosted two stakeholder workshops. The purpose of these workshops was to engage local experts in order to gather information about freight system needs and opportunities in the region. Stakeholders also discussed potential economic growth and freight system improvements. The stakeholder workshops were held in May and August 2019 at Ark-Tex Council of Governments (ATCOG) offices. Over 30 stakeholders attended the two workshops¹, including representatives of the following organizations:

- Texarkana MPO
- Federal Highway Administration – Texas Division
- Texas Department of Transportation Atlanta District & TPP-Freight
- Arkansas Department of Transportation
- Ark-Tex Council of Governments
- City of Texarkana, TX
- City of Texarkana, AR
- Cass County, TX
- Texarkana Aluminum, Inc.
- Texarkana, TX Fire Department – Office of Emergency Management
- Texarkana Chamber of Commerce
- Workforce Solutions Northeast Texas
- TexAmericas Center
- AR-TX REDI
- Bowie County, TX
- City of Nash, TX
- MOEMS Construction

The first stakeholder workshop was organized as a group SWOT² Analysis exercise, in which the group discussed the local economy, freight system infrastructure, and operations of the freight system. The results of this workshop are presented in a technical memorandum in Appendix C. In the second workshop, stakeholders prioritized identified issues in the freight system, discussed economic growth potential, and brainstormed potential projects to consider in the final FMP project list. All stakeholders, including those who were unable to attend this workshop, were given the opportunity to provide input on prospective freight projects through an interactive online mapping tool. The results of the prioritization exercise are presented in Appendix D, and stakeholder feedback will be discussed in further detail throughout the FMP in conjunction with related analysis and topics.



¹ Texarkana MPO invited 66 stakeholders from various organizations to both workshops.

² SWOT – Strengths, Weaknesses, Opportunities, Threats

METROPOLITAN TRANSPORTATION PLANNING COORDINATION

Simultaneous to the development of the FMP, Texarkana MPO also updated its Metropolitan Transportation Plan (MTP). Metropolitan transportation planning is a cooperative, comprehensive, and continuing (3-C) process. The 3-C process, which is prescribed by federal regulations, is designed to assist the MPO in prioritizing short- and long-term investments in the regional transportation system. Texarkana's 2045 MTP update is the latest documentation of this process. The 2045 MTP document is a blueprint for how the MPO will invest its transportation funding dollars to improve the region's multimodal transportation system.

Major components of the MTP process include identification and prioritization of transportation projects and fiscal constraint of projects based on available funding levels. As one of the major objectives of the FMP is to identify projects to improve the freight transportation system, it is important that the development of the FMP is coordinated with the update of the MTP. To that end, the FMP project team worked with the team updating the 2045 MTP to ensure freight was considered in the MTP planning process.

The main coordination activity initiated by the FMP project team with the MTP project team was to incorporate freight-specific evaluation criteria in the MTP project prioritization process. Many projects included in the 2045 MTP project list are expected to have impacts on freight mobility (e.g., increasing capacity along IH-30). Adding freight criteria to the prioritization process resulted in a higher priority for freight-related projects, many of which address regional and state freight plan goals and program priorities. Due to their high priority, several freight-related projects were programmed for funding in the 2045 MTP. The project team also provided freight performance measures to be included in the MTP to help evaluate how well the transportation system is meeting related goals and targets.

Additionally, as described in Chapter 8, the FMP provides recommendations for moving other projects identified as part of the FMP into the fiscally constrained MTP program of projects. Remaining FMP projects are recommended to be included in the MTP list of unfunded projects for future prioritization.

CHAPTER 2

ECONOMIC ANALYSIS AND TRENDS

To make future plans and investment decisions for the multimodal freight system, it is important to first understand the region’s economic standing and potential for growth. Freight transportation, or the movement of goods, is an important part of the economy as it is a vital link in local, regional, and national supply chains. This chapter provides an overview of the Texarkana metro area economy and an outlook on potential economic growth as provided by data trends and stakeholder feedback.

REGIONAL FREIGHT INDUSTRY OVERVIEW

Two of the top ten occupations by employment in the Texarkana, TX-AR Metropolitan Area are Heavy and Tractor-Trailer Truck Drivers and Laborers and Freight, Stock, and Material Movers, according to the United States Bureau of Labor Statistics³. Approximately 36% of all non-agricultural employment in the metro area is in freight-dependent industries (listed in Table 4), according to the Texas Workforce (Figure 2). Freight and the transportation of goods is an essential component of the Texarkana region’s economy. Freight transportation not only provides employment to a large portion of the region’s residents, but it also supplies businesses with the goods required to operate on daily basis. Texarkana is also an important link in the freight supply chain for both Texas and Arkansas, as well as the United States, due to its location and major infrastructure (e.g., interstates, US/state highways, and rail connections).

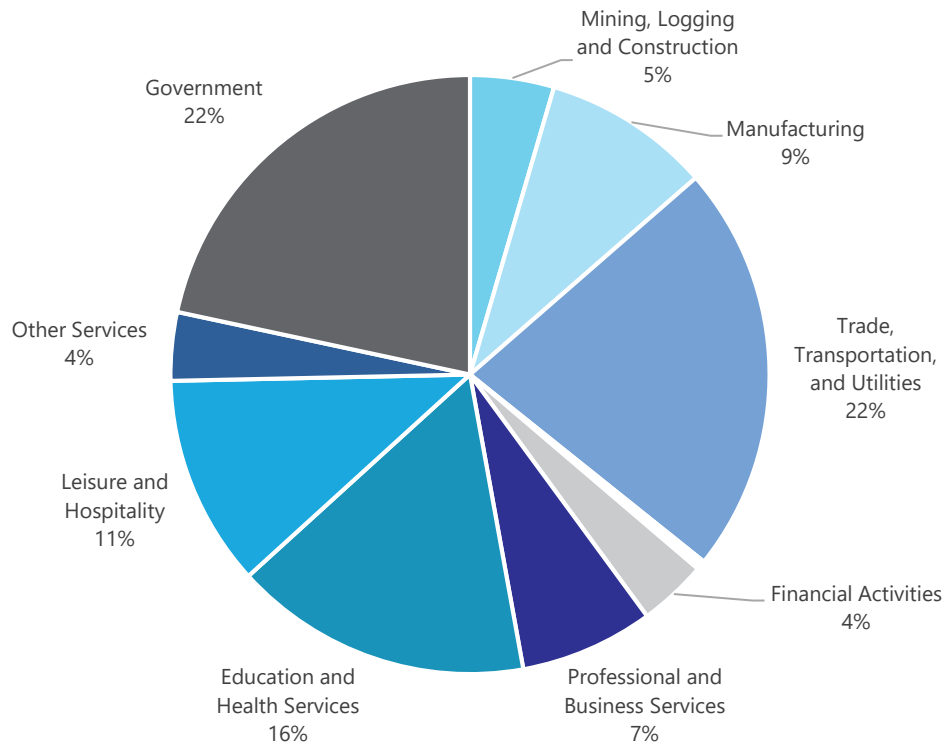
Table 4: List of Freight-Dependent Industries

Freight-Dependent Industry (NAICS Classifications)	
Agriculture, Forestry, Fishing, and Hunting	Manufacturing
Mining, Quarrying, and Oil and Gas Extraction	Wholesale Trade
Utilities	Retail Trade
Construction	Transportation and Warehousing

In the Texarkana metro area, 22% of employment is in the Trade, Transportation, and Utilities industries, which comprise the largest industry in terms of employment in the region (Figure 2). This large percentage of employment again highlights the importance of freight to the local economy. Among the Trade, Transportation, and Utilities industries, Retail Trade is the biggest sector making up 12% of total employment, which is behind only Government (22%) and Education and Health Services (16%) industries.

³ https://www.bls.gov/oes/current/area_emp_chart/area_emp_chart_data.htm#United%20States

Figure 2: Texarkana Metro Area Employment by Industry (July 2018); from the Texas Workforce Commission



Other freight-dependent industries in the region are related to transportation and warehousing, agriculture and forestry, and manufacturing of fabricated metal and transportation equipment. The list below highlights some of the major employers/businesses in freight or freight-dependent industries in the Texarkana Region.

- Red River Army Depot & Tenants
- Cooper Tire & Rubber
- Southern Refrigerated Transport
- Wal-Mart Department Stores
- Domtar, Inc.
- International Paper Company
- DLA Distribution
- Texarkana Aluminum
- Wholesale Electric
- Albertson's
- Smith-Blair, Inc.
- Mayo Manufacturing
- Target
- HUMCO Holding Group, Inc.
- FedEx

GROSS DOMESTIC PRODUCT

Gross Domestic Product (GDP) is defined as the total values of goods and services produced in a given geographic area. As a measure of production, GDP is an indicator of overall economic activity and performance, where more growth in GDP indicates a growing/thriving economy. Table 5 shows the GDP for the Texarkana, TX-AR metropolitan area between 2012 and 2017 as compared to the GDP of Texas and Arkansas. Table 6 summarizes the annual and total growth in GDP for these three geographic areas.

Table 5: Gross Domestic Product (Millions of Dollars); 2012-2017; US Bureau of Economic Analysis

	2012	2013	2014	2015	2016	2017
Texarkana, TX-AR	4,856	4,514	4,483	4,588	4,634	4,641
Texas	1,411,379	1,472,104	1,512,351	1,589,956	1,593,149	1,624,949
Arkansas	108,745	111,779	112,706	113,177	113,788	114,851

Table 6: Gross Domestic Product Growth; 2012-2017; US Bureau of Economic Analysis

	Compound Annual Growth Rate	Total % Growth
Texarkana, TX-AR	-0.9%	-4%
Texas	2.9%	10%
Arkansas	1.1%	3%

These tables show that economic growth in the Texarkana metropolitan area has remained relatively flat since 2012 and lags behind the growth trends of both Arkansas and Texas. Although the region experienced relatively significant decrease in GDP between 2012 and 2013 (-7%), the economy has bounced back with slight growth in GDP every year since 2014. Additionally, despite the overall decrease in GDP, several industry sectors experienced growth over the time period. These industry sectors (and their respective percent increases between 2012 and 2017) are listed below⁴:

- Natural resources and mining (33.6%)
- Art, entertainment, recreation, accommodation, and food services (6.2%)
- Nondurable goods manufacturing (4.7%)
- Educational services, health care, and social assistance (3.6%)
- Professional and business services (1.6%)

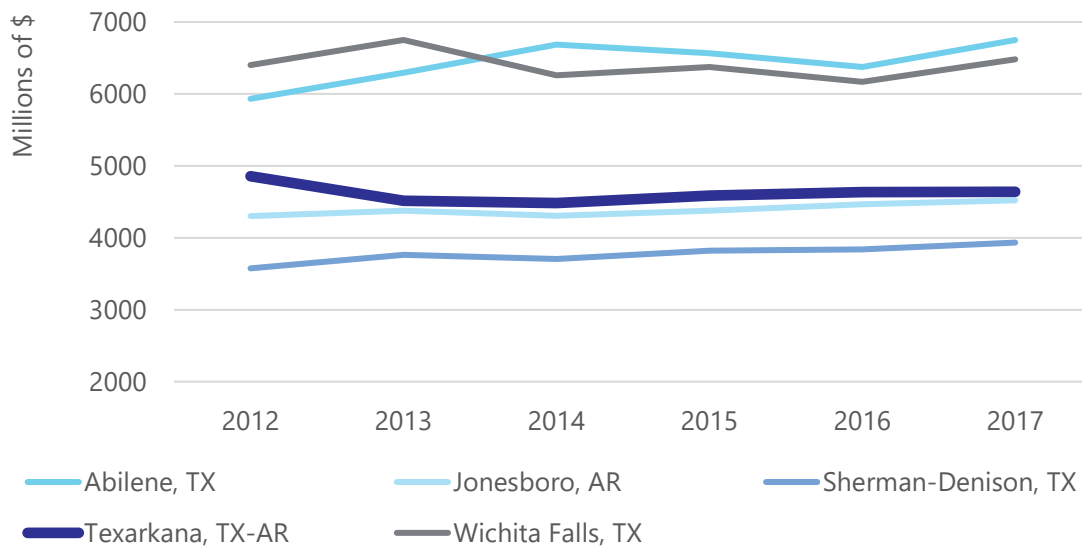
⁴ Note that data is not provided for every industry sector for purposes of confidentiality.

Comparing to statewide GDP trends helps provide a general understanding of the region's relative economic performance. However, comparing regional trends to other metropolitan areas of similar size can provide insight into the competitiveness of the Texarkana metro area. Table 7 shows the 2017 GDP and population for the Texarkana, TX-AR metro area and four benchmark metro areas of similar size. Figure 3 shows the GDP growth of these five metro areas from 2012 to 2017. GDP growth for these five metro areas, including the Texarkana metro area, was relatively flat during the period from 2012 to 2017.

Table 7: Comparison of Population and GDP; 2017; U.S. Bureau of Economic Analysis and U.S. Census Bureau

Metro Area	Population	GDP (millions of dollars)
Texarkana, TX-AR	149,889	4,641
Abilene, TX	169,000	6,749
Jonesboro, AR	128,344	4,521
Sherman-Denison, TX	126,146	3,933
Wichita Falls, TX	150,940	6,483

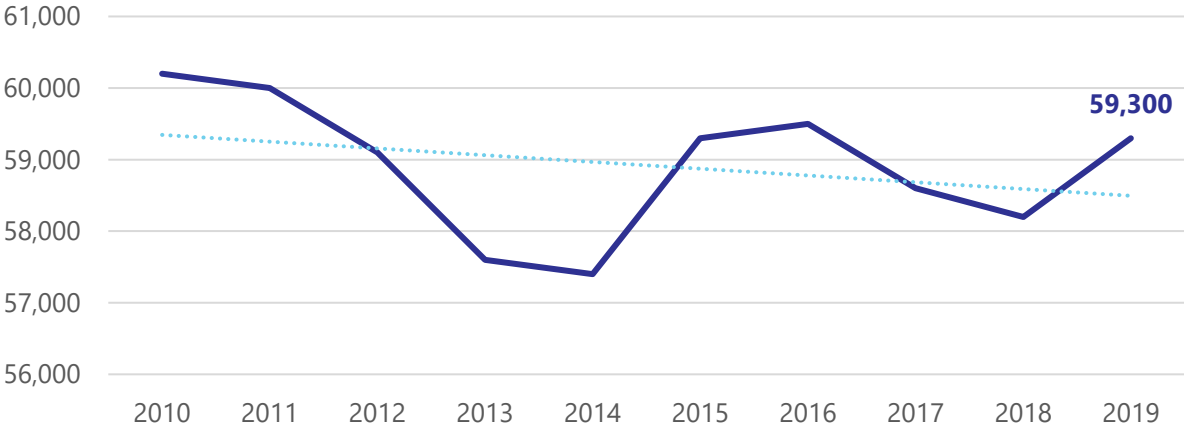
Figure 3: Comparison of GDP Growth Trends among Metro Areas; 2012-2017; U.S. Bureau of Economic Analysis



EMPLOYMENT

Employment growth and unemployment rate are important economic indicators that highlight the relative strength of a region’s economy and labor market. Increasing employment and a low unemployment rate indicate a healthy economy that is attracting business and is competitive among other areas. Figure 4 shows employment⁵ growth over the past 10 years in the Texarkana metro area. Employment in the metro area has remained around 60,000 during this time frame. Although there has been relatively little change in the amount of employment in the region since 2010, the region has experienced an uptick in employment growth in the past year (1.9%), which is the highest among comparative Texas metro areas (i.e., those listed in Table 6). This employment growth also exceeds the growth experienced in Texas (1.7%) and nationally (0.9%). Although this is a small sample, there appears to be a positive trend in employment growth for the Texarkana metro area.

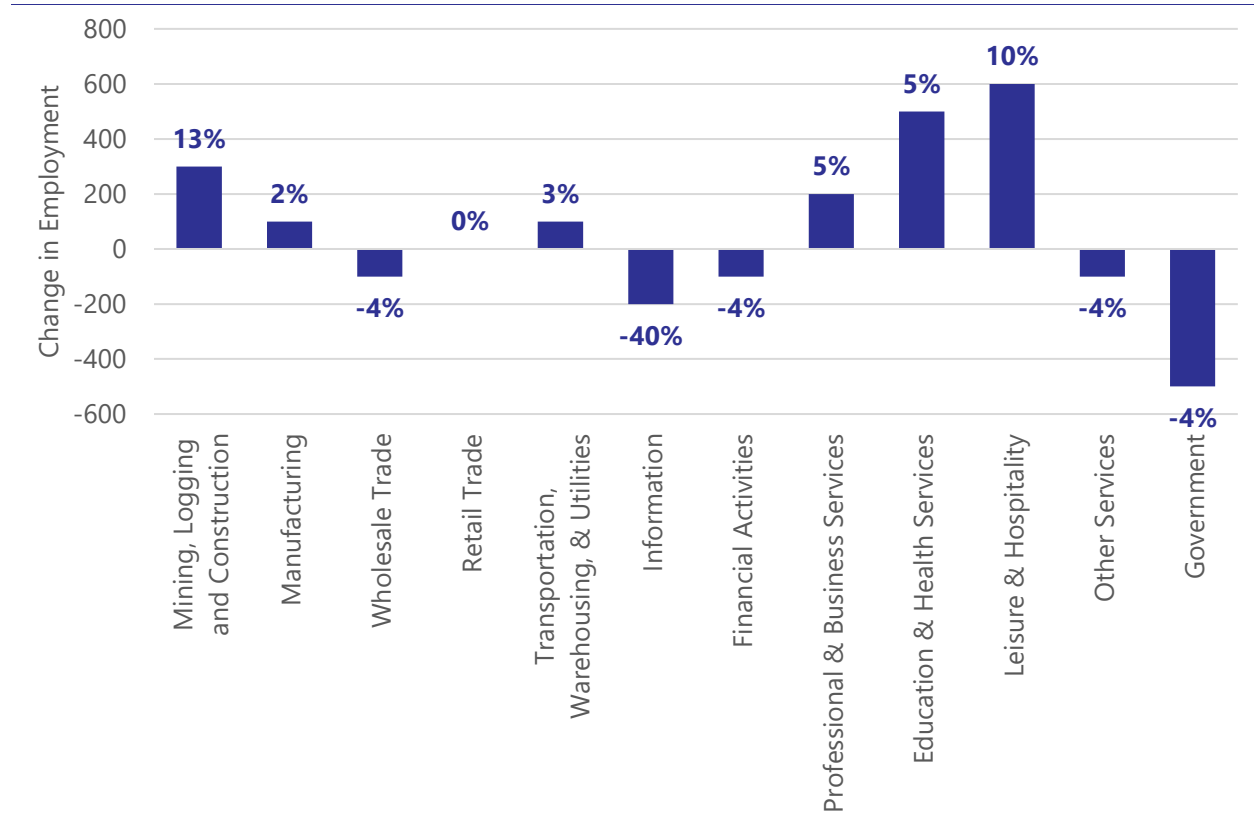
Figure 4: Texarkana Metro Area Employment Growth; 2010-2019; Texas Workforce Commission



Looking at specific industries, the Mining, Logging, and Construction industry has grown the most, in terms of percent increase, in the metro area over the past five years. The Manufacturing and Transportation, Warehousing, and Utilities industries have also grown, but to a lesser extent. For these industries to continue to grow, it is crucial that the freight system promotes safe and efficient movement of goods. Figure 5 shows total employment growth by industry for the Texarkana metro area between 2014 and 2018.

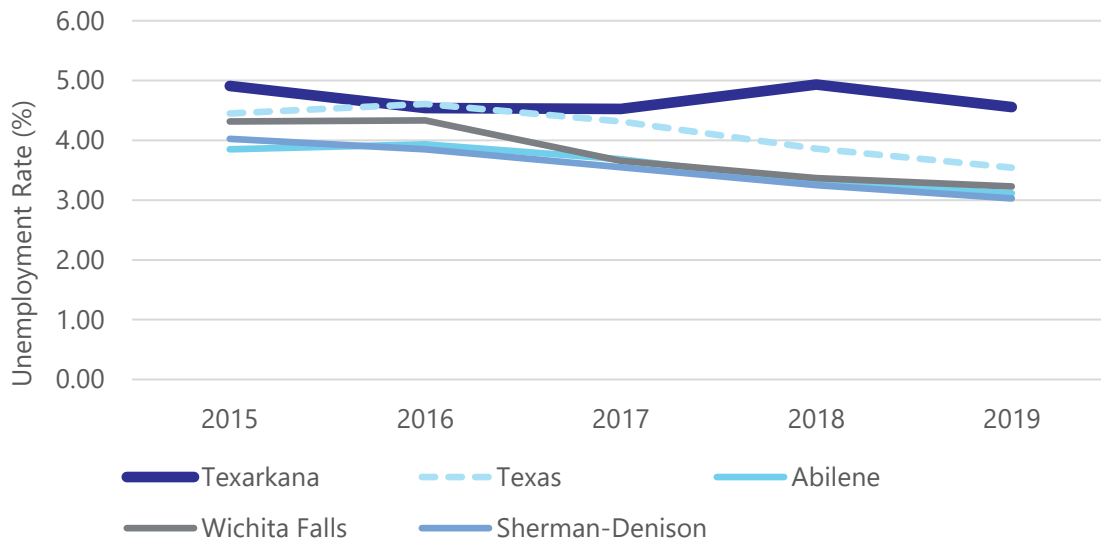
⁵ Figures in this chapter report non-agricultural employment, as provided by the Texas Workforce Commission. As of 2017, the U.S. Bureau of Economic Analysis estimates agricultural employment in the Texarkana metro area to be 2,649.

Figure 5: Texarkana Metro Area Employment Growth by Industry; 2014-2018; Texas Workforce Commission



The unemployment rate in the Texarkana metro area has decreased by 7% over the past five years and is the nearly the lowest it has been over the past ten years. Although unemployment has not decreased as much as other metro areas or Texas (Figure 6), unemployment has been trending downwards, which coupled with employment growth is an indicator that the economy is improving in the Texarkana metro area.

Figure 6: Comparison of Unemployment Rate⁶ Trends among Metro Areas; 2015-2017; Texas Workforce Commission



STAKEHOLDER OUTLOOK / ECONOMIC OPPORTUNITY

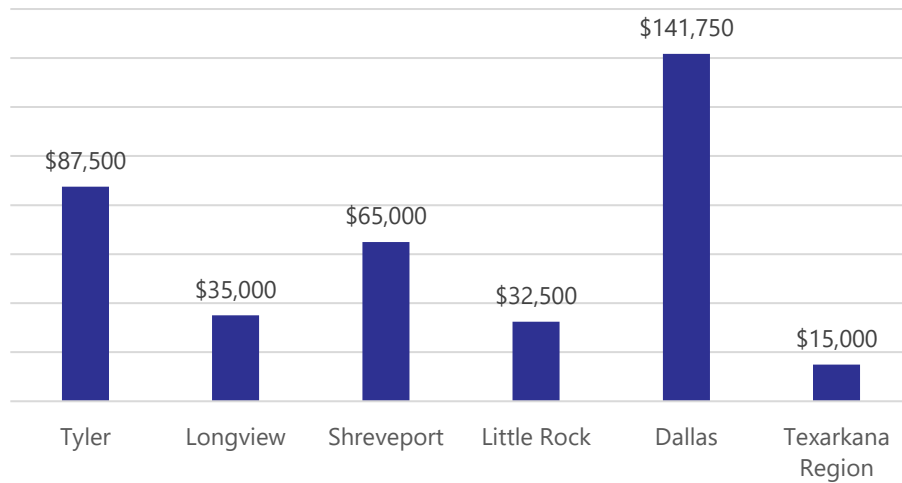
Analysis of economic trends suggests that growth in Texarkana and the surrounding region will remain relatively flat with potential for some level of moderate growth. However, stakeholders in the region are more confident that the region will experience economic and employment growth comparable to growth experienced by the states of Texas and Arkansas, which is about 1% to 2% annually for employment according to the U.S. Bureau of Labor Statistics. For example, stakeholders cited substantial anticipated growth of close to 500 jobs in the aluminum industry that are not reflected in the reported data.

In discussing potential for economic growth, stakeholders pointed to the availability of large commercial/industrial sites, particularly near the regional airport, at TexAmericas Center, and in the City of Nash. According to a Workforce Target Analysis report prepared for Workforce Solutions Northeast Texas in 2017⁷, the Texarkana region has the lowest land prices for “shovel-ready” industrial sites (Figure 7) as compared to competing areas. Not only does the region have available sites for economic development, but it has sites with better bid-rent price points than most nearby metropolitan areas.

⁶ Average annual unemployment rate

⁷ Source: Texarkana Chamber of Commerce - https://texarkana.org/wp-content/uploads/2017/07/Texarkana-Region-Workforce-Target-Analysis_FCG_FINAL_Revised0713.pdf

Figure 7: Comparison of Shovel-Ready Industrial Land Prices; 2017; Workforce Solutions Northeast Texas




Stakeholders also identified Texarkana’s location, affordable wages, education and job training, and infrastructure as potential contributing factors to supporting increased economic growth in the region. The 2017 Workforce Target Analysis report generally supports these assumptions and suggests that the region has mostly strengths in these “key site selection criteria”, as well as several others, in regard to attracting economic development. The report also identifies sectors in freight-dependent industries as the “best fit” targets for economic growth in the Texarkana region. These sectors are those that match with the region’s strengths and are the best opportunities for capturing economic and employment growth. The top four sectors identified include the following:

- Warehousing and Distribution; specific subsectors include warehousing and distribution of motor vehicle parts, lumber, electrical apparatus, and industrial machinery to name a few;
- Manufacturing of Industrial Machinery;
- Oil/Gas Supplier Operations or Oil Support Activities; and
- Manufacturing of Weapons Systems and Technology.

The demand from this mix of freight-dependent industries and positive economic outlook indicate a potential for growth in freight activity in the Texarkana region. The following chapter provides information about commodity movements in and out of the region and the potential for growth in the amount of freight movement.

CHAPTER 3

COMMODITY FLOWS



One outcome of the strength and diversity of the region's freight-dependent industries is a substantial flow of commodities moving into and out of the Texarkana region. Commodities moving into and out of the Texarkana region are composed of a broad range of commodity types including items consumed within the region and industrial products and agricultural goods produced in the region for consumption elsewhere.

This chapter uses the freight trip generation and origin-destination data from the Texas Statewide Analysis Model (SAM-V4) and the Arkansas Statewide Travel Demand Model (i.e., the two statewide travel demand models) to measure current (2020)⁸ and projected (2040) commodity flows with origins or destinations in the Texarkana region. The information describes commodities moving into and out of the region in terms of quantity (tonnage), industry type, and geographic trading partner (origin or destination of the goods transported).

CURRENT COMMODITY FLOWS

Based on the commodity flow information obtained from the statewide travel demand models, the Texarkana region is expected to transport just over 4.4 million tons of cargo to trading partners throughout North America in 2020. Top outbound commodities include Non-Metallic Minerals (1.78 million tons); Chemicals (0.5 million tons); Secondary and Miscellaneous Cargo (0.49 million tons); Clay, Concrete and Glass (0.42 million tons); and Paper (0.31 million tons).

During that same period, the Texarkana region will receive over 6 million tons of cargo. Top inbound commodities include Non-Metallic Minerals (1.76 million tons); Oil, Gas and Other Mining Products (1.75 million tons); Petroleum Products (0.6 million tons); and Clay, Concrete and Glass (0.5 million tons).

PROJECTED COMMODITY FLOWS

Based on the commodity origins and destinations reported by the North American Freight Flow component of the Texas SAM V-4 and Arkansas Travel Demand Model, by 2040, commodity tonnage shipped into and out of the region is anticipated to increase substantially. Outbound cargo is anticipated to increase by approximately 26% to a total of 5.6 million tons of outbound cargo shipped to trading partners. This gain comes mostly from increases in Non-Metallic Minerals shipments, which are forecasted to increase sharply, while other commodity shipments are projected to remain stable at levels similar to those expected in 2020.

⁸ 2020 represents current conditions for the 2019 FMP because it is the closest year for which results from the statewide travel demand models are available

Inbound cargo is also anticipated to increase by about 16% to approximately 6.9 million tons of cargo received (with noticeable gains in Oil, Gas and Other Mining and in Durable Manufacturing, while other cargo types shows mixed results). Table 8 shows the forecasted change in the amount of cargo shipments into and out of the Texarkana region between 2020 and 2040.

Table 8: Inbound/Outbound Cargo Shipments; 2020-2040; TX SAM and AR Travel Demand Model

	Inbound			Outbound		
	2020 Cargo Tonnage	2040 Cargo Tonnage	% Change	2020 Cargo Tonnage	2040 Cargo Tonnage	% Change
Agriculture	295,951	316,271	7%	146,335	184,294	26%
Oil and Gas / Other Mining	1,752,251	2,420,248	38%	117,760	134,249	14%
Nonmetallic Minerals	1,761,209	1,866,601	6%	1,775,730	3,064,920	73%
Food	253,307	292,312	15%	296,767	282,132	-5%
Consumer Manufacturing	7,623	7,701	1%	4,646	4,415	-5%
Non-Durable Manufacturing	38,080	43,565	14%	26,273	23,604	-10%
Lumber	159,318	166,270	4%	148,217	134,882	-9%
Durable manufacturing	205,751	271,628	32%	121,846	110,833	-9%
Paper	45,869	49,199	7%	309,927	277,927	-10%
Chemicals	85,165	87,104	2%	495,396	444,168	-10%
Petroleum	591,577	556,207	-6%	37,720	30,176	-20%
Clay, concrete, glass	450,836	444,569	-1%	420,654	381,667	-9%
Primary Metal product	84,353	100,942	20%	19,850	17,905	-10%
Secondary and Misc.	278,567	326,384	17%	488,134	475,707	-3%
Total	6,009,856	6,949,002	16%	4,409,255	5,566,879	26%

TRADING PARTNERS

The Texarkana region has a wide range of geographic trading partners across North America. Texas is by far the largest trading partner, with some counties shipping/receiving larger commodity tonnages than many states. Table 9 shows the Texarkana region's top trading partners according to the Texas and Arkansas statewide travel demand models, as well as the top commodity traded between Texarkana and that location.

Table 9: Texarkana Region Top Trading Partners; 2020; TX and AR Travel Demand Models

Trading Partner	Inbound		Trading Partner	Outbound	
	2020 Cargo Tonnage	Top Commodity Traded		2020 Cargo Tonnage	Top Commodity Traded
AR	291,045	Nonmetallic Minerals	Harris County	390,540	Secondary & Misc.
IL	246,891	Nonmetallic Minerals	Dallas County	163,136	Nonmetallic Minerals
State of Hidalgo, MX	215,644	Oil and Gas / Other Mining	Louisiana	160,478	Nonmetallic Minerals
Harris County, TX	187,632	Petroleum	State of Durango, MX	152,317	Nonmetallic Minerals
Oklahoma	187,134	Nonmetallic Minerals	State of Jalisco, MX	148,937	Nonmetallic Minerals
WI	170,226	Nonmetallic Minerals	Illinois	111,074	Chemicals
Louisiana	167,196	Petroleum	State of Guerrero, MX	109,897	Nonmetallic Minerals
Missouri	80,722	Nonmetallic Minerals	Tarrant County	96,161	Nonmetallic Minerals
Dallas County, TX	67,351	Secondary & Misc.	California	96,121	Paper
Jefferson County, TX	61,158	Petroleum	Collin County	71,260	Nonmetallic Minerals

Combining the positive economic outlook, potential for growth in freight-dependent industries, and the level of freight activity on the region's transportation system, it is clear that the need for a strong freight infrastructure in the region will only grow over the next 20 years. It is critical that the region's freight system is designed and maintained to support anticipated development and corresponding increases in freight traffic.

CHAPTER 4

FREIGHT SYSTEM ASSETS, CONDITION, AND PERFORMANCE

Analysis of freight system condition and performance helps to identify deficiencies that should be addressed in project identification as part of this plan. This chapter provides an inventory of the Texarkana MPO study area's multimodal freight system and an assessment of system condition and performance. This chapter also reports several freight performance measures, where data is available, that correspond with the goals and performance measures identified in both statewide freight plans. More detail about data and analysis methodologies are included in the accompanying FMP Current Conditions Technical Memorandum.

Major freight infrastructure in the Texarkana MPO study area includes three interstates, four US Highways, two Class I railroads, and a short line railroad. The Texarkana Regional Airport is also located within the MPO study area, but it does not support significant freight cargo operations as of 2019. The following sections describe the assets that make up Texarkana's multimodal freight system in further detail and summarize the assessment of the assets' conditions and performance. Note that the focus of this analysis is on roadways and railroads, as there is little to no freight activity via other modes.

ROADWAYS

Assets

Major highways in the region that support freight truck traffic include IH-30, I369, IH-49, US-82, US-71, US-67, and US-59. IH-30 experiences the highest amount of truck traffic in the study area and provides key connections to major national freight hubs such as Dallas/Fort Worth, TX and Memphis, TN. I369 and US-59 also experience relatively high volumes of truck traffic and provide a connection to the Texas Gulf Coast and South Texas. IH-49 is also heavily traveled by freight trucks and connects IH-30 to IH-20 and provides access to/from Shreveport, LA and the rest of Louisiana. Figure 8 shows 2020 average daily truck volumes for roadways in the MPO MPA and highlights the importance of these facilities in regard to freight movement.

In addition to these major highways, this analysis considered the remaining portions of the Texas and Arkansas designated roadway freight networks, as the roadways that make up these networks were determined to be the most critical for freight movement in both the Texas and Arkansas freight plans. Figure 9 shows both statewide roadway freight networks, which combined are the focus of this freight roadway conditions and performance analysis. Roadways which provide access to/from sites or facilities that produce relatively large amounts of freight truck traffic or are potential freight generators (e.g., the airport and surrounding area) are also important assets to the freight roadway system. These roadways include Alumax Road, Kings Highway, Richmond Road (north of IH-30), East 19th Street, Globe Avenue, Arkansas Boulevard, and Airport Drive.



Conditions and Performance

Trucks carry the most freight tonnage of any mode of transportation in Texas. The roadway network is critical to the movement of freight within, from, to, and through the Texarkana study area. This roadway analysis focuses on several analysis factors that are grouped into four categories: freight asset utilization and preservation, mobility and reliability, safety, and frontage roads⁹.

Freight Asset Utilization and Preservation

In order to promote the safe and efficient movement of freight along Texarkana's roadway system, it is important that the region's roadways and bridges are in good condition (i.e., a state of good repair). Having bridges and pavement in poor condition has many potential negative side effects. Poor conditions along the roadway freight network can cause wear-and-tear to vehicles; it can cause delays due to drivers slowing down or taking detours to avoid potholes, low overpasses, or uneven roadways; and it can impact the attractiveness of local businesses as freight operators may avoid facilities with deficient access roads. This section of the analysis includes an evaluation of pavement and bridge condition, as well as bridge vertical clearances.

⁹ These factors were organized around plan goals from TxDOT's Texas Freight Mobility Plan 2017.

Figure 8: Freight Truck Volume; 2020; TX SAM V-4 and AR Travel Demand Model



Figure 9: Texas and Arkansas State Freight Networks



Bridges

Analysis of bridge condition data shows that, as of January 2018, there were zero bridges in the Texarkana MPO study area that were in poor condition (i.e., structurally deficient). However, the analysis did reveal that there were 45 bridges (32%) that were in fair condition. Figure 10 shows the location of bridges in fair condition in the study area. Although the condition of these bridges is sufficient for the time being, preventative maintenance and repairs should be planned to ensure conditions do not fall below fair. Potential candidates for evaluation and repair include the following bridges, as they are located on the statewide roadway freight networks and have the lowest minimum condition rating among bridges in fair condition:

- US-71 bridge just southeast of Legion Drive,
- South Lake Drive bridge approximately 0.2 mile east of Old Buchanan Road, and
- New Boston Road bridge approximately 0.15 mile east of Clark Lane.

In addition to condition, the analysis also considered vertical clearance. This portion of the analysis is important because it identified potential barriers for large/oversized freight vehicles or special loads traveling through the study area. Figure 11 shows bridge/overpasses that do not meet minimum vertical clearance standards of 16 feet 6 inches. Note that vertical clearance data was only available for the Texas side of the MPO study area. The FMP Current Conditions Analysis Technical Memo provides information about identifying low vertical clearances.

Pavement

Figure 12 shows roadways in poor condition overlaid onto the Texarkana MPO roadway freight network. This map helps identify roadways that are potentially not in a state of good repair. Of the 561 lane miles of roadway in the Texarkana MPO study area with pavement condition information, 10% were classified as being in poor condition, with 47% being in fair condition and 44% being in good condition. Major pavement condition deficiencies (i.e., roadways in poor condition) were identified along the following roadways:

- Entirety of North State Line Avenue south of IH-30,
- Majority of US-67 between State Line Avenue and IH-369, and
- New Boston Road between Collins Road and North Pecan Street.

Addressing these deficiencies and ensuring the region's freight network is kept in a state of good repair is important to prevent damage to freight vehicles/cargo and to ensure trucks stay on roadways designed to support freight traffic. Note that pavement condition data used for this analysis was for 2017. Details on how the data was updated and used by the project team is described in the FMP Current Conditions Analysis Technical Memo.

Figure 10: Bridge Condition; 2018; Federal Highway Administration (FHWA) National Bridge Inventory

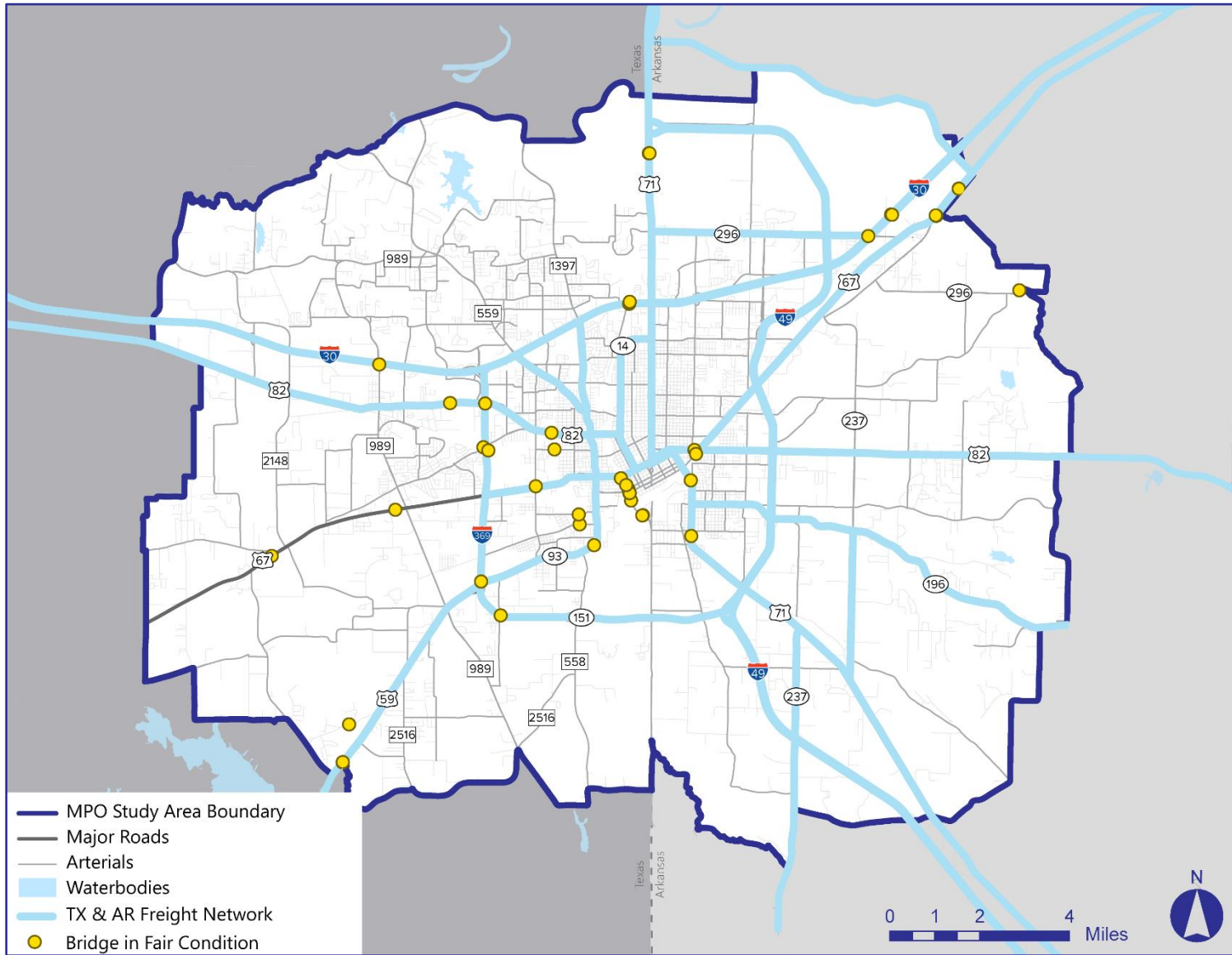


Figure 11: Bridge Vertical Clearance; 2019; from TxDOT



Figure 12: Poor Pavement Condition; 2017; FHWA Highway Performance Monitoring System



Mobility and Reliability

It is critical that Texarkana's roadways provide efficient, reliable routes for the transportation of goods. If the supply chains that rely on just-in-time, consistent deliveries are interrupted due to bottlenecks or congestion, businesses and industries incur additional costs. Regionally, congestion, delay, and/or unreliable roadway segments on the freight network can make an area unattractive to business development who need reliable roadways that support safe, efficient freight mobility. This mobility and reliability analyses is based on Level of Service (LOS), Vehicle Hours of Delay (VHD), and Truck Travel Time Reliability (TTTR).

Level-of-Service, Congestion, and Delay

LOS is an indicator of congestion on a scale from A to F, where A is essentially free flow traffic and F is severe congestion. LOS D or better is generally considered acceptable traffic conditions. Figure 13 shows average peak period¹⁰ LOS for the Texarkana study area. This figure reveals that there is relatively little heavy peak period congestion along the study area's freight roadway network. Corridors shown to experience heavier levels of congestion (i.e., LOS D or worse) during peak periods are IH-30 between Richmond and Summerhill Road; US-59 east of Kings Highway (FM-989); and New Boston Road, Texas Boulevard, and Martin Luther King Jr Boulevard in downtown Texarkana, TX. Nevertheless, only 5% of total lane miles on the study area's roadway freight network experience LOS D or worse during peak periods. For comparison, 28% of Texas' interstates experience LOS D or worse¹¹.

Although the TDM LOS results indicate relatively low levels of congestion, this does not necessarily mean trucks do not experience delay along Texarkana's roadway freight network. In fact, according to Texas A&M Transportation Institute's (TTI) 2019 Urban Mobility Report, truck drivers in the Texarkana, TX-AR urban area experienced approximately 127,000 hours of delay. TTI estimates that this amount of delay cost businesses roughly six million dollars a year or \$47.25 per hour. Table 10 shows a comparison of truck hours of delay and associated costs among comparable urban areas.

¹⁰ Peak period is 6:30-8:30AM and 2:30-6:30PM. This time period is used because this is when the majority of congestion typically occurs. If LOS was calculated for an entire day, the TDM would likely not show any congestion.

¹¹ Source: Texas Freight Mobility Plan 2017

Figure 13: Peak Period Congestion (Level of Service); 2020; TX SAM V-4 and AR Travel Demand Model

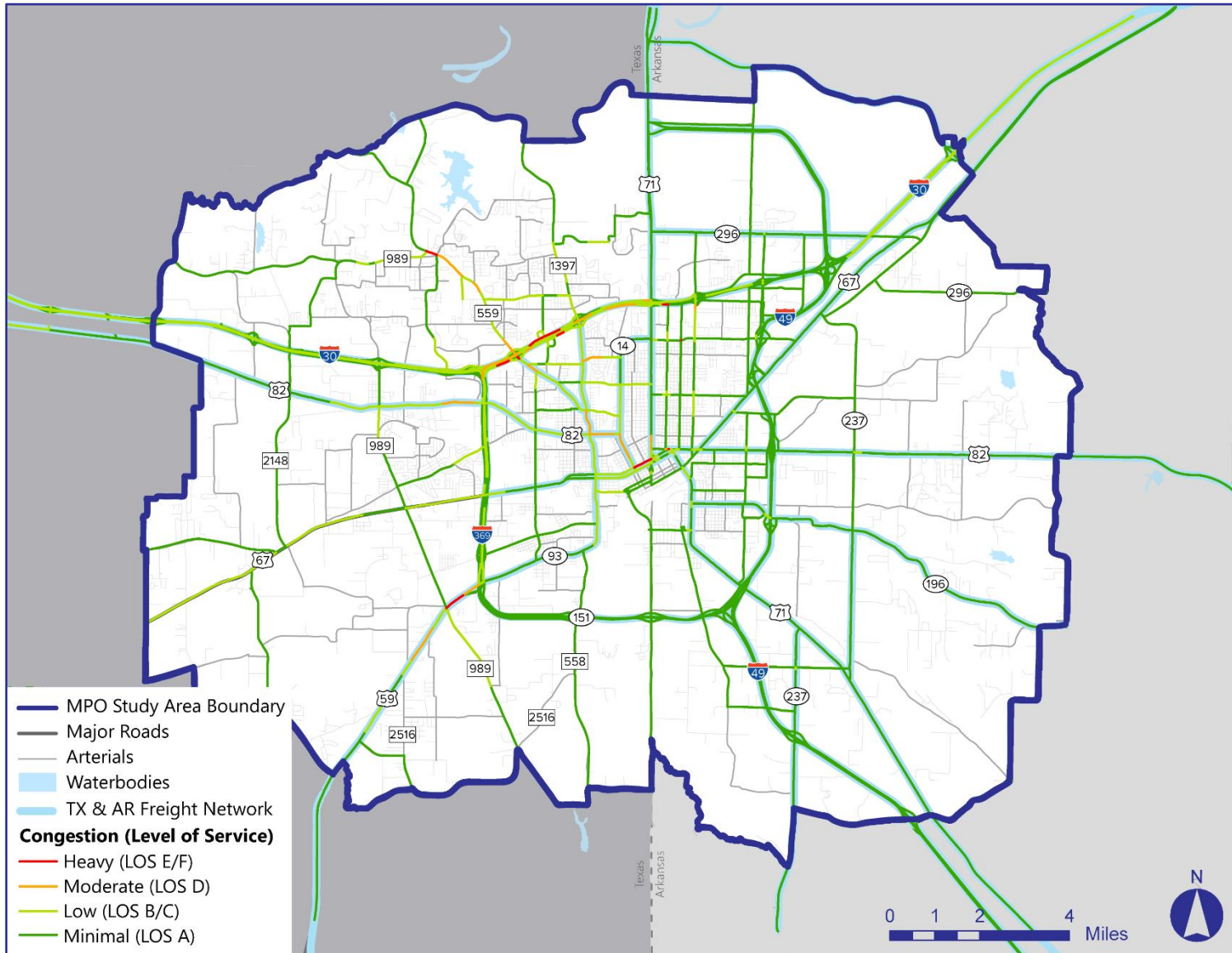


Table 10: Comparison of Truck Hours of Delay and Associated Costs; 2017; Texas A&M Transportation Institute

Urban Area	Annual Truck Delay (Hours)	Annual Cost
Texarkana, TX-AR	127,000	\$6,000,000
Abilene, TX	114,000	\$6,000,000
Jonesboro, AR	60,000	\$3,000,000
Sherman, TX	60,000	\$3,000,000
Wichita Falls, TX	99,000	\$5,000,000

Reliability

LOS is a measure of congestion for a typical day (i.e., reoccurring congestion that can be expected). Travel time reliability, on the other hand, is an indicator of unexpected delay or the predictability of congestion. TTTR is an important measure to consider for freight analysis, because again, many businesses rely on on-time and predictable freight deliveries as part of their operations. If businesses can anticipate certain levels of congestion, they are able to plan their deliveries and operations around that congestion and avoid missed deliveries and unnecessary delays. In the Texarkana MPO study area, two interstate segments were found to be unreliable for trucks, based on the 2018 TTTR data:

- IH-49 southbound at the IH-30 interchange, and
- IH-49 northbound connector at the SH 151 interchange.

The TTTR data for the IH-49 northbound segment suggests that this roadway is very unreliable compared to other segments and through all periods of a day. This segment should be evaluated further to determine whether the curvature, grade of the roadway, or design of the on and off ramps cause issues for trucks traveling along this segment.

At the system level, calculation of FHWA’s Freight Reliability measure suggests that interstates in the Texarkana MPO study area are much more reliable than those throughout Texas and Arkansas. The Freight Reliability measure is a single indicator of reliability for a selection of interstate segments where lower values represent more reliable roadway segments and values greater than 1.5 represent unreliable segments¹². For the Texarkana MPO study area, the Freight Reliability measure is 1.14. For context, the target Freight Reliability measure for TxDOT was 1.54 for 2018 and is 1.65 for 2025; ARDOT’s 2022 target is 1.52.

¹² Source: <https://www.fhwa.dot.gov/tpm/guidance/hif18040.pdf>

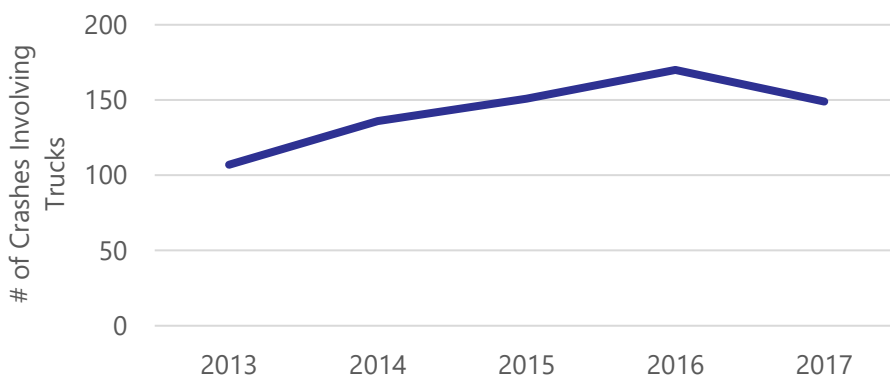
Safety

A safe freight network not only ensures that drivers and goods reach their destination without harm, but a safe freight network also ensures that deliveries are made on-time due to minimizing incidents that may cause non-reoccurring congestion or unexpected delays. This safety analysis includes evaluation of crash hotspots involving trucks, as well as an inventory of known truck parking facilities and rest areas. Truck parking is of particular importance as part of this FMP, because it is a national safety issue and a priority issue among regional stakeholders, as will be discussed in later chapters.

Crashes Involving Heavy Freight Trucks

Figure 14 shows the number of crashes involving trucks has increased by 39% between 2013 and 2017, although there were relatively few of these crashes overall. In fact, only 6.5% of all crashes occurring in the area over the five-year period involved a truck. Figure 15 shows the location of these crashes as a heatmap, where darker red or yellow indicates a higher concentration of crashes. The largest hotspots for crashes in the study area are at the US-59/Kings Highway (FM-989) intersection, the IH-30/Leary Road Interchange, and near the private truck stop located just off IH-30 at the east boundary of the MPO study area. Many of the crashes at the truck stop occurred in the parking lot; however, access improvements to this facility should be considered so that trucks can safely access it. Those crashes occurring at the IH-30/Leary Road interchange appear to be related to construction at this location. Other hotspots include the IH-30 corridor between Richmond Road and IH-369 and the interchange of IH-30 and Kings Highway (FM-989). The Texarkana MPO has several projects beginning construction within the next four years that should improve safety at the US-59/Kings Highway interchange and along IH-30.

Figure 14: Number of Crashes Involving Trucks in the Texarkana MPO Study Area; 2013-2017



In addition to location, the FMP also considers the severity of crashes involving freight trucks. Figure 16 shows the locations of all crashes involving a freight truck that resulted in a fatality or serious injury. Between 2013-2017, 13 truck crashes resulting in a fatality and 18 resulting in a serious injury occurred in the study area. In the study area, 23% of all crashes which resulted in a fatality involved a truck. The majority of fatal crashes occurred along IH-30, with a concentration of these crashes occurring just west of the IH-49 interchange. Several truck crashes resulting in serious injury also occurred at this location.


Truck Parking and Safety Roadside Rest Areas (SRRAs)

In 2012, the U.S. Congress enacted Jason's Law (Section 1401 of the Moving Ahead for Progress in the 21st Century) to address the lack of SRRAs. Jason's Law was inspired by the 2009 death of Jason Rivenburg, a truck driver on a road in South Carolina. He grew tired and responsibly pulled over to take a nap. However, there were no SRRAs in the vicinity, and so Rivenburg parked his rig in an abandoned gas station. While stopped at the gas station, he was robbed and murdered. (Truckers Report, 2019)

Jason's Law established a "national priority on addressing the shortage of long-term parking for commercial motor vehicles on the National Highway System to improve the safety of motorized and non-motorized users and for commercial motor vehicle operators." The law also states that FHWA Division Offices should provide technical assistance to State agencies to update State freight plans and investment programs to support commercial motor vehicle parking solutions, both for facilities and technology for commercial motor vehicle parking information systems (FHWA, 2019).

Federal regulations on hours of service (HOS) for commercial truck drivers ([49 C.F.R. §395](#)), often referred to as the "11-14-10 rule", require that drivers can drive no more than 11 hours in a single day (with up to 3 additional hours of non-driving on-duty time) after which a period of 10 hours of rest is then required before going back on-duty to operate their vehicle again. Other regulations can require longer rest periods. Complying with these regulations can require that the driver find a legal parking spot to obtain the required rest during long haul trips. Finding that legal parking spot is often difficult, as there is often both a shortage of legal parking spots available as well as a lack of a system (in Texas and Arkansas) that indicates where any available legal parking spots can be found on a real time basis.

A lack of rest areas for truck drivers can also lead to tired drivers staying on the road longer or parking in unsafe locations (e.g., shoulders or exit ramps) that are not designed to handle heavy cargo traffic. It is crucial to the safety of the nation's truck drivers to provide them with facilities where they can pull off to rest. Figure 17 shows the location of known, major truck parking facilities in and around the Texarkana MPO study area. The largest truck parking facilities in the



area are at the two private truck stops just off IH-30 at the east and west boundary of the study area, which have roughly 100 or more truck parking spots each, and the Arkansas Welcome Center, which has about 40 truck parking spots, along IH-30 just east of the study area.

Although these facilities support a relatively large amount of truck parking, there are few other truck parking options throughout the study area, and there is also a lack of information on truck parking availability for drivers. The lack of information is particularly an issue considering the largest parking facilities are located at the edges of the MPO boundaries. If truck drivers in the area do not know about available parking at these facilities, they may be encouraged to park somewhere else within the study area, such as along a shoulder/ramp or on private property.

Frontage Roads

Frontage roads connect interstates to local roadway networks and provide alternate routing options if there is congestion or blockages on interstate main lanes. Because Texarkana is split among two different states, there are differences in programming frontage roads for construction. On the Texas side as of 2019, 16% of interstates do not have frontage roads, compared to 6% for all Texas interstates. On the Arkansas side, approximately 92% of interstates do not have frontage roads, highlighting the difference in preference for building frontage roads between ARDOT and TxDOT. Because of these different approaches to planning and programming roadways, it is important for the agencies to coordinate to identify key corridors as candidates for building additional frontage roads, such as IH-30 on the Arkansas side.

On the Texas side, the largest gap in the frontage road network is along IH-30 west of Kings Highway (FM-989) to the MPO study area boundary. However, TxDOT has short-term plans to begin construction on one-way frontage roads from Kings Highway to FM-3419 (Old Redlick Road). As a result, the only frontage road gap on the Texas side of the MPO is the roughly 1.9-mile segment of IH-30 from FM-3419 to FM-2253. The Texas Freight Mobility Plan identified this corridor as having “high” need for frontage roads.

Figure 15: Hotspots of Crashes involving Trucks; Texarkana MPO Study Area; 2013-2017

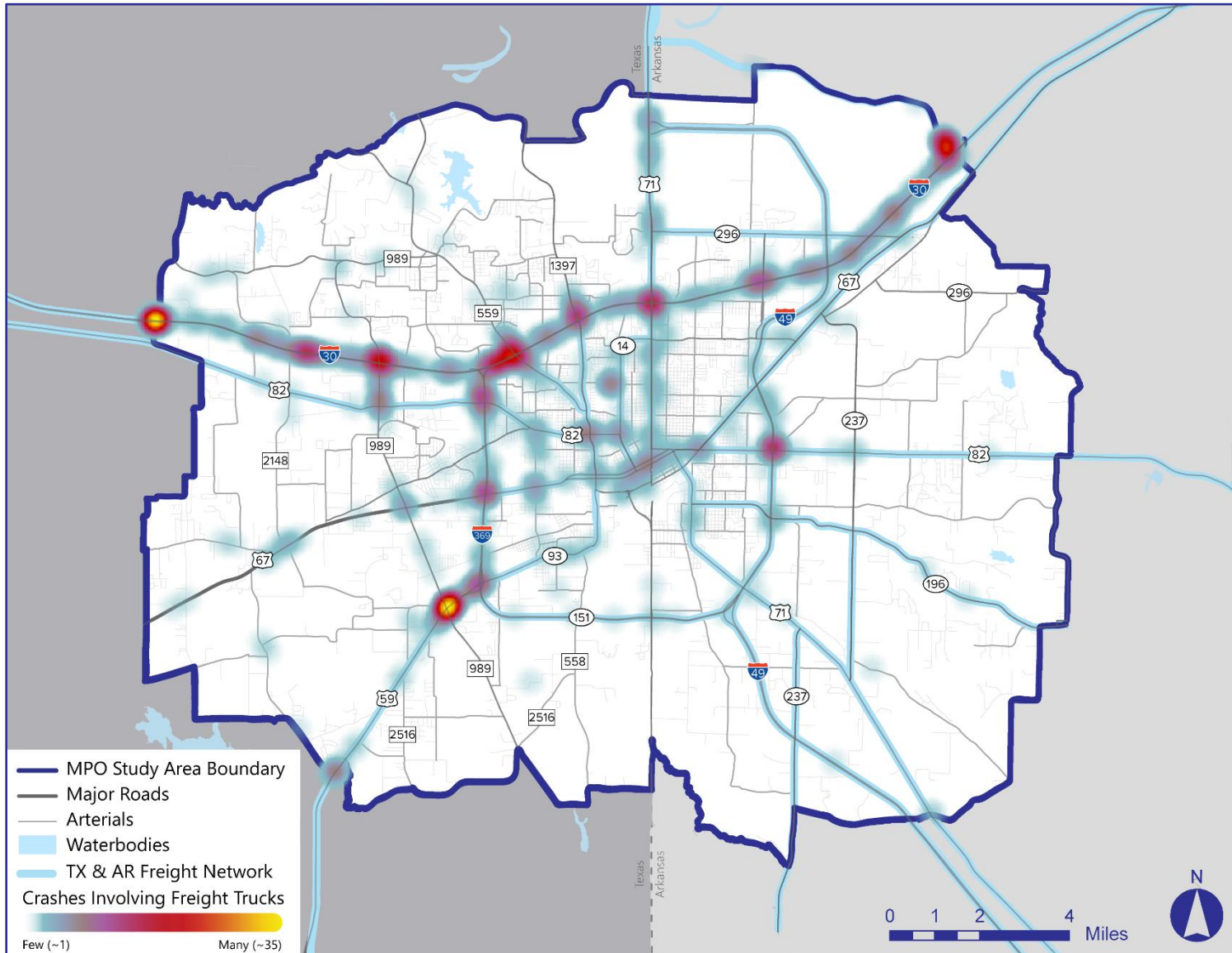
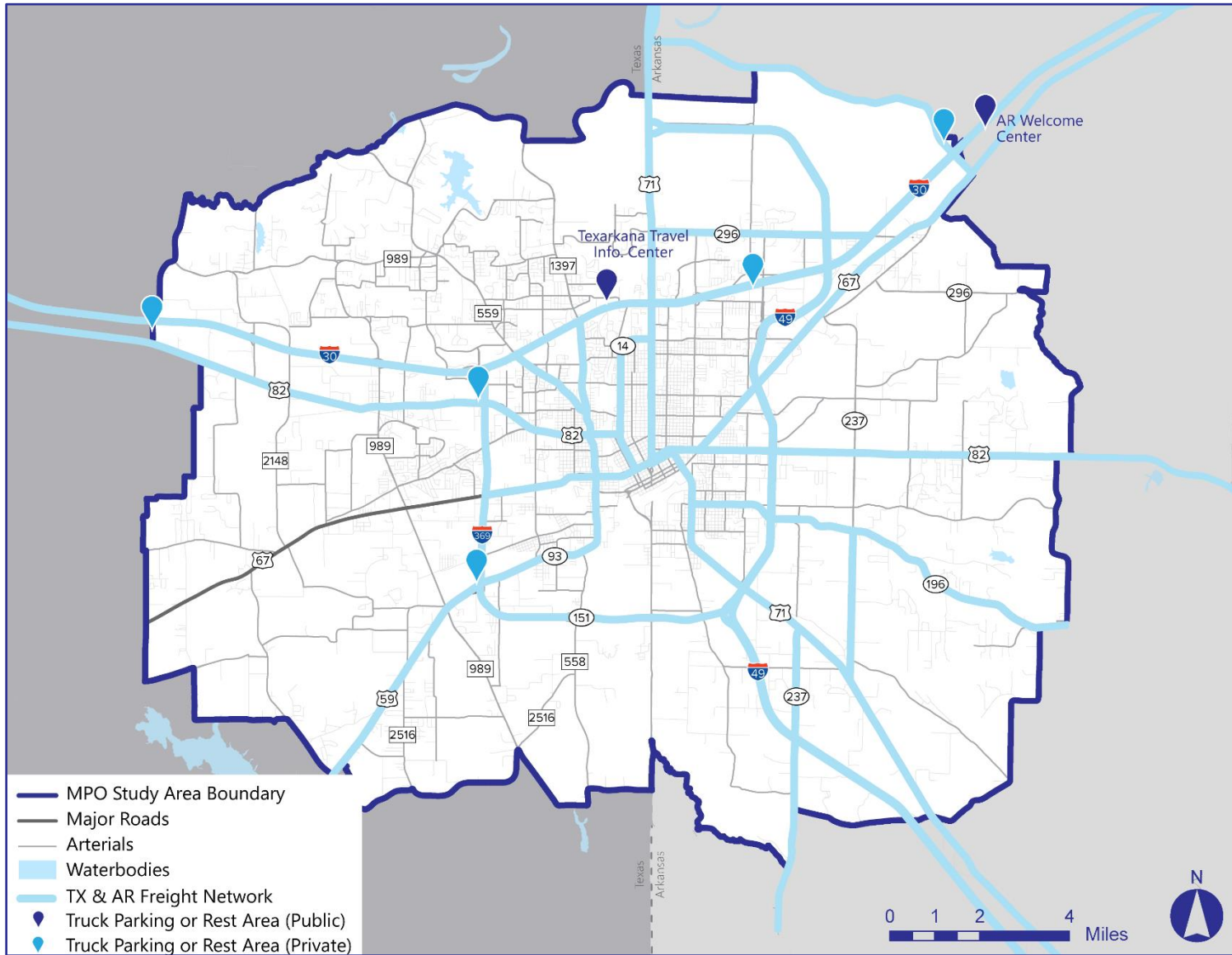


Figure 17: Truck Parking Facilities/Rest Areas



RAIL

Railroads are the other major component of the Texarkana multimodal freight system. Because of the region’s location and available infrastructure, Texarkana is a gateway for rail between Texas and the eastern half of the country.

Assets

There are approximately 79 miles of railroad track in the Texarkana MPO study area. Table 11 shows the total number of track miles by owner and railroad class. Figure 18 shows the location of these railroads throughout the study area.

Table 11: Railroad Track Miles in Texarkana MPO Study Area by Owner; 2019; Bureau of Transportation Statistics

Owner	Class	Track Miles
Union Pacific (UP)	I	52.6
Kansas City Southern (KCS)	I	17.1
Genesee and Wyoming/Texas Northeastern Railroad (TNER)	III	9.7

The UP railroad in the study area is a gateway between Little Rock, AR and Memphis, TN (a major freight hub) to the extensive UP railroad network throughout Texas, particularly the western and central portions of the state. UP also operates a rail yard in downtown Texarkana. The KCS railroad in the region connects Fort Smith, Springdale, and Northwest Arkansas with Shreveport, LA, south Louisiana and southeast Texas. The TNER Class III railroad provides service to the Red River Army Depot just west of the MPO study area and interchanges with UP and KCS railroads at the UP rail yard in downtown Texarkana. TNER mainly carries coal, military equipment, plastics, and wheat.

Figure 18: Railroads by Owner; 2019; Bureau of Transportation Statistics



Conditions and Performance

Because railroads in the MPO study area are privately owned, in-depth performance and condition data is not readily available to the public. However, safety and rail crossing data are publicly available and is the focus of this freight rail analysis. This section also discusses the weight capacity of railroads in the study area.

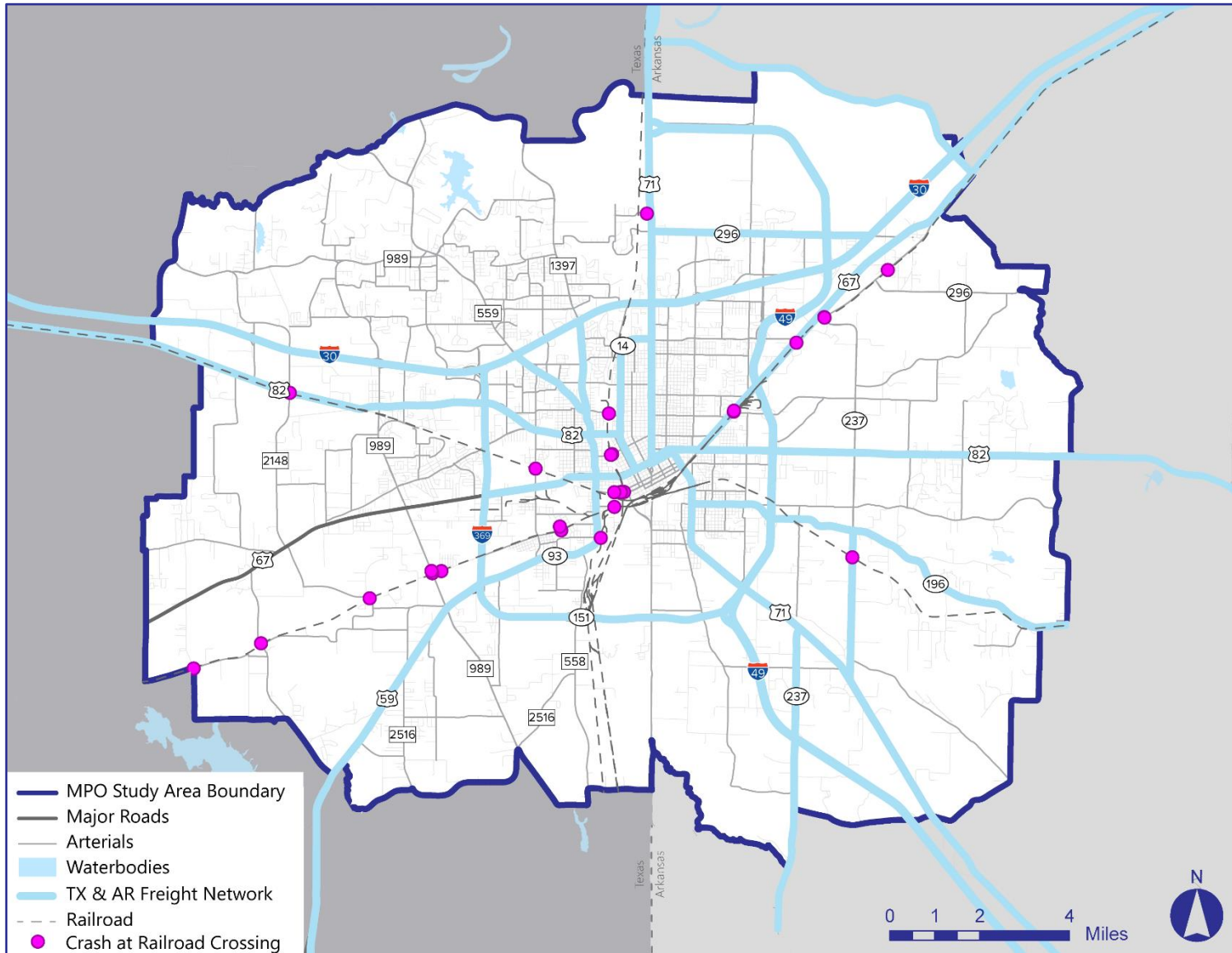
Safety

One of the objectives identified in both the Arkansas and Texas statewide freight plans is the improvement of safety at and reduction of at-grade rail crossings. U.S. Bureau of Transportation Statistics data indicates that there are 95 rail crossings within the study area, 69 of which are at-grade crossings. Figure 19 (page 43) shows the location of the 31 vehicle crashes that occurred at railroad crossings between 2013 and 2017, two of which resulted in serious injury. There is a concentration of these crashes that occurred where 4th Street, 3rd Street, and South State Line Avenue merge into one roadway (4th Street). Figure 20 shows an aerial image of this interchange and rail crossing. Another concentration of crashes at a rail crossing occurred where Kings Highway (FM-989) crosses the UP railroad in the southwestern portion of the study area.

Figure 20: 4th Street at UP Rail Crossing



Figure 19: Vehicle Crashes at Rail Crossings; 2013-2017





Capacity Constraints

One of the potential constraints for freight rail is weight restrictions. Railroad track owners place gross weight restrictions on tracks to help eliminate damage and mitigate safety issues that might be caused by shipments that exceed maximum recommended weights. The standardized weight for Class I railroads in North America is 286,000 pounds per carload, while some markets are moving towards a 315,000-pound standard carload. Railroads that are not able to support these loads can limit the ability to attract business to that area or make it less competitive. Most of the UP railroad in the Texarkana MPO study area supports 315,000-pound carloads, except the north/south segment running from downtown to the southern boundary of the study area, which is restricted to 286,000-pound carloads. Capacities for the KCS and TNER railroads are the standard 286,000 pounds.

CHAPTER 5

FREIGHT INVESTMENT SCENARIOS

PLANNING AND INVESTING FOR SUCCESS

The Texarkana FMP provides a framework for addressing regional freight transportation needs. The FMP incorporates federal and state (both Texas and Arkansas) freight program, policy and project level goals to guide strategic investment decisions. This chapter describes two freight transportation investments scenarios that work together to a) prioritize projects that address the numerous freight transportation system challenges identified in this plan and b) support both regional and state transportation and economic development goals.

FREIGHT TRANSPORTATION SYSTEM PERFORMANCE INVESTMENT SCENARIO


It is important to provide a safe, efficient and reliable freight transportation system to support freight activity in the Texarkana region, as well as the freight movements travelling through the region. This freight transportation system underpins the statewide economy of both Texas and Arkansas. Therefore, the first investment scenario considered is a Freight Transportation System Performance Investment Scenario.

The Freight Transportation System Performance Investment Scenario is designed to address freight system deficiencies identified through the technical analysis and stakeholder feedback obtained during the development of this plan. This scenario provides freight system infrastructure improvements that will help the region contribute to meeting the goals of the two statewide freight plans and FAST Act performance management targets. This scenario also supports the respective state goals to provide intercity connectivity and promote statewide economic competitiveness/vitality, while also meeting local goals, by:

- Promoting the safety, security and resiliency of the freight transportation system;
- Promoting freight transportation asset preservation;
- Prioritizing projects on the designated national and state freight transportation networks; and
- Exploring freight-based technology solutions and innovation to improve management, safety and operations of the freight transportation system.

Program of Projects

The program of projects for this scenario is shown in Table 12. This program of projects includes those found in other regional planning documents, such as the Texarkana MPO Transportation Improvement Program (TIP), the MPO's MTP, and statewide freight plans; those suggested by stakeholders; and others identified through conditions and performance analysis of the freight system. Although some of the projects are already programmed for funding in the MPO's TIP



and MTP, this project list is unconstrained, illustrative and provides a wide array of potential improvements meant to address identified deficiencies and needs.

In addition to basic project details, the project list indicates in which other planning documents a project is included, as well as what specific freight needs the project addresses. The freight need categories are based on priority freight needs/issues identified in the both statewide freight plans¹³ which are directly tied to the goals of this FMP and both statewide freight plans. These priority freight need categories include the following:

- **System Capacity Enhancements (Capacity)** – includes improvements that address rail capacity constraints, congestion and bottlenecks on freight corridors, resiliency related to alternative/redundant corridors, and merge lanes at interstate interchanges
- **System Operations (Operations)** – includes operational enhancements and improvements that address oversize/overweight/over-dimensional trucks, update/maintain aging infrastructure, and improve Transportation Systems Management and Operations (TSMO) (e.g., intelligent transportation systems and driver information system)
- **Freight Asset Preservation (Preservation)** – includes maintenance of freight network highways and bridges and modernization of the freight system
- **Safety Enhancements (Safety)** – includes improvements that provide truck parking/rest areas, reduce at-grade highway/rail crossings, update roadway geometrics, and address vertical clearance issues
- **Multimodal Connectivity and Access Improvements (Multimodal Connection)** – includes improving connectivity to ports and increasing the number of multimodal connection points
- **Rural Connectivity (Rural Connection)** – includes improvements that increase rural access to the existing freight network

Additional project details, such as cost and potential funding sources, are included in Appendix A. Potential funding sources are discussed in detail in later chapters of this document.

¹³ Note that this list only includes those needs relevant to the MPO study area and this FMP. For example, needs related to border crossings are not included. Also, this list is a combination of the needs listed in both statewide plans. Although the list of needs more closely resembles the TxDOT list, the needs listed in the ARDOT freight plan are also represented.

Table 12: Project List – Freight Transportation System Performance Investment Scenario

Facility	County	From	To	Description	In MTP?	Funded?	In State Freight Plan?	Need Addressed
IH-30	Bowie	0.6 mile west of FM-989	Arkansas State Line	Widen existing interstate from 4 lanes to 6 lanes	Yes	Yes	Yes	Capacity, Safety
IH-30	Bowie	FM-3419	FM-989	Construct one-way frontage roads, entrance and exit ramps, and turnarounds	Yes	Yes	Yes	Capacity
US-71	Bowie	0.2 mile south of IH-30	US-67 (7th Street)	Reconstruct existing 4-lane divided highway	Yes	Yes		Preservation
US-82	Bowie	0.2 mile west of IH-369 in Texarkana	0.7 mile west of FM-989 in Nash	Widen existing 2-lane highway to 4-lane divided	Yes	Yes	Yes	Capacity
US-67 (E. 7th Street)	Bowie	0.2 mile west of US-82 at KCS Railroad	-	Replace railroad underpass				Safety
US-82	Bowie	0.2 mile west of Texas Blvd. at KCS Railroad	-	Replace railroad underpass				Safety
FM-3419	Bowie	0.9 mile west of FM-2148 at IH-30 Overpass	-	Increase overhead clearance to 18'6"				Operations
Cowhorn Creek Road	Bowie	0.7 mile west of SH-93 at IH-30 Overpass	-	Increase overhead clearance to 18'6"				Operations
US-59 to IH-369 Director Connector (NB)	Bowie	1.6 miles south of US-67 at SH-151 Overpass	-	Increase overhead clearance to 18'6"				Operations

Facility	County	From	To	Description	In MTP?	Funded?	In State Freight Plan?	Need Addressed
US-67 (7th Street)	Bowie	Southwestern Drive	0.1 mile east of Wake Village Road	Reconstruct roadway				Preservation
Richmond Road	Bowie	Mall Drive	Kennedy Lane	Reconstruct roadway				Preservation
IH-30	Bowie	MPO Boundary/Leary Road	FM-3419	Construct one-way frontage roads, entrance and exit ramps, and turnarounds				Capacity
IH-30	Bowie	0.3 mile west of SS 74	FM-2253	Ramp improvements			Yes	Capacity
US-82	Bowie	FM-1398	US-67	Improve guardrail to design standards		Yes	Yes	Safety
IH-30	Bowie	MPO Boundary/Leary Road	0.6 mile west of FM-989	Widen existing interstate from 4 lanes to 6 lanes				Capacity
US-82	Bowie	FM-2253	0.7 mile west of FM-989 in Nash	Widen existing 2-lane highway to 4-lane divided				Capacity
US-82	Bowie	At FM-2148 Intersection		Widen to add turn lanes			Yes	Capacity, Operations
US-59	Bowie	SL-151	South of FM-2148	Upgrade 4-lane divided highway to interstate standards (future IH-369)	Yes			Capacity
IH-369	Bowie	IH-30	SH-93	Widen existing 4-lane freeway to 6-lane freeway	Yes			Capacity
IH-369	Bowie	Near US-67 interchange	-	Construct truck parking rest area with amenities				Safety

Facility	County	From	To	Description	In MTP?	Funded?	In State Freight Plan?	Need Addressed
IH-30	Bowie	Texarkana Travel Information Center	-	Expand available truck parking spaces				Safety
Northern Loop	Bowie	IH-49	IH-30	Construct rural highway	Yes			Capacity, Rural Connection
Southern Loop (TX)	Bowie	US-59	South State Line Avenue	Construct rural highway				Capacity, Rural Connection
Waco Street	Bowie	Kilgore Road	Robison Road	Reconstruct roadway				Preservation
Falvey Avenue	Bowie	Waco Street	Terry Street	Reconstruct roadway				Preservation
US-67	Bowie	Arkansas State Line	FM-2148 (N)	Improve guardrail to design standards		Yes	Yes	Safety
US-59/IH-30 Connector	Bowie	US-59	IH-30	Construct rural highway				Capacity, Rural Connection
FM-1397	Bowie	University Avenue	0.1 mile north of North Park Road	Widen to 4-lane divided	Yes	Yes	Yes	Capacity, Rural Connection
US-67	Bowie	0.2 mile west of FM-989	FM-2148 (S)	Widen to 4-lane divided	Yes	Yes	Yes	Capacity
US-67	Bowie	0.2 mile west of FM-989	3.6 miles west of FM-2148 (S)	Profile centerline & edgeline markings, centerline bars & edgeline bars		Yes	Yes	Safety
US-71	Miller	Nix Creek	-	Bridge rehabilitation or replacement	Yes	Yes		Preservation
US-71	Miller	US-67	IH-30	System preservation	Yes	Yes		Preservation

Facility	County	From	To	Description	In MTP?	Funded?	In State Freight Plan?	Need Addressed
US-67	Miller	Nix Creek	-	Bridge rehabilitation or replacement	Yes	Yes		Preservation
IH-30	Miller	US-71	IH-49	Reconstruction	Yes	Yes		Preservation
SL 151	Miller	State Line Avenue	IH-49	Rehabilitation	Yes	Yes		Preservation
IH-49	Miller	SL-151	US-82	Rehabilitation	Yes	Yes		Preservation
IH-30	Miller	IH-49	SH-108	Reconstruction	Yes	Yes		Preservation
SH-196 (Division St)	Miller	US-71 (East Street)	IH-49	Reconstruction	Yes	Yes		Preservation
US-82/E. 9th Street (WB)	Miller	IH-49 Frontage Road	0.24 mile east of Cooper Tire Road	Add right-turn lane; access management treatments				Capacity, Operations
US-82	Miller	E. Broad Street at UP Rail Underpass	-	Underpass replacement				Safety
US-71 (East St)	Miller	Maud Street	500 ft south of Forest Avenue	Reconstruction				Preservation
IH-30	Miller	Jefferson Avenue	MPO Boundary (eastern)	Construct one-way frontage roads, entrance and exit ramps, and turnarounds				Capacity
IH-49 Frontage Road	Miller	SH-237 (Blackman Ferry Road)	Line Ferry Road	Construct new 2-lane west frontage road	Yes			Capacity
IH-49 Frontage Road	Miller	US-71 (East Street)	SH-237 (Blackman Ferry Road)	Construct new 2-lane east frontage road	Yes			Capacity

Facility	County	From	To	Description	In MTP?	Funded?	In State Freight Plan?	Need Addressed
SH-245 (Four States Fair Pkwy) frontage road	Miller	South State Line Avenue	Line Ferry Road	Construct new 2-lane south frontage road	Yes			Capacity
US-67 (E Broad St)	Miller	Arkansas Blvd	MPO Boundary	Widen from 2 to 4 lanes				Capacity
IH-30	Miller	IH-49	MPO Boundary (eastern)	IH-30 widen to 6 lanes				Capacity
IH-30	Miller	Texas State Line	IH-49	IH-30 widen to 6 lanes	Yes			Capacity, Safety
US-82	Miller	SH-237	MPO Boundary (eastern)	Widen US-82 to provide 4 travel lanes	Yes			Capacity
IH-49	Miller	Near US-82	-	Construct truck parking rest area with amenities				Safety
Southern Loop (AR)	Miller	South State Line Avenue	IH-49	Construct rural highway				Capacity, Rural Connection
SH-237	Miller	US-71	US-67	Widen 2 lanes to 3 lanes	Yes			Capacity
IH-30	Miller/ Bowie	MPO Boundary (east & west)	-	Install Truck Parking Availability System (TPAS)				Safety, Operations

STRATEGIC ECONOMIC GROWTH INVESTMENT SCENARIO

The second scenario is a Strategic Economic Growth Investment Scenario. This scenario builds upon and supplements the first scenario. The scenario is designed to promote ongoing and future economic initiatives that support and sustain the region's economic vitality and contribute to enhancing statewide economic competitiveness.

The MPO has adopted a demographic and socioeconomic growth forecast that exceeds historic growth trends. MPO employment forecasts include approximately 500 employees in the Primary Production Employment Sectors and 2,500 employees in the Retail and Service Sectors in excess of the historic growth trends. MPO stakeholders and planning partners participating in the Texarkana FMP workshops and committee meetings are confident that the region can achieve these growth forecasts because of regional trends and specific regional strengths and opportunities identified in the Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis (conducted as part of this FMP development) that support these trends.

The Strategic Economic Growth Investment Scenario provides transportation infrastructure projects and initiatives to help the region meet its economic growth goals by:

- Promoting a multimodal approach to freight mobility, reliability, efficiency and safety;
- Prioritizing projects that provide Multimodal Connectivity;
- Addressing freight transportation needs of key existing freight-related industries as well as the needs of new and emerging activity centers in the region;
- Improving intermodal transportation system connectivity, efficiency, and mobility to support existing industries and strengthen regional economic competitiveness;
- Supporting long-term population, freight and economic growth, economic competitiveness and quality of life; and
- Facilitating institutional coordination and collaboration including public-private partnerships.

Public-Private Partnership

One of the key features of this Strategic Economic Growth Investment Scenario is the use of public-private partnerships. Achieving the industry expansion needed to reach the region's economic growth targets, requires concerted efforts to promote industry investment and job creation combined with strategic transportation infrastructure investment to support the economic development initiatives.

Several of the projects and initiatives included in this scenario require the collaboration of private industry, economic development agencies and the public sector (including the MPO), the respective state DOTs as well as county and city governments. In many cases, implementation and funding will require the use of a mix of private and public funds. In addition, many grant programs available to underwrite these initiatives are revenue based and require the project (or the project sponsors) to produce revenue to repay a portion of the grant or at least sufficient revenue to demonstrate the sustainability of the project once the grant funding expires.

Program of Projects

Table 13 below provides a list of specific projects included in this scenario. The remainder of this chapter goes into more detail about these projects, as well as corresponding initiatives and economic development efforts. This list of projects is unconstrained and illustrative.

Intermodal Facility


As mentioned in previous chapters, one of the strengths of the Texarkana region, identified in the SWOT Analysis Workshop, is its position as a rail gateway to major markets in multiple states, as well as its central geographic location. Major markets such as Dallas-Fort Worth, Little Rock, Memphis, New Orleans, and Houston are all within an 8-hour driver of the study area. One of the transportation investments designed to take advantage of this geographic positioning, as well as to serve local industry, is the development of an intermodal facility/transload operation. Although a specific location has not been identified, there are several potential locations with access to rail and major highways that could potentially host such a facility. Stakeholders identified candidate locations in the vicinity of the Texarkana Regional Airport, near the City of Nash, and at the TexAmericas Center.

In 2019, UP Railroad made overtures to open discussions with AR-TX REDI about partnering on a transload facility. The City of Nash has been exploring the potential of a BUILD infrastructure grant (see Chapter 7 for more info on BUILD grants) to fund an intermodal transfer facility. And there are several other candidate locations. The choice of location ultimately depends upon collaborative public-private partnership decisions about the best available site for economic outcomes, combinations of modal infrastructure, and the project partners committed to participate. Implementation of an intermodal facility is by its nature an endeavor that requires a public-private partnership. This type of investment includes:

- Upgrade or building of new public sector roadway infrastructure to provide mobility, access and circulation to the facility;
- Upgrade or building new rail transport and cargo handling infrastructure; and
- Building of warehousing and/or distribution infrastructure by customers/contractors.

Table 13: Project List – Strategic Economic Growth Investment Scenario

Facility	County	From	To	Description	In MTP?	Funded?	In State Freight Plan?	Need Addressed
Leary Road	Bowie	Love's Travel Stop along IH-30	-	Expand available truck parking spaces				Safety
S. Lake Drive	Bowie	Exxon Gas Station at US-59/IH-369 Interchange	-	Expand available truck parking spaces				Safety
FM-989	Bowie	IH-30 south Frontage Road	0.5 mile south of US-82	Widen existing 4-lane undivided highway to 4-lane divided	Yes	Yes		Capacity
Alumax Drive	Bowie	FM-989	FM-2148	Rehabilitate city street to meet DOT's Farm to Market (FM) standards	Yes			Preservation , Capacity
Alumax Drive	Bowie	At FM-989	-	Install traffic signals and dedicated turn lanes				Operations, Capacity
SH-108	Miller	Flying J Travel Center along IH-30	-	Expand available truck parking; site traffic circulation improvements				Safety
E. 54th Street	Miller	Camp I-30 Truck Stop	-	Rehab existing truck stop and add amenities				Safety
E. 19th Street	Miller	US-67	0.4-mile northeast of Abernathy Dr	Widen from 2 to 3 lanes				Capacity
Arkansas Boulevard	Miller	US-67/UP Railroad At-grade Crossing	-	Construct grade-separated crossing				Safety, Multimodal Connection
Intermodal Facility	-	-	-	Construct intermodal/transload freight facility with rail yard	Yes			Multimodal Connection



In addition to the required investment from a diverse set of partners, development of a major facility will probably require federal or state grant funding. The facility may also need to be underwritten by dedication of tax revenue through mechanisms such as a Tax Increment Reinvestment Zone, discussed further in Chapter 7.

Truck Parking and Safety Roadside Rest Areas (SRRA)

Public sector investment alone will not be sufficient to meet the critical need for safe parking locations for long haul drivers. FHWA has stated that the shortage of commercial motor vehicle parking is a national safety concern. This lack of commercial vehicle parking has resulted in tired drivers parking in unsafe locations, including vacant or abandoned lots, shoulders of the roadway, exit ramps and other locations without the needed safety, security and amenities. To better define the need for safe and secure commercial vehicle parking, FHWA conducted a survey of truckers and truck operators. The Jason's Law Truck Parking Survey Results and Comparative Analysis was released in August 2015. The results of the survey indicated "a severe commercial motor vehicle parking shortage in some regions, a lack of adequate information for commercial motor vehicle drivers about parking capacity at existing facilities, and challenges associated with routing and delivery requirements and accommodating rest periods." (FHWA, 2019). Incorporating this element into this scenario demonstrates the societal return on investment for public-private partnership in this area.

Targeted First-Mile/Last-Mile Program

Stakeholders indicated that in many cases the local roadways that serve as the first-mile/last-mile connections to important destinations (the roadway connecting a major roadway to the ultimate destination) do not have the pavement thickness or roadway cross section to serve heavy truck traffic. Therefore, another initiative included in the Strategic Economic Growth Investment Scenario is a program of improvements to local area roadways that directly serve freight activity centers or freight dependent industry clusters within the region. This component of the investment scenario sets aside a pool of funds using a combination of federal and state funds for eligible roadways on the respective state systems as well as local bond funds or other resources for upgrade and improvement of roadways directly serving major freight generators. The selection of individual projects would be carried out during MTP development through a collaborative effort of the MPO, its planning partners, and the region's freight industry stakeholders. Figure 21 shows the location of freight-industry clusters, where first-mile/last-mile improvements may be most needed. Rehabilitation of Alumax Drive is an example of this type of project.

Remove Access Barriers to Major Economic Generators

Similar to the First-Mile/Last-Mile Program, projects in this initiative include efforts to mitigate or eliminate real or perceived barriers to seamless and efficient access to major economic generators. An example of this type of project is the proposed grade separation where Arkansas Boulevard crosses the UP railroad to improve the connection to the Texarkana Regional Airport and surrounding area.

Airport Expansion Efforts

Another initiative that is a part of the Strategic Economic Growth Investment Strategy that requires public-private partnership relates to proposed economic development in the vicinity of the Texarkana Regional Airport. One industry expansion initiative being explored by AR-TX REDI is the recruitment of an aircraft rehabilitation, maintenance and outfitting provider. One necessary element of creating a viable environment to recruit this private industry investment would be expansion of airport facilities to accommodate Maintenance Repair and Overhaul (MRO) operations. Anticipated jobs resulting from this industry expansion are included in this investment scenario as part of the analysis of economic impact of freight investment in Chapter 6.

CHAPTER 6

FUTURE ECONOMIC DEVELOPMENT AND IMPACTS OF FREIGHT INVESTMENT

To evaluate the economic impacts of each freight system investment scenario, an analysis was conducted to measure and quantify the dollar value of the outcomes of the proposed investments. The analysis included the level of transportation investment based on the project cost estimates and the contribution of complimentary economic development activities based on anticipated job creation and industry growth. The dollar value of productivity, efficiency and inter-industry economies anticipated in each of the two investment scenarios was quantified and analyzed to determine the economic impacts of each scenario and measure each scenario's contribution to sustaining regional economic vitality and competitiveness.

The economic impact analysis used an econometric model called IMPLAN, an Input-Output model that is designed to predict the ripple effect of an economic activity by using data about previous industry spending. Production in one industry sector supports demand for production in other industry sectors throughout the economy due to supply chain spending and spending by workers.

As described in the user's guide, IMPLAN expands upon the traditional Input-Output (I-O) approach to also include transactions between industries and institutions and between institutions themselves, thereby capturing all monetary market transactions in a given time. IMPLAN can thus more accurately be described as a Social Account Matrix (SAM) model, though the terms I-O and SAM are often used interchangeably.


Results in the scenario analyses are reported in 2019 dollars. Base (2017) industry sector outputs, reported in the IMPLAN datasets, are shown in Appendix E.

ECONOMIC IMPACT RESULTS

Freight Transportation System Performance Investment Scenario

This scenario examines the economic impacts of an effort to address identified freight transportation system performance issues and deficiencies using the broad range of available transportation infrastructure and operational solutions identified in the technical analysis, policy documents and stakeholder workshops. Projects and strategies in this scenario came from the two respective statewide freight plans and long-range transportation plans, the Texarkana MTP, the SWOT analysis and project identification and prioritization brainstorming sessions with the FMP Steering Committee.

The projects contained in the scenario are not fiscally constrained. Some are programmed for funding and some are not. The intent of the scenario is to demonstrate the economic benefit of



a concerted, visionary effort to optimize the performance of the national, state and local freight networks in the Texarkana region. The results of the scenario are designed to give MPO policy makers and planning partners an idea of the return on investment at various levels of effort to meet national and state system performance targets.

Employment Gains

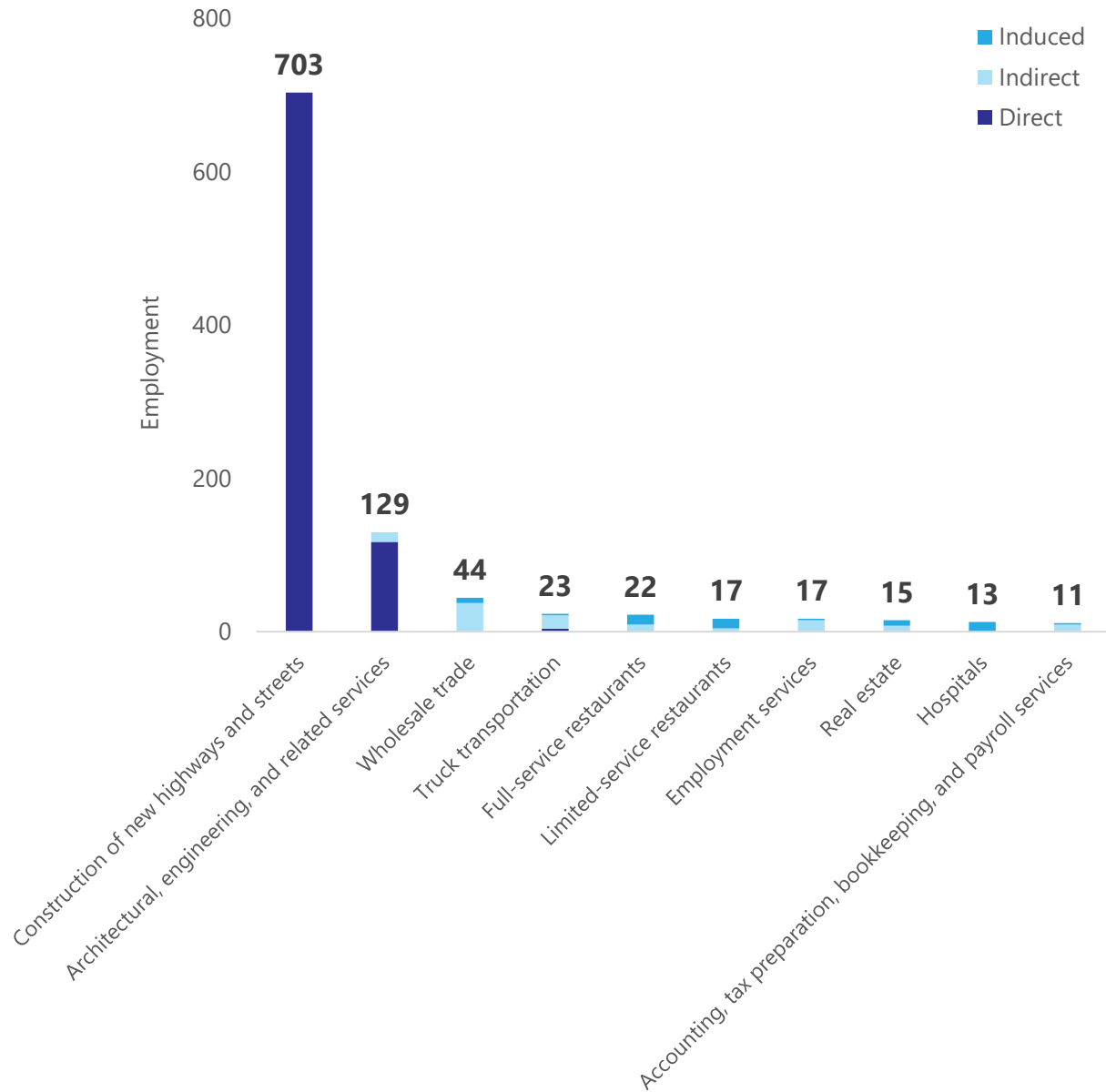
Before beginning this discussion on employment gains, it should be noted that the figures discussed are for industry sectors for which employment growth is directly dependent on the transportation investments described in the scenario. Core industries such as metal products or manufacture, which are expected to exhibit strong growth with or without the transportation investment are not reflected in this analysis.

Figure 22 shows the top 10 industries with employment growth stimulated by the Transportation System Performance Investment Scenario. Employment figures represent a combination of direct, indirect and induced employment. When consumers purchase goods and services, final demand is created for the sectors producing the goods and services consumed. When consumer spending is modeled for a given sector, investment in transportation system infrastructure in this case, this spending represents a direct effect.

Indirect effects are the supply chain effects stemming from the direct sector's purchases of local goods and services and the additional rounds of local business-to-business spending that results from the initial investment. Induced effects are the effects due to direct and indirect workers' purchases of local goods and services and the additional rounds of spending that stem from their purchases.

As shown in Figure 22, the highest gains in employment for the Transportation System Performance Investment Scenario are in the sector related to construction of highways and streets. The highway construction industry, through the direct investment defined in the scenario, added about 700 direct employees and the engineering sector added about 130 through a combination of both direct and indirect employment. The next highest sectors, adding indirect and induced employment would be wholesale trade, truck transportation and full-service restaurants. Increased employment across all industry sectors totaled 1,258 employees. This increase in employment combined with the quality of jobs across each sector in which job growth is anticipated would result in an increase in employee compensation of about \$57 million.

Figure 22: Top 10 Industries by Employment Growth; Transportation System Performance Investment Scenario; IMPLAN




Economic Output Impacts

The economic model calculated the anticipated employment based on the production requirement of the investment scenario. The IMPLAN model reports this production in terms of industry output. Table 14 shows the expected growth in industry output by sector. The expected growth in transportation construction is anticipated to be slightly under 400%.

Table 14: Industry Output Growth by Sector; Transportation System Performance Investment Scenario; IMPLAN

Industry Sector	Base Output*	Added Output	Estimated Growth %
Construction of new highways and streets	\$29,397,731	\$112,818,930	384%
Architectural, engineering, and related services	\$30,260,983	\$15,487,138	51%
Other concrete product manufacturing	\$1,986,189	\$280,433	14%
Commercial and industrial machinery and equipment rental and leasing	\$26,908,956	\$3,400,384	13%
Ready-mix concrete manufacturing	\$27,391,868	\$3,168,675	12%
Water transportation	\$560,980	\$23,544	4%
Commercial and industrial machinery and equipment repair and maintenance	\$23,747,796	\$825,813	4%
Management consulting services	\$14,531,500	\$373,502	3%
Marketing research and all other miscellaneous professional, scientific, and technical services	\$6,052,662	\$154,877	3%
Environmental and other technical consulting services	\$5,244,279	\$132,478	3%
Specialized design services	\$4,506,055	\$107,823	2%
Other computer related services, including facilities management	\$8,174,093	\$194,157	2%
Petroleum refineries	\$240,270,946	\$4,981,041	2%
Office administrative services	\$13,781,031	\$279,520	2%
Accounting, tax preparation, bookkeeping, and payroll services	\$43,764,919	\$870,393	2%

**Base output is the 2017 regional output prior to implementing the scenario. Added output is the increase due to the scenario.*



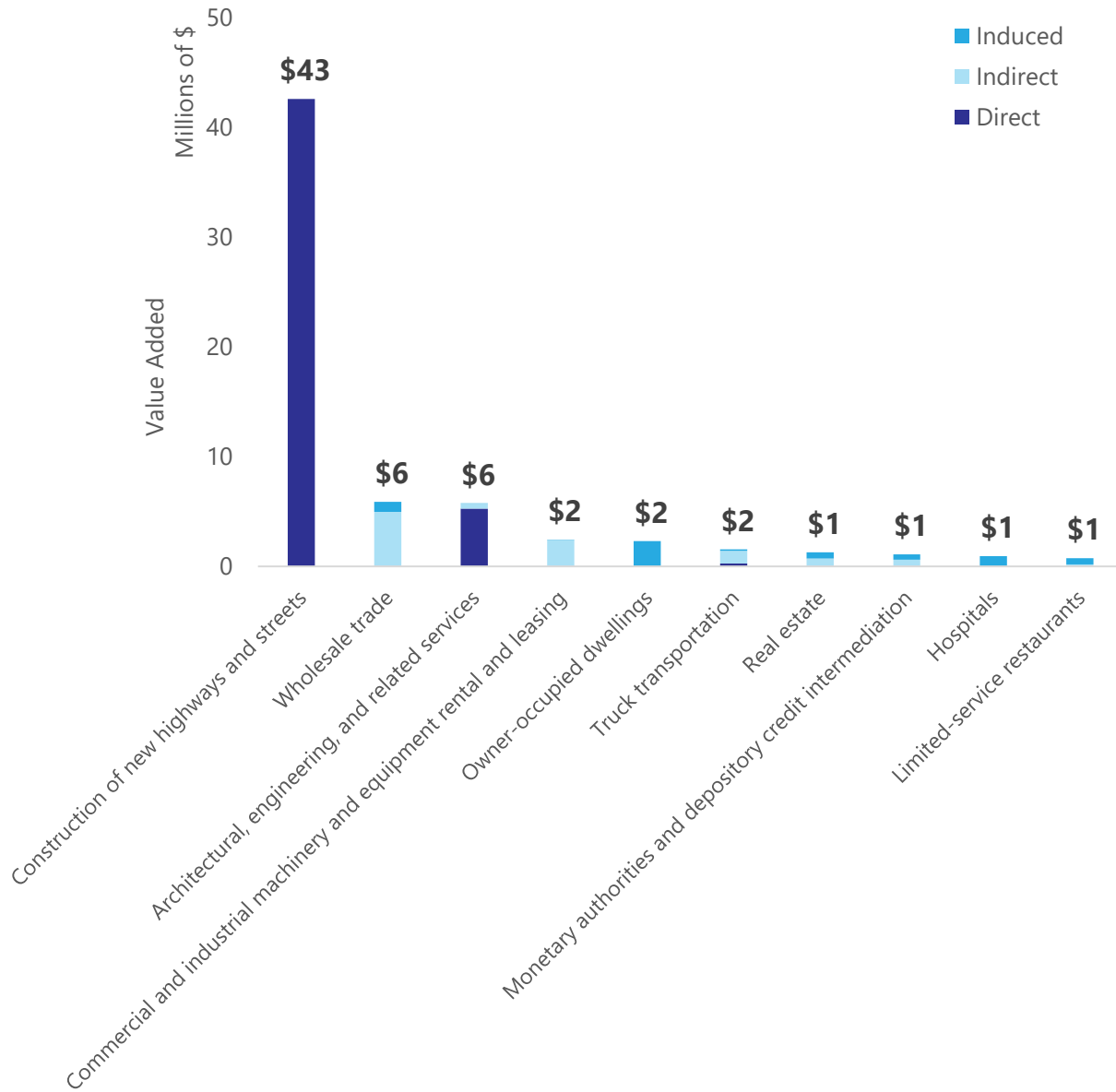
Under this scenario, the final demand (i.e., direct output) for the highway construction industry would be expected to add about \$112 million to the regional economy. Impacts to other sectors through multiplier and feedback effects would bring the total added impact to about \$191 million or about 1.9% of the region's gross output of around \$10 billion.

Value Added Impacts

Value Added is analogous to GDP. This indicator is the sum of employee compensation, proprietor income, other property income, and taxes on production and imports less subsidies. Value Added is the difference between an industry's or an establishment's total output and the cost of its intermediate inputs. Value Added equals gross output (sales or receipts and other operating income, plus inventory change) minus intermediate inputs (consumption of goods and services purchased from other industries or imported).

The Transportation System Performance Investment Scenario adds overall value to the regional economy of about \$81 million or approximately 1.5 % of the region's \$5.2 billion GDP. Figure 23 shows the top 10 industries with most value added as a result of this investment scenario.

Figure 23: Top 10 Value Added Industry Sectors; Transportation System Performance Investment Scenario; IMPLAN



Strategic Economic Growth Investment Scenario

The second scenario is a Strategic Economic Growth Investment Scenario that builds upon and supplements the first scenario. The scenario is designed to promote ongoing and future economic initiatives that support and sustain the region's economic vitality and contribute to enhancing statewide economic competitiveness.

In addition to the transportation system performance focus of the first scenario, this scenario examines how the public sector and private sector can partner on efforts to design strategies that work to support the goals of both sets of planning partners. On the private sector side of the equation, this scenario identifies the highest performing industry sectors in the region as well as emerging growth sectors in the respective state economies that have been identified by regional economic development organizations as important candidates for recruitment. Estimated employment increases specified by the sponsoring stakeholders were added to the scenario input assumptions.

Additional transportation infrastructure investments are identified to support and sustain these existing and emerging industry clusters in order to help the MPO meet the targets for growth in population and employment adopted in the 2045 Metropolitan Transportation Plan.

Employment Gains

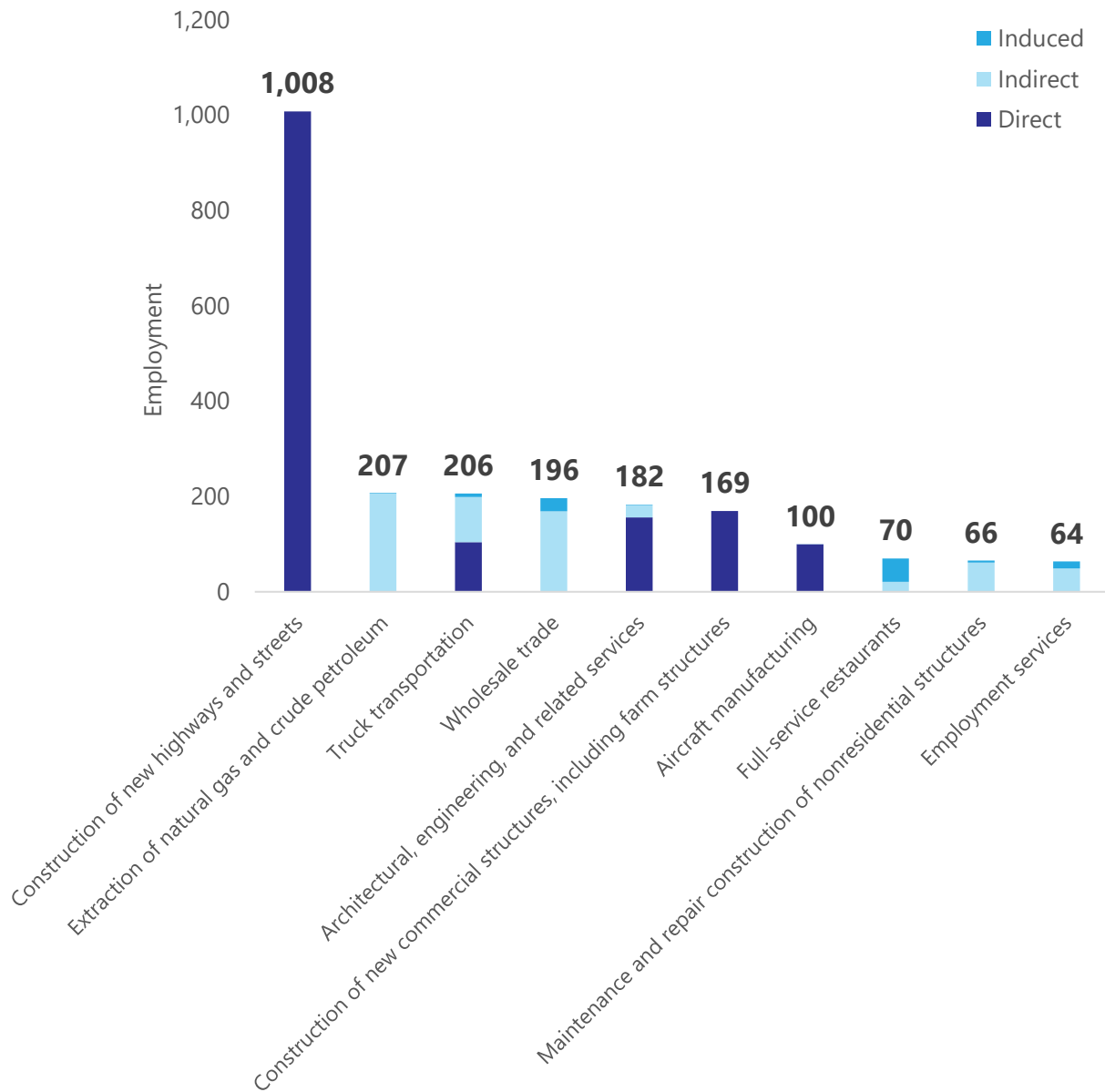
Before beginning this discussion on employment gains, it should be noted that the figures discussed are for industry sectors for which employment growth is directly dependent on the transportation investments described in the scenario. Core industries such as metal products or manufacture, which are expected to exhibit strong growth with or without the transportation investment are not reflected in this analysis.

Figure 24 shows the top 10 industries for employment growth due to the Strategic Economic Growth Investment Scenario. Employment figures represent a combination of direct, indirect and induced employment. The highest gains in employment due to this investment scenario are in the sector related to construction of highways and streets. This result is logical because the Strategic Economic Growth Investment Scenario includes and builds upon the previous system performance scenario.

The highway construction industry, through the direct investment defined in the scenario, added about 1,000 direct employees. The next largest gains from this investment would be expected to occur in the extraction of natural gas, truck transportation, and wholesale trade sectors, each adding approximately 200 employment to the region.

Increased employment across all industry sectors totaled 3,800 employees including the added employment defined in the scenario. This increase in employment combined with the quality of jobs across each sector in which job growth is anticipated would result in an increase in employee compensation of about \$189 million.

Figure 24: Top 10 Industries by Employment Growth; Strategic Economic Growth Investment Scenario; IMPLAN



Economic Output (Final Demand) Impacts


The economic model calculated the anticipated employment based on the production requirement of the investment scenario. The IMPLAN model reports this production in terms of industry output. Table 15 shows the expected growth in industry output by sector. The expected growth in transportation construction is anticipated to be nearly 550%.

Table 15: Industry Output Growth by Sector; Strategic Economic Growth Investment Scenario; IMPLAN

Industry Sector	Base* Output	Added Output	Estimated Growth Percentage
Aircraft manufacturing	\$1,455,207	\$61,539,442	**
Construction of new highways and streets	\$29,397,731	\$161,477,630	549%
Other basic organic chemical manufacturing	\$37,408,654	\$58,653,546	157%
Petroleum refineries	\$240,270,946	\$332,915,686	139%
Extraction of natural gas and crude petroleum	\$36,180,125	\$30,836,652	85%
Architectural, engineering, and related services	\$30,260,983	\$20,735,667	69%
Pipeline transportation	\$7,814,434	\$4,587,067	59%
Construction of new commercial structures, including farm structures	\$43,331,178	\$20,000,000	46%
Support activities for oil and gas operations	\$5,496,571	\$2,184,238	40%
Construction of new manufacturing structures	\$16,115,605	\$5,441,163	34%
Other concrete product manufacturing	\$1,986,189	\$633,120	32%
Warehousing and storage	\$19,349,479	\$6,073,255	31%
Ready-mix concrete manufacturing	\$27,391,868	\$7,816,920	29%
Rail transportation	\$28,575,582	\$7,322,881	26%
Commercial and industrial machinery and equipment rental and leasing	\$26,908,956	\$6,686,478	25%

*Base output is the 2017 regional output prior to implementing the scenario. Added output is the increase due to the scenario.

**Essentially a new industry for the region.

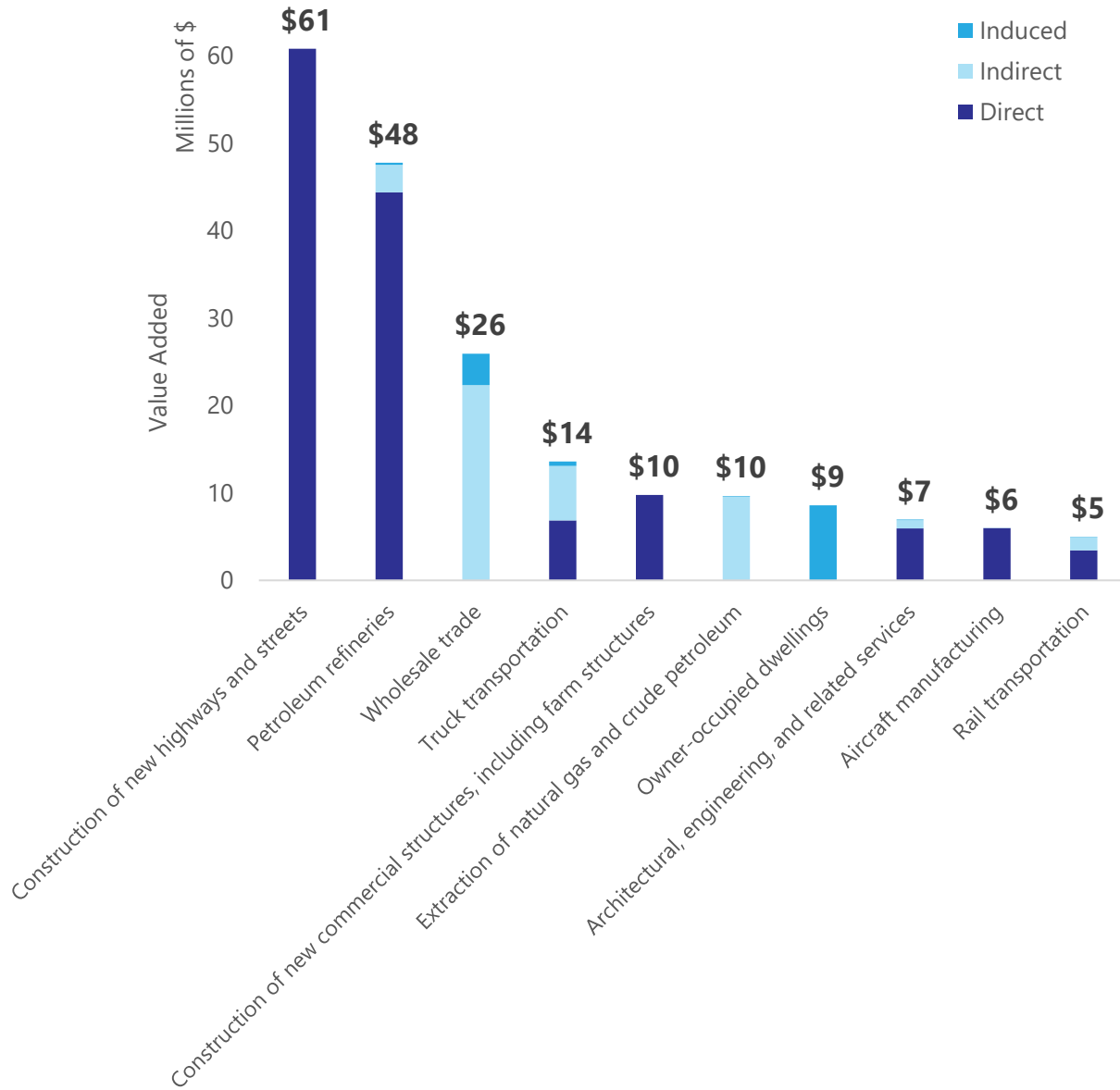


Under this scenario, the final demand, (direct output) for the highway construction industry would be expected to add about \$162 million to the regional economy. Impacts to other sectors through multiplier and feedback effects, would bring the total added impact to about \$1.0 billion or about 9.9% of the region's gross output of around \$10 billion.

Value Added Impacts

The Strategic Economic Growth Investment Scenario adds overall value to the regional economy of about \$309 million or approximately 5.9% of the region's \$5.2 billion GDP. Figure 25 shows the top 10 industries with most value added as a result of this investment scenario.

Figure 25: Top 10 Value Added Industry Sectors; Strategic Economic Growth Investment Scenario; IMPLAN



CHAPTER 7

FUNDING FOR IMPLEMENTATION

The estimated cost of all projects included in the FMP project lists is approximately \$1.54 billion. However, revenue forecasts developed for the 2045 MTP based on historical programmed funding anticipate that only about \$0.8 billion (52% of the total project list costs) are expected to be available to fund all future MTP projects over the next 25 years. Most of this estimated funding comes from formula federal funding sources as part of the Federal-Aid Highway Program (FAHP) and state funding matches.

Appendix B lists and provides details about the different state-level funding categories that FAHP funding is apportioned through. These funding categories are also assigned to each project in the Appendix A project lists to indicate potential funding source.

Because of the gap in forecasted programmed funding, other funding options must be explored to implement the FMP. The following sections provide an overview of potential funding options beyond anticipated federal and state funding.


COMPETITIVE FEDERAL FUNDING SOURCES

BUILD Grants Program

The U.S. Department of Transportation's ***Better Utilizing Investments to Leverage Development*** (BUILD) Transportation Discretionary Grant program invests in road, rail, transit and port projects that promise to achieve national objectives. BUILD projects can be sponsored at the state or local level (including any public entity) and used to obtain funding for multi-modal, multi-jurisdictional projects that can be difficult to support through traditional federal DOT programs. FMP projects that may be eligible for BUILD Transportation Grants include any road or bridge project eligible under title 23, United States Code; freight rail transportation projects; and intermodal projects. Funding has so far supported projects to repair bridges or improve infrastructure to a state of good repair, safety improvements at grade crossings, and projects that promote economic revitalization and job growth. Grant selection criteria cover safety, economic competitiveness, quality of life, state of good repair, innovation and partnerships with a broad range of stakeholders.

INFRA Grants Program

The U.S. Department of Transportation's ***Infrastructure for Rebuilding America Grant Program*** (INFRA) is used to fund projects that address critical issues facing the nation's highways and bridges. Any state or local public entity is eligible to apply for an INFRA grant. INFRA grants are designed to fund significant highway and bridge infrastructure projects that use innovative approaches to improve the necessary processes for building significant projects



and increase accountability for the projects that are built. In addition to providing direct federal funding, the INFRA grant program is designed to increase the total investment by state, local, and private partners by leveraging federal grant funds and incentivizing the use of innovative funding strategies, including public-private partnerships.

In addition to encouraging innovative funding strategies, the INFRA grant program encourages the use of innovative technology that can enhance the national transportation system. For example, funding was awarded to the Florida Department of Transportation to implement a **Truck Parking Availability System** (TPAS) along several of its interstates. Eligible INFRA grant projects include the following:


- Highway or bridge projects carried out on the National Highway System (NHS) including projects that add capacity on the Interstate System to improve mobility or projects in a national scenic area;
- Railway-highway grade crossing or grade separation projects; or
- Freight projects that consist of:
 - An intermodal or rail project, or
 - A surface transportation infrastructure project within the boundaries of a public or private freight rail, water (including ports), or intermodal facility, necessary to facilitate direct intermodal interchange, transfer, or access into or out of the facility, and will significantly improve freight movement on the National Highway Freight Network. Federal funds can only support project elements that provide public benefits.

Accelerated Innovation Deployment Demonstration Grants

The **Accelerated Innovation Deployment Demonstration Grant Program** (AID) provides funding, as part of the U.S. Department of Transportation's **Technology and Innovation Deployment Program** (TIDP), as an incentive to accelerate the use of innovation in highway transportation projects. Funds are available for any project activities eligible for assistance under *Title 23, United States Code*. Eligible activities may involve any phase of a highway transportation project between project planning and project delivery, including planning, financing, operation, structures, materials, pavements, environment, and construction that address the TIDP goals. Projects eligible for funding must pilot and demonstrate proven innovative practices or technologies that are a significant improvement from conventional practice.

Competitive Highway Bridge Program

The **Competitive Highway Bridge Program** (CHBP) is a grant program meant to fund highway bridge replacement and rehabilitation projects on public roads. The CHBP replaced the



Highway Bridge Replacement & Rehabilitation Program (HBRRP), and CHBP funding comes from the General Fund. CHBP funds require a federal/state match of 80%/20%, respectively. There are several bridge projects in the FMP that may be eligible for funding through this program.

Transportation Development Credits (TDCs)

TDCs are a federal transportation funding tool used to meet federal funding matching requirements. States can accrue credits when the State, a toll authority, or a private entity funds a capital transportation investment using toll revenues earned on existing toll facilities. Arkansas does not use TDC; however, Texas does use them and allocates 75% of credits to the MPOs in which they were earned. Texas allocates the remaining 25% statewide on a competitive basis.

Tax Increment Financing and Texas Tax Increment Reinvestment Zones

Tax increment financing (TIF) is a public financing method in which local jurisdictions can divert future revenue from a property tax in a specific district to support a public infrastructure project. In the State of Texas, a Tax Increment Reinvestment Zone (TIRZ) is a political subdivision of a local jurisdiction created to implement a TIF strategy.

The formation of a TIRZ is a three-step process that involves both the property owners and the local jurisdiction. Ultimately, an ordinance is passed establishing a governing board for the TIRZ and the zone as a legal entity itself. The board then meets to create a budget for the lifetime of the zone, establishing what projects it will undertake and how they will be financed. The plan is then passed under another ordinance.

TIF or TIRZ strategies could provide local revenue to support first- mile/last-mile infrastructure projects that are not on the federal aid urban system or to provide a source of matching funds for federal grants.

Some MPO member jurisdictions have reported mixed success with TIRZ. The efforts accomplished their goal of providing funding for improved infrastructure, but also had a detrimental effect on general revenue and the ability to sustain basic services. Any TIRZ effort would have to be implemented with careful attention to the area covered and the scale of the reinvestment obligation.

Public-Private Partnerships

A Public-Private Partnership (P3) is a contractual agreement between a public agency (Federal, state or local) and a private entity for a long-term performance-based approach to procure

public infrastructure. The private entity assumes the major share of the risk in terms of financing, constructing and the performance of the project in return for the right to collect revenue from the project over a set period of time. In Texas, this model was used effectively to expand transportation infrastructure such as the Dallas LBJ Expressway and the North Tarrant Express, both sponsored by TxDOT in cooperation with local entities. However, the Texas Transportation Commission has elected to remove toll projects from the TxDOT Unified Transportation Program (UTP) for the time being.

P3 agreements could prove to be useful within the framework of the Texarkana FMP for funding:

- Intermodal/Transload Terminals,
- Projects that address height restrictions involving railroad bridges, and
- Truck Safety Rest Areas/Truck Stops.

Rail and intermodal projects are an opportunity for public-private partnerships with private railroad companies when these projects can provide enough public benefit to justify spending County funding.

Other Financing Options


Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA) Credit Program

The TIFIA Program is a credit program for eligible transportation projects under which the DOT may provide three forms of credit assistance – secured (direct) loans, loan guarantees, and standby lines of credit in order to leverage federal funds by attracting private and other non-federal investment to support critical infrastructure projects. Eligible applicants include state departments of transportation, transit operators, special authorities, local governments, and private entities.

Railroad Rehabilitation and Improvement Financing (RRIF) Credit Program

The RRIF Program provides direct loans and loan guarantees to finance the development of railroad infrastructure. According to the federal register, the Railroad Rehabilitation (RRIF) program authorizes the Federal Railroad Administration (FRA) Administrator to provide direct loans and loan guarantees for projects which:


- Acquire, improve, or rehabilitate intermodal or rail equipment or facilities, including track, components of track, bridges, yards, buildings and shops;

- 
- Refinance outstanding debt incurred for the purposes listed above; and
 - Develop or establish new intermodal or railroad facilities.

RRIF financing allows for up to 100% of project costs with repayment periods of up to 35 years at an interest rate equal to the cost of borrowing to the federal government. The FAST Act also authorized the U.S. Department of Transportation to enter into Master Credit Agreements. Those eligible to finance projects under RRIF include railroads, state and local governments, Government-sponsored authorities and corporations, joint ventures that include at least one railroad, and limited option freight shippers who intend to construct a new rail line, or joint venture with any type of eligible applicant.

CHAPTER 8

ACTION PLAN



This chapter provides an outline of fiscally constrained short-term and mid-term actions that Texarkana MPO can execute to implement the FMP and to further the prioritization and programming of freight projects in its MTP planning processes. The following action plan identifies the steps required to implement the various initiatives included in the FMP, and it also lists which FMP projects (Appendix A) may be programmed for funding in the short- and medium-term given available levels of funding. This chapter also outlines general actions for advancing projects not programmed for funding.

SHORT-TERM ACTION PLAN

The Short-term Action Plan includes those policy action items which the MPO should consider undertaking in the next one to five years. It also contains a listing of FMP projects that are already funded within the horizon of the short-term stage of the MTP program of projects as well as recommendations for additional freight related projects that the MPO should consider for funding. Recommended projects come from the 2045 MTP illustrative projects list, one of the two statewide freight plans or from stakeholder recommendations put forth in the two workshops conducted during the study.

Plan Adoption

The first short-term action is to have the plan adopted by the MPO Policy Board. By adopting the FMP, the Policy Board endorses the plan by which the MPO will follow to improve the multimodal freight transportation system in the Texarkana MPO study area and region. Adoption of the plan allows the MPO to initiate the various steps to begin carrying out the activities outlined in this action plan.

Freight Advisory Committee

To carry out the implementation of the Texarkana FMP, it is recommended that a Freight Advisory Committee be formed. The purpose of the committee would be to advise the Texarkana MPO on freight goals and issues in the region and ensure that freight is being appropriately considered in the regional planning processes. The committee would also be responsible for guiding implementation and updates of the FMP. Members of the committee should, at a minimum, include the following:

- MPO member jurisdiction representatives
- Representatives from Texas and Arkansas Departments of Transportation
- Local business leaders in freight-dependent industry (e.g., TexAmericas Center, Cooper Tire, and SRT)

- Representatives from local economic development organizations (e.g., AR-TX REDI, municipal Chambers of Commerce and economic development representatives of Bowie & Miller County)
- Representatives of railroad companies (e.g., UP, KCS, TNER)
- Representatives of the Texarkana Regional Airport
- Representative from workforce training organizations

The MPO should consult with the FMP steering committee and stakeholders identified during the FMP development process to identify other potential members that could help round out the freight advisory committee representation. The MPO should outline the roles and responsibilities of the advisory committee, as well as the anticipated meeting requirements. Consideration should be given to the kinds of questions the FMP can address to inform the deliberations and decisions of Texarkana MPO's Policy Committee and Technical Committee.


Delivery of Funded Freight Projects

Funded projects (i.e., those included in the MPO's TIP and fiscally constrained MTP project list) represent an asset with the most potential to improve the regional transportation system. The funded freight-related projects in the Freight Transportation System Performance Investment Scenario make a substantial contribution to the regional economy in terms of GDP. But project implementation of programmed projects is not a foregone conclusion.

A top priority for the MPO is to work with the respective State DOTs to ensure that currently funded freight-related projects included in the MPO's 2019-2022 TIP or the implementation (2020-2023) and short-term stage (2024-2029) of the MPO's 2045 MTP advance through the project delivery process. To accomplish this advancement, the MPO should coordinate with project sponsors to ensure intermediate policy and technical steps of project delivery are being accomplished, including moving currently approved MTP projects into subsequent TIP documents covering years beyond 2022 as each new TIP is developed. Table 16 lists these fiscally constrained projects and also indicates the project's current stage of development in the MPO's program of projects.

Short-Term Action Plan Project List

For the short-term stage of the 2045 MTP, there is approximately \$28.4 million in roadway funding from TxDOT and ARDOT that is attributed to categories but not allocated to specific projects. As the MPO further defines projects for these categories, the MPO should, in consultation with the MPO Technical Committee, State DOTs and Policy Board, consider prioritizing appropriate freight related projects as they go about selecting projects to populate



these categories in the fiscally constrained short-term stage of the MTP program of projects. By doing this, the MPO will accelerate the process for securing funding and constructing projects that come from the FMP. As part of this action item, the MPO should identify sponsors for selected projects. Table 17 lists examples of FMP projects that should be considered for inclusion in the fiscally constrained short-term stage of the Texarkana 2045 MTP.

Table 16: FMP Projects Included in Texarkana MPO 2019-2022 TIP or Implementation/Short-term Stages of the Texarkana MPO 2045 MTP

Facility	County	From	To	Description	Included in:
US-82	Bowie	FM-1398	US-67	Improve guardrail to design standards	2020 TIP – Grouped Projects
US-67	Bowie	Arkansas State Line	FM-2148 (N)	Improve guardrail to design standards	2020 TIP – Grouped Projects
US-67	Bowie	0.2 mile west of FM-989	3.6 miles west of FM-2148 (S)	Profile centerline & edgeline markings, centerline bars & edgeline bars	2020 TIP – Grouped Projects
IH-30	Bowie	0.6 mile west of FM-989	Arkansas State Line	Widen existing interstate from 4 lanes to 6 lanes	2045 MTP – Implementation Stage
IH-30	Bowie	FM-3419	FM-989	Construct one-way frontage roads, entrance and exit ramps, and turnarounds	2045 MTP – Implementation Stage
US-71	Bowie	0.2 mile south of IH-30	US-67 (7th Street)	Reconstruct existing 4-lane divided highway	2045 MTP – Implementation Stage
US-71	Miller	Nix Creek	-	Bridge rehabilitation or replacement	2045 MTP – Implementation Stage
US-71	Miller	US-67	IH-30	System preservation	2045 MTP – Implementation Stage
US-67	Miller	Nix Creek	-	Bridge rehabilitation or replacement	2045 MTP – Implementation Stage
IH-30	Miller	US-71	IH-49	Reconstruction	2045 MTP – Short-term Stage

Table 17: FMP Projects to Consider Moving into Short-term Stage of the 2045 MTP Program of Projects

Facility	County	From	To	Description	Need Addressed	Potential Funding Source	Cost Estimate
Richmond Road	Bowie	Mall Drive	Kennedy Lane	Reconstruct roadway	Preservation	2	\$986,359
IH-30	Bowie	0.3 mile west of SS 74	FM-2253	Ramp improvements	Capacity	2	\$2,881,000
US-82	Bowie	At FM-2148 Intersection	-	Widen to add turn lanes	Capacity, Operations	2	\$2,300,000
US-82/E. 9th Street (WB)	Miller	IH-49 Frontage Road	0.24 mile east of Cooper Tire Road	Add right-turn lane; access management treatments	Capacity, Operations	NHPP - Reliability	\$350,000

Truck Safety Roadside Rest Areas (SRRRA)

Truck parking through the building of Safety Roadside Rest Areas (SRRRA) tied for first place in the most important priorities among the participants in the stakeholder workshops. The lack of safe, reliable truck parking has become a national and state issue. Because of the low-cost of investment in SRRAs relative to other infrastructure investments and the emergence of new programs and policy initiatives, SRRAs represent an opportunity for early action.

Both ARDOT and TxDOT have ongoing initiatives related to SRRAs. TxDOT has indicated that another SRRRA workshop is planned for the Texarkana region in the near future. By participating in this workshop and other available SRRRA workshops, the MPO and Freight Advisory Committee can be important facilitators in helping the respective state DOTs recognize the key role that Texarkana can play in this important area due to its key geographic location between major markets combined with the high volume of through truck traffic on the interstate highways in the study area.

Transportation Systems Management and Operations (TSMO)

The safety and efficiency of freight movement requires not only good transportation infrastructure connecting shippers and receivers, but also a strong and intelligent system for managing and operating the transportation system in ways that will support freight movements. Studies have shown that Transportation Systems Management and Operations (TSMO) strategies are among the most cost-effective solutions to many of today's transportation system performance challenges.

Stakeholders identified several issues that can be addressed through TSMO initiatives. These initiatives include the need for wayfinding help for freight operators trying to find a destination, route information to notify drivers of an incident, and help identifying alternate freight routes to avoid the traffic delay; and real-time information on the availability of Truck Safety Rest Area parking spaces. In today's technology environment, these needs are best met with intelligent transportation system (ITS) and communication technology solutions that are among the cornerstones of TSMO strategies.

TSMO presents an early action opportunity to use ITS and communication technology to provide a safer and more efficient freight transportation system. There are several national and state level initiatives in which the MPO and Freight Advisory Committee could participate and actively contribute. TSMO programs are a high priority at the national and state level. Regions that are willing to be early adopters, may find opportunities for partnering with the State DOTs on pilot projects that provide access to new programmatic or discretionary funds.

MID-TERM ACTION PLAN


Coordination with Regional Planning Partners

One of the key priorities for the MPO should be close, sustained coordination and collaboration with regional planning partners and stakeholders, whether or not these partners or stakeholders participate in the Freight Advisory Committee. The placement of these coordination activities in the mid-term action plan should not be interpreted as a suggestion that the MPO should wait to begin this coordination. It is only an acknowledgement that full development of the collaboration will involve not just consultation, but the contribution of funds, which may require creating tax mechanisms or economic investment commitments that may take some time to implement. Elements of this collaboration should include:

- **Public-Private Partnership** – Several of the projects and initiatives included in this scenario require the collaboration of private industry, economic development agencies and the public sector (including the MPO, the respective state DOTs as well as county and city governments). For example, the implementation of an intermodal facility is by its nature an endeavor that requires a public-private partnership. This type of investment includes:
 - Upgrade or building of new public sector roadway infrastructure to provide mobility, access and circulation to the facility;
 - Upgrade or building new rail transport and cargo handling infrastructure; and
 - Building of warehousing and/or distribution infrastructure by customers / contractors.

In many cases implementation and funding will require the use of a mix of private and public funds and many of the grant programs available to underwrite these initiatives are revenue based. The grant program may also require the project (or the project sponsors) to produce revenue to repay a portion of the grant or at least sufficient revenue to demonstrate the sustainability of the project once the grant funding expires.

- **Workforce Development Programs** – The SWOT Analysis identified an educated workforce as a key strength of the region. But the analysis also pointed out the weaknesses related to a small labor pool and the tendency of highly educated or trained labor to leave the area for opportunities in other regions. As the regional economy expands and diversifies, there will be a continuing need for specific technical training or retraining to meet the needs of emerging industry sectors. Examples of challenges and key opportunities include the challenge presented by the nationwide shortage of truckdrivers that is stressing the freight industry and on the opportunity side, the recruiting of new industries such as AR-TX REDI's



initiatives related to Aircraft MRO Firms. These two opportunities are for jobs which use skills and training already provided in the area. Foresight and long-term collaboration are required to ensure that the region's labor pool continues to be a strength that helps with recruiting candidate freight-related industries.

- **Collaboration with Economic Development Partners** – In order to plan and program industry supportive freight infrastructure projects, (e.g., the first mile / last mile program) it will be important for the MPO to keep a finger on the pulse of planned industry expansion or changes in production levels. The Freight Advisory Committee can act as a venue for economic development partners to keep everyone current on regional initiatives that should be brought to the attention of the MPO Technical Committee and Policy Committee when these committees are prioritizing projects or making funding program decisions.

Delivery of Funded Freight Projects

The Mid-Term Action Plan includes monitoring a list of FMP projects that are programmed to be funded and under construction between 2030 and 2039, or sooner if funding allows. The MPO should work with its planning partners to advance funded FMP projects that are currently included in the medium-term stage (2030-2039) of the MPO's 2045 MTP through the project delivery process. Table 18 lists these currently programmed fiscally constrained FMP projects.

Mid-Term Action Plan Project List

For the medium-term stage of the 2045 MTP, there is approximately \$34.6 million in roadway funding from TxDOT and ARDOT that is categorically programmed but not allocated to specific projects. Table 18 lists examples of FMP projects that could, in consultation with the MPO Technical Committee, State DOTs and Policy Board, be considered for inclusion in the medium-term stage of the 2045 MTP fiscally constrained program of projects based on available levels of funding in the appropriate categories.

Table 18: FMP Projects Included in Medium-term Stage of the Texarkana MPO 2045 MTP

Facility	County	From	To	Description	Need Addressed	Potential Funding Source	Cost Estimate
US-82	Bowie	0.2 mile west of IH-369 in Texarkana	0.7 mile west of FM-989 in Nash	Widen existing 2-lane highway to 4-lane divided	Capacity	4	\$53,349,586
US-67	Bowie	0.2 mile west of FM-989	FM-2148 (S)	Widen to 4-lane divided	Capacity	2, 4	\$38,247,067
FM-989	Bowie	IH-30 south Frontage Road	0.5 mile south of US-82	Widen existing 4-lane undivided highway to 4-lane divided	Capacity	2, 11	\$12,944,248
SL-151	Miller	State Line Avenue	IH-49	Rehabilitation	Preservation	STBG	\$13,774,637
IH-49	Miller	SL-151	US-82	Rehabilitation	Preservation	NHPP - Bridge, NHFP	\$34,375,643
IH-30	Miller	IH-49	SH-108	Reconstruction	Preservation	NHFP, NHPP - Preservation, STBG	\$57,292,738

Table 19: FMP Projects to Consider Moving into Medium-term Stage of the 2045 MTP Program of Projects

Facility	County	From	To	Description	Need Addressed	Potential Funding Source	Cost Estimate
FM-3419	Bowie	0.9 mile west of FM-2148 at IH-30 Overpass	-	Increase overhead clearance to 18'6"	Operations	12	\$1,500,000
US-67 (7th Street)	Bowie	Southwestern Drive	0.1 mile east of Wake Village Road	Reconstruct roadway	Preservation	2	\$3,009,501
IH-49	Miller	Near US-82	-	Construct truck parking rest area with amenities	Safety	HSIP	\$5,000,000

Hazardous Materials Routing

Due to the type of activity at and location of the Red River Army Depot, hazardous materials (e.g., ammunition, explosives, or related materials) are often transported through the MPO study area. The transport of hazardous materials poses a potential risk to residents in the region should an incident occur involving a vehicle carrying this type of cargo. As of 2019, it is not required by law to establish designated routing for vehicles carrying hazardous materials in the region. However, the MPO should work with its member jurisdictions to consider conducting a study for potential designation of routing or routing restrictions for non-radioactive hazardous materials (NRHM). The purpose of an NRHM routing designation is to establish routes for vehicles carrying NRHM that minimize potential risk of an accident and minimize the potential impact should an accident occur. Such a study should determine the amount of NRHM traveling through the region and the general routing of NRHM cargo and should identify alternative routes (or route restrictions) to direct vehicles carrying NRHM away from higher-density population and employment centers.

LONG-TERM VISION PLAN

Remaining projects included in this plan that are not already funded or recommended to be programmed for funding (i.e., those not listed in Tables 16 through 19) make up the unconstrained long-term vision project list shown in Appendix A. In conjunction with the MPO's 2050 MTP update, the MPO should consider incorporating any unfunded FMP projects into the future project prioritization and programming process. Among the projects that received a high level of support from stakeholders was an intermodal rail-truck transfer terminal and the bypass/loop roadways that provide alternative, secondary routes in the event a primary route is closed.

To advance these long-term projects, the MPO, in coordination with the Freight Advisory Committee, should consider building on early strategic initiatives and work with regional planning partners to identify sponsors and to program larger projects (e.g., Northern Loop or US-59 upgrade to interstate standard) in phases. Findings from ongoing studies will help inform this activity. The MPO should participate in any planned studies to ensure regional coordination. The MPO should also work with the respective State DOTs ensure that the freight-specific evaluation criteria in the project scoring process reflect the priorities of the FMP and the Freight Advisory Committee.

APPENDICES

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APPENDIX A: FMP PROJECT LIST WITH COSTS AND POTENTIAL FUNDING SOURCE

See below tables.

Table A-1: Project List – Freight Transportation System Performance Investment Scenario

Facility	County	From	To	Description	Potential Funding Source	Cost Estimate
IH-30	Bowie	0.6 mile west of FM-989	Arkansas State Line	Widen existing interstate from 4 lanes to 6 lanes	4, 12, 2, NHFP	\$86,409,204
IH-30	Bowie	FM-3419	FM-989	Construct one-way frontage roads, entrance and exit ramps, and turnarounds	2, 4, NHFP	\$24,973,800
US-71	Bowie	0.2 mile south of IH-30	US-67 (7th Street)	Reconstruct existing 4-lane divided highway	2, 12	\$12,203,892
US-82	Bowie	0.2 mile west of IH-369 in Texarkana	0.7 mile west of FM-989 in Nash	Widen existing 2-lane highway to 4-lane divided	4	\$53,349,586
US-67 (E. 7th Street)	Bowie	0.2 mile west of US-82 at KCS Railroad	-	Replace railroad underpass	2, 6	\$20,000,000
US-82	Bowie	0.2 mile west of Texas Blvd. at KCS Railroad	-	Replace railroad underpass	2, 6	\$20,000,000
FM-3419	Bowie	0.9 mile west of FM-2148 at IH-30 Overpass	-	Increase overhead clearance to 18'6"	12	\$1,500,000
Cowhorn Creek Road	Bowie	0.7 mile west of SH-93 at IH-30 Overpass	-	Increase overhead clearance to 18'6"	4, 6, 12	\$2,000,000
US-59 to IH-369 Director Connector (NB)	Bowie	1.6 mile south of US-67 at SH-151 Overpass	-	Increase overhead clearance to 18'6"	4, 6, 12	\$2,000,000

Facility	County	From	To	Description	Potential Funding Source	Cost Estimate
US-67 (7th Street)	Bowie	Southwestern Drive	0.1 mile east of Wake Village Road	Reconstruct roadway	2	\$3,009,501
Richmond Road	Bowie	Mall Drive	Kennedy Lane	Reconstruct roadway	1, 2, 11	\$986,359
IH-30	Bowie	MPO Boundary/Leary Road	FM-3419	Construct one-way frontage roads, entrance and exit ramps, and turnarounds	2, 4, NHFP	\$16,031,326
IH-30	Bowie	0.3 mile west of SS 74	FM-2253	Ramp improvements	2	\$2,881,000
US-82	Bowie	FM-1398	US-67	Improve guardrail to design standards	8	\$143,000
IH-30	Bowie	MPO Boundary/Leary Road	0.6 mile west of FM-989	Widen existing interstate from 4 lanes to 6 lanes	4, 12, NHFP	\$54,614,632
US-82	Bowie	FM-2253	0.7 mile west of FM-989 in Nash	Widen existing 2-lane highway to 4-lane divided	4, 12	\$95,638,892
US-82	Bowie	At FM-2148 Intersection	-	Widen to add turn lanes	2	\$2,300,000
US-59	Bowie	SL-151	South of FM-2148	Upgrade 4-lane divided highway to interstate standards (future IH-369)	4, 12	\$328,000,000
IH-369	Bowie	IH-30	SH-93	Widen existing 4-lane freeway to 6-lane freeway	2, 4, 12	\$40,000,000
IH-369	Bowie	Near US-67 Interchange	-	Construct truck parking rest area with amenities	8, 9, FHWA INFRA grant	\$5,000,000

Facility	County	From	To	Description	Potential Funding Source	Cost Estimate
IH-30	Bowie	Texarkana Travel Information Center	-	Expand available truck parking spaces	8, 9, FHWA INFRA grant	\$500,000
Northern Loop	Bowie	IH-49	IH-30	Construct rural highway	4, 11, 12	\$75,000,000
Southern Loop (TX)	Bowie	US-59	South State Line Avenue	Construct rural highway	4, 11, 12	\$45,505,333
Waco Street	Bowie	Kilgore Road	Robison Road	Reconstruct roadway	Local	\$9,764,000 (combined with Falvey Ave project)
Falvey Avenue	Bowie	Waco Street	Terry Street	Reconstruct roadway	Local	\$9,764,000 (combined with Waco St project)
US-67	Bowie	Arkansas State Line	FM-2148 (N)	Improve guardrail to design standards	8	\$65,000
US-59/IH-30 Connector	Bowie	US-59	IH-30	Construct rural highway	4, 11, 12	\$85,987,861
FM-1397	Bowie	University Avenue	0.1 mile north of North Park Road	Widen to 4-lane divided	2	\$35,549,591
US-67	Bowie	0.2 mile west of FM-989	FM-2148 (S)	Widen to 4-lane divided	2, 4	\$38,247,067
US-67	Bowie	0.2 mile west of FM-989	3.6 miles west of FM-2148 (S)	Profile centerline & edgeline markings, centerline bars & edgeline bars	2	\$269,000
US-71	Miller	Nix Creek	-	Bridge rehabilitation or replacement	NHPP - Bridge	\$1,760,000
US-71	Miller	US-67	IH-30	System preservation	NHPP - Preservation	\$9,900,000

Facility	County	From	To	Description	Potential Funding Source	Cost Estimate
US-67	Miller	Nix Creek	-	Bridge rehabilitation or replacement	NHPP - Bridge	\$1,518,984
IH-30	Miller	US-71	IH-49	Reconstruction	NHFP, NHPP - Preservation, STBG	\$36,545,075
SL 151	Miller	State Line Avenue	IH-49	Rehabilitation	STBG	\$13,774,637
IH-49	Miller	SL-151	US-82	Rehabilitation	NHPP - Bridge, NHFP	\$34,375,643
IH-30	Miller	IH-49	SH-108	Reconstruction	NHFP, NHPP - Preservation, STBG	\$57,292,738
SH-196 (Division St)	Miller	US-71 (East Street)	IH-49	Reconstruction	STBG	\$8,476,464
US-82/E. 9th Street (WB)	Miller	IH-49 Frontage Road	0.24 mile east of Cooper Tire Road	Add right-turn lane; access management treatments	NHPP - Reliability, STBG	\$350,000
US-82	Miller	E. Broad Street at UP Rail Underpass	-	Underpass replacement	NHPP - Bridge, STBG	\$20,000,000
US-71 (East St)	Miller	Maud Street	500 ft south of Forest Avenue	Reconstruction	STBG	\$3,249,545
IH-30	Miller	Jefferson Avenue	MPO Boundary (eastern)	Construct one-way frontage roads, entrance and exit ramps, and turnarounds	NHFP	\$47,342,510
IH-49 Frontage Road	Miller	SH-237 (Blackman Ferry Road)	Line Ferry Road	Construct new 2-lane west frontage road	STBG	\$1,887,707
IH-49 Frontage Road	Miller	US-71 (East Street)	SH-237 (Blackman Ferry Road)	Construct new 2-lane east frontage road	STBG	\$1,648,796

Facility	County	From	To	Description	Potential Funding Source	Cost Estimate
SH-245 (Four States Fair Pkwy) frontage road	Miller	South State Line Avenue	Line Ferry Road	Construct new 2-lane south frontage road	STBG	\$6,174,754
US-67 (E Broad St)	Miller	Arkansas Blvd	MPO Boundary	Widen from 2 to 4 lanes	STBG	\$17,400,000
IH-30	Miller	IH-49	MPO Boundary (eastern)	I-30 with 6 lanes	NHPP - Bridge, STBG, NHFP	\$19,750,000
IH-30	Miller	Texas State Line	IH-49	I-30 with 6 lanes	NHFP, NHPP, STBG	\$20,000,000
US-82	Miller	SH-237	MPO Boundary (eastern)	Widen US-82 to provide 4 travel lanes	NHPP, STBG	\$20,000,000
IH-49	Miller	Near US-82	-	Construct truck parking rest area with amenities	STBG, HSIP, FHWA INFRA grant	\$5,000,000
Southern Loop (AR)	Miller	South State Line Avenue	IH-49	Construct rural highway	STBG	\$35,807,475
SH-237	Miller	US-71	US-67	Widen 2 lanes to 3 lanes	STBG	\$19,420,800
IH-30	Miller/ Bowie	MPO Boundary (east & west)	-	Install Truck Parking Availability System (TPAS)	9, AID or FHWA INFRA grant, private sponsorship	\$300,000 per rest area

Table A-2: Project List – Strategic Economic Growth Investment Scenario

Facility	County	From	To	Description	Potential Funding Source	Cost Estimate
Leary Road	Bowie	Love's Travel Stop along IH-30	-	Expand available truck parking spaces	Public-Private Partnership	\$1,000,000
S. Lake Drive	Bowie	Exxon Gas Station at US-59/IH-369 Interchange	-	Expand available truck parking spaces	Public-Private Partnership	\$600,000
FM-989	Bowie	IH-30 south Frontage Road	0.5 mile south of US-82	Widen existing 4-lane undivided highway to 4-lane divided	2, 11	\$12,944,248
Alumax Drive	Bowie	FM-989	FM-2148	Rehabilitate city street to meet DOT's Farm to Market (FM) standards	Local	\$1,900,000
Alumax Drive	Bowie	At FM-989	-	Install traffic signals and dedicated turn lanes	Local	\$1,800,000
SH-108	Miller	Flying J Travel Center along IH-30	-	Expand available truck parking; site traffic circulation improvements	Public-Private Partnership	\$1,250,000
E. 54th Street	Miller	Camp I-30 Truck Stop	-	Rehab existing truck stop and add amenities	Public-Private Partnership	\$3,000,000
E. 19th Street	Miller	US-67	0.4-mile northeast of Abernathy Drive	Widen from 2 to 3 lanes	Local	\$3,329,128
Arkansas Boulevard	Miller	US-67/UP Railroad At-grade Crossing	-	Construct grade-separated crossing	STBG, HSIP	\$10,000,000
Intermodal Facility	-	-	-	Construct intermodal/transload freight facility with rail yard	Federal grant, Public-Private Partnership	\$65,000,000

APPENDIX B: PROJECT LIST FUNDING CATEGORIES

Texas

In Texas, transportation funding is apportioned through 12 funding categories. Categories 1-9 combine formula funding from both federal (FAHP) and state programs. Categories 10, 11, and 12 are strategic and discretionary funding categories. The following lists and provides a general overview of each funding category, including potential eligibility for FMP projects:

- **Category 1 - Preventive Maintenance and Rehabilitation:** Preventive maintenance and rehabilitation on the existing state highway system, including minor roadway modifications to improve operations and safety; and the installation, rehabilitation, replacement, and maintenance of pavement, bridges, traffic control devices, traffic management systems, and ancillary traffic devices. FMP projects on state roadways within the Texarkana MPO study area are eligible for Category 1 funding.
- **Category 2 - Metropolitan and Urban Area Corridor Projects:** Mobility and added capacity projects along a corridor that improve transportation facilities in order to decrease travel time and the level or duration of traffic congestion, and safety, maintenance, or rehabilitation projects that increase the safe and efficient movement of people and freight in metropolitan and urbanized areas. FMP projects on state roadways within the Texarkana MPO study area are eligible for Category 2 funding.
- **Category 3 - Non-Traditionally Funded Transportation Projects:** Transportation-related projects that qualify for funding from sources not traditionally part of the state highway fund including state bond financing under programs such as Proposition 12 (General Obligation Bonds), Texas Mobility Fund, pass through toll financing, unique federal funding, regional toll revenue, and local participation funding. For Texarkana roadways, funding for any project with Category 3 funds is determined by state legislation, Texas Transportation Commission approved minute order, or local government commitments.
- **Category 4 - Statewide Connectivity Corridor Projects:** Mobility and added capacity projects on major state highway system corridors which provide statewide connectivity between urban areas and corridors, to create a highway connectivity network composed of the Texas Highway Trunk System, National Highway System, and connections from those two systems to major ports of entry on international borders and Texas water ports. Projects included in the Texarkana FMP may be eligible for funding under Category 4 Urban Connectivity.
- **Category 5 - Congestion Mitigation and Air Quality Improvement:** Congestion mitigation and air quality improvement area projects to address attainment of a national ambient air quality standard in nonattainment areas of the state. Texarkana is not in a non-attainment area as of 2019; projects in the FMP are not eligible for Category 5 funds at this time.

- Category 6 - Structures Replacement and Rehabilitation Bridge Program; Railroad Grade Separation Program: Replacement and rehabilitation of deficient existing bridges located on public highways, roads, and streets in the state; construction of grade separations at existing highway and railroad grade crossings; and rehabilitation of deficient railroad underpasses on the state highway system. Bridge projects in the FMP may be eligible for Category 6 funding if they meet established criteria.
- Category 7 - Metropolitan Mobility/Rehabilitation: Transportation needs within the boundaries of designated metropolitan planning areas of metropolitan planning organizations located in a transportation management area. Texarkana is not a TMA as of 2019, and therefore projects in the FMP are not eligible for Category 7 funds.
- Category 8 – Safety: Safety-related projects both on and off the state highway system including the federal Highway Safety Improvement Program, Railway-Highway Crossing Program, Safety Bond Program, and High-Risk Rural Roads Program. Projects in the FMP may be eligible for Category 8 funding if they improve safety.
- Category 9 - Transportation Alternatives Program: Transportation-related activities as described in the Transportation Alternatives Set -Aside Program, such as on and off-road pedestrian and bicycle facilities, and infrastructure projects for improving access to public transportation. No projects in the FMP qualify for Category 9 funding.
- Category 10 – Supplemental Transportation Projects: Transportation-related projects that do not qualify for funding in other categories, including landscape and aesthetic improvement, erosion control and environmental mitigation, construction and rehabilitation of roadways within or adjacent to state parks, fish hatcheries, and similar facilities, replacement of railroad crossing surfaces, maintenance of railroad signals, construction or replacement of curb ramps for accessibility to pedestrians with disabilities, and miscellaneous federal programs. No projects in the FMP qualify for Category 10 funding.
- Category 11 – District Discretionary: Projects eligible for federal or state funding selected at the district engineer’s discretion. TxDOT districts select projects using a performance-based prioritization process that assesses district-wide maintenance, safety, or mobility needs. Projects in the FMP may be considered for funding under the TxDOT Atlanta District Discretionary program.
- Category 12 – Strategic Priority: Projects with specific importance to the state including those that generally promote economic opportunity, increase efficiency on military deployment routes or retain military assets in response to the federal military base realignment and closure reports, and maintain the ability to respond to both man made and natural emergencies. Projects included in the FMP could compete for Category 12 funding, except for the Clear Lanes Program funding.

Arkansas


Arkansas divides the Federal-Aid Highway Program funding received into its own state-level funding categories (Table B-1).

Table B-1: Federal-Aid Highway Program Apportionment Breakdown for Arkansas

Core Formula Highway Program	State-Level Funding Category
National Highway Performance Program	Pavement
	Bridge
	System Reliability
Surface Transportation Block Grant	Urbanized Area > 200K
	STBG Flex, City, Town and CMAQ
	Off-System Bridge
Surface Transportation Block Grant (Transportation Alternatives)	Urbanized Area > 200K
	STBG Flex, City and Town
	Recreational Trails
Highway Safety Improvement Program	--
National Highway Freight Program	--

Below is a list and general description of the federal transportation funding programs through which Arkansas receives funding that may be used to fund projects included in the FMP:


- National Highway Performance Program (NHPP): In general, the NHPP provides support for the condition and performance of the National Highway System (NHS), and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a State’s asset management plan. Restoration work on all State Highway System bridges is also an eligible use of these funds.
- National Highway Freight Program (NHFP): The NHFP is for projects that will improve the efficient movement of freight on the National Highway Freight Network (NHFN) and support several goals, including:
 - Investing in infrastructure and operational improvements that strengthen economic competitiveness, reduce congestion, reduce the cost of freight transportation, improve reliability, and increase productivity;
 - Improving the safety, security, efficiency, and resiliency of freight transportation in rural and urban areas;
 - Improving the state of good repair of the NHFN;

- 
- Using innovation and advanced technology to improve NHFN safety, efficiency, and reliability;
 - Improving the efficiency and productivity of the NHFN;
 - Improving State flexibility to support multi-State corridor planning and address highway freight connectivity; and
 - Reducing the environmental impacts of freight movement on the NHFN.
- Surface Transportation Block Grant Programs (STBGP): The STBGP provides flexible funding that may be used by States for projects to preserve and improve the conditions and performance on any State highway or bridge.
 - Highway Safety Improvement Program (HSIP): The HSIP funds are eligible for projects that will achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal lands. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance.



APPENDIX C: SWOT ANALYSIS WORKSHOP MEMO

See following pages.



DATE: July 5, 2019
TO: Rea Donna Jones
CC: Jim Harvey
FROM: Chris Stansbury
RE: Texarkana MPO Freight Mobility Plan - Stakeholder Workshop #1 Feedback Summary

INTRODUCTION

As part of the Texarkana Metropolitan Planning Organization (MPO) Freight Mobility Plan (FMP), the MPO hosted a stakeholder workshop to gather input about freight mobility and industry in the Texarkana MPO planning area using a Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis. The SWOT Analysis involved discussion of three main topics: economy, infrastructure, and operations. The objectives of the workshop included the following:

- Gather information about freight mobility and industry from regional experts;
- Identify what the region does or doesn't do well to support freight industry and transportation; and
- Identify factors outside the region that may impact freight plans for the region.

This memo documents information about the workshop and the results of the SWOT Analysis activities, as well as summarizes the feedback received from stakeholders. The information provided in this memo will be used to identify current freight-related deficiencies in the Texarkana MPO planning area and to inform decision-making about transportation investments that support freight activity.

WORKSHOP INFORMATION AND ATTENDANCE

The workshop was held at Ark-Tex Council of Governments (ATCOG) offices on May 29, 2019. Twenty-one stakeholders attended, including representatives from the following organizations:

- Texarkana MPO
- Federal Highway Administration – Texas Division
- Texas Department of Transportation- Atlanta District & (TPP-Freight)
- Arkansas Department of Transportation
- Ark-Tex Council of Governments
- City of Texarkana, TX
- City of Texarkana, AR
- Cass County, TX
- Texarkana Aluminum, Inc.
- Texarkana, TX Fire Department – Office of Emergency Management
- Texarkana Chamber of Commerce
- Workforce Solutions Northeast Texas
- TexAmericas Center
- AR-TX REDI
- MOEMs

SUMMARY OF STAKEHOLDER FEEDBACK

Below is a summary of feedback received for each of the different SWOT Analysis factors. Each SWOT Analysis factor is described as follows:

- **Strengths** are internal characteristics of a region’s economy, freight system, and/or operations that give it an advantage over other regions.
- **Weaknesses** are internal characteristics of a region’s economy, freight system, and/or operations that give it a disadvantage compared to other regions.
- **Opportunities** are external elements that a region could use to its advantage to better support freight mobility or industry.
- **Threats** are external elements (e.g. regional competition, environmental issues, industry changes) that could inhibit freight mobility or industry growth.

Strengths

The Texarkana region has numerous economic assets. The multigenerational businesses located in the region employ residents and provide a strong base for the local economy. The region also has a well-trained, well-educated workforce. Education opportunities provided by local universities/colleges, as well as training provided at nearby military operations (i.e. Red River Army Depot), help to replenish this workforce. The local economy also provides relatively attractive wages.

Due to its location and current infrastructure (particularly the multiple interstates and US highways that run through the MPO planning area), several large metropolitan areas with relatively high populations and economic activity (e.g. Dallas-Fort Worth, Shreveport, Little Rock) can be easily accessed from Texarkana. The region is also an accessible hub for retail and medicine.


Additionally, local and state governments are currently working together to coordinate and support each other's plans. The political environment among the various municipalities, and between states, is one that is positive and supportive.

Weaknesses

Economically, the region's relatively small workforce and high wages make it difficult to attract large employers. Lack of land availability also makes development difficult and raises barriers to outward expansion. Additionally, the low-density development outside of the loop (i.e. IH-30, IH-369, SH 151, and IH-49 surrounding Texarkana) can make it difficult to attract or sustain business, in part due to the inability to provide broadband internet service in some areas. A lack of affordable housing is also an issue for the region.

The region has some infrastructure-related weaknesses, such as the lack of a transload facility that can handle multiple commodity types. Poor street design and insufficient roadway capacity for smaller, local roadways (i.e. roads that are not designed to handle heavy freight) constrain access to some of the major freight facilities and can lead to maintenance issues. The region's roadways are also not designed to handle the heavier loads (e.g. mining, logging, double trailers) that are frequently transported through the region, which can cause additional wear. Additionally, some of the roadways connecting to industrial/manufacturing sites that are expected to develop in the coming years (e.g. county roads connecting to TexAmericas Center) do not have the capacity to support anticipated increases in freight truck traffic.

A lack of on-site parking at freight facilities also causes issues, as truckers have to park in areas that are not designed to support such large vehicles, which can result in property damage or



unauthorized use of somebody else's property. Similarly, there is a lack of truck pull-offs and/or rest areas for long-haul freight truckers. As a result, roadways can be damaged as trucks pull off in areas that are not designed to support this type of traffic.

In terms of operations, there is a relatively large number of crashes that have occurred along IH-30 between Kings Highway and New Boston. Wayfinding can be an issue for truckers traveling in the region, particularly for those using GPS navigation. Inaccurate directions often lead to trucks trailblazing through neighborhoods or areas not designed to support truck traffic (e.g. shopping centers, malls, and places in downtown Texarkana) and sometimes causing property damage.


A particular challenge for the Texarkana MPO is that its boundary encompasses two different states, both with their own policies, regulations, and planning priorities. By nature, planning efforts for the area require more coordination and consideration of different factors. One specific issue is that the states' departments of transportation have different size and weight limits for freight. Furthermore, there are some connectivity gaps with frontage roads on the Arkansas side of Texarkana, but there are no plans for ARDOT to build more frontage roads in the area.

Another weakness for the region is that there is not a dedicated local incident management system in place. There are no bypass facilities for first responders in the case of an incident. Finally, there is sometimes poor communication and coordination among some of the key stakeholders for the region's freight industry.

Opportunities

As a counterpoint to the aforementioned challenge of coordinating planning efforts between the two states' transportation departments, there is strong political will on both sides to work together to improve and invest in the region's economy and transportation system. There is also opportunity for local businesses to partner with schools in the region to provide training or form trade programs and further strengthen the area's workforce.

With regards to infrastructure, the Texarkana region has the opportunity to improve on multiple fronts. The Texarkana MPO planning area is located roughly where long-haul truck drivers traveling from major metro areas need to stop for breaks, as required by the U.S. Department of Transportation Hours of Service regulations. The creation of safety rest areas or parking areas with better amenities for truckers would make the area more desirable for roadway freight movement while also improving roadway safety. The development of these rest areas, among other things, could be fueled by the initiation of public-private partnerships and/or tax credits.



Investment in the area's transportation system could also come in the form of multimodal improvements. Investment in the airport, which is currently underutilized, could help the region to grow its footprint in the e-commerce and warehouse/distribution industries. There appears to be potential demand for expanded rail facilities, as the Union Pacific railyard is operating at capacity. Expanding capacity at railyards or constructing short-line rail in the area could spur freight-related business. There is also demand for a transload facility, with potential locations being TexAmericas Center or in the vicinity of the regional airport.

Though a lack of developable land was noted as a weakness, there is a large amount of available commercial land located just outside of the MPO boundary at TexAmericas Center, which has a robust development plan. There is also the opportunity to improve wayfinding and communication through contacting private companies and agencies responsible for providing alerts, directions, and traffic information.

Threats

In contrast to its numerous opportunities, the region also faces threats to its freight-related economy, infrastructure, and operations. The economic shift from transportation and manufacturing toward technology and service industries is expected to reshape the area's economy in the coming years and will require adaptability. This region also faces economic competition from the surrounding larger urban areas.

The expected increase in traffic and congestion can also be seen as a threat. High levels of congestion will make the area less desirable for freight activity and could create negative economic, infrastructural, and operational externalities. Resulting wear and tear on the region's roadways, especially its freight corridors, may create safety issues and a need for funding to be allocated to roadway maintenance. This issue may be exacerbated due the nature of some of the heavy freight truck traffic in the area (e.g. logging shipments).

One safety threat that is specific to the region is the large volumes of explosives and over-sized loads that are transported through the region. Without proper safety rest areas or facilities for trucks carrying this type of cargo, this becomes an important public safety issue. A potential threat related to resilience is that there are limited north-south travel options in the MPO planning area, and few alternative routing options if IH-30 were to be shut down unexpectedly for any reason.

SWOT ANALYSIS RESULTS BY TOPIC

The following figures below show the results of the SWOT Analysis for each of the three main topics discussed during the workshop.

Topic 1 – Economy

Strengths

- Multi-generational businesses
- Located near several large cities
- Well-trained workforce and low unemployment
- Continuing education of workforce at universities
- Coordination between state governments
- Area attracts retail and hospitals
- Good wages
- High levels of multimodal freight traffic

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- Current cooperation and support between state governments
- Formation of public-private partnerships, especially relating to education
- Airport investment
- TexAmericas Center development
- Expansion of e-commerce and warehouse/distribution industries

Opportunities

Weaknesses

- Not enough people in the workforce
- Lack of land availability constrains the ability to build out
- Lack of affordable housing
- Low density development outside the loop not suitable for attracting business; inability to provide services such as broadband internet

- Shift from transportation and manufacturing industries toward technology and service industries
- Economic competition from surrounding metropolitan areas

Threats

Topic 2 – Infrastructure

Strengths

- MPO's freight system includes three interstates and two rail lines
- Connectivity/gateway to multiple large urban areas
- Available sites to support freight-related industry and facilities

Weaknesses

- Coordination of planning efforts and different rules between states
- Last-mile access concerns and constrained access to major facilities
- No transload facilities
- Lack of rest areas, pull-offs, and on-site parking for truckers
- Roadways not designed to handle heavy trucks or extra large loads
- Vertical clearance issues
- Insufficient capacity to support new industrial growth at major sites

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- Creation of safety rest areas
- Increase railroad capacity
- Tax credits or public-private partnerships to provide more truck parking
- Improvements for regional airport and other facilities to support e-commerce industry growth
- Demand for transload facility

- Increased freight traffic causing wear and tear on roadways
- Lack of alternative routing or plans in case of unexpected closures of key roadways, particularly I-30

Opportunities

Threats

Topic 3 – Operations

Strengths

- Highway system is operating at an acceptable level of service
- Planned improvements to major highways

Weaknesses

- Poor truck route signage and/or incorrect GPS directions
- ARDOT does not plan to build frontage roads in the area
- Lack of coordination between rail and other modes
 - Crashes on I-30, particularly between Kings Highway and New Boston
 - Access issues for first responders; no emergency bypass
- Lack of an effective incident management system

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- Provide wayfinding signage and improved communications for truckers
- Work with navigation providers to provide accurate truck routing directions
- Increase short-line rail lines
- Improved coordination with rail representatives

- Increasing traffic and congestion as region grows
- Lack of safety areas for trucks transporting explosives through the MPO planning area

Opportunities

Threats

APPENDIX D: STAKEHOLDER PRIORITIZATION OF FREIGHT ISSUES

Table D-1 lists the freight system issues identified from current conditions analysis and stakeholder feedback in order of priority as determined by attendees of the second FMP stakeholder workshop in August 2019. At this workshop, stakeholders were presented with a list of nine different issues and given six stickers to distribute among the list of issues in order to indicate priority. Issues receiving more stickers received higher priority. In addition to the list of nine issues, “new alternate routes” was listed as an issue for consideration. These priorities were referenced and used to guide project development and prioritization as part of the FMP.

Table D-1: Prioritized Freight System Issues

Issue	# of Votes	Rank
Insufficient number of truck parking facilities, safety rest areas, or pull-off areas	14	1
Few alternative routing options if major highways are shut down	14	1
Lack of frontage roads in key areas	10	3
Poor wayfinding signage	7	4
Poor pavement condition	6	5
Lack of information communication systems	5	6
Low vertical clearances	4	7
Insufficient roadway capacity and design on smaller county or access roads	4	7
Other – other new routes	1	9
Crashes on major highways	0	10

APPENDIX E: 2017 TEXARKANA REGIONAL INDUSTRY SECTORS BY TOTAL OUTPUT

Display Description	Total Output	NAICS
Metal coating and nonprecious engraving	\$4,281,838.51	332812 (metal coatings)
Other basic organic chemical manufacturing	\$37,408,654.03	424610 & 424690 (plastics & chemicals)
Petroleum lubricating oil and grease manufacturing	\$10,906,710.74	424710 (petroleum)
Fruit farming	\$381,232.21	423480 (fruits/vegetables)
Sawmill, woodworking, and paper machinery	\$1,861,675.03	333999 (other equipment)
Rendering and meat byproduct processing	\$86,733,469.29	311612 (meat processing)
Commercial and industrial machinery and equipment rental and leasing	\$26,908,955.84	423830 (industrial machinery)
Pipeline transportation	\$7,814,433.73	486110/210 (pipeline transportation)
Extraction of natural gas and crude petroleum	\$36,180,125.26	424710 (petroleum)
Warehousing and storage	\$19,349,478.84	493110 (general warehousing)
Poultry and egg production	\$36,749,669.59	311615 (poultry processing)
Flour milling	\$11,134,633.20	311212 (rice milling)
Wineries	\$978,013.85	312130 (wineries)
Other commercial service industry machinery manufacturing	\$1,689,297.34	333413 (industrial equipment)
Relay and industrial control manufacturing	\$643,979.18	423830 (industrial machinery)
Other basic inorganic chemical manufacturing	\$1,229,021.85	424610 & 424690 (plastics & chemicals)
Support activities for oil and gas operations	\$5,496,571.06	213112 (oil support activities)
Frozen cakes and other pastries manufacturing	\$648,282.54	311412 (frozen foods)
Breweries	\$4,755,750.17	312120 (breweries)
Dairy cattle and milk production	\$6,501,637.35	311511 (milk)
Retail - Building material and garden equipment and supplies stores	\$61,751,123.50	493110 (general warehousing)
Retail - Motor vehicle and parts dealers	\$120,746,324.35	423120 (motor vehicle parts)

Other plastics product manufacturing	\$8,203,959.63	424610 & 424690 (plastics & chemicals)
Ammunition, except for small arms, manufacturing	\$119,494,257.63	332992/3 (ammunition; small arms; percussion caps)
Cut stock, resawing lumber, and planing	\$2,703,781.71	423310 (lumber)
Petrochemical manufacturing	\$328,341,192.18	324199 (petrochemical manufacturing)
Commercial and industrial machinery and equipment repair and maintenance	\$23,747,796.48	423830 (industrial machinery)
Machine shops	\$10,165,916.00	332710 (machine shops)
Bread and bakery product, except frozen, manufacturing	\$16,363,511.41	311812 (bakery)
Vegetable and melon farming	\$492,977.78	423480 (fruits/vegetables)
Other miscellaneous chemical product manufacturing	\$4,975,365.14	424610 & 424690 (plastics & chemicals)
Retail - Furniture and home furnishings stores	\$23,439,622.64	442299 (home furnishing)
Bottled and canned soft drinks & water	\$15,053,073.51	312112 (bottled water), 312111 (soft drinks)
Petroleum refineries	\$240,270,946.03	424710 (petroleum)

TEXARKANA METROPOLITAN PLANNING ORGANIZATION

RESOLUTION # 9-2020

A RESOLUTION BY THE POLICY BOARD OF THE TEXARKANA METROPOLITAN PLANNING ORGANIZATION ADOPTING THE TEXARKANA FREIGHT MOBILITY PLAN FOR THE STUDY AREA AND AUTHORIZING ITS SUBMISSION TO THE ARKANSAS DEPARTMENT OF TRANSPORTATION (ARDOT), AND TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT).

WHEREAS, the Texarkana Metropolitan Planning Organization (MPO) for the Texarkana metropolitan planning area, is responsible for performing transportation planning activities with the Texarkana Study Area Boundary, and

WHEREAS, pursuant to federal requirements, the Texarkana MPO conducts multimodal, regional-level planning studies as part of the metropolitan transportation planning process, the results of which are considered for incorporation into Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP); and

WHEREAS, in 2019 the Texarkana MPO has updated and developed a new Freight Mobility Plan pursuant to the 2018-2019 Unified Planning Work Program (UPWP) has developed a Regional Freight Mobility Plan for the surrounding region of Texarkana; and

WHEREAS, the Texarkana MPO coordinated with other planning and engineering studies conducted by the Arkansas Department of Transportation (ARDOT), Texas Department of Transportation (TXDOT), Texas Transportation Institute (TTI), local jurisdictions, and other entities; and

WHEREAS, the Texarkana Freight Mobility Plan updates goals and objectives support the Texarkana MTP vision of providing a reliable multimodal transportation system which ensures safety for all transportation system users, equitably enhances accessibility and connectivity within the region and beyond, preserves the environment, and promotes a high quality of life and economic wellbeing; and

WHEREAS, the Technical Committee recommended for adoption and submission of the Texarkana Freight Mobility Plan to ARDOT and TXDOT.

NOW, THEREFORE, BE IT RESOLVED by the Policy Board of the Texarkana Metropolitan Planning Organization adopts the Texarkana Freight Mobility Plan as the policy guide for the freight planning in the Texarkana Region.

BE IT FURTHER RESOLVED that the Texarkana MPO will use the 2019 Freight Mobility Plan as input in the development of future Metropolitan Transportation Plans and Transportation Improvement Programs.

BE IT FURTHER RESOLVED as additional steps are needed to better integrate freight into the planning process, the Texarkana MPO will continue to support the Freight Advisory Committee as it assists in implementing planning recommendations.

SECTION 1: That the Texarkana Freight Mobility Plan for the Texarkana Metropolitan Area is hereby adopted.

TEXARKANA METROPOLITAN PLANNING ORGANIZATION (MPO)
2019 FREIGHT MOBILITY PLAN

SECTION 2: That the Study Director of the Texarkana Metropolitan Planning Organization is hereby authorized to submit the Texarkana Freight Mobility Plan for the Texarkana Metropolitan Study Area to ARDOT and TXDOT.

SECTION 3: That this Resolution shall become effective immediately upon adoption.

ADOPTED in Regular Session on the 21st day of January 2020



Tom Whitten, Chairman
MPO Policy Board

I hereby certify that this resolution was adopted by the Texarkana MPO in Regular Session on January 21, 2020.



Rea Donna Jones, Director
Texarkana MPO