OKLAHOMA Transportation

DRAFT

2025-2050

OKLAHOMA LONG RANGE TRANSPORTATION PLAN

JULY 2025

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INTRODUCTION

Introduction

The Oklahoma Department of Transportation (ODOT) is dedicated to providing a safe, economical, and effective transportation network for the people, commerce, and communities of Oklahoma. The 2025-2050 Long Range Transportation Plan (LRTP) is a policy document that serves as the state's comprehensive blueprint for the next 25 years, guiding strategic investments and policy decisions to meet Oklahoma's evolving multimodal transportation needs.

The 2050 LRTP serves as the strategic framework for ODOT to fulfill its mission over the next 25 years. The 2050 LRTP goals aim to turn ODOT's mission and commitment into objectives. These objectives focus on safety, the economy, and effectiveness. They will help plan, develop, maintain, and operate Oklahoma's transportation system. The 2050 LRTP focuses on key areas such as safety improvements, infrastructure preservation, multimodal connectivity, and economic vitality. The LRTP aims to create strategies to improve the transportation system for the people, businesses, and communities in Oklahoma.

Source: Russell - Adobe Stock

Progress Made Since the 2045 LRTP

Since the 2020-2045 LRTP, ODOT has made significant progress to improve Oklahoma's transportation landscape. Over the past five years, ODOT's noteworthy advancements include:

Modernization of Key Corridors

ODOT's strategic investments focused on enhancing safety and efficiency along vital freight and passenger routes through projects like the ongoing I-35 and I-40 corridor improvements.

Improvements to Rural Two-Lane Roads

ODOT is actively making progress in improving safety on two-lane roadways that lack shoulders through various initiatives and programs. These efforts are crucial as a significant portion of serious and fatal crashes in Oklahoma occur on these types of roads.

Emphasis on Safety Initiatives

ODOT intensified its commitment to safety through data-driven strategies, infrastructure enhancements, and public awareness campaigns aimed at reducing fatalities and serious injuries on Oklahoma roadways.

Expansion of Rural Connectivity

ODOT's efforts to improve access and connectivity in rural areas included bridge replacements, highway upgrades, and the expansion of broadband infrastructure, recognizing the critical link between transportation and economic opportunity.

Integration of Technology and Innovation

ODOT embraced technological advancements, exploring connected and autonomous vehicle technologies, implementing intelligent transportation systems, and leveraging data analytics to optimize traffic flow and infrastructure management.

The development of the 2050 LRTP has been a collaborative and comprehensive process. The project involved working with different groups, including local planning organizations, tribal governments, transit agencies, businesses, environmental agencies, and the public. Technical analysis, public surveys, and stakeholder meetings were used to gather important information. This helped ODOT understand transportation needs, challenges, and opportunities.

The 2050 LRTP reflects a shared vision for a transportation system that is not only safe and efficient but also supports economic growth and enhances quality of life for all Oklahomans. The 2050 LRTP highlights several important aspects. It outlines the goals and objectives for the future of transportation in Oklahoma. It also discusses emerging trends and modal needs. Additionally, the document includes a revenue forecast and implementation strategies. These elements will guide ODOT in shaping Oklahoma's transportation future.

Shared Stewardship Responsibilities

ODOT serves as the steward of the state-owned highway system. This system includes a broad range of responsibilities, such as planning, design, construction, and maintenance. ODOT's goal is to ensure a safe, economical, and effective network for all users. The state-owned highway system is comprised of state numbered highway routes, US numbered highway routes, and the interstate highway system. The state-owned highway system includes 12,235 centerline miles of pavement and 6,751 bridges.

ODOT does not act alone in statewide transportation planning. Organizations include federal and state agencies, MPOs and RTPOs, transit agencies, tribal governments, and local jurisdictions. These organizations collaborate with ODOT in the planning process. Advocacy groups and industry organizations also contribute to the planning process.

Effective communication, coordination, and collaboration are essential among ODOT and its many partners. These elements are crucial for the planning, design, construction, and maintenance of the state's multimodal transportation system.

Source: ODOT

Source: Hove Photography - Adobe Stock

Metropolitan Planning Organizations

Oklahoma is served by five MPOs. Each MPO plays a crucial role in transportation planning. These organizations serve as a link between local communities. They address needs and connect with state and federal transportation policies and funding.

MPOs work with ODOT and other agencies to coordinate transportation plans and projects. This collaboration is essential for efficient project delivery and a seamless transportation network.

The five MPOs in Oklahoma are:

Association of Central Oklahoma Governments (ACOG)

Serving the Oklahoma City metropolitan area, including Oklahoma and Cleveland Counties, as well as portions of Canadian, Grady, McClain and Logan Counties.

Indian Nations Council of Governments (INCOG)

Serving the Tulsa metropolitan area, including Tulsa County and portions of Creek, Osage, Wagoner, and Rogers Counties.

Lawton Metropolitan Planning Organization (LMPO)

Serving the city of Lawton, excluding Fort Sill, and portions of Comanche County.

Chisholm Trail Metropolitan Planning Organization (CTMPO)

Serving the City of Enid, the Town of North Enid, and portions of Garfield County.

Frontier Metropolitan Planning Organization (Frontier MPO)

Serving portions of Leflore and Sequoyah Counties in Oklahoma and based in Fort Smith, Arkansas.

Regional Transportation Planning Organizations

Oklahoma is also served by a network of five RTPOs through the support of 9 Sub-State Planning Districts. These organizations help meet the transportation needs in rural areas of the state. They foster collaboration among local governments. Additionally, they ensure that transportation planning is conducted on a broader, coordinated scale. These agencies cover 70 out of the 77 counties in Oklahoma. They make sure that rural areas in the state have a way to plan for transportation and provide their input.

Oklahoma's RTPOs play a key role in improving transportation planning outside the state's five major metropolitan areas. They ensure that transportation decisions in rural areas involve the local community.

5 RTPOs & 9 Sub-State Planning Districts

Source: Hove Photography - Adobe Stock

RTPOs

- NORTPO - Northern Oklahoma RTPO (associated with NODA & OEDA)
- NEORTPO - North East Oklahoma RTPO (associated with GGEDA & EODD)
- CORTPO - Central Oklahoma RTPO (associated with COEDD)
- SORTPO - Southwest Oklahoma RTPO (associated with SWODA & ASCOG)
- SERTPO - Southeastern RTPO (associated with KEDDO & SODA)

Sub-State Planning Districts

- ASCOG - Association of South Central Oklahoma Governments
- COEDD - Central Oklahoma Economic Development District
- EODD - Eastern Oklahoma Development District
- GGEDA - Grand Gateway Economic Development Association
- KEDDO - Kiamichi Economic Development District of Oklahoma
- NODA - Northern Oklahoma Development Authority
- OEDA - Oklahoma Economic Development Authority
- SODA - Southern Oklahoma Development Association
- SWODA - Southwestern Oklahoma Development Authority

Choctaw Nation Headquarters in Durant, Oklahoma
Source: Fkbowen - Wikimedia Commons

Public Transportation Agencies

There are 19 rural transit operators in the state. They offer fixed route and demand response services for small towns and rural areas. There are six urban transit operators in Oklahoma, located in Edmond, Enid, Lawton, Norman, Oklahoma City, and Tulsa. While many Tribal Nations in Oklahoma provide transit services, there are twelve tribal transit agencies that receive federal funds for transit: Cherokee Nation, Cheyenne and Arapaho Tribes, Chickasaw Nation, Choctaw Nation of Oklahoma, Citizen Potawatomi Nation, Comanche Nation, Kiowa Tribe, Muscogee (Creek) Nation, Northeast Oklahoma Tribal Transit Consortium, Ponca Tribe of Oklahoma, Seminole Nation Public Transit, and the United Keetoowah Band of Cherokee Indians in Oklahoma. Tribal transit agencies serve their tribal members, as well as the general public.

Tribal Governments

ODOT collaborates with 39 federally recognized Tribal Nations, most of which are located within Oklahoma. ODOT, on behalf of FHWA, consults with Tribal Nations on its federal aid undertakings. This consultation provides Tribal Nations the opportunity to identify areas of concern and to work with ODOT on avoiding, minimizing, or mitigating negative effects to places of cultural or historical significance. Tribal Nations also receive federal funding for transportation projects and often partner with ODOT, counties, and cities on this work. Together ODOT and Tribal Nations have completed a wide range of projects, from sidewalks in small towns to bridge replacements on rural highways to reconstruction of interstate interchanges. ODOT's staff prioritizes building relationships with Tribal Nations and includes a Tribal Liaison and the Director of Community Engagement and Tribal Relations.

Source: ODOT

Federal Requirements

The development of the 2050 LRTP is a federal requirement established by surface transportation law. This requirement aims to ensure a continuous, cooperative, and comprehensive planning process that guides transportation investments and policy decisions across all areas of the state.

The Moving Ahead for Progress in the 21st Century Act (MAP-21), enacted in 2012, introduced a performance-based approach to transportation decision-making. It required states to establish transportation system goals, objectives, and performance measures in their statewide plans.

The Infrastructure Investment and Jobs Act (IIJA), enacted in 2021, represents the latest federal transportation policy act. The IIJA significantly increased investments in infrastructure. It continued the performance-based approach and approved the use of virtual public involvement methods. These methods can be utilized by state DOTs in their statewide planning process.

Planning Process

The 2050 LRTP planning process is a comprehensive and collaborative effort. It is guided by federal requirements and ODOT's commitment to engaging stakeholders and the public. The 2050 LRTP planning process, as shown in Figure 1.1, included several key components. First, the state's transportation vision, goals, objectives, and strategies were examined again. Next, a System Performance Report was developed. The process also involved examining emerging trends and identifying multimodal transportation needs. Additionally, a revenue forecast was created to estimate how much funding the state can expect to receive to address the multimodal needs.

The planning process involved collaboration and valued input from stakeholders. ODOT actively engaged with stakeholders, including MPOs, RTPOs, tribal nations, business and freight communities, environmental agencies, and transportation advocates. An online survey gathered feedback from the public about their transportation needs, challenges, and priorities in the state. This outreach effort allowed people in Oklahoma to share their thoughts and concerns about the state's transportation system. It ensured that the 2050 Long-Range Transportation Plan meets the needs of the community and local businesses.

Figure 1.1: 2050 LRTP Planning Process

Vision

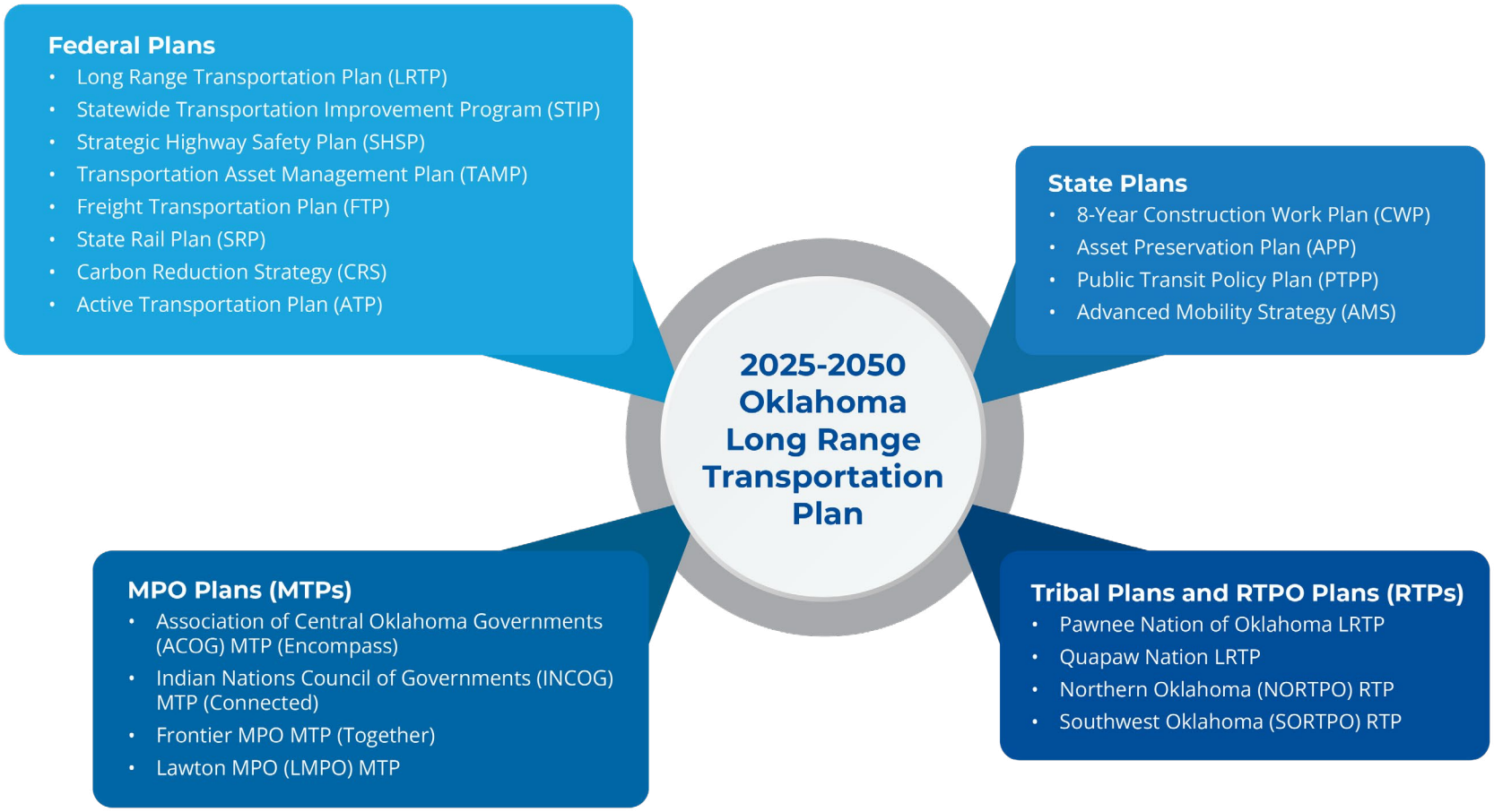
The vision of the 2050 LRTP is “to provide a connected, multimodal transportation system that supports a thriving economy and improved quality of life for Oklahomans by providing for safe and efficient movement of people and goods”.

Aligning Transportation Plans and Programs

Family of Plans

During the 2050 LRTP planning process, the Family of Plans was developed. As shown in **Figure 1.2**, the Family of Plans includes a review of federally required plans, as well as state, MPO, RTPO, and Tribal plans. These plans were used to outline the current and desired system performance. They helped set goals and evaluate current conditions and future needs. Additionally, they suggested policies and strategies for the 2050 Long Range Transportation Plan (LRTP). This approach gives a full view of the state's transportation needs and challenges across all modes and assets. This ensures that the 2050 Long-Range Transportation Plan takes into account how different modes of transportation work together.

Figure 1.2: Family of Plans



Source: ODOT

Eight-Year Construction Work Plan

ODOT's Eight-Year Construction Work Plan (CWP) outlines the state's planned transportation projects and investments over the next eight years. This plan has budget limits, so spending cannot go over available funding during this time. The CWP helps the public and stakeholders see ODOT's priorities and upcoming construction plans. The CWP prioritizes safety, preservation, and modernization of Oklahoma's infrastructure. It reflects the goals of the 2050 LRTP and addresses the diverse transportation needs across the state.

State Transportation Improvement Program

ODOT's State Transportation Improvement Program (STIP) is a four-year program. The four years of projects listed in the STIP are the first four years in the CWP. The STIP is a federally required program and has budget limits, so spending cannot go over available funding. This program lists all federally funded and regionally significant transportation projects planned for the state. The STIP projects are consistent with the 2050 LRTP goals and policies, as well as the MPOs, RTPOs, and Tribal LRTPs. The STIP also provides public accountability. It shows how ODOT is investing in its transportation infrastructure. This investment aims to meet future needs and priorities as outlined in the 2050 LRTP.

2050 LRTP Overview

The 2050 Long-Range Transportation Plan (LRTP) provides a comprehensive roadmap for the state's transportation future. The following chapters lay the groundwork for this vision: **Chapter 2: Public and Stakeholder Engagement**, details the process of receiving public and stakeholder input on their transportation priorities, challenges, and opportunities. **Chapter 3: Strategic Direction**, establishes the overarching goals and objectives guiding the plan. **Chapter 4: Existing and Emerging Trends**, examines the factors and changes likely to influence the future transportation system. **Chapter 5: Existing Transportation Systems and Conditions**, provides a current assessment of Oklahoma's transportation infrastructure and assets. **Chapter 6: Modal Needs**, identifies specific needs and challenges for various transportation modes and assets. **Chapter 7: Baseline Revenue Forecast**, outlines the anticipated state and federal financial resources available for future transportation investments. **Chapter 8: Strategies**, presents the implementation actions and approaches to address identified needs and achieve the 2050 LRTP goals. Finally, the **Appendix: System Performance Report** offers a detailed look at how the transportation system is currently performing.

CHAPTER 2:

PUBLIC STAKEHOLDER ENGAGEMENT

Introduction

ODOT recognizes the importance of understanding public beliefs, attitudes, and behaviors as they relate to Oklahoma's future multimodal transportation system. ODOT values public and stakeholder input because it is essential to understanding Oklahoma's transportation needs and to developing policies and strategies that guide future investment decisions. Public involvement and stakeholder outreach are vital components of the 2050 LRTP. Throughout the plan's development, stakeholders had several opportunities to provide feedback on their transportation priorities.

Through a robust engagement effort, ODOT collected input in several ways, including an online public survey, a series of three Stakeholder Committee meetings, and a website that provided an opportunity for public comment.

Source: Andreas - Adobe Stock

Public Involvement Plan

The purpose of the 2050 LRTP Public Involvement Plan (PIP) was to outline methods and tactics to encourage a diverse group of interested parties to participate in the development of the 2050 LRTP to guide the future of transportation within Oklahoma. The PIP was created at the beginning of the 2050 LRTP planning process and is consistent with ODOT's Public Participation Plan (PPP), which meets the federal requirements for statewide planning as outlined in Title 23 of the Code of Federal Regulations (CFR).

These regulations ensure that public involvement is a fundamental part of transportation planning. As such, ODOT has adhered to the federal aid requirements listed in the PIP and any updated guidance provided by the Federal Highway Administration.

Communication Methods and Tools

Planning Partner and Stakeholder Identification

ODOT worked with a wide variety of people and organizations to collect feedback and input on the LRTP. The following regional and metropolitan planning organizations were consulted with and participated in the development of the 2050 LRTP:

- Association of Central Oklahoma Governments (ACOG)
- Central Oklahoma Regional Transportation Planning Organization (CORTPO)
- Chisholm Trail Metropolitan Planning Organization (Chisholm Trail MPO)
- Frontier Metropolitan Planning Organization (Frontier MPO)
- Indian Nations Council of Governments (INCOG)
- Lawton Metropolitan Planning Organization (LMPO)
- Northeastern Oklahoma Regional Transportation Planning Organization (NEORTPO)
- Northern Oklahoma Regional Transportation Planning Organization (NORTPO)
- Southeastern Regional Transportation Planning Organization (SERTPO)
- Southwest Oklahoma Regional Transportation Planning Organization (SORTPO)

In addition to these partner organizations, ODOT identified a diverse list of stakeholders from the beginning of the planning process that included names, mailing addresses, and email addresses of the following:

- Stakeholder Committee members
- Urban and rural transit providers
- Tribal representatives
- Transportation mode representatives (e.g., rail, bicycle/pedestrian, waterway)
- Chamber of commerce staff
- Federal, state, and local elected officials
- Interested members of the general public
- ODOT staff

ODOT staff also reached out to tribal leaders through the Tribal Advisory Board, which includes representatives from the Chickasaw Nation, Choctaw Nation, Ponca Tribe, Osage Nation, Chickasaw Tribe, Cherokee Nation, Citizen Potawatomi Nation, Comanche Nation, Cherokee Nation, Iowa Tribe, and Sac and Fox Nation.

ODOT issued press releases, posted on social media, attended stakeholder meetings, and used 'email blasts' to communicate with these stakeholders and encourage diverse participation in the development of the 2050 LRTP.

Stakeholder Advisory Committee Meetings

ODOT assembles a Stakeholder Advisory Committee from the list of identified partners and stakeholders. Committee members included stakeholders from across Oklahoma who represented different modes of transportation, planning partners, tribal governments, businesses, highway patrol, and ODOT staff. Table 2.1 shows the Stakeholder Advisory Committee members. ODOT hosted three Stakeholder Advisory Committee meetings to update the committee on progress and gather their input.

Table 2.1: Stakeholder Advisory Committee Members

Name	Organization	Website
John Sharp	ACOG	acogok.org
Eric Pollard	ACOG – Air Quality	acogok.org
Jamie Jackson	Amazon	amazon.com
Arun Rao	Amtrak	amtrak.com
Anthony Carfang	Bike Oklahoma	okbike.org
Matt Lareseingue	BNSF	bnsf.com
Rob Endicott	Cherokee Nation Planner	cherokee.org
Michael Lynn	Cherokee Nation Trans Director	cherokee.org
Bo Ellis	Chickasaw Nation	chickasaw.net
Brad Williams	Chickasaw Nation	chickasaw.net
Taylor Massey	Chisholm Trail MPO	chisholmtrailmpo.org
Ethan Nall	Devon Energy	devonenergy.com
Jesse Rush	EMBARK – OKC Transit	embarkok.com
Troy Rigel	Equity Marketing Alliance	ceagrain.com

Table 2.1: Stakeholder Advisory Committee Members

Name	Organization	Website
Judy Petry	Farmrail	farmrail.com
Tamara Shepherd	Fed. Motor Carriers Safety Admin. (FMCSA)	fmcsa.dot.gov
Viplav Reddy	FHWA	highways.dot.gov
Stephanie Gonterman	Greyhound Bus Lines	greyhound.com
Evan Stair	Heartland Flyer/Passenger Rail	unavailable
Thomas Dow	INCOG	incog.org
Michelle Merchant	INCOG – Air Quality	incog.org
Debora Porter	US Army Fort Sill	sill-www.army.mil
Jonathan Stone	LMPO	lawtonmpo.org
Hope Davis	LMPO	lawtonmpo.org
David Ford	Muscogee Nation	muscogeenation.com
Lauren Branch	New View Oklahoma	nvoklahoma.org
Cheryl Bradley	ODEQ	deq.ok.gov
Jon Chiappe	OK Department of Commerce	okcommerce.gov
Ct. Brian Orr	OK Highway Patrol	oklahoma.gov/dps/programs-services/ohp.html
Paul Harris	OK Highway Safety Office	oklahoma.gov/highwaysafety.html
Lynda Ozan	OK State Historic Preservation Office	okhistory.org/shpo/index
Lori Peterson	OK Railroad Association	unavailable
Jim Newport	OK Trucking Association	oktrucking.org
Joe Echelle	OK Turnpike Authority	oklahoma.gov/ota.html

Table 2.1: Stakeholder Advisory Committee Members

Name	Organization	Website
Matt Cogburn	OK Water Resources Board	oklahoma.gov/owrb.html
Yohanes Sugeng	OK Water Resources Board	oklahoma.gov/owrb.html
Derek Sparks	OKC Chamber of Commerce	okcchamber.com
Josh Taylor	Port 33 (Oakley's)	bruceoakley.com/divisions/river-ports/catoosa/
Kimbra Scott	Port of Muskogee	portmuskogee.com
Clorisa Brown	RTPO – COEDD - Shawnee	coedd.net
Misty Wadley	RTPO – GGEDA – Big Cabin	grandgateway.org
Brock Spencer	RTPO – NODA – Enid	noda-ok.org
Kyle Henry	RTPO – SODA – Durant	soda-ok.org
Julie Sanders	RTPO – SWODA – Elk City	swoda.org
Jason Ferbrache	Regional Transit Authority (RTA)	rtaok.org
Charla Sloan	KiBois Area Transit (KATS)	kibois.org/kats
Denea Burgess	Seminole Nation Planner	sno-nsn.org
Brad Beam	Tinker Air Force Base (TAFB)	tinker.af.mil
Stephanie Wilson	TAFB	tinker.af.mil
Andrew Underkoffler	Tobacco Settlement Endowment Trust (TSET)	oklahoma.gov/tset.html
Mike Kerr	Tulsa Airport	flytulsa.com
Elizabeth Osburn	Tulsa Chamber	tulsachamber.com
David Yarbrough	Tulsa Ports	tulsaports.com
Daniel Grisham	Tulsa Ports	tulsaports.com

Table 2.1: Stakeholder Advisory Committee Members

Name	Organization	Website
Scott Marr	Tulsa Transit	metrolinkok.org
Tiecy Cotton	Union Pacific (UP) Railroad	up.com
Richard Kincade	UPS	ups.com
Jared Crabtree	Walmart	walmart.com
Dana Weber	Webco Industries	webcotube.com
Tom Robins	Work Zone Safe	workzonesafe.com

Stakeholder Committee Meeting #1

The first Stakeholder Committee meeting was held on November 7, 2024. The meeting informed stakeholders about the purpose of the 2025-2050 LRTP, explained the Stakeholder Committee's role in developing the LRTP, reviewed existing and emerging trends, and collected input from the stakeholders regarding their transportation vision and goals that should be addressed in the 2025-2050 LRTP. The Stakeholders reviewed the 2045 LRTP Goals and provided suggested revisions to the draft 2050 Goals.

Stakeholder Committee Meeting #2

The second Stakeholder Committee meeting was held on April 29, 2025. The purpose of this meeting was to review the modal needs assessment and baseline revenue forecast, and to receive input on the draft objectives compiled from a comprehensive review of existing plans and public survey responses.

The input received from the Stakeholders contributed to the development of the 2050 LRTP objectives discussed in **Chapter 3: Strategic Direction**.

Source: ODOT

Stakeholder Committee Meeting #3

The third Stakeholder Committee meeting was held on June 25, 2025. The meeting was the final meeting with the committee to present the strategic direction to achieve the goals and objectives set out for the 2050 LRTP. Over 60 strategies were presented, and committee members had the opportunity to provide input to help refine the strategies to better align with the overall goals and objectives. The LRTP team used the feedback and to refine the strategies that are included in **Chapter 8: Strategies**.

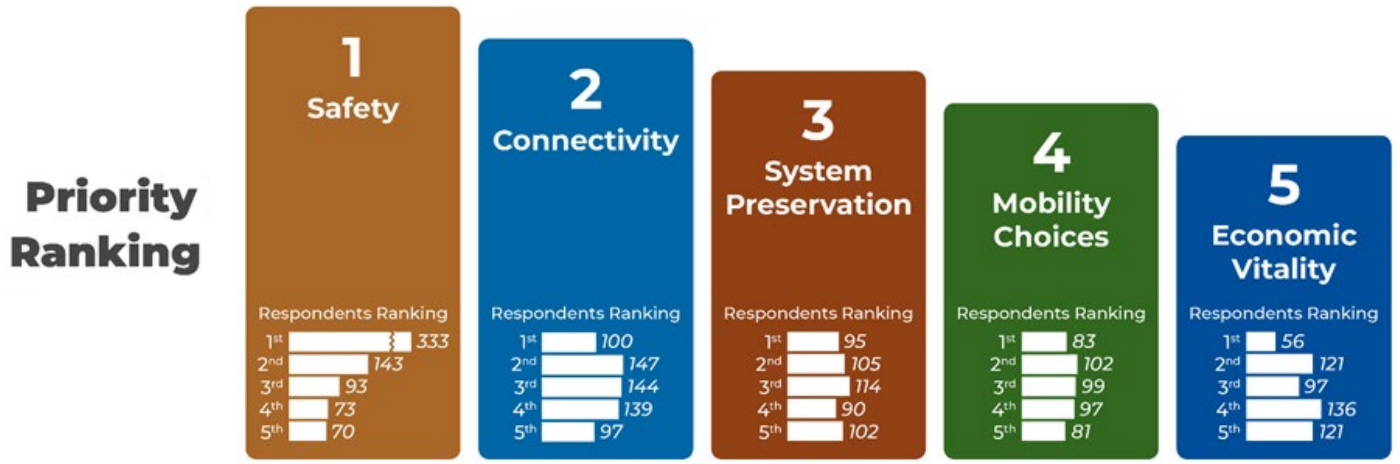
Public Engagement Survey

ODOT began the 2050 LRTP public outreach campaign in November 2024 using an online public survey to reach a diverse statewide audience. Marketing tools such as email blasts, press releases, and social media posts were used to direct audiences to the online engagement survey.

The online survey was the primary tool utilized to engage the public. It was developed and deployed to raise public awareness of the 2050 LRTP and at the same time, solicit public opinions and information related to their transportation needs and priorities. The online engagement was available in English and Spanish and for vision-impaired users from November 4, 2024, to January 29, 2025. During this period, 712 people provided input on their transportation needs and priorities.

Figure 2.1 shows the results for one question from the survey, which asked respondents to rank their top transportation priorities. Three hundred thirty-three (333) respondents ranked safety as their top priority, followed by connectivity with 100 votes as the top priority, and system preservation with 95 votes as the top priority.

Figure 2.1: Transportation Priorities



Public Engagement Survey

The 2050 LRTP website, www.oklongrangeplan.org, was developed as a resource where interested citizens and stakeholders could learn what a long-range plan is, review the previous 2045 LRTP, sign up for updates, review Stakeholder Committee meeting notes, and review 2050 LRTP documents.

Draft Plan and Input Opportunity

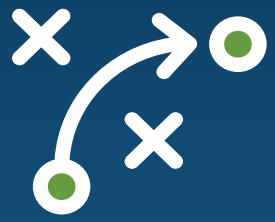
The draft 2050 LRTP was available to the public for review and comment through the LRTP website between July 7 and August 6, 2025, and the website provided a comment form to collect public comments.

To promote the draft 2050 LRTP public comment period, ODOT used the following:

Press release
provided to statewide media outlets.

Emails to the LRTP Stakeholders
asking for comments and to share the information with others.

Social media posts
included on ODOT's social channels.



CHAPTER 3:

STRATEGIC DIRECTION

Introduction

The 2025-2050 LRTP is guided by a clear Strategic Direction, shaped by its vision, goals, objectives, strategies, and performance measures. The Vision serves as the desired future state of transportation in Oklahoma. It describes what the state's transportation system should embody decades from now. Supporting this vision are seven goals. These goals are broad statements. They outline the key areas of focus and the desired outcomes necessary to achieve the vision. Each goal is supported by objectives. The objectives are more specific targets. They are measurable, achievable, and time-bound. The performance measures are quantifiable indicators. They are used to assess progress toward achieving the objectives. By extension, they also relate to the overall goals and vision. Implementation strategies are specific actions or policies aimed at achieving the goals.

The process was directly informed by coordination with the LRTP Stakeholder Advisory Committee. This committee provided invaluable expert input and diverse perspectives. A comprehensive online public engagement survey provided feedback on Oklahomans' transportation priorities and needs. The "Family of Plans" study reviewed various existing statewide and regional transportation plans and studies. It also examined national transportation goals. This study contributed to the development of the goals and objectives.

Source: ODOT

Vision

The 2050 LRTP vision is as follows:

Vision

The vision of the 2050 LRTP is “to provide a connected, multimodal transportation system that supports a thriving economy and improved quality of life for Oklahomans by providing for safe and efficient movement of people and goods”.

Goals

The seven 2050 LRTP goals serve as the core framework for the plan, translating the vision for the state's transportation future into key priorities. These goals directly reflect the vision by addressing national and state priorities necessary to implement the 2050 LRTP. The goals directly address the needs and desires shared by the public and stakeholders during the engagement process. This ensures that the 2050 LRTP reflects community priorities. The goals are aligned with key initiatives and strategic focuses identified by ODOT leadership. This alignment ensures that the 2050 LRTP is both forward-thinking and implementable.

Finally, the goals are also aligned with national transportation goals. By addressing these areas, the goals support the broader objectives set at the federal level for a high-performing national transportation network. This alignment ensures that Oklahoma's transportation planning efforts contribute to national priorities and meet the requirements associated with federal transportation funding programs.

Source: ODOT

National Goals

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

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

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

System Reliability: To improve the efficiency of the surface transportation system

Freight Movement and Economic Vitality: To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.

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

The seven 2050 LRTP goals are:

SAFETY & SECURITY	Ensure a safe and secure transportation system for all users
INFRASTRUCTURE PRESERVATION	Preserve and maintain Oklahoma's transportation system in good condition
MOBILITY & ACCESSIBILITY	Proactively engage local communities to ensure access for all users of the transportation system and increase travel options
ECONOMIC VITALITY	Provide an efficient and well-connected transportation system to support a healthy and competitive Oklahoma economy
OPERATIONS & MANAGEMENT	Promote efficient, collaborative, and transparent operations to fund and deliver maximum system performance
ENVIRONMENT & QUALITY OF LIFE	Minimize and mitigate transportation-related impacts to natural environments, cultural resources, and public health
RESILIENCY & RELIABILITY	Ensure the reliability of movement for people and goods by enhancing the resiliency and adaptability of the transportation system

Objectives

The 2050 LRTP objectives provide actionable steps to fulfill each of the seven goals. The objectives are specific, measurable statements that support the achievement of the LRTP goals. Chapter 8: Strategies outlines the implementation strategies that will be pursued to deliver the objectives. By successfully implementing the objectives, ODOT and its partners will advance each goal. This progress will contribute to the achievement of the 2050 LRTP vision for transportation in Oklahoma. Tables 3.1 to 3.7 present the 2050 LRTP objectives for each of the seven goals.

Source: ODOT

Table 3.1: Safety and Security Goal and Objectives

Ensure a safe and secure transportation system for all users
Enhance design and use of technology, enforce work zone safety, and maintain infrastructure to reduce crashes.
Advocate for increased seat belt usage.
Improve transportation security and emergency preparedness, response, and recovery.

Table 3.2: Infrastructure Preservation Goal and Objectives

Preserve and maintain Oklahoma's transportation system in good condition
Improve the condition of the State's bridges and roadways.
Improve the condition of public transit vehicles, equipment, and facilities.
Improve the condition of the state-owned freight rail system.

Table 3.3: Mobility and Accessibility Goal and Objectives

Proactively engage local communities to ensure access for all users of the transportation system and increase travel options
Facilitate improved access to the statewide multimodal transportation system for all users.
Facilitate better multimodal connectivity for people and goods within and beyond Oklahoma's borders.
Promote access to jobs and services by expanding transportation choices for people in both urban and rural regions.

Table 3.4: Economic Vitality Goal and Objectives

Provide an efficient and well-connected transportation system to support a healthy and competitive Oklahoma economy
Support the existing and future transportation system by aligning improvements with community plans and needs.
Improve connections between different types of transportation and places of interest.
Enhance intermodal transportation connections to improve the efficiency of freight movement.

Table 3.5: Operations and Management Goal and Objectives

Promote efficient, collaborative, and transparent operations to fund and deliver maximum system performance
Strategically design and adapt transportation infrastructure and technology for new or changing traffic conditions.
Improve freight-related highway infrastructure capacity.
Capitalize on federal funding and finance programs to aid investment in the transportation system.
Increase collaboration with external stakeholders to improve transparency in decision-making and identify potential opportunities to leverage resources.
Enhance efficiency by ensuring a higher percentage of activities are delivered on time and within budget.

Table 3.6: Environment and Quality of Life Goal and Objectives

Minimize and mitigate transportation-related impacts to natural environments, cultural resources, and public health
Leverage data to consider transportation-related impacts on cultural and historic resources.
Reduce transportation-related impacts to wetlands, vulnerable ecosystems, and protected species.
Reduce the impacts of stormwater runoff related to surface transportation.

Table 3.7: Resiliency and Reliability Goal and Objectives

Ensure the reliability of movement for people and goods by enhancing the resiliency and adaptability of the transportation system
Improve travel time reliability for the movement of people and goods.
Enhance transportation operations to meet travel needs in response to extreme weather events and other environmental conditions.
Enhance the resiliency of both existing and new transportation infrastructure assets to withstand disruptions and ensure reliability.

Performance Measures

The 2050 LRTP is a performance-based plan centered on achieving specific, measurable outcomes for Oklahoma's transportation system. FHWA has established three key Transportation Performance Measure (TPM) categories, commonly referred to as PM1, PM2, and PM3, to guide performance-based planning for state DOTs and MPOs. These measures ensure a consistent approach to evaluating the condition and performance of the national transportation system.

PM 1 Highway Safety Performance Measures

focus on reducing fatalities and serious injuries on all public roads.

- Total fatalities
- Total serious injuries
- Fatality rate per hundred-million vehicle miles traveled (HMVMT)
- Serious injury rate per HMVMT
- Total non-motorized fatalities and serious injuries

PM 2 Pavement and Bridge Condition Performance Measures

assess the physical state of the National Highway System (NHS) infrastructure.

- Percent of interstate pavement in good condition
- Percent of interstate pavement in poor condition
- Percent of non-interstate NHS pavement in good condition
- Percent of non-interstate NHS pavement in poor condition

PM 3 System Performance and Freight Performance Measures

evaluate the efficiency and reliability of the transportation system.

- Level of Travel Time Reliability Index (LOTTR), which includes:
  - Percent of reliable person-miles traveled on the interstate
  - Percent of reliable person-miles traveled on the non-interstate national highway system (NHS)
- Truck Travel Time Reliability Index (TTTR) on the interstate

ODOT coordinated with MPOs, tribal governments, and non-metropolitan area local officials to set TPM targets related to PM1, PM2, and PM3 and make progress toward meeting them, as specified under 23 CFR 490. The performance targets and progress toward the targets are shown in **Tables 3.8** to **3.11**. ODOT also acts as a sponsor in the development of a Transit Asset Management Group Plan for the Tier 2 transit agencies in Oklahoma. As per 49 CFR 625, the FTA requires that every transit agency receiving federal financial assistance establish targets for all transit assets.

Table 3.8: Safety Performance Measures, Targets, and Progress

Performance Measure	2022 Targets	2022 Actual Performance	Achieved 2-Year Target?
Number of traffic fatalities	656.0	684.0	
Number of serious injuries in traffic crashes	2200.0	2184.6	✓
Fatalities per 100 million VMT	1.44	1.542	
Serious Injury per 100 million VMT	4.79	4.932	
Number of Non-Motorized Fatalities and Serious Injuries	313.0	293.0	✓

Table 3.9: Pavement Performance Measures, Targets, and Progress

Performance Measure	2022 Baseline	2-Year Target	2-Year Actual Performance	Significant Progress?	4-Year Target
Percent of interstate pavement in good condition	68.7%	59.0%	68.1%	✓	56.0%
Percent of interstate pavement in poor condition	1.1%	3.0%	0.9%	✓	4.0%
Percent of non-interstate NHS pavement in good condition	43.4%	41.0%	45.5%	✓	40.0%
Percent of non-interstate NHS pavement in poor condition	2.7%	5.0%	2.8%	✓	6.0%

Table 3.10: Bridge Performance Measures, Targets, and Progress

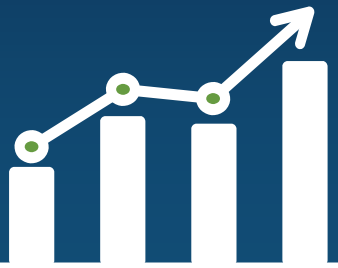
Performance Measure	2022 Baseline	2-Year Target	2-Year Actual Performance	Achieved 2-Year Target?	4-Year Target
Percent of interstate NHS bridges classified in good condition	48.2%	43.0%	48.1%	✓	40.0%
Percent of interstate NHS bridges classified in poor condition	0.8%	3.0%	0.7%	✓	5.0%

Table 3.11: System Reliability Performance Measures, Targets, and Progress

Performance Measure	2022 Baseline	2-Year Target	2-Year Actual Performance	Significant Progress?	4-Year Target
Percent of reliable person-miles traveled on the interstate	94.8%	90.0%	94.1%	✓	90.0%
Percent of reliable person-miles traveled on the non-interstate NHS	97.5%	90.0%	95.8%	✓	90.0%
Truck Travel Reliability Index on the interstate	1.24	1.33	1.23	✓	1.33

Reaching performance targets is critical, as it directly relates to the condition, safety, and efficiency of the transportation system that Oklahomans rely on daily. Achieving targets for pavement and bridge conditions is essential. It ensures the physical integrity and longevity of infrastructure. This approach helps reduce maintenance costs. Additionally, it provides a smooth and safe travel experience. Similarly, meeting system reliability targets is necessary for minimizing congestion, improving travel time reliability, and supporting economic activity. The 2050 LRTP utilizes these measures to align with the goals and objectives. Additionally, it evaluates the effectiveness of implementation strategies.

A detailed System Performance Report (SPR) is included in the **Appendix**. It provides an in-depth analysis of current conditions and the basis for these targets to offer further context and data. The SPR reflects the most recently available targets through various reporting requirements. The strategies and policies in the 2050 LRTP will help ODOT achieve the targets outlined in the SPR.



CHAPTER 4:

EMERGING TRENDS

Emerging Trends & Transportation Implications

Understanding emerging trends is essential for shaping a transportation system that meets the needs of tomorrow. Demographic shifts, technological innovation, changing travel behaviors are transforming how people and goods move across Oklahoma. This chapter identifies key trends and explores how they may impact infrastructure investment, policy development, and long-range planning decisions. Recognizing these changes today helps ensure Oklahoma's transportation network remains safe, efficient, and responsive in the decades to come.

Population Growth from 2025 to 2050

Southwest Region

+1.06%

From 44 million today to 58.6 million by 2050

Oklahoma (statewide)

+0.47%

From 4.05 million today to 4.6 million by 2050

OKC and Tulsa MSA

+0.68%

From 2.5 million today to 3.0 million by 2050

Rural Oklahoma

+0.18%

From 1.3 million today to 1.4 million by 2050

Population Trends

According to the Census Bureau, Oklahoma's population reached 4.05 million in 2023, growing by 8% since 2010 at an annual rate of 0.6%. While similar to national growth trends, Oklahoma grew at nearly half the rate as the Southwest Region (Arizona, New Mexico, Oklahoma and Texas). Future growth is expected to slow further, with a projected population of 4.6 million by 2050, growing at 0.47% annually. Growth will remain concentrated in urban areas, with Oklahoma City and Tulsa leading.

The Big Picture

- Higher population in metro areas will increase demand for roadway capacity, transit expansion, and alternative transportation modes
- A decline in rural population growth may lead to reduced tax bases, making it harder for local governments to maintain aging infrastructure.

Figure 4.1: Projected Population Growth by County, 2022-2050

Source: Woods & Poole Economics, Inc., 2023

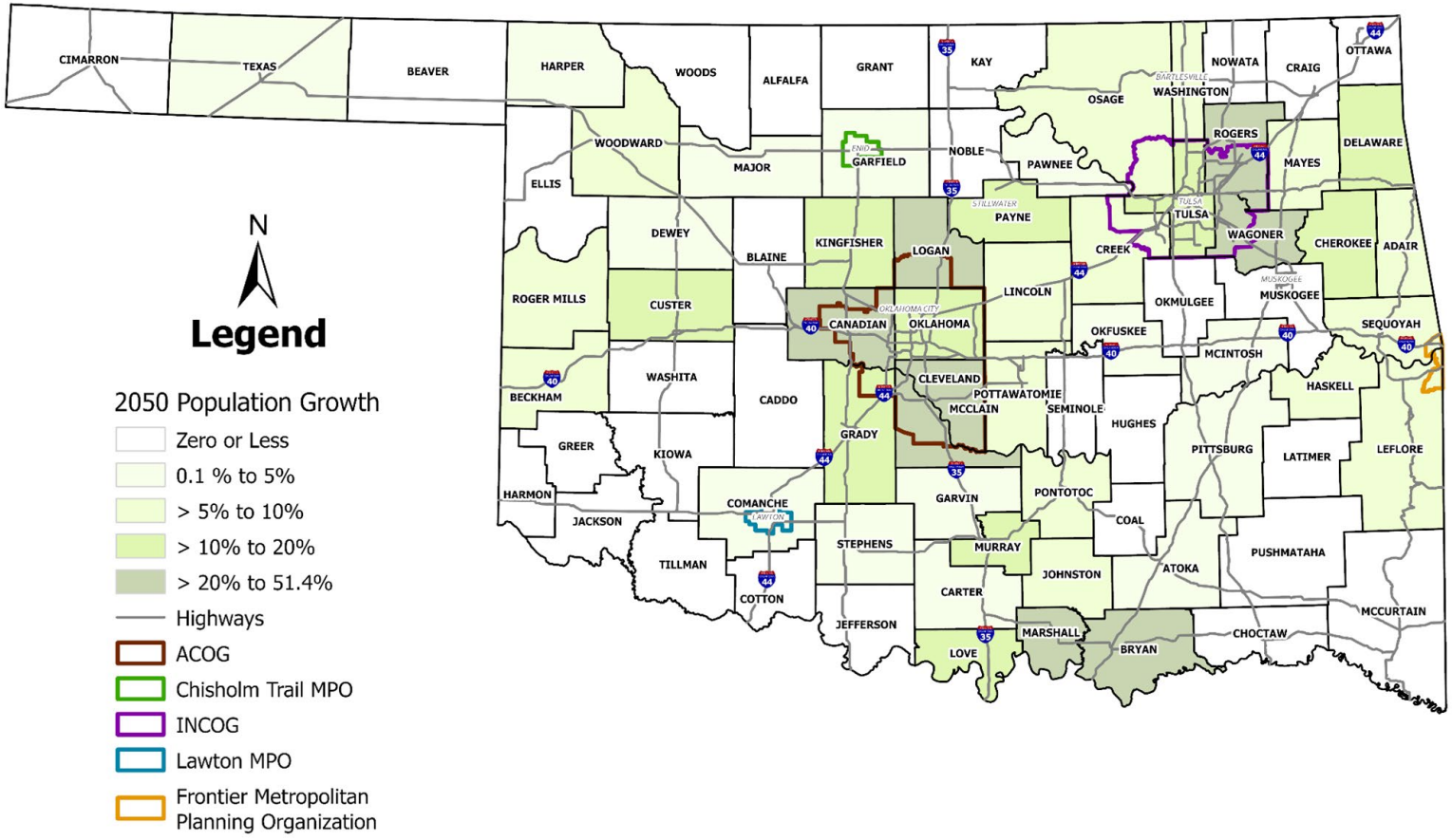


Figure 4.1 shows how this growth is expected to be distributed across the state. Most of the growth will be experienced in large urban areas. Canadian County, to the west of Oklahoma City, is projected to grow by 51%, the highest rate in the state, while six other counties near major metro areas are expected to experience growth rates between 25% and 43% each. Meanwhile rural areas, especially in western Oklahoma, are expected to see a decline in population. One county's population will shrink by over 31% by 2050, and seven other counties will shrink by more than 10%.

Age

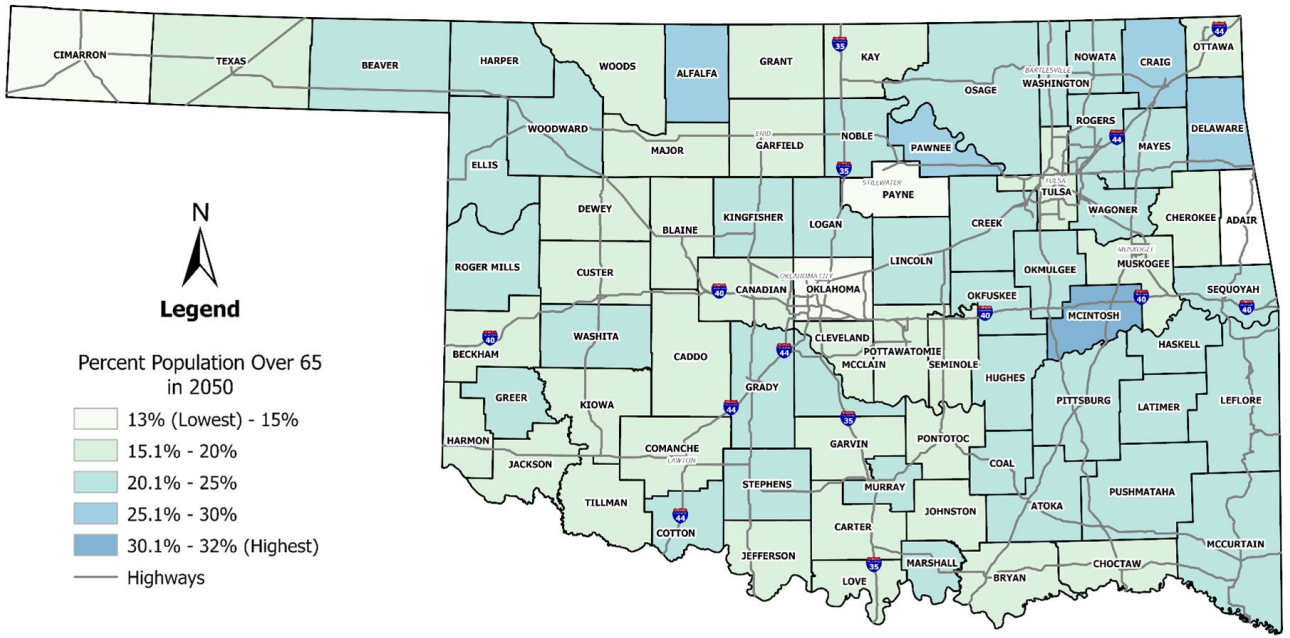
Oklahoma's population distribution closely mirrors national trends, with a growing senior population. In 2023, 16.1% of the state's residents were aged 65 or older, slightly below the national average of 16.8%. The state also has a relatively high percentage of youth under 18 at 24.1%, compared to 22.2% nationally. Growth in senior population will be experienced statewide, as 54 out of 77 counties are expected to see increases in the over-65 population as a share of total county population as shown in **Figure 4.2**. Canadian County to the west of Oklahoma City will see the largest growth in the state, with a 40% increase in the proportion of its population that is over 65, from 14.7% currently to over 20% in 2050.[1]

The Big Picture

- Growing senior population increases demand for accessible, reliable transit, and paratransit services.
- Safe pedestrian facilities and age-friendly infrastructure will support seniors aging in place.
- Younger populations may require expanded multimodal options, including walk/bike paths and school transportation planning.

Figure 4.2: Projected Share of Population Being over-65 by county, 2050

Source: Woods & Poole Economics, Inc., 2023



[1] Woods & Poole Economics, Inc. 2023.

Economic & Social Trends

Oklahoma's economy plays a central role in shaping transportation demand across the state, including commuting patterns and freight movement. In 2024, the state's Gross Domestic Product (GDP) exceeded $265 billion, supporting more than 2.4 million jobs. As shown in Figure 4.3, key industries such as energy, manufacturing, agriculture, aerospace, and logistics contribute to both employment and GDP.

Among these, the oil and gas sector is especially significant. Oklahoma ranks second nationally in oil and gas employment and the number of industry establishments—trailing only Texas. The sector has accounted for more than half of the state's GDP growth since 2003, underscoring its dominant role in Oklahoma's economy. However, the industry's volatility presents ongoing challenges. Events such as the COVID-19 pandemic and Russia's 2022 invasion of Ukraine have caused major price swings that affect employment, state revenues, and overall productivity. Oklahoma has experienced sharper declines in job numbers and productivity than other oil-producing states during downturns. In addition, oil and gas production taxes are a key revenue stream for the state but this revenue fluctuates significantly ranging from $331 million in 2016 to $1.1 billion in 2019, depending on market conditions.[2]

Oil and gas operations also impact the transportation system directly by contributing to heavy freight traffic, especially on rural highways, which influences infrastructure capacity, maintenance, and safety.

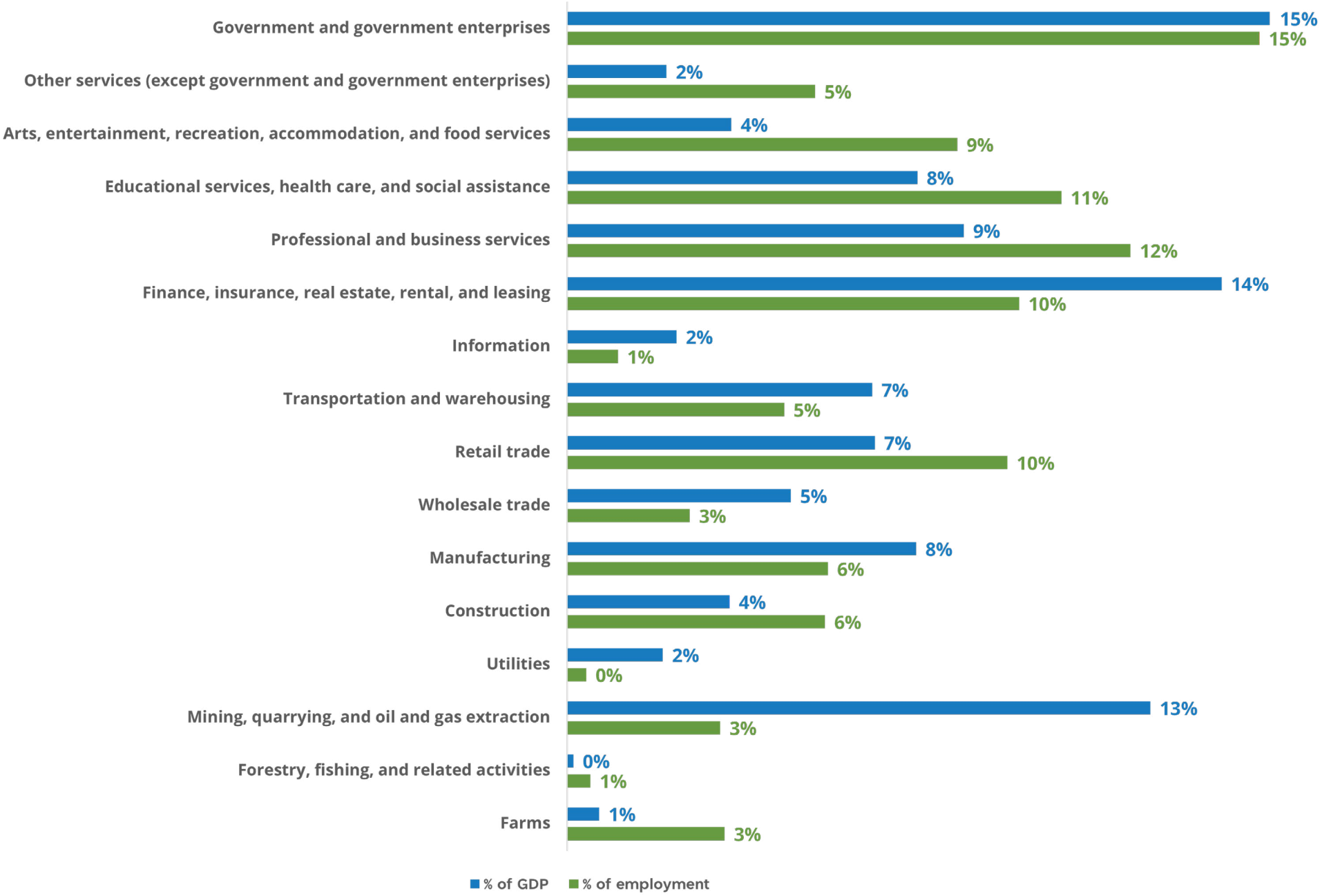
The Big Picture

- The strength and volatility of Oklahoma's oil and gas sector directly impact freight volumes, particularly heavy truck traffic, increasing wear on road infrastructure.
- Revenue fluctuations from production taxes tied to fuel prices affect the state's ability to invest in transportation infrastructure and services.
- Regional job shifts linked to energy sector performance may influence commute patterns and travel demand, especially in areas with concentrated oil and gas activity.

[2] Oklahoma Energy Resources Board

Figure 4.3: Share of Oklahoma GDP and Employment by Industry, 2022

Source: Bureau of Economic Analysis

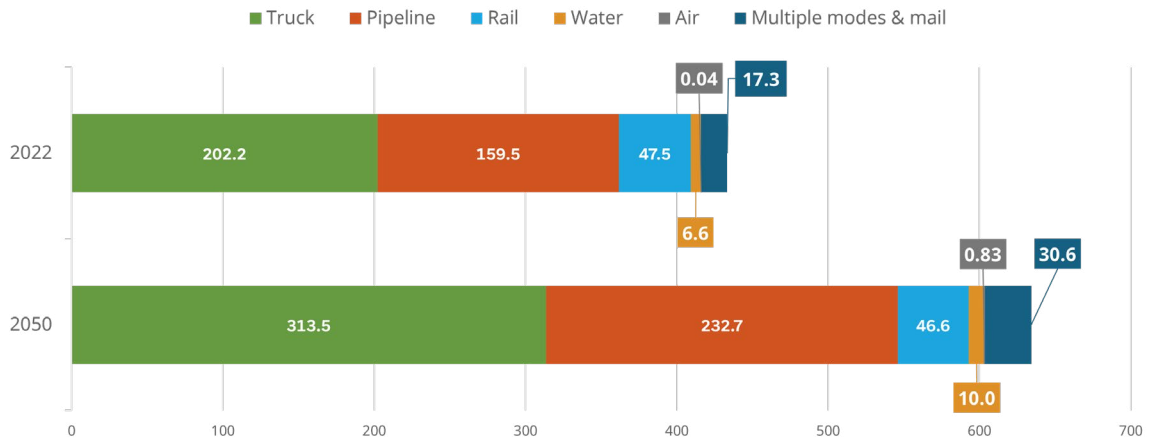


Freight

Freight transportation is vital to Oklahoma's economy and an important consideration for the state's transportation network. In 2022, Oklahoma handled 433 million tons of freight, and 47% was transported by truck. Tonnage is projected to reach 634.2 million tons by 2050 and 49% will be transportation by truck.[3]

Figure 4.4: Current and Projected Oklahoma Freight Tonnage by Mode (millions of tons)

Source: Bureau of Transportation Statistics Freight Analysis Framework



The Big Picture

- Growing freight volumes will place additional strain on highways and bridges creating a need to prioritize investments in the freight network, alleviating freight bottlenecks and intermodal hubs.
- Investment in resilient freight corridors will support economic development.

E-Commerce

E-commerce continues to grow as a share of total retail sales, a trend accelerated by the COVID-19 pandemic. Increased online shopping has shifted freight flows toward decentralized distribution and last-mile delivery models, especially in suburban and rural communities.

The Big Picture

- Rising last-mile delivery traffic contributes to congestion and pavement wear on local roads.
- Changes in warehouse and distribution center location patterns affect freight access and travel patterns.

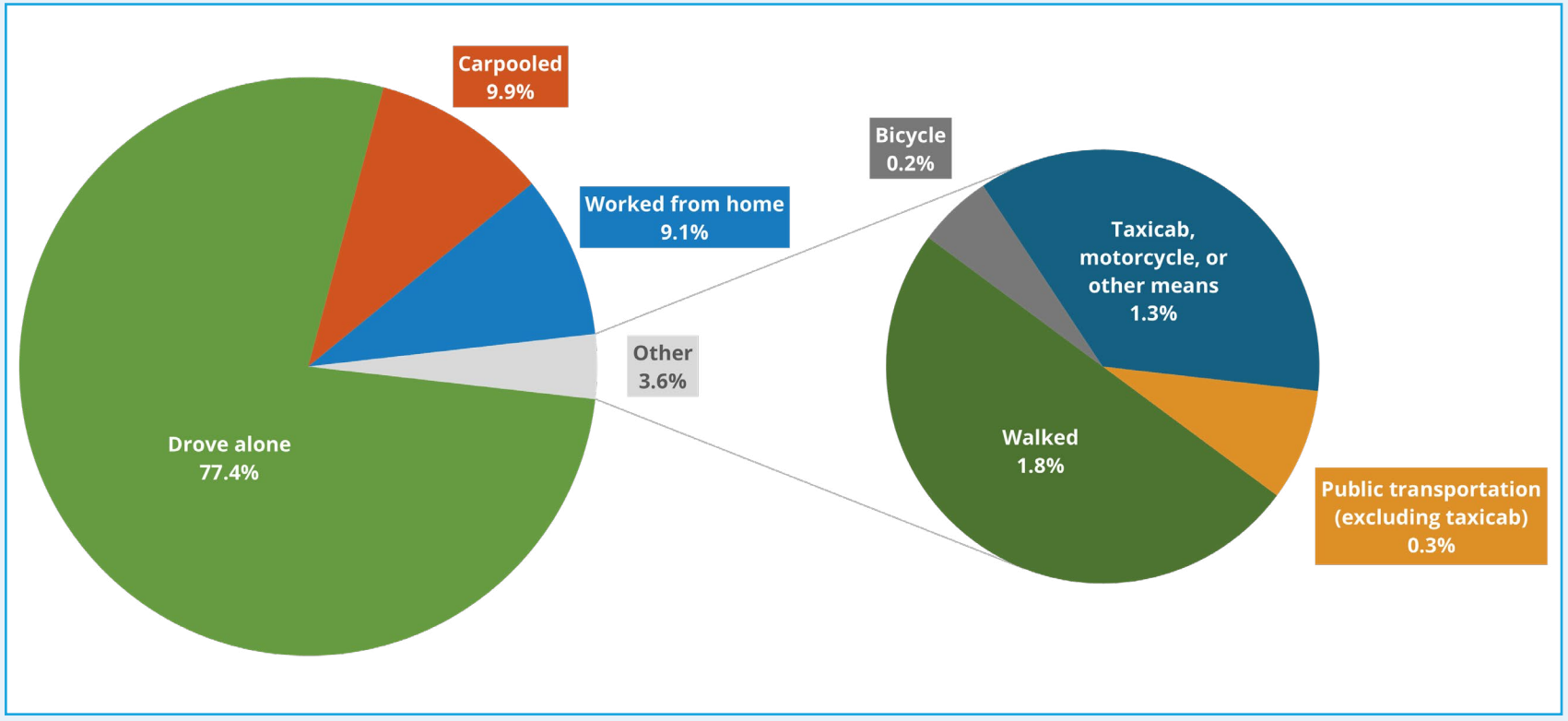
[3] Bureau of Transportation Statistics Freight Analysis Framework

Commuting Patterns & Vehicle Availability

The Covid-19 pandemic had a major effect on work and commute patterns nationwide. While the day-to-day impacts of the pandemic have subsided, some of the changes have persisted. Specifically, many workers are still working from home. Since the pandemic, the rate of working from home has more than doubled, from 4.4% in 2019 to 9.1% in 2023.[4] Nevertheless, as in most states, a large majority (87.3%) of Oklahomans choose to commute by automobile (Figure 4.5). Most of these (77.4% of the total) drove alone.

Figure 4.5: Oklahoma Commutes by Mode, 2023

Source: US Census Bureau 2023 ACS 1-Year Estimates, Table S0801



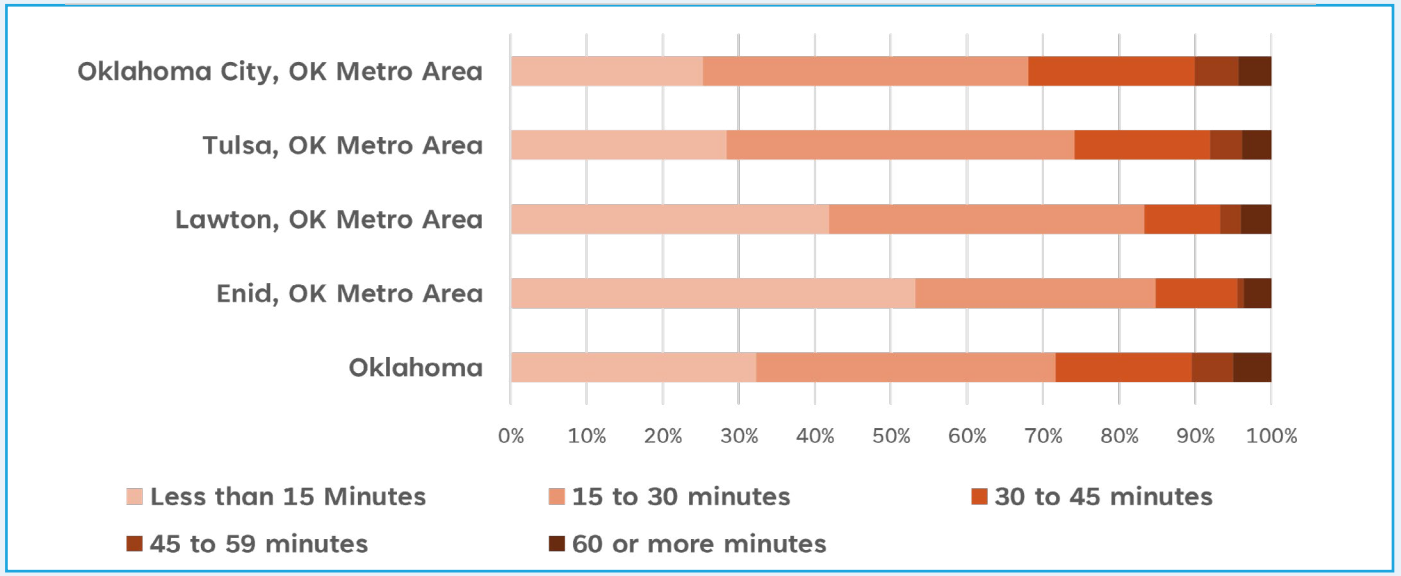
[4] US Census Bureau 1019 and 2023 ACS 1-Year Estimates, Table S0801. Note: while 5-year estimates are generally considered more reliable, 1-year estimates are used here to isolate changes experienced after the pandemic.

For those who commute, the mean travel time to work was 22.6 minutes in 2023. **Figure 4.6** shows the breakdown of commute times for residents of Oklahoma's four Metropolitan Planning Organizations (MPOs), compared to the statewide distribution.

While only 0.3% of Oklahoma commuters used public transportation to get to work in 2023, transit remains an important part of the overall transportation system. Transit service in Oklahoma varies based on location within the state, underscoring the differences between urban and rural areas. Urban areas – including Oklahoma City, Tulsa, Norman, Lawton, and Edmond – primarily offer fixed route transit service, while in rural areas transit service is provided by regionally-located and tribal transit agencies primarily providing demand response service. Agencies in both urban and rural areas also offer paratransit services which provide transit options for people with disabilities.

Figure 4.6: Percentage of Population by Commute Times for Oklahoma MSAs, 2023

Note: data includes commute times for all residents of an MSA, regardless of whether their destination is within the MSA.
Source: US Census Bureau 2023 ACS 1-Year Estimates, Table S0801



The Big Picture

- Continued car dependence emphasizes the need for roadway maintenance and congestion management.
- Both continued remote work and a renewed push to return to the office could alter peak travel demand.
- Transit service gaps, especially in rural areas, create access challenges for non-drivers and elderly residents.

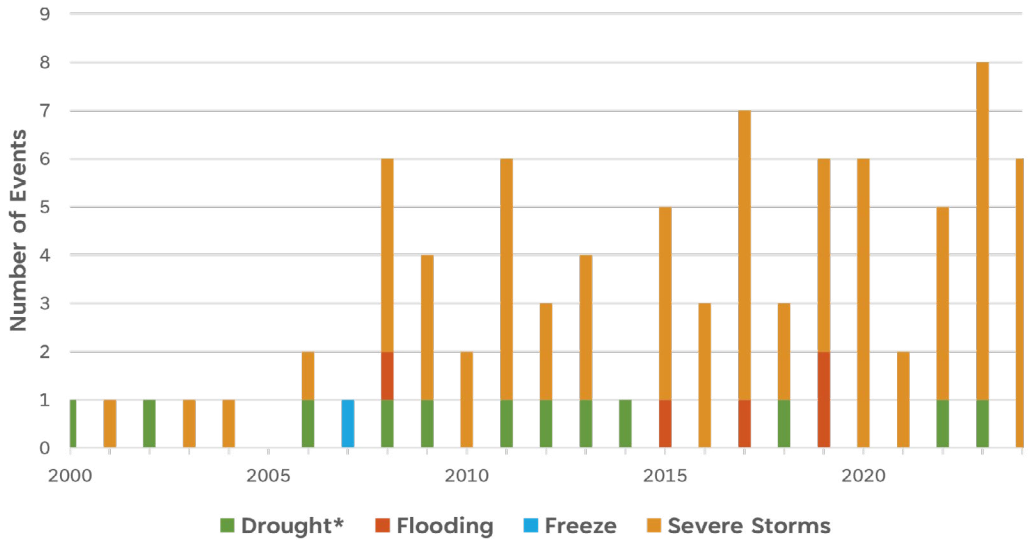
Risk & Resiliency

Oklahoma is highly vulnerable to natural hazards, including flooding, tornadoes, heatwaves, and earthquakes. From 2000 to 2023, the state experienced 85 billion-dollar weather events—21% of all such events nationwide,[5] highlighting its exposure to high-cost, high-frequency natural disasters.

Over the past 24 years, Oklahoma has been impacted by 85 of the 396 (21%) extreme events. Figure 4.7 focuses on Oklahoma's severe weather events with losses exceeding $1 billion (Consumer Price Index (CPI)-adjusted) from excessive heat, flooding, frost/freezes, and severe storms. Billion-dollar events are increasing in frequency as the annual average between 2000 and September 2024 was 3.5 events, and the annual average for the most recent 5 years (2019-2023) was 5.8 events.[6] As shown in Figure 4.7, since 2007, Oklahoma has shown an increasing trend of billion-dollar weather-related events.

Figure 4.7: Oklahoma Billion-Dollar Disaster Events, 2000-2024 (CPI-Adjusted)

**Deaths associated with drought are the result of heat waves, but not all droughts are accompanied by extreme heat waves. Source: National Oceanic and Atmospheric Administration (NOAA). 2024 data is through September Data was not available for 2005.*



The Big Picture

- Infrastructure must be designed to withstand frequent severe weather events.
- Resiliency planning is essential to minimize transportation disruptions and economic losses.
- Prioritizing hazard mitigation supports long-term cost savings and safety.

[5] (2024) US Billion-Dollar Weather and Climate Disasters (2024), NOAA National Centers for Environmental Information (NCEI). https://www.ncei.noaa.gov/access/billions/, DOI: 10.25921/stkw-7w73.

[6] Ibid.

Technology Trends

Connected & Autonomous Vehicles

Connected and Autonomous Vehicles (CAVs) are reshaping the future of transportation by enhancing safety, efficiency, and mobility. While Connected Vehicles (CVs) use wireless communication to exchange information with surrounding infrastructure, other vehicles, and traffic systems, Autonomous Vehicles (AVs) rely on sensors, cameras, and onboard software to operate with varying levels of driver involvement.

Both technologies are evolving rapidly, with pilot programs across the U.S. testing real-time hazard warnings, automated driving functions, and vehicle-to-infrastructure (V2I) communication. Companies like Tesla, Waymo, and others are advancing AV capabilities, while CVs are showing potential for reducing crashes and improving traffic flow.

Realizing the full potential of CAVs requires robust digital and physical infrastructure. AVs rely primarily on high-quality pavement markings, consistent signage, and accurate mapping systems to safely navigate roadways. While many AV systems are designed to function independently, public infrastructure improvements can significantly enhance their performance—particularly in complex environments such as construction zones or intersections.

CVs, however, depend on external communications infrastructure to exchange information with other vehicles (V2V) and roadside systems (V2I). This includes:

Roadside Units (RSUs) for transmitting traffic signal data and pedestrian detection alerts

Fiber optic networks for rapid data transmission between field equipment and traffic management centers

Signal controllers capable of broadcasting Signal Phase and Timing (SPaT) data

Cybersecure systems to protect connected networks from threats

Advanced CAV applications also require standardized communication protocols and real-time data management systems that support interoperability between different manufacturers and public agencies.

The success of CAV deployment in Oklahoma will depend on continued investment in these enabling technologies, along with policy development, workforce training, and public engagement to ensure safe and equitable integration into the broader transportation system.

The Big Picture

- CAVs have the potential to reduce crashes, improve traffic operations, and expand mobility options—particularly for older adults and people with disabilities.
- Increased adoption of automated freight and truck platooning systems may lead to higher freight volumes and greater pavement wear, requiring strategic infrastructure investments.
- Deployment of CAV technology depends on upgraded infrastructure, including fiber optic networks, communication devices, mapping systems, and cybersecurity—posing funding and coordination challenges.
- Statewide standards and collaboration are essential to ensure interoperability across jurisdictions and systems.
- Integrating CAVs into Oklahoma's transportation system will require policy alignment, public-private partnerships, and workforce readiness to support this technological shift.

Truck Platooning

Truck platooning is an emerging technology that allows trucks to follow closely behind one another using communication systems to stay in sync. This improves fuel efficiency and traffic flow while keeping drivers in control of steering. In the future, these systems could incorporate more automation to reduce the need for drivers. As CAV technology advances, it has the potential to make transportation safer, more efficient, and more convenient for everyone.

The Big Picture

- Increased truck activity may accelerate pavement deterioration and require route-specific investments.
- Policies and infrastructure upgrades will be needed to enable safe platooning operation.

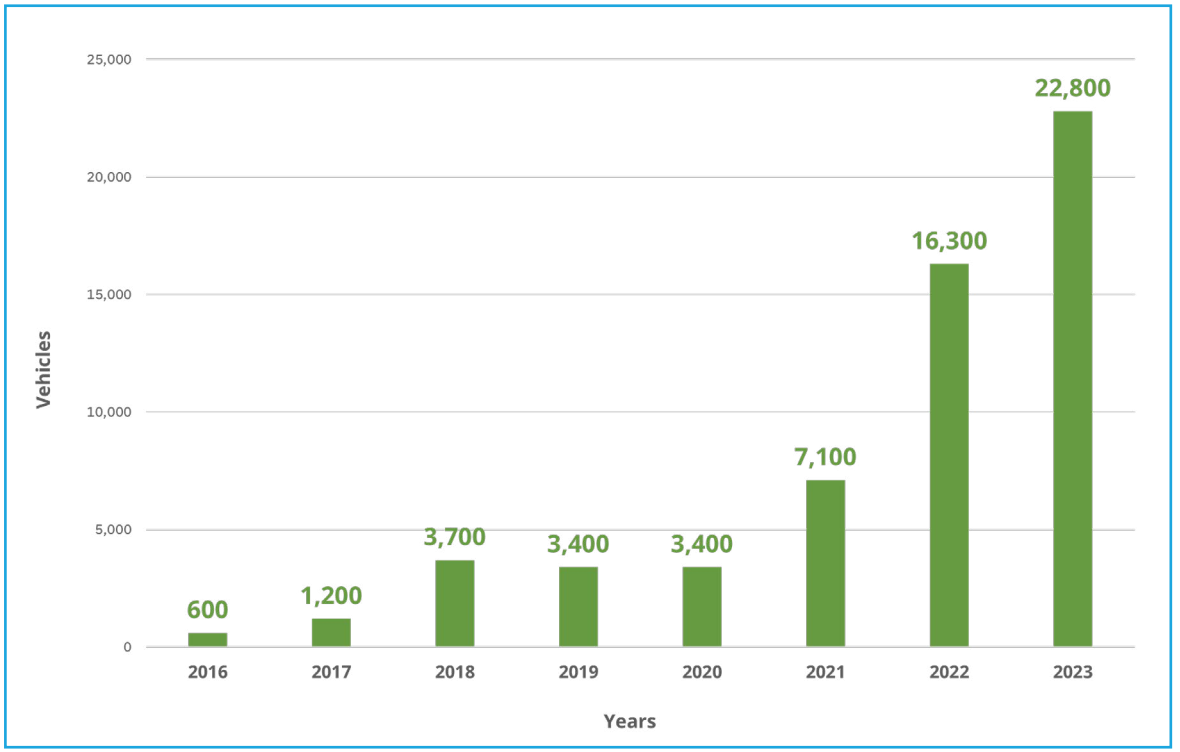
Source: FHWA

Electric Vehicles

In 2023, 1.4 million electric vehicles (EVs) were registered nationally—a 40% increase from the previous year. As shown in Figure 4.8, Oklahoma adoption has been increasing over the last three years, and in 2024 it is anticipated that 6% of all passenger vehicles sold will be plug-in electric vehicles (PEVs) which include battery-operated EVs and plug-in hybrid electric vehicles (PHEV).[7] Without federal subsidies for EVs and charging infrastructure, new EV purchases may decline in the future.

Figure 4.8: Electric Vehicle Sales in Oklahoma

Source: https://afdc.energy.gov/vehicle-registration



The Big Picture

- A growing EV market requires a comprehensive charging infrastructure across urban, rural, and highway corridors. Workforce development and grid planning are needed to support EV deployment.
- Increased EV sales reduce state gas tax revenues, a primary funding source for transportation infrastructure, highlighting the need for alternative funding mechanisms.
- On average, EVs are heavier than their gas-powered counterparts, creating a roadway maintenance concern in areas with a high concentration of EVs.

[7] Alliance for Automotive Innovation EV Sales Dashboard, through March 2024

Advanced Mobility

Advanced mobility refers to innovative transportation technologies that enhance safety, efficiency, and sustainability across both ground and air systems. This includes emerging solutions like autonomous vehicles (AVs), electric vertical takeoff and landing (eVTOL) aircraft, and the digital platforms that support them.

In 2020, Oklahoma Senate Bill 1688 established the Oklahoma Advanced Mobility Program and the Advanced Mobility Program Advisory Council to guide innovation and provide recommendations on policy and regulation. These efforts are designed to position Oklahoma as a leader in modern transportation technologies.

In September 2024, Oklahoma adopted the Advanced Mobility Strategy, a long-term framework to guide the development, deployment, and integration of advanced mobility technologies statewide through 2045. This strategy emphasizes aligning innovation with real-world transportation challenges, economic development, and workforce preparation.

The Big Picture

- Advanced mobility solutions can improve transportation safety, reduce congestion, and expand access to underserved areas.
- Investment in infrastructure is essential to support new technologies, such as AVs and eVTOL aircraft, which require digital connectivity and energy resiliency.
- Coordinated planning helps ensure interoperability between technologies and alignment with public goals.
- These innovations offer significant opportunities for economic growth, industry development, and high-tech job creation in Oklahoma.

To successfully implement advanced mobility solutions, both digital and physical infrastructure must evolve:

Digital Infrastructure

includes AI and machine learning systems to manage real-time data from vehicles and sensors, mobility platforms to improve user access to shared transportation options, and robust cybersecurity systems to ensure safe, secure operations.

Energy Infrastructure

will need upgrades to support the increased demand from electrified vehicles and aircraft.

Data Systems

must be able to handle large volumes of mobility data with interoperability and privacy safeguards.

Physical Infrastructure

such as vertiports, smart traffic signals, and integrated communication networks will support the practical deployment of advanced ground and air mobility solutions.

CHAPTER 5:

EXISTING TRANSPORTATION SYSTEMS AND CONDITIONS

Introduction

A well-functioning transportation system is essential to Oklahoma's economic vitality, public safety, and quality of life. This chapter provides a comprehensive overview of the condition and performance of Oklahoma's multimodal transportation infrastructure, including highways, bridges, public transit, rail, ports, and emerging technologies. It highlights system strengths, identifies areas of concern, and outlines ongoing efforts to improve reliability, safety, and efficiency across all travel modes.

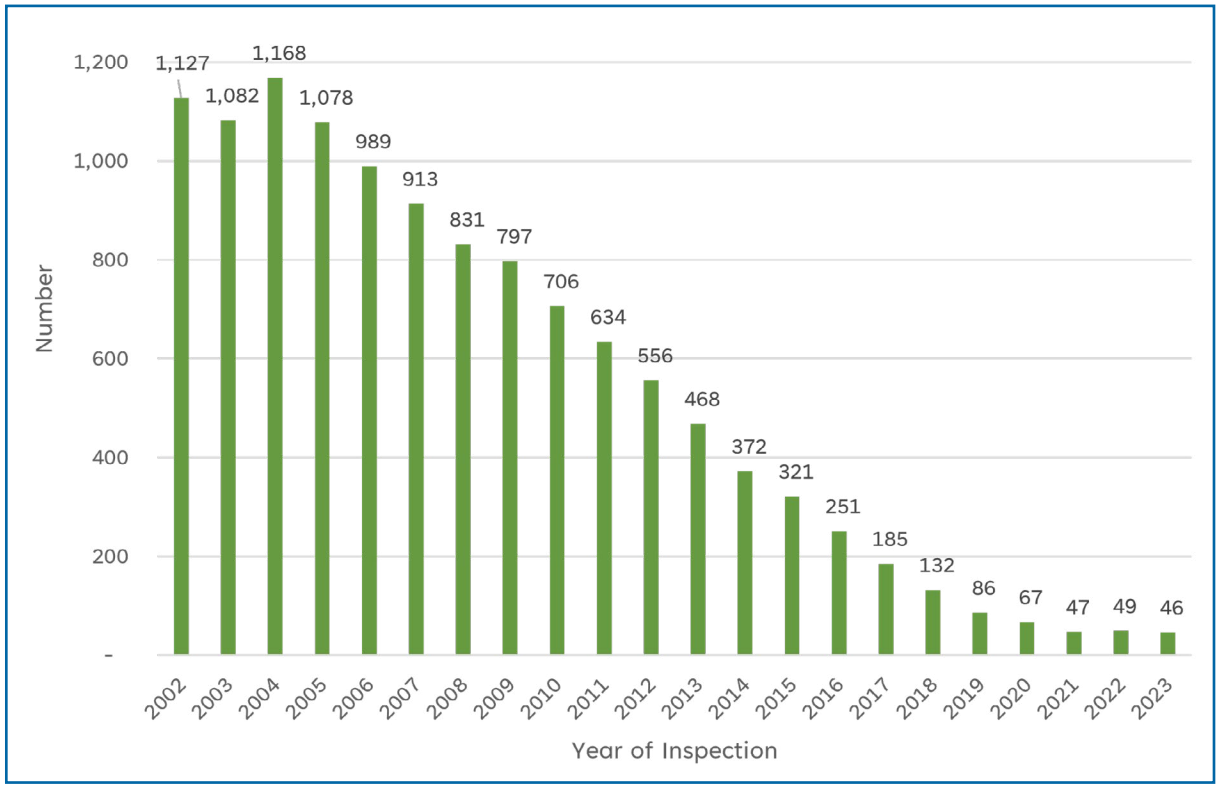
Bridges

Existing Conditions

ODOT maintains approximately 6,800 bridges across the state. Over the past two decades, strategic investments and targeted rehabilitation have significantly improved bridge conditions. In 2004, 1,168 bridges, or 17% of the inventory, were classified as structurally deficient (SD). By October 2024, that number had dropped to just 46, less than 1% of the total, as shown in Figure 5.1. This progress has been largely supported by the Rebuilding Oklahoma Access and Driver Safety (ROADS) fund.

Figure 5.1: On-System Structurally Deficient Bridges

Source: ODOT Bridge Division Most recent data is from 2023



Bridge Condition Goals

ODOT aims to keep SD bridges below 1% through preventive maintenance and innovative practices. All bridges are inspected at least once every two years and rated as good, fair, or poor. While the reduction in SD bridges represents a major success, many bridges rated as "fair," are at risk for further decline. Preventing this deterioration is critical for ensuring long-term structural health and system resilience.

Support Resources

ODOT uses AASHTOware Bridge Management (BrM) software to monitor conditions, optimize maintenance, and forecast future needs. This tool supports the goal of maintaining SD bridges below 1%. Additional preservation strategies, including the use of advanced materials and scheduled maintenance, extend bridge lifespans. The Accelerated Bridge Construction (ABC) program reduces project timelines and costs by using prefabricated elements and modular assembly. Future bridge designs will increasingly focus on system resilience, system reliability, and freight integration.

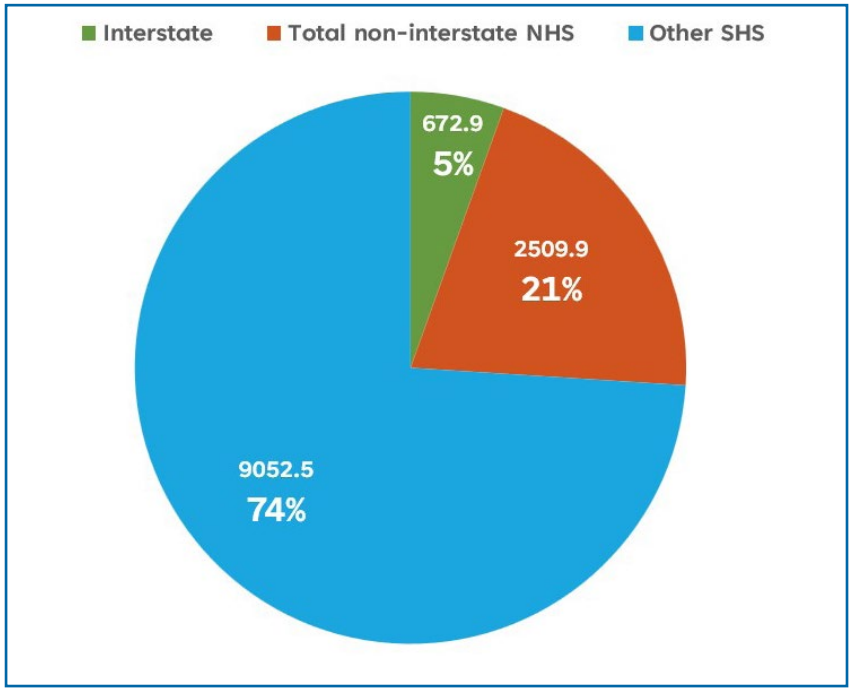
Highways

Oklahoma's 12,235 centerline mile State Highway System (SHS) is a critical component of national and regional connectivity. It links the East and West Coasts with the Gulf Coast and the Great Plains, facilitating the movement of people, goods, and services throughout and beyond the state.

The SHS includes 933 centerline miles of Interstate and 2,865 centerline miles of non-Interstate National Highway System (NHS) routes. Of these, 615 centerline miles are operated by the Oklahoma Turnpike Authority (OTA) as toll roads. The remainder are maintained by ODOT, along with an additional 9,053 centerline miles of non-NHS routes, for a total of 12,235 centerline miles under ODOT jurisdiction as shown in Figure 5.2.

Figure 5.2: ODOT-owned State Highway System Centerline Miles by System

Source: ODOT



Each day, drivers travel approximately 126 million miles on this system. Figure 5.3 provides a breakdown of travel by functional classification.

ODOT regularly inspects system assets to understand the state of repair across the system. Figure 5.4 shows the condition of pavement assets between 2019 and 2023. Concerted maintenance efforts have resulted in an increase in the share of pavement rated as "good" condition, from 33% in 2019, to nearly 40% in 2022, before falling slightly in 2023.

Figure 5.3: State Highway System Daily VMT by System, 2023

Source: ODOT

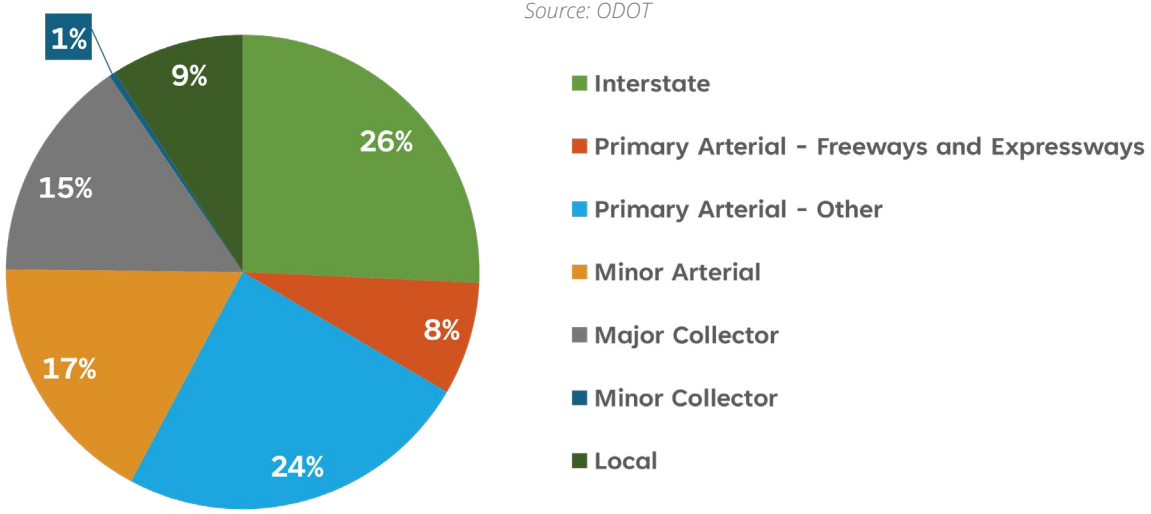
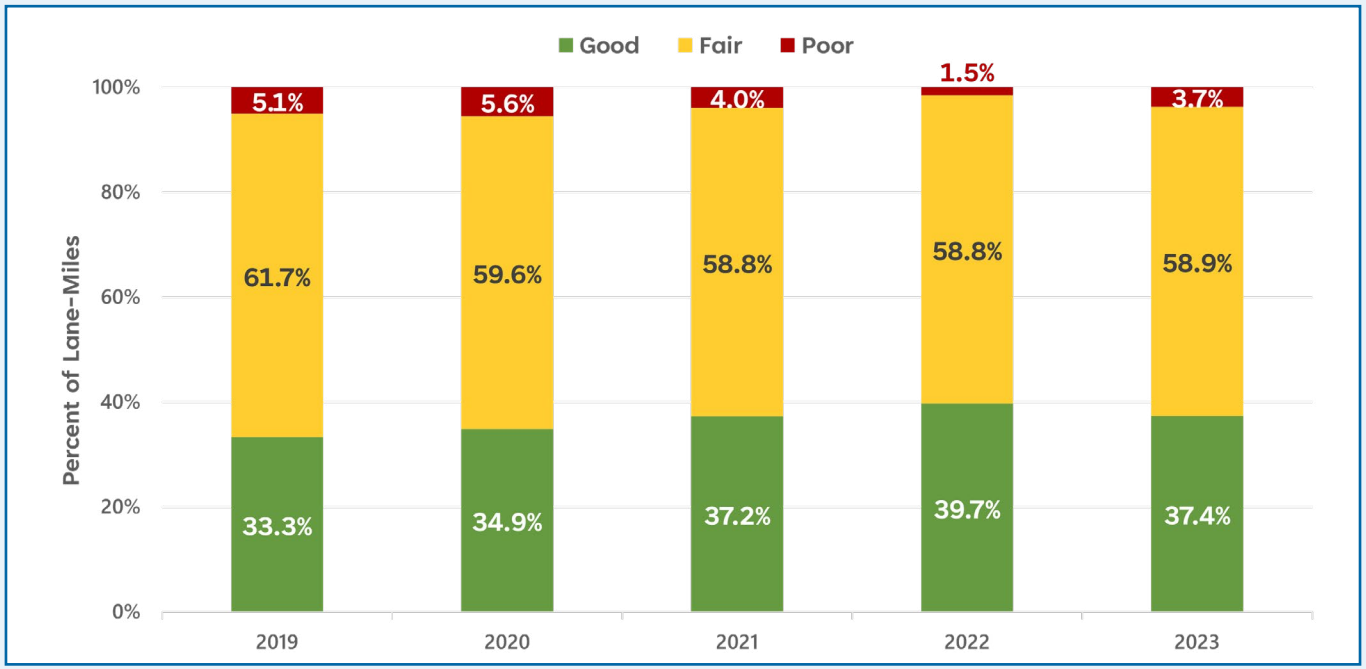


Figure 5.4: State Highway System Pavement Condition, 2019-2023

Source: ODOT



Interstate Highways

Interstates represent the highest functional classification, facilitating efficient long-distance travel and freight movement. In all, there are 933 centerline miles of Interstate highway in Oklahoma, 673 of which are owned and operated by ODOT. While interstates are only 5% of SHS mileage, these routes account for 25.7% of all daily vehicle miles traveled (VMT) in Oklahoma.

The three primary Interstate routes **(I-35, I-40, and I-44)** converge in Oklahoma City, making it a national transportation hub.

I-35 connects Texas to Minnesota.

I-40 runs east-west from California to North Carolina.

I-44 links Texas to Missouri, much of it operating as toll roads via OTA.

ODOT has placed particular emphasis on maintaining the interstate system. Pavement is inspected annually to allow for up-to-date understanding of conditions across the state.

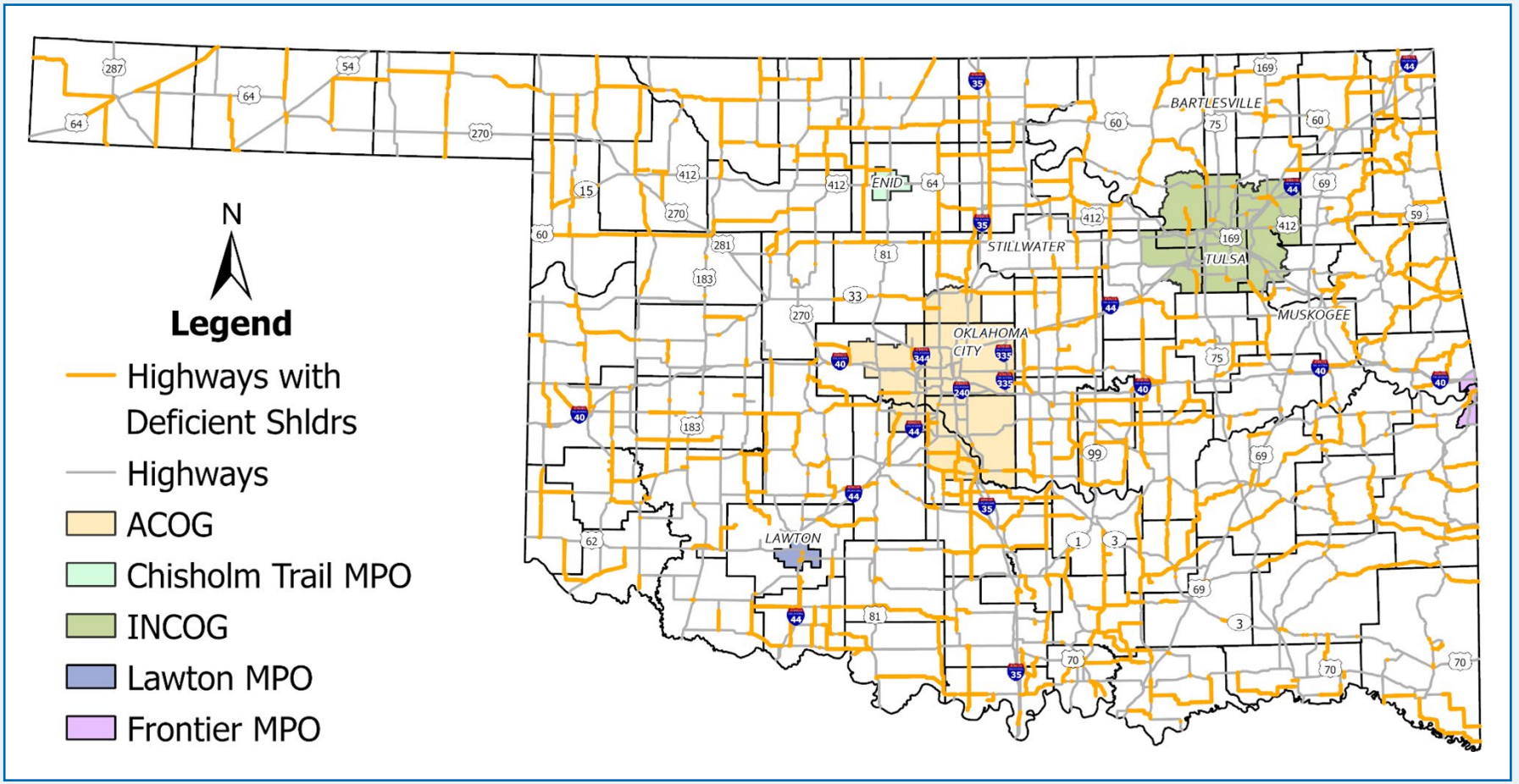
Interstate Highway Pavement Conditions in 2024

Rural Roadways

Though 65% of Oklahoma's population lives in urban areas, the majority of its landmass is rural. Many critical industries including agriculture, energy, and defense are based in these areas. The rural SHS provides essential connectivity and economic support to the state. ODOT prioritizes improvements to rural two-lane highways with deficient shoulders (less than 4 feet wide), as these roads pose safety concerns, particularly for large trucks. Currently, 5,162 miles of such highways remain in the system as shown in Figure 5.5.

Figure 5.5: SHS Roads with Two Lanes, No Shoulders

Source: Oklahoma Department of Transportation



Airport Access

Airports play a vital role in Oklahoma's transportation system, supporting both passenger travel and freight movement. The state has 133 public-use airports with four offering scheduled commercial service:

- **Will Rogers World Airport (OKC)**
- **Tulsa International Airport (TUL)**
- **Lawton-Fort Sill Regional Airport (LAW)**
- **Stillwater Regional Airport (SWO)**

OKC and TUL, the state's primary commercial airports, have direct highway access and are strategically located near their urban cores. These connections support reliable travel and efficient freight transfers. Smaller airports like LAW and SWO serve more limited markets and currently do not require major highway connections.

Intelligent Transportation Systems & Transportation System Management and Operations

ODOT's Intelligent Transportation Systems (ITS) support real-time traffic monitoring and incident response. Components include radar units, cameras, dynamic message signs, and extensive fiber optic infrastructure. A notable project is the installation of 85 Wrong-Way Driving (WWD) systems on I-35 and I-40. These systems detect and respond to wrong-way vehicle movement using radar and cameras and are designed for future fiber network integration.

ODOT also supports local agencies with remote signal management along key freight routes such as US-69 and US-54. Tools like Iteris ClearGuide and AI-enabled cameras enhance safety and response efficiency. One **Autonomous Truck Mounted Attenuator (ATMA) vehicle** has been deployed in District 5 as a pilot project to improve worker safety during striping, herbicide spraying, and minor repairs.

This ATMA LiDAR device detects obstacles and monitors the surrounding environment to help prevent collisions. Source: ODOT

Source: ODOT

ITS Components

ODOT's Maintenance Division manages a wide array of ITS devices, including:

- 729 closed-circuit cameras
- 71 permanent and 37 portable Dynamic Message Signs
- 32 Road Weather Information Systems
- Over 163,000 strand miles of fiber optic cable
- 220 Houston Radar units
- 77 IRD Peak counters
- Miovision AI cameras

Ongoing upgrades include rural tilt-tower cameras and expanded fiber connectivity. Currently, 58 ODOT facilities are connected, with plans for full statewide integration.

Transportation Systems Management and Operations Plans

ODOT updated the agency's ITS and TSMO Strategic Plan in 2023, outlining strategies for statewide operations and regional improvements in Tulsa and Oklahoma City. The six focus areas include:

- Work zones
- Road weather management
- Freight operations
- Special events
- Connected vehicle integration
- Workforce and organizational development

Traffic Management Center

ODOT's Traffic Management Center (TMC) is fully virtual. Unlike other states with centralized physical facilities, Oklahoma's cloud-based TMC provides flexible access across the state via approximately 40 secure consoles. This setup enables sharing of system access with local governments and law enforcement through a Virtual Private Network (VPN).

While some states offer courtesy patrols to support incident response and motorist assistance, Oklahoma does not have such a program. Discussions are underway to potentially implement one through a public-private partnership.

Traffic Information Systems

ODOT offers several tools to share road and traffic conditions with the public:

- **OKTraffic.org**: Real-time traffic cameras, weather data, and dynamic messages
- **OKRoads.org**: Road closures, conditions, and live snowplow tracking
- **Construction Mapping App**: Integrated with Waze to track construction zones

Internally, diagnostic systems support field operations through ticketing, mileage tracking, and maintenance data analysis.

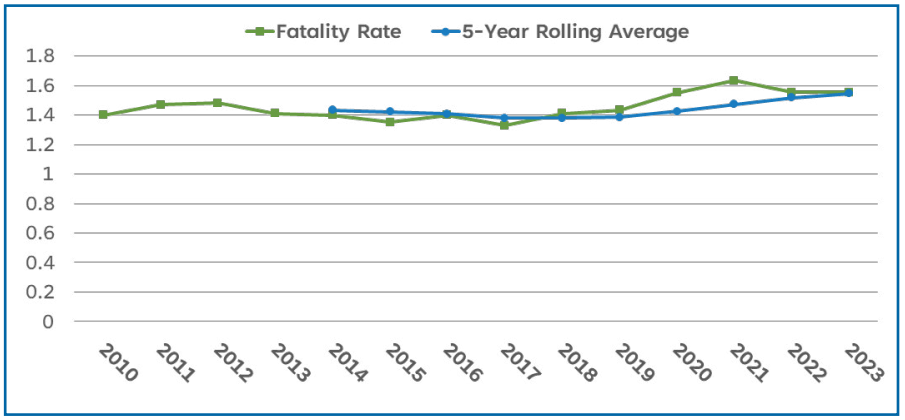
Highway Safety

ODOT believes that safety is a primary consideration in all planning decisions. ODOT uses a number of metrics to track safety conditions across the system, and to inform future decisions. Prior to 2020, fatalities had been trending slightly downwards across the state. However, after the onset of the Covid-19 pandemic, fatalities in Oklahoma and nationwide rose sharply, and remained at elevated levels for several years. Studies have suggested that this was caused by measures put in place to reduce the spread of the virus.[8,9] These measures caused many people to work from home and to drive less, reducing congestion. This in turn allowed for higher speeds, increasing the severity of crashes and the rate of fatalities. Figure 5.6 shows a similar pattern in the rate of fatalities per hundred million Vehicle miles traveled (HMVMT). Note that ODOT changed the methodology for calculating VMT in 2019, resulting in a slight inconsistency in fatality rates before and after the change.

Another important indicator that ODOT tracks is crashes involving large commercial vehicles (CMVs). These vehicles are usually larger and heavier than passenger vehicles, making crashes involving these vehicles more severe. Notably, and in line with national trends, crashes involving CMVs fell in 2020 amid the Covid-19 pandemic, despite these vehicles representing a higher share of total VMT.[10] This is because most CMV crashes involve a passenger vehicle rather than another CMV. Thus, with fewer passenger vehicles on the road, there were fewer CMV crashes.

Figure 5.6: Oklahoma Fatalities per HMVMT, 2010-2023

Source: ODOT



[8] https://pmc.ncbi.nlm.nih.gov/articles/PMC9874053/#s0080

[9] https://pmc.ncbi.nlm.nih.gov/articles/PMC10149483/

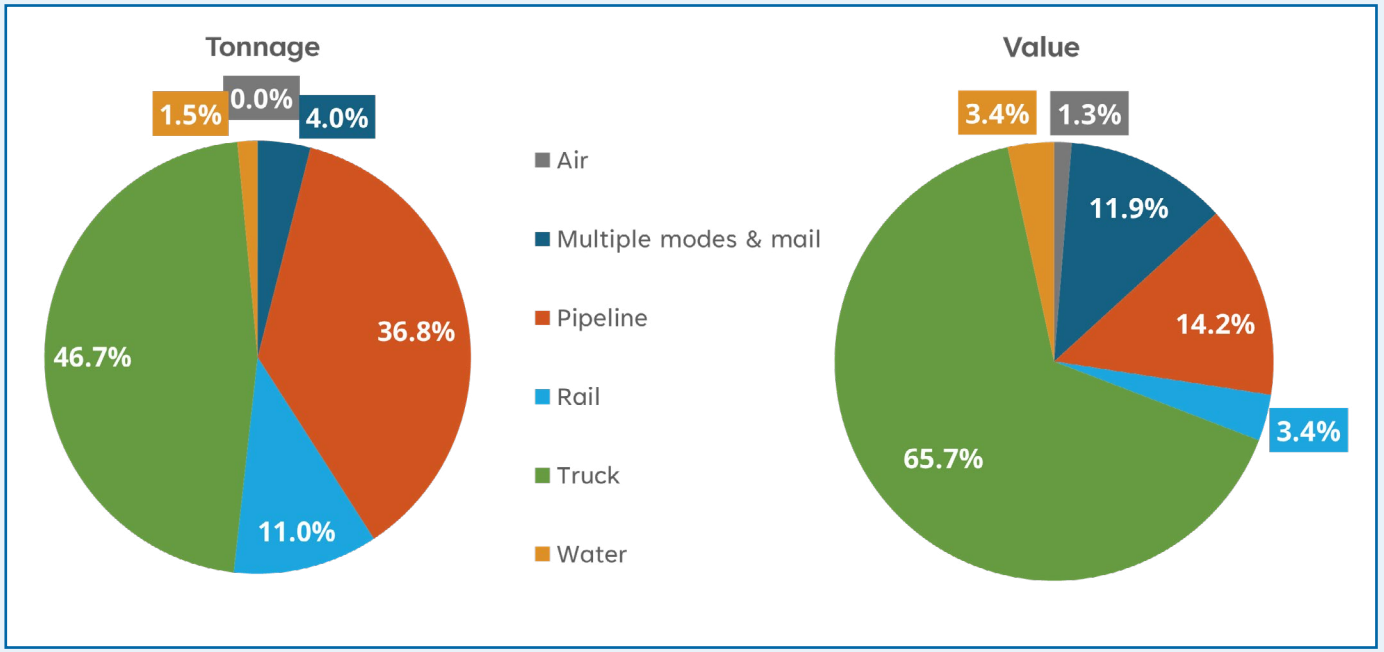
[10] https://www.nhtsa.gov/press-releases/2020-fatality-data-show-increased-traffic-fatalities-during-pandemic

Freight Transportation

Freight transportation is vital to Oklahoma's economy, and an important consideration for the state's transportation network. In 2022, over 275 million tons of freight moved into or out of Oklahoma, while 158 million tons were shipped within the state. **Figure 5.7** shows the distribution of these shipments across modes.

Figure 5.7: Mode Share of Freight by Tonnage and Value, 2022

Source: Bureau of Transportation Statistics Freight Analysis Framework



Highway Freight

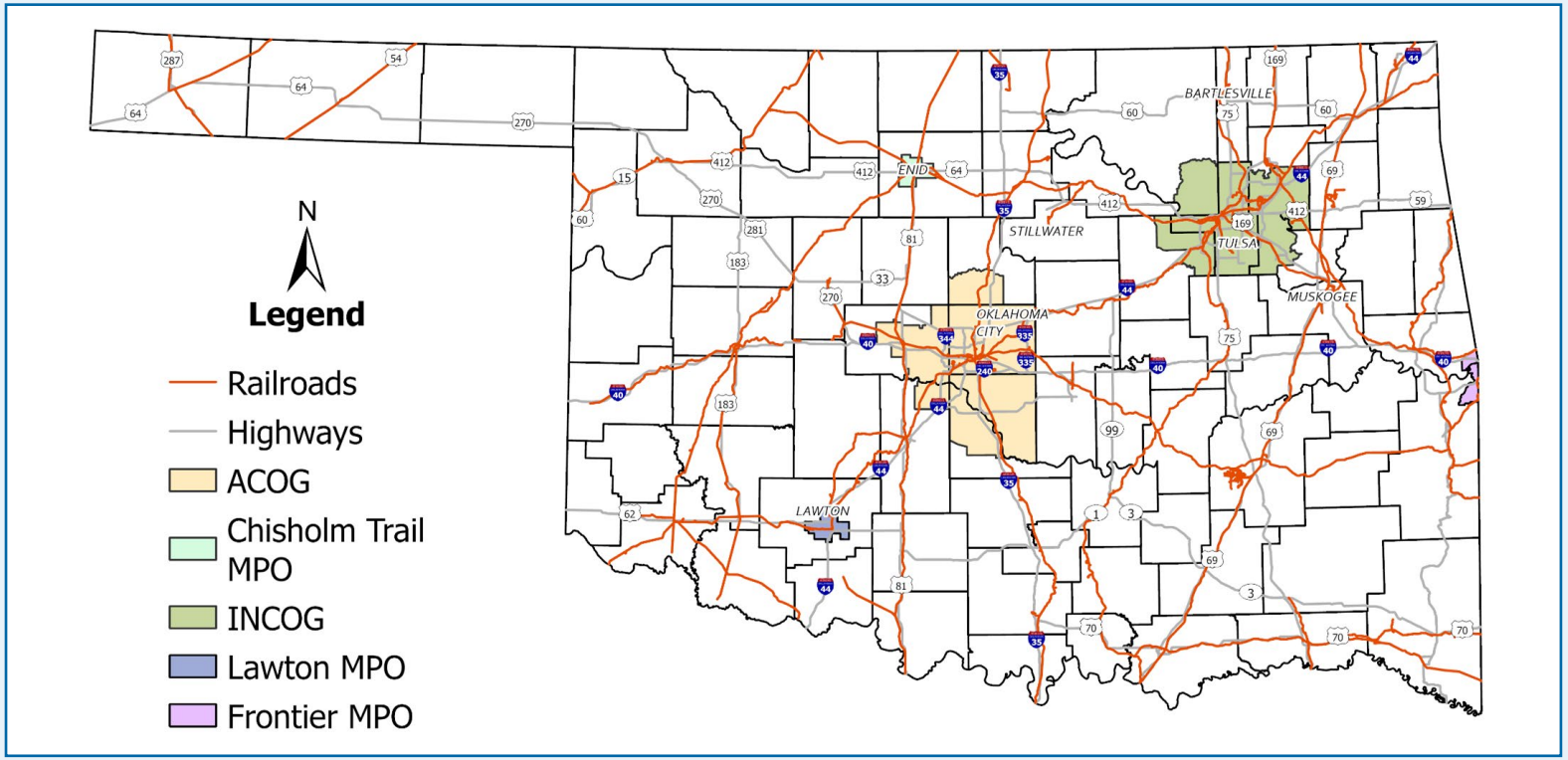
Trucking accounts for 46% of all freight, moving 202 million tons in 2022. To support this mode, ODOT operates five ports of entry and has two additional ports planned. These facilities use advanced scanning technology to enforce weight and safety standards.

Rail Freight

Oklahoma's freight rail network is vital to the state's transportation infrastructure, with three Class I operators (BNSF, Union Pacific, and Canadian Pacific Kansas City) covering 2,012 route miles, alongside 23 Class III operators. Freight rail carries 9% of the state's total freight tonnage, significantly reducing truck traffic. Through the Railroad Revitalization Act of 1978, ODOT initially acquired 882 miles of rail lines, though most have since been returned to private ownership. As of September 2024, the state retains 153 operational rail miles. The sale of the Sooner Sub Rail Line for $75 million in 2014 helped fund improvements to more than 230 of Oklahoma's 3,800 at-grade rail crossings.

Figure 5.8: Oklahoma Class 1 Freight Rail Network

Source: Oklahoma Department of Transportation



Recent rail projects include:

- Grainbelt Line upgrades with Farmrail (TIGER grant)
- KRR line improvements (CRISI grant)
- SH-37/4th Street underpass in Moore (RAISE grant)
- SKOL line modernization by WATCO (CRISI grant)

Waterways

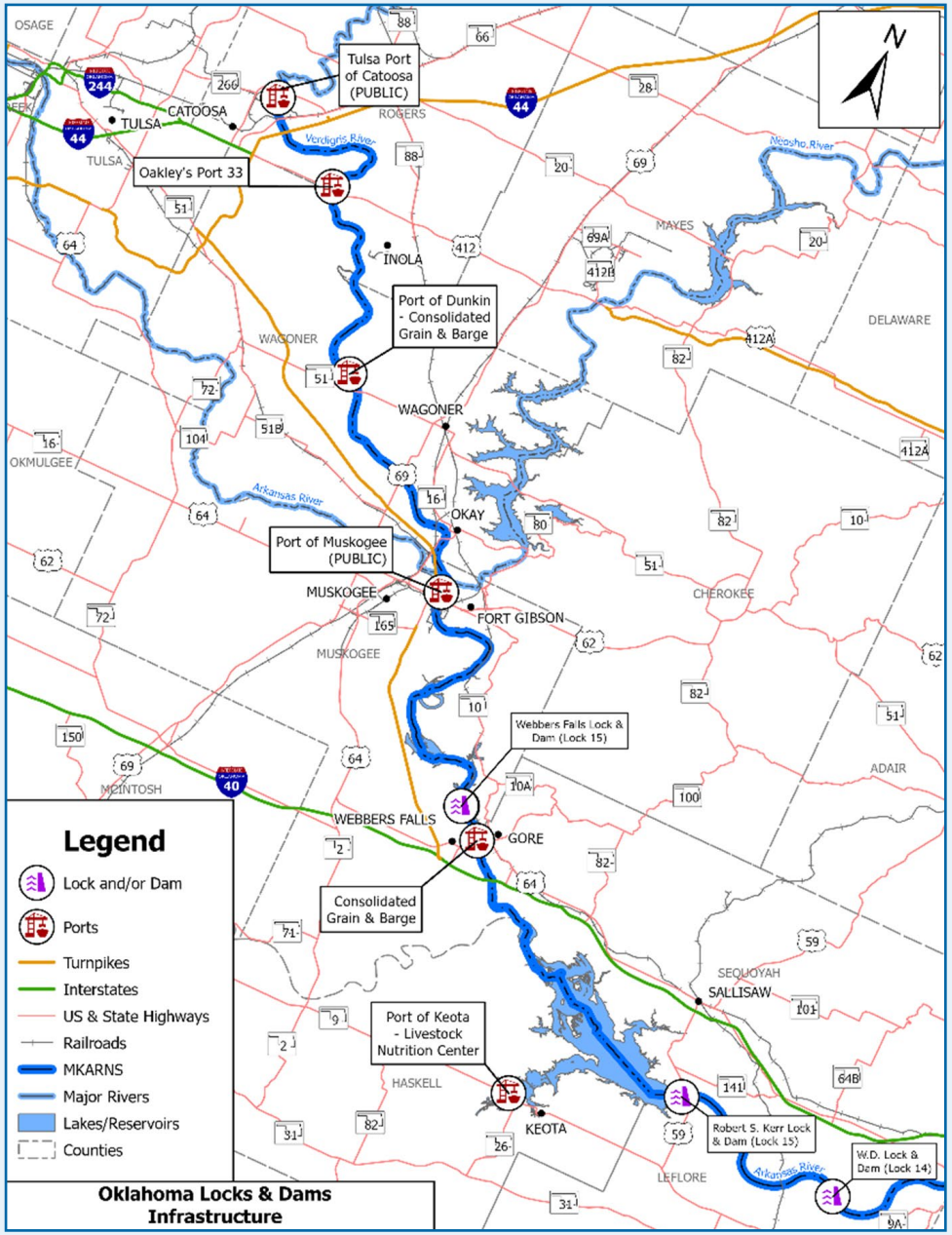
The McClellan-Kerr Arkansas River Navigation System (MKARNS), designated Marine Highway M40, provides Oklahoma with an efficient water-based freight transportation alternative. Spanning 51 miles in Oklahoma as part of a 445-mile route linked to the Mississippi River, it includes eight ports and five locks and dams. This system facilitates the movement of bulk and oversized cargo, such as grain, fertilizer, and heavy machinery, reducing the strain on the SHS. Additionally, the dams serve multiple purposes, including flood control, wildlife conservation, recreation, and hydroelectric power generation. Key public ports include the Port of Catoosa and the Port of Muskogee, both designated as Foreign Trade Zones. Plans are underway to deepen the navigation channel from nine to 12 feet to increase cargo capacity and cost efficiency. MKARNS moves 1.4% of Oklahoma's total freight tonnage annually and has recently benefited from significant infrastructure upgrades.

Recent improvements include:

- New Union Pacific rail access at Port Inola (PIDP grant)
- Rail upgrades at Port Muskogee (PIDP grant)
- A new $16.2 million Port Infrastructure Revolving Fund for future projects

Figure 5.9: Oklahoma Waterways

Source: Oklahoma Department of Transportation



Active Transportation

Oklahoma is committed to creating a safe and accessible transportation network for pedestrians, cyclists, and other active transportation users. Sidewalks, bikeways, and multi-use trails enhance public health, safety, and economic growth while promoting environmental benefits. ODOT ensures all state and federally funded transportation projects comply with the Americans with Disabilities Act (ADA) and, in 2024, developed its first Active Transportation Plan. This plan provides policies, programs, and design tools to better integrate active transportation into roadway planning and support local community efforts. While most trails and bike routes are maintained by local governments, ODOT collaborates with municipalities and metropolitan planning organizations (MPOs) to improve infrastructure.

As of 2024, Oklahoma has approximately 1,315 miles of urban active transportation infrastructure, including urban trails, bike lanes, and pedestrian pathways. Major cities like Oklahoma City (830 miles), Tulsa (460 miles), and Lawton (24.8 miles) have extensive networks. Beyond urban areas, the state features significant long-distance routes, including the 432-mile US 66 Bike Route, part of the United States Bicycle Route System (USBRS), and 18 Scenic Byway Trails totaling 825.6 miles. These statewide trails provide additional opportunities for cyclists and outdoor enthusiasts across Oklahoma.

Source: TomR - Adobe Stock

Public Transportation

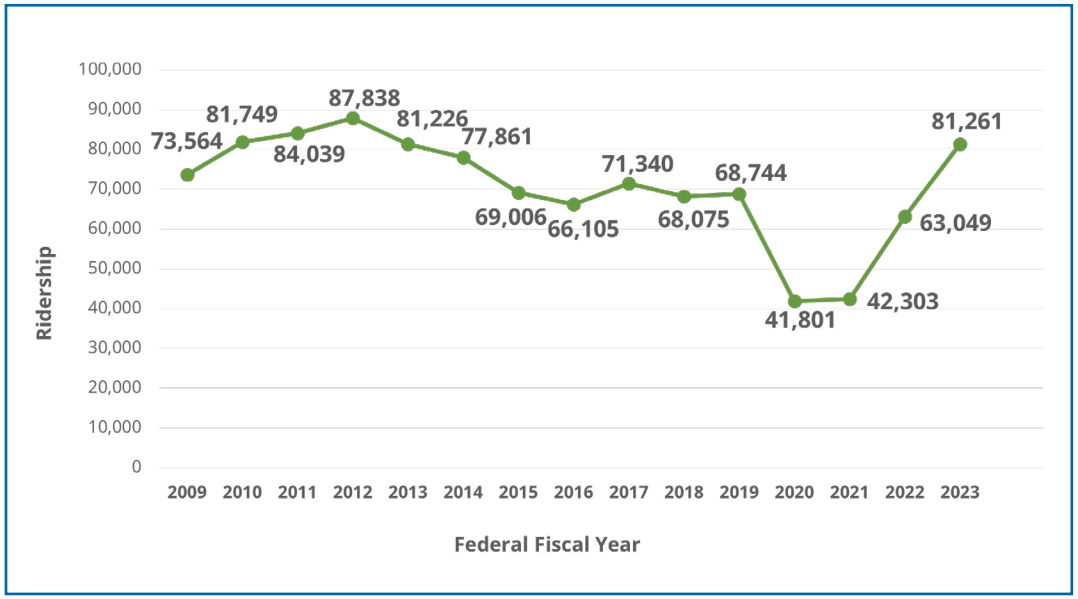
Public transportation is a vital part of Oklahoma's transportation system, providing mobility for residents and visitors, especially seniors, individuals with disabilities, and those with limited financial means. It includes buses, vans, passenger rail, and streetcars, offering an alternative to driving. Funded through federal and state grants, local government contributions, fares, and service contracts, public transit enhances independence and accessibility across the state.

Passenger Rail

Oklahoma has passenger rail service via Amtrak's Heartland Flyer which recently celebrated 25 years of operation. Service runs between Oklahoma City and Fort Worth, Texas with stops in Norman, Purcell, Pauls Valley, Admore, and Gainesville, Texas. Figure 5.10 illustrates the annual ridership on the Heartland Flyer from 2009 through 2023. Ridership has rebounded post COVID-19 and it is anticipated that the 2024 fiscal year will have the highest ridership to date. Between January and August 2024, there were 54,725 riders. In Oklahoma City, Amtrak provides a Thruway bus service between the Heartland Flyer and the Southwest Chief Train in Newton, Kansas.[11] The Thruway services provide connections to communities without rail services and offer guaranteed connections to Amtrak trains.

Figure 5.10: Amtrak Heartland Flyer Annual Ridership, 2009-2023

Source: Amtrak



Transit

As shown in Figure 5.11, Oklahoma has a full range of transit agencies, from large urban systems to tribal transit systems, to rural door-to-door services. Oklahoma City and Tulsa have opened their first Bus Rapid Transit (BRT) lines, various cities have implemented micro transit projects and mobility management programs are growing to serve rural communities.

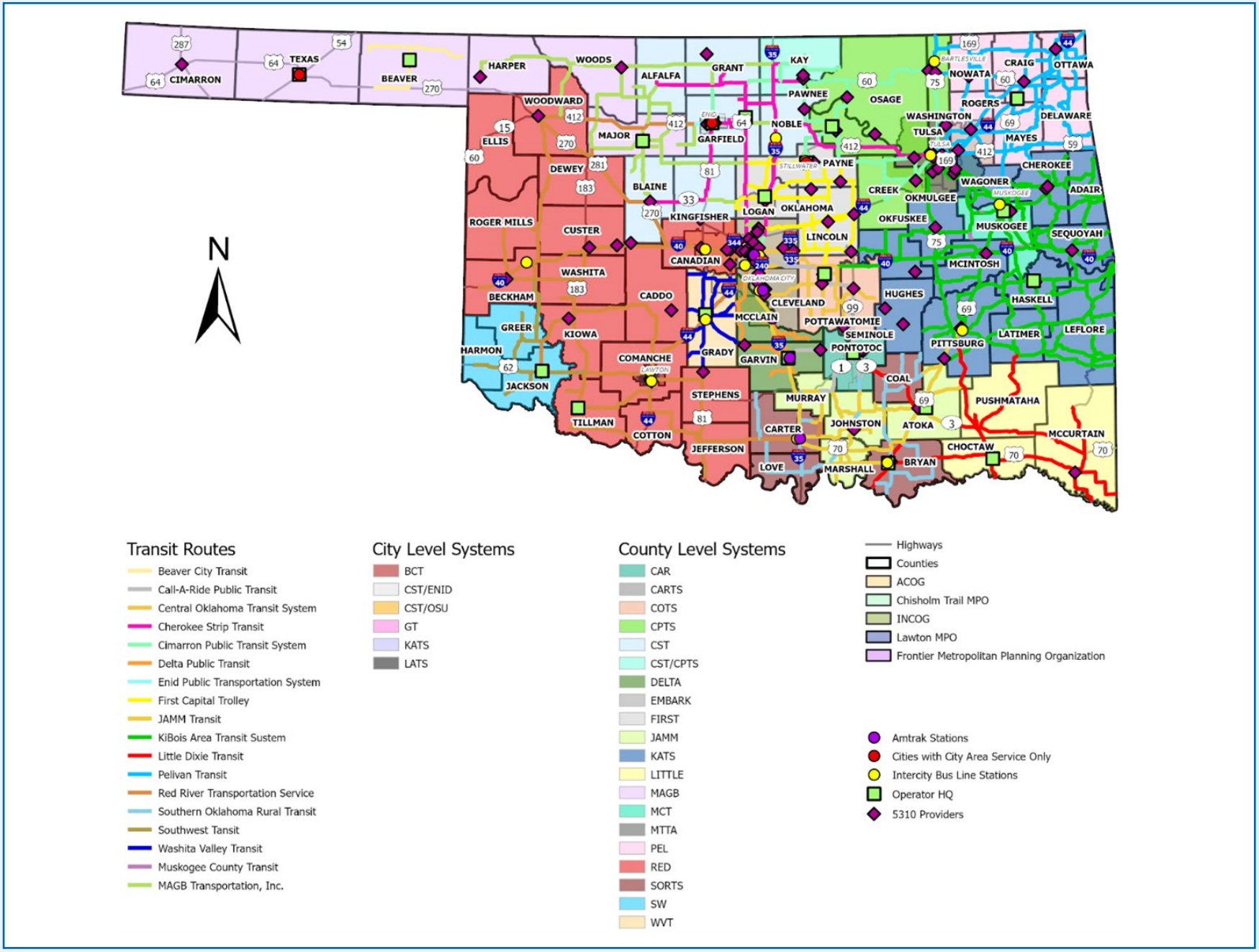
The Office of Mobility and Public Transit (OMPT) within ODOT is responsible for improving the delivery and coordination of public transit services statewide, ensuring that resources are aligned to meet mobility needs of all residents. To support the OMPT, ODOT completed its first Oklahoma Public Transit Policy Plan in 2020.[12] This plan identified strategies and recommendations to support OMPT to ensure a network of public transit systems receive adequate funding to guarantee the mobility needs of Oklahomans are met in a safe, affordable, reliable, consistent, and coordinated fashion.

[11] https://www.amtrak.com/thruway-connecting-services-multiply-your-travel-destinations

[12] https://www.odot.org/transit/pdfs/1-OPTPP%20Final%2012.07.20_Corrected.pdf

Figure 5.11: Oklahoma Transit Services

Source: Oklahoma Department of Transportation

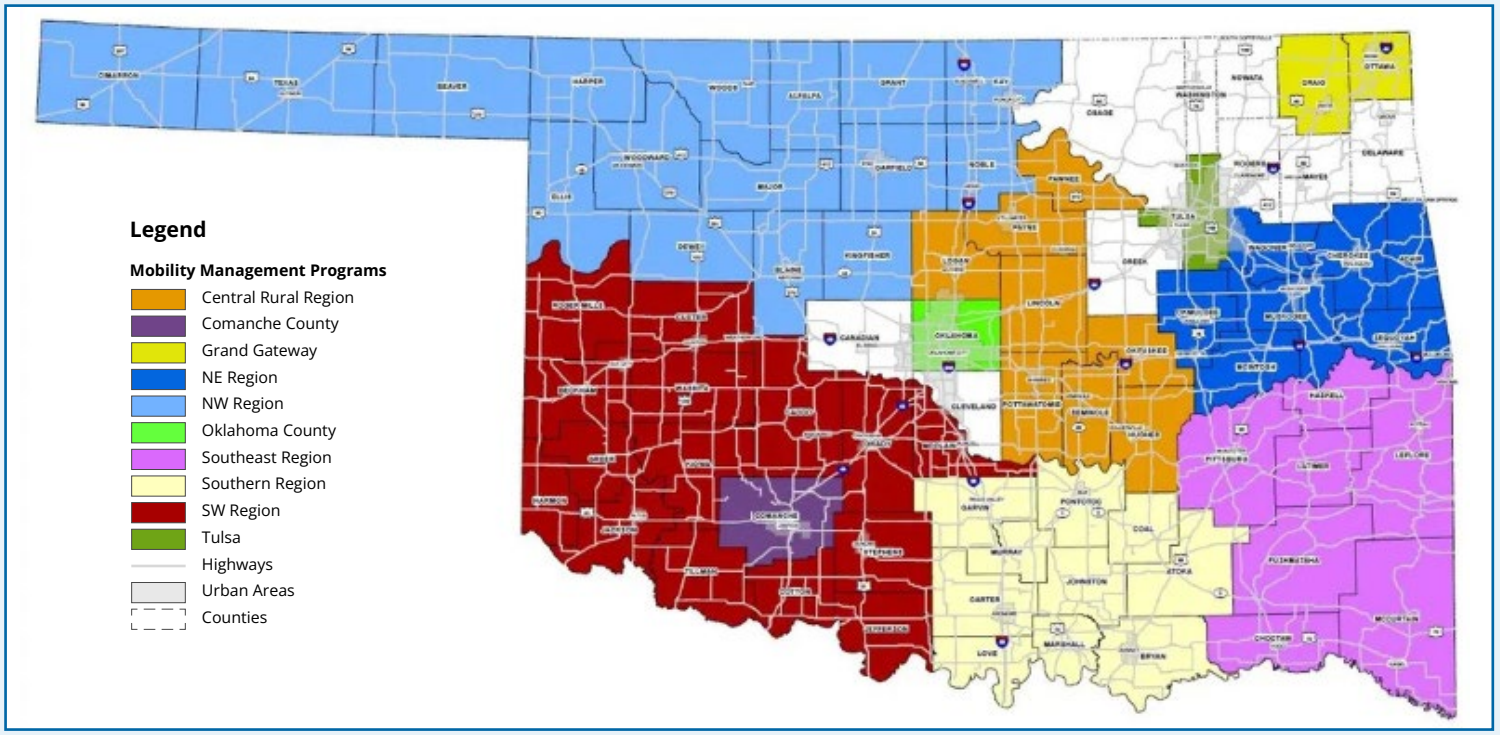


Mobility Management

Mobility management is a transportation strategy that focuses on addressing the needs of diverse community groups, such as older adults, people with disabilities, and individuals with lower incomes, through the coordinated use of various transportation providers. These providers include public transit, private operators, cycling and walking options, and volunteer drivers. By offering a wide range of transportation choices and improving service efficiency through coordination, mobility management ensures that individual needs are met while creating a more effective transportation system for all.[13]

Across the state, there are eight Mobility Management Programs, as seen in **Figure 5.12**. ODOT is working to provide up to 80% of the cost of these programs. The primary goal of these programs is to increase mobility management services to rural residents in Oklahoma Counties. For more information on the Oklahoma Mobility Management Program please visit **https://okmm.multiscreensite.com**.

Figure 5.12: Oklahoma Mobility Management Programs



[13] https://irp.cdn-website.com/2dbb3304/files/uploaded/mobility-management-brochure.pdf

Rural Transit

Throughout the state, there are 19 rural transit operators who provide fixed route and demand response services for small and rural communities, as shown in Table 5.1. ODOT assists the rural providers by administering the Federal Transit Administration's (FTA) Rural Area Funding Program, also known as the Section 5311 Program, which provides financial assistance to eligible local public transportation providers. The financial assistance programs for the rural and small urban areas are administered by ODOT's Office of Mobility and Public Transit and include funding from the federal government and Oklahoma's Public Transit Revolving Fund.

Table 5.1: Oklahoma 5311 Recipients and Rural Transit Providers

Rural Transit Operator	Services Provided	ODOT District
Town of Beaver-Beaver City Transit	Demand Response	6
Pontotoc County Public Transit- Call a Ride	Demand Response	3
Central Oklahoma Transit System	Demand Response	3
Northern Oklahoma Development Authority - Cherokee Strip Transit	Demand Response	4, 5 & 6
United Community Action Program- Cimarron Public Transit System	Demand Response	4 & 8
Delta Public Transit	Demand Response	3
First Capital Trolley	Fixed Route & Demand Response	3 & 4
Guymon Transit	Demand Response	6
Inca Community Services Inc -J.A.M.M Transit	Demand Response	2, 3 & 7
KI BOIS Area Transit	Demand Response	1, 2 & 3
LIFT CAA Transit	Demand Response	2
MAGB Transit	Demand Response	6
Muskogee County Public Transit Authority	Fixed Route & Demand Response	1
OSU/Stillwater Community Transit System	Fixed Route & Demand Response	4
Grand Gateway EDA - Pelivan Transit	Demand Response	8
Community Action Development Corp- Red River Public Transportation Service	Demand Response	4, 5 & 7
Big Five Community Services - Southern Oklahoma Rural Transportation System	Demand Response	2, 3 & 7
Southwest Oklahoma Community Action Group -Southwest Transit	Demand Response	5
Washita Valley Transit System	Demand Response	7

Transit Agency Profiles from the 2023 FTA National Transit Database (NTD) were utilized to better understand transit services provided throughout the State. In total, utilizing 2023 NTD data, the 19 rural transit providers have 942 revenue vehicles, 1 service vehicle, and 18 facilities (includes maintenance facilities, fueling facilities, offices, etc.). ODOT continuously updates the Group Transit Asset Manage Plan (TAMP) to inventory and document transit assets, as well as discuss the level of service, performance measures, life cycle strategies, funding levels, and investment needs. The current TAMP was developed in 2020 and updated in December 2024.

Urban Transit

There are six urban transit operators in Oklahoma located in Edmond, Enid, Lawton, Norman, Oklahoma City, and Tulsa as shown in Table 5.2. To be considered an urban transit entity, the transportation systems must serve communities with a minimum of 50,000 residents. These entities are direct recipients of FTA Urbanized Area Formula Funding Program, also known as the Section 5307 Program, which provides financial assistance for transit capital and operating assistance for urbanized areas. Eligible 5307 activities include planning, engineering, design, and evaluation of transit projects and other technical transportation-related studies. For communities with populations between 50,000 to 200,000, 5307 funds can be used for operating assistance. A review of the 2023 FTA NTD Transit Agency Profiles found that the Oklahoma urban transit providers have 331 revenue vehicles, 82 service vehicles, and 43 facilities.

Table 5.2: Oklahoma 5307 Recipients and Urban Transit Providers

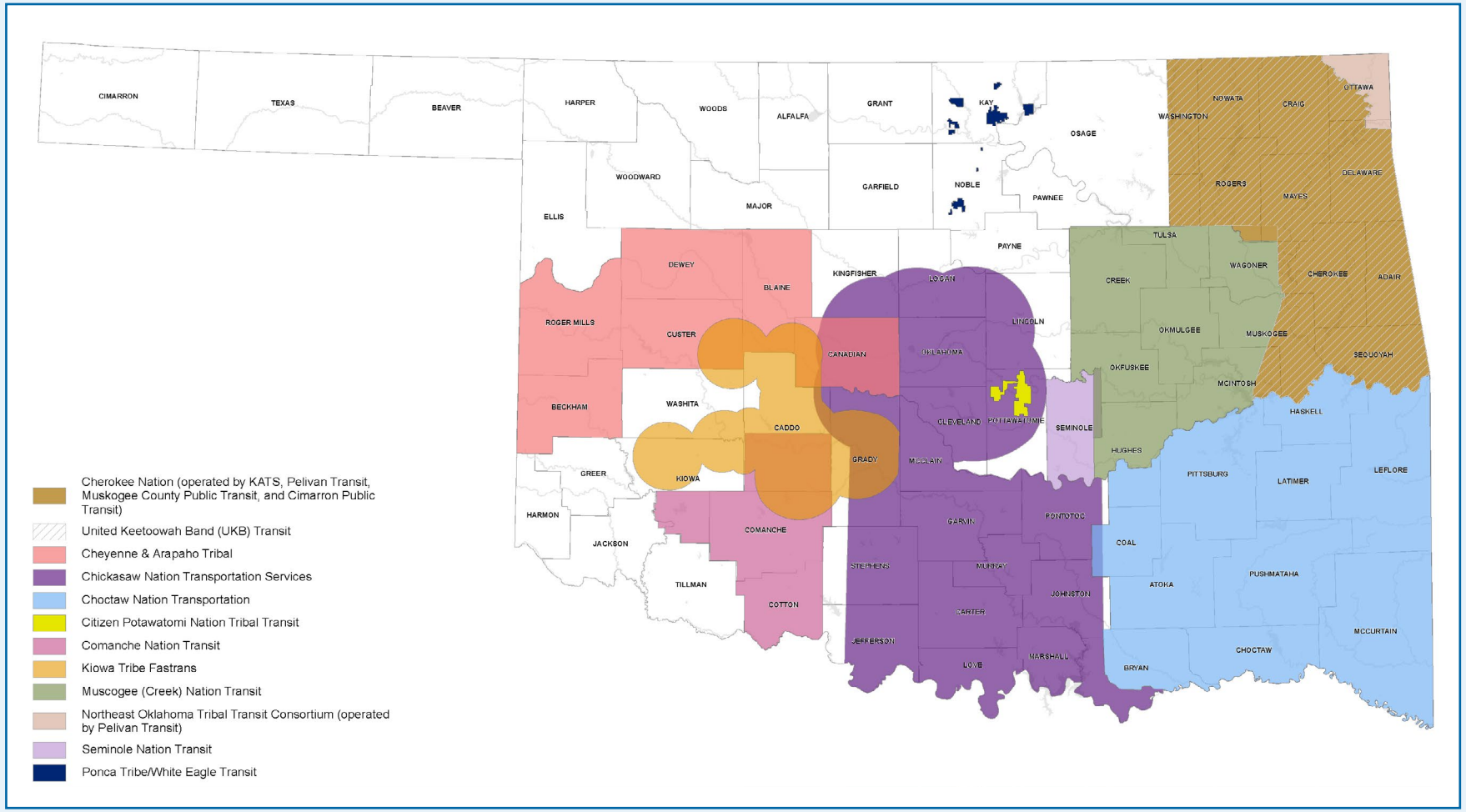
Urban Transit Operator	Services Provided	ODOT District
Edmond	Fixed Route & Demand Response	4
Enid	Demand Response	4
Lawton	Fixed Route & Demand Response	7
Norman	Fixed Route & Demand Response	3
Oklahoma City	Fixed Route & Demand Response	3 & 4
Tulsa	Fixed Route & Demand Response	8

Tribal Transit

There are twelve tribal transit agencies that receive federal funds for transit, shown in Figure 5.13. A review of the 2023 FTA NTD Transit Agency Profiles found the tribal transit providers have 181 revenue vehicles, 14 service vehicles, and 12 facilities. While most tribal transit agencies own their vehicles and hire drivers directly, some partner with local agencies who provide these services.

Figure 5.13: Tribal Transit Service Coverage Area

Source: Oklahoma Department of Transportation



CHAPTER 6:

MODAL NEEDS

Introduction

A major component of the 2050 LRTP planning process is identifying transportation needs across all modes and assets, ensuring a comprehensive understanding of the challenges and opportunities that lie ahead. This Modal Needs chapter identifies specific needs of each transportation mode and the assets necessary to build and maintain a safe, efficient, and connected multimodal system.

Meeting the mobility demands of a growing population and a robust economy necessitates a clear assessment of the existing infrastructure and projected future usage for each transportation mode. ODOT holds direct responsibility for the condition, safety, and capacity of key elements within this multimodal transportation system. This includes the critical areas of pavement and bridge maintenance, improvement and replacement; enhancing safety across the network; strategically expanding capacity where needed; upgrading interchanges for improved flow; performing routine and crucial maintenance; implementing and managing intelligent transportation systems (ITS); and maintaining essential facilities such as ODOT-operated rest areas , weigh stations, and ports of entry.

However, a truly integrated and effective transportation system extends beyond ODOT's direct responsibilities. Recognizing the interconnectedness of all modes, ODOT collaborates closely with various partner agencies that are responsible for addressing the needs of other vital components of the multimodal transportation system. These partnerships are essential for the planning, development, and support of bicycle and pedestrian facilities, public transportation services, passenger rail service, freight rail, waterways, and ports.

This chapter details the needs for each of these modes and assets, drawing upon data analysis, performance metrics, historical and projected trends, and coordination with ODOT's subject matter experts. By outlining the modal needs, this chapter provides the essential foundation for developing policy and funding strategies necessary to achieve the vision and goals of the 2050 LRTP.

As shown in **Table 6.1**, the 2025-2050 needs on the state highway system total $50.7 billion or $1.9 billion annually. The 2025-2050 needs for other modes total $12.4 billion or $475.4 million annually. All cost figures in this chapter are in 2024 dollars. The table also summarizes projected funding sources. Most state funding, as well as federal funding administered by ODOT, is spent on the highway system, but is not dedicated to specific needs within that system. The remaining state and federal money, as well as partner funding, is allocated to specific modal systems, as shown in the table. Funding sources and projections are further discussed in the **Revenue Forecast** chapter. Finally, the table includes the projected funding gap, which represents the difference between the need and projected revenue for each mode.

Table 6.1: Total Multimodal Needs, Revenues, and Funding Gaps 2025-2050 (millions of 2024 dollars)

Category	Average Annual Need	2025-2050 Need	State/ Federal Funding Received	Partner Funds	Funding Gap
Pavement	$600	$15,600.0			
Bridge	$235	$6,110.0			
Maintenance	$333.1	$8,662.4			
Expansion	$81.7	$2,125.3			
Interchanges	$293.8	$7,637.5			
Safety	$389.5	$10,125.8			
ITS	$8.8	$229.31			
Weigh Stations/POEs	$8.0	$208.5			
Rest Areas	$1.5	$38.7			
State Highway System Needs	**$1,951.4**	**$50,737.51**	**$37,946.0**	**$0**	**$12,791.51**
Freight Rail Crossings	$6.3	$164.3	$164.3	$0.0	$0.0
Freight Rail Needs	$16.8	$436.3	$0.0	$0.0[14]	$436.3
Passenger Rail	$81.3	$2,111.7	$57.0	$0.0	$2,054.7
Public Transportation	$274.4	$7,133.3	$961.5	$2,289.1	$3,882.7
Bicycle/Pedestrian	$90.5	$2,351.7	$495.0	$115.1[15]	$1,741.6
Ports and Waterways	$6.1	$159.4	$0.0	$0.0[16]	$159.4
Other Modal Needs[17]	**$475.4**	**$12,356.7**	**$1,677.8**	**$2,404.2**	**$8,274.7**
TOTAL Needs	**$2,426.8**	**$63,094.21**	**$39,623.8**	**$2,404.2**	**$21,066.21**

[14] Private rail carriers are responsible for most rail improvements. ODOT does not have access to proprietary funding plans.

[15] MPOs, RTPOs, and other local entities provide additional funding for bicycle and pedestrian needs. The total value of this spending is not available. The estimated partner funding in table 1 is based on recent TAP awards.

[16] Private port operators are responsible for most rail improvements. ODOT does not have access to proprietary funding plans.

[17] ODOT works in cooperation with partner agencies who are responsible for funding other modal needs.

State Highway System Needs

Pavement

Oklahoma's State Highway System (SHS), encompassing 12,235 centerline miles, serves as the vital network connecting communities, facilitating commerce, and enabling the daily lives of millions. This extensive infrastructure is the backbone of the state's transportation system, supporting everything from daily commutes to the movement of freight essential for the economy. The condition of the SHS directly impacts the safety, efficiency, and reliability of travel across Oklahoma.

ODOT is responsible for maintaining pavement conditions on the SHS. Proactive pavement maintenance, including timely repairs, rehabilitation, and preservation treatments, is more cost-effective in the long run than allowing pavement conditions to deteriorate to the point where major reconstruction is required.

The forecasting process for highway pavement needs relies on roadway inventory data – used for Highway Performance Monitoring System (HPMS) reporting - and projections from the dTIMS asset management software. The HPMS was the primary source for pavement condition data, providing baseline conditions and historical trends across the

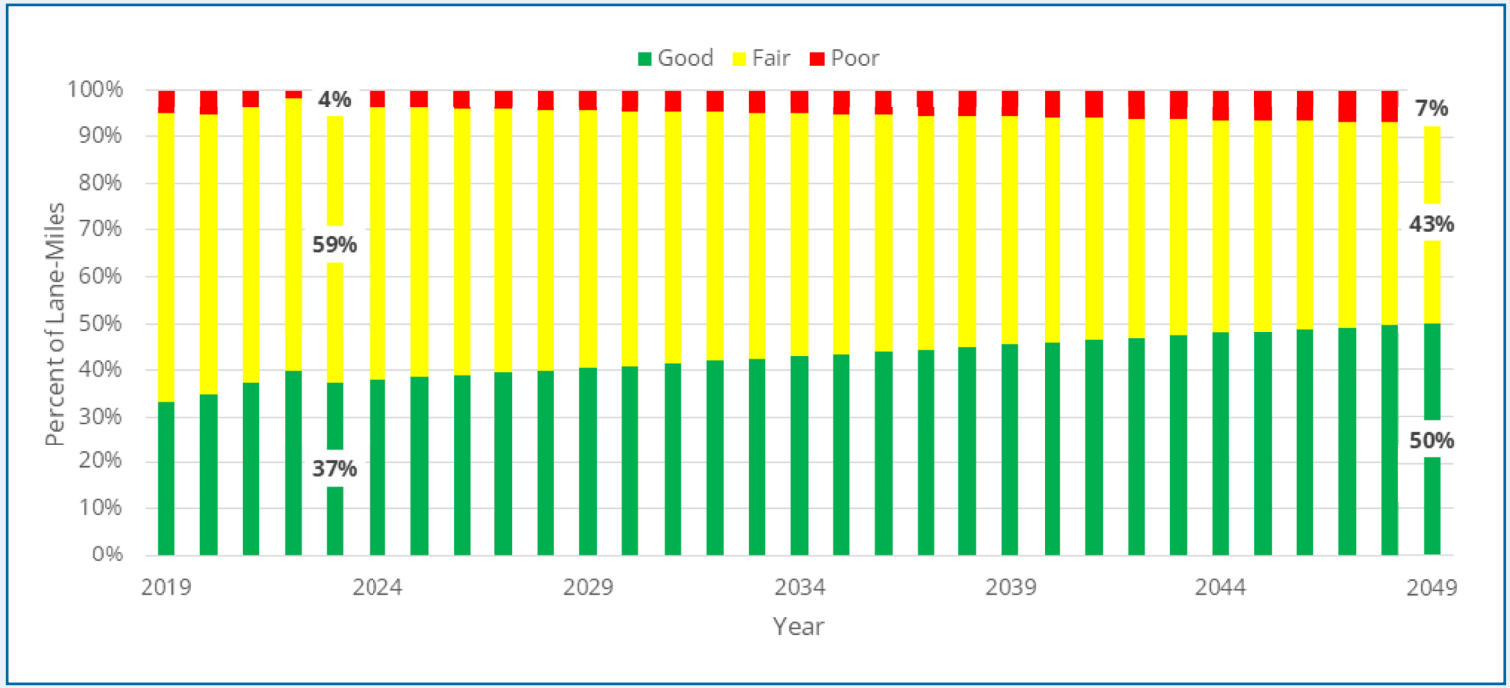
Source: ODOT

Oklahoma SHS. dTIMS was employed to project pavement quality index (PQI) scores year to year under different budget scenarios, offering insight into how funding levels impact pavement condition to the year 2050.

Oklahoma's federally mandated pavement performance targets, as outlined in its Transportation Asset Management Plan (TAMP), aim for specific conditions on the National Highway System (NHS). For the interstate system, the goal is to have no more than 7% of pavements in "poor" condition and at least 50% in "good" condition. On the non-Interstate NHS, the state's target is to maintain less than 17% of pavements in "poor" condition. These targets are a requirement of federal law, established under 23 CFR Part 490, to ensure states properly maintain their roadway assets.

Figure 6.1 presents recent and projected good, fair, and poor pavement conditions, assuming $600 million in annual maintenance spending. This funding level achieves the proposed target of 50% of lane-miles in good condition while reducing poor condition lane-miles to approximately 7%. All state highway system categories benefit substantially, with interstates and non-interstate NHS routes achieving near-target conditions and non-NHS routes seeing the most dramatic pavement condition improvements. At this funding level, the total need through 2050 is $15.6 billion.

Figure 6.1: State of Good Repair, Entire State Highway System



Bridge

Bridges are essential links in Oklahoma's SHS, spanning rivers, valleys, railroads, and other barriers to ensure the smooth movement of people and goods across the state. The condition of Oklahoma's bridges has direct implications for public safety and the state's economic vitality. Safe and reliable bridges are essential for the efficient movement of freight, supporting industries that depend on timely transportation. They are equally crucial for the daily commutes and travel of Oklahoma residents and visitors. Addressing bridge needs is not just a matter of infrastructure management, but a vital investment in the safety and prosperity of the state. There are 6,751 bridges on the SHS, 2,614 of which are on the NHS. This needs analysis excludes locally and privately owned bridges and culverts, such as county, city, and turnpikes.

The AASHTOWare BrM asset management software was used to forecast future bridge state-of-repair at four annual investment levels of $170 million, $180 million, $200 million, and $225 million. ODOT's performance measure for bridge condition is the share of bridges in poor condition, currently at 0.66%. Three performance targets were considered for the needs assessment.

First, ODOT is guided by a set of federally mandated pavement performance measures that are crucial for ensuring the quality and longevity of the state's NHS. These national standards, established by the FHWA, provide a framework for data-driven decision-making, enhance accountability, and directly impact federal funding for the state's NHS. ODOT established a 2022 goal of less than 5% of bridges to be in poor condition and 40% of bridges must be rated in good condition, which is in line with the NHS target.[15]

Second, when Oklahoma developed the Rebuilding Oklahoma Access and Driver Safety (ROADS) Fund, 1% was selected as the bridge condition threshold. The third target of 3% is the midpoint of the ROADS and NHS targets.

Figure 6.2 presents the projected bridge conditions for the $225 million annual funding scenario. The percentage of bridges rated poor remains low, estimated at 1.8% in 2050. The percentage of bridges rated good remains high, estimated at 51.4% in 2050. The maximum percentage occurs in 2038 and then steadily declines to 2050; however, bridge performance remains above the 40% good condition NHS federal target.

Figure 6.2: Forecasted Bridge Conditions under Funding Scenario 4: $225M

Sources: ODOT and BrM

[15] Federal Highway Administration. "Tables of Frequently Requested NBI Information." *U.S. Department of Transportation*. Updated July 22, 2024. https://www.fhwa.dot.gov/bridge/britab.cfm.

Expansion

A key component of the 2050 LRTP is analyzing future congestion on the state highway system to identify necessary infrastructure investments. This evaluation, driven by the ODOT statewide Travel Demand Model (TDM), is essential for ensuring the state's highways can accommodate projected growth and mitigate traffic congestion to safeguard Oklahoma's economic vitality and quality of life.

The TDM is a tool that forecasts future traffic volumes, providing information where and when congestion is likely to exceed acceptable levels. To quantify and address these challenges, ODOT has established expansion targets based on the volume-to-capacity (V/C) ratio, a key metric that compares the amount of traffic on a roadway to its maximum capacity. The V/C ratios are categorized by Level of Service (LOS) ratings, which grade roadway performance from A (free flowing) to F (gridlock). In line with best practices for maintaining efficient traffic flow, ODOT has set distinct performance targets for different types of areas. For the state's urban centers, the goal is to maintain a Level of Service of D or better. In contrast, rural areas, which are vital to the state's connectivity, are targeted for a more fluid Level of Service of C or better.

General Operating Conditions by Level of Service

A	Highest driver comfort; Free flow
B	High degree of driver comfort; Reasonably free flow/little delay
C	Acceptable level of driver comfort; Stable flow/some delay
D	Some driver frustration; Approaching unstable flow/moderate delay
E	High level of driver frustration; Unstable flow/high levels of delay
F	Highest level of driver frustration; Forced or breakdown flow/excessive delays

Through this data-driven approach, roadway segments that fail to meet these performance targets under future traffic projections are identified as requiring expansion. This typically involves the addition of new lanes to increase capacity and improve traffic flow. By identifying these necessary roadway expansions and the associated costs, it ensures that Oklahoma's state highway system can continue to support safe and efficient travel for its citizens and the movement of goods and services that are essential to maintaining the state's economy for decades to come.

Based on this analysis, Table 6.2 shows the estimated costs by urban and rural functional classifications of meeting 100% of the highway expansion needs from 2025-2050. The expansion needs total $2.1 billion, and the average annual need is $81.7 million. The interstate and principal arterials make up 93% ($1.9 billion) of the expansion needs, and 94% (nearly $2 billion) of the expansion needs are in urban areas.

Source: ODOT

Table 6.2: Estimated Costs for Highway Expansions, 2023-2040 (in millions $2025)

Functional Classification	Urban	Rural	Annual Average Need	2025-2050 Needs
Interstate	$1,281.4	$11.6	$49.7	$1,293.0
Principal Arterial - Other Freeways or Expressways	$265.6	$4.2	$10.4	$269.7
Principal Arterial - Other	$348.3	$73.8	$16.2	$422.1
Minor Arterial	$68.7	$16.3	$3.3	$84.9
Major Collector	$28.5	$27.2	$2.1	$55.7
Total	**$1,992.4**	**$133.0**	**$81.7**	**$2,125.4**

Sources: ODOT TDM and ODOT cost per mile estimates by functional classification

Safety

Ensuring the safety of all who travel on Oklahoma's transportation system is ODOT's top priority. A safe transportation system is necessary to protect lives, reduce injuries, and instill public confidence. While progress has been made in improving highway safety, challenges persist, and this requires a continuous and focused effort to identify and address safety needs across the state.

ODOT is committed to eliminating fatalities and serious injuries on its roadways. This commitment is underscored by the safety needs assessment conducted during the 2050 LRTP planning process. The safety needs assessment identifies critical areas where focused attention and investment are needed to improve the safety of Oklahoma's transportation system.

The safety needs assessment examined specific requirements for improving highway safety, categorized into five key areas:

Intersection Safety

Addressing risks and implementing improvements at intersections, which are often points of conflict and potential crashes.

Roadway Departures

Focusing on strategies and infrastructure to prevent vehicles from leaving the roadway, a significant factor in fatal and serious injury crashes, particularly on rural two-lane roadways with deficient shoulders.

Active Transportation Safety

Identifying needs and implementing measures to improve safety for pedestrians, bicyclists, and other non-motorized users, ensuring they can travel safely within and alongside the highway system.

Data and Analysis

Emphasizing the crucial role of data collection, analysis, and research to understand crash patterns, identify high-risk locations, and evaluate the effectiveness of safety countermeasures.

Human Behavior

Recognizing the significant impact of driver behavior on safety and exploring strategies related to education, enforcement, and awareness campaigns to promote safer choices on the road.

Evaluating the safety needs within these categories identified safety countermeasures and initiatives aimed at creating a safer transportation system. Based on the analysis, $389.5 million is needed annually to improve highway, pedestrian, bicyclist, and other non-motorized users' safety. Table 6.3 shows the total cost for each of the five safety categories. ODOT is prioritizing improvements to rural two-lane highways with deficient shoulders (less than 4 feet wide), as these roads pose safety concerns, particularly for large trucks. Currently, 5,162 miles of two-lane roadways have deficient shoulders.

Table 6.3: Total Safety Improvement Costs, 2025-2050 (millions of 2024 dollars)

Category	Annual Average Need	2025-2050 Needs
Intersections	$27.2	$708.3
Roadway Departure	$360.3	$9,367.6
Active Transportation	$0.3	$8.0
Data & Analysis	$0.8	$21.4
Human Behavior	$0.8	$20.5
Total	**$389.5**	**$10,125.8**

Interchange

Interchanges are critical junctures within the SHS, facilitating the movement of traffic between different roadways and access points. They are essential for maintaining connectivity, managing traffic flow, and ensuring the efficient operation of the overall transportation system. As traffic volumes grow and travel patterns change, the performance and condition of highway interchanges become increasingly important for the safety and mobility of the traveling public.

Understanding the diverse needs of Oklahoma's highway interchanges requires a clear categorization based on function and traffic characteristics. For this analysis, highway interchanges are broadly categorized as either simple or complex.

A **simple interchange** typically involves lower traffic volumes and serves as a connection between a high-volume road and a lower-volume or land service access road. Simple interchanges are often found in less congested areas and are designed to manage relatively straightforward traffic movements.

In contrast, a **complex interchange** represents a connection between two or more high-volume roads. This includes critical links between freeways, expressways, high-volume multilane highways, principal urban arterials, or major rural highways that experience significant volumes of interchange traffic. Complex interchanges are characterized by intricate designs and a greater number of potential conflict points, requiring careful analysis and management to ensure efficient and safe operation.

Source: Felix Mizioznikov - Adobe Stock

Based on the needs analysis, 50 simple and 10 complex interchanges will require upgrades or refurbishments between 2025 and 2050. The construction cost for a simple interchange is $35 million, and a complex interchange is $450 million. The interchange improvements also have associated costs for right-of-way (ROW) acquisition and utility relocation work. These costs are calculated as a percentage of construction costs, which is 15% for simple interchanges and 25% for complex interchanges.

Based on this methodology, **Table 6.4** shows the annual simple and complex interchange needs total $77.4 million and $216 million, respectively, for an annual total of $293.7 million. The 2025-2050 cumulative simple and complex interchange needs total $2 billion and $5.6 billion, respectively, for a total of $7.6 billion.

Table 6.4: Total Simple and Complex Interchange Needs (millions of 2024 dollars)

Category	Annual Average Need	2025-2050 Needs
Simple	$77.40	$2,012.50
Complex	$216.35	$5,625.00
Total	**$293.75**	**$7,637.50**

Maintenance

Highway maintenance is a critical ODOT function. Beyond the major construction and rehabilitation projects, the ongoing care and upkeep of roads, bridges, and associated infrastructure are essential to maintain ODOT's infrastructure assets. Highway maintenance is a continuous process that addresses the daily wear and tear, environmental impacts, and unexpected issues that arise across the SHS.

The 2025-2050 maintenance needs are estimated by projecting historical spending for routine, heavy, and other maintenance categories. Unmet maintenance needs represent activities that ODOT's current budget has historically been inadequate to address.

Table 6.5: Total Maintenance Needs (millions of 2024 dollars)

Category	Annual Average Need	2025-2050 Needs
Routine Maintenance	$148.39	$3,858.22
Heavy Maintenance	$22.44	$583.41
Other Maintenance	$53.80	$1,398.70
Unmet Needs	$108.54	$2,822.08
Total	**$333.17**	**$8,662.40**

Based on this methodology, Table 6.5 shows the maintenance needs total $8.66 billion, or $333.17 million annually.

Understanding the nature of ODOT's ongoing maintenance needs is crucial for effective planning and resource allocation. The needs analysis categorizes ODOT's highway maintenance requirements into four distinct categories:

Routine Maintenance

This category encompasses the regular, day-to-day activities necessary to keep the SHS in good working condition. Examples include mowing, snow removal, painting, pothole repair, litter control, natural disaster repair, shoulder stabilization, and patching. These tasks are vital for addressing minor issues before they escalate into more significant problems.

Heavy Maintenance

This category includes more extensive or less frequent maintenance activities that address specific issues or components of the SHS. This involves larger-scale pavement repairs, bridge painting or sealing, or the repair of damaged signs and lighting systems. Special maintenance often requires more planning and resources than routine tasks.

Other Maintenance

This category captures a variety of maintenance needs that may not fit into the routine or special categories but are important for the overall functioning and safety of the SHS. This includes operating shops and equipment, warehouses and equipment, and building maintenance.

Unmet Maintenance Needs

This category identifies the maintenance requirements that currently exceed available funding resources. Recognizing and quantifying unmet needs is essential to understanding the consequences of deferred maintenance on the long-term condition and performance of the SHS.

Intelligent Transportation System

In an increasingly connected world, leveraging technology is essential for optimizing the performance and safety of the transportation system. Intelligent Transportation Systems (ITS) represent a collection of tools and technologies designed to precisely achieve this goal. ITS aims to maximize the safety and operational efficiency of the transportation network, primarily through the use of connected monitoring and communications devices that gather and disseminate real-time information.

The ITS needs assessment compiled a list of ongoing and planned ITS programs listed in the Oklahoma statewide ITS and TSMO Strategic Plan, as well as regional plans from Oklahoma City and Tulsa. The ITS items were divided into two categories: ongoing maintenance and operations for existing hardware and programs, and planned ITS expansion needs.

This vehicle has a smart system with control boxes and dual display, helping the driver stay connected while working. Source: ODOT

Ongoing and Maintenance and Operations ITS Needs:

Statewide Transportation Information /Traffic Operations Center (TOC)

The ODOT TOC serves as the central hub for monitoring the transportation network and coordinating responses. It receives data from various ITS devices (like cameras and sensors) and uses it to manage incidents, disseminate information, and adjust traffic control systems. This directly supports incident recovery, congestion management, and extreme weather preparedness by providing real-time situational awareness and enabling coordinated actions.

ITS Central Software:

This is the platform that integrates data from all connected ITS devices and provides tools for analysis, monitoring, and control. It is essential for the operational efficiency of the entire ITS system, enabling effective incident recovery, congestion management, and the utilization of data for system planning.

ITS Data Archives: Archiving ITS data allows for historical analysis of traffic patterns, incident trends, and system performance. This is crucial for system planning, helping ODOT identify areas for improvement, evaluate the effectiveness of past investments, and make data-driven decisions for future projects and strategies.

Statewide Operations and Utilities: Infrastructure and personnel required to maintain and operate the ITS devices and systems across the state.

Snowplow Tracking: By tracking the location and activity of snowplows, ODOT can optimize winter maintenance operations. This directly improves extreme weather preparedness and response, helping to keep roads clear and safe during snow and ice events, thus maintaining operational efficiency and safety.

Origin-Destination Tracking: This involves collecting data on where trips begin and end. This information is invaluable for system planning, helping ODOT understand travel patterns, identify corridors with high demand, and plan future infrastructure improvements or operational strategies to improve congestion management and operational efficiency.

Roadside Assistance: While not strictly a technological system, coordinating roadside assistance is a key part of incident recovery. ITS can help dispatch and manage these services more effectively by providing real-time location and incident information, reducing the duration of lane blockages, and improving safety for those involved in incidents.

Portable Camera Trailers: Similar to fixed cameras, portable camera trailers provide visual monitoring capabilities, but with the flexibility to be deployed quickly at incident sites, construction zones, or areas experiencing temporary congestion.

ITS Expansion Needs Include:

Statewide Fiber Optic Cable Expansion: Provides the necessary high-speed communication backbone for all other ITS devices to transmit data in real-time.

Statewide Roadway Weather Information Systems (RWIS) Deployment: RWIS provides real-time data on weather and pavement conditions. This directly improves extreme weather preparedness by allowing ODOT to monitor conditions, make informed decisions about road treatments (like de-icing), and provide timely warnings to travelers via systems like DMS.

Incident Management/Portable Dynamic Message Signs (DMS): Portable DMS are key tools for incident recovery and congestion management. They can be quickly deployed to alert drivers to crashes, road closures, alternative routes, or congestion ahead, helping to manage traffic flow and reduce secondary incidents.

Vehicle to Infrastructure (V2I) Implementation: V2I involves communication between vehicles and roadside infrastructure. While still developing, it has the potential to vastly improve safety by providing in-vehicle alerts about hazards, traffic conditions, or signal timing.

Traffic Signal Connections: Connecting traffic signals to a central system allows for better coordination and timing. This is a crucial aspect of congestion management, helping to optimize traffic flow through urban and suburban areas and reduce delays.

Urban and Rural Road Cameras: Cameras provide real-time visual monitoring of traffic conditions, incidents, and weather across the SHS. This directly supports incident recovery by allowing operators to quickly verify and assess incidents, and aids in congestion management and extreme weather preparedness by providing situational awareness.

Urban and Rural DMS: Fixed DMSs, like their portable counterparts, are essential for communicating real-time information to drivers. They are key tools for incident recovery, congestion management, and extreme weather preparedness by providing warnings, travel times, and route guidance.

These ITS hardware and activities work together to collect, share, and utilize real-time transportation data, which enhances the overall safety, efficiency, and resilience of Oklahoma's SHS.

As shown in Table 6.6, the ongoing ITS maintenance and operations needs total $125.8 million or $4.8 million annually.

Table 6.6: ITS ongoing operations and maintenance needs (2024 dollars)

Category	Annual Average Need	2025-2050 Needs
Statewide Transportation Information /Traffic Operations Center	$27,000	$702,000
ITS Central Software	$1,000,000	$26,000,000
ITS Data Archives	$27,000	$702,000
Statewide Operations and	$2,824,320	$73,432,320
Snowplow Tracking	$332,207	$8,637,382
Origin-Destination Tracking	$400,000	$10,400,000
Roadside Assistance	$194,000	$5,044,000
Portable Camera Trailers	$35,000	$910,000
Total	**$4,839,527**	**$125,827,702**

As shown in Table 6.7, the capital and operational costs of planned expansions to ODOT's ITS program total $103.5 million or $4 million annually.

Table 6.7: ITS Expansion needs (2024 dollars)

Category	Annual Average Need	2025-2050 Needs
Statewide Fiber Optic Cable Expansion	$400,000	$10,400,000
Statewide RWIS Deployment	$19,200	$499,200
Incident Management/ Portable DMS	$200,000	$5,200,000
Vehicle to Infrastructure (V2I) Implementation	$160,000	$4,160,000
Traffic Signal Connections	$225,000	$5,850,000
Urban and Rural Road Cameras	$576,000	$14,976,000
Urban and Rural Dynamic Message Signs (DMSs)	$2,400,000	$62,400,000
Total	**$3,980,200**	**$103,485,200**

The combined ITS needs total $229.3 million, with an annual average of $8.8 million.

Source: ODOT

Rest Area and Welcome Centers

ODOT maintains a total of five rest areas located on I-40, five welcome centers located on I-35, I-40, and US 75, and seven pullout areas on I-35 and I-40. ODOT's role involves ensuring that rest areas and welcome centers are safe, clean, accessible, and meet the basic needs of the traveling public. Pullouts are very basic facilities with no staff or equipment and do not require any maintenance funding.

As shown in Table 6.8, the need for rest areas and welcome centers totals $38.7 million, with an annual average of $1.5 million.

Table 6.8: Rest Area Needs (2024 dollars)

Category	Unit Price	Count	Annual Average Need	2025-2050 Needs
Welcome Centers	$ 240,000	5	$ 1,200,000	$ 31,200,000
Rest Areas	$ 58,000	5	$ 290,000	$ 7,540,000
Pullouts	$ -	7	$ -	$ -
Total			**$ 1,490,000**	**$ 38,740,000**

Rest Area and Welcome Centers

Weigh stations and ports of entry (POE) are critical components of Oklahoma's SHS as they function to ensure that commercial trucks comply with state and federal regulations regarding size and weight limits. These facilities provide a safe area to conduct safety inspections, verify vehicle registration and operating permits, and monitor compliance with hours-of-service regulations for commercial truck drivers.

ODOT operates five POE's, seven weight stations, and two virtual weigh stations (VWS). ODOT plans to install four new facilities (two POE and two weigh stations) before 2050, in addition to upgrades and rehabilitation of five existing facilities. The needs assessment includes construction and maintenance costs for all of these projects.

As shown in Table 6.9, the weigh station and POE needs total $208.5 million or $8 million annually.

Table 6.9: Total Cumulative Operational & Construction Needs (2024 dollars)

Category	Annual Average Need	2025-2050 Needs
Ports of Entry	$440,577	$11,455,000
Weigh Stations	$186,731	$4,855,000
Virtual Weigh Stations	$10,462	$272,000
System Overhead	$2,775,338	$72,158,781
Technology Refresh	$800,000	$20,800,000
Construction	$3,807,692	$99,000,000
Total	**$8,020,799**	**$208,540,781**

Other Modal Needs

Bicycle and Pedestrian

A robust non-motorized transportation network is essential to ensure that all Oklahomans have safe, accessible, and efficient mobility options, whether for commuting, recreation, or daily travel. By integrating bicycle and pedestrian infrastructure into the broader transportation planning process, the state can enhance connectivity, improve public health, reduce congestion, and support economic development.

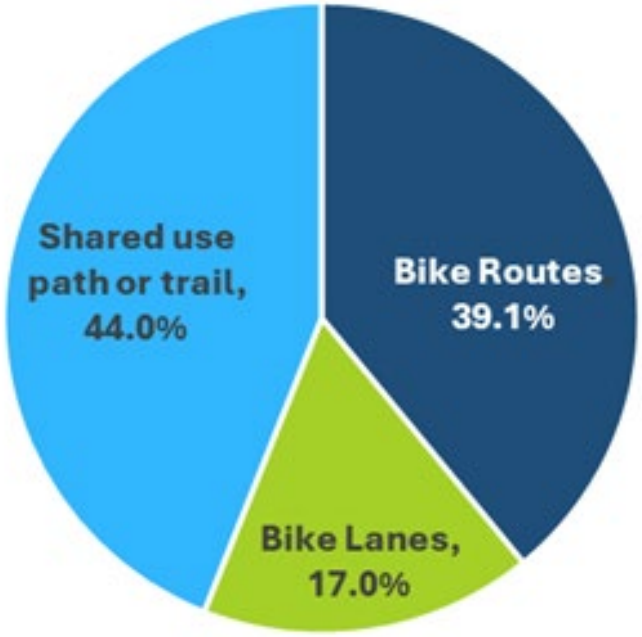
The bicycle and pedestrian needs were assessed through a comprehensive review of metropolitan long-range transportation plans, dedicated bicycle and pedestrian plans, and historical Transportation Alternatives Program (TAP) funding requests.

Planned mileage expansions of bicycle infrastructure, including bike routes, bike lanes, and shared-use paths or trails, between 2025 and 2050 were collected for the five MPO regions. Paving of shoulders on rural two-lane roads was also included, as it benefits pedestrians and cyclists. Several MPOs anticipate significant expansions in non-motorized infrastructure. Among them, the most ambitious plans come from the Indian Nations Council of Governments (INCOG) and the Association of Central Oklahoma Governments (ACOG), which aim to expand the Tulsa and Oklahoma City bicycle and shared-use networks by over 1,400 miles and 1,100 miles, respectively.

The total bicycle and pedestrian needs total $2.35 billion, or an average of $90.4 million annually. **Figure 6.3** shows the share of MPO bicycle and pedestrian projects by mileage for bike routes, bike lanes, and shared use paths or trails. Sidewalk improvements or ADA improvements are included in other project costs and not covered in these projections.

Figure 6.3: Planned non-motorized MPO projects by type

Note: Percentages may not total 100 due to rounding.



Public Transportation

Public transportation in Oklahoma encompasses a diverse range of services to meet the mobility needs of residents across different geographic areas, including urban centers, rural communities, and tribal lands. These transit agencies each play a role in connecting people to employment, retail, recreational areas, and other essential destinations throughout Oklahoma. ODOT plays a significant role in supporting public transit statewide, administering state and federal funding programs, and providing technical assistance to local and tribal transit providers.

Urban Transit

There are five urban transit operators in Oklahoma that provide fixed-route bus service, located in Edmond, Lawton, Norman, Oklahoma City, and Tulsa. These services are crucial for providing reliable transportation within concentrated population areas, helping commuters get to work, students access educational institutions, and residents reach shopping and entertainment venues.

Rural Transit

Throughout the state, there are 19 rural transit operators who provide demand-response services, and a few provide fixed-route service for small and rural communities. Serving the less populated areas of the state, rural transit systems utilize smaller vehicles and operate on a demand-response basis, meaning rides are scheduled in advance rather than following fixed routes. Rural transit is vital for connecting residents in these communities to essential services that may not be available locally, such as medical appointments, grocery stores, and social services.

Tribal Transit

There are ten tribal transit agencies in Oklahoma tailored to serve tribal members and communities, often within tribal jurisdictions. The transit services are funded through federal tribal transit programs and are essential for providing access to tribal services, healthcare facilities, employment centers, and other destinations.

To assess the needs of Oklahoma's transit operators, historical spending data from the National Transit Database (NTD) was used. Each year, operators are required to report capital and operational spending from federal, state, and local funding, as well as from other sources (primarily fares). Current metropolitan transportation plans (MTPs) for the largest urban areas in the state (Oklahoma City, Tulsa, and Lawton) were also reviewed. All three include additional data about future transit needs.

In December 2020, ODOT released the Oklahoma Public Transit Policy Plan, which outlined the state's public transit spending needs for 2020 through 2040, including both funded and unfunded needs. These figures were inflated to 2024 dollars and projected through 2050 to determine the 2025-2050 need. These needs total $7.1 billion, or $274.4 million annually. Of the annual need, $149 million (54%) is considered unfunded. The majority of transit needs are funded by local or federal sources. ODOT receives $10.75 million annually in state funds to address public transit needs across all operators and use categories, amounting to $279.5 million through 2050.

Passenger Rail

For the past twenty-six years, passenger rail service in Oklahoma has been centered around the Heartland Flyer that connects Oklahoma City to Fort Worth, Texas. Operated by Amtrak, this daily service relies on funding from a partnership between ODOT and the Texas Department of Transportation (TxDOT). ODOT remains committed to engaging with Oklahoma and Texas legislators, along with TxDOT, to identify potential funding options that could ensure the sustainability of this important service in the future.

In addition to the Heartland Flyer service, four additional proposed passenger rail expansions were identified as needs. For the purposes of this needs assessment, all new services are projected to begin operation in 2030.

Source: Tim_kd5urs - Wikimedia Commons

Heartland Flyer Service

Operating expenses in excess of revenue for the Heartland Flyer service have historically been split between the states of Oklahoma and Texas. Oklahoma's annual share is currently around $5 million per year. Operating expenses are expected to rise faster than inflation, so a 1% annual increase is applied to the real (2024) dollar operating need, resulting in an accumulated need of $147.6 million through 2050.

In addition, the rolling stock used for the Heartland Flyer service is reaching the end of its useful life and will need to be replaced. Amtrak does not contribute funding to purchase new locomotives and passenger rail cars. The estimated cost of two new chargers and three new passenger cars is $40 million.

Second Daily Heartland Flyer Roundtrip

ODOT has had discussions with the state of Texas and other local partners to explore the addition of a second daily service on the Heartland Flyer route. This new service would also require two new chargers and three new passenger cars, totaling $40 million (in addition to the replacement set for the existing service). The annual operating costs of this service would be the same as the existing service, resulting in a cumulative total of $122.1 million from the start of service in 2030 through 2050.

New Thackerville Station

A new passenger rail station has been identified along the Heartland Flyer route in Thackerville. The additional station would not increase operating costs, but the capital costs to acquire the land and construct the station total $5 million.

Extension to Newton, KS

ODOT is working with the Kansas Department of Transportation (KDOT) to develop an extension of the Heartland Flyer route north from Oklahoma City to Wichita and Newton, Kansas via three new stations in Oklahoma. Capital costs would be split between Oklahoma and Kansas, with ODOT's share totaling $280 million. The annual operation costs will be the same as the current route, a cumulative total of $122.1 million from the start of service in 2030 through 2050.

Oklahoma City to Tulsa Line

ODOT has also worked with local partners to explore the introduction of passenger rail service between Oklahoma City and Tulsa. While still in the exploratory process, ODOT continues to look for opportunities and partners to move this new passenger rail service forward. The capital costs of introducing the service would total $1.3 billion. The annual operating costs for this new service are estimated to be half of the current Heartland Flyer operating costs, a cumulative total of $62.8 million from the start of service in 2030 through 2050.

Norman to Edmond Commuter Rail

ODOT also works with partner agencies seeking to expand passenger rail service in Oklahoma. The Regional Transit Authority of Central Oklahoma (RTAOK) is working to introduce commuter rail service between Norman and Edmond, using Heartland Flyer and freight routes. If the extension to Newton, KS moves forward, $50 million of ODOT's spending on that project would contribute to the necessary $1 billion in capital costs for commuter rail.

As shown in Table 6.10, the passenger rail operational and maintenance needs total $454.7 million between 2025 and 2050.

Table 6.10: Passenger Rail Maintenance and Operations Needs (2024 dollars)

Item	Start Year	Average Annual Need	2025-2050 Needs
Heartland Flyer Service	2025	$5,678,006	$147,628,157
Second Daily Heartland Flyer Service	2030	$4,697,044	$122,123,132
New Thackerville Station	2030		--
Heartland Flyer Extension to Newton, KS	2030	$4,697,044	$122,123,132
Oklahoma City to Tulsa Service	2030	$2,416,925	$62,840,058
Total		**$17,489,018**	**$454,714,481**

As shown in **Table 6.11**, the passenger rail capital needs total $1.7 billion between 2025 and 2050.

Combined, the total cumulative passenger rail needs are $2.1 billion, or an annual average of $81.3 million.

Table 6.11: Passenger Rail Capital Needs (2024 dollars)

Item	2025-2050 Needs
Heartland Flyer Service	$ 40,000,000
Second Daily Heartland Flyer Service	$ 40,000,000
New Thackerville Station	$ 5,000,000
Heartland Flyer Extension to Newton, KS	$ 280,000,000
Oklahoma City to Tulsa Service	$ 1,291,965,000
Norman to Edmond Commuter Rail	$ 0
Total	**$ 1,656,965,000**

Freight Rail

Freight rail is a critical component of Oklahoma's transportation system, responsible for moving large quantities of raw materials, manufactured goods, and agricultural products across the state and connecting Oklahoma businesses and farmers to national and international markets. Oklahoma is served by three Class I railroads, along with more than 20 Class III carriers. Most of the rail lines in the state are privately owned and operated by these carriers. Railroads are also primarily responsible for identifying, funding, and executing maintenance and expansion projects. However, ODOT does work with railroads to promote safe and productive operations, including overseeing safety programs at railroad crossings to enhance public safety, and managing the remaining state-owned rail lines, often leased to short line operators.

Most freight rail improvements are funded and initiated by the private railroad companies. The 2021 Oklahoma State Rail Plan and the 2023 Oklahoma Freight Transportation Plan include lists of all identified improvement projects. As part of the needs assessment, the project lists and cost estimates were updated.

While most of the projects on the list will be completed by the railroads, ODOT uses federal and state funding to support selected projects, particularly focusing on rail-highway grade crossings. The analysis includes a summary of the primary revenue sources used to fund this work.

As shown in Table 6.12, the 25-year statewide rail needs total $600.6 million. Projects on Class I railroads currently account for 59.7% of needs. However, most projects for Class I operators do not yet have cost figures attached, suggesting a higher proportion of actual costs. Class III projects currently account for 36.8% of needs, and projects with undetermined operators are 3.5%.

Table 6.12: Total Rail Needs (2024 dollars)

Category	2025-2050 Needs	Share of Total
Class I	$358,700,000	59.7%
Class III	$220,869,063	36.8%
Other	$ 21,000,000	3.5%
Total	**$600,569,063**	**100%**

ODOT uses two primary sources of funding to support freight rail improvement projects. The Infrastructure Investment and Jobs Act includes funding for the Railway-Highway Crossings (Section 130) Program to be used by states to improve safety at grade crossings, as well as additional funding through the Highway Safety Improvement Program. The average apportionment from these two programs has been $8 million in the four years since its enactment (2022-2025). The state legislature has also created the State Railroad Maintenance Revolving Fund, which receives $500 thousand each year from the state freight car tax, and $200 thousand in lease revenue. Based on these two sources, ODOT will have $226.2 million or $8.7 million annually to address freight rail needs.

Ports and Waterways

A well-maintained and efficient waterway system is essential for supporting economic growth, reducing freight congestion on highways, and ensuring the reliable movement of goods. The McClellan-Kerr Arkansas River Navigation System (MKARNS) is a critical component of Oklahoma's transportation infrastructure, providing a vital link to national and international markets. As the state's primary navigable waterway, MKARNS supports commercial shipping, industrial development, and agricultural exports, making it an integral part of Oklahoma's multimodal freight network.

There are three categories of needs related to Oklahoma's ports and waterways: maintenance, capacity expansion, and waterway ports access. Most port needs on the MKARNS are handled by public and private port operators or by the U.S. Army Corps of Engineers (USACE), but in 2024 the Oklahoma legislature passed a one-time funding bill of $16 million for the Oklahoma Port Infrastructure Revolving Fund (OPIRF) for grants and loans to support the development and maintenance of Oklahoma's ports and waterways.

Source: U.S. Army Corps of Engineers

Maintenance

There is a backlog in maintenance on the 100% federally funded navigation features of the MKARNS, since funding has not kept pace with the deterioration of the system through continuous use of the nearly 50-year-old locks. Private and public port operators report continued maintenance needs for repairs after devastating floods in 2019, including replacing docks and mooring structures.

Capacity Expansion

System capacity is greatly constrained by the current depth of 9 feet of draft. Congress authorized the expansion through deepening the channel to 12 feet in the Energy and Water Development Act of 2004. An initial appropriation was received to commence design and construction; however, funding was congressionally reprogrammed for another high-priority MKARNS project, Three Rivers, to prevent the merging of the Arkansas and White Rivers. Annual federal funding is appropriated to maintain a minimum depth of 9 feet. Additional depth would allow for increased weight and higher volumes to be efficiently moved through the system. In addition, several port operators reported expansion plans and new warehouses.

Waterway Port Access

Waterway port access supports groundside access to the ports via rail, roads, and bridges. As a consequence of the capacity expansion projects discussed above, most public and private port operators will require multimodal access improvement projects. Operators stress the importance of ensuring that infrastructure is suitable for the large trucks that enter and exit the ports daily.

The estimated cost to meet the maintenance needs and capacity expansion for both private and public ports is $159.3 million through 2050. Maintenance and capacity for the ports is not limited to infrastructure, but areas surrounding the ports. The costs were developed based on information provided by the ODOT Waterways Program and operators of public and private ports on the MKARNS system in Oklahoma.

The USACE also has a MKARNS investment strategy, which will focus on replacing all critical components that have surpassed design life, at an estimated cost of $3.6 billion. According to the USACE, the federal government will continue to invest in maintenance and repairs on aging infrastructure until component replacement is complete, though the USACE will only spend what is appropriated. For non-routine maintenance, the USACE plans to spend approximately $50 million annually. However, because this amount spans maintenance on the entire MKARNS system in both Oklahoma and Arkansas and is funded entirely by the federal government, it is not included in this needs analysis.

CHAPTER 7:

REVENUE FORECAST

Introduction

A critical element in developing the Oklahoma 2025–2050 Long-Range Transportation Plan is estimating how much state and federal funding will be available to meet the multimodal transportation needs identified in the LRTP. To support this effort, ODOT created a customized revenue forecast model to estimate how much funding the state can expect to receive to address the multimodal needs.

Why A Revenue Forecast Model Matters

Transportation funding depends on many variables including state tax laws, fuel consumption, vehicle technology, and federal allocations. These sources can fluctuate widely due to changes in travel behavior, vehicle efficiency, and the makeup of the vehicle fleet. ODOT's revenue forecast model helps account for these complex, long-term factors and provides a flexible tool to estimate how transportation revenues may evolve over time. Understanding these trends allows decision-makers to better anticipate future funding needs and constraints.

Source: ODOT

Approach and Assumptions

The model was developed with historical revenue data and information on ODOT's major funding sources. The model estimates state revenue by using transportation and economic trends, then calculates ODOT's share based on state tax laws.

The model forecasts fuel tax and registration fee revenue based on vehicle miles traveled (VMT), vehicle efficiency, and fleet size rather than current revenue levels. This approach allows ODOT to adjust forecasts based on projected changes in travel, vehicle technology, or fuel economy. Based on the available data, the model uses the years shown in **Table 7.1** as its base years.

Table 7.1: Base year data availability

Base Year Data	Data Year
• Total Oklahoma gasoline consumption • Oklahoma vehicles sales: total, EV, and PHEV • Oklahoma CMV registrations: total and EV	2022
• State MV tax allocations • National vehicle sales by fuel type • National average fleet economy by fuel type • Oklahoma CMV sales	2023
• Oklahoma fuel tax revenues • National and Oklahoma vehicle registrations by fuel type	2022 and 2023 averaged/combined
• FHWA and FTA allocations	2024

Forecasted revenue is influenced by 19 assumptions related to demographics, vehicle fleet composition, and driving trends. These assumptions reflect a conservative forecast, intended to avoid overestimating revenue. Table 7.2 summarizes the key assumption variables used in the model.

Table 7.2: Assumption variables and baseline values

Category	Assumption	Baseline Value
Economic Conditions	Annual Inflation	2%
Driving Behavior	Annual growth in passenger vehicle miles travelled (VMT)	0.40%
	Annual growth in commercial vehicle VMT	1.11%
Passenger Fleet Composition	Annual change in EV share of new vehicles	1%
	Annual change in hybrid share of new vehicles	3%
	Annual change in PHEV share of new vehicles	2%
	Annual growth in passenger vehicle registrations	0.89%
	Annual passenger fleet turnover	8.23%
Passenger Fleet Fuel Economy (annual growth by powertrain)	Gas	1%
	Diesel	1%
	Electric	2%
	Hybrid	2%
	PHEV	2%
Commercial Fleet Dynamics	Annual change in EV share of new CMVs	1%
	Annual growth in CMV registrations	0.89%
	Annual CMV fleet turnover	8.23%
	Annual increase in CMV fleet fuel economy	2%
Federal Funding	Annual growth in FTA funding	2%
	Annual growth in FHWA funding	2%

Revenue Sources

The model includes only revenues directly managed by ODOT, such as state fuel taxes and federal highway apportionments. It excludes funds passed through to local governments or generated by cities and counties. Table 7.3 lists all sources included in the model, and where those revenues are directed.

Table 7.3: Revenue Sources and Uses

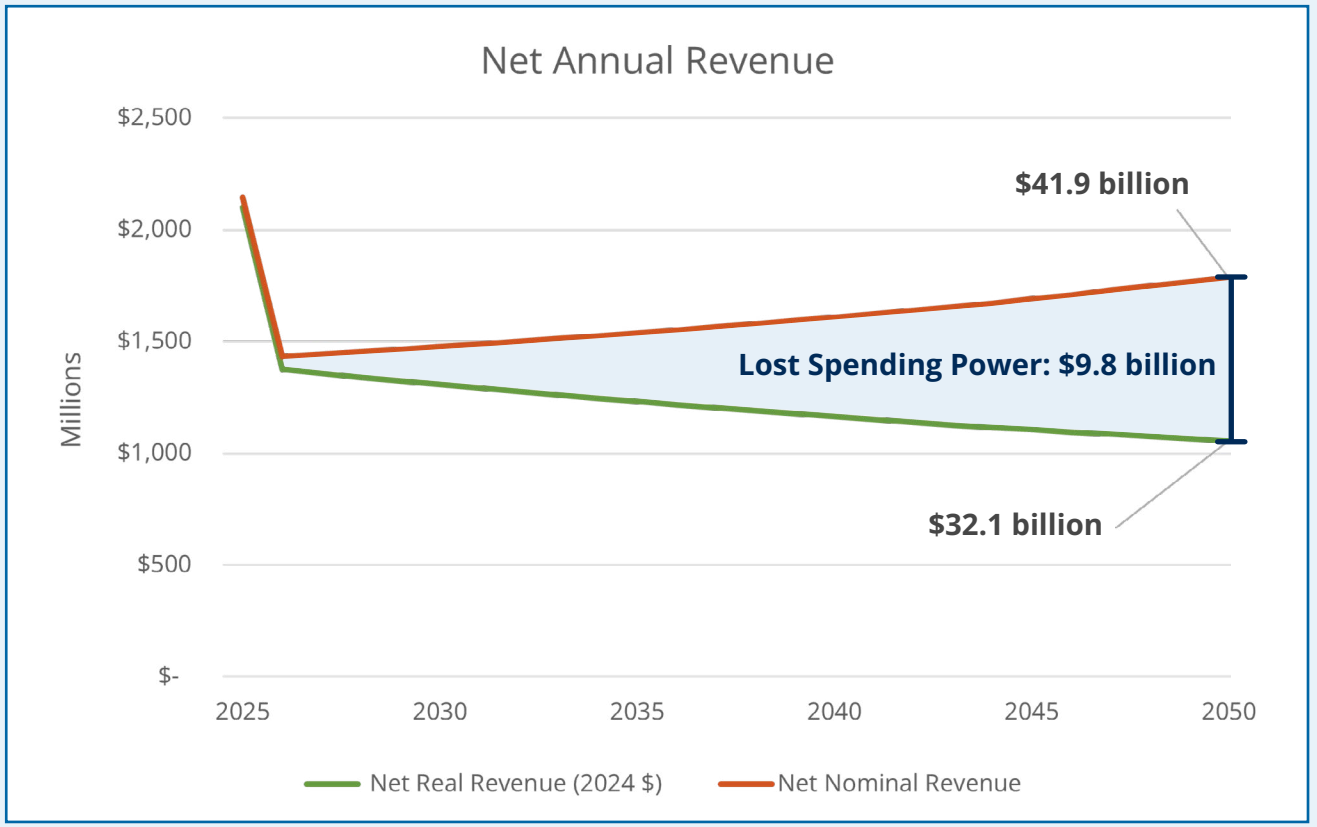
Source	Destination
Gas Tax	High Priority Bridge Fund, Public Transit Revolving Fund, ROADS Fund, State Transportation Fund, Tourism & Passenger Rail Revolving Fund
Diesel Tax	High Priority Bridge Fund, ROADS Fund, State Transportation Fund
Special Fuels Tax	State Transportation Fund
Motor Vehicle Tax	ROADS Fund, State Transportation Fund, DRIVE Fund
Federal Transit Administration	HTF Mass Transit Account
Federal Highway Administration	National Highway Trust Fund
Income Tax	Public Transit Revolving Fund, ROADS Fund, Tourism & Passenger Rail Revolving Fund
Other Sources	Multiple ODOT funds including railroad, highway maintenance, and weigh station improvement funds

Findings

The revenue forecast model output includes annual projected federal and state revenue for 2025-2050 in nominal and real (2024) dollars. The projected cumulative gross revenue over the period is $51.8 billion, equal to $39.6 billion in 2024 dollars. Net revenue after debt service and administrative costs totals $41.9 billion, equivalent to $32 billion in 2024 dollars. As shown in Figure 7.1, cumulative real revenue is projected to fall $9.8 billion short of nominal revenue, representing a 23.4% loss of spending power.

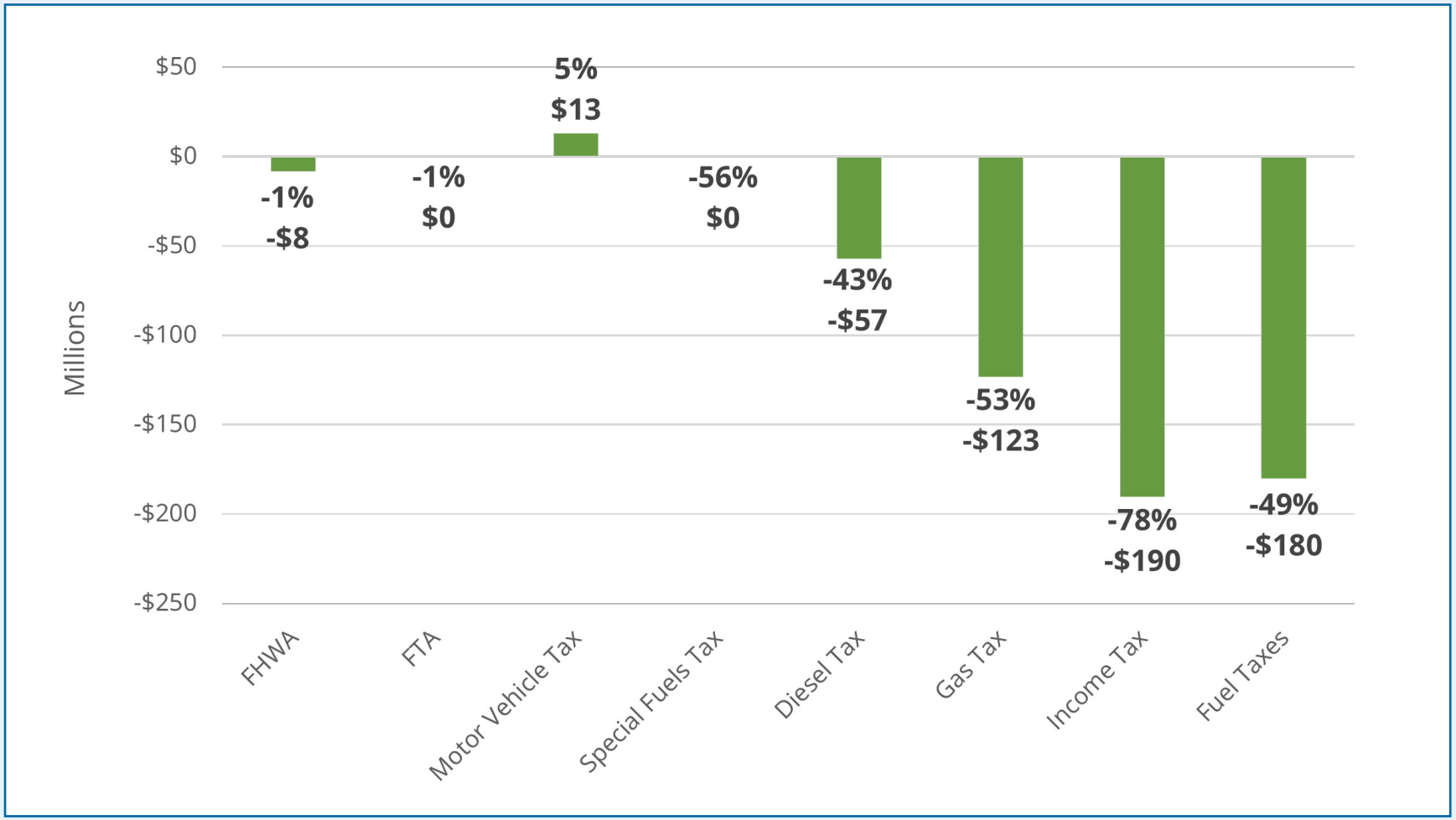
"Nominal" totals show the face value of a payment, regardless of the year. "Real" totals are adjusted to account for inflation. All real figures in the 2050 LRTP are adjusted to 2024 dollars.

Figure 7.1: Projected Cumulative Net Revenue, Nominal vs. Real



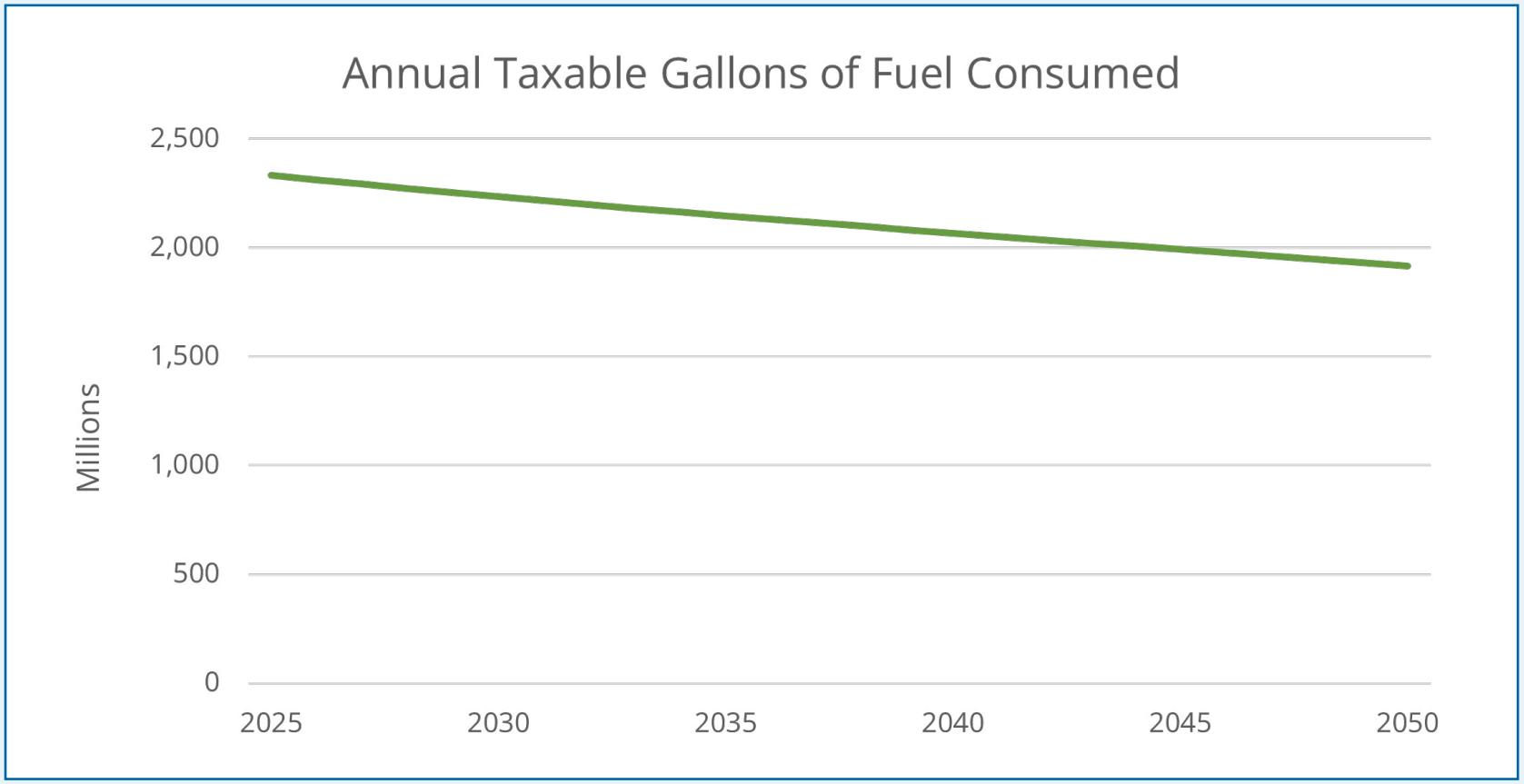
As shown in **Figure 7.2**, real revenue from most sources is expected to decrease over time. The primary exceptions are federal funds, which the revenue forecast model assumes will keep up with inflation, and the motor vehicle tax, which will expand as the vehicle fleet grows.

Figure 7.2: Real (2024$) Annual Gross Revenue from Major Sources



One area of concern for Oklahoma, like many states, is the fall in revenue from gas tax due to the increase in efficiency of gas engines, and the accelerating uptake of EVs, HEVs, and PHEVs. **Figure 7.3** shows that fuel tax erosion (decrease in fuel tax revenue per VMT) due to these trends will reach 27.6% by 2050.

Figure 7.3: Fuel Tax Erosion (2025 base)



Implications of the Forecast

The model shows that transportation revenue in Oklahoma will increasingly be shaped by evolving fleet characteristics and driving behavior. Key implications include:

- As more drivers shift to EVs and hybrids, fuel tax revenue will grow more slowly, even if travel increases overall.
- Inflation-level growth in federal funding may not keep pace with rising costs or changing needs, particularly as construction and maintenance expenses increase.
- ODOT must plan for more conservative revenue growth than in past decades and be strategic in how funds are allocated.

The flexibility of the model allows ODOT to explore alternative forecasts, such as faster EV adoption or changes in federal policy, to better prepare for uncertainty.

Source: ODOT

Alternative Funding Sources

Funding shortfalls represent a major challenge for state departments of transportation across the country. As shown by the revenue forecast, inflation and falling fuel tax revenues will make it increasingly difficult for ODOT to fully fund its transportation needs through 2050. To address this, the agency is actively exploring opportunities to secure additional funding sources. Four potential sources were selected for modeling and further study in coordination with the revenue forecast model. For each one, the analysis included research into if and how they have been implemented in other states, and a projection of how much revenue they could raise in Oklahoma. Table 7.4 shows an overview of the results.

Table 7.4: Summary of Alternative Revenue Sources

Source	Projected Additional Revenue (2025-2050)
Inflation-indexed Fuel Taxes	$1.25 billion
Dedicated 0.25% Sales Tax	$4.7 billion
25% Increase in Vehicle Registration Fees	$1.3 billion
$0.40 Retail Delivery Fee	$1.2 billion

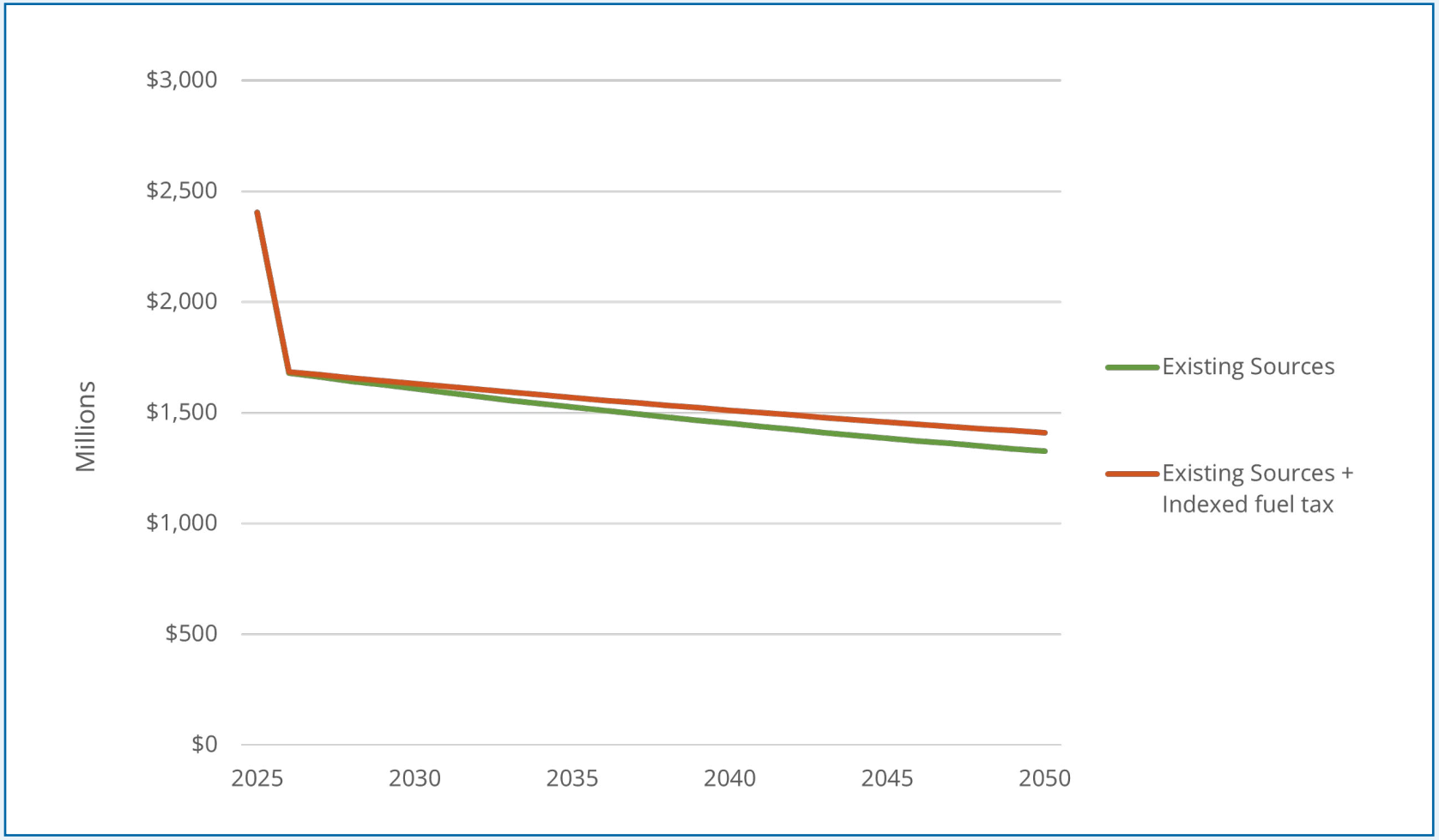
Inflation-Indexed Fuel Taxes

Fuel taxes are a significant source of income for ODOT. However, because the tax rate is a fixed value, the spending power of that revenue decreases each year due to inflation. One strategy to address this is to index the fuel tax rate to inflation. This would maintain the spending power of state revenue through an annual increase in the nominal tax on each gallon of fuel.

Notably, Oklahoma law already partially addresses this issue. Fuel taxes are allocated to several funds, some of which are used by ODOT. In some cases, those funds are allocated a fixed sum regardless of total collections. Similarly, allocations to the ROADS fund from all sources are capped at a fixed value. This means that these funds would not benefit from increased fuel tax collections. However, allocations to other funds are not capped, and would therefore increase if the fuel tax rate is raised or indexed to inflation.

The existing revenue model can be used to estimate the additional revenue that would be generated. At an annual inflation rate of 2%, indexed fuel tax rates would generate an additional $48 million per year in revenue (**Figure 7.4**). This represents a cumulative total of $1.25 billion through 2050, a 3.2% increase over existing sources.

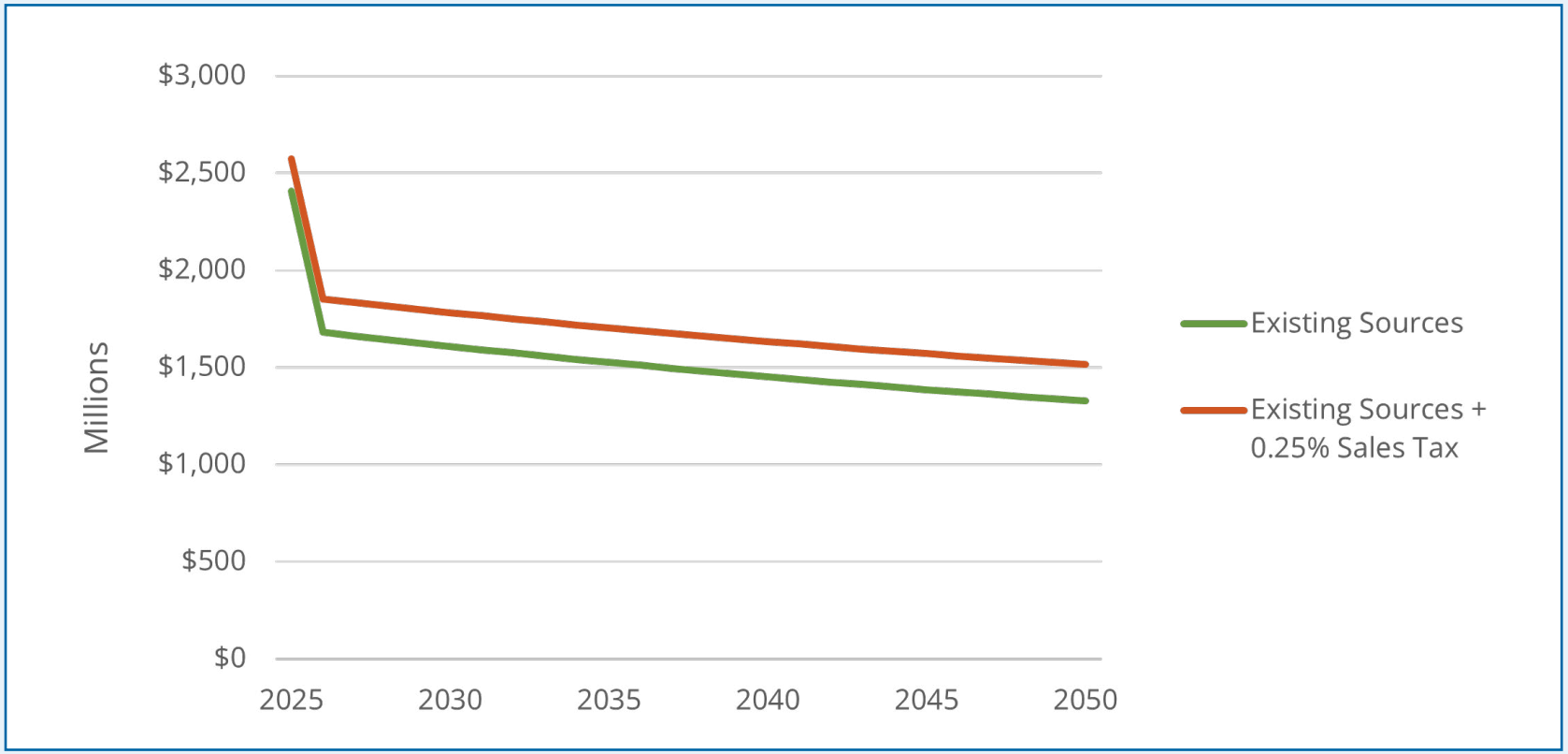
Figure 7.4: Projected Revenue from Indexed Fuel Taxes vs. Existing Sources (2024 $)



Dedicated Sales Tax

Several states have a dedicated sales tax to support transportation needs. Oklahoma currently levies a 4.5% tax on most goods, with exemptions for food and groceries. Revenue from an additional dedicated sales tax was estimated using data from the Oklahoma Tax Commission on recent revenue from the existing sales tax. Based on that data, an additional 0.25% sales tax would generate $179 million per year (**Figure 7.5**). This represents a cumulative increase of $4.7 billion through 2050, an 11.7% increase over existing sources.

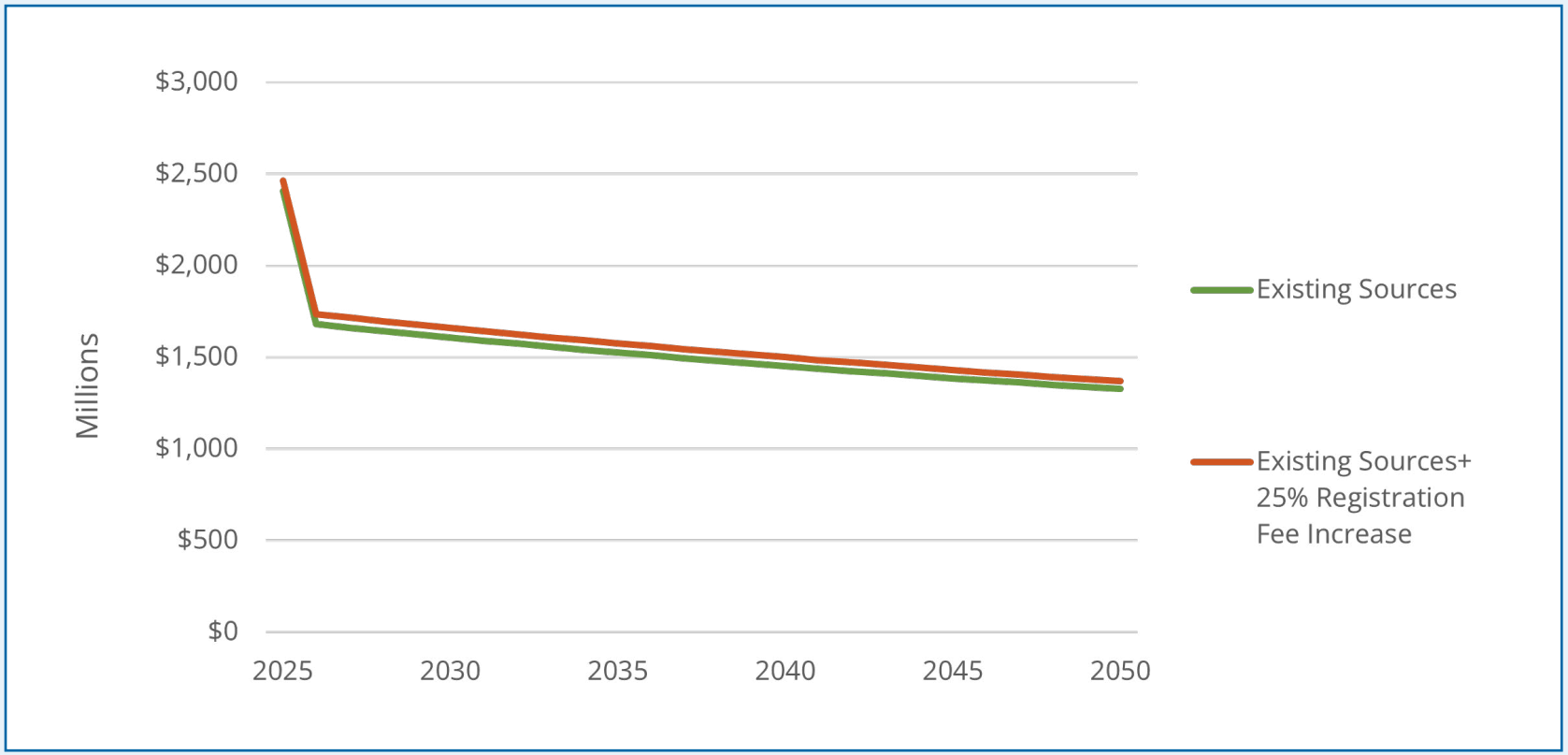
Figure 7.5: Projected Revenue from Dedicated Sales Tax vs. Existing Sources (2024 $)



Increased Registration Fees

Registration fees are another common tool that states use to generate revenue for transportation projects. In Oklahoma, existing fees to register personal vehicles range from $26 to $96 according to vehicle age, while fees for commercial vehicles range from $131 to $1,089 according to vehicle weight. Service Oklahoma publishes annual collections by vehicle category, which was used to project the additional revenue that an increased fee would generate. Based on this approach, a 25% increase in fees for all roadgoing vehicles would generate an average of $49 million per year (**Figure 7.6**). This represents a cumulative total of $1.3 billion through 2050, a 3.2% increase over existing sources.

Figure 7.6: Projected Revenue from Increased Registration Fees vs. Existing Sources (2024 $)

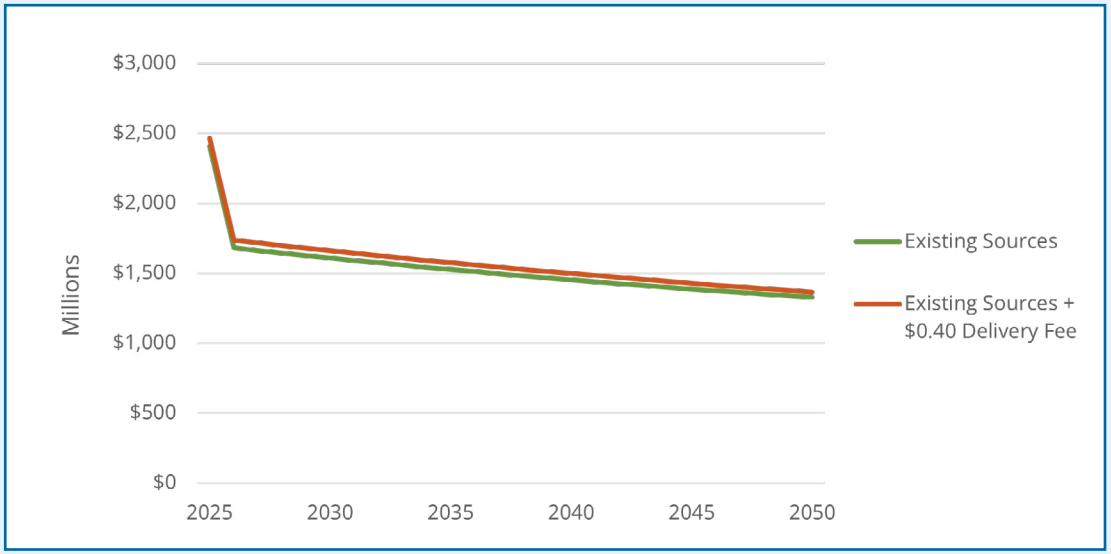


Retail Delivery Fee

Retail delivery fees are a relatively new approach, currently only in use by two states (Colorado and Minnesota). Designed as a tax on the VMT generated by increased use of delivery vehicles, they charge a fixed fee on each eligible transaction. The two states that have already instituted the fees use slightly different approaches. Minnesota charges 50 cents per transaction, but most food and baby items, as well as all transactions under $100, are exempt. In Colorado, no goods are exempt, but the fee is lower, at 29 cents per transaction. Both states also have exemptions for purchases from small retailers.

The nature of the fees makes it difficult to precisely project potential revenues, but an estimate can be made based on the examples of Colorado and Minnesota. Revenue and population data from those states indicate the total annual taxable transactions per capita were 51.6 in Colorado (based on FY24 actual revenue data) and 21.9 in Minnesota (based on a projection for FY25). The proposed approach for the Oklahoma study combines elements of the two existing examples. Groceries would be exempt (as in Minnesota), but there would be no minimum transaction size (as in Colorado). Therefore, an estimated annual taxable transactions per capita value of 35, near the middle of the two examples, was used for the analysis. At that rate, a fee of 40 cents per transaction would generate an average of $46.7 million per year (**Figure 7.7**). This represents a cumulative total of $1.2 billion through 2050, a 3.1% increase over existing sources.

Figure 7.7: Projected Revenue from $0.40 Delivery Fee vs. Existing Sources (2024 $)



CHAPTER 8:

STRATEGIES

Introduction

Implementation strategies help turn the vision and goals of the 2050 LRTP into real actions. The implementation strategies are based on feedback from the Stakeholder Advisory Committee, a thorough review of past plans and studies, and the results of the public engagement survey.

To stay focused and measure progress toward achieving the 2050 LRTP vision, these strategies are grouped under the seven LRTP goals. Each strategy is a specific action or policy that supports one or more of the objectives under each of the goals.

This chapter lists the specific strategies that support the objectives of each goal. Objectives are labeled with a letter and a number. The letter shows which goal the objective belongs to, and the number shows its order under that goal. These labels show which objective(s) each strategy supports.

The seven 2050 LRTP goals are:

- **Safety and Security:** Ensure a safe and secure transportation system for all users
- **Infrastructure Preservation:** Preserve and maintain Oklahoma's transportation system in good condition
- **Mobility and Accessibility:** Proactively engage local communities to ensure access for all users of the transportation system and increase travel options
- **Economic Vitality:** Provide an efficient and well-connected transportation system to support a healthy and competitive Oklahoma economy
- **Operations and Management:** Promote efficient, collaborative, and transparent operations to fund and deliver maximum system performance
- **Environment and Quality of Life:** Minimize and mitigate transportation-related impacts to natural environments, cultural resources, and public health
- **Resiliency and Reliability:** Ensure the reliability of movement for people and goods by enhancing the resiliency and adaptability of the transportation system

Safety and Security

Ensure a safe and secure transportation system for all users

- **S1** Enhance design and use of technology, enforce work zone safety, and maintain infrastructure to reduce crashes.
- **S2** Advocate for increased seat belt usage.
- **S3** Improve transportation security and emergency preparedness, response, and recovery.

Continue paving shoulders on rural two-lane highways	S1
Identify priority sites for safety improvements based on injury and fatality rates	S1
Use crash risk factors to select and implement appropriate safety countermeasures	S1
Improve the safety of highway and rail-highway at-grade crossings with strategies like safety technologies, signage, and grade separation as appropriate	S1
Create a prioritization plan for ODOT vulnerable road user safety projects, based on the Americans with Disabilities Act (ADA) prioritization system	S1
Improve active transportation data collection (user volumes, exposure, facility inventories) to establish baselines for improvements to safety and connectivity	S1
Increase priority for maintenance projects with greatest safety impacts	S1
Leverage emerging technologies like connected vehicles and ITS to improve safety	S1
Work with public safety partners to implement programs targeting seatbelt use, including signage and targeted outreach	S2
Partner with local organizations to develop alternate routes and system redundancy to ease evacuations during emergencies and natural disasters	S3

Infrastructure Preservation

Preserve and maintain Oklahoma's transportation system in good condition

- I1 Improve the condition of the State's bridges and roadways.
- I2 Improve the condition of public transit vehicles, equipment, and facilities.
- I3 Improve the condition of the state-owned freight rail system.

Continue using the Bridge and Highway Management Systems to prioritize investments in highway maintenance	I1
Continue to explore new surface treatments and other techniques to improve condition and reduce costs	I1
Further emphasize the maintenance of existing assets in funding and prioritization decisions	I1
Identify opportunities to "bundle" maintenance projects to attract contractor support	I1
Assist transit operators by providing support for maintenance work through data and effective planning	I2
Provide data and technical support to transit operators to increase their capacity to leverage funding opportunities	I2
Work with railroads on needed maintenance for the state-owned freight rail system	I3

Mobility and Accessibility

Proactively engage local communities to ensure access for all users of the transportation system and increase travel options

- **M1** Facilitate improved access to the statewide multimodal transportation system for all users.
- **M2** Facilitate better multimodal connectivity for people and goods within and beyond Oklahoma's borders.
- **M3** Promote access to jobs and services by expanding transportation choices for people in both urban and rural regions.

Work with local governments to identify and close gaps in the active transportation network, especially at existing and planned Interstate and highway crossings	M1 M2 M3
Proactively incorporate multimodal improvements into expansion and maintenance projects, using best practices in active transportation design	M1 M3
Cooperate with neighboring states to plan and fund improvements to multimodal corridors of regional importance	M2
Work with public and private ports to ensure that nearby highway improvements meet the needs of current and future freight volumes	M2
Prioritize construction projects that increase connectivity between rail, transit, and active transportation systems	M2 M3
Facilitate improved coordination among public transit providers to improve services, especially for limited-mobility riders, to access essential services	M1 M3
Continue to identify and advance opportunities to better connect major population centers with the national passenger rail system	M1 M3

Economic Vitality

Provide an efficient and well-connected transportation system to support a healthy and competitive Oklahoma economy

- **E1** Support the existing and future transportation system by aligning improvements with community plans and needs.
- **E2** Improve connections between different types of transportation and places of interest.
- **E3** Enhance intermodal transportation connections to improve the efficiency of freight movement.

Explore opportunities for more innovative and collaborative public input	E1
Integrate economic development strategies in transportation plans and project designs	E1 E2
Coordinate designs with existing local plans for areas surrounding project sites	E1 E2
Expand alternative fueling and active transportation facilities near commercial, recreational, and employment centers to improve access across modes	E2
Support development of intermodal freight corridors	E3
Periodically analyze Oklahoma's rail network to anticipate connectivity gaps	E3
Continue to work with federal and state officials to secure funding for infrastructure maintenance and channel deepening on the MKARNS system	E3

Operations and Management

Promote efficient, collaborative, and transparent operations to fund and deliver maximum system performance

- O1 Strategically design and adapt transportation infrastructure and technology for new or changing traffic conditions.
- O2 Improve freight-related highway infrastructure capacity.
- O3 Capitalize on federal funding and finance programs to aid investment in the transportation system.
- O4 Increase collaboration with external stakeholders to improve transparency in decision-making and identify potential opportunities to leverage resources.
- O5 Enhance efficiency by ensuring a higher percentage of activities are delivered on time and within budget.

Plan for the safety, maintenance, and mobility impacts of connected and automated vehicle technologies	O1
Implement pilot programs for emerging transportation technologies	O1
Proactively incorporate new and updated technologies into the planning, design, and operation of ODOT assets	O1
Incorporate freight considerations into all appropriate project scoping	O2
Ensure critical highway freight corridors meet minimum height, width, and load limit requirements	O2
Ensure sufficient truck parking near major freight routes by leveraging federal grant opportunities and fostering partnerships with the private sector	O2
Improve highway connections to air, rail, and water freight facilities	O2

Operations and Management (Cont.)

Promote efficient, collaborative, and transparent operations to fund and deliver maximum system performance

- O1 Strategically design and adapt transportation infrastructure and technology for new or changing traffic conditions.
- O2 Improve freight-related highway infrastructure capacity.
- O3 Capitalize on federal funding and finance programs to aid investment in the transportation system.
- O4 Increase collaboration with external stakeholders to improve transparency in decision-making and identify potential opportunities to leverage resources.
- O5 Enhance efficiency by ensuring a higher percentage of activities are delivered on time and within budget.

Provide data and technical support to local governments and other stakeholders to increase their capacity to access funding opportunities	O3 O4
Continue to identify and leverage competitive funding opportunities for strategic transportation projects	O3 O5
Work with state leaders to find funding sources based on findings from the alternative revenue analysis	O4 O5
Improve coordination with Class I railroads related to safety improvements at at-grade crossings or access improvements at intermodal facilities	O4
Identify and implement new tools and opportunities to increase transparency with stakeholders	O4
Invest in workforce development programs to increase the supply of qualified planners, engineers, and construction workers	O4 O5
Reduce turnover through improved employee retention practices	O4 O5

Environment and Quality of Life

Minimize and mitigate transportation-related impacts to natural environments, cultural resources, and public health

- **Q1** Leverage data to consider transportation-related impacts on cultural and historic resources
- **Q2** Reduce transportation-related impacts to wetlands, vulnerable ecosystems, and protected species.
- **Q3** Reduce the impacts of stormwater runoff related to surface transportation.
- **Q4** Promote use of alternative fuels.
- **Q5** Support initiatives that maintain good air quality.

Incorporate context sensitive design principles to better integrate projects with the aesthetic, historic, and cultural needs of surrounding communities	Q1
Integrate housing and land use strategies in transportation plans and project designs	Q1
Continue to work with sovereign Tribal Nations to leverage resources for transportation improvements	Q1
Work with the Oklahoma Department of Wildlife Conservation to identify and implement priority wildlife crossing projects	Q2
Consider planting native trees and plants in the right of way to reduce mowing needs, improve stormwater retention, and support local ecosystems	Q2 Q3 Q5
Expand programs to remove debris and litter from drains, culverts, and roadsides to minimize flooding	Q3
Incorporate green infrastructure solutions in project designs to control runoff and reduce strain on stormwater systems	Q2 Q3

Environment and Quality of Life (Cont.)

Minimize and mitigate transportation-related impacts to natural environments, cultural resources, and public health

- Q1 Leverage data to consider transportation-related impacts on cultural and historic resources
- Q2 Reduce transportation-related impacts to wetlands, vulnerable ecosystems, and protected species.
- Q3 Reduce the impacts of stormwater runoff related to surface transportation.
- Q4 Promote use of alternative fuels.
- Q5 Support initiatives that maintain good air quality.

Support expansion of alternative fueling facilities	Q4
Explore opportunities for renewable energy generation	Q4
Identify opportunities to shift agency vehicles to alternate fuels, and explore vehicle sharing arrangements with other agencies to reduce fleet size	Q4 Q5
Develop a promotion campaign to raise awareness of the benefits of active transportation	Q1 Q2 Q5
Examine current practices in construction, maintenance, and agency operations to identify potential for energy conservation (e.g. installing LED traffic signals, reducing roadside mowing during peak hours, and using warm-mix asphalt)	Q1 Q2 Q5

Resiliency and Reliability

Ensure the reliability of movement for people and goods by enhancing the resiliency and adaptability of the transportation system

- **R1** Improve travel time reliability for the movement of people and goods.
- **R2** Enhance transportation operations to meet travel needs in response to extreme weather events and other environmental conditions.
- **R3** Enhance the resiliency of both existing and new transportation infrastructure assets to withstand disruptions and ensure reliability.

Strategically invest in bottleneck and congestion relief projects on critical passenger and freight corridors	R1
Explore expanding Traffic Operations Center (TOC) operation to 24 hours 7 days a week	R1 R2
Expand capabilities to remotely monitor traffic signals	R1 R2
Continue deployment of Road Weather Information Systems (RWIS)	R1 R2
Prepare for future extreme weather impacts on transportation infrastructure through site and stressor identification	R3
Consider including resilience assessments in inspections of existing assets	R3
Incorporate resilience improvements in infrastructure designs to address flooding and extreme weather events	R3

APPENDIX A

GLOSSARY

Term	Definition
5-1-1 Travel Information Telephone Services	511 is the single travel information telephone number available to states and local jurisdictions across the country. It was designated in 2000 by the Federal Communications Commission (FCC), but there is on mandate to implement it.
8 Year Construction Work Plan (CWP)	the eight-year construction work plan administered by ODOT that guides the scheduling and conducting of the complex engineering, environmental, and right-of- way activities necessary to complete construction projects in a timely fashion. The first four years of the Eight Year Construction Work Plan are represented in the Statewide Transportation Improvement Program (STIP).
Active Transportation	refers to human-powered modes of movement used for transportation, such as walking, cycling, using wheelchairs, or other personal mobility devices.
Advanced Air Mobility	envisions a future where electric vertical takeoff and landing (eVTOL) aircraft are used to transport people and cargo, supplementing or replacing traditional transportation methods in urban, suburban, and rural areas. It includes automated systems for package delivery, on-demand passenger and cargo transport, and remotely controlled aircraft, with a focus on safety and efficiency.
Association of Central Oklahoma Governments (ACOG)	a voluntary association of local governments in the Oklahoma City metropolitan area in central Oklahoma comprising Canadian, Cleveland, Grady, Logan, McClain, and Oklahoma Counties which serves as the Metropolitan Planning Organization.
Alternative Fuel Corridors	the U.S. Department of Transportation has designated national plug-in electric vehicle charging and hydrogen, propane, and natural gas fueling corridors to improve alternative fuel vehicle mobility.
Automated/autonomous vehicle technology (AV)	robotic vehicle that is designed to travel between destinations without a human operator. To qualify as fully autonomous, a vehicle must be able to navigate without human intervention to a predetermined destination over roads that have not been adapted for its use.
Average Annual Daily Traffic (AADT)	the total volume of traffic on a highway segment for one year, divided by the number of days in the year.
Average Annual Daily Truck Traffic (AADTT)	the total volume of truck traffic on a highway segment for one year, divided by the number of days in the year.
Connected vehicles (CVs)	technologies that allow vehicles to communicate with other vehicles and the outside world around them through the internet.

Term	Definition
Barge	the cargo-carrying vehicle that inland water carriers primarily use. Basic barges have open tops, but there are covered barges for both dry and liquid cargoes.
Bike Lane	a marked space for bicyclists on the street. This excludes locations with shared-lane (sharrow) markings.
Bottleneck	a section of a highway or rail network that experiences operational congestion.
Bulk Cargo	cargo that is transported unpackaged in large quantities in either liquid or granular, particulate form, as a mass of relatively small solids, such as petroleum/crude oil, grain, coal, or gravel.
Burlington Northern Santa Fe (BNSA)	BNSF operates one of the largest freight railroad networks in North America, with 32,500 miles of rail across 28 U.S. states and three Canadian provinces.
Capacity	physical facilities, personnel, and process available to meet the product of service needs of the customers. Capacity generally refers to maximum output of transportation network or facility.
Centerline Miles	represent the total length of a road from its beginning point to its end point. The number of the lanes on that road are ignored when calculating centerline mileage.
Class I Rail Carrier	classification of rail carriers having annual operating revenues of $900 million or more.
Class II Rail Carrier	classification of rail carriers having annual operating revenues between $40 to $490 million.
Class III Rail Carrier	classification of rail carriers having annual operating revenues below $31 million.
Code of Federal Regulations (CFR)	Encapsulates the rules promulgated by federal agencies to implement the authority of laws, including transportation-related laws passed by the U.S. Congress.
Connected and Autonomous Vehicle (CAV)	Connected vehicles use various communication technologies to exchange information with other cars on the road. Autonomous, or “self-driving” vehicles operate without direct driver input to control the steering, acceleration, and braking and are designed so that the driver is not expected to constantly monitor the roadway while operating in self-driving mode.

Term	Definition
Controlled Access Facility	a roadway where the spacing and design of driveways, medians, median openings, traffic signals and intersections are strictly regulated by consideration of such factors as traffic volume, number of lanes and adjacent land use.
Crash Modification Factors (CMFs)	a multiplicative factor used to compute the expected number of crashes after implementing a countermeasure on a road or intersection; the CMF Clearinghouse, funded by the FHWA, contains the database of CMFs used for transportation planning.
Daily Vehicle Miles Traveled (DVMT)	is calculated by adding up all the daily miles driven by all the cars and trucks on all the roadways in a region.
Dynamic Message Signs (also called Variable Message Signs) (DMS)	large, electronic signs that overhang or appear along major highways. The signs are typically used to display information about traffic conditions, travel times, construction, and road incidents.
E-Commerce	commercial transactions conducted electronically on the internet.
Electric Vehicle (EV)	a vehicle that uses one or more electric motors for propulsion, powered by electricity stored in rechargeable batteries.
Fatality Rate	the number of fatalities per 100 million vehicle miles traveled.
Federal Highway Administration (FHWA)	U.S. Department of Transportation agency responsible for administering the federal highway aid program to individual states, and helping to plan, develop and coordinate construction of federally funded highway projects.
Federal Railroad Administration (FRA)	is an agency in the United States Department of Transportation that creates and enforces rail safety regulations, administers rail funding, and researches rail improvement strategies and technologies.
Federal Transit Administration (FTA)	U.S. Department of Transportation agency that provides financial and planning assistance to help plan, build and operate rail, bus, and paratransit systems. The agency also assists in the development of local and regional traffic reduction programs.

Term	Definition
Financial Constraint	a federal requirement that long-range transportation plans include only projects that have a reasonable expectation of being funded, based upon anticipated revenues. In other words, long-range transportation plans cannot be pie-in-the-sky wish lists of projects. They must reflect realistic assumptions about revenues that will likely be available looking forward at least 20 years.
Fixing America's Surface Transportation Act (FAST ACT)	authorized $305 billion over fiscal years 2016 through 2020 for highway, highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, and research, technology, and statistics programs.
Functional Classification	a system for categorizing roadways (streets and highways) based on the type of transportation service they provide. It helps determine how roads should be designed, maintained, and funded, based on their role in the overall transportation network.
Goal	are broad, long-term statements about our priorities and aspirations for transportation in Oklahoma
Highway Performance Monitoring System	a national level highway information system that includes data on the extent, condition, performance, use and operating characteristics of the nation's highways.
Hundred Million Vehicle Miles Traveled (HMVMT)	is used to calculate the ratio of total number of fatalities and serious injuries to the number of vehicle miles traveled (VMT, in 100 Million VMT) in a calendar year.
Infrastructure Investment and Jobs Act (IIJA)	federal legislation signed into law on November 15, 2021. It represents a $1.2 trillion investment in repairing and modernizing the nation's infrastructure.
Indian Nations Council of Governments (INCOG)	a voluntary association of local and tribal governments in the Tulsa metropolitan area in northeast Oklahoma comprising Creek, Osage, Rogers, Tulsa, and Wagoner Counties which serves as the Metropolitan Planning Organization.
Intelligent Transportation System (ITS)	a system that collects, stores, processes, and distributes information relating to the movement of people and goods.

Term	Definition
Intermodal	term “mode” is used to refer to a means of transportation, such as automobile, bus, train, ship, bicycle, and walking. Intermodal refers specifically to the connections between modes.
Intermodal Connectors	facilities that provide access to intermodal facilities.
Intermodal terminal	a facility for the transfer of containers between railroad and truck.
Kansas City Southern Railway (KCS)	is a Class I railroad that merged with Canadian Pacific (CP) on April 14, 2023, to form Canadian Pacific Kansas City (CPKC). CPKC provides transportation solutions connecting customers with markets across North America.
Lane Mile	a way to measure road length that takes into account the number of lanes on a road. A single lane mile represents one mile of roadway with one lane, while a road with multiple lanes would have a higher lane mile count.
Last Mile	figure of speech describing movement of goods from a transportation hub to the final delivery destination.
Level of Service (LOS)	qualitative measure of a road's operating conditions.
Lock	device used for raising and lowering boats, ships, and other watercraft between stretches of water of different levels on river and canal
Long Range Transportation Plan (LRTP)	document produced by regional or statewide agency serving as the vision for the region's or state's transportation systems and services. In metropolitan areas, the plan typically indicates all the transportation improvements scheduled for funding over the next 20 years and is sometimes known as the metropolitan transportation plan.
Maintenance	activities undertaken to keep the state’s transportation infrastructure and equipment operating as intended, to eliminate deficiencies, and to extend or achieve the expected life of facilities before reconstruction is needed. These include routine or day-to-day activities (e.g., pothole patching, mowing, litter removal, guardrail repair and striping, routine bus inspection and maintenance, and periodic dredging of channels) and periodic major projects (e.g., resurfacing roadways and runways, and rehabilitating bridges).

Term	Definition
Mobility as a Service (Maas)	is the integration of various forms of transport services into a single mobility service accessible on demand, such as public transport, ride-, car- or bike-sharing, or taxi.
Mobility Management	is a transportation strategy that focuses on addressing the needs of diverse community groups, such as older adults, people with disabilities, and individuals with lower incomes, through the coordinated use of various transportation providers.
McClellan-Kerr Arkansas River Navigation System (MKARNS)	the 445-mile navigation channel that begins at the confluence of the White and Mississippi Rivers and proceeds one-half mile upstream on the White River to the Montgomery Point Lock and Dam. From there, the channel proceeds 9 miles upstream on the White River to the manmade Arkansas Post Canal, and then 9 miles through the canal to the Arkansas River. The McClellan-Kerr Arkansas River Navigation System crosses the state of Arkansas into Oklahoma, traversing the state until it reaches the confluence of the Arkansas and Verdigris Rivers where the navigation channel follows the Verdigris River terminating 51 miles upstream at the Port of Catoosa, near Tulsa.
Metropolitan Planning Organization (MPO)	regional policy-setting body, required in urbanized areas with populations over 50,000, and designated by local officials and the governor of the state; responsible in cooperation with the state and other transportation providers for carrying out the metropolitan transportation planning requirements of federal highway and transit legislation.
Mileage-based User Fee (MBUF)	is a user charge based on miles driven in a specific vehicle as opposed to the current excise tax on fuel consumed.
Mobility	the ease with which people or goods move from place to place.
Metropolitan Transportation Plan (MTP)	a Metropolitan Planning Organization's long range multimodal transportation plan that identifies how the metropolitan area will manage and operate the transportation system for a 20+- year planning horizon.
Multi-use Trail	refers to a paved or smooth gravel pathway for walking and/or bicycling that is separated from motor vehicle traffic yet still functions as a transportation facility.

Term	Definition
Multimodal	transportation of freight using several modes.
National Environmental Policy Act (NEPA)	is an environmental law that promotes the enhancement of the environment and established the President's Council on Environmental Quality that was enacted in law on January 1, 1970.
National Highway Freight Network (NHFN)	mandated by the Fixing America's Surface Transportation Act (FAST Act) to strategically direct federal resources and policies toward improved performance of highway portions of the U.S. freight transportation system and includes the Primary Highway Freight System (PHFS) plus remaining Interstates not on the PHFS.
National Highway System (NHS)	roadway system established by Congress consisting of roads important to the national economy, defense, and mobility. The NHS includes the following subsystems of roadways, Interstates, some Principal Arterials, the Strategic Highway Network, and Intermodal Connectors. The MAP-21 legislation made some significant changes to the NHS.
National Performance Management Research Data Set (NPMRDS)	Federal Highway Administration database that contains location information collected in five-minute intervals for road segments on the National Highway System. The data can be used to estimate speed for roadway segments (Sometimes referred to as National Travel Time Data.).
National Transit Database (NTD)	is a federal reporting program for transit agencies receiving Federal Transit Administration funding and it serves as a primary repository for all transit-related data and statistics.
Objective	Are specific, measurable achievements that support the advancement of the goals
Oklahoma Freight Transportation Plan (OFTP)	Oklahoma’s statewide freight plan, developed in accordance with federal law, that addresses the state’s strategy for providing a safe, reliable, and productive freight transportation system.
Oklahoma Public Transit Policy Plan (OPTPP)	Oklahoma HB1365, codified as Title 69 Section 322 of the Oklahoma Statutes requires the development of the Oklahoma Public Transit Policy Plan.

Term	Definition
Oklahoma Turnpike Authority (OTA)	is an instrumentality of the State created by the state legislature, by statute in 1947 for the purpose of constructing, operating, and maintaining the Turner Turnpike. In 1954, the original purpose was statutorily redefined to allow construction of additional turnpikes, and changes were made in the Authority's membership to include a representative from each of Oklahoma's congressional districts. The OTA's governing body (the Authority) consists of the Governor (ex-officio) and six members, appointed by the Governor and approved by the State Senate, serving an eight-year uncompensated term.
Pavement Management System (PMS)	is a set of defined procedures for collecting, analyzing, maintaining, and reporting pavement data, to assist the decision makers in finding optimum strategies for maintaining pavements in serviceable condition over a given period of time for the least cost.
Performance Measures	metrics that can be used to track results and can serve as a basis for comparing progress against a target or other objective.
Public Participation Plan (PPP)	The Public Participation Plan (PPP) provides a framework to the public involvement process regarding statewide planning related activities. The plan identifies federal and state requirements; PPP goals, objectives, and policies; planning activities which require public involvement and the process(es) involved when providing the public with full access to and notice of planning activities.
Port of Entry (POE)	In Oklahoma, Ports of Entry are locations at the state border where commercial vehicles undergo electronic processing for a number of items, including but not limited to driver credentials, weight, tax and fee status, and safety inspection. At the national level, Ports of Entry usually means a place where foreign goods may be cleared through customs.
Rebuilding Oklahoma Access and Driver Safety (ROADS) Fund	created by the Oklahoma Legislature in 2005 to ensure dedicated revenue for the maintenance and repair of state highways and bridges.
Regional Council of Government (COG)	Regional Councils are voluntary associations of local governments formed under Oklahoma law. These associations deal with the problems and planning needs that cross the boundaries of individual local governments or that require regional attention. Regional councils coordinate planning and provide a regional approach to problem solving through cooperative action.

Term	Definition
Regional Railroad	see Class II railroad.
Regional Traffic Management Center (RTMC)	central facilities used to disseminate information to the traveling public; typically, operators use software to control field devices such as Dynamic Messaging Signs and view data and video collected throughout the monitored area; see also Traffic Management Center (TMC).
Regional Transit Authority (RTA)	is a public transportation service that provides fixed route and paratransit service in a given region.
Reliability	refers to the degree of travel time certainty and predictability on the transportation system.
Resiliency	the ability of a transportation system to withstand, adapt to, and recover from disruptions, maintaining its functionality and essential services during and after adverse events.
Road Usage Charge (RUC)	is a policy whereby motorists pay for use of the roadway network based on distance traveled.
Road Weather Information System (RWIS)	a system comprised of environmental sensor stations (ESS) located in the field, a communications system for data transfer, and central systems used to collect data from various ESS. Stations measure atmospheric, water level, and pavement conditions and data are used to support decision-making by road operators and maintainers.
Short Line Railroad	see Class III railroad
State of Good Repair (SGR)	condition in which a capital asset is able to operate at a full level of performance.
State Highway System (SHS)	a network of approximately 12,235 centerline miles of highways owned and maintained by the State of Oklahoma.
Strategies	are specific, actionable steps that help achieve the objectives
Transportation Systems Management and Operations (TSMO)	a strategic approach focused on optimizing the use of existing transportation infrastructure and resources to improve safety, efficiency, and reliability of the transportation system. TSMO emphasizes operational improvements and demand management strategies rather than solely focusing on adding new infrastructure.

Term	Definition
Improvement Program (STIP)	projects requiring federal action. It includes a list of priority transportation projects to be carried out in a four (4) year period. The first four years of the Eight Year Construction Work Plan are represented in the Statewide Transportation Improvement Program (STIP).
Strategic Highway Network (STRAHNET)	critical to the Department of Defense's domestic operations. STRAHNET is a 62,000-mile system of roads deemed necessary for emergency mobilization and peacetime movement of heavy armor, fuel, ammunition, repair parts, other commodities to support U.S. military operations. STRAHNET facilities are also on the National Highway System. Strategic highway network connectors are highways that provide access between major military installations and highways that are part of the Strategic Highway Network.
Strategic Highway Safety Plan (SHSP)	a collaborative plan between ODOT, the OK Highway Safety Office, the OK Highway Patrol, and the OK Department of Public Safety developed to harmonize the highway safety goals and strategies among these agencies; the plan is required by FHWA and includes projects funded by the Highway Safety Improvement Program (HSIP).
Street	public thoroughfare especially in a city, town, or village including all areas within the right-of-way (such as sidewalks) and sometimes further distinguished as being wider than an alley or lane but narrower than an avenue or boulevard.
Supply Chain	system of organizations, people, activities, information, and resources involved in moving a product or service from supplier to customer.
Transportation Alternatives Program (TAP)	is administered by the U.S. Federal Highway Administration (FHWA) and helps states fund a variety of activities related to improving transportation assets, including on- and off-road pedestrian and bicycle facilities, environmental mitigation, and creating or improving recreational trails projects.
Transportation Asset Management Plan (TAMP)	the risk-based plan, federally required and developed for the National Highway System (NHS), that uses performance-based budgeting to improve or preserve the condition of the assets and the performance of the NHS.

Term	Definition
Transportation Improvement Program (TIP)	a short-term program of MPO transportation projects that will be funded with all federal funds expected to flow to the region; the TIP also lists locally and state-funded regionally significant projects. The projects contained in the TIP are drawn from, and consistent with, the MPO long-range transportation plan.
Traffic Management Center (TMC)	the hub of most freeway management systems where data about the freeway are collected and processed, fused with other operational and control data, synthesized to produce "information", and distributed to stakeholders such as the media, other agencies, and the traveling public; see also Regional Traffic Management Center (RTMC).
Traffic Systems Management and Operations (TSMO)	a set of strategies that focus on operational improvements that can maintain or restore the performance of an existing transportation system before extra capacity is needed; solutions are ideally comprehensive and quickly administered at a relatively low cost; helps agencies balance supply and demand and remain flexible in changing conditions.
Tribal Transportation Assistance Program (TTAP)	is administered by the U.S. Federal Highway Administration (FHWA) that provides comprehensive transportation training and technical assistance to tribal communities, building skills and expertise to ensure the safety and maintenance of tribal roads.
Truck Platooning	is the linking of two or more trucks in convoy, using connectivity technology and automated driving support systems. These vehicles automatically maintain a set, close distance between each other when they are connected for certain parts of a journey, for instance on motorways.
Truck Travel Time Reliability (TTTR)	is defined by the FHWA as the percent of person-miles on the highway that are reliable.
Union Pacific Rail (UP)	Is a Class I railroad that operates over 32,200 miles routes in 23 states west of Chicago and New Orleans.
U.S. Army Corps of Engineers (USACE)	is an engineer formation of the United States Army that primarily oversees dams, canals, and flood protection in the United States, as well as a wide range of public works throughout the world.

Term	Definition
Vehicle to Everything (V2X)	is the passing of information from a vehicle to any entity that may affect the vehicle, and vice versa.
Vehicle-Miles Traveled (VMT)	unit for measuring vehicle travel distances; number of miles traveled nationally by vehicles for a period of one year.
Vehicle to Infrastructure (V2I)	a communications model that allows vehicles to share information with components of a highway system; examples of components include RFID. readers, cameras, traffic lights, and streetlights.
Vision	is a broad, aspirational statement of what an organization hopes to achieve in the future.

APPENDIX B

SYSTEM PERFORMANCE REPORT

Introduction

Overview

Oklahoma's population and economy have grown over the last five years, driven by strong demand in the agricultural, construction, and retail sectors. To support the thriving economy and secure an improved quality of life for Oklahomans, Oklahoma Department of Transportation (ODOT) is developing the 2025-2050 Long Range Transportation Plan (LRTP) with the following goals at the forefront:

- **Safety and Security**: Ensure a safe and secure transportation system for all users.
- **Infrastructure Preservation**: Preserve and maintain Oklahoma's transportation system in good condition.
- **Mobility and Accessibility**: Proactively engage local communities to ensure access for all users of the transportation system and increase travel options.
- **Economic Vitality**: Provide an efficient and well-connected transportation system to support a healthy and competitive Oklahoma economy.
- **Operations and Management**: Promote efficient, collaborative, and transparent operations to fund and deliver maximum system performance.
- **Environment and Quality of Life**: Minimize and mitigate transportation-related impacts to natural environments, cultural resources, and public health.
- **Resiliency and Reliability:** Ensure the reliability of movement for people and goods by enhancing the resiliency and adaptability of the transportation system.

ODOT coordinated with Oklahoma's Metropolitan Planning Organizations (MPOs) in consultation with tribal governments and non-metropolitan area local officials to set national transportation performance measures targets related to safety, infrastructure condition, and system performance and reliability, and make progress toward meeting them, as specified under 23 CFR 490. ODOT also acts as a sponsor in development of a Transit Asset Management Group Plan for the Tier 2 transit agencies in Oklahoma. As per 49 CFR 625, the FTA requires that every transit agency receiving federal financial assistance establish targets for all transit assets.

The sections of this system performance report for the 2025-2050 LRTP reflect the most recently available targets through various reporting requirements. The 2025-2050 LRTP is a performance-based plan developed to align with national transportation goals, the Transportation Asset Management Plan (TAMP), and the Statewide Transportation Improvement Program (STIP). Implementation of the strategies and policies identified in the 2025-2050 LRTP will help ODOT to work toward meeting the targets outlined in the following sections of this system performance report. The state's transportation planning efforts, including target setting, are coordinated with Oklahoma's MPOs in consultation with tribal governments and non-metropolitan area local officials responsible for transportation in the state.

PM 1 Safety

As established by 23 CFR 490, FHWA has defined performance measures for safety. These performance measures help ODOT track performance related to the safety and security goal set forth in the 2025-2050 LRTP. ODOT, in collaboration with the Oklahoma Highway Safety Office (OHSO) and MPOs, develops safety performance targets for the full extent of the public roadway system for each of the five federal safety measures (PM 1) established by 23CFR 490, including:

- Total fatalities;
- Total serious injuries;
- Fatality rate per hundred-million vehicle miles traveled (HMVMT);
- Serious injury rate per HMVMT; and
- Total non-motorized fatalities and serious injuries.

The Highway Safety Improvement Program (HSIP) requires a data-driven, strategic approach to improve highway safety through performance. Projects chosen for the HSIP are based on crash history, roadway characteristics, and the existence of infrastructure countermeasures that can address the types of crashes present. ODOT is committed to working toward the targets by programming projects in the HSIP that will align with the Highway Safety Plan (HSP) and Strategic Highway Safety Plan (SHSP) along with enforcement and education to improve safety on all public roads.

ODOT submitted their latest performance results to FHWA in its 2023 HSIP. OHSO's latest crash data release came in 2024 to support the 2023 HSIP. In the HSIP Report, ODOT and OHSO developed autoregressive integrated moving average (ARIMA) models to forecast performance targets.

Table 1 illustrates the safety performance targets and actual performance results identified in the HSIP.

Table 1: Safety-related performance measures

Performance Measure Name	2022 Targets	2022 Actual Performance	Achieved 2-Year Target?
Number of traffic fatalities	656.0	684.0	
Number of serious injuries in traffic crashes	2200.0	2184.6	✔
Fatalities per 100 million VMT	1.44	1.542	
Serious Injury per 100 million VMT	4.79	4.932	
Number of Non-Motorized Fatalities and Serious Injuries	313.0	293.0	✔

PM 2 Pavement and Bridge Condition

As established by 23 CFR 490, FHWA has defined performance measures for bridge and pavement conditions (PM 2). ODOT works to achieve its pavement and bridge condition targets to support the 2025-2050 LRTP infrastructure preservation goal.

The pavement condition performance measures are:

- Percent of interstate pavement in good condition;
- Percent of interstate pavement in poor condition;
- Percent of non-interstate NHS pavement in good condition; and,
- Percent of non-interstate NHS pavement in poor condition.

The pavement performance measures incorporate consideration of roughness (using the International Roughness Index, or IRI), cracking percent, rutting (for asphalt pavement only), and/or faulting (for concrete pavement only). For roads where the speed limit is less than 40 miles per hour, the present serviceability rating (PSR) may be used.

The bridge condition performance measures are:

- Percent of NHS bridges by deck area in good condition; and,
- Percent of NHS bridges by deck area in poor condition.

Bridge condition is based on the National Bridge Inventory (NBI) rating of bridge components (deck, superstructure, substructure, and culvert), where the lowest-rated component determines the condition of the entire bridge.

ODOT is responsible for reporting pavement and bridge condition targets to FHWA for all assets on the NHS. Thus, in coordination with MPOs and asset owners, ODOT developed baselines, two-year targets, and four-year targets for each of the performance measures, which ODOT reported to FHWA in the 2024 Mid Performance Period (MPP) Progress Report. Agencies can make significant progress toward targets by either meeting targets or improving from the baseline measure.

ODOT strives to become a top 10 State in transportation infrastructure. To accomplish this goal, ODOT relies on recommendations from its eight field district engineers with stakeholder input to determine bridge and pavement performance measures and project selections. Additionally, the STIP and the 2025-2050 LRTP provide data-driven strategies and initiatives to achieve these performance targets. Lastly, system preservation projects are selected from a prioritization list that optimizes conditions to meet performance targets established by ODOT; these projects are outlined in ODOT's 8-Year Construction Work Plan (CWP) and are supported by ODOT's Asset Preservation Plan.

ODOT established pavement condition targets through ODOT's pavement management system, which can forecast pavement performance. Targets were established using historical trends based on data collected in 2021 and forecasting for a ten-year timeframe. In its MPP Progress Report, ODOT reported that good conditions performed at or better than the baseline and poor conditions improved. **Table 2** shows the pavement conditions performance targets identified in the MPP Progress Report.

Table 2. Pavement performance measures

Performance Measure	2022 Baseline	2-Year Target	2-Year Actual Performance	Significant Progress?	4-Year Target
Percent of interstate pavement in good condition	68.7%	59.0%	68.1%	☑	56.0%
Percent of interstate pavement in poor condition	1.1%	3.0%	0.9%	☑	4.0%
Percent of non-interstate NHS pavement in good condition	43.4%	41.0%	45.5%	☑	40.0%
Percent of non-interstate NHS pavement in poor condition	2.7%	5.0%	2.8%	☑	6.0

ODOT established bridge performance targets through review of PONTIS 2021 bridge condition data against existing funded and planned projects. Overall, ODOT expected bridge conditions to slightly worsen, however, as noted in its MPP Progress Report, ODOT maintained its good bridge conditions. **Table 3** shows the bridge conditions performance targets identified in the MPP Progress Report.

Table 3. Bridge performance measures

Performance Measure	2022 Baseline	2-Year Target	2-Year Actual Performance	Achieved 2-Year Target?	4-Year Target
Percent of interstate NHS bridges classified in good condition	48.2%	43.0%	48.1%	☑	40.0%
Percent of interstate NHS bridges classified in poor condition	0.8%	3.0%	0.7%	☑	5.0%

PM 3 System Reliability

As established by 23 CFR 490, FHWA has identified performance measures to evaluate system reliability for passenger vehicles and freight as well as congestion and air quality conditions. Oklahoma does not include any nonattainment or maintenance areas, and as a result it is not required to report air quality targets. The System Reliability measures are reflected in the goals ODOT developed throughout the 2025-2050 LRTP process. The three system reliability performance measures ODOT is required to establish targets for include:

- Level of Travel Time Reliability Index (LOTTR), which includes:
  - Percent of reliable person-miles traveled on the interstate;
  - Percent of reliable person-miles traveled on the non-interstate national highway system (NHS); and
- Truck Travel Time Reliability Index (TTTR) on the interstate.

As per federal rules, the percentage of reliable person-miles traveled on the interstate and TTTR are calculated using the National Performance Management Research Data Set (NPMRDS). LOTTR is calculated as a ratio of the longer (80th percentile) travel time to a "normal" travel time (50th percentile) over an entire year. The TTTR index is a ratio of the 95th percentile travel time by the 50th percentile travel time.

ODOT strives to be a top 10 State in terms of transportation system reliability. In working toward meeting that goal, ODOT is monitoring reliability, constructing projects from its 8-Year Construction Plan, and prioritizing investments in rural areas that strengthen economic hubs throughout the State. For example, ODOT is addressing 964 miles of rural two-lane highways with deficient shoulder and improving 3,755 lane miles of highway pavement.

ODOT established its system reliability targets through coordination with MPOs using historical data from sources such as the National Performance Management Research Data Set. In 2022, ODOT published the Baseline Performance Period Report, which set a baseline for the subsequent 2-year performance targets. Using a trend analysis in conjunction with this baseline, ODOT projected targets for the four-year Performance Period. These targets and ODOT's performance are shown in **Table 4**.

Table 4. System reliability performance measures

Performance Measure	2022 Baseline	2-Year Target	2-Year Actual Performance	Significant Progress?	4-Year Target
Percent of reliable person-miles traveled on the interstate.	94.8%	90.0%	94.1%	☑	90.0%
Percent of reliable person-miles traveled on the non-interstate NHS	97.5%	90.0%	95.8%	☑	90.0%
Truck Travel Reliability Index on the interstate	1.24	1.33	1.23	☑	1.33

Transit Asset Management

Transit asset management (TAM) is a federal requirement for all federal fund recipients that own, operate, or manage capital assets used in providing public transportation services. TAM uses transit asset conditions to guide agencies in managing capital assets and prioritize funding to improve or maintain a state of good repair.

ODOT's Office of Mobility and Public Transit serves as a sponsor for the Transit Asset Management Group Plan. The Transit Asset Management Group Plan documents the statewide approach to TAM to improve the practices of Oklahoma's small transit providers as they operate and maintain their capital assets to ensure reliable and safe service delivery for transit riders across the state. Thirty transit operators participated in the 2024 Transit Asset Management Group Plan. Those agencies are as follows:

- Edmond City Link
- City of Norman
- Enid Public Transportation Authority
- Aging Services, Inc.
- City of Cushing
- Council for Developmental Disabilities, Inc.
- City of Sand Springs
- Daily Living Centers, Inc.
- City of Moore – Moore Council on Aging
- MPower, Inc.
- Sagebrush, Inc.
- Beaver City Transit
- Pontotoc County Public Transit Authority/Call A Ride Public Transit
- Central Oklahoma Community Action Agency, Inc.
- United Community Action Program/Cimarron Public Transit System
- Northern Oklahoma Development Authority
- Delta Community Action Foundation, Inc.
- First Capital Trolley
- City of Guymon – The Ride
- INCA Community Services, Inc.
- KI BOIS Community Action Foundation, Inc.
- LIFT Community Action Agency, Inc.
- MAGB Transportation
- Muskogee County Transit
- OSU-Stillwater Community Transit
- Pelivan Transit
- Community Action Development Corporation – Red River Transportation Service
- Big Five Community Service, Inc.
- Southwest Oklahoma Community Action Group, Inc.
- Washita Valley Community Action Council

Three agencies, Central Oklahoma Transportation and Parking Authority (EMBARK), Lawton Area Transit System (LATS), and the Metropolitan Tulsa Transit Authority (MTTA), produce their own TAM plan.

Performance targets were selected based on performance baselines established for existing assets and projections of available funding. For all the transit organizations participating in the Transit Asset Management Group Plan, TAM activity is coordinated by the ODOT Office of Mobility and Public Transit. Representatives from transit agencies are brought together as needed for discussions and workshops. Each of the providers in the Group TAM Plan use an analytical process and decision-support tools to inform investment decisions and project available funding. The 2024 Group TAM Plan identifies initiatives for agencies to implement over the next four years, including refinement of their project prioritization and investment decision processes and refinement of useful life benchmarks. Oklahoma's small urban, large urban, and tribal transit agencies set agency transit asset management targets through individual TAM plans.

The useful life benchmarks (ULB) for the Group TAM Plan participants, EMBARK, LATS, and MTTA are provided in **Table 5**. The participants of the Group Plan selected FTA default useful life benchmarks. The performance targets and baseline performance from the Transit Asset Management Group Plan, and TAM plans for EMBARK, LATS, and MTTA are listed in **Table 6**. The most recent and complete targets were gathered from the National Transit Database (NTD) Performance Tool. The transit agencies update targets annually and report data in the NTD.

Table 5. Useful Life Benchmarks (years)

	Type	ODOT Tier II Group ULB	EMBARK ULB	LATS ULB	MTTA ULB
Revenue Vehicles	Automobile	8		-	
	Over-the-road Bus	14		14	
	Bus	14	12	14	14
	Cutaway	10	5	10	10
	Ferryboat	-	42		
	Light Rail Vehicle	31	30		
	Minivan	8	8	5	
	Sports Utility Vehicle	8		-	
	Van	8		8	8
Equipment	Automobiles	8		-	
	Trucks and other Rubber Tire Vehicles	14		10	

Source: ODOT Group TAM Plan 2024, NTD 2023 Revenue Vehicle Inventory

Table 6. Performance Targets and Actual Performance (FY 2023)

		ODOT Tier II Group Plan			EMBARK			LATS			MTTA*		
Performance Measure	Type	2023 Target	2023 Actual	2024 Target	2023 Target	2023 Actual	2024 Target	2023 Target	2023 Actual	2024 Target	2023 Target	2023 Actual	2024 Target
Revenue (percent met or exceeded useful life benchmark (ULB))	Automobile	33.33	33.3	83.33	-	-	-	-	-	-	-	-	-
	Over-the-road Bus	45.45	50.0	50.00	-	-	-	-	-	-	-	-	-
	Bus	43.59	31.6	33.33	0.00	6.8	0.00	0.00	0.0	0.00	43.59	36.8	33.33
	Cutaway	42.40	31.7	30.32	50.00	100.0	100.00	100.00	100.0	100.00	42.40	18.8	30.32
	Ferryboat	-	-	-	0.00	0.0	0.00	-	-	-	-	-	-
	Light Rail Vehicle	-	-	-	0.00	0.0	0.00	-	-	-	-	-	-
	Minivan	17.63	11.3	14.65	0.00	0.0	0.00	-	-	-	-	-	-
	Sports Utility Vehicle	86.86	71.4	80.00	-	-	-	-	-	-	-	-	-
	Van	3.84	7.3	6.72	-	-	-	33.33	28.6	66.66	3.84	0.0	6.72
Equipment (percent met or exceeded useful life benchmark (ULB))	Automobiles	45.00	44.4	50.00	100.00	25.0	25.00	-	-	-	-	-	-
	Trucks and other Rubber Tire Vehicles	38.00	33.3	38.00	40.00	34.2	30.00	80.00	80.0	100.00	-	-	-
Facility (percent rated less than 3.0 on the TERM scale)	Administrative Office / Sales Office	-	-	-	0.00	0.0	0.00	-	-	-	-	-	-
	Bus Transfer Center/Passenger/Parking Facilities	0.00	33.3	33.33	0.00	0.0	0.00	-	-	-	-	-	-
	Combined Administrative and Maintenance Facility	11.00	0.0	10.00	-	-	-	-	-	-	-	-	-
	Ferryboat Terminal	-	-	-	0.00	0.0	0.00	-	-	-	-	-	-

		ODOT Tier II Group Plan			EMBARK			LATS			MTTA*		
Performance Measure	Type	2023 Target	2023 Actual	2024 Target	2023 Target	2023 Actual	2024 Target	2023 Target	2023 Actual	2024 Target	2023 Target	2023 Actual	2024 Target
	General Purpose Maintenance Facility/Depot	-	0.0	-	0.00	0.0	0.00	-	-	-	-	-	-
	Maintenance Facility (Service and Inspection)	-	0.0	-	-	-	-	-	-	-	-	-	-
	Other, Administrative & Maintenance	-	-	-	0.00	0.0	0.00	-	-	-	-	-	-
	Simple At-Grade Platform Station	-	-	-	0.00	0.0	0.00	-	-	-	-	-	-
	Vehicle Fueling Facility	-	-	-	0.00	0.0	0.00	-	-	-	-	-	-
	Vehicle Washing Facility	-	0.0	-	0.00	0.0	0.00	-	-	-	-	-	-
Infrastructure (percent track segments with performance restrictions)	All Track Mile Elements	-	-	-	0.00	0.0	0.00	-	-	-	-	-	-

Source: National Transit Database (NTD) 2023 Performance Tool

*MTTA participated in the ODOT-sponsored Group TAM Plan for the years 2021 through 2023

Twelve tribal transit agencies also operate in Oklahoma and maintain transit revenue vehicles, equipment, and/or facilities. The Tribal transit agencies are held to the same federal TAM requirements. Pelivan Transit has a partnership with the Northeast Tribal Transit Consortium, which includes tribal communities in the northeast region of Oklahoma, to support transportation options for tribal members. The transit asset information for Pelivan Transit includes vehicles that provide services to the tribal members. Therefore, the Northeast Tribal Transit Consortium is not included in the data captured below. Instead, it is included in the TAM Group Plan under Pelivan Transit. Tribal transit agencies reported their ULBs, 2023 targets and actuals, and 2024 targets. Tribal agency asset ULBs appear in **Table 7.** Their 2023 performance targets are shown in **Table 8** and actual performance is shown in **Table 9**. The 2024 targets for Tribal agencies are displayed in **Table 10.**

Table 7. Useful Life Benchmarks (years) – Tribal Agencies

	Type	Cherokee Nation	Cheyenne & Arapaho Tribes	Chickasaw Nation	Choctaw Nation of Oklahoma	Citizen Potawatomi Nation	Comanche Nation	Kiowa Tribe	Muscogee (Creek) Nation	Ponca Tribe of Oklahoma	Seminole Nation of Oklahoma	United Keetoowah Band of Cherokee Indians in Oklahoma
Revenue Vehicles	Automobile	-	6	-	-	-	-	-	8	-	-	-
	Over-the-road Bus	-	-	-	-	-	-	-	-	-	-	-
	Bus	-	-	-	-	-	-	-	14	-	-	-
	Cutaway	-	-	10	5	-	-	-	10	-	10	-
	Ferryboat	-	-	-	-	-	-	-	-	-	-	-
	Light Rail Vehicle	-	-	-	-	-	-	-	-	-	-	-
	Minivan	-	4	8	5	8	8	-	8	8	8	4
	Sports Utility Vehicle	-	-	-	-	8	-	-	-	-	-	-
	Van	8	8	8	5	-	8	8	-	10	8	5
Equipment	Automobiles	-	8	-	-	-	-	-	-	-	-	-
	Trucks and other Rubber Tire Vehicles	-	14	14	5	-	14	-	-	-	14	5

Source: National Transit Database (NTD) 2023 Revenue Vehicle Inventory and Service Vehicle Inventory

Table 8. Tribal Transit Performance Targets (FY2023)

Performance Measure	Type	Cherokee Nation	Cheyenne & Arapaho Tribes	Chickasaw Nation	Choctaw Nation of Oklahoma	Citizen Potawatomi Nation	Comanche Nation	Kiowa Tribe	Muscogee (Creek) Nation	Ponca Tribe of Oklahoma	Seminole Nation of Oklahoma	United Keetoowah Band of Cherokee Indians in Oklahoma
Revenue (percent met or exceeded useful life benchmark (ULB))	Automobile	-	-	-	-	-	-	-	25.00	-	-	-
	Bus	-	-	-	-	-	-	-	0.00	-	-	-
	Cutaway	-	-	25.00	65.00	-	-	-	18.18	-	33.33	-
	Minivan	-	100.00	16.67	80.00	14.20	0.00	-	55.56	50.00	50.00	20.00
	Sports Utility Vehicle	-	-	-	-	-	-	-	-	-	-	-
	Van	0.00	100.00	0.00	41.67	-	12.50	0.00	-	50.00	0.00	0.00
Equipment (percent met or exceeded useful life benchmark (ULB))	Automobiles	-	0.00	-	-	-	-	-	-	-	-	-
	Trucks and other Rubber Tire Vehicles	-	100.00	0.00	0.00	-	50.00	-	-	-	-	0.00
Facility (percent rated less than 3.0 on the TERM scale)	Administrative Office / Sales Office	-	-	0.00	-	-	-	-	-	0.00	-	0.00
	Combined Administrative and Maintenance Facility	-	0.00	-	-	-	0.00	0.00	-	-	-	-
	General Purpose Maintenance Facility/Depot	-	-	-	-	-	-	-	-	-	0.00	-

Performance Measure	Type	Cherokee Nation	Cheyenne & Arapaho Tribes	Chickasaw Nation	Choctaw Nation of Oklahoma	Citizen Potawatomi Nation	Comanche Nation	Kiowa Tribe	Muscogee (Creek) Nation	Ponca Tribe of Oklahoma	Seminole Nation of Oklahoma	United Keetoowah Band of Cherokee Indians in Oklahoma
	Maintenance Facility (Service and Inspection)	-	-	-	-	-	-	-	0.00	-	-	-
	Parking Structure	-	-	0.00	-	-	-	-	-	-	-	-
	Surface Parking Lot	-	-	0.00	-	-	-	-	-	-	-	-
	Vehicle Washing Facility	-	-	0.00	-	-	-	-	-	-	-	0.00

Source: National Transit Database (NTD) 2023 Performance Tool

Table 9. Percent of tribal transit assets at or past ULB (FY 2023)

Performance Measure	Type	Cherokee Nation	Cheyenne & Arapaho Tribes	Chickasaw Nation	Choctaw Nation of Oklahoma	Citizen Potawatomi Nation	Comanche Nation	Kiowa Tribe	Muscogee (Creek) Nation	Ponca Tribe of Oklahoma	Seminole Nation of Oklahoma	United Keetoowah Band of Cherokee Indians in Oklahoma
Revenue (percent met or exceeded useful life benchmark (ULB))	Automobile	-	100.0	-	-	-	-	-	50.0	-	-	-
	Bus	-	-	-	-	-	-	-	0.0	-	-	-
	Cutaway	-	0.0	25.0	31.3	-	-	-	18.2	-	33.3	-
	Minivan	-	100.0	5.6	80.0	0.0	0.0	-	57.1	50.0	50.0	20.0
	Sports Utility Vehicle	-	-	-	-	0.0	-	-	-	-	-	-
	Van	0.0	66.7	0.0	36.4	-	0.0	0.0	-	0.0	0.0	0.0
Equipment (percent met or exceeded useful life benchmark (ULB))	Automobiles	-	0.0	-	-	-	-	-	-	-	-	-
	Trucks and other Rubber Tire Vehicles	-	0.0	0.0	0.0	-	50.0	-	-	-	0.0	0.0
Facility (percent rated less than 3.0 on the TERM scale)	Administrative Office / Sales Office	-	-	0.0	-	-	-	-	-	0.0	-	0.0
	Combined Administrative and Maintenance Facility	-	0.0	-	-	-	0.0	0.0	-	-	-	-
	General Purpose Maintenance Facility/Depot	-	-	-	-	-	-	-	-	-	0.0	-

Performance Measure	Type	Cherokee Nation	Cheyenne & Arapaho Tribes	Chickasaw Nation	Choctaw Nation of Oklahoma	Citizen Potawatomi Nation	Comanche Nation	Kiowa Tribe	Muscogee (Creek) Nation	Ponca Tribe of Oklahoma	Seminole Nation of Oklahoma	United Keetoowah Band of Cherokee Indians in Oklahoma
	Maintenance Facility (Service and Inspection)	-	-	-	-	-	-	-	0.0	-	-	-
	Parking Structure	-	-	0.0	-	-	-	-	-	-	-	-
	Surface Parking Lot	-	-	0.0	-	-	-	-	-	-	-	-
	Vehicle Washing Facility	-	-	0.0	-	-	-	-	-	-	-	0.0

Source: National Transit Database (NTD) 2023 Performance Tool

Table 10. Tribal Transit Performance Targets (FY2024)

Performance Measure	Type	Cherokee Nation	Cheyenne & Arapaho Tribes	Chickasaw Nation	Choctaw Nation of Oklahoma	Citizen Potawatomi Nation	Comanche Nation	Kiowa Tribe	Muscogee (Creek) Nation	Ponca Tribe of Oklahoma	Seminole Nation of Oklahoma	United Keetoowah Band of Cherokee Indians in Oklahoma
Revenue (percent met or exceeded useful life benchmark (ULB))	Automobile	-	-	-	-	-	-	-	75.00	-	-	-
	Bus	-	-	-	-	-	-	-	0.00	-	-	-
	Cutaway	-	-	25.00	56.25	-	-	-	25.00	-	33.33	-
	Minivan	-	100.00	50.00	80.95	0.00	0.00	-	40.00	50.00	50.00	100.00
	Sports Utility Vehicle	-	-	-	-	0.00	0.00	-	-	-	-	-
	Van	0.00	66.00	0.00	36.36	-	10.00	0.00	-	0.00	0.00	0.00
Equipment	Automobiles	-	0.00	-	-	-	-	-	-	-	-	-

Performance Measure	Type	Cherokee Nation	Cheyenne & Arapaho Tribes	Chickasaw Nation	Choctaw Nation of Oklahoma	Citizen Potawatomi Nation	Comanche Nation	Kiowa Tribe	Muscogee (Creek) Nation	Ponca Tribe of Oklahoma	Seminole Nation of Oklahoma	United Keetoowah Band of Cherokee Indians in Oklahoma
(percent met or exceeded useful life benchmark (ULB))	Trucks and other Rubber Tire Vehicles	-	100.00	0.00	0.00	-	50.00	-	-	-	0.00	0.00
Facility (percent rated less than 3.0 on the TERM scale)	Administrative Office / Sales Office	-	-	0.00	-	-	-	-	-	0.00	-	0.00
	Combined Administrative and Maintenance Facility	-	0.00	-	-	-	0.00	0.00	-	-	-	-
	General Purpose Maintenance Facility/Depot	-	-	-	-	-	-	-	-	-	0.00	-
	Maintenance Facility (Service and Inspection)	-	-	-	-	-	-	-	0.00	-	-	-
	Parking Structure	-	-	0.00	-	-	-	-	-	-	-	-
	Surface Parking Lot	-	-	0.00	-	-	-	-	-	-	-	-
	Vehicle Washing Facility	-	-	0.00	-	-	-	-	-	-	-	0.00

Source: National Transit Database (NTD) 2023 Performance Tool

Conclusion

ODOT coordinates with MPOs, tribal communities, and transit agencies to set and monitor performance targets related to safety, infrastructure condition, system performance and reliability, and transit asset condition. Likewise, ODOT aligns its performance measures and targets with federal requirements outlined in the Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Infrastructure Investment and Jobs Act (IIJA). This alignment ensures consistency and compliance with national transportation goals. ODOT's SHSP guides the agency's investment strategies by applying a data-driven, multidisciplinary approach to make roadways safer. Also, ODOT has developed the TAMP and 8-Year Construction Work Plan (CWP) to effectively manage and maintain transportation assets, ensuring their longevity and optimizing resource allocation. The 2025-2050 LRTP outlines long-term transportation priorities, focusing on infrastructure preservation, urban mobility, rural connectivity, and safety and security of the transportation system. ODOT emphasizes data-driven approaches to highway safety through implementing the SHSP, aiming to reduce crashes and fatalities through strategic planning and investment.

While ODOT met PM 1 safety targets related to the numbers of serious injuries and non-motorized fatalities, it has also made progress toward meeting targets related to fatalities and fatality rates, with ODOT expecting to meet its 2024 fatality rate target. To continue progress toward meeting these goals, ODOT has begun its Advanced Mobility Strategy (AMS), which looks to leverage advanced mobility technology in the state. The safety performance measures reviewed in this document align with goals outlined in MAP-21, the IIJA, and HSIP, emphasizing the commitment to reducing traffic fatalities and serious injuries.

ODOT met all PM 2 pavement and bridge targets for federal system performance measures by utilizing the strategies outlined in its 8-Year CWP and TAMP. The pavement and bridge conditions performance measures are aligned with, and advance goals and objectives identified in MAP-21, IIJA, and the TAMP.

Oklahoma also met most PM 3 system reliability targets for federal system performance measures, with the lone exception being the Truck TTI. In its efforts to provide a safe, reliable, and productive freight transportation system, ODOT developed the 2023-2030 Freight Transportation Plan (FTP), which identified over 100 bottleneck clusters and identified several freight-specific performance measures. The investment program in the FTP includes over 360 projects totaling nearly $5 billion and emphasizes the state's commitment to improving the freight transportation system.

Lastly, ODOT is committed to providing a safe and effective public transit network that enhances and increases the mobility of all people in the state. The TAM Plan assessed the state's transit needs and identified strategic investment outcomes geared toward achieving

a State of Good Repair by replacing old and aging vehicles. This System Performance Report presents the conditions of vehicles, emphasizing the importance of maintaining infrastructure integrity.