

STATE OF THE SYSTEM

HIGHWAYS IN WEST VIRGINIA



West Virginia is the 41st largest and the 38th most populous state in. Despite its relatively small size, West Virginia is home to approximately 3,100 cities, towns, and small communities. Linking them together is approximately 38,850 miles of roads, of which about 89 percent are owned and operated by the WV Division of Highways (DOH), making it the 6th largest state-maintained highway network in the nation.



41st largest state
(by land area)

6th largest state-maintained highway system
(Bureau of Transportation Statistics, USDOT)

38th most populous state
(US Census)



38,850 miles of public roads

Of which, WVDOT owns **35,038** miles (**90%** of the total system), including:

- WVDOT owns **34,961** miles, including
 - **468** Interstate miles
 - **1,433** non-Interstate NHS miles
 - **10,477** Federal aid eligible miles



The WV Turnpike owns **87** Interstate miles



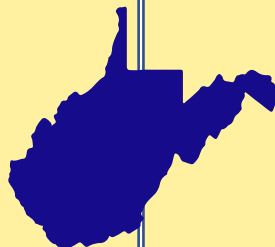
7,269 WVDOT maintained bridges

Of which, WVDOT owns:

- **556** Interstate NHS bridges
- **639** non-Interstate NHS bridges
- **92%** of bridges and deck area (22.5 million sq ft)



The WV Turnpike owns **95** Interstate bridges and **2** non-Interstate NHS bridges



Note, all miles presented as centerline miles. All mileage stats from FHWA 2018 Highway Statistics series.

Other asset facts:

- 8 welcome centers, 10 Interstate rest areas, 4 Turnpike travel plazas
- 10 District offices and 55 county maintenance headquarters
- 1,400+ traffic signals and over 50,000 signs
- Over 60,000 roadway lights
- Fleet of over 2,000 passenger cars, 1,131 dump trucks, and 781 other pieces of maintenance and construction equipment

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WHY HIGHWAYS ARE IMPORTANT

Economics

The efficiency of West Virginia's highways is critical to the health of the state's economy. Businesses rely on an efficient and dependable transportation system to move products and services. A key component in business efficiency and success is the level and ease of access to customers, markets, materials and workers. Increasingly, companies are looking at the quality of a region's transportation system when deciding where to re-locate or expand. Highway accessibility ensures that major freight corridors connect to cargo zones, such as ports, distribution and warehousing facilities, and airports. Commuters, residents and tourists rely on highways, local, and secondary roads to access important destinations.



- **\$119 billion in goods are shipped annually to and from West Virginia.**
- **72% of the goods shipped annually are carried by trucks.**

Health

In West Virginia, transportation and public health are closely linked.

Highway travel can harm the health of the state by producing emissions that impact public health and the environment, but it can also help the health of the state by facilitating access to health care, especially in rural areas. Crashes on the highway system also create a significant health challenge in West Virginia, especially for younger, inexperienced drivers. Making highway transportation safer and more efficient has a demonstrable effect on community health.



- **Traffic congestion costs West Virginia motorists \$225 million each year in lost time and wasted fuel.**
- **Driving on rough roads costs West Virginia motorists \$758 million annually in extra vehicle operating costs.**

Quality of Life

The economic, health, and tourism benefits related to highways contribute to a more positive quality of life for West Virginians.

Highways are used every day by citizens to access recreational opportunities, education, social gatherings, cultural institutions, community events, and more. Traffic delay can be a barrier for people when choosing to participate in these activities. WVDOH operation and maintenance of the system can help users spend less time on the road and more time on leisure.



- **Approximately 3.5 million visitors to WV welcome centers each year.**

Tourism

Tourism in West Virginia depends on a high-quality transportation system.

Many of West Virginia's cultural, historic, and recreational assets are spread throughout the state, so a safe, high-quality, and efficient roadway network must exist to enable travelers to reach all corners of the state. You can learn interesting facts about West Virginia's history by driving along scenic routes including the Coal Heritage Highway, Highland Scenic Highway and Midland Trail Scenic Highway.

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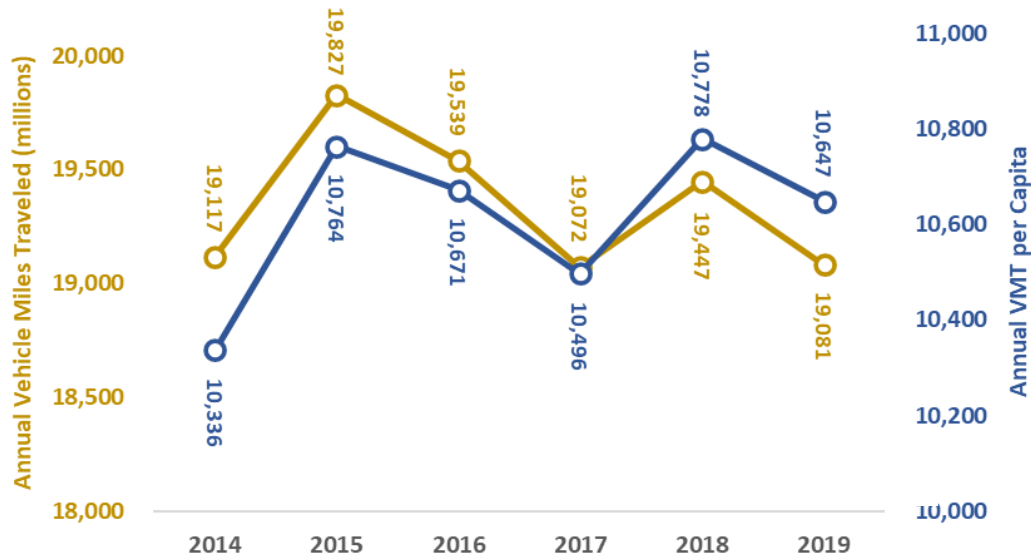


TRENDS IN HIGHWAY TRAVEL AND PERFORMANCE

Vehicle Miles Traveled (VMT)

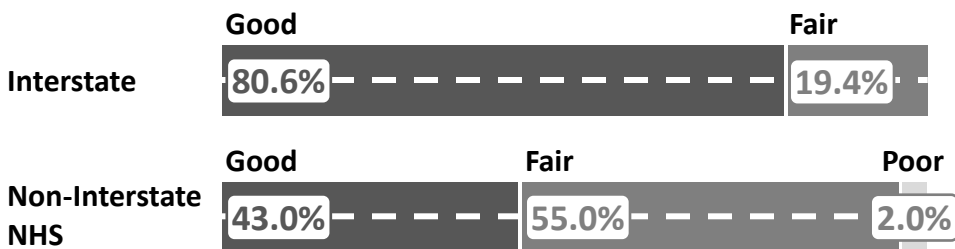
West Virginia Vehicle Miles Traveled (VMT) measures the use and amount of travel on the roadway network by motor vehicles. There are various factors that affect VMT such as population growth, economic growth and travel costs, including fuel. VMT per capita is useful to compare travel to population change in the state.

The COVID-19 pandemic in 2020 has had a substantial impact on VMT, particularly commuting and tourism-based travel. As cities and the state slowly begin to reopen their economy, levels of VMT are expected to return to pre-COVID levels. **Based on monthly VMT data reported by WVDOH to FHWA, total VMT through September 2020 had decreased 15% compared to total VMT over that same time period in 2019.**



Pavement Condition

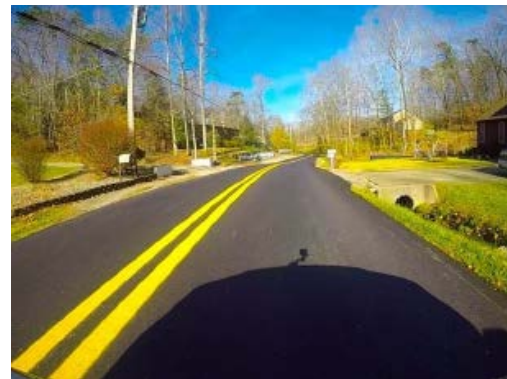
WVDOH closely monitors the condition of pavement across 36,000 miles of roadway. Preserving this infrastructure provides safe and reliable movement of people and goods across West Virginia. In 2019, the majority of the National Highway System (NHS) pavement in West Virginia is in good condition.



Before and after pavement treatment.

Interstate pavement condition has generally remained steady or slightly improved over the last decade. Non-Interstate NHS pavement condition gradually declined during the decade, and recently has started to turn the trend as a result of programs like Roads to Prosperity.

WVDOH implements cost-effective solutions to rebuild and protect the highway system. Ongoing programs like the Secondary Roads Maintenance Initiative are placing a priority on improving rural roads.



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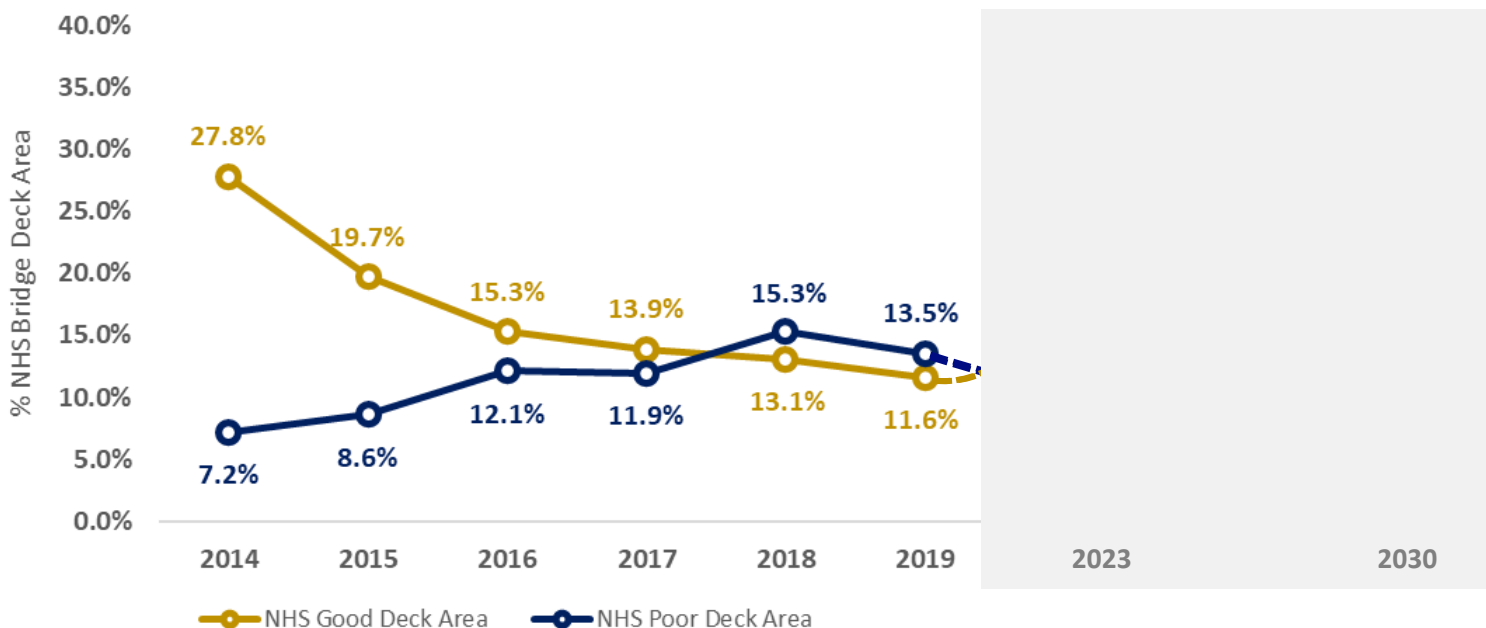


TRENDS IN HIGHWAY TRAVEL AND PERFORMANCE

Bridge Condition

One could easily say West Virginia is the land of bridges, as the state has approximately 7,269 bridges on state-maintained roads. Maintaining West Virginia's bridges is important to ensure a safe and reliable roadway network for passenger and freight movement. By tracking bridge condition, WVDOH proactively identifies and prioritizes bridge maintenance needs and manages overall maintenance costs. Since 2014, the general bridge performance trend has declined, with a decrease in good bridges and increase in poor bridges.

In 2019, WVDOH developed a Transportation Asset Management Plan (TAMP), as required by FHWA, that detailed recent and future performance trends and developed strategies and investment scenarios to maintain bridges on the National Highway System.



A poor condition bridge does not mean that a bridge is unsafe to travel. WVDOH routinely inspects bridges and uses data tools and models to make strategic decisions on when and how to address needs. With such a large system, and a significant share of West Virginia's most traveled bridges approaching their design life (roughly 60 years old), bridge maintenance work will be a common sight for drivers across West Virginia over the coming decades. The increase in poor condition bridges in the above chart is indicative of the challenges created by the scope of these aging bridges in West Virginia over the next decade.

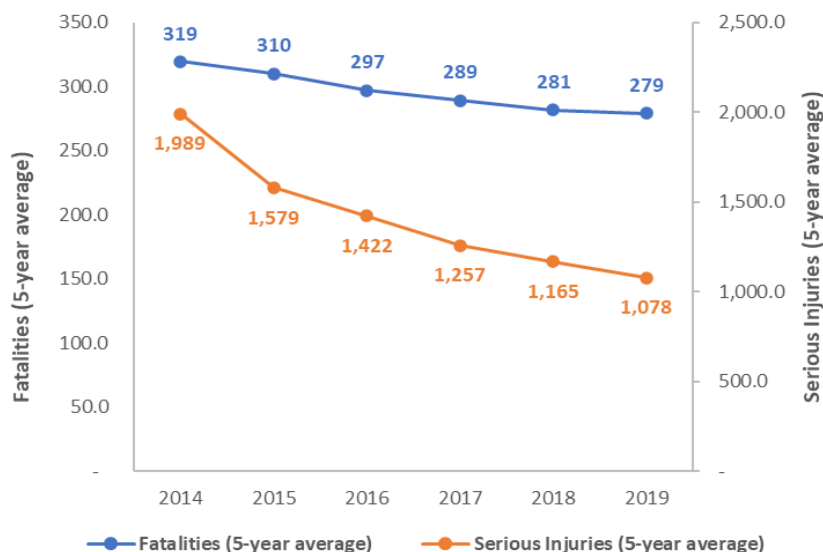
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Highway Safety

West Virginia has multiple multi-disciplinary initiatives and programs underway to advance transportation safety and reduce incidents impacting motorized and non-motorized users. WVDOH and its federal and state partners are working toward an ultimate goal of “zero fatalities”. The path toward “zero fatalities” developed by safety partners includes reducing fatalities by 50 percent and a 66 percent reduction in serious injuries by 2030. The general trend in highway fatalities and serious injuries over the last decade has been positive on the statewide scale. However, all areas of West Virginia have not seen this same type of improvement.



Source: [2019 West Virginia Highway Safety Improvement Program](#)

Traffic Management and Intelligent Transportation Systems (ITS)

WVDOH utilizes intelligent transportation systems (ITS) to improve transportation safety and mobility by integrating advanced communication technologies into highway infrastructure. WVDOH is conducting a Statewide Traffic Control Device Maintenance Program under the WVDOH use of “Innovative Project Delivery”. This is to promote the use of innovative technologies and practices that increase system efficiency and reduce congestion, accelerate construction, improve safety, and extend the service life of highways and bridges.

ITS plays an important role as an innovative project delivery program that supports preventative and emergency operations. Field devices and traffic control systems that support highway operations include:

- 80+ Dynamic Message Signs (DMS)
- 100+ Closed Circuit Television Cameras (CCTV)
- 50+ Roadway Weather Information Systems (RWIS)
- 900+ Guide Sign Structures statewide

West Virginia Department of Transportation

MAP VIEWS LIST VIEWS ROADWORK RESOURCES ROUTES CONTACT US

Legend

- Traffic
- Active Planned Events
- Future Planned Events
- Road Conditions
- Incidents
- Active Signs
- Inactive Signs
- Camera
- National Weather

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WVDOT WV 511 service, “Know Before You Go” provides access to information on road conditions, weather alerts, traffic, current and planned construction, and incidents based on the information provided through WVDOHs Intelligent Transportation Systems.

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CURRENT PLANS AND PROGRAMS IN WEST VIRGINIA

Strategic Highway Safety Plan (SHSP) and Highway Safety Improvement Program (HSIP)

The West Virginia SHSP and HSIP guide WVDOH and partners in implementing safety programs. The SHSP coordinates with agencies and organizations (such as the Governor's Highway Safety Program, the Parkways Authority, the State Police, etc.) and sets long-term goals.

The HSIP then takes those emphasis areas, and sees how they align with existing state programs, such as High-Risk Rural Roads (HRRR), Low-Cost Spot Improvements, Rural State Highways, etc. Projects within these programs that align with SHSP emphasis areas are then prioritized and programmed into a constant HSIP budget.

SHSP Emphasis Area	2030 Goal
Roadway Departures	Reduce roadway departure fatalities 50%
Alcohol and Impaired Driving	Reduce alcohol-related fatalities 50%
Occupant Protection	Reduce "unrestrained" fatalities and un-helmeted motorcycle fatalities 50%
Speeding and Aggressive Driving	Reduce speeding/aggressive driving fatalities 50%

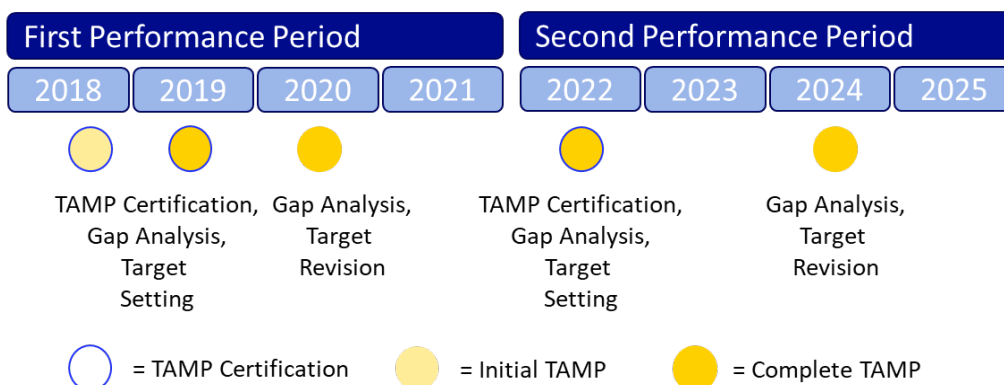
Transportation Asset Management Plan

West Virginia's Transportation Asset Management Plan (TAMP), published in 2019, is required by recent Federal surface transportation authorization bills (MAP-21 and FAST Acts) and contains the following elements:

- Pavement/bridge assets throughout the state that are on the National Highway System (NHS)
- Lifecycle cost and risk management analysis
- Asset management objectives and measures
- A financial plan
- Performance gap identification
- Investment strategies

This plan is focused on maintaining existing highway assets rather than building new ones. Because of this, there are clear goals that the state expects to meet in terms of the percentage of roadway miles or bridges that are in good or poor condition. As well as budgeting funding for future maintenance and rehabilitation of assets. The TAMP implementation process has also resulted in development and use of new data driven bridge and pavement management systems.

As shown in the figure, the TAMP will be updated and re-certified at the beginning of each 4-year performance period. Target setting for conditions and developing a financial plan is also included during the performance periods. Every 2-years, progress toward targets will be reported and analyzed using gap analysis and lifecycle analysis.



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Statewide Transportation Improvement Program

The Statewide Transportation Improvement Program (STIP) is a document that outlines near-term (4-5-year horizon) highway and transit projects and initiatives that will enable the state to meet its long-term transportation needs and goals. Because of the financial constraints on WVDOT, the main vision of the STIP is to enable the projects to capture “any and all federal funding” possible. Other goals include placing a priority on maintaining and repairing the existing highway system, with new construction as a secondary concern.

The programming of the STIP is intertwined into the larger connections of performance management, planning processes and strategic plans in the state. These include metropolitan plans, local plans, transportation improvement programs, long-range transportation plans (LRTP), rail and freight studies, and asset management.



Drive Forward WV / Roads to Prosperity

Drive Forward WV plays a key role in focusing on economic stimulation through road building programs. The Roads to Prosperity Program is the centerpiece of this large initiative that has created tens of thousands of jobs while modernizing and improving road infrastructure¹. 811 projects – worth \$482.9 million and spanning 1,543 miles – have already been completed through the Roads To Prosperity as of Oct. 2020.

The Roads to Prosperity program comprises a series of funding measures that, including future and completed bond sales, are expected to generate approximately \$2.8 billion for highway and bridge construction and maintenance across West Virginia. These funding measures include an increase in various fees and taxes that fund a general obligation bond debt known as the Roads to Prosperity Amendment, and increase the state's GARVEE bonding limits, and continued bonding of the West Virginia Turnpike.

Three types of bonds are being used to fund the program:

GARVEE Bonds

\$298 million sold

\$350.9 million yield

General Obligation (GO) Bonds

\$1.4 billion sold

\$1.66 billion yield

WV Turnpike Bonds

\$166.4 million sold

\$172 million deposited for DOH



1. Drive Forward WV - Roads to Prosperity

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Secondary Roads Maintenance Initiative

The Roads to Prosperity program freed up millions of additional dollars that the WVDOT has been able to put back into the smaller roads across West Virginia through the Governor's Secondary Roads Maintenance Initiative. Since March 2019, when Governor Justice directed WVDOT leaders to make road maintenance its top priority, Highways crews have completed 27,967 miles-worth of work on West Virginia's secondary roads. On top of that, new online resources like the WVDOT's interactive map of statewide roadwork have been built to keep the public informed of the progress.



Medical Access Roads Project

The Medical Access Roads Program (MARP), located in all 55 counties, is part of Governor Justice's initiative to improve access to medical facilities for citizens. The 2020 MARP allocates \$50 million to projects that focus heavily on improving obstructions and access to medical facilities and medical supply transportation routes. Local emergency medical professionals and County Office of Emergency Services are consulted in vetting and prioritizing the projects.

West Virginia Parkways

The West Virginia Parkways Authority operates the West Virginia Turnpike and its related facilities (including toll plazas, some rest stops, interchanges, bridges, etc.). Within the purview of the Authority is the goal of maintaining and operating the Turnpike. As part of the Roads to Prosperity Program, various capital projects related to new lane and interchange reconstruction along the Turnpike are being funded with GO Bonds. Continuing to toll roadway users is expected to generate \$2.7 billion over the next 30 years, and \$2 billion of that is estimated to come from out-of-state users. This means that over \$2 billion will be added to West Virginia's economy in the future as a result of tolling.

