The State of Transportation in Hampton Roads 2014

the *heartbeat* of HAMPTON ROADS TPO

TRANSPORTATION PLANNING ORGANIZATION

JUNE 2014

T14-06

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HAMPTON ROADS CONGESTION MANAGEMENT PROCESS:

THE STATE OF TRANSPORTATION IN HAMPTON ROADS 2014

PREPARED BY:

the heartbeat of HAMPTON ROADS TPO
TRANSPORTATION PLANNING ORGANIZATION

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ABSTRACT

This report details the current status of all facets of the transportation system in Hampton Roads, including air, rail, water, and highways. Many aspects of the highway system are highlighted, including roadway usage, bridge conditions, costs of congestion, commuting characteristics, roadway safety, truck data, transit usage, bicycle and pedestrian facilities, highway funding, and operations.

This report is produced as part of the region's Congestion Management Process (CMP). The Congestion Management Process is an on-going process that identifies, develops, evaluates, and implements transportation strategies to enhance mobility regionwide. This report is also produced as part of the HRTPO's Regional Performance Measures effort.

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ACKNOWLEDGMENTS

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Image Source: Snutterstock

INTRODUCTION

The last few years have seen a number of changes and achievements that will impact the Hampton Roads transportation system for decades to come.

The most notable achievement impacting transportation in Hampton Roads is the landmark legislation that was passed in 2013 by the Virginia General Assembly. House Bill 2313 is the first comprehensive overhaul of Virginia transportation funding that the General Assembly has approved since 1986. This legislation will provide an estimated $8.2 billion in additional regional revenue for Hampton Roads over the next twenty years that can be used for the planning, construction and maintenance of regional roads, bridges, and tunnels.

In terms of changes to the Hampton Roads transportation system, none have a bigger impact than the implementation of tolls at the Midtown and Downtown Tunnels. Tolls were implemented at the Midtown and Downtown Tunnels on February 1, 2014, which greatly reduced the congestion that occurred at both facilities but increased volumes at alternate crossings such as the Gilmerton and High Rise Bridges in Chesapeake.

Many other major changes have occurred in recent years to the Hampton Roads transportation system, including the opening of the Tide Light Rail Line in Norfolk, the reopening of the South Norfolk Jordan Bridge spanning the Elizabeth River, and the resumption of Amtrak intercity passenger rail service to the Southside for the first time in 35 years.

DOWNTOWN TUNNEL TOLLS

Image Source: HRTPO.

A number of roadway projects have been completed since the beginning of 2013, including the Gilmerton Bridge replacement, the opening of the extension of Commander Shepard Boulevard in Hampton, and the widenings of Ironbound Road in James City County, Princess Anne Road in Virginia Beach, and Wesleyan Drive in Norfolk/Virginia Beach.

Construction also continues on a number of transportation projects in the region, most notably the parallel Midtown Tunnel tube and the extension of the Martin Luther King Freeway. Other major projects under construction throughout Hampton Roads include the widening of Dominion Boulevard (including the replacement of the Steel Bridge) and the Middle Ground Boulevard extension in Newport News.

However, there continue to be challenges with the regional transportation system despite of all of the recent improvements and achievements. Transportation funding will still be short of meeting all of the needed improvements to the regional transportation system, even with the funding increases in House Bill 2313. The money required to maintain and operate roadways in the region will continue to increase. And roadway congestion is worse in Hampton Roads than in many comparable regions throughout the country.

This State of Transportation report details the current status of all facets of the transportation system in Hampton Roads, including air, rail, water, and highways. Many aspects of the highway system are highlighted, including roadway usage, pavement condition, bridge conditions, costs of congestion, commuting characteristics, roadway safety, truck data, transit usage, active transportation (which includes biking and walking), transportation financing, and transportation operations.

This report is produced as part of the region's Congestion Management Process (CMP), which is an ongoing program that identifies, develops, evaluates, and implements transportation strategies to enhance mobility regionwide. The Congestion Management Process report includes a comprehensive congestion analysis of the region's highway system, congestion management strategies with an analysis of their impacts, and identification of the most congested corridors and areas of Hampton Roads. Copies of this report and all other CMP documents are available at the Hampton Roads Transportation Planning Organization's website at **http://www.hrtpo.org**.

GILMERTON BRIDGE OPENING

Image Source: VDOT

This report is also produced as part of HRTPO's Regional Performance Measures effort. In 2009, the Virginia General Assembly passed legislation codifying regional transportation performance measurement and in response, HRTPO staff developed a new list of regional performance measures including those it was already producing through State of Transportation reports. The new federal surface transportation authorization program, MAP-21, also requires that states and metropolitan areas use performance measures and set targets in areas such as pavement and bridge condition, congestion levels, and safety. More information on HRTPO's Regional Performance Measures effort is available at the end of this report and on HRTPO's website at **http://hrtpo.org/page/performance-management**.

AIR TRAVEL

Hampton Roads two commercial service airports have seen passenger levels decrease, the number of nonstop flights drop, and average airfares increase significantly over the last decade.

The number of passengers using commercial air service in Hampton Roads has decreased greatly in recent years. Based on preliminary data, a total of 1.8 million passengers boarded flights in 2013 at the two commercial service airports in Hampton Roads, Norfolk International Airport and Newport News-Williamsburg International Airport. This number of passengers is down 22% over the last decade and 26% from the high of 2.5 million passengers at the region's airports in 2005.

NEWPORT NEWS-WILLIAMSBURG INTERNATIONAL AIRPORT

Image Source: NNWIA.

The decrease in passenger levels over the last decade was much larger at Newport News-Williamsburg International Airport (-41%) than at Norfolk International Airport (-18%). This is due to the departure of the dominant carrier, Airtran Airways, from Newport News-Williamsburg in March 2012.

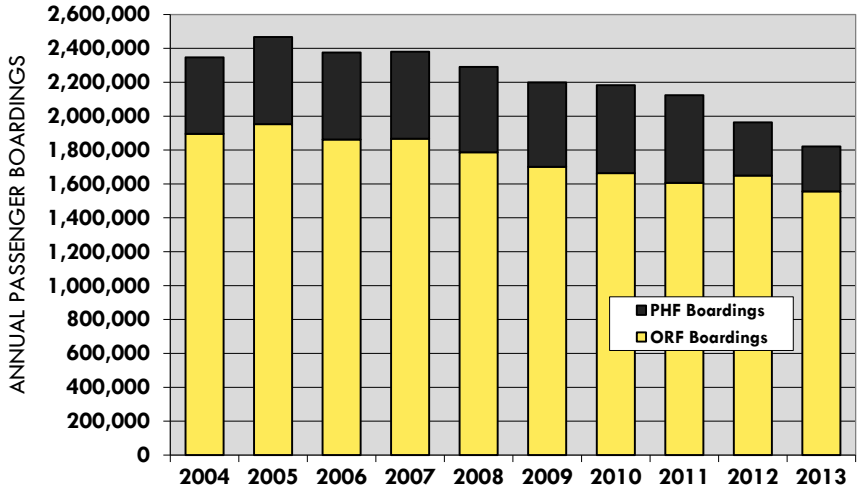
NOTABLE NUMBERS

-22% The decrease in the number of passengers that used Hampton Roads airports between 2004 and 2013.

-36% The decrease in the number of daily flights departing from Hampton Roads airports between 2006 and March 2014.

28% The increase in average airfares at Norfolk International Airport between the first quarter of 2004 and the third quarter of 2013. At Newport News-Williamsburg International Airport, the average airfare increase was 71%.

ANNUAL PASSENGER BOARDINGS AT HAMPTON ROADS AIRPORTS, 2004-2013



Data sources: Federal Aviation Administration, Norfolk International Airport (ORF) and Newport News-Williamsburg International Airport (PHF). Boardings represent only those passengers that board airplanes at each airport. 2013 data is preliminary.

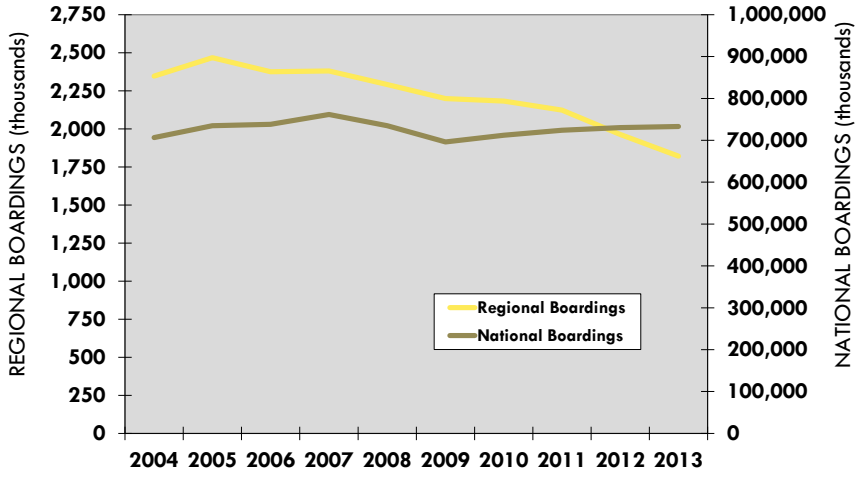
While passenger levels at Hampton Roads airports decreased by 22% over the last decade, national passenger levels increased by 4%. It is also notable is that Richmond passenger levels increased by 28% between 2004 and 2013.

Although there are many factors contributing to the decrease in the number of passengers using airports in Hampton Roads, one of the primary reasons is that average airfares in the region have increased. In the first quarter of 2004, average airfares at Norfolk International Airport were $328, which was similar to the national average. Airfares at Newport News-Williamsburg International Airport ($261) were well below the national average at that time, primarily due to the dominance of low-cost carrier Airtran Airways at that airport. By the third quarter of 2013, the average airfare at Norfolk International Airport had increased 28% to $421, and 71% at Newport News- Williamsburg International Airport to $445. Both averages were above the national average airfare of $390.

NORFOLK INTERNATIONAL AIRPORT

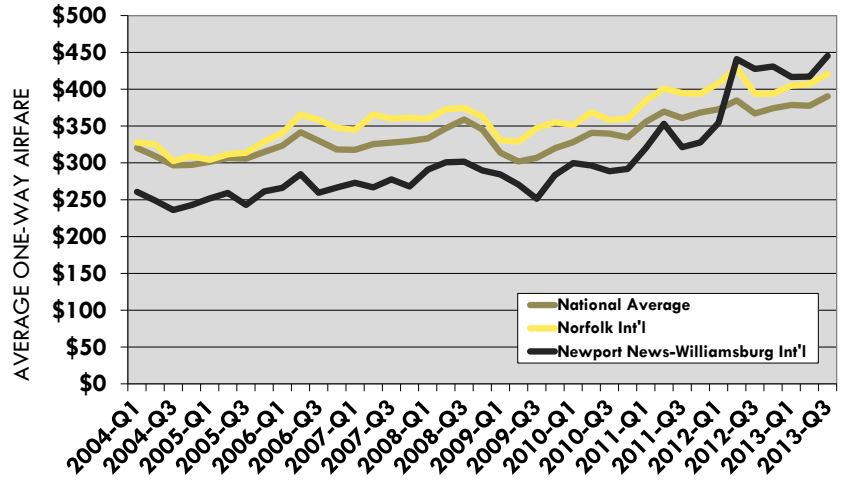
Image Source: NIA.

ANNUAL PASSENGER BOARDINGS AT HAMPTON ROADS AND NATIONAL AIRPORTS, 2004-2013



Data sources: Federal Aviation Administration, Norfolk International Airport (ORF) and Newport News-Williamsburg International Airport (PHF). Boardings represent only those passengers that board airplanes at each airport. 2013 data is preliminary.

AVERAGE AIRFARES FOR HAMPTON ROADS AND NATIONAL AIRPORTS BY QUARTER, 2004-Q3 2013



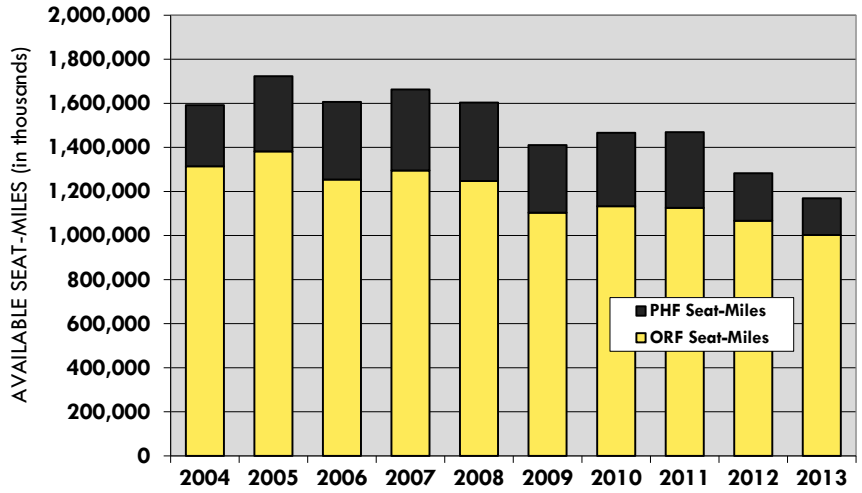
Data source: Bureau of Transportation Statistics. Average fares are based on domestic itinerary fares consisting of round-trip fares unless the customer does not purchase a return trip, in which case the one-way fare is included. Fares are based on the total ticket value (including any additional taxes and fees) and do not include other fees (such as baggage fees) paid at the airport or onboard the aircraft.

It should be noted that these airfares only reflect the costs associated with ticket fares and do not include additional fees that have expanded in recent years for checked baggage, seat assignments, ticket changes, early check-in, etc.

The number of flights departing from Hampton Roads airports has decreased greatly in recent years. As of March 2014, a total of 83 commercial flights depart Hampton Roads airports each day. This compares to a total of 96 commercial flights departing Hampton Roads airports each day in March 2013, 110 flights each day at the end of 2010, 115 daily flights at the end of 2008, and 130 daily flights at the end of 2006.

This decrease in the number of flights departing Hampton Roads has resulted in a decrease in the number of available seat-miles, a common method of measuring an airport's person carrying capacity. There were nearly 1.2 billion seat-

ANNUAL AVAILABLE SEAT-MILES AT HAMPTON ROADS AIRPORTS, 2004-2013



Data source: Bureau of Transportation Statistics. Available seat-miles is a common method of measuring an airport's person carrying capacity and is equal to the number of seats available multiplied by the number of miles flown. 2013 data is preliminary.

BEHIND THE NUMBERS

The airline industry continues to undergo many changes. Many mergers and acquisitions have occurred in the industry in recent years, including Delta Air Lines with Northwest Airlines, United Airlines with Continental Airlines, and Southwest Airlines with Airtran Airways. In December 2013, American Airlines and US Airways completed a merger, and the new airline will eventually operate solely under the American Airlines name.

These consolidations have greatly impacted air travel in Hampton Roads, especially at Newport News-Williamsburg International Airport. The departure of Airtran Airways contributed to a nearly 50% drop in passenger levels at Newport News-Williamsburg International Airport between 2011 and 2013. Additionally, eight fewer markets are served nonstop from Hampton Roads airports and 47 fewer daily flights are offered as compared to the end of 2006, partly due to this consolidation.

Hampton Roads is not the only market impacted by these changes to the airline industry. One measure of the capacity of the national airline system, available domestic seat-miles, decreased 5% between 2006 and 2013.

The way airlines collect revenues has also changed. In recent years, airlines have started collecting or have increased charges for checked baggage, ticket changes, meals, and premium seats. This has allowed airlines to collect additional revenue on top of increasing ticket prices, which have increased 28% on average at Hampton Roads airports since 2004.

miles available on flights departing Hampton Roads in 2013, down 32% from a high of 1.7 billion in 2005.

The 83 flights that depart Hampton Roads airports each day serve a total of 20 airports in 15 markets. Norfolk International Airport has nonstop flights serving 18 airports in 14 markets, while 5 domestic airports in 5 markets are served nonstop from Newport News-Williamsburg International Airport.

Since 2009, a number of markets have lost nonstop service from Hampton Roads airports. These markets include Boston, Cincinnati, Cleveland, Jacksonville, Las Vegas, Memphis, Nashville, and St. Louis. Most of these markets served as hubs for airlines that have reduced service through consolidation in the airline industry. The only markets that have seen nonstop service added from Hampton Roads airports since 2009 are Denver and once a week service to Cancun.

The most popular final destination for passengers using Hampton Roads airports in 2012 was Atlanta, with a total of 197,350 Hampton Roads passengers traveling either to or from Atlanta. The second most popular final destination from Hampton Roads airports in 2012 was

NEW DEVELOPMENTS

Airport Improvements – Many improvements have been made at both Hampton Roads airports in recent years. At Norfolk International, major terminal renovations began in 2013. The $12 million project will modernize the main terminal atrium and concourses and improve the security checkpoints for both concourses.


Image Source: NIA.


Image Source: NNW Airport.

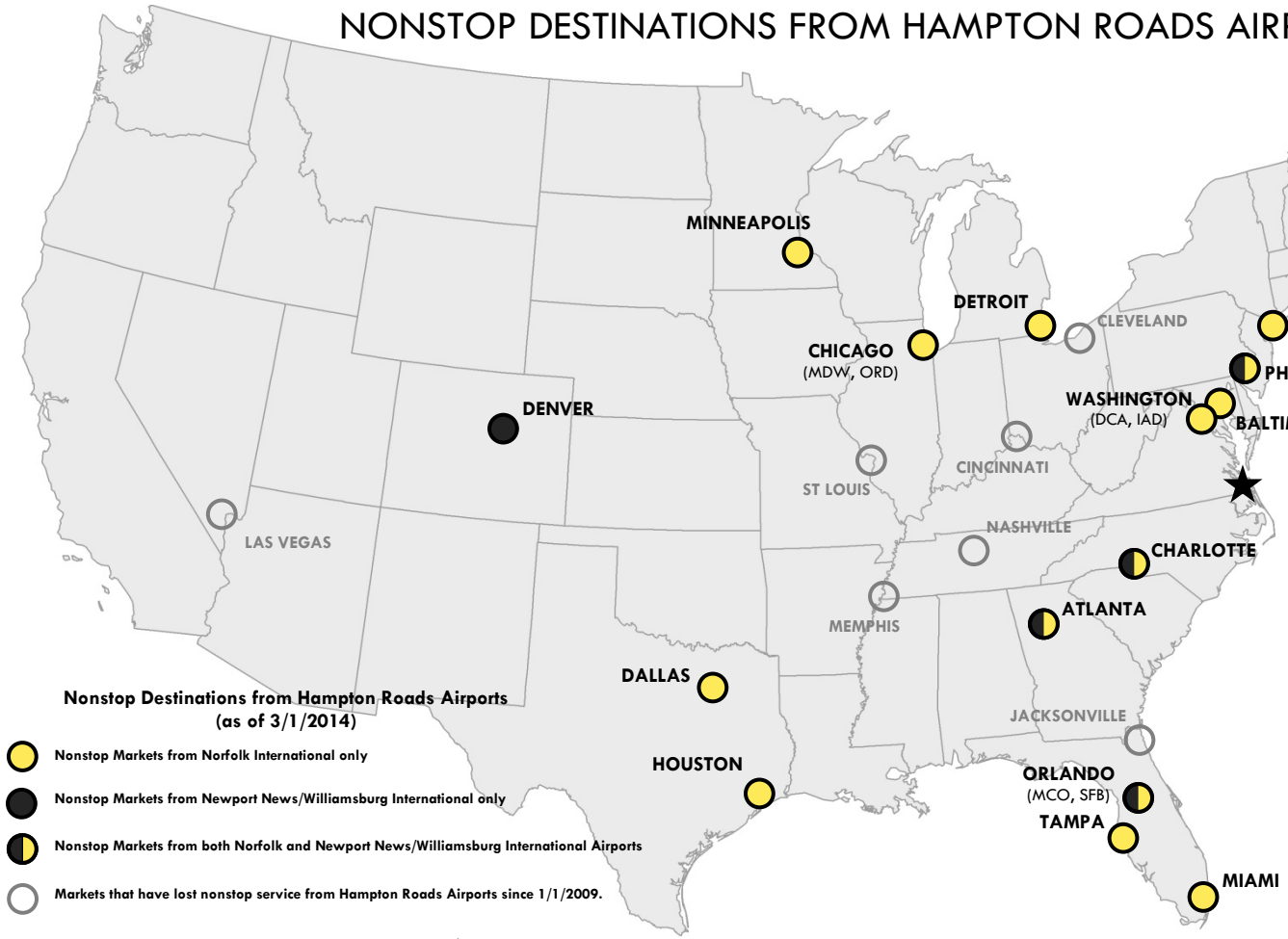
Decreased Service – Many airline mergers and acquisitions have occurred in recent years, including Delta Air Lines with Northwest Airlines, United Airlines with Continental Airlines, and Southwest Airlines with Airtran Airways. In December 2013, American Airlines and US Airways completed a merger, which will eventually operate solely under the American Airlines name. These consolidations have impacted Hampton Roads, leading to fewer carriers, less flights, and a reduction in the number of nonstop markets. The most notable example is the departure of Airtran Airways from Newport News-Williamsburg International Airport in March 2012.

PeoplExpress – Officials announced in February 2012 the intent to start a new airline called PeoplExpress. The airline, which has its corporate headquarters in Newport News, plans to serve multiple markets with nonstop service from Newport News-Williamsburg International Airport. The airline has already secured landing slots at Newark International Airport and is currently attempting to secure additional funding. Airline officials are hopeful to begin operations in 2014.

Orlando with 150,980 passengers, and the third most popular final destination was the Boston/Providence area with 150,370 passengers. New York City, which had been the most popular final destination from Hampton Roads in 2011, dropped to fourth-highest in 2012 with 139,900 passengers. Over 90,000 fewer passengers traveled this route in 2012 than in 2011.

Of the top twelve markets for Hampton Roads air travelers in 2012, four markets (Boston, Los Angeles, San Diego, and Las Vegas) were not served by nonstop service from Hampton Roads airports as of March 2014.

NONSTOP DESTINATIONS FROM HAMPTON ROADS AIRPORTS



* - Once a week scheduled service is also available from Newport News/Williamsburg International Airport to Cancun.

Top Final Destinations to/from Hampton Roads Airports (2012)

Destination	2012 Passengers
1) Atlanta	197,350
2) Orlando	150,980
3) Boston/Providence	150,370
4) New York	139,900
5) Chicago	134,070
6) Los Angeles	119,360
7) Miami/Ft Lauderdale	106,150
8) San Diego	99,220
9) Denver	97,860
10) Dallas/Ft. Worth	92,010
11) Tampa	91,390
12) Las Vegas	90,480

Data Source: Federal Aviation Administration.

PORT DATA

General cargo levels handled by the Port of Virginia are at record levels after dropping significantly during the economic downturn, providing a boost to both the Hampton Roads and Virginia economies.

The Port of Virginia moves freight containers through two facilities in Hampton Roads: Norfolk International Terminals and – through a lease agreement – the APM Terminals facility in Portsmouth. The Virginia Port Authority also owns Newport News Marine Terminal (which handles break bulk cargo) and Portsmouth Marine Terminal, manages the Port of Richmond, and operates an inland port facility near Front Royal. In addition, there are a number of private terminals in the region, such as Lambert's Point Docks and Elizabeth River Terminals.

THE PORT OF VIRGINIA

Image Source: VDOT

More than 51 million tons of coal were shipped through Hampton Roads in 2013, which makes the region the largest exporter of coal in the country. In addition, nearly 19 million tons of general cargo, primarily transported in containers, was

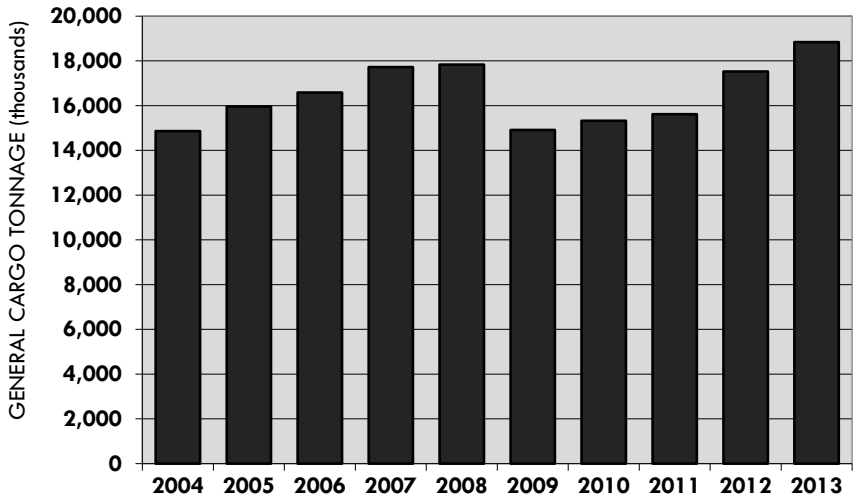
NOTABLE NUMBERS

27% The increase in general cargo tonnage handled by the Port of Virginia between 2004 and 2013.

3rd The rank of The Port of Virginia among East Coast ports in the volume of containerized cargo handled in 2013.

9% The increase in the rail share of general cargo handled by the Port of Virginia between 2005 and 2013. The majority of general cargo handled by the Port of Virginia is still transported by truck, at 62% in 2013.

GENERAL CARGO TONNAGE HANDLED BY THE PORT OF VIRGINIA, 2004-2013



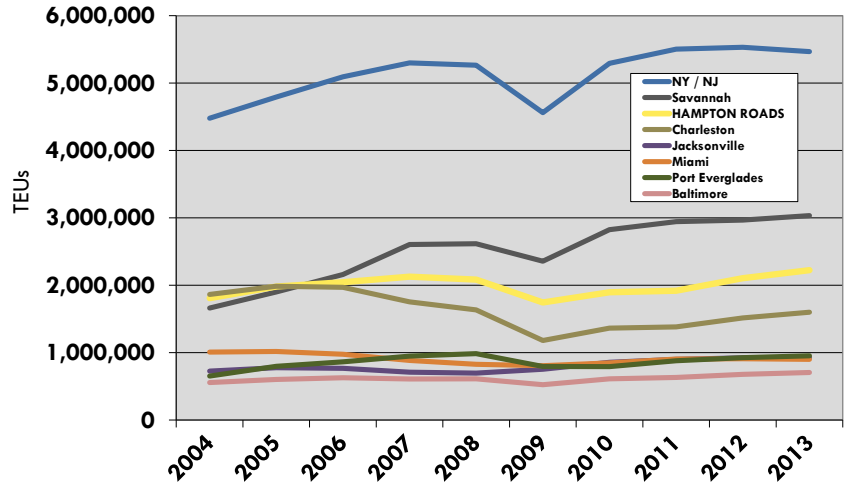
Data source: Virginia Port Authority. Data does not include Virginia Inland Port tonnage.

handled by the Port of Virginia in 2013, a record for the port. The amount of general cargo handled by the Port of Virginia increased 27% between 2004 and 2013, with a 21% increase occurring in two years from 2011 to 2013.

The maritime industry also measures containerized cargo using a standard called "20-foot container equivalent units", or TEUs. The Port of Virginia handled 2.22 million TEUs in 2013, also a record for the Port. This is up 23% from 1.81 million TEUs handled in 2004 and 16% from the 1.92 million TEUs handled by the Port of Virginia in 2011. The Port of Virginia ranked third highest among East Coast ports in the volume of containerized cargo handled in 2013, and sixth highest among all U.S. ports in 2012.

In 2013, 62% of the general cargo handled by the Port of Virginia arrived or departed by truck, 34% by rail, and the

GENERAL CARGO (in TEUs) HANDLED AT TOP EAST COAST PORTS, 2004-2013



Data sources: American Association of Port Authorities, various port facilities. 2013 data is preliminary.
TEUs are twenty-foot container equivalent units, a common method of measuring freight.

NEW DEVELOPMENTS

Port of Virginia Reorganization – In May 2013, the Virginia Port Authority (VPA) Board of Commissioners adopted a reorganization plan. As part of the reorganization, port operations will be streamlined and centralized under VPA, and efforts that are duplicated between VPA and the terminal operator Virginia International Terminals (VIT) will be eliminated.


Image Source: Virginia Port Authority

Craney Island – Construction continues on a project to create a new marine terminal at Craney Island. The current phase of construction involves using dredged material to create cross dikes to the east of the current Craney Island dredging disposal site. The first phase of the marine terminal is not expected to be operational until after 2025.

Norfolk International Terminals Overpass – Work is underway on a railroad overpass crossing Hampton Boulevard into Norfolk International Terminals (NIT). The project will greatly reduce conflicts between trains entering and exiting NIT and Hampton Boulevard traffic. The project, which has been delayed due to adding enhanced safety features, is expected to be complete in spring 2015.

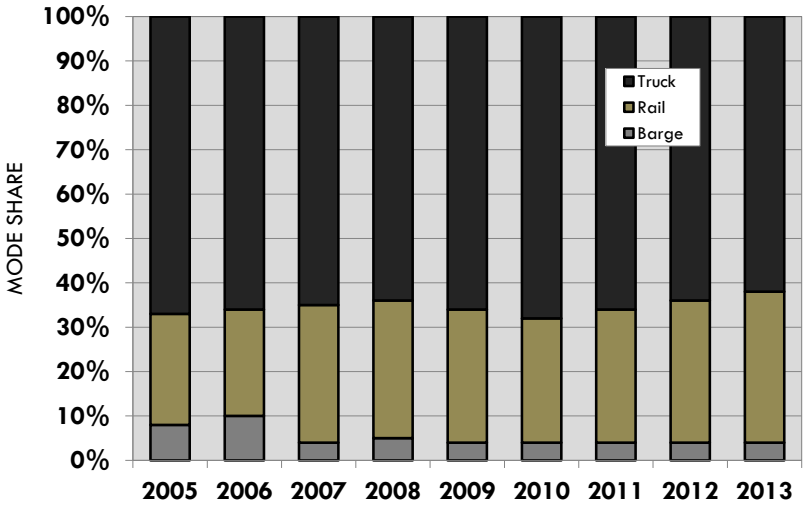

Image Source: VDOT

remaining 4% arrived or departed by barge. The share of freight moved by rail through the Port of Virginia has increased, up from 25% in 2005 and 28% in 2010. The share handled by truck has decreased from a 67% share in 2005, and a 68% share in 2010.

The cruise industry also has a presence in Hampton Roads. One vessel with 641 passengers called in Norfolk in 2013 according to Nauticus, down from the 43,000 passengers and 12 vessels that called in Norfolk in 2012. Carnival Cruise Lines has confirmed that they will return to Norfolk with a series of cruises in the spring and fall of 2015.

HRTPO conducts a number of freight planning efforts, such as the Freight Transportation Advisory Committee (FTAC) and the Regional Freight Study. More information on these efforts is available at **http://www.hrtpo.org/page/freight**.

MODE SPLIT OF GENERAL CARGO HANDLED BY THE PORT OF VIRGINIA, 2005-2013



Data source: Port of Virginia.

BEHIND THE NUMBERS

A number of factors impact the amount of freight handled by the Port of Virginia, including the condition of the national and global economy and business decisions by global shipping lines. Competition from other East Coast facilities also comes into play.

The amount of freight handled at East Coast ports has varied greatly in recent years. In 2004, the Ports in Hampton Roads, Charleston, and Savannah handled nearly the same amount of general cargo at around 1.7 to 1.8 million TEUs. By 2013, the general cargo handled by the Port of Savannah increased 83% to 3.0 million TEUs. The Port of Virginia increased 23% to 2.2 million TEUs, and Charleston experienced a 14% decrease down to 1.6 million TEUs. Over the last two years, however, the Port of Hampton Roads has experienced more growth than any other major East Coast port.

The Port of Virginia should be well-positioned for additional growth in future years. Expansion of the Panama Canal continues, with completion expected in late 2015. The Port of Virginia will be among the few East Coast ports that can serve the largest ships that will pass through the widened canal when expansion is completed.

Work also continues on CSX's National Gateway project, which will improve rail connections between the Mid-Atlantic ports and the Midwest. This follows Norfolk Southern's Heartland Corridor project, which was completed in 2010 and provides a shorter route for double-stacked trains between Hampton Roads and the Midwest.

RAIL TRAVEL

Passenger rail travel has expanded in Hampton Roads, with direct Amtrak service resuming on the Southside to a new multimodal station in Norfolk, and transit extension studies underway for the nearly 3 year old Tide light rail line.

Passenger rail travel options have increased substantially in Hampton Roads in recent years. In August 2011 the Tide, a 7.4 mile light rail system, opened in the city of Norfolk, and in December 2012, Amtrak began providing service to the Southside of Hampton Roads, connecting Norfolk directly with the Northeast Corridor.

Image Source: City of Norfolk

A total of 1.65 million passengers used The Tide light rail system in 2013. This comes out to an average of 4,516 daily passengers, or 5,158 passengers on average each weekday. Ridership on the Tide decreased 8% between 2012 and 2013, with most of this decrease occurring during the second half of the year.

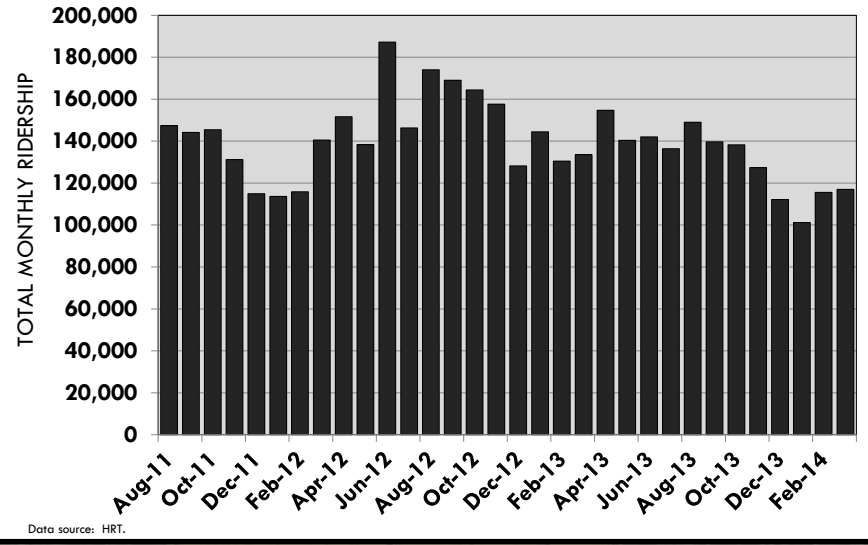
NOTABLE NUMBERS

79% The increase in passengers that boarded or departed Amtrak trains in Hampton Roads between Federal Fiscal Years 2004 and 2013.

18% The increase in passengers that boarded or departed Amtrak trains in Hampton Roads between FFY 2012 and 2013, during which time the Norfolk station opened.

-8% The decrease in ridership on the Tide light rail line between 2012 and 2013.

MONTHLY RIDERSHIP ON THE TIDE LIGHT RAIL LINE, AUGUST 2011-MARCH 2014



Data source: HRT.

New Amtrak service to the Southside led to increased passenger levels in the region in 2013. There were a total of 229,500 passengers who boarded or departed Amtrak trains in Hampton Roads in Federal Fiscal Year (FFY) 2013, with 128,300 passengers at the Newport News station, 62,000 passengers at the Williamsburg station, and 39,200 passengers in 10 months at the Norfolk station. The number of passengers boarding or departing Amtrak trains in Hampton Roads increased 79% over the last decade, and increased 18% between FFY 2012 and 2013.

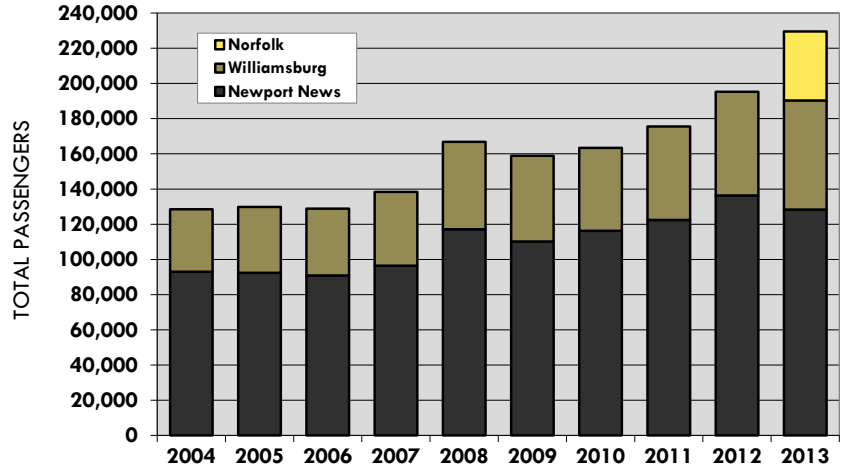
The new Amtrak service in Norfolk had a small impact on passenger volumes at the Newport News station. The number of passengers boarding or departing Amtrak trains in Newport News decreased by 8,000 between FFY 2012 and FFY 2013, only about 20% of the 39,200 passengers that used the new Norfolk station in FFY 2013.

LIGHT RAIL IN NORFOLK

Image Source: VDOT

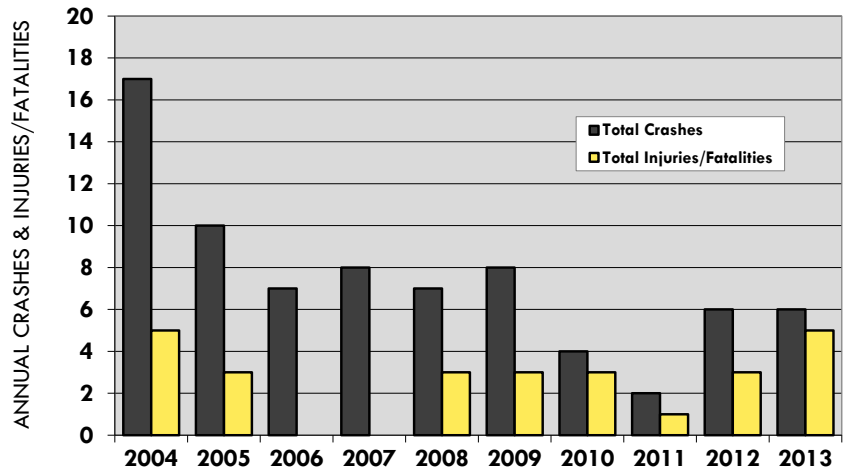
With the number of freight and passenger trains crossing the region each day, safety at highway-rail crossings is a concern. There were six crashes between trains and vehicles at highway-rail crossings in Hampton Roads in 2013,

TOTAL PASSENGERS BOARDING OR DEPARTING AMTRAK TRAINS IN HAMPTON ROADS, FFY 2004-2013



Data source: Amtrak. Federal Fiscal Years run from October to September.

TOTAL CRASHES AND INJURIES/FATALITIES AT HIGHWAY-RAIL CROSSINGS IN HAMPTON ROADS, 2004-2013



Data source: Federal Railroad Administration.

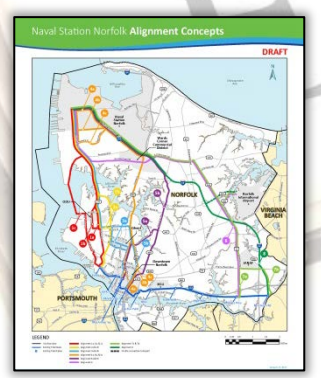
resulting in five injuries and no fatalities. Between 2004 and 2013, there were a total of 75 crashes at highway-rail crossings in Hampton Roads, an average of 7.5 crashes each year. These 75 crashes resulted in 5 fatalities and 21 injuries. The number of crashes at highway-rail crossings in Hampton Roads has decreased significantly since the 1990s, when there were a total of 184 crashes that resulted in 9 fatalities and 106 injuries.

AMTRAK SERVICE IN NEWPORT NEWS
Image Source: HRTPO

NEW DEVELOPMENTS

Amtrak service to Southside Hampton Roads - On December 12th, 2012, Amtrak began operating intercity passenger rail service to the Southside of Hampton Roads. Trains serving Norfolk provide direct, single-seat service to the Northeast Corridor, including Richmond, Washington D.C., Philadelphia, New York City, and Boston. Although the Norfolk station is currently served by one train daily, plans include adding two additional trains each day in the near future.

Multi-modal Stations – In December 2013, the Norfolk Passenger Rail Station opened at Harbor Park. The $3.7 million multi-modal station provides connectivity between Amtrak and the Tide, as well as HRT bus service. In addition, plans are underway on the Peninsula for a new multi-modal station near Bland Boulevard, replacing the current Amtrak station near Mercury Boulevard in Newport News.



Transit Extension Studies – HRT is currently conducting two transit extension studies. The Naval Station Norfolk Transit Extension Study is examining potential high capacity transit methods to connect The Tide with Naval Station Norfolk. The Virginia Beach Transit Extension Study is examining the best high capacity transit options for the former Norfolk Southern rail line connecting the end of the current Tide light rail line with the Oceanfront area.

BRIDGES

Hampton Roads unique topography makes bridges a prominent part of the regional landscape. As bridges in Hampton Roads age, however, maintaining these structures will be financially difficult.

There are 1,227 bridges* in Hampton Roads, ranging in size from small culverts to some of the longest structures in the world. The median age of bridges in Hampton Roads is 39 years old, and nearly one out of every four bridges in Hampton Roads (24%) is at least 50 years old. While many of these older bridges are periodically rehabilitated in order to remain in service, two high profile structures in Hampton Roads — the Kings Highway Bridge and the original Jordan Bridge — were closed in recent years due to their deteriorating condition.

All bridges in Hampton Roads are inspected regularly by qualified inspectors. Depending on the condition and design of each bridge, these inspections occur every one or two years. Based on these inspections, deficient bridges may be classified as "structurally deficient" or "functionally obsolete".

Structurally deficient bridges are structures with elements that need to be monitored and/or repaired. Structurally deficient bridges typically need to be rehabilitated or replaced to address deficiencies. It must be noted, however, that structurally deficient bridges are not necessarily unsafe, and any bridge that is unsafe will be closed or will have weight limits imposed by bridge inspectors.

* - Bridges are defined by the National Bridge Inventory as any structure that carries or spans vehicular traffic on a public roadway and has a length of more than 20 feet. Bridges less than or equal to 20 feet in length are not included in these statistics, nor are bridges on military bases and private property.

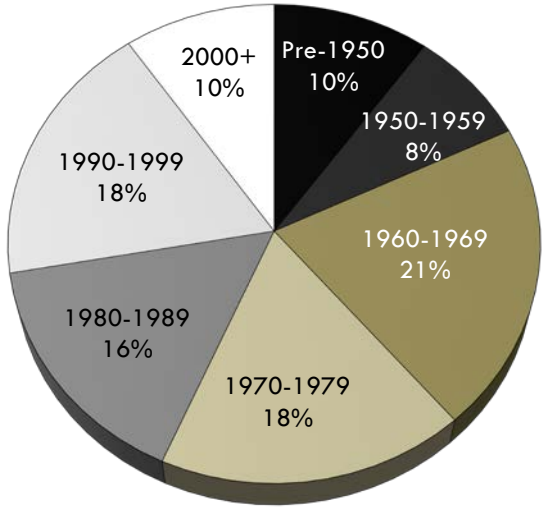
NOTABLE NUMBERS

39 The increase in the number of bridges in Hampton Roads classified as structurally deficient between 2007 and 2013.

28% The percentage of bridges in Hampton Roads that are deficient (classified as structurally deficient or functionally obsolete) as of February 2014.

16th Hampton Roads rank among the 36 large metropolitan areas between one and three million people in terms of the percentage of deficient bridges.

BRIDGES IN HAMPTON ROADS BY YEAR BUILT



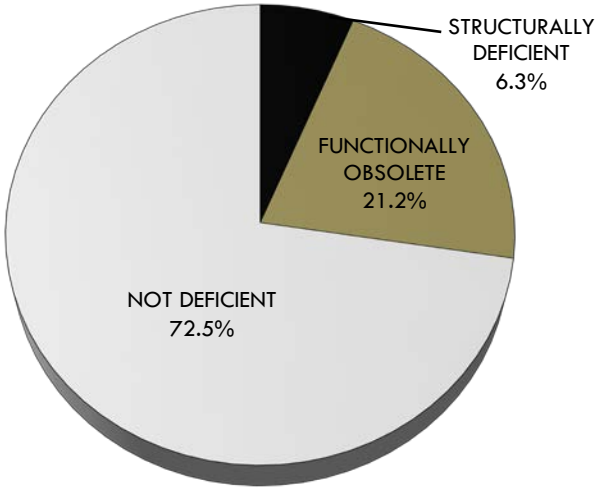
Data sources: VDOT, FHWA. Data as of February 2014.

Functionally obsolete bridges are structures that were built to standards that are no longer used today. These bridges have narrow lanes, no shoulders, low vertical clearances, difficult approaches, or may occasionally be flooded.

It should be noted that bridges cannot be classified as both structurally deficient and functionally obsolete. Structures that qualify as both structurally deficient and functionally obsolete are classified as structurally deficient.

Of the 1,227 bridges in Hampton Roads, 77 bridges (6.3%) are classified as structurally deficient as of February 2014. This is up from 54 bridges (4.4%) that were classified as structurally deficient in Hampton Roads in 2007. Another 260 bridges (21.2%) in Hampton Roads are classified as functionally obsolete. Combining structurally deficient and functionally obsolete bridges, 337 bridges (27.5%) in Hampton Roads are deficient as of February 2014.

STRUCTURALLY DEFICIENT AND FUNCTIONALLY OBSOLETE BRIDGES IN HAMPTON ROADS, 2014



Data sources: VDOT, FHWA. Data as of February 2014.


CHESAPEAKE BAY BRIDGE-TUNNEL

Image Source: Shuttestock

NEW DEVELOPMENTS

Gilmerton Bridge – Construction of a replacement for the Gilmerton Bridge has recently been completed. The dedication of the new four lane facility, which is more than twice as wide and has more than three times the vertical clearance as the previous structure, occurred on November 14, 2013.


Image Source: VDOT

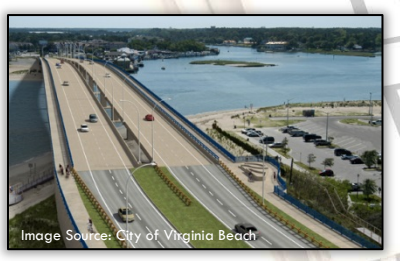


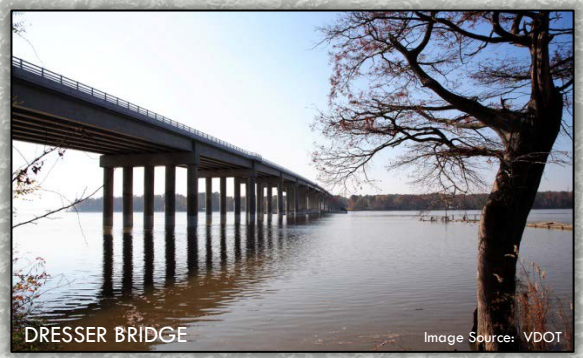
Image Source: City of Virginia Beach

Lesner Bridge – Construction on a replacement for the Lesner Bridge, which spans Shore Drive across the Lynnhaven Inlet in Virginia Beach, is expected to begin in May 2014. The new $70 million facility is expected to be completed by April 2017.

The percentage of bridges that are classified as structurally deficient in Hampton Roads is below the average of other comparable metropolitan areas. Hampton Roads ranks 24th highest among 36 large metropolitan areas with populations between one and three million people in terms of the percentage of bridges that are structurally deficient in each region.

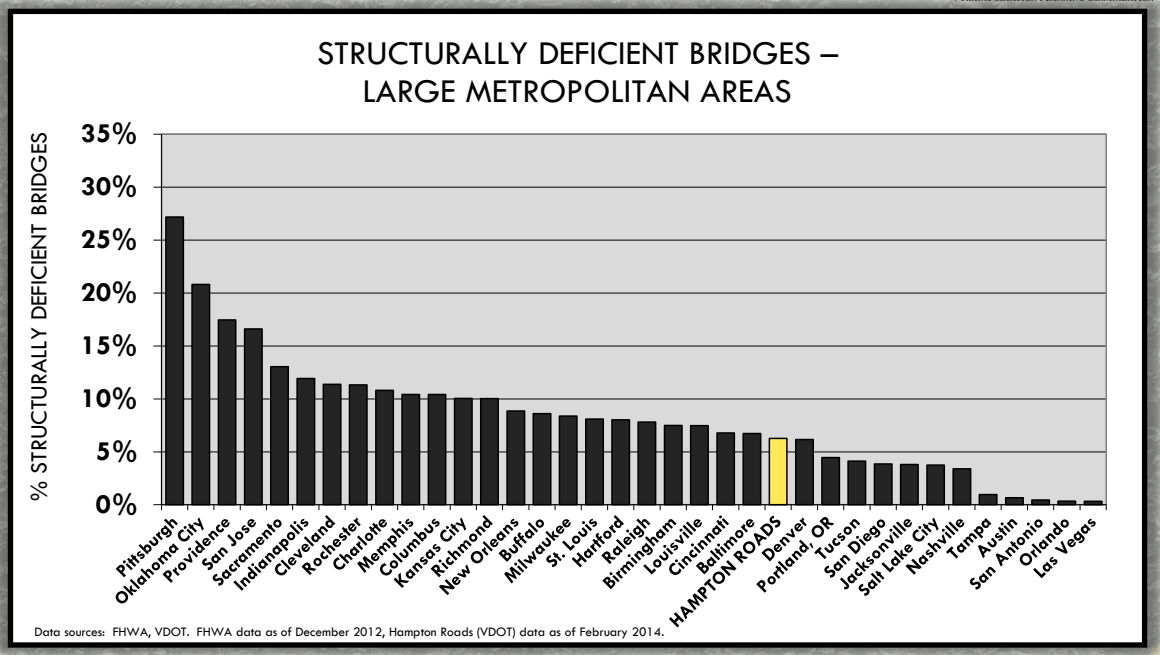
When structurally deficient and functionally obsolete bridges are combined, however, Hampton Roads ranks higher. At 27.5%, Hampton Roads ranks 16th highest among the 36 comparable metropolitan areas in terms of the percentage of deficient bridges.

HRTPO recently released the Hampton Roads Regional Bridge Study, which looks at many aspects of the region's bridges. The Regional Bridge Study is available on HRTPO's website at **http://www.hrtpo.org**.

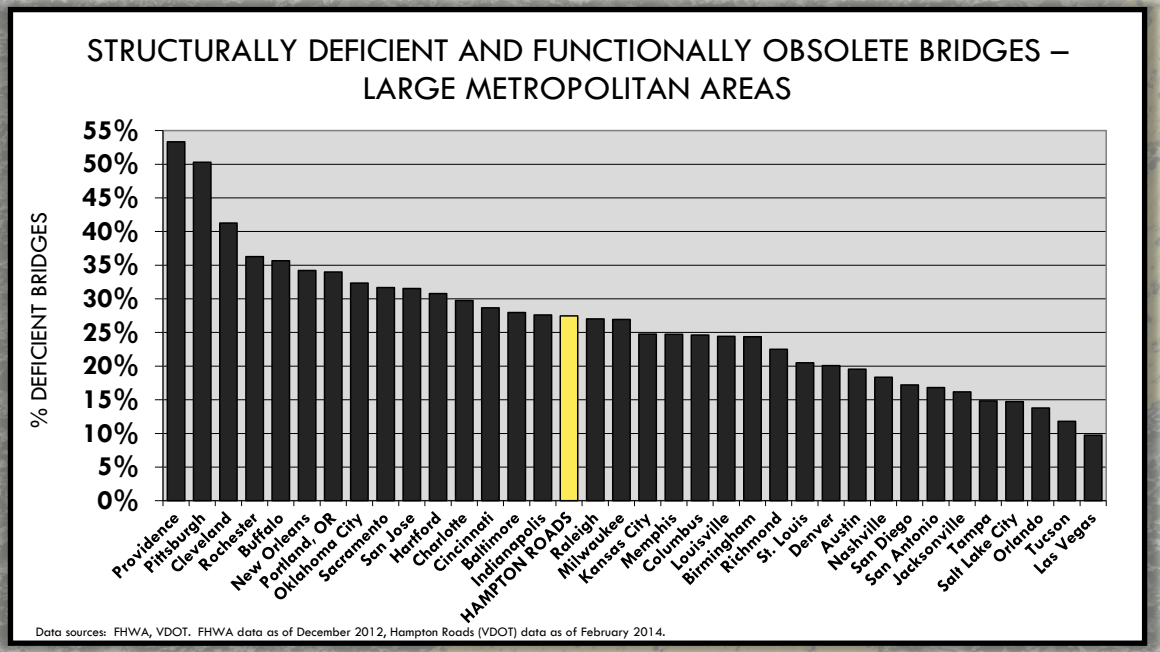


DRESSER BRIDGE

Image Source: VDOT



Data sources: FHWA, VDOT. FHWA data as of December 2012, Hampton Roads (VDOT) data as of February 2014.



Data sources: FHWA, VDOT. FHWA data as of December 2012, Hampton Roads (VDOT) data as of February 2014.

PAVEMENT CONDITION

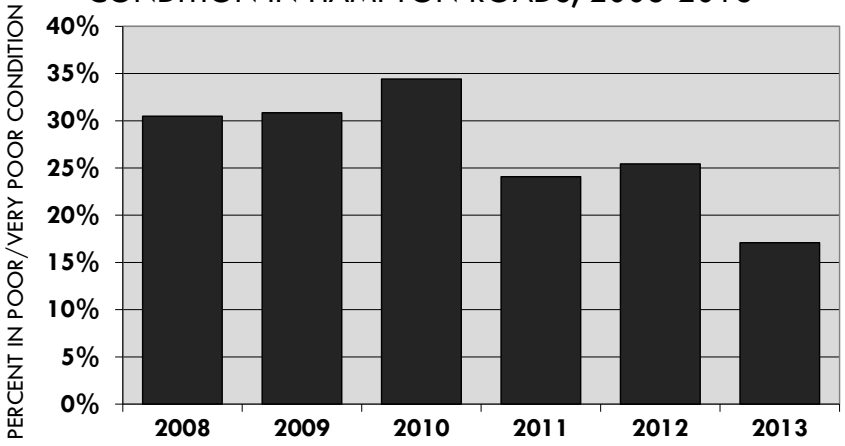
The condition of roadways has improved in Hampton Roads, largely due to improving deteriorating sections of I-64 and I-264 and repaving primary roadways throughout the region.

VDOT annually releases the State of the Pavement report, which details the pavement condition and ride quality of state-maintained roadways. VDOT produces this report using data collected annually on each mile of Interstate and primary roadway throughout the state and on a nearly 20% sample of secondary roadways.

Looking at pavement condition, VDOT categorizes each segment of roadway as excellent, good, fair, poor, or very poor based on this data collection. In Hampton Roads, 17% of all state-maintained roadways are in poor or very poor condition as of 2013. Nearly 16% of all Interstate pavement in the region is categorized as poor or very poor, and nearly 18% of all primary roadway lane-mileage is also deficient. The percentage of combined Interstate and primary roadways in Hampton Roads that are in poor or very poor condition has improved greatly, down from 30% in 2008, 34% in 2010, and 25% in 2012 according to VDOT.

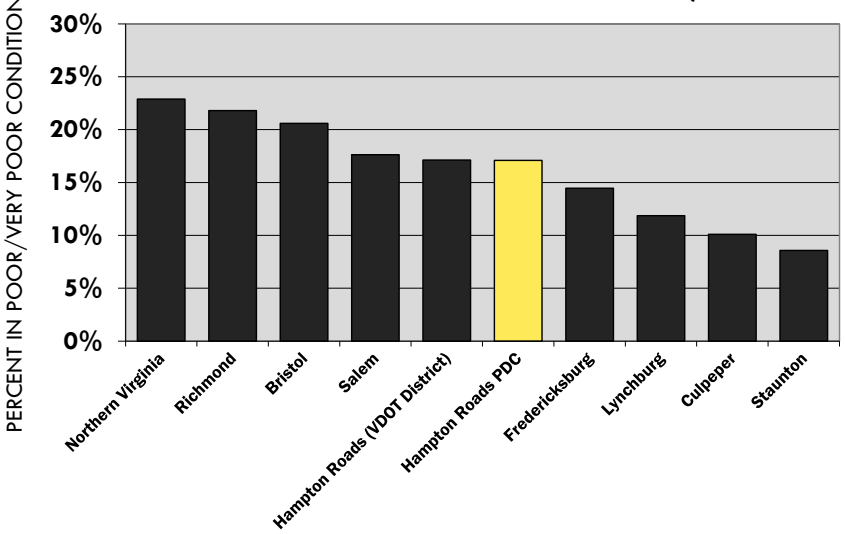
Looking at Interstate and primary roadways, the 17% of lane-miles in Hampton Roads that are in poor or very poor condition is better than the three large metropolitan areas that are included in the Northern Virginia (23%), Richmond (22%), and Salem (18%) VDOT Districts. Pavement conditions improved in all but one of the VDOT Districts throughout the state between 2012 and 2013.

PERCENT OF VDOT-MAINTAINED INTERSTATE AND PRIMARY ROADWAY PAVEMENT IN POOR OR VERY POOR CONDITION IN HAMPTON ROADS, 2008-2013



Data source: VDOT. Data only includes roadways maintained by VDOT.

% OF VDOT-MAINTAINED ROADWAYS WITH PAVEMENT IN POOR OR VERY POOR CONDITION BY AREA, 2013



Data source: VDOT. Data only includes roadways maintained by VDOT.

ROADWAY USAGE

There has been little change in the amount of roadway travel in Hampton Roads in recent years, a trend that is similar to the trend seen throughout Virginia and the United States.

The amount of roadway travel is measured in terms of vehicle-miles of travel, which is the total number of miles every vehicle in the region travels over a period of time. VDOT annually estimates jurisdictional roadway travel levels based on traffic counts collected on a regular basis. VDOT estimates that there were just under 40 million vehicle-miles of travel (VMT) on the typical day in Hampton Roads in 2012. Over the course of the entire year, this adds up to 15 billion vehicle-miles of travel throughout Hampton Roads.

MIDTOWN TUNNEL

Image Source: VDOT

The amount of roadway travel in Hampton Roads has decreased slightly over the last decade according to VDOT estimates. Between 2003 and 2012, vehicular travel in

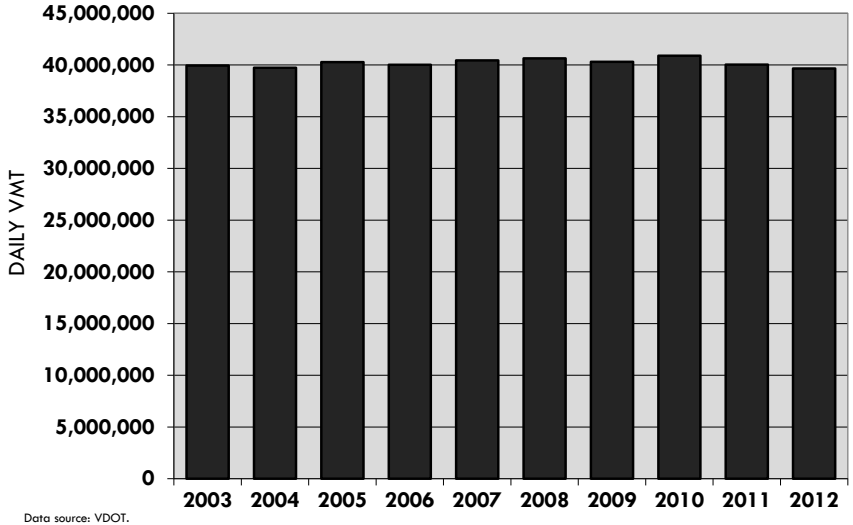
NOTABLE NUMBERS

-0.7% The decline in vehicular travel in Hampton Roads between 2003 and 2012.

-6.3% The change in vehicular travel per capita in Hampton Roads between 2003 (25.0 miles per capita) and 2012 (23.4 miles per capita).

18th Hampton Roads rank among 36 metropolitan areas in the United States with populations between one and three million people in terms of vehicular travel per capita in 2011.

DAILY VEHICLE-MILES OF TRAVEL (VMT) IN HAMPTON ROADS, 2003-2012



Data source: VDOT.

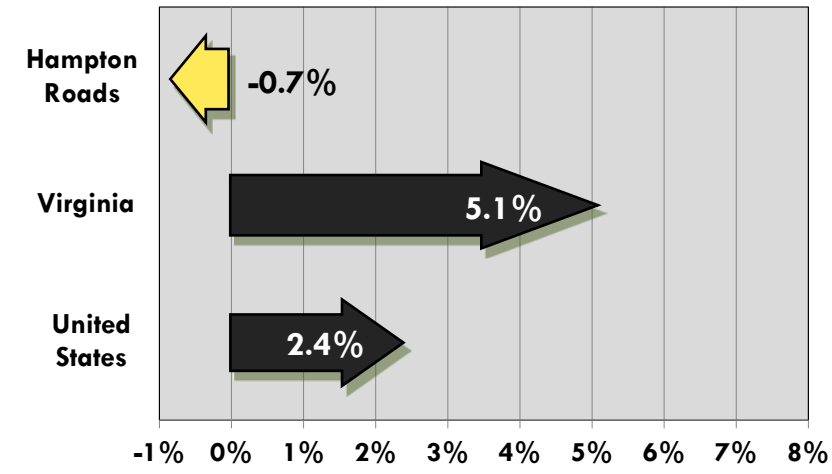
Hampton Roads declined 0.7%. This is a variation from historical trends, as prior to 2003 regional traffic volumes typically grew at about a 2% rate annually.

Since 2005, both Virginia and the United States have seen the amount of roadway travel level off similar to Hampton Roads. Between 2005 and 2012, roadway travel in Hampton Roads decreased 1.5%, while roadway travel throughout Virginia only increased 0.5% and roadway travel throughout the United States decreased 1.0%.

This leveling off of roadway travel in Hampton Roads occurred as the regional population continued to increase. While roadway travel decreased 0.7% between 2003 and 2012, the region's population increased 6.1%. This combination reflects a decrease in vehicular travel per capita in Hampton Roads. The vehicular travel per capita in Hampton Roads was 23.4 vehicle-miles per person per day in 2012, down 6.3% from the peak of 25.0 daily vehicle-miles per capita in the region in 2003.

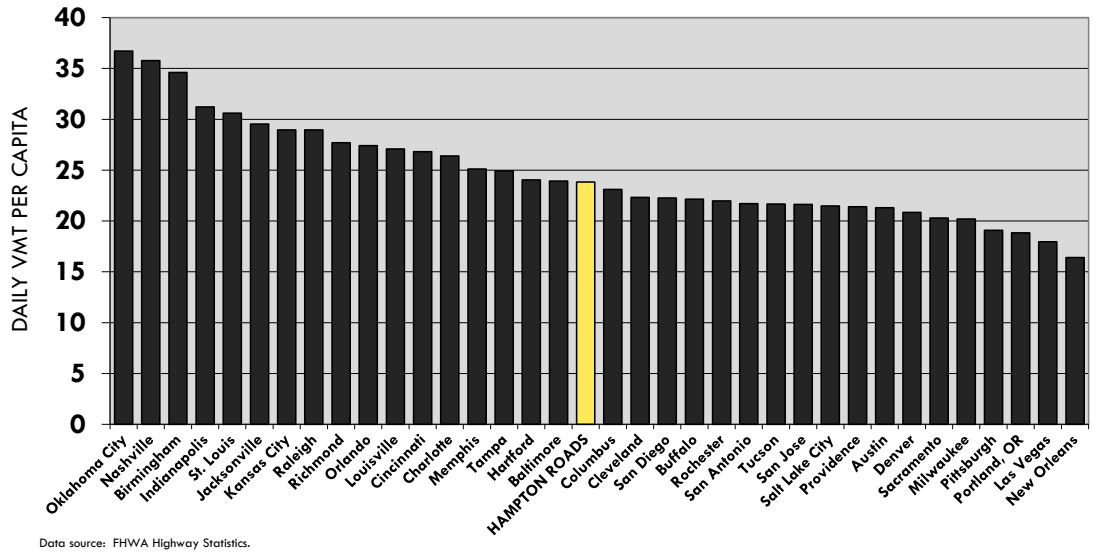
Among 36 large metropolitan areas in the United States with populations between one and three million people, Hampton Roads ranked 18th highest in terms of vehicular travel per capita in 2011 (the most recent data available). Areas such as Oklahoma City, Nashville, and Birmingham have VMT per capita levels of at least 10 more miles per person per day than Hampton Roads.

CHANGE IN VEHICLE-MILES OF TRAVEL IN HAMPTON ROADS, VIRGINIA, AND THE UNITED STATES, 2003 TO 2012



Data sources: VDOT, FHWA Highway Statistics.

DAILY VEHICLE-MILES OF TRAVEL PER CAPITA IN LARGE METROPOLITAN AREAS, 2011

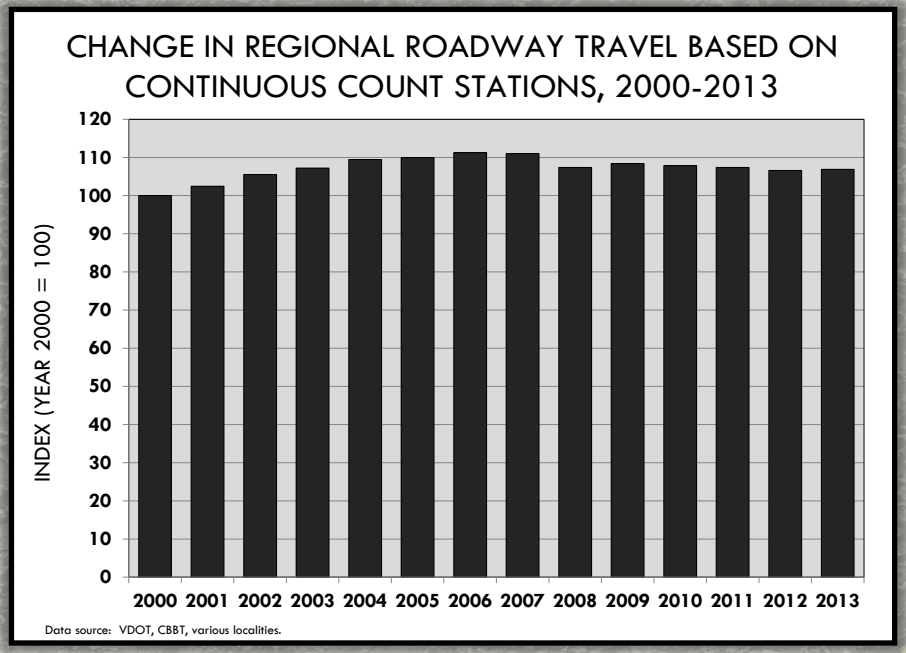


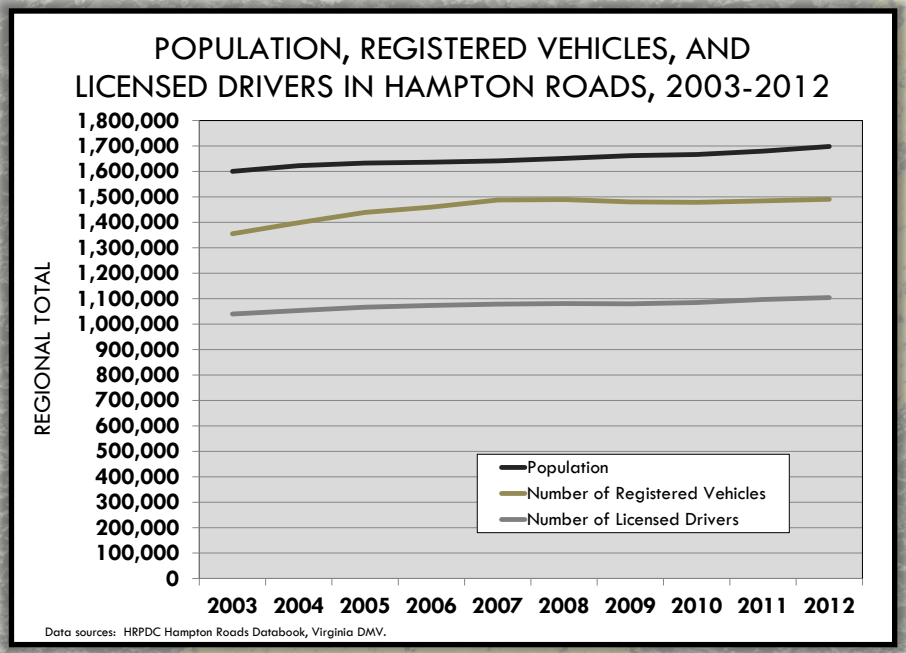
Data source: FHWA Highway Statistics.

Another method of measuring the change in roadway travel is by using count stations that continuously collect traffic volume data throughout the entire year. In Hampton Roads there are approximately 100 locations equipped with continuous count stations, primarily on major roadways such as freeways and principal arterials. Based on the data collected at these locations, regional traffic volumes grew 6.9% between 2000 and 2013. However, these regional counts have declined 0.3% since 2003, and have decreased 4.1% since 2007 when the economic downturn started. Regional traffic counts at these locations, however, did increase slightly between 2012 and 2013, the first such growth since 2009.

There were 1,491,000 vehicles registered in Hampton Roads in 2012. Although the number of registered vehicles in Hampton Roads increased 10.0% between 2003 and 2012, the number of registered vehicles in the region has largely remained unchanged since 2007. The growth in the number of registered vehicles between 2003 and 2012 outpaced the growth in population, meaning the number of vehicles per resident in the region has increased. There were 0.88 vehicles for every Hampton Roads resident in 2012, compared to 0.85 vehicles for every resident in 2003.

The growth in licensed drivers in Hampton Roads is similar to the population growth. There were 1,104,000 licensed drivers in Hampton Roads in 2012, up 6.2% from 2003. With the growth in registered vehicles outpacing the growth in licensed drivers, the number of vehicles per licensed driver has increased. There were 1.35 registered vehicles for every licensed driver in Hampton Roads in 2012, up from 1.30 registered vehicles per licensed driver in 2003.



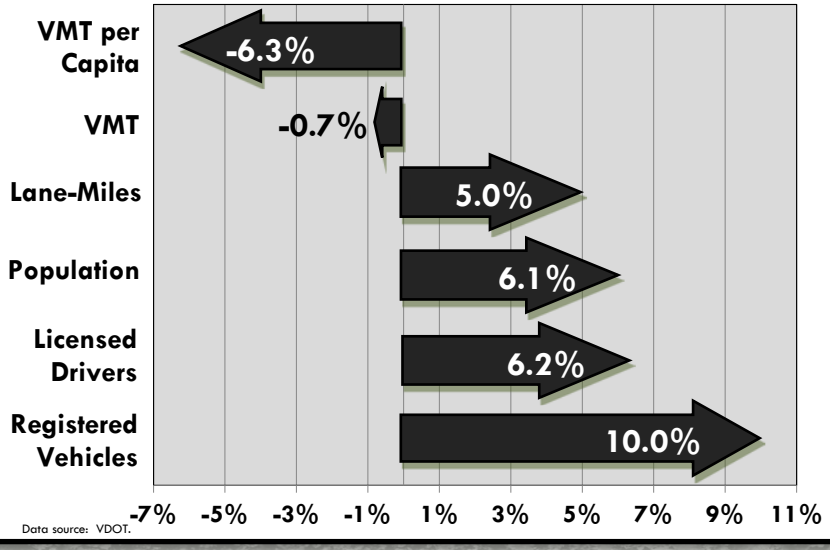


Between 2003 and 2012, the amount of roadway capacity in Hampton Roads in terms of lane mileage* increased by 5.0%. This is comparable to the growth in regional population (6.1%) and is much higher than the change in regional vehicle-miles traveled (-0.7%).

It should be noted, however, that of the total growth in regional roadway lane mileage, more than half was in local roadways. These local roadways, which typically serve neighborhoods, carry low traffic volumes. Despite comprising over 60% of the lane mileage of the regional roadway network, local roadways carried only 13% of the total vehicular travel in 2012.

* - A lane-mile is defined as the length of a roadway times the number of lanes and is commonly used to describe the amount of roadway capacity. A one mile section of a roadway that is 6 lanes wide comprises 6 lane-miles.

CHANGE IN VMT PER CAPITA, VMT, LANE-MILES, POPULATION, LICENSED DRIVERS, AND REGISTERED VEHICLES IN HAMPTON ROADS, 2003 TO 2012



Data source: VDOT.

BEHIND THE NUMBERS

Roadway travel, both in Hampton Roads and throughout the country, has leveled off in recent years. Transportation experts believe this is due to a confluence of many factors, which include:

- **The condition of the economy** – The downturn in the economy resulted in fewer commuters on the road due to higher unemployment levels, a decrease in the number of trucks hauling freight, and less leisure and business travel. As the economy has improved, however, volumes have not returned to pre-downturn levels.
- **Higher fuel prices** – Fuel prices were commonly in the $1 to $2 per gallon range early in the 2000s, but have not dipped below $3 per gallon in the region since early 2011 and approach $4 per gallon in the summer months.
- **The Internet** – More shopping, business, and commerce is conducted electronically via the internet. Social networking via the internet has also increased, especially among younger people.
- **Land Use Patterns** – Many communities are moving toward more compact development patterns and mixed-use areas such as Virginia Beach Town Center and New Town in James City County. These development patterns encourage fewer and shorter trips and the use of other travel modes.
- **Other factors** – Examples of other factors include the retirement of baby boomers (and the aging of society as a whole), lower vehicle ownership rates among the younger population, and a plateau in the number of vehicles per household (and the number of zero-vehicle households) since the middle of the last decade.

CONGESTION DATA

Congestion is more prevalent in Hampton Roads than in many other comparable metropolitan areas, and this congestion directly and indirectly costs local residents hundreds of millions of dollars.

Two national studies examine regional congestion levels and compare congestion among metropolitan areas. These studies are prepared by INRIX and the Texas Transportation Institute.

INRIX releases regional congestion data for the 100 largest metropolitan areas as part of their National Traffic Scorecard. This data is collected using millions of probe vehicles, including taxis, delivery vans, trucks, and smartphone users.

INRIX produces the INRIX Index to compare congestion levels among metropolitan areas. The INRIX Index is defined as the percentage of extra travel time the average trip takes during the peak travel period compared to uncongested conditions. The Hampton Roads INRIX Index was 10.5 in 2013. This is down from 12.6 in 2009 and 13.3 in 2011 but is still higher than many other areas. Hampton Roads had the 24th highest INRIX Index in the country in 2013, and 8th highest among the 36 large metropolitan areas with populations between one and three million people.

The Texas Transportation Institute (TTI) at Texas A&M University regularly publishes the Urban Mobility Report. In this study, TTI

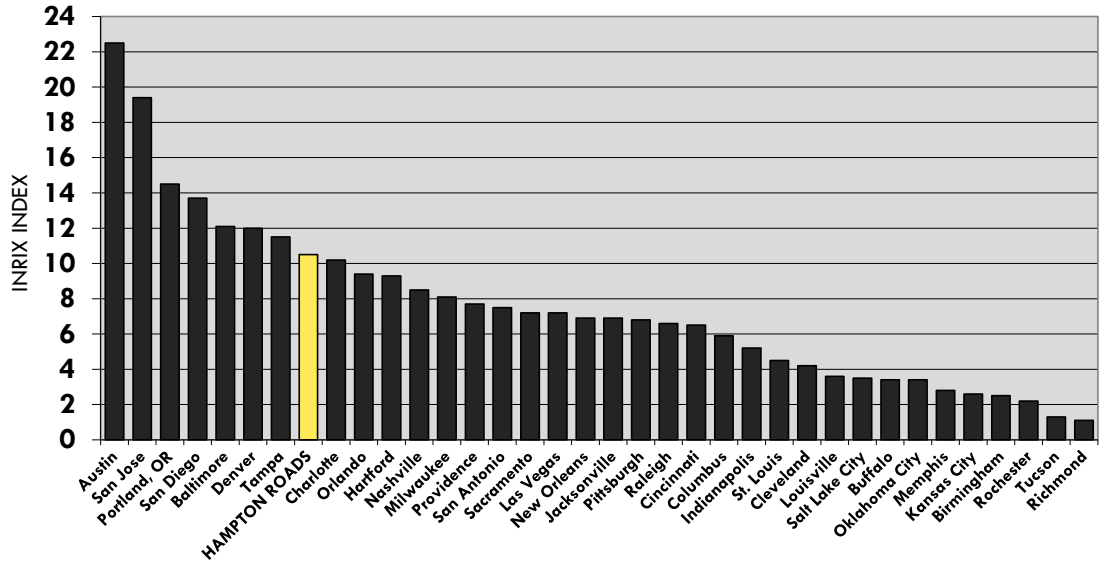
NOTABLE NUMBERS

10.5 The INRIX Index in Hampton Roads in 2013, which means the average trip in the region takes 10.5% longer during the peak travel period compared to uncongested conditions.

8th Hampton Roads rank among the 36 large metro areas with populations between 1 and 3 million people in terms of the INRIX Index in 2013.

$877 The average cost of being stuck in congestion for each Hampton Roads peak period auto commuter in 2011 according to TTI.

CONGESTION LEVELS (INRIX INDEX), LARGE METROPOLITAN AREAS, 2013

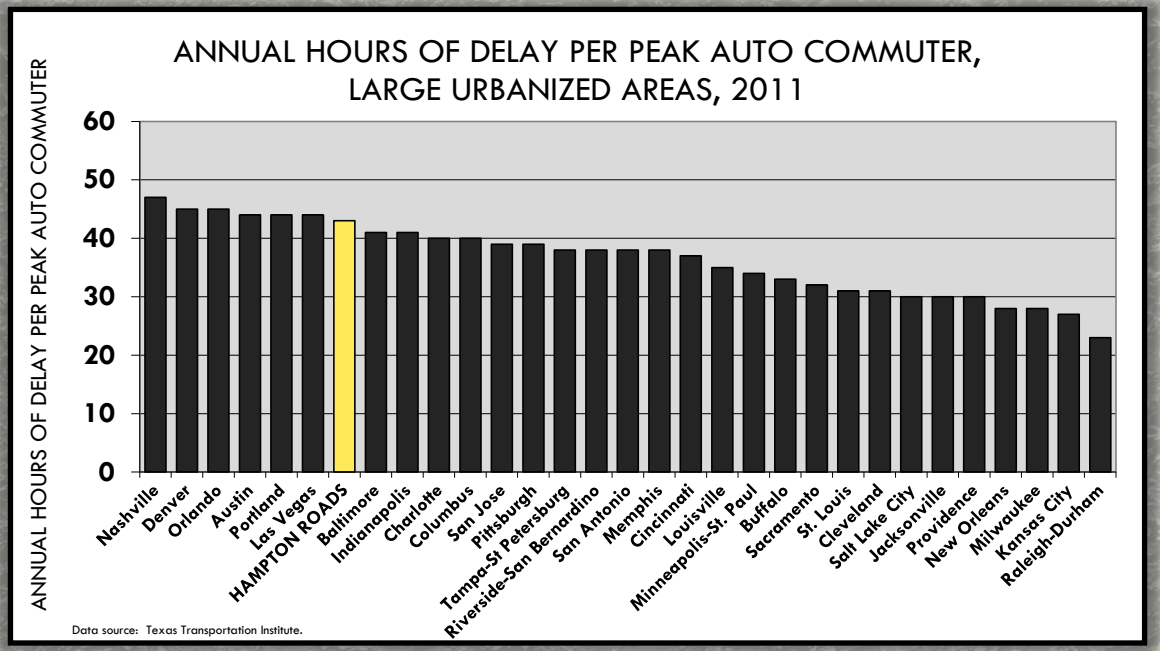


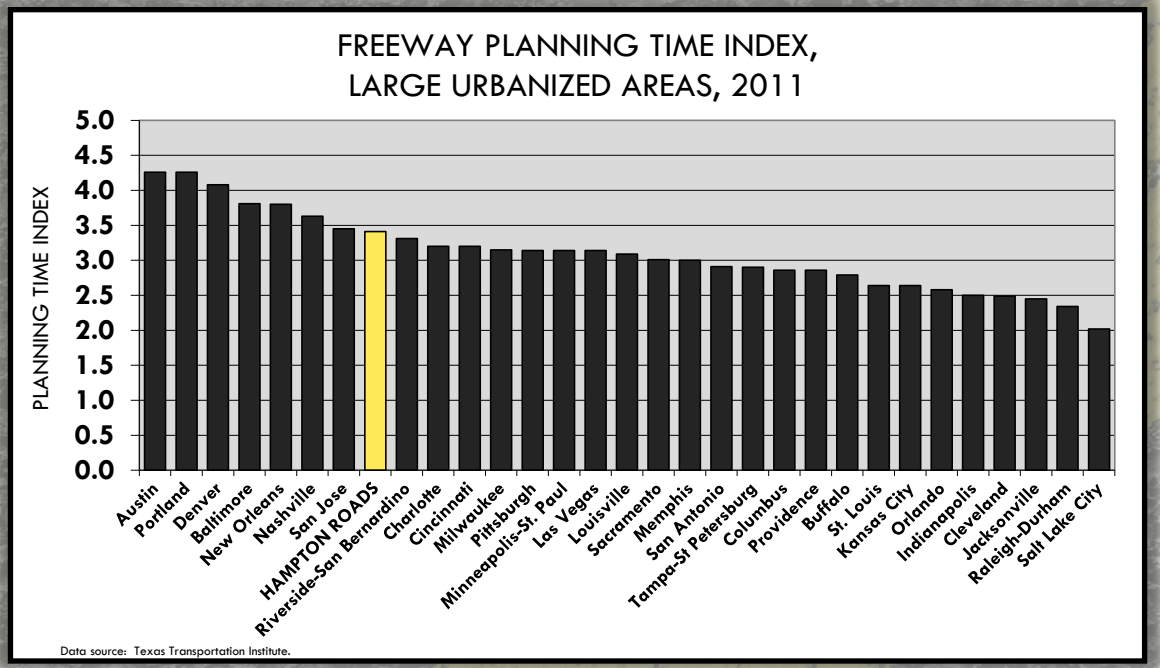
Data source: INRIX. The INRIX Index is the percentage of extra travel time the average trip takes during the peak period as compared to uncongested conditions in each region.

publishes the amount of time that travelers in over 100 urbanized areas spend in congestion, and the costs related to this congestion. TTI divides urbanized areas into four population groups for comparison purposes: very large, large, medium, and small. Hampton Roads is grouped with 30 other urbanized areas in the large group, which are those urbanized areas with between one and three million people.

According to TTI, peak period commuters traveling by automobile spent an average of 43 hours stuck in congestion in Hampton Roads in 2011 (the most recent data available). This ranked the region 7th highest among the 31 large urbanized areas. TTI estimates that the amount of delay in Hampton Roads, and in other large metropolitan areas, decreased between 2002 and 2011. This is likely due to the methodology used by TTI in the study. Since 2008, TTI used INRIX speed data and combined it with traffic volumes to produce delay values. Prior to 2008, INRIX speed data was not available, so regional delays were estimated by TTI based on traffic volumes and roadway characteristics. This means that the delay values prior to 2008 are likely less accurate than the recent data.

TTI also publishes a measure in the Urban Mobility Report called the Planning Time Index, which details the travel time reliability



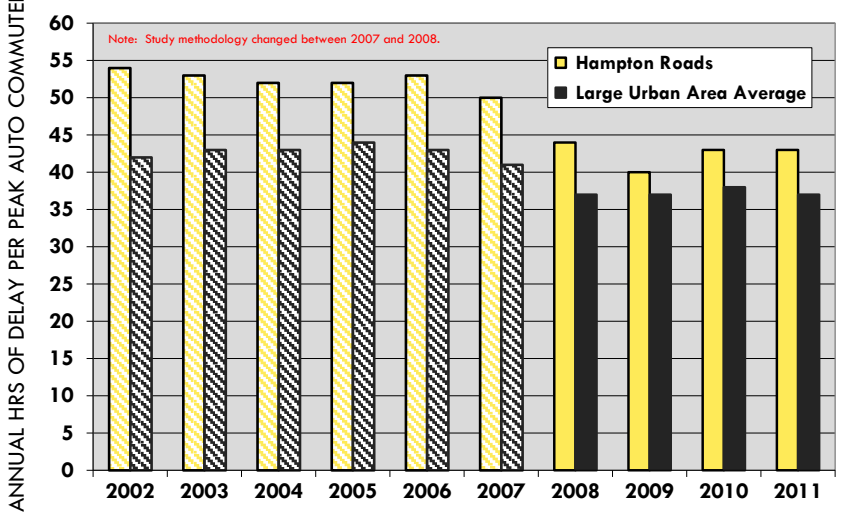


of the freeway network. The Planning Time Index represents the total time that should be planned for a trip so that the driver would only be late 5% of the time. The Freeway Planning Time Index in Hampton Roads in 2011 was 3.41, meaning that for an average uncongested 20-minute trip a total of 68 minutes should be allocated during peak periods to be on time 95% of the time. At 3.41, the Hampton Roads Planning Time Index ranked 8th highest among the 31 large urbanized areas in 2011.

HAMPTON ROADS BRIDGE-TUNNEL BACKUPS Image Source: VDOT

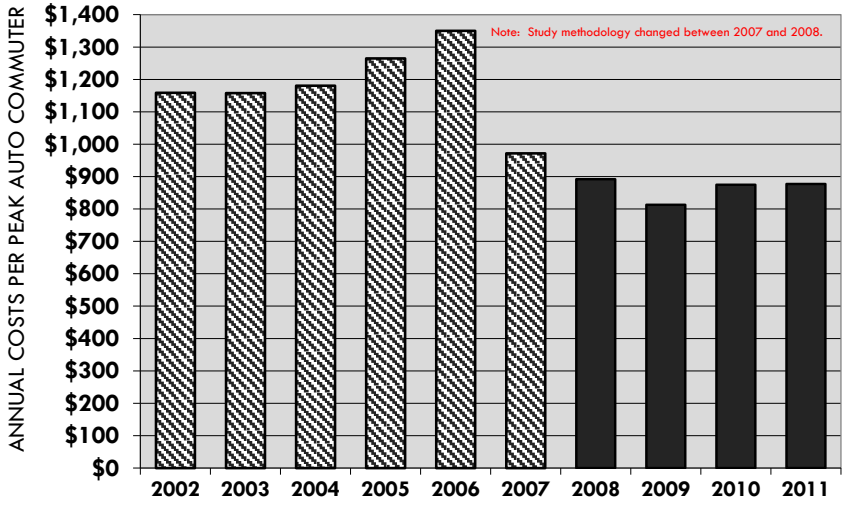
TTI also estimates the costs of being stuck in congestion. TTI estimates that being stuck in congestion cost each Hampton Roads peak period auto commuter an average of $877 in 2011, which amounts to nearly one billion dollars ($932 million) for all commuters. These values take into account the costs associated with wasted fuel (TTI estimates that over 19 million gallons were wasted in Hampton Roads in 2011), the value of a person's time, and the costs associated with operating commercial vehicles.

ANNUAL HOURS OF DELAY PER PEAK AUTO COMMUTER, HAMPTON ROADS & LARGE URBAN AREAS, 2002-2011



Data source: Texas Transportation Institute. Different data collection methods were used in 2002-2007 and 2008-2011.

ANNUAL CONGESTION COSTS PER PEAK AUTO COMMUTER IN HAMPTON ROADS, 2002-2011



Data source: Texas Transportation Institute. Different data collection methods were used in 2002-2007 and 2008-2011.

COMMUTING

Hampton Roads has a lower commuting time compared to other areas, even though nearly half of all workers in the region work in a jurisdiction different than the one they reside in.

The United States Census Bureau annually collects and releases socioeconomic data through the American Community Survey (ACS). As part of the ACS, information regarding the commuting characteristics of residents, including commuting modes, travel time to work, and where commuters work and live, is collected in each metropolitan area.

According to the ACS, the mean travel time to work in Hampton Roads was 24.0 minutes in 2012. This number has increased from 1990, when the mean travel time to work was 21.8 minutes, but has largely remained unchanged throughout the 2000s, remaining between 23 and 24 minutes.

Among the 36 large metropolitan areas throughout the United States with a population between one and three million people, Hampton Roads has a relatively low travel time to work, ranking 26th highest in 2012. Since 2005, Hampton Roads has ranked between 24th highest and 29th highest in terms of travel time to work among the 36 large metropolitan areas.

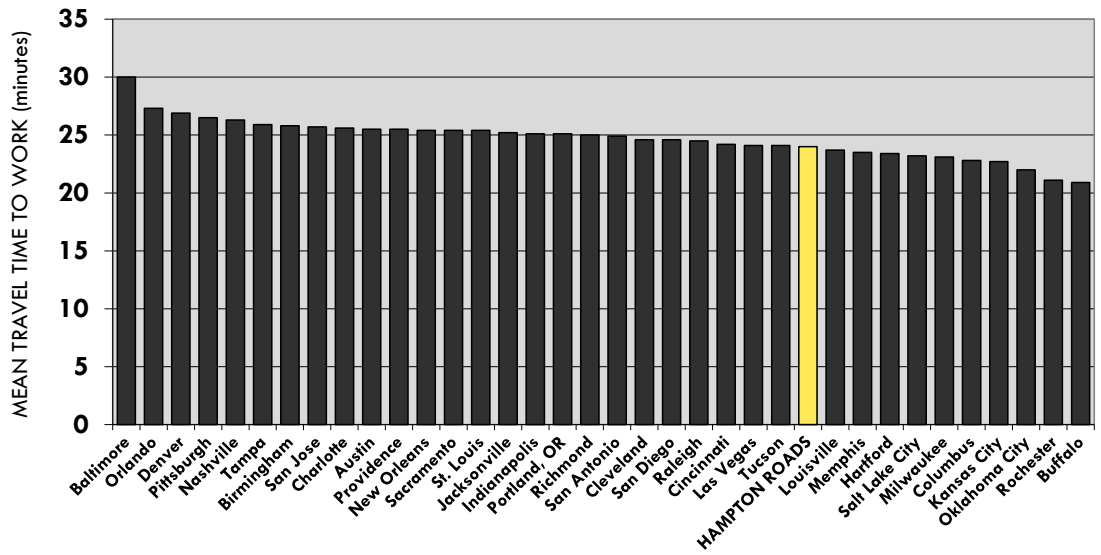
NOTABLE NUMBERS

81% The percentage of commuters in Hampton Roads that drove alone to work in 2012.

49% The percentage of all workers in Hampton Roads that worked in a jurisdiction that was different from the one they resided in in 2012.

24 The mean travel time to work in minutes in Hampton Roads in 2012. This is lower than many areas, ranking 26th highest among the 36 metropolitan areas in the United States with a population between one and three million people.

MEAN TRAVEL TIME TO WORK IN LARGE METROPOLITAN AREAS, 2012



Data source: US Census Bureau.

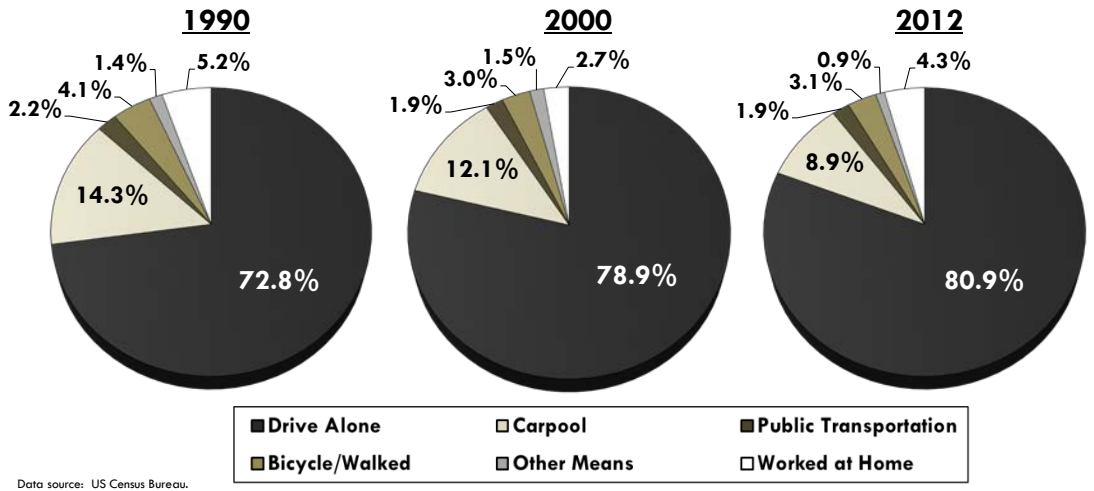
Many Hampton Roads residents, however, have much longer commutes. In 2012, one out of every three Hampton Roads commuters (34%) traveled 30 minutes or longer to work, and nearly 5% had commutes of an hour or more.

In 2012, 49% of all workers in Hampton Roads worked in a jurisdiction that was different than the one they resided in. Although this percentage is higher than that seen in 1990 (44%), it has remained between 47% and 50% since 2000.

The percentage of commuters in Hampton Roads who drive alone to work has increased through the years. In 2012, 81% of commuters in Hampton Roads drove alone to work. This is up from 73% in 1990 and 79% in 2000, but has varied between 79% and 83% since 2000. The percentage of commuters carpooling to work experienced a decrease from 12% in 2000 to 9% in 2012, while the percentage using public transportation and bicycling/walking remained the same and the percentage working at home increased slightly.

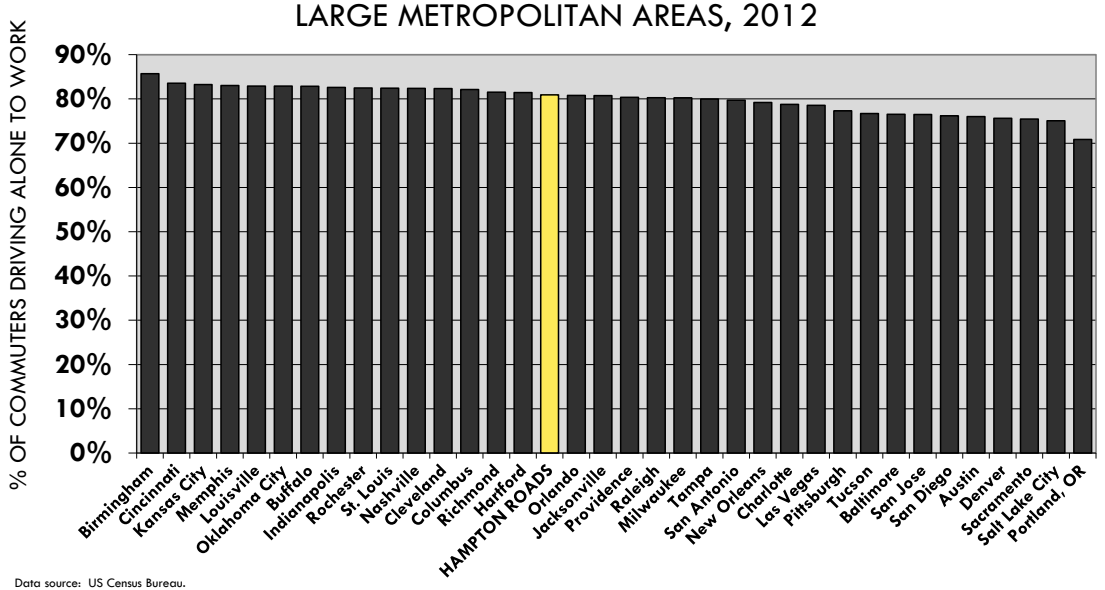
The percentage of commuters driving alone to work in Hampton Roads is typical of other areas, ranking 16th highest among the 36 large metropolitan areas with populations between one and three million people in 2012.

COMMUTING METHODS IN HAMPTON ROADS - 1990, 2000 & 2012



Data source: US Census Bureau.

PERCENTAGE OF COMMUTERS THAT DROVE ALONE TO WORK LARGE METROPOLITAN AREAS, 2012



Data source: US Census Bureau.

The number of crashes, injuries, and fatalities in Hampton Roads has decreased from the levels seen a decade ago, and the decrease has significantly exceeded that of the United States.

There were a total of 25,192 crashes in Hampton Roads in 2012 according to data provided by the Virginia Department of Motor Vehicles, or one crash every 21 minutes. Although this is much lower than the 33,000 crashes that occurred yearly in the middle of last decade, it is 9% higher than the 23,142 crashes experienced in the region in 2010. Between 2003 and 2012, the number of crashes in Hampton Roads decreased 24%, which is larger than the statewide 20% decrease.

As the number of crashes in Hampton Roads decreased over the last decade, the number of injuries resulting from traffic crashes decreased as well. There were 15,034 injuries that resulted from traffic crashes in Hampton Roads in 2012, or one injury every 35 minutes. This is much lower than the 18,000 injuries that occurred each year in 2003 and 2004, but is 12% higher than the 13,449 injuries in the region in 2010. Similar to crashes, the decrease in the number of injuries in Hampton Roads over the last decade (17%) is larger than the decrease that was experienced across Virginia (15%) during this time.

The number of fatalities in Hampton Roads decreased to a new low in 2012. There were 99 fatalities resulting from traffic crashes in Hampton Roads in 2012, or one fatality every 3.7 days. This is down 23% from 129 fatalities in 2003, and 36% from the high of 155 fatalities in 2007. The biggest factors in

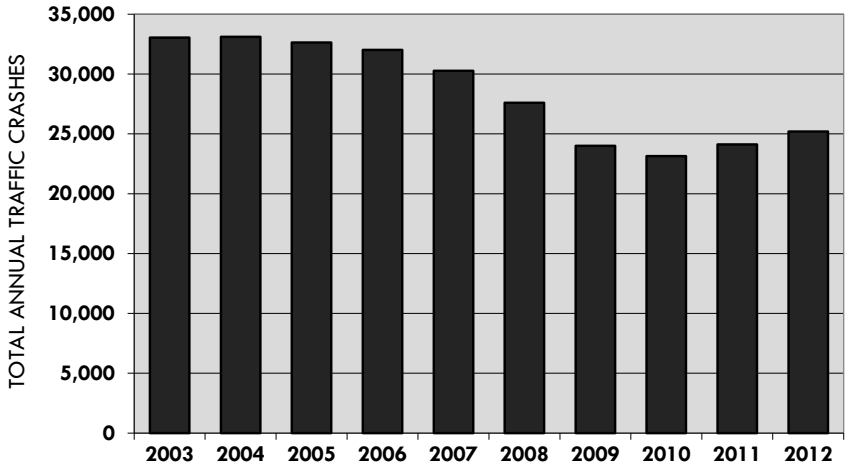
NOTABLE NUMBERS

-24% The decrease in the number of crashes in Hampton Roads between 2003 and 2012.

-23% The decrease in the rate of traffic crashes (per amount of travel) in Hampton Roads between 2003 and 2012, which is much greater than the national decrease (-13%).

-19% The decrease in the rate of traffic crash fatalities (per amount of travel) in Hampton Roads between the 2001-to-2003 period and 2010-to-2012.

CRASHES IN HAMPTON ROADS, 2003-2012



Data source: Virginia DMV.

traffic crash fatalities in Hampton Roads are not wearing a seat belt (55% of all fatalities from 2009-2012), alcohol use (39%), and speeding (35%).

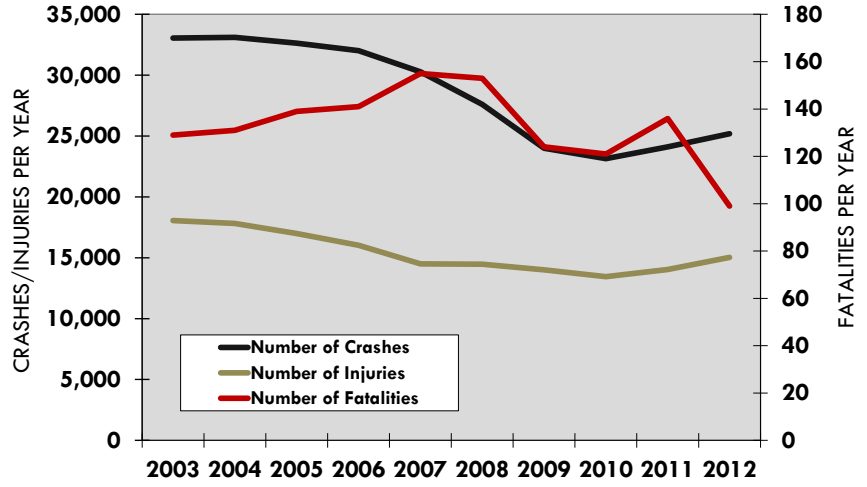
With the number of crashes decreasing in Hampton Roads over the last decade, the rate of crashes relative to the amount of travel has decreased as well. The crash rate in Hampton Roads decreased from 2.27 crashes per million vehicle-miles of travel (VMT) in 2003 to 1.74 crashes per million VMT in 2012, a 23% decrease. This decrease in the crash rate is similar to the decrease seen across Virginia (24% decrease) but is much larger than the decrease seen in the United States (-13%) during this time.

TRACTOR TRAILER CRASH

Image Source: VDOT

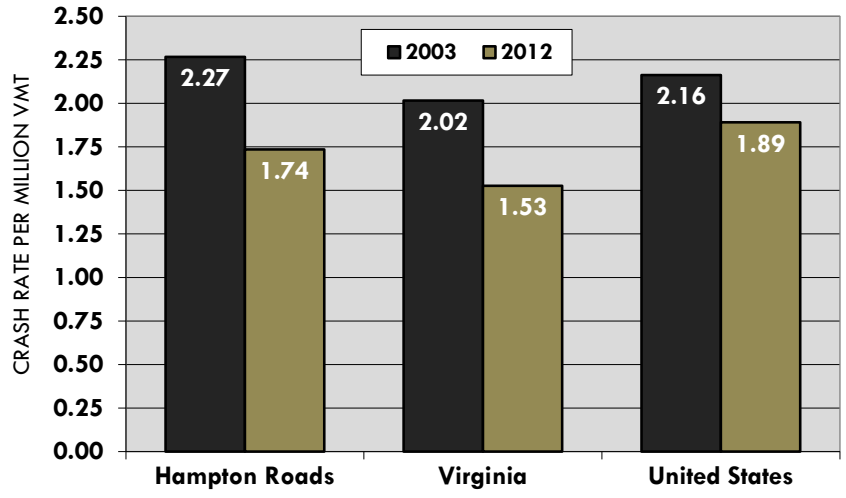
Despite the decrease, the crash rate in Hampton Roads was higher than the statewide rate in 2012, and was higher than the crash rate experienced in the Northern Virginia (1.59 crashes per million VMT) and Richmond (1.68) areas. The Hampton Roads crash rate, however, was lower than the rate experienced in the Roanoke area (1.83).

CRASHES, INJURIES, AND FATALITIES IN HAMPTON ROADS, 2003-2012



Data source: Virginia DMV.

TRAFFIC CRASH RATES IN HAMPTON ROADS, VIRGINIA, AND THE UNITED STATES, 2002 and 2011



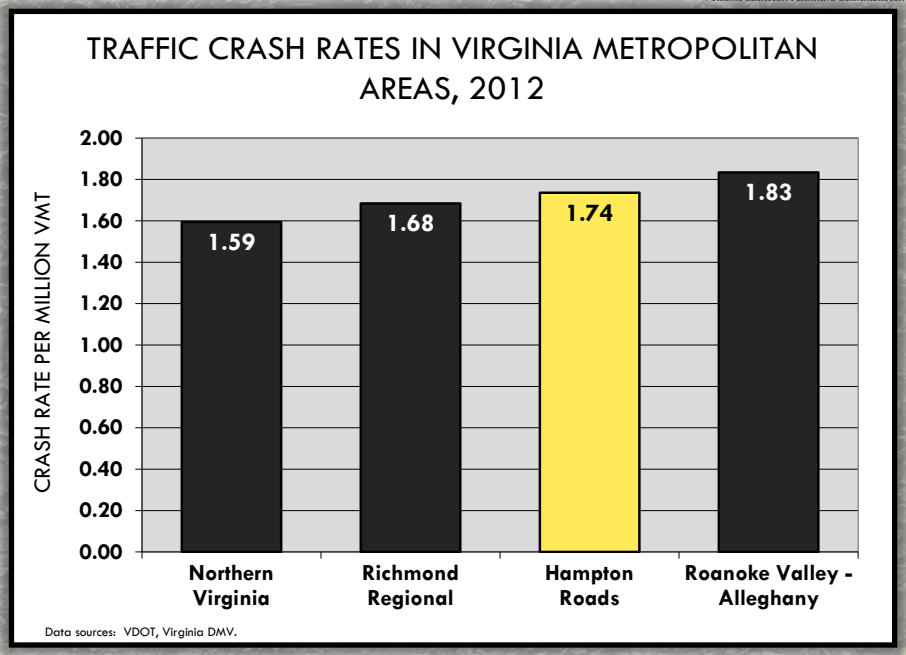
Data sources: VDOT, Virginia DMV, NHTSA.

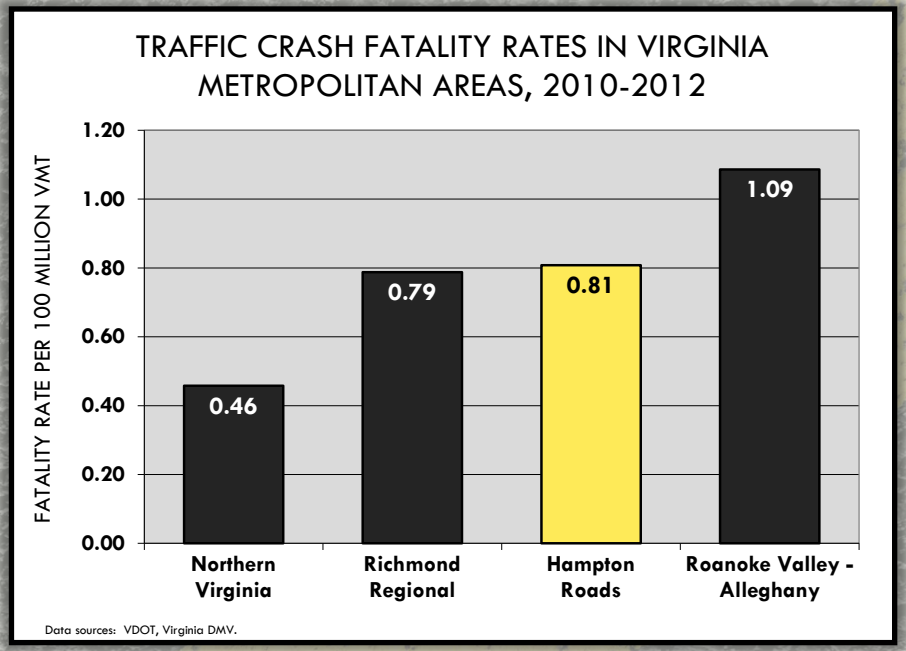
The fatality rate in Hampton Roads has also decreased over the last decade. The Hampton Roads fatality rate was 0.81 fatalities per 100 million VMT in the three-year period from 2010 to 2012, down from 1.00 fatalities per 100 million VMT in the 2001 to 2003 time period (fatality rates are often analyzed over three year periods due to the number that occur in any given year). The fatality rate in Hampton Roads from 2010 to 2012 was nearly twice the rate experienced in the Northern Virginia area (0.46 fatalities per 100 million VMT), was comparable to the rate in the Richmond area (0.79), and was lower than the Roanoke area rate (1.09).

VDOT SAFETY SERVICE PATROL

Image Source: VDOT

Safety belt use has an impact on the number of injuries and fatalities resulting from crashes. In 2013, Virginia had an observed safety belt usage rate of 79.7% according to a study done for DMV by Old Dominion University. Hampton Roads usage rates were higher than the statewide rate, with the cities on the Southside having an observed safely belt



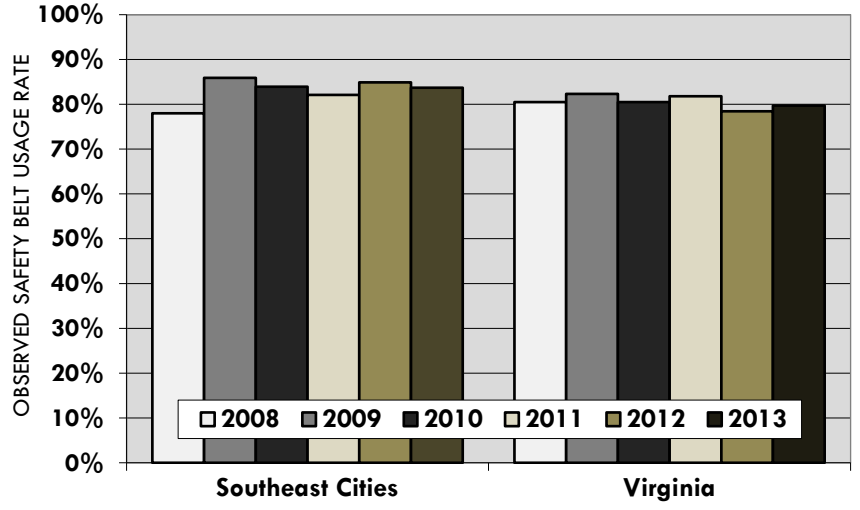


usage rate of 83.7% in 2013. This rate is lower than the 85.9% rate seen in 2009 but higher than the 78.0% usage rate seen on the Southside in 2008.

Virginia's safety belt usage rate in 2012 (78.4%) was lower than the national rate of 86%, and Virginia only had the 44th highest statewide usage rate in the country. This may be due to Virginia not having a primary enforcement safety belt law, which allows law enforcement officers to ticket a driver for not wearing a safety belt without any other traffic offense occurring. Of the 33 states/districts that had primary enforcement safety belt laws in 2012, only two had lower safety belt usage rates than Virginia.

HRTPO is currently in the process of updating the Hampton Roads Regional Safety Study. This update examines regional crash trends, the location of crashes throughout the region, and countermeasures to improve roadway safety. Part I ("Crash Trends and Locations") was released late last year and Part II ("Crash Countermeasures") will be released this spring. Information regarding the Hampton Roads Regional Safety Study is available at **http://www.hrtpo.org/page/roadway-safety**.

SAFETY BELT USAGE IN SOUTHSIDE HAMPTON ROADS AND VIRGINIA, 2008-2013



Data source: Old Dominion University *Seat Belt Use in Virginia* reports. Southside Hampton Roads includes the area defined in the report as South East Cities, which includes Norfolk, Portsmouth, Virginia Beach, Chesapeake, and Suffolk. The sampling methodology was updated in 2012 to match NHTSA standards, so caution should be exercised for comparisons with data prior to 2012 according to the study's authors.

TRUCK TRAVEL

Nearly 17,000 trucks enter and exit Hampton Roads each weekday, serving not only the third busiest port on the east coast but also serving the commerce of the entire region.

Freight movement is a critical component of the Hampton Roads economy. Trucks are the primary mode for moving freight to and from the Port of Virginia. They also supply the goods used by each resident and business in the region.

In 2013, 16,900 trucks entered or exited Hampton Roads through major gateways each weekday. This number of trucks passing through Hampton Roads gateways increased for the first time since the economic downturn started, but the number of trucks is still much lower than the levels seen before the economic downturn started. About 19,100 trucks passed through major gateways each weekday in 2005, and this number increased to a high of over 20,000 trucks in 2007.

The primary gateway for trucks entering or exiting Hampton Roads is I-64. An average of 6,100 trucks used I-64 to enter or exit the region each weekday in 2013, which accounted for 36% of the trucks passing through the region's major gateways. This is down, however, from 6,227 trucks in 2012. The next most used gateways are Route 58 and Route 460. An average of 3,606 trucks used the Route 58 gateway each weekday in 2013, and 2,020 trucks used the Route 460 gateway, up from 3,209 and 1,927 trucks in 2012 respectively. Combined, I-64, Route 58, and Route 460 accounted for 69% of all trucks passing through the region's major gateways in 2013.

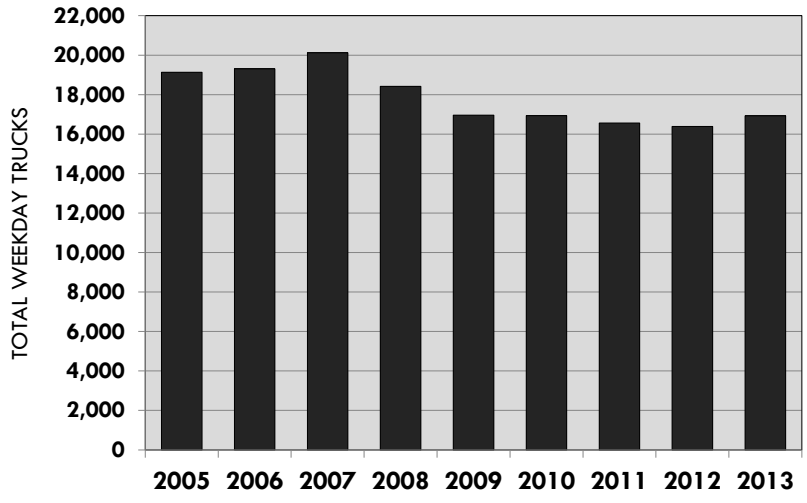
NOTABLE NUMBERS

-21% The decrease in the amount of truck travel each day in Hampton Roads between 2007, just before the downturn in the economy began, and 2012. This compares to a 1.9% decrease in regional vehicular travel.

-12% The decrease in the number of trucks that entered or exited Hampton Roads each weekday at major gateways between 2005 and 2013.

10% The percentage of all regional truck travel that is represented by trucks entering or exiting the Port of Virginia terminals.

NUMBER OF TRUCKS PASSING THROUGH HAMPTON ROADS GATEWAYS EACH WEEKDAY, 2005-2013



Data sources: VDOT, CBBT.

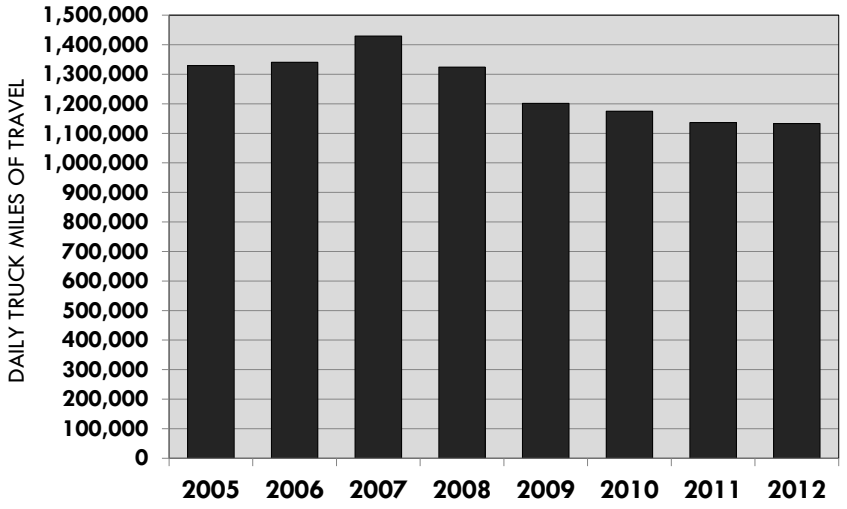
There was a total of 1.13 million miles of truck travel each day in Hampton Roads in 2012 according to VDOT estimates, which accounted for 2.9% of the nearly 40 million vehicle-miles of travel experienced each day throughout the region. Regional truck travel levels in 2012 were 15% lower than the levels seen in 2005, and 21% below the highs seen in 2007.

A major issue involving truck travel in Hampton Roads is overheight trucks at the tunnels. This is especially an issue at the Downtown Tunnel and at the westbound Hampton Roads Bridge-Tunnel, an older tunnel with a lower vertical clearance than other tunnels in the area. A total of 13,168 trucks were stopped, measured, and turned around at tunnels in Hampton Roads in 2013, 7,472 of which occurred at the Downtown Tunnel and 4,373 of which occurred at the westbound Hampton Roads Bridge-Tunnel. A total of 596 of these turnarounds occurred at the Hampton Roads Bridge-Tunnel entrance on the south island, which impacts congestion and safety since traffic has to be stopped in both directions to complete the turnaround. This is down significantly from 956 turnarounds on the south island in 2011.


MIDTOWN TUNNEL

Image Source: VDOT

DAILY TRUCK TRAVEL IN HAMPTON ROADS, 2005-2012



Data source: VDOT.

BEHIND THE NUMBERS

Although the amount of freight handled by the Port of Virginia has exceeded the levels prior to the economic downturn, the amount of truck travel both in Hampton Roads and at the gateways to the region remains well below the pre-downturn levels. This is primarily due to two reasons. One reason is that port trucks only represent a small percentage of all regional truck travel, around 10% according to an analysis done by HRTPO. Another reason for this discrepancy is that the mode of transporting freight through the Port is changing. In 2005, 67% of all freight handled by the Port was transported by truck while 25% was transported by rail. In 2013, freight transported by truck decreased to 62% of freight handled by the Port, with rail's share increasing to 34%. Port officials anticipate this trend will continue and that up to half of all general cargo handled by the Port may eventually be transported by rail.


Image Source: HRTPO

PUBLIC TRANSPORTATION

Public transportation usage increased sharply in Hampton Roads over the last few years, fueled by increased options such as The Tide light rail and the Go Pass 365 ridership payment option.

Public transportation services in Hampton Roads are primarily provided by two agencies. The Williamsburg Area Transit Authority (WATA) provides transit service in James City County, Williamsburg, and northern York County, while Hampton Roads Transit (HRT) provides service in urbanized areas on the Peninsula and Southside. Other transit agencies also serve the area, such as Virginia Regional Transit (VRT) in Suffolk.

A variety of public transportation options are available in Hampton Roads. These options include:

Conventional Bus – Conventional bus service is provided on an extensive regional network by WATA, HRT, and VRT.

Express Bus – Regional express bus service, known as the MAX, is provided by Hampton Roads Transit between various locations on the Peninsula and Southside.

Tourist Oriented Services – Special tourist-oriented public transportation service is provided at various locations around Hampton Roads, including the VB WAVE service at the Va. Beach Oceanfront, shuttle services around Colonial Williamsburg, and the Williamsburg and Yorktown Trollies.

NOTABLE NUMBERS

31% The increase in the number of passenger trips taken on public transportation in Hampton Roads between 2004 and 2013. Most of this growth has occurred since 2007.

24th The rank of Hampton Roads among the 36 large metropolitan areas with populations between one and three million people in terms of public transportation use per capita in 2012.

88% The percentage of the total public transportation trips in Hampton Roads that were taken on regular or express bus service in 2013.

Light Rail – HRT began operating light rail service on a 7.4 mile starter line in Norfolk in 2011. More information is included in the *Rail Travel* section of this report.

Ferries – Passenger ferry service is provided by HRT between Downtown Norfolk and Portsmouth, and vehicular ferry service is provided by VDOT across the James River between Surry County and Jamestown.

Commuting Alternatives – Commuting alternatives in Hampton Roads are provided by Traffix. These commuting alternatives include ridesharing, telecommuting, van leasing, and guaranteed ride programs.

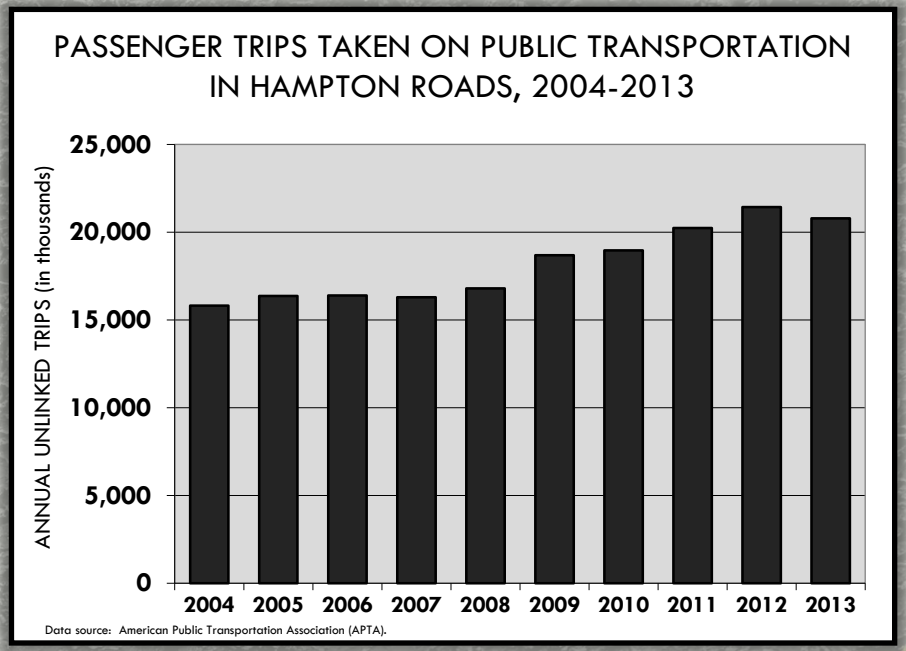
There were nearly 21 million unlinked trips* taken on public transportation in Hampton Roads in 2013 on HRT and WATA scheduled services. These public transportation trips help reduce congestion, resulting in 1.6 million fewer hours of delay and $33 million less in congestion costs in 2011 according to TTI estimates.

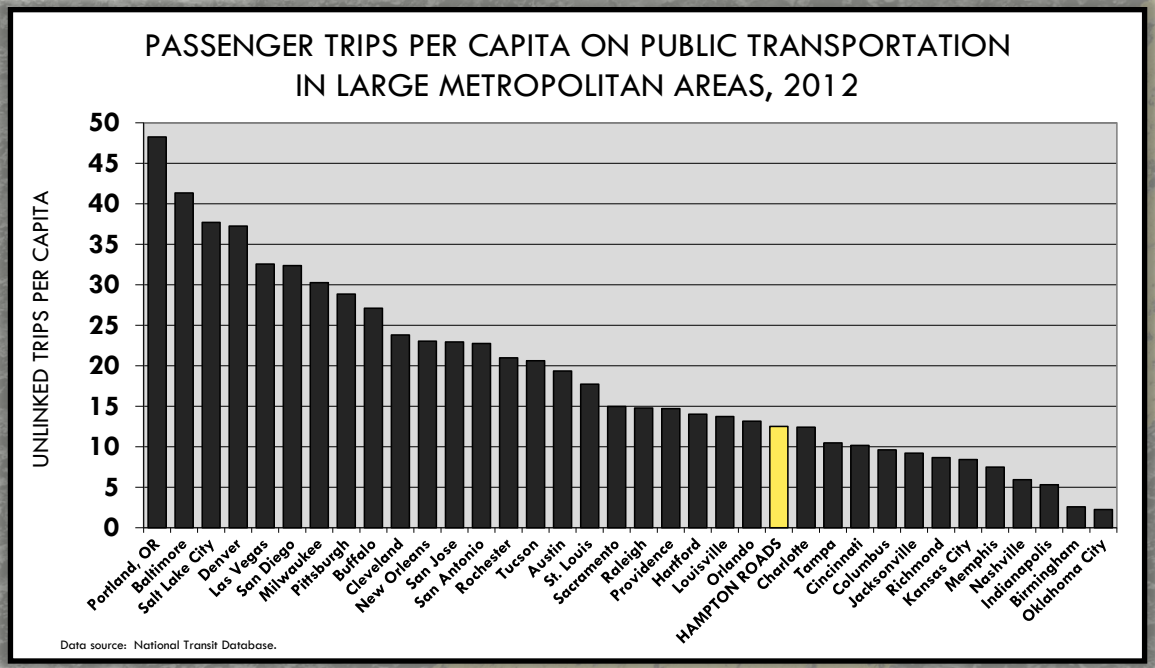
The number of trips on public transportation in Hampton Roads has increased significantly, with a 31% increase in ridership between 2004 and 2013. During the same time period, national transit ridership levels increased by 11%. Most of this growth in transit usage in Hampton Roads has occurred since 2007, apparently due to new mode and payment options and the impacts of the economic downturn. Since 2007, regional transit ridership has increased 28%.

Most public transportation trips in Hampton Roads are taken on regular or express bus service. In 2013, 88% of the public transportation trips in Hampton Roads were taken on regular or express bus service. Light rail comprised 8% of all regional transit trips, with all other modes (ferry, demand response, and vanpool) comprising the remaining 4%.

In spite of the recent growth in public transportation usage, Hampton Roads still lags behind other comparable metropolitan areas. At 12.6 passenger trips on public transportation per capita in 2012, Hampton Roads ranked 24th highest among the 36 large metropolitan areas with populations between one and three million

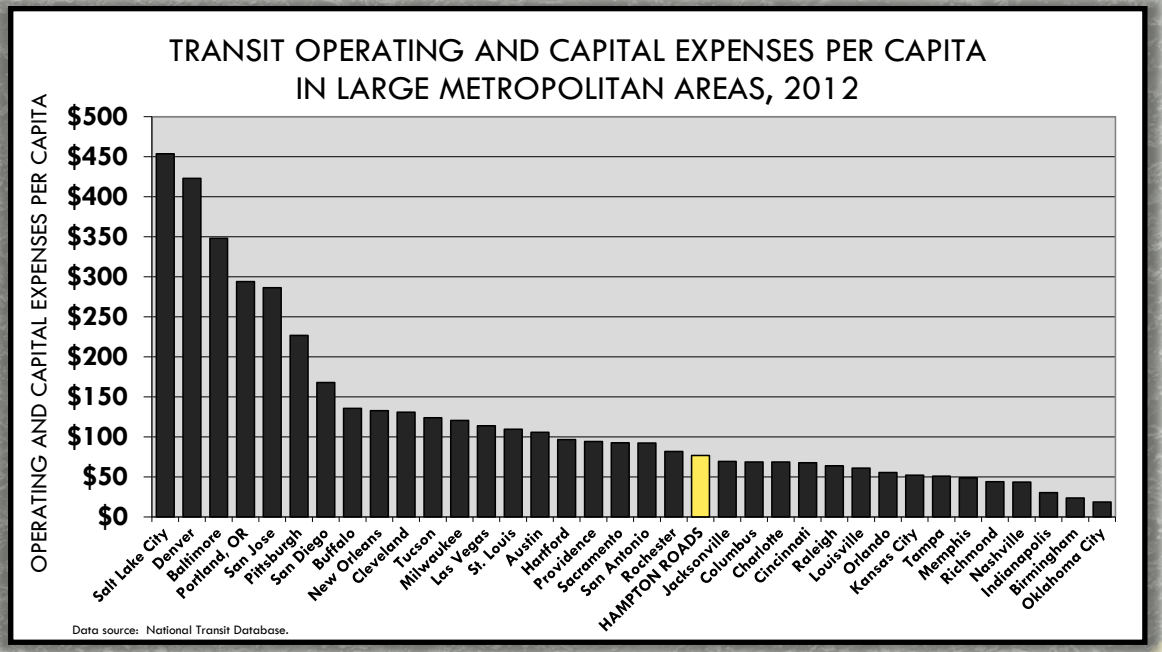
* - An unlinked trip is a passenger trip made on one transit vehicle. If a passenger boards two buses to get from origin to destination, that is considered to be two unlinked trips.





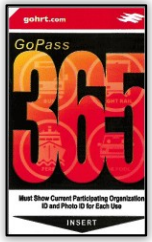
people. Metropolitan areas such as Baltimore and Portland have public transportation usage rates three to four times higher than Hampton Roads. The Hampton Roads ranking has improved, however, up from 27th highest usage per capita in 2004.

Hampton Roads also spends less on public transportation per capita than many comparable metropolitan areas, ranking 21st highest among the 36 areas in operating and capital expenses per capita. Some areas (such as Salt Lake City and Denver) spent more than five times what was spent in Hampton Roads in 2012.



NEW DEVELOPMENTS

Downtown Norfolk Transit Center – In July 2013, HRT opened a new interim downtown bus transfer center on Wood Street in Norfolk, replacing the previous transfer center at Cedar Grove. The new center provides better access to downtown and includes improved lighting, security, sidewalks, and bathrooms.



GoPass 365 – In 2011, HRT instituted a new, innovative program called GoPass 365. Employers and schools can purchase passes that allow all of their employees or students to use HRT transit services at no additional charge. Costs are charged to the employer/school annually on a per employee/student basis. The program was revised and most agreements with participants were renegotiated in 2013, which led to a 95% decrease in the number of issued passes. Participants include Old Dominion and Norfolk State Universities, Huntington Ingalls, and the City of Norfolk.

Fare Increases – The Hampton Roads Transit board voted to increase transit fares for the first time since HRT was formed in 1999. The fare for trips on buses, light rail, and ferry will increase by 25 cents, up to $1.75. This fare increase is expected to take effect around October 1, 2014. Fares will also increase by another 25 cents in 2016, up to $2.00.

ACTIVE TRANSPORTATION

Active Transportation Planning, which aims to improve the user safety and mobility of all types of non-motorized transportation options, has expanded both in Hampton Roads and across the country.

The term Active Transportation refers to transportation such as walking or using a bicycle, tricycle, wheelchair, scooter, skates, skateboard, push scooter, or similar devices. Bicycle lanes, multi-use paths, sidewalks, crosswalks, and trails are all non-motorized transportation facilities designed to improve the mobility and safety of active transportation users.

CAPE HENRY TRAIL Image Source: Virginia State Parks

There are currently thousands of miles of sidewalks and over 450 miles of bicycle facilities in Hampton Roads. These non-motorized facilities vary greatly in type and length, from secluded paths in city and state parks to dedicated lanes along major

NON-MOTORIZED FACILITIES IN HAMPTON ROADS

There are various types of non-motorized facilities in place in Hampton Roads. Examples of these non-motorized facilities include:

Bike Lanes
A portion of the roadway is designated by signs and pavement markings for the preferential or exclusive use of bicycles.

Shared Use Paths
A facility physically separated from motorized vehicular traffic intended for the use of bicycles, pedestrians, and other active transportation users.

Paved Shoulders
A paved portion of a roadway to the right of the edge stripe on which bicyclists may ride. These areas are not to be marked as bike lanes.

Wide Outside Lanes
An outside travel lane with a width of at least 14 feet.

Signed Shared Roadway
A roadway designated by bike route signs that serve to provide continuity to other bicycle facilities.

Grade Separated Crossing
Facilities that are designed to continue non-motorized facilities through high volume roadways, railroads, or natural barriers.

Sidewalks
Non-motorized facilities between the curb line and adjacent property line that are designed primarily for foot traffic and users with smaller wheeled devices.

Trails
Pedestrian routes developed primarily for outdoor recreational purposes.

thoroughfares to facilities at the Virginia Beach Oceanfront. There are many different types of non-motorized facilities in Hampton Roads, as shown in the figure on the previous page.

In recent years, several major non-motorized facilities have been added in Hampton Roads. Examples of these facilities include the conversion of the old section of Route 17 in Chesapeake into the Great Dismal Swamp Trail, the addition of bike lanes along a hazardous section of Shore Drive in Virginia Beach, and the construction of portions of the Virginia Capital Trail which, upon completion, will connect Williamsburg and Downtown Richmond with a 54-mile facility. In addition, many new roadway projects and developments across the region incorporate sidewalks and multi-use trails, following local policies and incentives.

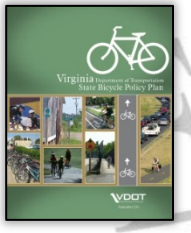

BIKE ODU

Image Source: ODU.

NEW DEVELOPMENTS

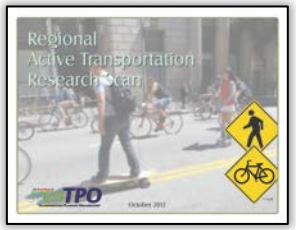
Virginia Capital Trail – Construction continues on the Virginia Capital Trail, which when complete will connect Williamsburg with Downtown Richmond. The Hampton Roads portion of the trail is complete, and construction of remaining sections of the trail is expected to be complete in 2015.

South Hampton Roads Trail – Planning continues on the South Hampton Roads Trail, a 41-mile shared-use path that would connect Suffolk, Chesapeake, Portsmouth, Norfolk, and Virginia Beach. Construction has begun on a 3.3-mile portion of this trail known as the Seaboard Coastline Trail in Suffolk.



Local and State Active Transportation Planning – A number of state and local planning efforts have recently been completed, including the VDOT State Bicycle Policy Plan, the Regional Bicycle Facilities Plan and Bikeway Map in the Historic Triangle Area, and the Virginia Beach Bikeways and Trails Plan.

Regional Active Transportation Planning – As part of the HRTPO prioritization process, the 2040 Long Range Transportation Plan will be evaluating active transportation projects for the first time. Staff has received over 40 bicycle/pedestrian candidate project suggestions from around the region. These projects will be evaluated using the HRTPO Project Prioritization Tool, which includes several criteria such as connectivity, safety and viability among others.



Building on the 2012 Regional Active Transportation Scan, HRTPO staff is developing a regional active transportation map. This map will be the basis for identifying gaps in the system and also determining the latent demand for walking and biking. These efforts and others will ultimately become a part of developing a regional active transportation plan.

While nearly all jurisdictions in Hampton Roads incorporate a multimodal transportation vision that includes bicycles and pedestrians in their projects and planning efforts, certain localities are adopting policies known as Complete Streets. Complete Streets policies ensure that corridors are planned, designed, and maintained to enable safe usage for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete Streets also increase connectivity between neighborhoods and streets and encourage the use of alternative forms of transportation

In Hampton Roads, some localities have already incorporated Complete Streets into their comprehensive plans (or bicycle and pedestrian master plans) and others have identified it as a goal. Examples include:

James City County has provided for the design of Complete Streets in their 2009 Comprehensive Plan.

Norfolk supports the development of Complete Streets as a part of their 2013 General Plan.

Portsmouth recommends Complete Streets design standards in their 2010 Master Transportation Plan.

Virginia Beach recommends Complete Streets strategies as a part of their 2009 Comprehensive Plan and also adopted Complete Streets goals as a part of their 2011 Bikeways and Trails Plan.

COMPLETE STREETS EXAMPLE

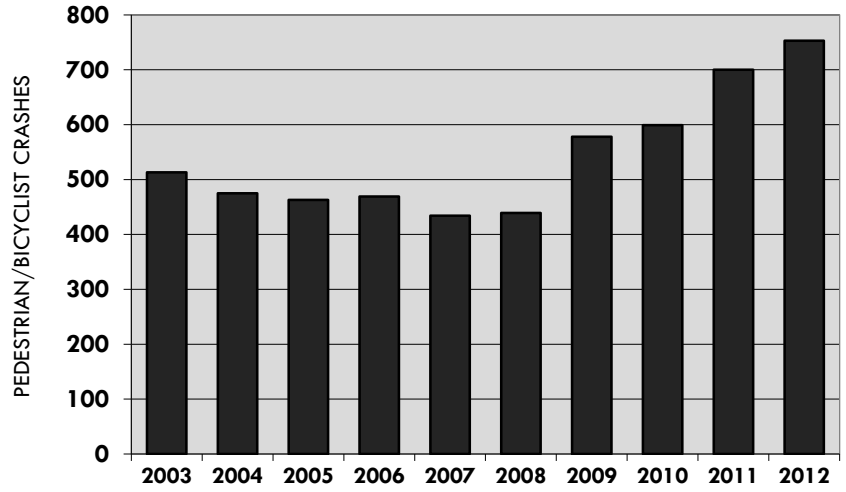
Image Source: WalkSacramento.

With the emphasis on providing facilities for active transportation users, improving the safety of pedestrians and bicyclists is critical. There were 753 crashes involving pedestrians or bicyclists in Hampton Roads in 2012, resulting in a total of 28 fatalities. The number of crashes in Hampton Roads involving pedestrians or bicyclists was higher in 2012 than in any other year in the last decade, as was the number of fatalities. Although pedestrian and bicyclist crashes comprised less than 2% of the total crashes in Hampton Roads between 2003 and 2012, over 13% of all fatalities in Hampton Roads were the result of pedestrian and bicyclist crashes during this time.

VIRGINIA CAPTIAL TRAIL

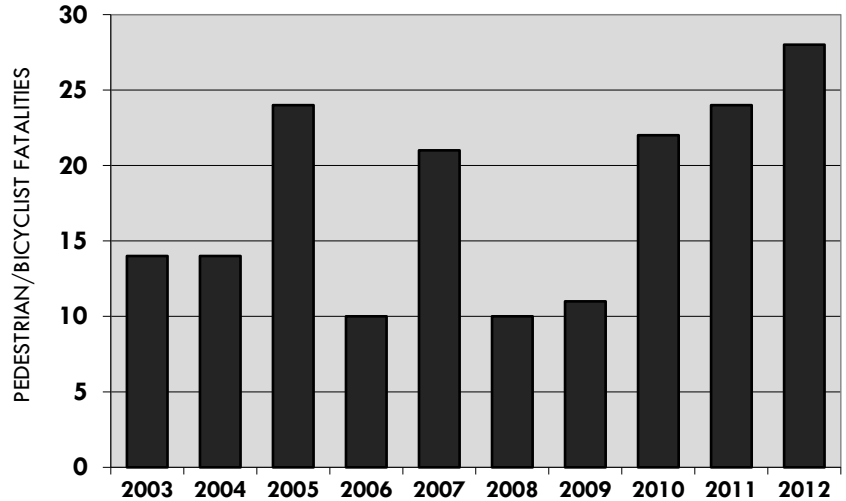
Image Source: VDOT.

PEDESTRIAN/BICYCLIST CRASHES IN HAMPTON ROADS, 2003-2012



Data source: Virginia DMV.

PEDESTRIAN/BICYCLIST FATALITIES IN HAMPTON ROADS, 2003-2012



Data source: Virginia DMV.

TRANSPORTATION FINANCING

The Virginia General Assembly passed landmark legislation in 2013, comprehensively reforming transportation funding, increasing funding levels, and creating a new regional roadway funding stream.

With statewide transportation funding levels not keeping up with all of the needs in recent years, the Virginia General Assembly passed House Bill (HB) 2313 in 2013. This legislation comprehensively reformed transportation funding and increased funding levels starting with Fiscal Year (FY) 2014.

Funding for many aspects of the statewide transportation system is allocated by the Commonwealth Transportation Board (CTB), including the construction and maintenance of Virginia's highway system, transportation operations, debt payments, administration, and support for the ports, aviation, public transportation, and rail. In Fiscal Year 2014, the CTB approved a $5.2 billion transportation budget for the State of Virginia. This is higher than the funding levels in most previous years due to the infusion of funding from HB 2313. In the next six years (FY 2015-2020), a total of $32.7 billion is projected to be available in the statewide transportation budget, 22% higher than the budgets from Fiscal Years 2009-2014.

HB 2313 also created a dedicated regional funding stream for Hampton Roads and Northern Virginia. In Hampton Roads, HB 2313 increased sales taxes and fuel wholesale taxes, which is projected to produce an additional $158 million in Fiscal Year 2014 and $1.2 billion in Fiscal Years 2015-2020 for use on regional roadway, bridge, or tunnel projects.

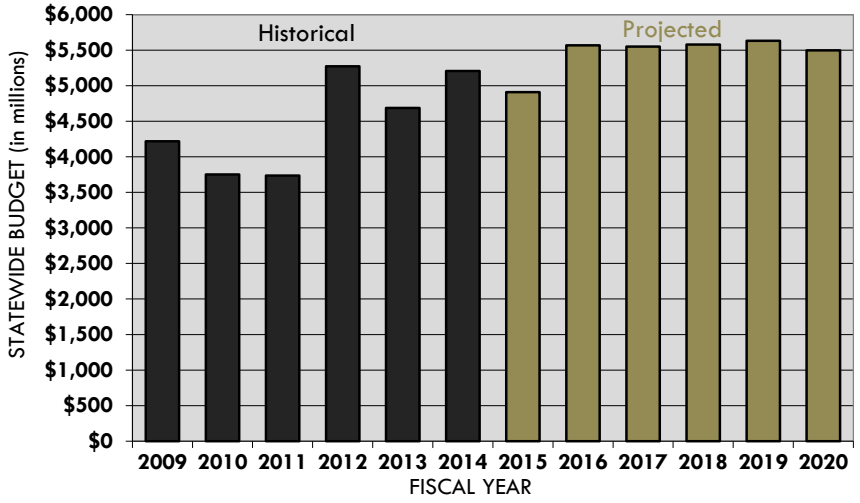
NOTABLE NUMBERS

22% The projected increase in Virginia's statewide transportation budget from FY 2009-2014 to FY 2015-2020.

27% The projected increase in funding that will be available for highway construction statewide from FY 2009-2014 to FY 2015-2020.

47th Virginia's rank among the 50 states and D.C. in terms of average taxes and fees collected on each gallon of unleaded gasoline as of January 1, 2014.

HISTORICAL AND PROJECTED STATE TRANSPORTATION BUDGET, FY 2009-2020



Data source: VDOT. State fiscal year runs from July 1 to June 30 of the listed year. Projected budgets as of April 1, 2014. Includes all revenues from HB2313, including regional revenues.

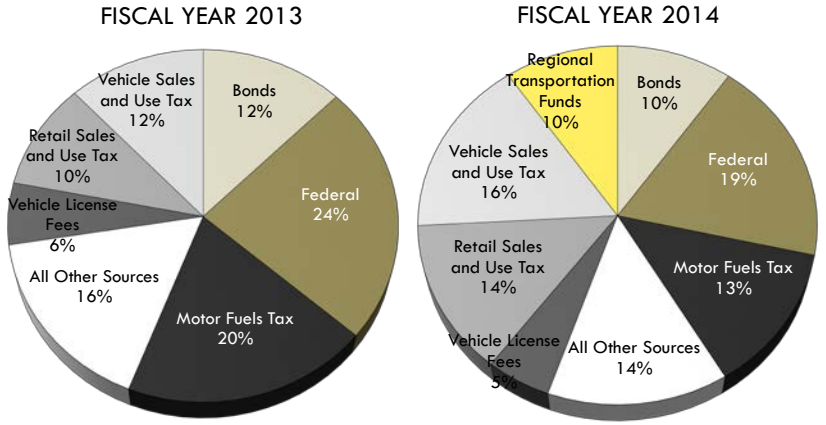
The amount of revenue by source for Virginia's transportation budget was changed by HB 2313. The motor fuel tax was the most impacted source, decreasing from 20% of transportation revenues in FY 2013 to 13% in FY 2014. Sources that compose a larger percentage of revenue include the vehicle sales and use tax (from 12% in FY 2013 to 16% in FY 2014) and the retail sales and use tax (from 10% in FY 2013 to 14% in FY 2014). The Hampton Roads and Northern Virginia regional transportation funds comprise 10% of Virginia's transportation revenues in FY 2014.

The amount of money dedicated to operating and maintaining Virginia's aging roadways and bridges continues to increase. Between FY 2015-2020, $12.2 billion will be allocated statewide to maintenance and operations. This is up 18% from the $10.3 billion allocated between FY 2009-2014.

The implementation of HB 2313 will raise construction funding nearly to the level that is spent on maintenance and operations. Including the regional roadway funds, $11.4 billion is projected to be available for new roadway construction in Virginia between FY 2015-2020. This is up 27% over the funding that was allocated to construction in FY 2009-2014.

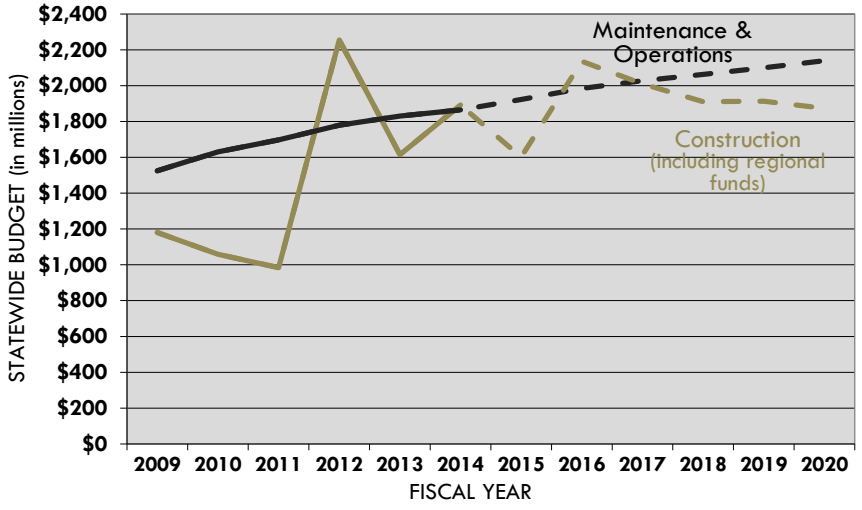
Historically, the amount of funding allocated to roadways in Virginia has lagged behind other states. Using the most recent data available from the Bureau of Transportation Statistics (2010), Virginia ranked 44th highest among the 50 states and the District of Columbia in highway expenditures per capita. Between 2005 and 2010, Virginia never ranked higher than 33rd in terms of highway expenditures per capita.

TRANSPORTATION REVENUES IN VIRGINIA BY SOURCE, FISCAL YEARS 2013 and 2014



Data source: VDOT.

HISTORICAL AND PROJECTED STATEWIDE FUNDING MAINTENANCE VS. CONSTRUCTION, FY 2009-2020

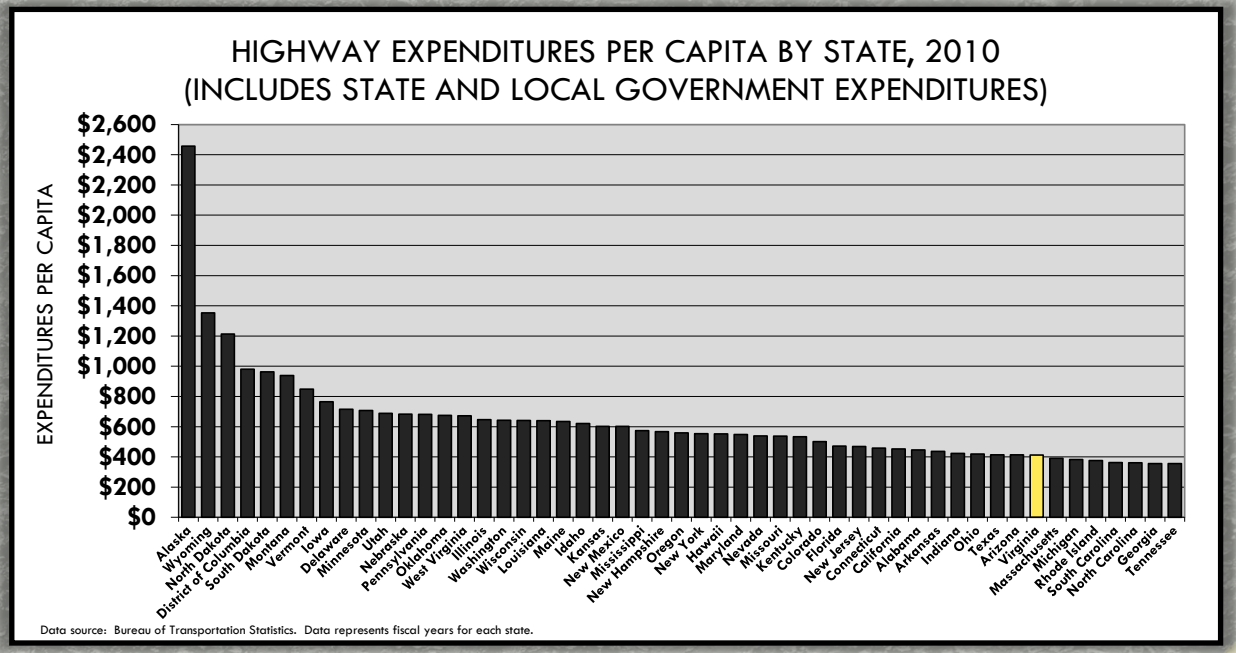


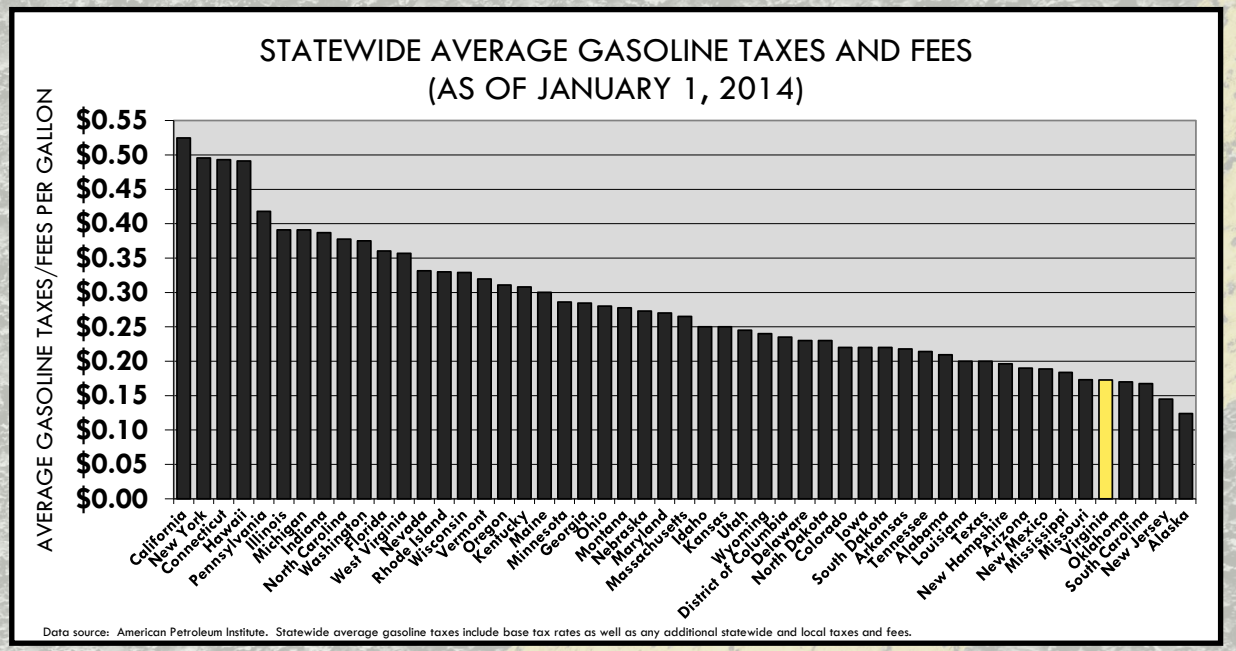
Data source: VDOT. FY 2015-2020 data is projected as of April 1, 2014. Includes all revenues from HB2313, including regional revenues.

Virginia has ranked even lower when only transportation funds used for new highway construction are considered. Virginia ranked 50th among the 50 states and District of Columbia in the percentage of transportation funds used for new highway construction in 2009 according to the most recent FHWA statistics. Virginia ranked 51st in 2006, and 48th in 2008.

Historically, the level of gasoline taxes and fees collected in Virginia was lower than most other states. This continues under HB 2313, since, among other tax changes, the legislation replaces the previous statewide gasoline tax with a smaller fuel wholesale tax. The current gasoline tax is comprised of 3.5% of the statewide average wholesale price of gasoline, 0.6 cents per gallon statewide for the petroleum storage tank fund, and an additional 2.1% regional tax on the gasoline wholesale price in Hampton Roads and Northern Virginia.

As of January 2014 the statewide tax on each gallon of unleaded gasoline in Virginia is 17.3 cents, down from 20.0 cents per gallon in April 2013 before HB 2313 took effect. As shown





previously, this has contributed to the share of the motor fuel tax decreasing from 20% of transportation revenues in FY 2013 to 13% in FY 2014.

Virginia had the 47th highest statewide average taxes and fees collected on each gallon of unleaded gasoline among the 50 states and the District of Columbia as of January 1, 2014. Data reflecting how Virginia's total transportation revenues and expenditures compare to other states after the implementation of HB 2313 is not yet available.

NEW DEVELOPMENTS

House Bill 2313 – The Virginia General Assembly passed House Bill (HB) 2313, a comprehensive long-term transportation funding and reform package, in 2013. HB 2313 is expected to raise an additional $4.3 billion in statewide revenue between FY 2014 and 2019 over previous funding projections. HB 2313 also includes a regional component that is expected to increase funding for roads, bridges, and tunnels in Hampton Roads by $158 million in FY 2014 and $1.2 billion between FY 2015 and 2020. As of the end of March 2014, $99 million had accumulated in the Hampton Roads fund.

Key components of HB 2313 include:

Statewide

- Eliminating the 17.5 cents per gallon gasoline tax.
- Implementing a 3.5% tax on motor fuel at the wholesale level.
- Implementing a 6% tax on diesel at the wholesale level.
- Increasing the statewide sales and use tax from 5% to 5.3%.
- Increasing the motor vehicle titling tax from 3% to 4.15%.
- Increasing the share of the sales and use tax dedicated to transportation from 0.5% to 0.675%.
- Providing a dedicated funding source for the Mass Transit and Intercity Passenger Rail Fund.

Regional (Hampton Roads)

- Implementing a 2.1% regional tax on the gasoline wholesale price.
- Providing for a 0.7% regional sales tax increase.

HTAC – The General Assembly passed legislation in 2014 that created the Hampton Roads Transportation Accountability Commission (HTAC) to allocate the HB 2313 Hampton Roads Transportation Fund (HRTF) revenues. It will have the ability to issue bonds and other debts as well as to set toll rates on regional projects. HTAC voting members will be chief elected officers from each of the 14 subject jurisdictions and five General Assembly members.

FUEL PRICES

With changes to how transportation revenues are collected both in Virginia and in Hampton Roads, fuel prices in Hampton Roads remain some of the lowest in the country.

As of March 1, 2014, the average cost of a gallon of regular unleaded fuel in Hampton Roads was $3.25. This is 37 cents lower than the year before ($3.62). Although fuel costs have fluctuated through the years between a high of $4.00 per gallon in summer 2008 and a low of $1.50 per gallon in winter 2009, average fuel prices in Hampton Roads have remained above $3 per gallon since February 2011.

FUEL PRICES Image Source: HRTPO

Fuel prices are slightly higher in Hampton Roads than in other metropolitan areas of Virginia, likely due to the higher regional taxes imposed on fuel in Hampton Roads under HB 2313. As of March 1, 2014, fuel prices were four cents per gallon lower in

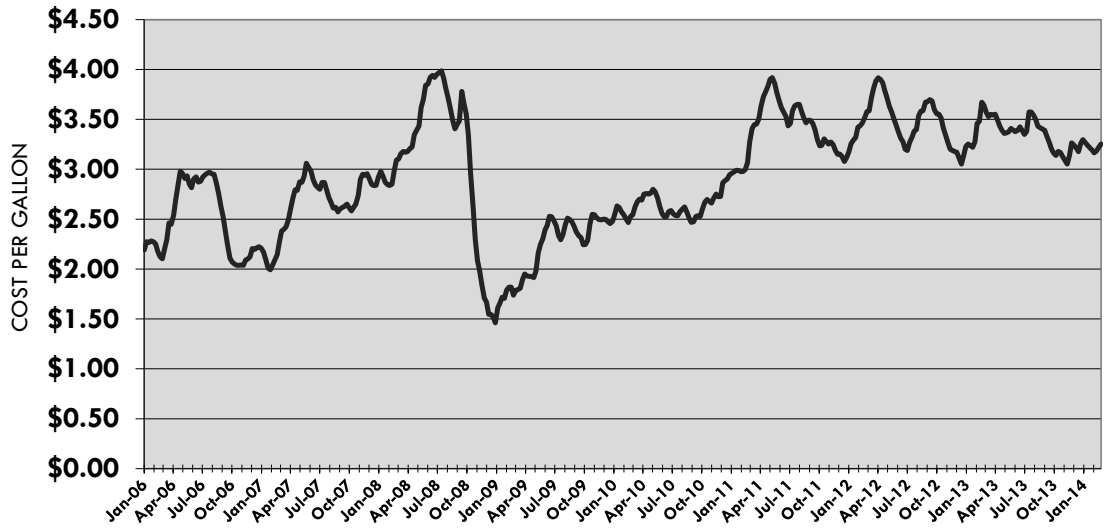
NOTABLE NUMBERS

54% The increase in the cost of a gallon of unleaded fuel in Hampton Roads between March 1, 2006, and March 1, 2014.

28th Hampton Roads rank, among the 36 large metropolitan areas with populations between one and three million people, in terms of cost per gallon of regular unleaded fuel as of March 1, 2014.

$0.00 The difference in the cost of a gallon of unleaded fuel in Hampton Roads and Virginia on March 1, 2014.

AVERAGE FUEL PRICES IN HAMPTON ROADS, JANUARY 2006-MARCH 2014

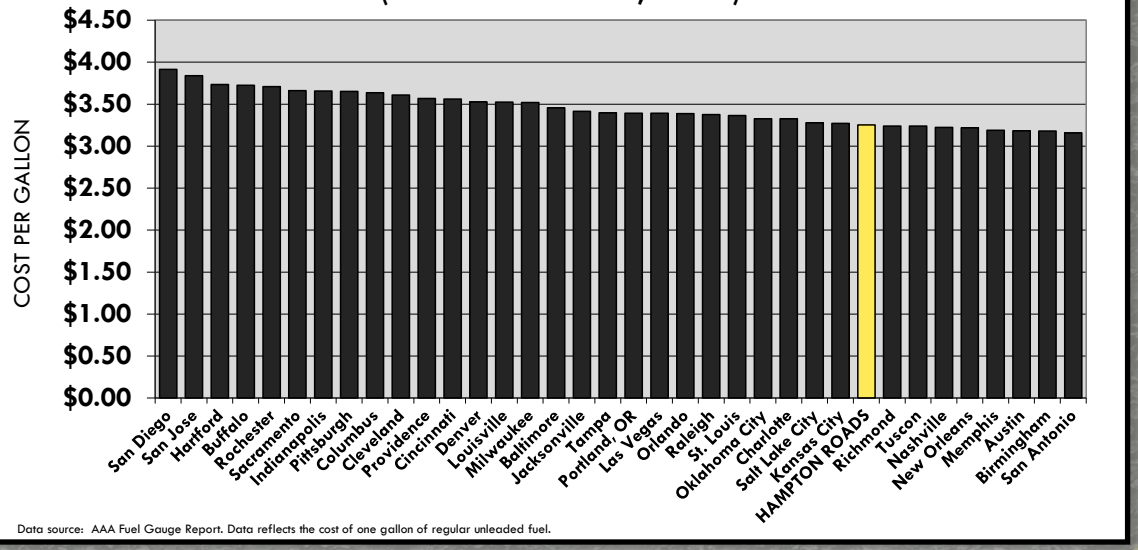


Data source: AAA Fuel Gauge Report. Data reflects the cost of one gallon of regular unleaded fuel.

Charlottesville ($3.21), two cents per gallon lower in Roanoke ($3.23), and one cent per gallon lower ($3.24) in Richmond. Statewide, the average cost of fuel was $3.25 per gallon on March 1, 2014, the same as the price in Hampton Roads.

Among the 36 metropolitan areas with a population of one to three million people, Hampton Roads ranked 28th highest in terms of average fuel prices as of March 1, 2014. Typically Hampton Roads has lower fuel prices than most comparable large metropolitan areas, with prices ranging between 19th highest and 33rd highest of the 36 metropolitan areas over the last 5 years.

AVERAGE FUEL PRICES IN LARGE METROPOLITAN AREAS
(AS OF MARCH 1st, 2014)



Data source: AAA Fuel Gauge Report. Data reflects the cost of one gallon of regular unleaded fuel.

BEHIND THE NUMBERS

House Bill 2313 changed the way gasoline is taxed in Virginia by replacing the previous statewide gasoline tax with a smaller fuel wholesale tax, and by imposing an additional 2.1% regional tax on the gasoline wholesale price in Hampton Roads and Northern Virginia.

As expected, fuel prices throughout the state decreased relative to the rest of the country after the changes to the gasoline tax occurred. Prior to HB 2313, statewide gasoline prices were 6 to 8 cents lower than the national average, whereas after HB 2313 they have been 21 to 23 cents lower.

In spite of additional regional taxes being imposed in Hampton Roads under HB 2313, fuel prices throughout the region have also decreased relative to the rest of the country, as shown in the table to the right.

AVERAGE FUEL PRICES IN VIRGINIA AND HAMPTON ROADS COMPARED TO NATIONAL PRICES

Date	Fuel Prices - Virginia	National Rank (among 50 states and D.C.)	Difference from National Average Cost
1/1/2013	$3.23	27th	-$0.06
4/1/2013	$3.55	32nd	-$0.08
10/1/2013	$3.17	48th	-$0.23
3/1/2014	$3.25	43rd	-$0.21

Date	Fuel Prices - Hampton Roads	National Rank (among 36 large metro areas)	Difference from Large Area Average Cost
1/1/2013	$3.22	21st	-$0.06
4/1/2013	$3.55	19th	-$0.07
10/1/2013	$3.17	33rd	-$0.22
3/1/2014	$3.25	28th	-$0.20

Data source: AAA Fuel Gauge Report. Data reflects the cost of one gallon of regular unleaded fuel.

ROADWAY PROJECTS

A number of important roadway projects have been completed throughout Hampton Roads in recent years, and with funding levels increasing, many major projects are slated to begin construction throughout the region in the next few years.

COMMANDER SHEPPARD BOULEVARD EXTENSION

Image Source: HRTPO

The recently completed roadway projects vary greatly in size and type, including constructing new roadways, widening existing roadways, replacing bridges, and smaller projects such as constructing turn lanes and adding traffic signals.

A total of 24 major roadway projects have been completed throughout Hampton Roads since the beginning of 2008. These projects include widening I-64 in Chesapeake, constructing a new interchange at I-264 and London Bridge Road, replacing the Gilmerton and South Norfolk Jordan Bridges, and widening many roadways including sections of Fort Eustis Boulevard, Jefferson Avenue, Lynnhaven Parkway, Princess Anne Road, Warwick Boulevard, and Witchduck Road.

A few major roadway projects are currently underway throughout the region. These projects include building a second tube at the Midtown Tunnel, constructing a new railroad overpass over Hampton Boulevard into Norfolk International Terminals, widening sections of US Route 17 in York County and Chesapeake, and constructing extensions to

MAJOR ROADWAY PROJECTS COMPLETED IN HAMPTON ROADS, JANUARY 2008-MARCH 2014

Facility	Location	Improvement Type	Project Completion Date
Birdneck Road	General Booth Blvd to Norfolk Ave	Widen to 4 lanes	2010
Buckner Boulevard	Rosemont Rd and Holland Rd	New 2 lane facility	2010
Commander Shepard Boulevard	Big Bethel Rd to North Campus Pkwy	New 4 lane facility	2014
Commander Shepard Boulevard	North Campus Pkwy to Magruder Blvd	New 4 lane facility	2010
Constitution Drive	Bonney Rd to Columbus St	New 4 lane facility	2010
Fort Eustis Boulevard	Jefferson Ave to Route 17	Widen to 4 lanes	2012
George Washington Highway	Mill Creek Pkwy to Willowood Dr	Widen to 4 lanes	2012
Greenbrier Pkwy	Volvo Pkwy to Eden Way	Widen to 6 lanes	2009
I-64	Greenbrier Pkwy to I-464	Widen to 8 lanes	2009
I-64	Norview Ave	Ramp improvement	2013
I-264	London Bridge Rd	New Interchange	2012
Ironbound Road	Strawberry Plains Rd to Longhill Connector Rd	Widen to 4 lanes	2013
Jefferson Avenue	Buchanan Dr to Green Grove Ln	Widen to 6 lanes	2010
Lynnhaven Pkwy	Holland Rd to South Lynnhaven Rd	Widen to 6 lanes	2010
Military Highway	Gilmerton Bridge	Replace Bridge	2013
Nimmo Parkway	Princess Anne Rd to Holland Rd	New 4 lane facility	2012
Princess Anne Road	Dam Neck Rd to Nimmo Pkwy	Widen to 4 lanes	2014
Princess Anne Road	Witchduck Rd	Intersection Relocation	2012
Route 5	Dresser Bridge over Chickahominy River	Bridge Replacement	2009
South Norfolk Jordan Bridge	Between Portsmouth and Chesapeake	Replace Bridge	2012
Virginia Beach Boulevard	Jett St to Military Hwy	Widen to 6 lanes	2010
Warwick Boulevard	J Clyde Morris Blvd to Nettles Dr	Widen to 6 lanes	2010
Wesleyan Drive	Northampton Blvd to Baker Rd	Widen to 4 lanes	2013
Witchduck Road	Princess Anne Rd to I-264	Widen to 6 lanes	2012

Data obtained from various sources.

the MLK Freeway, Middle Ground Boulevard, and Nimmo Parkway.

A number of roadway projects are programmed for Hampton Roads in upcoming years. These roadway projects are included in VDOT's Six-Year Improvement Program (SYIP) and HRTPO's Transportation Improvement Program (TIP). Examples of major roadway projects that are expected to begin construction in 2014 include a new section of Lynnhaven Parkway, the widening of Holland Road in Virginia Beach and Saunders Road in Hampton, and the replacement of the Lesner Bridge. Examples of major projects expected to begin construction in future years include I-64 on the Peninsula, the Intermodal Connector, Atkinson Boulevard, and widening sections of Military Highway, Nansemond Parkway/Portsmouth Boulevard, and Witchduck Road.

More information on programmed roadway improvement projects is included in the SYIP and TIP. VDOT's SYIP can be accessed at **http://syip.virginiadot.org**. HRTPO has developed a website devoted to the TIP (**http://www.hrtpotip.org**) that includes the TIP document, details on every programmed roadway project, an overview of the TIP development process, and an Interactive Project Map.

PROGRAMMED MAJOR ROADWAY PROJECTS IN HAMPTON ROADS

Facility	Location	Improvement Type	Projected Completion Date
Atkinson Boulevard	Warwick Blvd to Jefferson Ave	New 4 lane facility	2018
Centerville Turnpike	Kempsville Rd to Indian River Rd	Widen to 4 lanes	2019
Croaker Road	Route 60 to Library	Widen to 4 lanes	2019
Dominion Boulevard	Cedar Rd to Great Bridge Blvd	Widen to 4 lanes	2017
Elbow Road	Indian River Rd to VB Amphitheater	Widen to 4 lanes	2019
George Washington Highway	Hampton Hwy to Wolf Trap Rd	Widen to 6 lanes	2016
Hampton Boulevard	Railroad into Norfolk International Terminals	New overpass	2015
High Street	Churchland Bridge	Replace Bridge	2017
Holland Road	Nimmo Pkwy to Dam Neck Rd	Widen to 4 lanes	2017
Holland Road/Route 58	Manning Bridge Rd to Suffolk Bypass	Widen to 6 lanes	2026
I-64	Yorktown Rd to Bland Blvd	Widen to 6+ lanes	2018
I-264 Eastbound	I-64 off ramp to East of Witchduck Road	Widening	2023
Indian River Road	Kempsville Rd	Intersection Redesign	2016
Indian River Road	Lynnhaven Rd to Elbow Rd	Widen to 4 lanes	2027
Intermodal Connector	I-564 to Naval Station Norfolk/NIT	New 4 lane facility	2017
Laskin Road	Birdneck Rd to 30th/32nd St	Widen to 6 lanes	2023
Laskin Road	First Colonial Rd to Birdneck Rd	Widen to 6 lanes	2021
Lynnhaven Pkwy	Centerville Tpke to Indian River Rd	New 4 lane facility	2016
Middle Ground Boulevard	Jefferson Ave to Warwick Blvd	New 4 lane facility	2014
Midtown Tunnel	Between Portsmouth and Norfolk	Widen to 4 lanes	2018
Military Highway	Lowery Rd to Northampton Blvd	Widen to 8 lanes	2018
Military Highway	Northampton Blvd/Princess Anne Rd	Intersection Redesign	2018
Military Highway	Northampton Blvd to Robin Hood Rd	Widen to 6 lanes	2018
MLK Freeway	I-264 to High St	New 4 lane facility	2016
Mount Pleasant Road	Chesapeake Expressway to Ethridge Rd	Widen to 4 lanes	2021
Nansemond Parkway	Shoulders Hill Rd to Chesapeake CL	Widen to 4 lanes	2018
NAS Norfolk Air Terminal Interchange	I-564 at Air Terminal	New interchange	2019
Nimmo Parkway	Holland Rd to General Booth Blvd	New 4 lane facility	2014
Portsmouth Blvd	Suffolk CL to Jolliff Rd	Widen to 4 lanes	2018
Route 58	Business Route 58 East of Courtland	New interchange	2016
Route 460	I-295 to Suffolk Bypass	TBD	TBD
Saunders Road	Newport News CL to Big Bethel Rd	Widen to 4 lanes	2015
Shore Drive	Lesner Bridge	Replace Bridge	2017
Skiffes Creek Connector	Pocahontas Trail to Merrimac Trail	New facility	2019
Witchduck Road	I-264 to Virginia Beach Blvd	Widen to 6 lanes	2017
Wythe Creek Road	Commander Sheppard Blvd to Alphus St	Widen to 4 lanes	2021

Data source: HRTPO, VDOT, various localities.

TRANSPORTATION OPERATIONS

Managing the regional transportation infrastructure through transportation operations is a cost-effective method of maximizing the safety and capacity of the existing roadway network.

HAMPTON ROADS
TRANSPORTATION OPERATIONS CENTER

Image Source: VDOT

The safety, security, and mobility of roadway users in Hampton Roads are enhanced by the active management of the regional transportation system through transportation operations. Transportation operations became more important as funding for new roadway construction decreased and constructing major roadway projects became more challenging. Trained and coordinated personnel manage the system with Intelligent Transportation Systems (ITS) technologies. Examples of transportation operations include traffic signal coordination and preemption, electronic toll collection, incident management, and traveler information.

Regional transportation operations are directed by the VDOT Hampton Roads Transportation Operations Center (TOC). The Hampton Roads TOC monitors traffic conditions throughout the region, maintains and operates ITS infrastructure on the regional Interstate system, responds to and clears crashes and other types of incidents with the Safety Service Patrol, and informs travelers of roadway conditions via

BEHIND THE NUMBERS

The VDOT Hampton Roads Transportation Operations Center serves as the backbone for transportation operations in the region. The regional Transportation Operations Center:

- Currently covers 140 miles, which is nearly the entire regional Interstate system and selected arterial roadways.
- Operates a system that includes 282 closed-circuit cameras, 202 dynamic message signs, 6 highway advisory radio transmitters, 5 reversible roadway gate entrances, and hundreds of vehicle detection devices, all linked by 552 miles of fiber optic cable.
- Responded to 55,903 incidents and drove 3.1 million miles in 2013 via the Safety Service Patrol.
- Responded to incidents in an average of just under 7 minutes in 2013, and cleared incidents responded to by the Safety Service Patrol in just over 24 minutes.

changeable message signs, highway advisory radio, and the 511 Virginia phone and internet services.

Most Hampton Roads cities also maintain their own transportation operations centers (or traffic management centers). These centers manage and operate local traffic signal systems, changeable message signs, and CCTV cameras. In some cases, these centers are connected with the Hampton Roads Transportation Operations Center, allowing for data and video sharing and instant communication.

VIRGINIA BEACH TRAFFIC MANAGEMENT CENTER

Image Source: Va Beach

Another service VDOT furnishes to improve roadway mobility is 511 Virginia. Launched in 2005, 511 Virginia provides traveler information via mobile or landline phones, email, text message, smartphone application, and http://511virginia.org. The 511

ITS TECHNOLOGIES USED IN HAMPTON ROADS

Hampton Roads has been a national leader in the use of Intelligent Transportation Systems (ITS). Nearly every mile of Interstate in the region is instrumented with ITS technologies, and various cities throughout the region maintain ITS infrastructure as well. The following are examples of ITS technologies in use throughout Hampton Roads:

Transportation Operations Centers
Centers that incorporate various ITS technologies to assist staff with traffic monitoring, incident response, and information dissemination.

Vehicle Detection Devices
Records traffic volumes and speeds. Also notifies transportation operations center staff of congestion and incidents.

Reversible Roadway Gates
Allows traffic on limited access roadways to be reversed based on commuting patterns, maximizing the use of the existing roadway.

Emergency Vehicle Signal Preemption
Changes the traffic signal when emergency vehicles approach, improving the safety and response time of emergency vehicles.

Advanced Signal Systems
Improves the coordination and timing of traffic signals in a corridor or throughout an entire city, reducing the number of stops and delays.

CCTV Cameras
Provides roadway images to transportation operations centers and the public.

Electronic Toll Collection
Allows travelers to pass quickly through special lanes, avoiding backups and delays due to paying tolls.

511 Virginia
Provides up-to-date traveler information via telephone, the internet, and other methods.

Transit Automatic Vehicle Location (AVL)
Provides the location of transit vehicles, aiding on-time performance.

Changeable Message Signs
Provides up-to-date information to the traveling public.

Highway Advisory Radio
Provides up-to-date traveler information through radio broadcasts on 1680 AM.

Virginia service allows users to receive real-time traffic and roadway condition information for specific locations both in Hampton Roads and throughout the state.

Regional transportation operations planning and coordination is conducted through multiple committees including the Hampton Roads Transportation Operations (HRTO) Subcommittee. The HRTO Subcommittee meets bimonthly to facilitate peer-to-peer information sharing and to advise the HRTPO Transportation Technical Advisory Committee on transportation operations issues. The subcommittee is comprised of transportation professionals from Hampton Roads jurisdictions, VDOT, local transit agencies, and other invited participants, such as local police and fire/EMS personnel. Information on this subcommittee and regional transportation operations efforts is available at **http://hrtpo.org/page/operations-and-its**.

SAFETY SERVICE PATROL

Image Source: VDOT

NEW DEVELOPMENTS

Travel Time Information – In May 2012, VDOT began displaying travel times on six informational signs that notify motorists of the quickest route to the Virginia Beach Oceanfront or the North Carolina Outer Banks. VDOT expanded this effort in 2014 by displaying travel times on six dynamic message signs, with additional signs planned for the near future.

511 Virginia App – VDOT introduced the 511 Virginia smartphone application in May 2012. The app, which works on Android and iPhone platforms, is designed to provide the same real time traffic information on mobile devices that is provided on the website. Real-time traffic camera images are also provided on the app.

VDOT TOC Contract – In May 2013, VDOT awarded a six-year contract to Serco to operate, integrate, and innovate VDOT's five transportation operation centers. As part of the contract, Serco will manage regional Safety Service Patrols, develop and implement a statewide advanced traffic management system, install and maintain ITS equipment, manage HOV and reversible lanes, develop a new software platform that is flexible for future enhancements, and improve the interoperability of each center.

Regional Operations Plan – The HRTPO Board recently allocated funds to produce an update to the region's Operations Strategic Plan, which provides the vision and framework for a multi-jurisdictional transportation system unified by ITS and operations technologies and strategies. The updated regional Operations Strategic Plan will be completed in 2015.

AIR QUALITY

Air quality in Hampton Roads is impacted by the automobiles, trucks, trains, and ships that travel around the region. Although the air quality of Hampton Roads has improved in recent years, transportation's impact on air quality is accounted for in the planning process.

The Environmental Protection Agency (EPA) regulates the amount of airborne pollutants in each region. These airborne pollutants come from a variety of stationary sources such as factories and power plants, and mobile sources such as passenger cars, trucks, trains, and ships.

Since mobile sources contribute to these airborne pollutant levels, meeting mandates included in the Clean Air Act is required in the metropolitan transportation planning process. Regional plans such as the Hampton Roads Transportation Improvement Program (TIP) and the Long Range Transportation Plan (LRTP) must be analyzed to insure that they conform with emissions budgets.

Ground-level ozone and other pollutants are measured in Hampton Roads at three ambient air quality stations maintained and monitored by the Virginia Department of Environmental Quality (DEQ). These stations are located in Downtown Hampton, the Holland community in Suffolk, and the Tidewater Community College campus site in Northern Suffolk.

Each metropolitan area is designated as being in attainment or non-attainment of federal ozone air quality standards based on the amount of ground-level ozone recorded at monitoring stations and the National Ambient Air Quality Standards. EPA

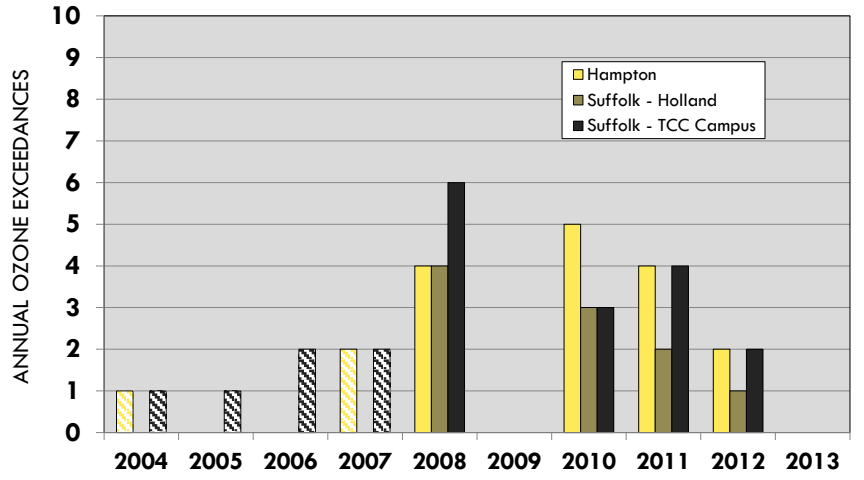
NOTABLE NUMBERS

0 The number of eight hour ozone exceedances at Hampton Roads air quality monitoring stations in 2013.

23rd Hampton Roads rank, among the 36 large metropolitan areas with populations between one and three million people, in terms of days with Air Quality Index (AQI) values greater than 100.

-72% The decrease in the percentage of days with Air Quality Index values above 100 in Hampton Roads between 2000-2002 and the most recent data (2008-2010).

EIGHT HOUR OZONE EXCEEDANCES AT REGIONAL AIR QUALITY MONITORING STATIONS, 2004-2013



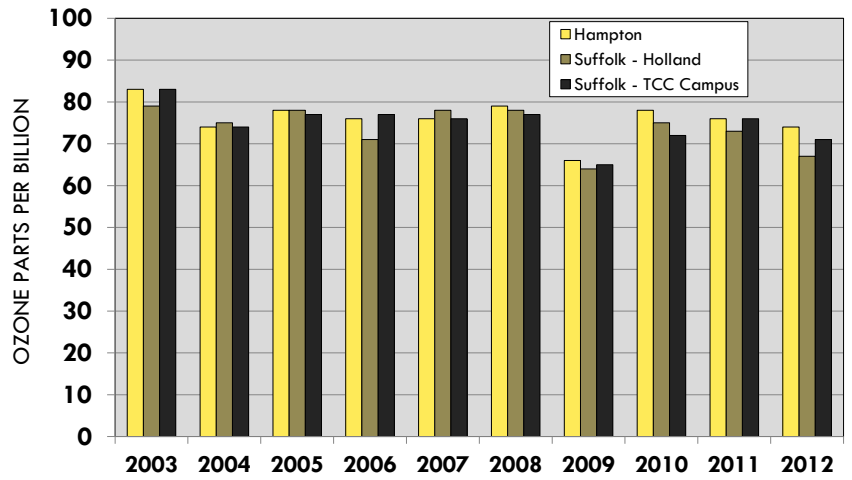
Data source: Virginia DEQ. In 2008, the ozone exceedance standard was reduced from greater than 84 parts per billion to greater than 75 parts per billion. 2013 data is preliminary.

determines these designations based on an eight-hour standard. Violations are determined using the fourth-highest daily maximum eight-hour average ozone concentration over the course of the year, averaged over a three-year period.

Prior to 2008, regions were classified as non-attainment if the fourth-highest eight-hour ozone averages were greater than 84 parts per billion (ppb) at regional monitoring stations over a three-year period. This standard was lowered to 75 ppb in 2008. In Hampton Roads, the 2010-2012 three-year ozone averages at the three monitoring stations were between 71 and 76 parts per billion, with only the Hampton station being above the 75 ppb threshold. Additionally, there were no exceedances at any of the three monitoring stations in the region in 2013. Based on this data, Hampton Roads is currently designated as an ozone attainment/ maintenance area.

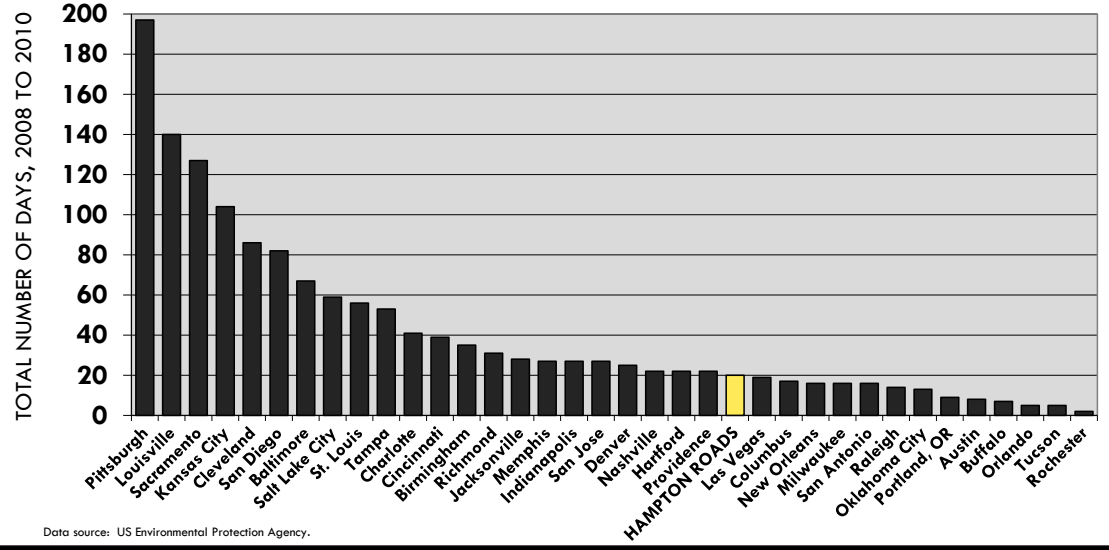
The air quality in Hampton Roads is better than the air quality in many other comparable metropolitan areas according to the most recent EPA data. Between 2008 and 2010, Hampton Roads had a total of 20 days with Air Quality Index (AQI) values greater than 100, the level at which people in sensitive groups may begin experiencing impacts to their health. This ranked Hampton Roads 23rd highest (or 14th best) among the 36 large metropolitan areas. By comparison, Hampton Roads experienced 72 such days between 2000 and 2002.

FOURTH HIGHEST DAILY MAXIMUM 8-HOUR OZONE AVERAGES IN HAMPTON ROADS, 2003-2012



Data source: Virginia DEQ. A temporary station was used in Newport News in 2009 in place of the Hampton station.

NUMBER OF DAYS IN LARGE METROPOLITAN AREAS WITH AIR QUALITY INDEX VALUES GREATER THAN 100, 2008 TO 2010



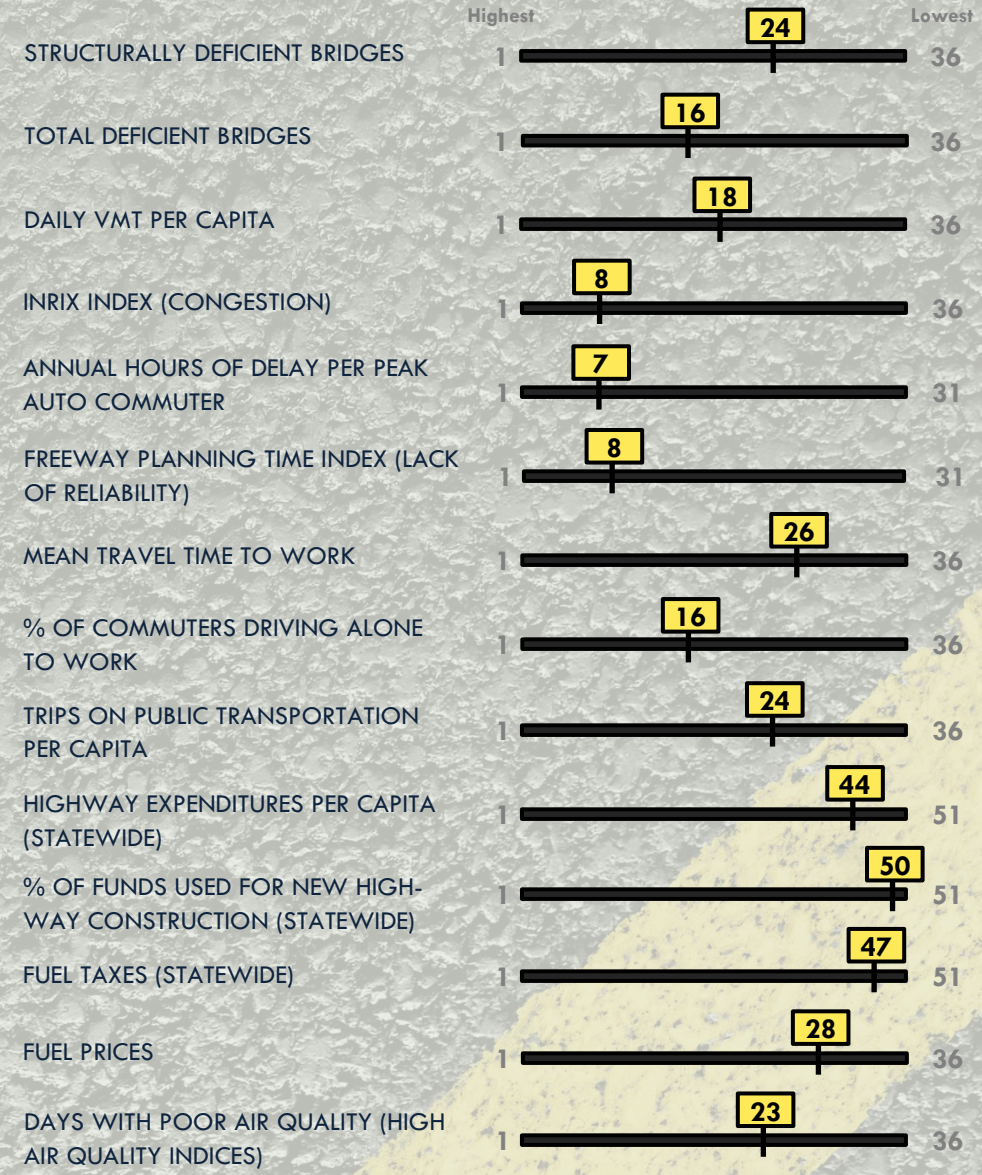
Data source: US Environmental Protection Agency.

NATIONAL RANKING SUMMARY

In many sections of this report, Hampton Roads is compared to other large metropolitan areas throughout the United States with populations between one and three million people. Many of these 35 other metropolitan areas have similar transportation issues to the Hampton Roads area, from congestion to funding shortfalls.

The figure to the right summarizes where Hampton Roads ranks in various transportation measures compared to the other large metropolitan areas, or in some cases where Virginia ranks compared to other states, based on the most recent data available.

HAMPTON ROADS CURRENT RANK AMONG LARGE METROPOLITAN AREAS



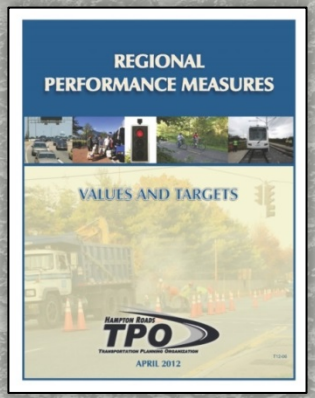
PERFORMANCE MANAGEMENT

Hampton Roads has entered a new chapter in performance management for transportation. Performance management is a cyclical process where:

1. The HRTPO measures the performance of the transportation network to identify needs
2. The HRTPO estimates the impact of candidate transportation projects, then a) plans transportation projects (via its Long-Range Transportation Plan, or LRTP), b) allocates funds under its purview to transportation projects, and c) programs transportation projects (via its Transportation Improvement Program, or TIP) to improve the performance of the transportation network
3. The HRTPO measures the performance of the transportation network to determine the impact of projects implemented in step 2; then the HRTPO repeats these 3 steps.

Although the HRTPO has been measuring the performance of the regional transportation system for years via the State of Transportation reports, the HRTPO now prepares a standard set of regional performance measures according to a process led by the state, and will also prepare a set of regional performance measures and targets based on federal legislation.

In 2009, the General Assembly of Virginia passed legislation codifying regional transportation performance measurement. In response to the legislation, the HRTPO staff, in cooperation with other Virginia metropolitan areas and Virginia's Office of Intermodal Planning and Investment (OIPI), developed a list of regional performance measures (RPM). The HRPTO Board approved this list in January 2011 and the Commonwealth Transportation Board (CTB) approved it in June 2011.



The HRTPO list contains the following categories of measures:

- Congestion reduction
- Safety
- Transit usage
- HOV usage
- Jobs-to-housing balance
- Access to transit
- Access to pedestrian facilities
- Air quality
- Movement of freight
- Vehicle Miles of Travel (VMT)
- Maintenance
- Financial system

In April 2012, the HRTPO Board approved a set of targets for its Regional Performance Measures. Lacking a basis for setting numerical targets, the HRTPO, with the approval of the Transportation Technical Advisory Committee's RPM Task Force, decided to set trend targets – increasing a particular value, decreasing a particular value, or maintaining that particular value.

The current federal surface transportation authorization program, MAP-21, also requires that states and metropolitan areas use performance measures and set targets. These measures and targets will be required in the following areas:

- Pavement condition on the Interstate System and the remainder of the National Highway System (NHS)
- Performance of the Interstate System and the remainder of the NHS
- Bridge condition on the NHS
- Transit usage
- Fatalities and serious injuries – both number and rate per vehicle miles traveled – on all public roads
- Traffic congestion
- On-road mobile source emissions
- Freight movement on the Interstate System

More information on HRTPO's Performance Management effort is available at **http://hrtpo.org/page/performance-management**.

ADDITIONAL INFORMATION

The information provided in this report was compiled from a variety of sources, most of which are easily accessible via the internet. Data from the following sources were included in this report and can be accessed for additional information:

Air Travel – The Federal Aviation Administration (FAA) updates air passenger data for both the nation and individual airports at **http://www.faa.gov**. Passenger data is also provided by each of the Hampton Roads airports at **http://www.norfolkairport.com** and **http://www.flyphf.com**.

Port Data – The Virginia Port Authority maintains up-to-date statistics regarding the Port of Virginia on their website **http://www.portofvirginia.com**. The Virginia Maritime Association also releases the Port of Hampton Roads Annual Report, which contains extensive information regarding all aspects of the port. Their website is **http://www.vamaritime.com**.

Rail Travel – Amtrak maintains a list of passenger volumes by station at their website **http://www.amtrak.com**. Hampton Roads Transit publishes light rail passenger levels on their website **http://www.gohrt.com**. Information regarding high speed rail and other rail improvements throughout Virginia is available at **http://www.drpt.virginia.gov**.

Bridges – VDOT maintains information on their website regarding most bridges throughout Virginia. This information is available at **http://www.virginiadot.org/info/Bridge.asp**.

Pavement Condition – VDOT releases pavement condition data on an annual basis as part of the State of the Pavement report. This report is available at **http://virginiadot.org/info/state_of_the_pavement.asp**.

Roadway Usage – The Highway Statistics Series contains data on motor fuel, motor vehicles, driver licensing, highway finance, highway mileage, and federal aid for highways. The reports are released annually by the Federal Highway Administration and are located at **http://www.fhwa.dot.gov/policyinformation/statistics.cfm**.

VDOT also releases roadway usage data on an annual basis for every Virginia jurisdiction. This data is available at **http://www.virginiadot.org/info/ct-TrafficCounts.asp**.

Congestion – Inrix, Inc. collects congestion data for the 100 largest metropolitan areas across the country. This congestion data is available at **http://scorecard.inrix.com/scorecard**.

The Texas Transportation Institute (TTI) at Texas A&M University releases the Urban Mobility Report, a study of mobility and traffic congestion on freeways and major streets in urbanized areas. The report is located at **http://mobility.tamu.edu**.

Commuting – The Bureau of the Census annually collects and distributes socioeconomic data via the American Community Survey (ACS). The ACS includes commuting characteristics data for each city and region. Data from the American Community Survey is available at **http://www.census.gov/acs**.

Roadway Safety – The Virginia Department of Motor Vehicles (DMV) annually releases the Virginia Traffic Crash Facts document, which is a comprehensive overview of traffic crashes occurring throughout Virginia. The DMV also maintains a crash query tool on their website. The document and crash query tool are located at **http://dmvnow.com/webdoc/safety/crash_data/index.asp**.

Public Transportation – The Federal Transit Administration collects and disseminates data on public transportation via the National Transit Database (NTD) program. The National Transit Database is located at **http://www.ntdprogram.gov**. The American Public Transportation Association also includes transit data on their website at **http://www.apta.com**.

Bike and Pedestrian Facilities – A wide variety of information regarding bicycling and walking in Virginia is provided on VDOT's website at **http://www.virginiadot.org/programs/bk-default.asp**. The DMV also maintains bicyclist and pedestrian crash data at **http://dmvnow.com/webdoc/safety/crash_data/index.asp**.

Transportation Financing – Information regarding transportation financing in Virginia is available at **http://www.virginiadot.org** and **http://www.ctb.virginia.gov**. A list of fuel taxes and fees by state is available on the American Petroleum Institute website **http://www.api.org**.

Fuel Prices – National, statewide, and regional fuel prices are available via the AAA's Fuel Gauge Report website **http://www.fuelgaugereport.com**.

Roadway Projects – Information regarding transportation projects in Virginia's Six-Year Improvement Program is available at **http://syip.virginiadot.org**. HRTPO maintains the regional Transportation Improvement Program, which can be accessed at **http://www.hrtpotip.org**.

Transportation Operations – VDOT maintains ITS infrastructure and manages traffic on the regional freeway system. More information is available at **http://www.virginiadot.org**. Information detailing HRTPO's Transportation Operations planning efforts, including the Hampton Roads Transportation Operations Committee, is located at **http://hrtpo.org/page/operations-and-its**.

Air Quality – Virginia's Department of Environmental Quality maintains information regarding national air quality standards and regional air quality data. Their website is **http://www.deq.state.va.us**. Air Quality Index information is available from the Environmental Protection Agency's website at **http://www.epa.gov/airtrends/aqi_info.html**.

For additional information regarding this report, previous Congestion Management Process studies, or other transportation questions or concerns, please contact the Hampton Roads Transportation Planning Organization (TPO):

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