Section IX

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Transportation in Hampton Roads

The transportation network in Hampton Roads has garnered considerable attention as aging infrastructure and traffic congestion are closely tied to the economy and quality of life within the region. The Great Recession affected many aspects of the Hampton Roads transportation system, with growth in roadway travel coming to a halt and a decrease in air travel from Hampton Roads airports.

Over the last decade, Hampton Roads has experienced a decrease in terms of per capita vehicle miles traveled, but this trend seems to have reversed over the past two years. In addition, the region also has a lower level of vehicle miles traveled per capita and a lower mean travel time to work than most other competitor regions.

In spite of relatively lower amounts of travel per capita in Hampton Roads than in competitor regions, congestion is a significant issue in the area, particularly at bridges and tunnels. According to the Texas Transportation Institute, among competitor regions, only six similar sized MSAs had a higher Travel Time Index (which measures the extra amount of time trips take in each region during congested peak travel periods) than Hampton Roads did in 2014.

Public transportation continues to play a small role in the region when compared to some other areas of similar size due in part to low population density. Norfolk has completed building the region's first light rail line, running 7.4 miles from Eastern Virginia Medical Center to Newtown Road. Light rail has the capability to impact future land use decisions and to encourage increased density in development.

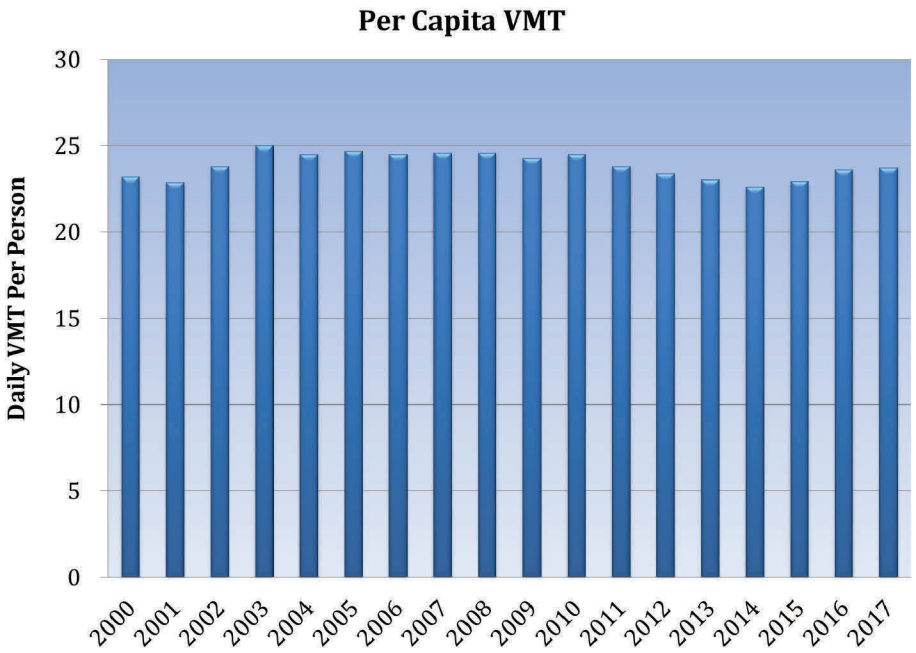
Figure 9.1 Per Capita Daily Vehicle Miles Traveled in Hampton Roads

Why is it important?

Per capita vehicle miles traveled (VMT) is the industry standard in determining the amount of traffic generated per person. Increased sprawl, higher employment to population ratios, and low transit usage can put upward pressure on a region's per capita VMT.

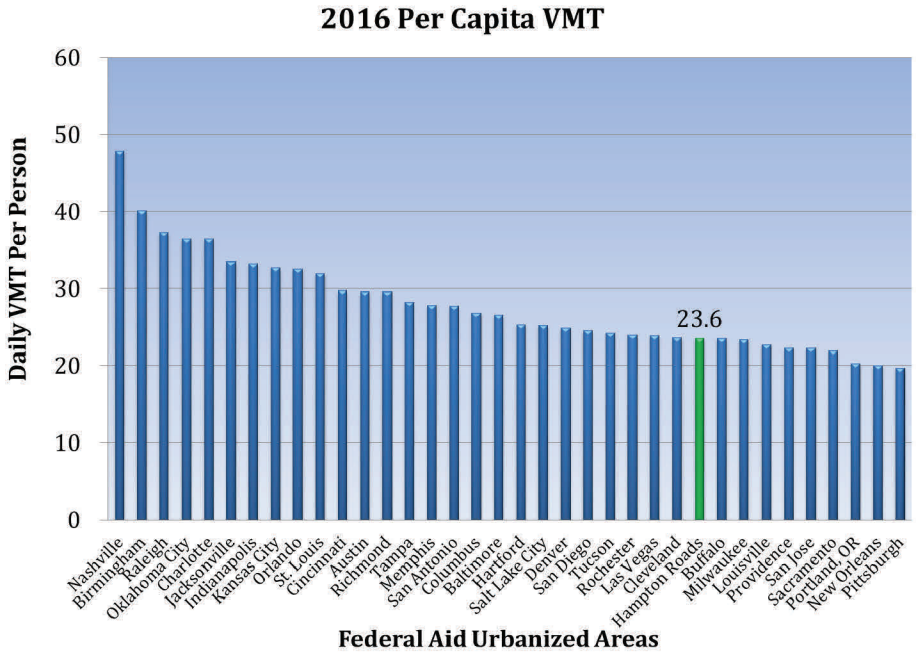
How are we doing?

Per Capita Vehicle Miles Traveled has declined slightly from its peak in 2003, but remained remarkably stable overall until a dip between 2011 and 2014 that has since reversed itself. The vehicle miles are tightly related to level of economic activity in a region.



Source: Federal Highway Administration, HRPDC

Figure 9.2 Per Capita Daily Vehicle Miles Traveled in Hampton Roads and Reference Metro Areas



Source: Federal Highway Administration, HRPDC

Why is it important?

Traffic patterns and congestion have a bearing on regional competitiveness and quality of life. Per capita VMT is a reflection of a region's commuting distance, density, and transit usage.

How are we doing?

Hampton Roads' per capita VMT is average compared to that of its reference MSAs.

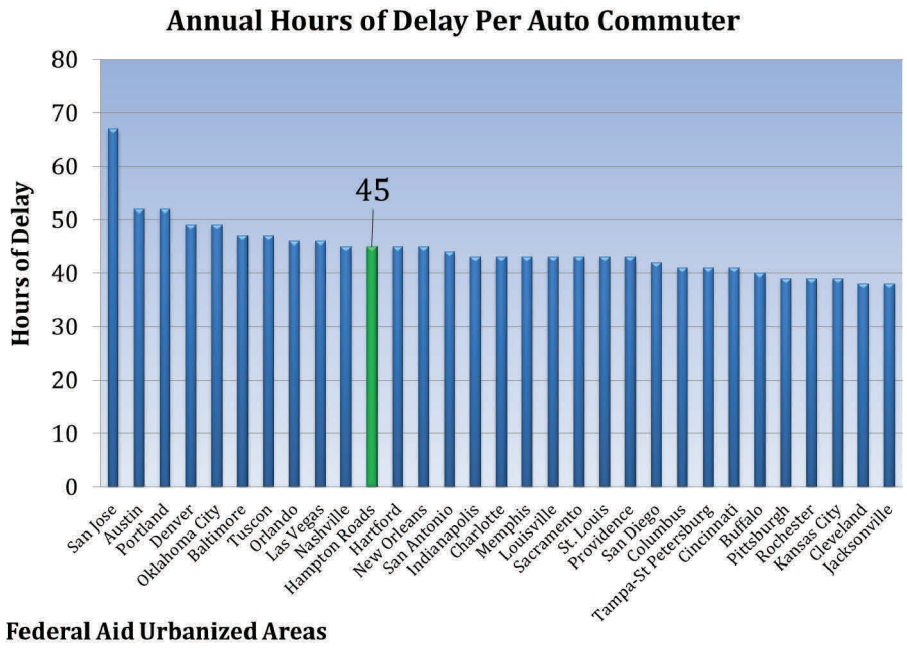
Figure 9.3 Annual Hours of Delay Per Auto Commuter in 2014 in Hampton Roads and Reference MSAs

Why is it important?

While VMT refers to the distance traveled, annual hours of delay reflects the degree of congestion. Comparing the annual hours of delay illustrates how local congestion compares with congestion in competing metro areas.

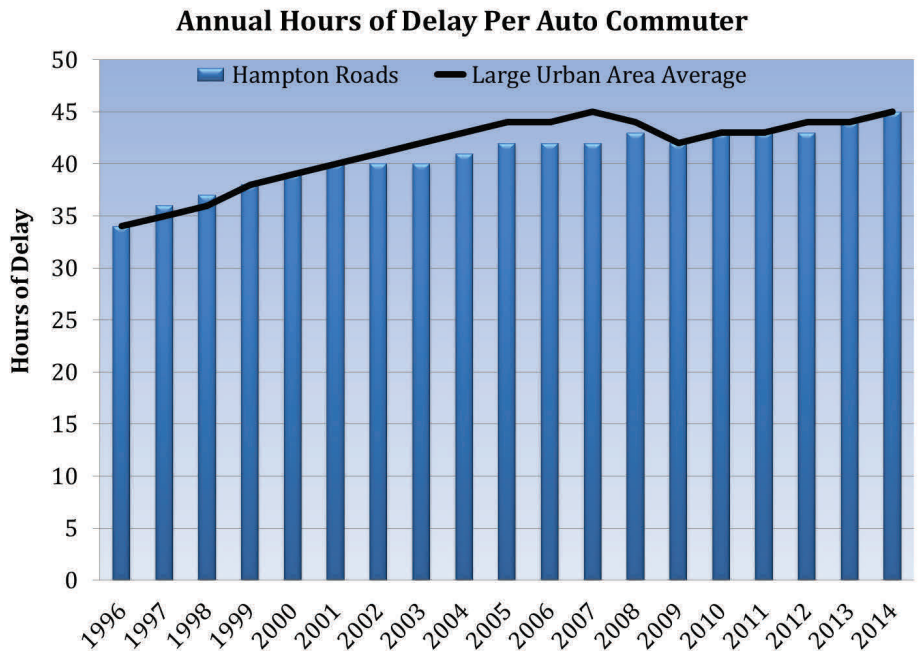
How are we doing?

Hampton Roads annual hours of delay is comparable to other similar sized southeastern metropolitan areas that face the same land use decisions. Regional delay grew from 43 to 45 hours over the past two years, but Hampton Roads' rank fell as other regions saw greater growth.



Source: Texas Transportation Institute, HRPDC

Figure 9.4 Annual Hours of Delay Per Auto Commuter in Hampton Roads



Why is it important?

Congestion trends are important because of the impact congestion has on the cost of businesses and quality of life. Residents and businesses base their estimation of congestion on prior commuting experiences when planning for the future.

How are we doing?

Average hours of delay declined as a result of the recession (and to a lesser extent regionally), but have grown over the past five years.

Source: Texas Transportation Institute, HRPDC

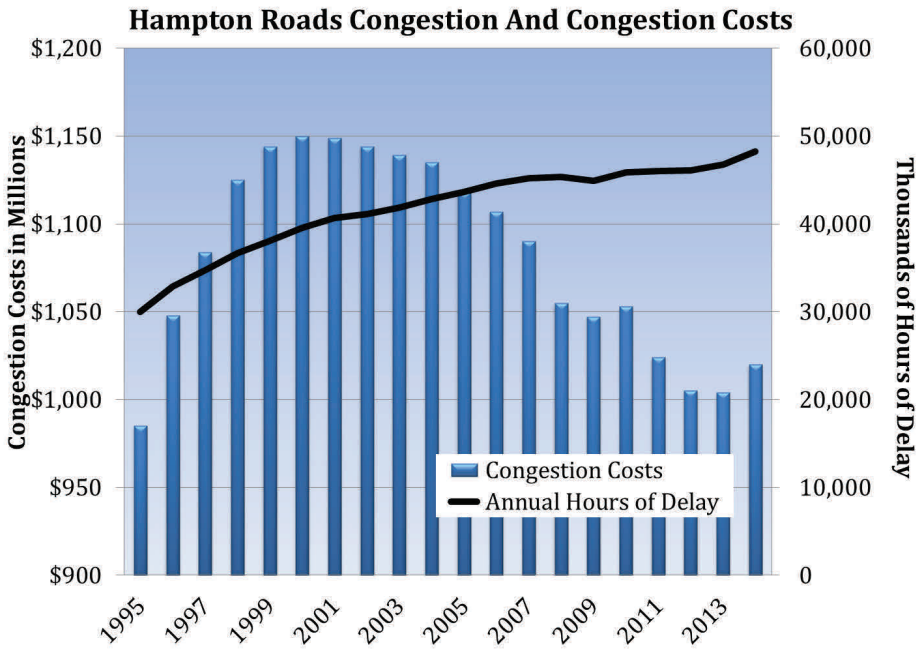
Figure 9.5 Hampton Roads Congestion and Congestion Costs

Why is it important?

Time spent in traffic comes at a cost for both residents and businesses. Increased congestion adds to the cost of doing business and decreases the quality of life.

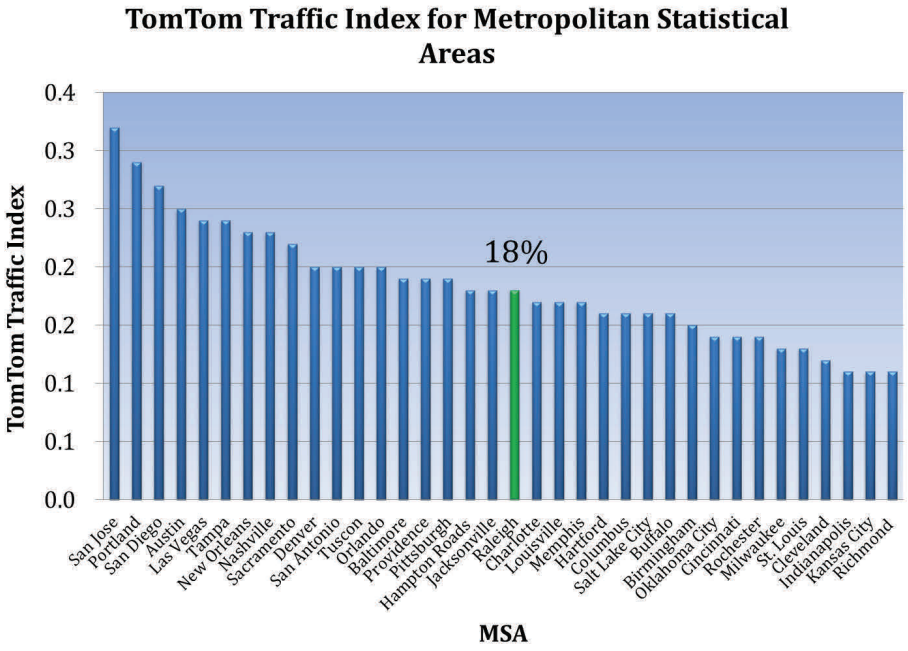
How are we doing?

Congestion costs rose substantially through the nineties. In 2011 congestion costs in Hampton Roads reached $1.02 billion. Continued congestion will inhibit the ability of the Port of Virginia to be competitive, restrict the flow of tourists, and reduce quality of life for Hampton Roads residents.



Source: Texas Transportation Institute, HRPDC

Figure 9.6 Peak Period Travel Time Index 2016



Why is it important?

The Travel Time Index measure of congestion focuses on each trip and each mile of travel. It is calculated as the ratio of travel time in the peak period to travel time in free-flow.

How are we doing?

The data indicates that Hampton Roads is about average for peak period congestion among similar sized MSAs. According to the data, it takes approximately 18% longer to make a trip during peak driving times in Hampton Roads than it would under unburdened conditions.

Source: Texas Transportation Institute., HRPDC

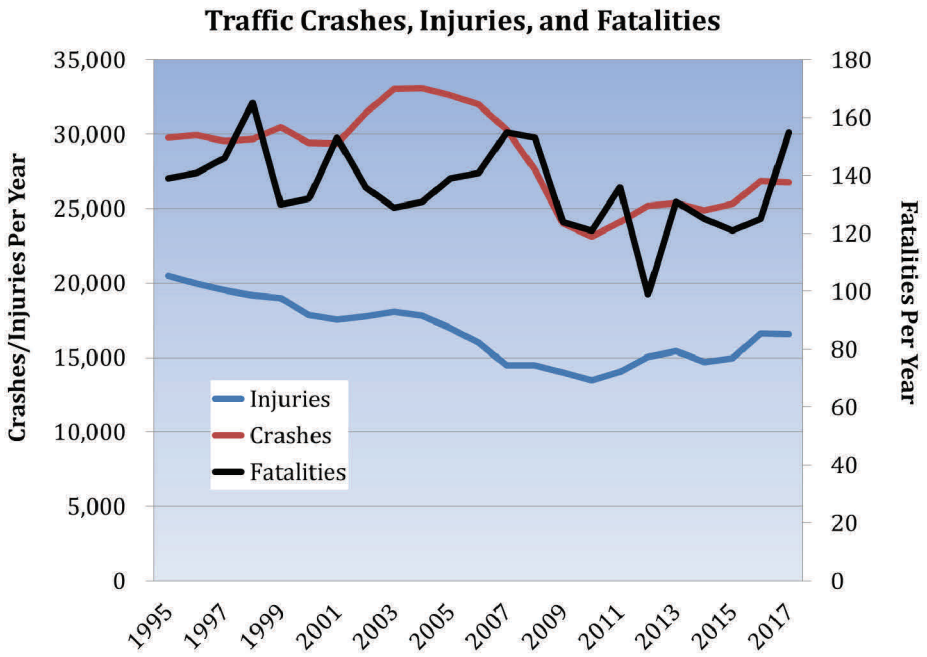
Figure 9.7 Hampton Roads Traffic Crashes

Why is it important?

One of the costs of driving that receives less attention than it deserves is the risk of injuries and fatalities.

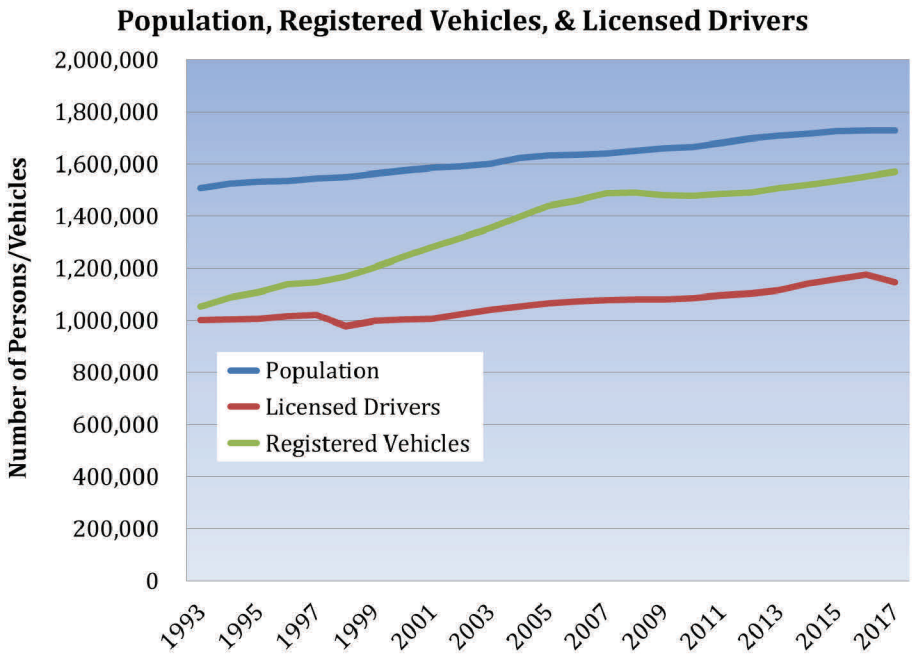
How are we doing?

Fatalities due to traffic crashes in Hampton Roads have averaged 130 per year over the past decade, declining despite an increasing population. The decrease in the numbers of injuries and crashes can be attributed in part to improved safety standards for roadways and automobiles, as well as reduced alcohol-related crashes. An odd jump in fatalities occurred in 2017, but that may be a single year anomaly.



Source: Virginia Department of Motor Vehicles, HRPDC

Figure 9.8 Hampton Roads Vehicle Registrations



Source: Virginia Department of Motor Vehicles, Weldon Cooper Center, HRPDC

Why is it important?

Population, the number of licensed drivers, and the availability of automobiles are all factors in determining automobile usage.

How are we doing?

As the Hampton Roads population increases, so do the number of licensed drivers. Precipitous growth in the number of registered vehicles has increased the availability of automobiles subsequently increasing the number of vehicles on the road, though that growth has leveled off since the recession.

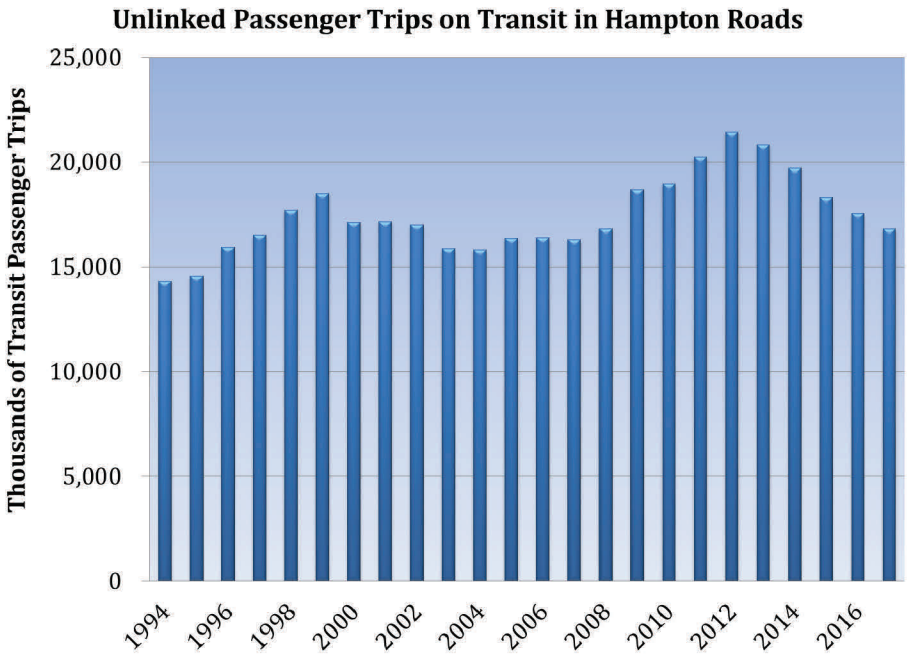
Figure 9.9 Transit Passenger Trips in Hampton Roads

Why is it important?

Public transit serves as primary transportation for those without cars and an alternate source of transportation for commuters. Transit can also help alleviate roadway congestion. Transit ridership is typically a function of availability, necessity, and opportunity.

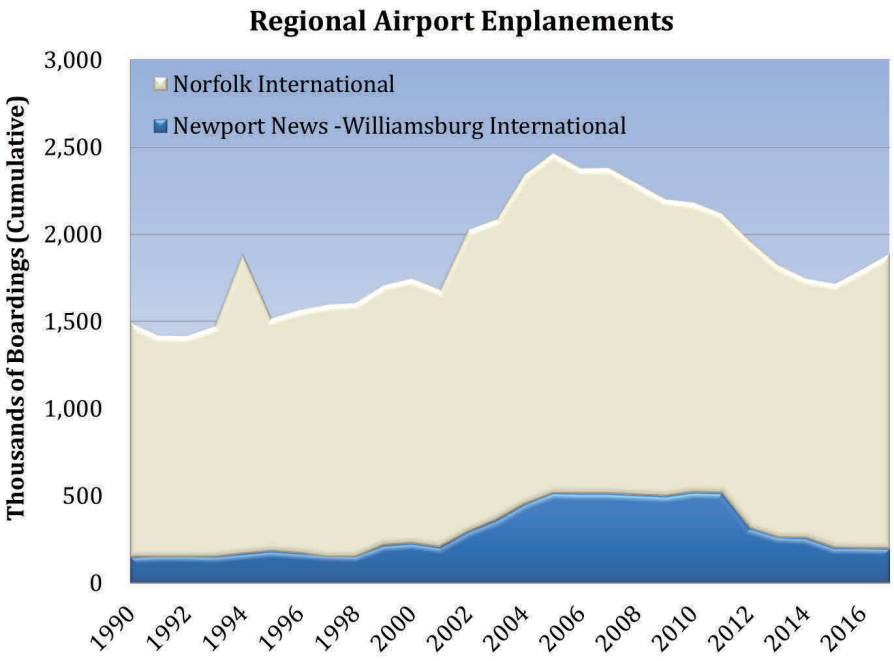
How are we doing?

Passenger trips taken on public transit increased through the latter half of the nineties and again in 2007 before declining over the past four years.



Sources: Federal Transit Administration, APTA, HRPDC

Figure 9.10 Airport Enplanements at Hampton Roads Major Airports



Source: Federal Aviation Administration, HRPDC

Why is it important?

As the world inches ever closer to a global economy, access to airports and air travel becomes increasingly important.

How are we doing?

Value priced airlines entering the market in the early 2000s increased competition, driving down ticket costs and increasing the number of enplanements. The consolidation of some airlines and resulting increased ticket prices added to a weaker economy since 2007. The number of enplanements has declined since their peak in 2005, but they have seen a slight uptick over the past two years.

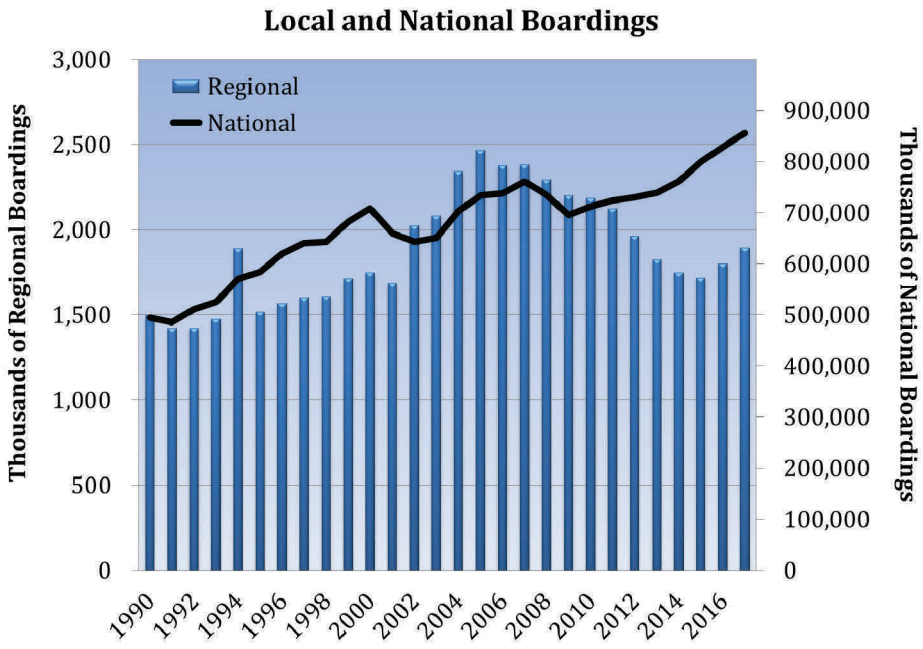
Figure 9.11 Enplanement Trend in Hampton Roads Compared to the National Enplanement Trend

Why is it important?

The market for air travel is influenced by several factors including price and consumer confidence. Referencing national air travel trends allows us to better understand regional air travel.

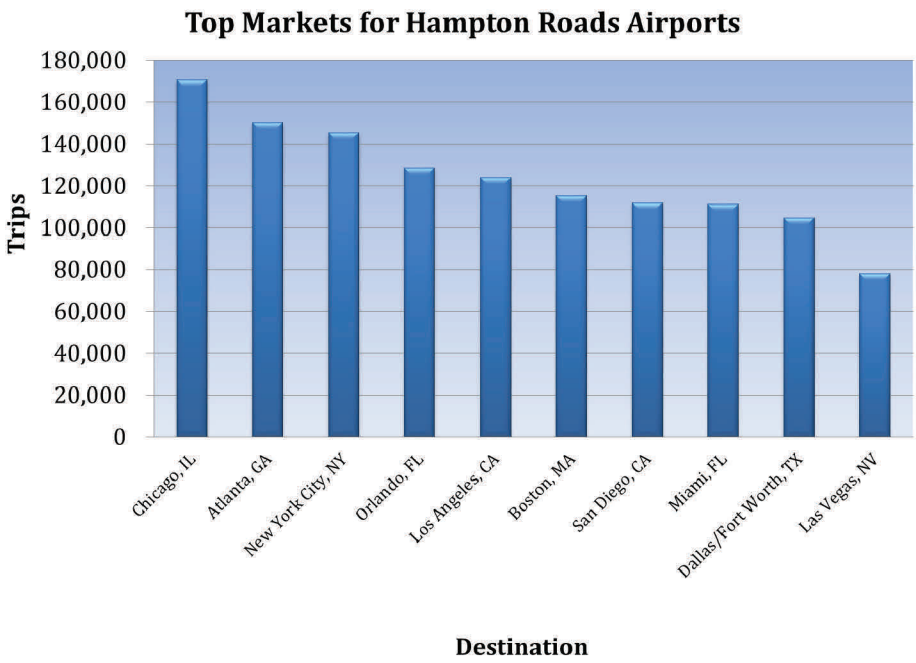
How are we doing?

Regional enplanements have lagged the national trend due to the decline in military travel as a result of federal budget cuts, as well as decreased service to Newport News.



Source: Federal Aviation Administration, HRPDC

Figure 9.12 Top Markets for Hampton Roads Airports



Source: Federal Aviation Administration, HRPDC

Why is it important?

This graphic shows the top final destinations and points of origin for air travel to and from this region, showing where commerce connections to Hampton Roads exist.

How are we doing?

The destinations with the greatest number of Hampton Roads trips in 2017 also have some of the highest populations. One notable exception is Orlando, a tourism hub. San Diego also receives a significant number of travels from Hampton Roads, likely due to the large Navy presence in both regions.

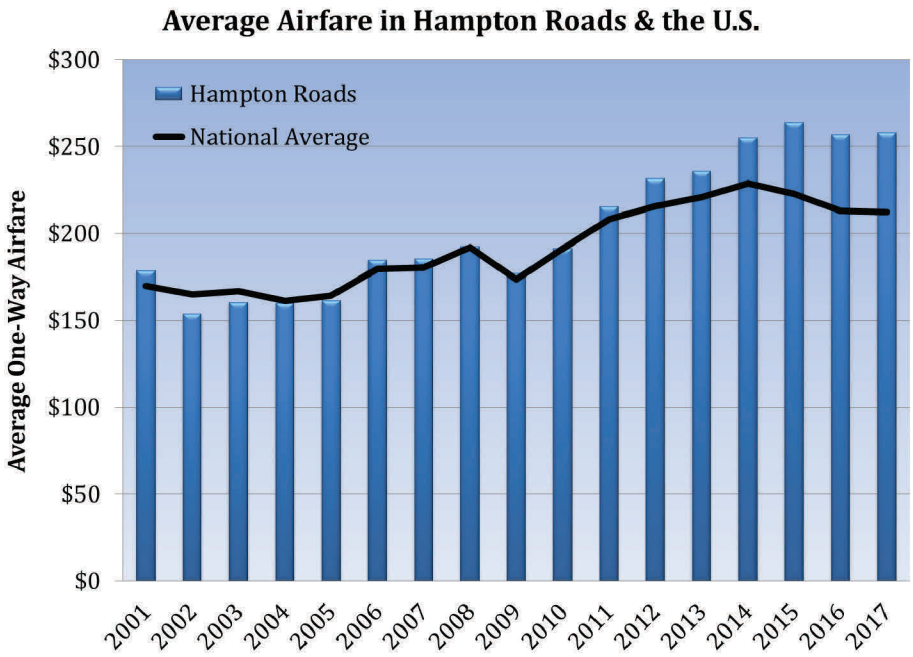
Figure 9.13 Average One-Way Airfare in Hampton Roads & the United States

Why is it important?

Price is one of the most significant factors determining air travel demand. Several factors determine prices, including airline competition and oil prices.

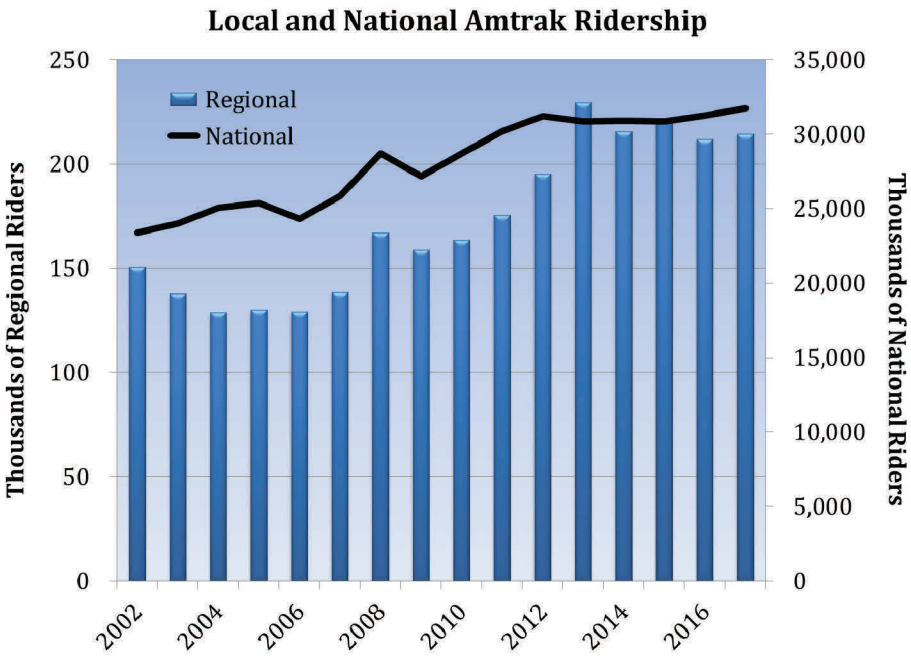
How are we doing?

Until recently Hampton Roads' average airfares tracked national average airfares. The consolidation of airlines has driven up the cost of flights. Reduced competition in Hampton Roads has contributed to even higher increases in the cost of regional flights.



Source: Federal Aviation Administration, HRPDC

Figure 9.14 Local and National Amtrak Ridership Trend



Why is it important?

As increased attention is placed on transit and environmental issues, train ridership continues to be an area of focus for planners.

How are we doing?

Hampton Roads' passenger train ridership grew strongly from 2007 to 2014, outpacing the national growth rate. Amtrak trips were relatively flat in 2017, increasing 1.2% to 214,500.

Source: Amtrak, HRPDC

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