

# A. Traffic Volume Trends



*I-495 South of MD 190*

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MD 213 Chestertown

## Traffic Volume Trends

Traffic volumes across the country are experiencing the largest increases in years. Nationwide, there was a 3.5% growth rate in 2015, which was approximately twice the growth rate of the previous year and represents the fourth straight year of increase in travel.

The following facts highlight trip patterns in Maryland:

- Maryland is second in the nation in terms of longest commuting times according to the American Community Survey with an average of 32.3 minutes. The District of Columbia which includes many Maryland commuters is fourth in the nation with commuting times averaging 29.3 minutes each way.
- Approximately 240,000 people commute from Maryland into Washington D.C based on AirSage data analysis. An additional 120,000 people commute to Montgomery and Prince George's counties from out of state.
- There are almost 140,000 people commuting into Baltimore City each day, mainly from Baltimore, Anne Arundel, Howard and Harford counties.
- Maryland's population in 2015 was approximately 6.01 million, about 240,000 people higher than 2010 according to the US Census Bureau. By 2040, population is projected to increase to more than 6.9 million based on projections from the Maryland Department of Planning. In addition, job growth in Maryland is expected to keep pace with an estimated 600,000 additional jobs between 2015 and 2040.
- The 2015 Urban Mobility Scorecard developed by Texas A&M Transportation Institute has cited the Washington, DC region as number one (1) in the nation in terms of annual delay per auto commuter, increased fuel consumed due to travel in congested conditions, and congestion cost per auto commuter in 2014.
- In measures developed as part of the 2015 Urban Mobility Scorecard, the Baltimore Metropolitan area is ranked #14 in truck congestion costs, #18 in excess fuel consumed and #18 in total congestion costs in the nation. The annual delay experienced by Baltimore area commuters, the leading sign of congestion, ranks #23 nationwide.



SHA owns and maintains the numbered, non-toll routes in Maryland’s 23 counties, a total of 14,800 lane-miles and 2,566 bridges representing the backbone of Maryland’s transportation system. This infrastructure forms the majority of the National Highway System (NHS) which includes interstate highways, freeways and major arterial roadways. The MDTA owns and operates all toll roads in the state including I-95 from the Baltimore City line (south side) to the Delaware State Line, I-895 including spurs to I-97 and MD 2, MD 695 from east of MD 10 to MD 151, the Hatem Bridge (US 40), the Chesapeake Bay Bridge (US 50/301), the Nice Bridge (US 301) and MD 200 (Intercounty Connector). The Key Bridge, Fort McHenry Tunnel, Harbor Tunnel, and Tydings Memorial Bridge are part of the system.

These roadways provide for both long distance travel and for access to major commercial, office and residential centers. The state transportation network not only provides roadway connections but also multi-modal connectivity to airports, railroads, mass transit, and the Port of Baltimore.

Traffic volume growth along different roadways has varied greatly over the last twenty-five years. Interstate freeways, major arterials, and roadways in suburban areas have seen tremendous growth. Traffic volumes along rural roadways or in the center of cities have seen flat or negative growth. The following chart illustrates the growth in traffic volumes along selected roadways over the last twenty-five years:

## HISTORIC GROWTH ON MAJOR ROADWAYS

Location	1990 Average Daily Traffic (ADT)	2015 Average Daily Traffic	Average Annual Growth
MD 528 North of MD 90	31,000	48,000	1.8%
US 40 East of MD 272	23,000	32,000	1.3%
MD 5 South of MD 337	66,000	126,000	2.6%
I-70 West of I-695	58,000	101,000	2.3%
US 50 East of MD 2	56,000	97,000	2.2%
I-81 at West Virginia State Line	30,000	61,000	2.9%
US 15 South of MD 26	42,000	85,000	2.9%

## A. TRAFFIC VOLUME TRENDS

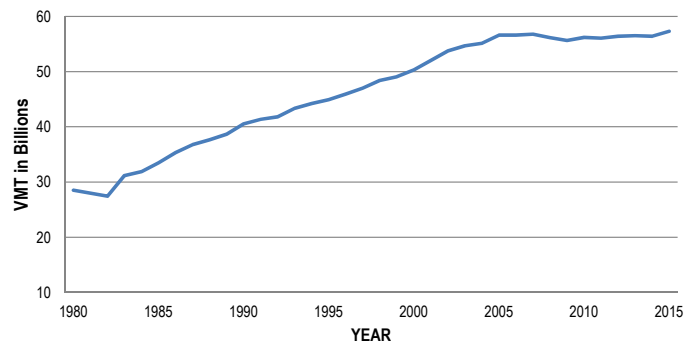
The highest volume SHA freeway, SHA arterial and MDTA toll facilities based on the SHA Traffic Volume maps include:

<b>HIGHEST AVERAGE DAILY TRAFFIC VOLUMES</b>	
<b>Freeway Section</b>	<b>2015 ADT</b>
I-270 N of I-270 Split	255,000
I-495 E of MD 650	253,000
I-270 N of MD 189	251,000
I-495 S of I-270 West Leg	249,000
I-495 W of MD 97	228,000
<b>Arterial Section</b>	
US 301/MD 5 N of Chadds Ford Road	88,000
MD 5 S of MD 223	83,000
MD 650 S of I-495	77,000
MD 175 E of MD 108	75,000
MD 210 S of I-95	74,000
<b>MDTA Toll Facility Crossings</b>	
I-95 Ft. McHenry Tunnel	116,000
I-95 Tydings Bridge	83,000
I-895 Harbor Tunnel	77,000
US 50/301 Bay Bridge	72,000

Vehicle Miles Traveled (VMT) is a standard performance measure of travel for various roadway classifications on a local, regional, state, and national level. VMT is defined as the number of vehicles times the distance traversed along the network. VMT has been measured for decades in each state including Maryland. Measuring VMT allows for a comparison in growth from month to month or year to year. Many areas in Maryland have seen growth in VMT outpacing population growth and SHA's ability to expand the roadway network, particularly in the Baltimore - Washington region.

Consistent with national trends, various economic and social conditions have impacted the amount of travel in Maryland since the 1980s. The annual VMT has remained relatively flat since 2005 as depicted in the following graph.

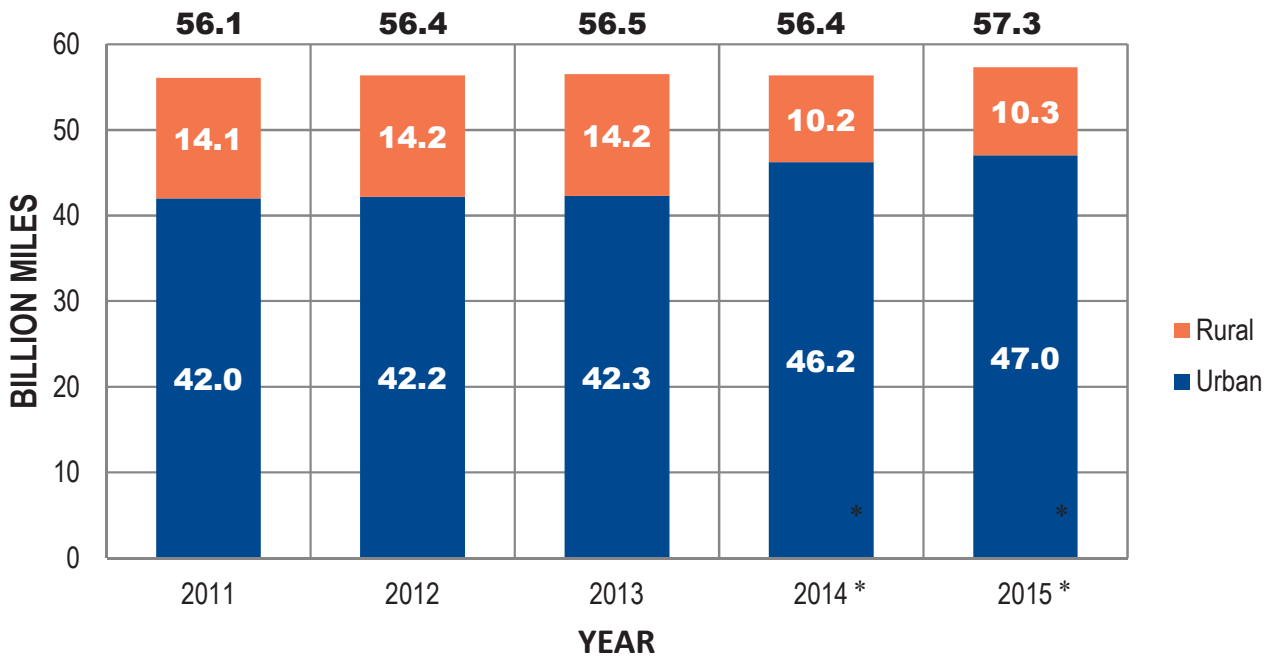
**STATEWIDE ANNUAL VEHICLE MILES OF TRAVEL**





VMT was relatively flat between 2011 and 2014 as the economy recovered from the great recession. In 2015, the statewide VMT climbed to an all time record of 57.3 billion vehicle miles, a 1.6% increase over 2014 VMT. Travel along and through urban area roadways was the major reason for the increase in VMT. Urban area VMT was approximately 47.0 billion vehicle miles travelled, an increase of 800 million miles from 2014. The increase in urban VMT was predicated upon the growth of population and jobs in the metropolitan area. Rural VMT climbed 100 million vehicle miles.

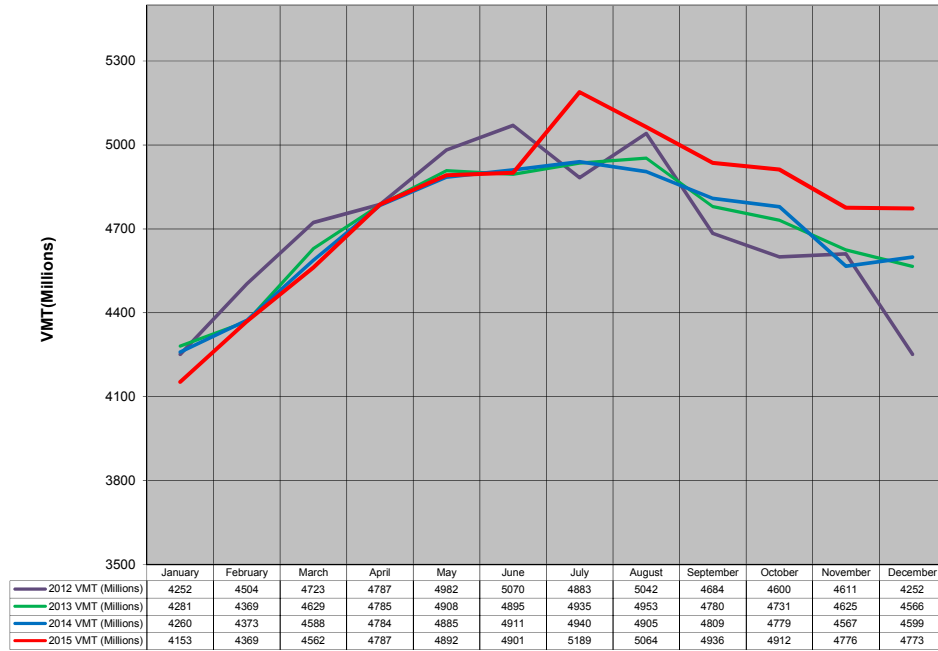
**STATEWIDE VEHICLE MILES OF TRAVEL (BILLIONS)**



\*Represents new urban/rural limits.

The monthly distribution of VMT shows the majority of growth in VMT occurred in the second half of 2015 as depicted below.

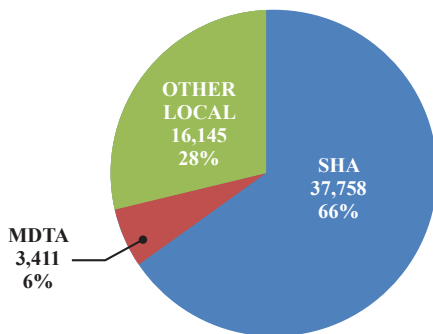
**MONTHLY DISTRIBUTION OF ANNUAL VEHICLE MILES OF TRAVEL**



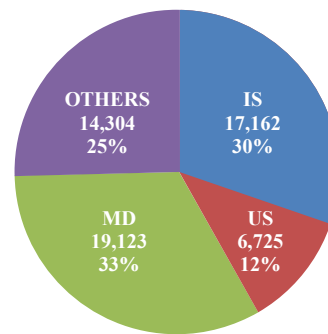
NOTE: This chart displays estimated monthly Vehicle Miles of Travel compared with the previous year based on data collected at approximately 61 continuous count stations throughout the State.

The 2015 VMT on all state and toll maintained roadways was 41.2 billion, which is an increase of approximately 700 million miles (1.7%) over 2014. MDOT facilities account for only 23% of the states lane miles, but 72% of travel occurs on them. Last year the greatest increase of VMT was on Maryland state roadways an increase of 650 million miles(1.7%). The 2015 VMT along all other roadways increased to 16.1 billion from 15.9 billion (1.6%) in 2014. The following graphs show VMT by ownership and the type of roadway.

**2015 VMT BY OWNERSHIP (MILLION)**

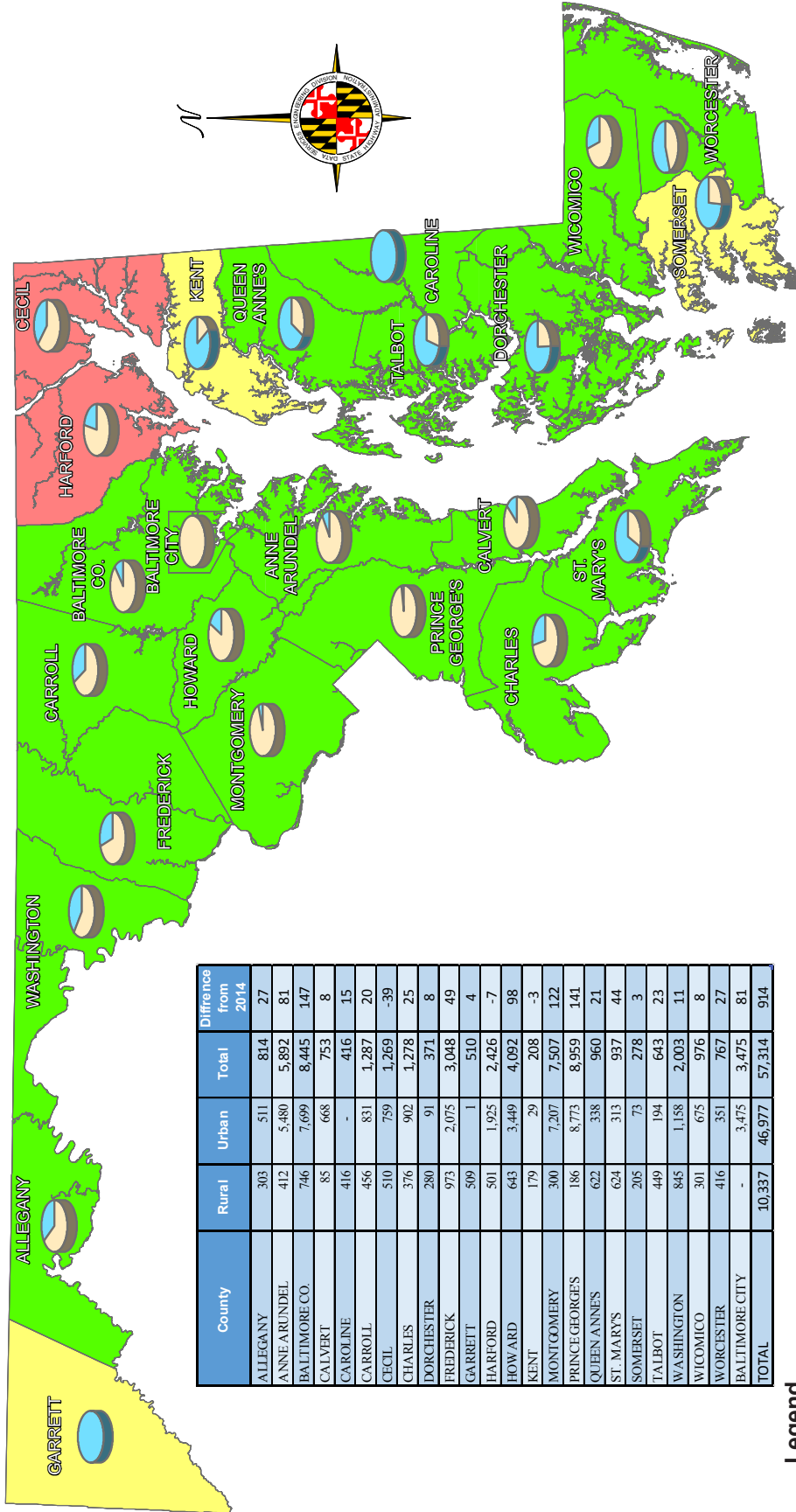


**2015 VMT BY ROADWAY TYPE (MILLION)**



On a county-wide basis, the change in VMT varies with all but three counties showing an increase over 2014. The largest increase in VMT was in Baltimore County while Cecil County had the greatest decrease in total VMT. On a percentage basis, St Mary’s County experienced nearly a 5% growth while four other counties grew at greater than 3%. This is shown in the following figure.

2015 VEHICLE MILES OF TRAVEL



County	Rural	Urban	Total	Difference from 2014
ALLEGANY	303	511	814	27
ANNE ARUNDEL	412	5,480	5,892	81
BALTIMORE CO.	746	7,699	8,445	147
CALVERT	85	668	753	8
CAROLINE	416	-	416	15
CARROLL	456	831	1,287	20
CECIL	510	759	1,269	-39
CHARLES	376	902	1,278	25
DORCHESTER	280	91	371	8
FREDERICK	973	2,075	3,048	49
GARRETT	509	1	510	4
HARFORD	501	1,925	2,426	-7
HOWARD	643	3,449	4,092	98
KENT	179	29	208	-3
MONTGOMERY	300	7,207	7,507	122
PRINCE GEORGES	186	8,773	8,959	141
QUEEN ANNES	622	338	960	21
ST. MARYS	624	313	937	44
SOMERSET	205	73	278	3
TALBOT	449	194	643	23
WASHINGTON	845	1,158	2,003	11
WICOMICO	301	675	976	8
WORCESTER	416	351	767	27
BALTIMORE CITY	-	3,475	3,475	81
TOTAL	10,337	46,977	57,314	914

**Legend**

Variation From 2014 to 2015

- Increased More Than 5 Million Miles
- Remained Within 5 Million Miles
- Decreased More Than 5 Million Miles

Rural VMT (blue)

Urban VMT (orange)



## A. TRAFFIC VOLUME TRENDS

For a regional analysis of traffic and congestion trends, the state of Maryland is subdivided into five geographic regions: Baltimore Metropolitan; Washington Metropolitan; Southern Maryland; Eastern Shore; and Western Maryland.

### BALTIMORE METROPOLITAN REGION

- Anne Arundel County
- Baltimore City
- Baltimore County
- Carroll County
- Harford County
- Howard County

### WASHINGTON METROPOLITAN REGION (MARYLAND COUNTIES)

- Frederick County
- Montgomery County
- Prince George's County

### SOUTHERN MARYLAND

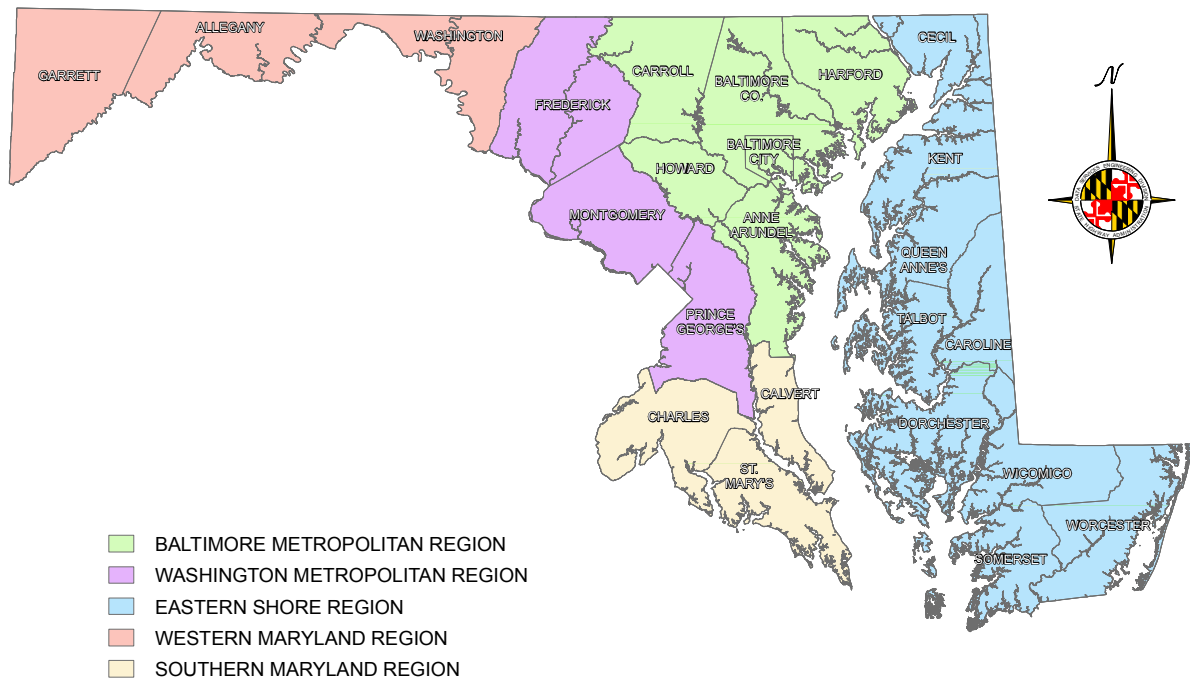
- Calvert County
- Charles County
- St. Mary's County

### EASTERN SHORE

- Caroline County
- Cecil County
- Dorchester County
- Kent County
- Queen Anne's County
- Somerset County
- Talbot County
- Wicomico County
- Worcester County

### WESTERN MARYLAND

- Allegany County
- Garrett County
- Washington County



The following chart shows that four of the five regions experienced a growth in VMT compared to 2014 with only Western Maryland remaining flat.

**VMT BY REGION**

<b>VMT</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Baltimore Region	25.0	25.2	25.2	25.2	25.6
Washington Region	19.1	19.1	19.2	19.2	19.5
Southern Region	2.8	2.8	2.9	2.9	3.0
Eastern Shore Region	5.8	5.9	5.8	5.8	5.9
Western Region	3.4	3.4	3.4	3.3	3.3
<b>Total</b>	<b>56.1</b>	<b>56.4</b>	<b>56.5</b>	<b>56.4</b>	<b>57.3</b>