

WEST VIRGINIA HIGHWAYS

Classification Systems, Characteristics and Usage

Traffic Volume

Traffic volume may be defined as the number of vehicles that pass a point along a roadway or traffic lane per unit of time, commonly measured in units of vehicles per day, vehicles per hour, vehicles per minute, etc. One of the most important measures of traffic volume is the average daily traffic (ADT), which is the number of vehicles that pass a particular point on a roadway during a period of 24 consecutive hours, averaged over a period of 365 days. Since it is not practical to make continuous counts 365 days per year along every section of a highway system, the ADT for many road sections are based on statistical sampling techniques. For specified road sections, ADT values provide the highway engineer, planner, and administrator with essential information needed for the determination of design standards, the systematic classification of highways, and the development of programs for improvement and maintenance. Figure 2.11 provides an illustration of the State system mileage, classified into nine ADT categories.

The WVDOH uses portable tubular traffic counters, placed across the lanes of a roadway, which count the number of axles crossing the tube (using compressed air). Additionally, 51 permanent counters, which count vehicles by means of imbedded pavement induction loops, are located at various sites throughout the State. On the Interstate System, traffic counts are made every year on the segments between interchanges, and sometimes on ramps. On non-Interstate System routes, traffic counts are made on a three-year cycle (according to WVDOH Districts), covering all Highway Performance Monitoring System (HPMS) sample sections and other segments between major trip generators or intersections. For those segments not in the current counting cycle, an estimate of the ADT is made, based on historical trends and growth factors relating to the National Highway Functional Classification and the county in which the segment is located. The ADT measurement also is used in the determination of vehicle-miles of travel (VMT) on the different highway classifications. The VMT values are important for the allocation of funds, the appraisal of safety, and as a measure of the service provided by highway transportation. The VMT for the National Highway Functional Classification in West Virginia is depicted in Table 2.9.

Figure 2.11
West Virginia Highways Under WVDOT Jurisdiction by ADT Group
As of June, 2000

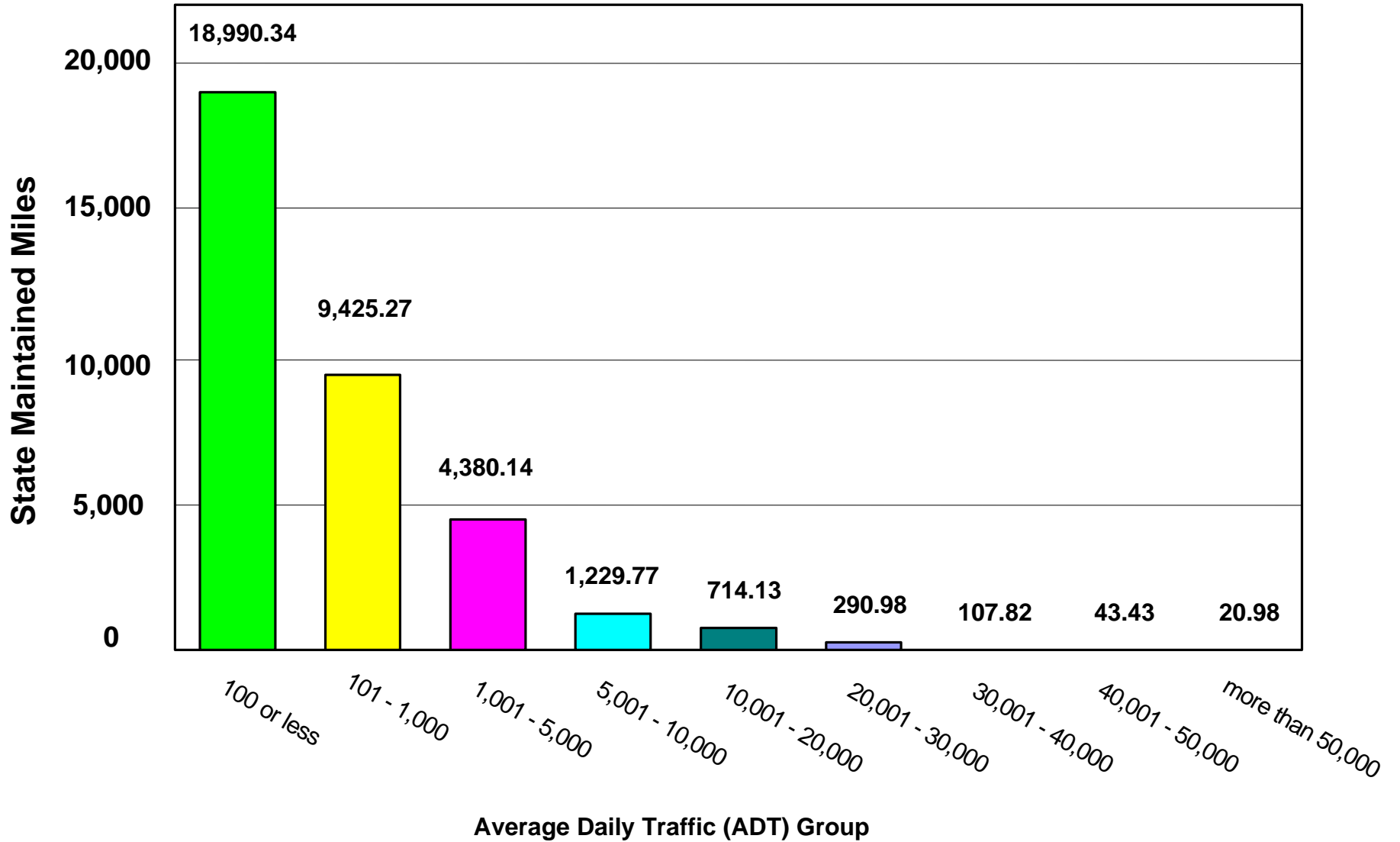


TABLE 2.9
West Virginia Highways: Vehicle Miles of Travel (Millions)
For the National Highway Functional Classification System
As of December 31, 1999

NATIONAL HIGHWAY FUNCTIONAL CLASSIFICATION SYSTEM	ANNUAL VEHICLE MILES OF TRAVEL	PERCENT OF TOTAL
Urban Principal Arterial System		
Interstate (including the WV Turnpike)	1,462.088	8.03%
Other Freeways and Expressways	74.320	0.41%
Other Principal Arterials	1,321.823	7.26%
Urban Minor Arterial System	1,457.769	8.00%
Urban Collector System	424.891	2.33%
Subtotal: Urban System	4,740.891	26.03%
Rural Principal Arterial System		
Interstate (including the WV Turnpike)	3,739.024	20.53%
Other Principal Arterials	2,807.124	15.41%
Rural Minor Arterial System	2,081.402	11.43%
Rural Major Collector System	3,351.049	18.40%
Rural Minor Collector System	417.838	2.29%
Rural Local System	1,078.324	5.92%
Subtotal: Rural System	13,474.761	73.97%
TOTAL: Urban and Rural Systems	18,215.652	100%

SOURCE: West Virginia Department of Transportation, Planning and Research Division, Traffic Analysis Section. Traffic County File Summary Report. Charleston, WV:1999.