

CORRESPONDENCE/MEMORANDUM State of Wisconsin

Date: November 29, 2010

**To: Regional Directors
Attention: Regional System Planning and Operations Sections**

**From: Rebecca Szymkowski, P.E., PTOE
State Traffic Safety Engineer**

Subject: 2009 Statewide Crash Rates

NOTE: The format for statewide average crash rates has changed from previous years.

These changes were made based on recommendations from the safety engineering community. The changes were also made in order to better accommodate the end-users of this data and better align with current WisDOT business practices.

The following changes have been made to the state system statewide average crash rates:

1. Crash rates on the state system were divided into three categories and are now divided into 12 functional “peer” groups (i.e. “like” roadways), which are based on the Wisconsin Department of Transportation’s Meta-Manager Management System Database. **Please note that if a roadway is divided, 50% of the average annual daily traffic (AADT) is used when calculating crash rates.**
2. Tables were provided that included crash rates on an annual basis and are now provided on a 5-year running average. The 5-year average takes into account any variances in one particular year and also takes into account trends in traffic volumes.
3. Crash rates for both “with deer” and “without deer” were provided. Based on discussions with end-users of this data, crash rates with deer were seldom used and therefore, crash rates are only included for “without deer.”

Meta-manager only includes state routes and therefore, the format of the statewide average crash rates on the local system have not changed. However, the following changes have been made to the local system statewide average crash rates:

1. All crashes that occurred on urban city streets, rural city streets, and urban county highways have been combined into a single category called “Urban Streets.” In past years, the “Urban Streets” category also included Urban State Trunk Highways. All crash rates in the “Urban Streets” category have been recalculated based on the new definition and do not match the “Urban Streets” crash rates provided in previous years.
2. Similar to the state system, only crash rates for “without deer” have been provided.

The following text has been altered slightly, but in general, has not changed from previous crash rate memorandums:

The definition of a “reportable crash” is based on a reporting threshold of \$1000 for property damage only “to any one person’s property,” \$1000 for government-owned vehicles and remains at \$200 for all other government-owned property, such as traffic control devices.

The Division of Transportation Investment Management (DTIM) has provided the crash rates for the state system. The University of Wisconsin-Madison Traffic Operations and Safety Laboratory (UW TOPS Lab) prepared the tables for the local system. DTIM has provided the vehicle miles and the Division of Motor Vehicles (DMV) provided the crash data taken from the Accident File.

Table I lists the Wisconsin statewide average crash rates on the state system for 2005 to 2009. These rates are expressed as crashes per 100 million vehicle miles. These rates do not include non-reportable crashes (<\$1000). Table II lists the statewide average crash rates on the local system and excludes deer crashes.

In addition to the total injury crash rate, the injury crashes have been broken down into three subcategories. Also included is a crash rate for property damage only. This information is included in order to provide the opportunity to conduct a more detailed crash analysis. The following three categories are defined according to the Law Enforcement Officer’s Instruction Manual:

- **Type A:** Incapacitating Injury - Any injury other than a fatal injury, which prevents the injured person from walking, driving, or from performing other activities, which he/she performed before the accident.
- **Type B:** Nonincapacitating Injury - Any injury, other than fatal or incapacitating, which is evident at the scene. Evidence of injury may include known symptoms of an injury, which are not directly observable.
- **Type C:** Possible Injury - Any injury which is not observable or evident at the scene but is claimed by the individual or suspected by the law enforcement officer.

Table I
State Trunk Highway Crash Rates*
(Crashes per 100 million vehicle miles)

5-Year Average (2005-2009)
Excludes Deer Crashes

Meta-manager State Trunk Highway Groups			Total	Fatal	A	B	C	Property Damage Only
	1	Rural and Small Urban Freeways	43	0.3	2.0	5.1	5.5	30.1
	2	Rural and Small Urban Expressways	59	0.9	3.4	8.1	8.5	37.7
	3	Rural STN ADT between 3500 and 8700 ADT	76	1.3	5.4	11.2	12.3	45.4
	4	Rural STN ADT between 2000 and 3500 ADT	87	1.6	6.2	13.7	13.4	52.1
	5	Rural STN ADT between 750 and 2000 ADT	111	2.0	8.1	17.9	16.2	66.8
	6	Rural STN ADT less than 750	194	3.6	16.5	36.5	29.9	107.2
	7	Large Urban Freeways	85	0.3	1.9	6.9	16.0	59.8
	8	Large Urban Divided Highways and One Way	326	0.8	7.5	30.2	80.0	207.1
	9	Large Urban Undivided Highways	335	1.3	9.8	36.3	75.0	212.1
	10	Small Urban STN (excluding freeways, expressways...1 and 2 above)	244	0.6	7.8	30.0	44.5	165.4
	11	Rural STH ADT greater and 8700 ADT	87	1.1	4.9	11.4	15.8	54.2
12	Community of less than 5000 population STN	195	0.9	7.4	19.5	30.6	137.0	

* The rates **do not** include non-reportable crashes.

Table II
Local Road Crash Rates: 2005-2009*
(Crashes per 100 million vehicle miles)
Excludes Deer Crashes

URBAN STREETS							
	Total	Fatal	Injury	A	B	C	Property Damage Only
2005	314	0.7	101	7.2	30	63	212
2006	288	0.7	92	6.6	29	57	195
2007	294	0.7	89	6.6	28	54	204
2008	308	0.6	85	6.3	28	51	222
2009	281	0.5	81	5.9	27	48	200

NOTE: All crashes that occurred on urban city streets, rural city streets, and urban county highways have been combined into a single category called “Urban Streets.” In past years, the “Urban Streets” category also included Urban State Trunk Highways. All crash rates in the “Urban Streets” category have been recalculated based on the new definition and do not match the “Urban Streets” crash rates provided in previous years.

COUNTY TRUNKS							
	Total	Fatal	Injury	A	B	C	Property Damage Only
2005	151	2.5	63	12.1	24	26	86
2006	140	2.0	58	10.3	24	24	80
2007	148	2.2	60	11.2	23	25	86
2008	160	2.0	58	9.7	24	24	100
2009	142	1.6	53	8.4	23	21	87

* The rates **do not** include non-reportable crashes. The UW TOPS Lab created the 2009 crash rates from the WisTransPortal database. Crash information was provided by WisDOT DMV Traffic Accident Section. VMT estimates were provided by WisDOT DTIM Traffic Forecasting Section.

If there are questions about how VMT estimates are made, please contact Bruce Aunet at 608-266-9990.