



# INDIANA DEPARTMENT OF TRANSPORTATION

*Driving Indiana's Economic Growth*

100 North Senate Avenue  
Room N755  
Indianapolis, Indiana 46204

PHONE: (317) 232-5213  
FAX: (317) 232-5478

## **Latest INDOT Traffic Adjustment Factors**

Effective for 2014

The Indiana Department of Transportation (INDOT), through its Traffic Monitoring Section, collects, summarizes and interprets information on the traffic traveling on the state's highway system. The data is used to assess transportation needs, system performance and to develop highway planning and programming recommendations. Traffic data also plays a very important role in route planning and in the design of highway projects.

To collect this information, the Department operates two traffic monitoring systems: Annual average daily traffic is the total volume for the year divided by 365 days. Only 106 of INDOT's 8000 Traffic Sections are equipped with Continuous Traffic counters. The remaining sections are counted as part of the short term or "Coverage Count" program. The Coverage Count Program consists of 30,000 count locations, one-third of which are counted annually. A minimum of 48 hours of count data is collected at each count location and, the 48 hour counts are then averaged to 24 before utilizing factors developed from Continuous Traffic Counters, an estimated AADT is developed. AADT is necessary for presenting a statewide picture of traffic flow, evaluating traffic trends, computing accident rates, planning and designing highways, and other purposes.

1. A Statewide Traffic Monitoring System consisting of 106 permanent continuous count stations that collect volume, speed and vehicle classification data 24 hours per day, 365 days per year. Some of these sites also utilize weigh-in motion (WIM) technology to collect continuous truck weight data. These sites are located throughout the state to monitor overall traffic trends. Information from these counters is used to determine ANNUAL TRAFFIC GROWTH trends as well as develop AXLE, WEEKDAY and SEASONAL adjustment factors used with the state's coverage count program to determine estimates of annual average daily traffic (AADT).
2. The statewide coverage count program utilizes portable pneumatic road-tubes traffic counters and laser counters to collect 48 hour traffic counts on all State Highway System traffic sections and in rural and small urban areas and all highway performance monitoring sections (HPMS). The coverage count program operates on a three-year cycle, counting one-third of all sections annually, or approximately 10,000 of the 30,000 count sites. Where possible, portable classifiers are used so that approximately 65% of all coverage counts collected are classification counts. Additional counts are taken within this program to support specific state projects. INDOT is transitioning the coverage count data collection from a central office operation to the 6 INDOT districts. In addition INDOT also contracts with four Metropolitan Planning Organizations (MPOs) and one Regional Planning Organization (RPO) to collect coverage count data within their areas. We are expanding the number of MPO and RPO counting partners in the future.

## **FUNCTIONAL CLASSIFICATION UPDATE**

In 2010, The Federal Highway Administration (FHWA) revised its Functional Classification scheme. Prior to 2010, an interstate highway would have a different functional classification depending on whether it was in an urban or rural area. The 2010 scheme removed the urban/rural designation from the functional classification in favor to tracking that attribute separately. This reduced the number of classifications from 12 to 7. This change is reflected in numbers listed in the tables along with the classification description. For example, the Urban Interstates and Rural Interstates are both followed by the Functional Class (1)

## **FACTOR GROUPS**

The Federal Highway Administration (FHWA) has seven classifications of roadways and four classifications of urban/rural nature. INDOT groups these 28 potential combinations of classification and urban/rural nature into Factor Groups. For the Seasonal, Weekday, and Growth INDOT uses two groups for all urban roadways and three groups for all rural roadways. For the Axle Adjustment, INDOT uses three groups for all urban roadways and three groups for all rural roadways.

## **ADJUSTMENT FACTORS**

Adjustment factors are necessary to convert an Average Daily Traffic (ADT) volume into an Annual Average Daily Traffic (AADT) estimate. Depending on the type of counter, the seasonal period of the setting, multiple factors may be necessary. These include axle, weekday and seasonal adjustment factors. For the 2/3's of the system not counted in the current year, the previously derived AADTs can be adjusted to the current year by utilizing the annual growth factors.

### **AXLE ADJUSTMENT FACTORS**

There are times when portable classifiers cannot be set due to number of lanes or the lack of free-flow speeds. In these cases, portable traffic counters utilizing single pneumatic road-tubes stretched across a lane or roadway are used. These types of counters register two axle impacts as one vehicle so when vehicles with three or more axles cross the road-tube they will be counted as multiple vehicles. Whenever possible axle adjustment factors should be developed from vehicle classification counters set on the same route within the vicinity of the axle counter and during the same relative time period. If this is not possible then the use of these factors applied by functional classification and volume groups are deemed acceptable.

### **WEEKDAY ADJUSTMENT FACTORS**

The purpose of these factors is to normalize the variability of traffic counts that exists between counts taken during the weekday, Friday, Saturdays and/or Sundays. In developing the weekday factors we found no significant statistical difference in the Monday through Thursday trends and for this reason combine these into a weekday factor. This is further justified as counts taken for INDOT will usually span a Monday through Wednesday or a Tuesday through Thursday count period.

## **SEASONAL (MONTHLY) ADJUSTMENT FACTORS**

Seasonal or monthly adjustment factors convert average daily traffic (ADT) to annual average daily traffic (AADT). Observed traffic volumes at a location often vary from month to month with higher summer traffic volumes and lower winter traffic volumes. To compare traffic volume data collected in different months, seasonal adjustment factors must be applied. The ADT is multiplied by the seasonal factor to obtain the AADT value. The continuous counter sites are grouped into five major factor groups (FG). Currently there are two urban factor groups and three rural factor groups which are based on grouped functional classifications.

## **ANNUAL GROWTH FACTORS**

As not all road sections are counted each year, there are times when previous years AADTs will need to be factored in order to estimate current year values. Annual Growth Factors are used in these situations and are developed by comparisons of previous years AADTs at INDOT's 106 continuous counting telemetry sites and averaged for the five factor groups (FG).

## **FACTOR APPLICATION**

The new factors published herein were developed from data collected during the 2014 calendar year and will be applied to all counts processed into the INDOT Traffic Count Database beginning on January 1, 2014, retroactively. These factors will continue to be applied as the current factors until new factors are developed from all of the counts collected during the 2015 calendar year. Counts uploaded to the database have the most current factors applied until the development of new factors at which time; the newly developed factors are applied. Further, when the time comes to publish annual statistics for the Highway Performance Monitoring System (HPMS) submittal, the new factors are retroactively applied to all the short term counts for the respective calendar year. This will cause AADTs viewed for counts collected prior to the development of new factors to change when development is complete and the new factors are applied.

## SEASONAL ADJUSTMENT FACTORS BY FUNCTIONAL CLASSIFICATION 2010-2014\*

2014

### Seasonal Adjustment Factors

U1_SWG	Urban - Interstate (1), Principal Arterial (Freeways and Expressways) (2)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	1.167	1.102	1.044	0.981	0.964	0.958	0.946	0.953	0.977	0.960	1.010	1.021
2013	1.136	1.079	1.030	0.995	0.958	0.954	0.944	0.934	0.978	0.970	1.005	1.057
2012	1.155	1.080	1.014	1.002	0.977	0.957	0.972	0.950	1.006	0.985	1.012	1.080
2011	1.158	1.080	1.001	0.988	0.970	0.940	0.923	0.927	0.975	0.978	1.030	1.054
2010	1.161	1.128	1.012	0.975	0.971	0.940	0.944	0.934	0.972	0.961	0.993	1.077
5 YR AVG	1.155	1.094	1.020	0.988	0.968	0.950	0.946	0.939	0.982	0.971	1.010	1.058

U2_SWG	Urban - Other Principal Arterials (3), Minor Arterials (4), Collectors (5 & 6), Locals (7)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	1.112	1.059	1.020	0.973	0.963	0.969	0.975	0.981	0.982	0.973	1.032	1.025
2013	1.095	1.060	1.052	0.981	0.950	0.976	0.976	0.953	0.970	0.962	1.015	1.066
2012	1.076	1.012	0.989	0.982	0.971	0.961	0.989	0.981	0.987	0.980	1.020	1.079
2011	1.104	1.031	0.999	1.002	0.980	0.962	0.976	0.956	0.991	0.979	1.020	1.029
2010	1.142	1.087	1.027	0.971	0.957	0.952	0.963	0.939	0.976	0.985	1.034	1.085
5 YR AVG	1.106	1.05	1.017	0.982	0.964	0.964	0.976	0.962	0.981	0.976	1.024	1.057

R1_SWGA	Rural - Interstate (1), Principal Arterial (Freeways and Expressways) (2)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	1.291	1.219	1.066	1.008	0.957	0.906	0.875	0.896	0.989	0.963	1.027	1.056
2013	1.233	1.182	1.078	1.040	0.961	0.908	0.834	0.889	0.984	0.970	1.019	1.078
2012	1.212	1.142	1.037	1.008	0.936	0.897	0.892	0.916	1.012	0.983	1.004	1.107
2011	1.262	1.143	1.045	1.020	0.967	0.905	0.864	0.892	0.987	0.981	0.997	1.077
2010	1.288	1.225	1.053	0.997	0.953	0.887	0.858	0.881	0.957	0.962	0.974	1.129
5 YR AVG	1.257	1.182	1.056	1.015	0.955	0.901	0.865	0.895	0.986	0.972	1.004	1.089

R2_SWGA	Rural - Principal Arterials (3), Minor Arterials (4)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	1.219	1.145	1.081	0.988	0.938	0.935	0.940	0.937	0.936	0.946	1.022	1.060
2013	1.127	1.077	1.059	0.992	0.957	0.968	0.966	0.935	0.948	0.955	1.001	1.062
2012	1.153	1.070	1.023	0.985	0.949	0.928	0.940	0.943	0.975	0.989	1.018	1.124
2011	1.153	1.071	1.032	1.008	0.977	0.939	0.958	0.940	0.948	0.947	1.011	1.060
2010	1.180	1.142	1.031	0.977	0.960	0.926	0.938	0.925	0.934	0.959	1.008	1.106
5 YR AVG	1.166	1.101	1.045	0.990	0.956	0.939	0.949	0.936	0.948	0.959	1.012	1.082

R3_SWGA	Rural - Major Collectors (5), Minor Collectors (6), Locals (7)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	1.150	1.121	1.077	0.952	0.923	0.954	0.955	0.979	0.958	0.981	1.045	1.074
2013	1.139	1.106	1.095	0.989	0.922	0.948	0.946	0.928	0.935	0.941	1.001	1.085
2012	1.166	1.088	1.028	0.983	0.930	0.931	0.954	0.931	0.960	0.973	1.020	1.126
2011	1.174	1.085	1.043	0.997	0.966	0.918	0.937	0.954	0.993	0.959	1.033	1.098
2010	1.193	1.147	1.037	0.959	0.947	0.918	0.939	0.934	0.932	0.953	1.027	1.145
5 YR AVG	1.164	1.110	1.056	0.976	0.938	0.934	0.946	0.945	0.956	0.961	1.025	1.105

\*The seasonal adjustment factors are used to expand average 24-hour volumes to estimated Annual Average Daily Traffic (AADT).

## WEEKDAY FACTORS BY FUNCTIONAL CLASSIFICATION 2014\*

U1_SWG	Urban - Interstate (1), Principal Arterial (Freeways and Expressways) (2)													
		Average	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Average Weekday	0.959	0.963	0.943	0.960	0.965	0.965	0.958	0.949	0.967	0.963	0.969	0.940	0.960
	Monday	0.991	0.929	0.980	0.996	1.011	1.043	0.994	0.986	0.998	1.024	1.005	0.980	0.949
	Tuesday	0.961	0.975	0.939	0.961	0.981	0.957	0.972	0.965	0.985	0.960	0.988	0.926	0.925
	Wednesday	0.955	1.002	0.976	0.981	0.951	0.942	0.954	0.943	0.953	0.951	0.957	0.884	0.970
	Thursday	0.926	0.946	0.878	0.900	0.918	0.919	0.910	0.901	0.930	0.915	0.926	0.970	0.997
	Friday	0.866	0.848	0.835	0.824	0.867	0.858	0.855	0.934	0.859	0.855	0.875	0.889	0.887
	Saturday	1.135	1.161	1.158	1.098	1.121	1.137	1.115	1.190	1.116	1.132	1.150	1.136	1.110
Sunday	1.292	1.406	1.433	1.338	1.221	1.277	1.257	1.271	1.237	1.263	1.254	1.262	1.283	

U2_SWG	Urban - Other Principal Arterials (3), Minor Arterials (4), Collectors (5 & 6), Locals (7)													
		Average	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Average Weekday	0.957	0.980	0.955	0.962	0.967	0.979	0.942	0.935	0.945	0.958	0.962	0.933	0.969
	Monday	0.985	0.958	0.965	0.990	1.009	1.064	0.974	0.976	0.970	1.035	0.996	0.936	0.950
	Tuesday	0.951	0.991	0.944	0.941	0.977	0.962	0.945	0.940	0.955	0.945	0.968	0.916	0.926
	Wednesday	0.955	1.024	1.002	1.004	0.950	0.954	0.940	0.929	0.934	0.934	0.944	0.891	0.959
	Thursday	0.937	0.948	0.908	0.914	0.932	0.934	0.908	0.893	0.922	0.916	0.938	0.987	1.042
	Friday	0.868	0.833	0.834	0.843	0.874	0.870	0.856	0.954	0.852	0.855	0.879	0.883	0.882
	Saturday	1.080	1.105	1.114	1.045	1.064	1.057	1.070	1.108	1.083	1.081	1.099	1.073	1.055
Sunday	1.399	1.462	1.468	1.383	1.338	1.392	1.386	1.381	1.358	1.393	1.447	1.406	1.374	

R1_SWGA	Rural - Interstate (1), Principal Arterial (Freeways and Expressways) (2)													
		Average	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Average Weekday	1.020	1.005	0.992	1.026	1.035	1.03	1.032	1.013	1.034	1.018	1.04	0.998	1.017
	Monday	1.057	0.996	1.029	1.118	1.088	1.048	1.068	1.053	1.064	1.042	1.081	1.086	1.012
	Tuesday	1.045	1.037	1.002	1.020	1.087	1.074	1.079	1.070	1.067	1.049	1.070	1.009	0.971
	Wednesday	1.019	1.013	1.035	1.047	1.024	1.041	1.034	1.010	1.025	1.026	1.036	0.898	1.035
	Thursday	0.959	0.975	0.900	0.917	0.939	0.958	0.948	0.919	0.979	0.956	0.973	0.999	1.050
	Friday	0.840	0.830	0.804	0.787	0.822	0.829	0.824	0.908	0.831	0.837	0.853	0.883	0.868
	Saturday	1.062	1.103	1.139	1.026	1.067	1.066	1.048	1.084	1.042	1.058	1.066	1.042	1.003
Sunday	1.093	1.267	1.219	1.145	1.022	1.081	1.037	0.993	1.049	1.068	1.038	1.103	1.094	

R2_SWGA	Rural - Principal Arterials (3), Minor Arterials (4)													
		Average	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Average Weekday	0.973	0.971	0.960	0.953	0.978	0.991	0.979	0.963	0.975	0.990	0.987	0.959	0.968
	Monday	1.000	0.947	0.964	0.998	1.020	1.062	1.005	1.000	1.000	1.045	1.017	0.982	0.957
	Tuesday	0.974	0.976	0.948	0.945	0.979	0.982	0.995	0.980	0.989	0.989	1.005	0.964	0.937
	Wednesday	0.973	1.019	1.010	0.962	0.970	0.974	0.980	0.963	0.964	0.978	0.970	0.918	0.973
	Thursday	0.944	0.943	0.919	0.905	0.942	0.946	0.934	0.909	0.947	0.947	0.954	0.972	1.006
	Friday	0.849	0.827	0.819	0.800	0.854	0.850	0.852	0.905	0.844	0.847	0.857	0.863	0.870
	Saturday	1.059	1.143	1.100	1.055	1.051	1.043	1.029	1.081	1.034	1.009	1.022	1.065	1.074
Sunday	1.328	1.511	1.432	1.457	1.263	1.289	1.216	1.274	1.249	1.267	1.291	1.321	1.364	

R3_SWGA	Rural - Major Collectors (5), Minor Collectors (6), Locals (7)													
		Average	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Average Weekday	0.965	0.972	0.955	0.941	0.965	0.992	0.967	0.957	0.967	0.982	0.980	0.944	0.961
	Monday	0.991	0.959	0.949	0.966	1.003	1.054	1.009	0.991	0.996	1.049	1.025	0.937	0.954
	Tuesday	0.964	0.969	0.934	0.933	0.974	0.977	0.973	0.969	0.977	0.972	1.009	0.951	0.931
	Wednesday	0.967	1.016	1.022	0.965	0.946	0.982	0.964	0.951	0.957	0.983	0.948	0.913	0.956
	Thursday	0.939	0.945	0.913	0.900	0.937	0.955	0.922	0.918	0.937	0.925	0.936	0.976	1.001
	Friday	0.876	0.851	0.835	0.830	0.895	0.884	0.868	0.922	0.865	0.866	0.891	0.901	0.899
	Saturday	1.052	1.096	1.169	1.088	1.014	1.000	0.957	1.069	1.045	1.008	1.087	1.042	1.044
Sunday	1.346	1.534	1.471	1.466	1.313	1.228	1.262	1.329	1.271	1.267	1.351	1.340	1.325	

\*Weekday factors are used to normalize the variability of traffic counts that exists between counts taken on the Weekdays, Friday, Saturday and/or Sunday.

# AXLE ADJUSTMENT FACTORS BY FUNCTIONAL CLASSIFICATION 2010-2014\*

<b>U1_A</b>	<b>Urban - Interstate (1)</b>												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	<b>2014</b>	<b>0.874</b>	<b>0.862</b>	<b>0.852</b>	<b>0.866</b>	<b>0.866</b>	<b>0.863</b>	<b>0.868</b>	<b>0.85</b>	<b>0.839</b>	<b>0.841</b>	<b>0.85</b>	<b>0.857</b>
	2013	0.833	0.844	0.843	0.831	0.836	0.846	0.846	0.841	0.809	0.829	0.842	0.840
	2012	0.847	0.828	0.844	0.846	0.849	0.844	0.854	0.854	0.852	0.844	0.859	0.866
	2011	0.830	0.854	0.862	0.864	0.862	0.864	0.874	0.844	0.840	0.840	0.858	0.848
2010	0.816	0.808	0.816	0.818	0.814	0.816	0.804	0.832	0.860	0.848	0.882	0.870	
<b>U2_A</b>	<b>Urban - Freeways and Expressways (2) Principal Arterials (3)</b>												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	<b>2014</b>	<b>0.951</b>	<b>0.952</b>	<b>0.94</b>	<b>0.932</b>	<b>0.935</b>	<b>0.934</b>	<b>0.932</b>	<b>0.932</b>	<b>0.928</b>	<b>0.933</b>	<b>0.931</b>	<b>0.94</b>
	2013	0.953	0.956	0.956	0.953	0.954	0.956	0.955	0.954	0.954	0.951	0.955	0.965
	2012	0.943	0.943	0.954	0.941	0.944	0.943	0.947	0.936	0.936	0.935	0.939	0.943
	2011	0.944	0.946	0.946	0.940	0.946	0.944	0.948	0.940	0.940	0.936	0.946	0.950
2010	0.938	0.888	0.878	0.946	0.936	0.966	0.954	0.952	0.944	0.946	0.948	0.942	
<b>U3_A</b>	<b>Urban - Minor Arterials (4), Collectors (5 &amp; 6), Locals (7)</b>												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	<b>2014</b>	<b>0.923</b>	<b>0.931</b>	<b>0.937</b>	<b>0.932</b>	<b>0.936</b>	<b>0.937</b>	<b>0.935</b>	<b>0.937</b>	<b>0.929</b>	<b>0.926</b>	<b>0.933</b>	<b>0.936</b>
	2013	0.927	0.929	0.93	0.931	0.931	0.929	0.931	0.927	0.924	0.915	0.932	0.936
	2012	0.965	0.964	0.969	0.969	0.969	0.969	0.973	0.968	0.965	0.964	0.965	0.971
	2011	0.966	0.968	0.942	0.944	0.946	0.944	0.948	0.944	0.964	0.962	0.966	0.970
2010	0.936	0.936	0.934	0.872	0.900	0.910	0.912	0.930	0.940	0.942	0.944	0.936	
<b>R1_SWGA</b>	<b>Rural - Interstate (1), Principal Arterial (Freeways and Expressways) (2)</b>												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	<b>2014</b>	<b>0.68</b>	<b>0.686</b>	<b>0.701</b>	<b>0.707</b>	<b>0.721</b>	<b>0.725</b>	<b>0.736</b>	<b>0.73</b>	<b>0.705</b>	<b>0.708</b>	<b>0.717</b>	<b>0.715</b>
	2013	0.702	0.707	0.728	0.708	0.731	0.741	0.753	0.742	0.728	0.716	0.733	0.730
	2012	0.674	0.687	0.714	0.724	0.739	0.739	0.770	0.756	0.723	0.724	0.748	0.740
	2011	0.676	0.678	0.700	0.708	0.712	0.712	0.718	0.708	0.710	0.702	0.722	0.694
2010	0.676	0.678	0.700	0.708	0.712	0.712	0.718	0.708	0.710	0.702	0.722	0.694	
<b>R2_SWGA</b>	<b>Rural - Other Principal Arterials (3), Minor Arterials (4)</b>												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	<b>2014</b>	<b>0.876</b>	<b>0.883</b>	<b>0.886</b>	<b>0.884</b>	<b>0.889</b>	<b>0.902</b>	<b>0.894</b>	<b>0.899</b>	<b>0.889</b>	<b>0.879</b>	<b>0.89</b>	<b>0.898</b>
	2013	0.894	0.897	0.902	0.893	0.890	0.903	0.900	0.894	0.897	0.887	0.895	0.901
	2012	0.877	0.889	0.898	0.883	0.886	0.883	0.892	0.885	0.901	0.897	0.892	0.892
	2011	0.878	0.886	0.886	0.886	0.884	0.888	0.894	0.892	0.892	0.886	0.880	0.886
2010	0.830	0.826	0.828	0.826	0.856	0.864	0.862	0.858	0.872	0.874	0.876	0.884	
<b>R3_SWGA</b>	<b>Rural - Major Collectors (5), Minor Collectors (6), Locals (7)</b>												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	<b>2014</b>	<b>0.965</b>	<b>0.941</b>	<b>0.945</b>	<b>0.916</b>	<b>0.927</b>	<b>0.929</b>	<b>0.932</b>	<b>0.923</b>	<b>0.917</b>	<b>0.909</b>	<b>0.912</b>	<b>0.911</b>
	2013	0.947	0.946	0.96	0.958	0.959	0.956	0.944	0.944	0.938	0.927	0.939	0.959
	2012	0.923	0.923	0.920	0.927	0.927	0.927	0.925	0.926	0.922	0.927	0.921	0.940
	2011	0.932	0.930	0.942	0.938	0.930	0.936	0.930	0.928	0.928	0.906	0.924	0.928
2010	0.890	0.858	0.852	0.884	0.866	0.876	0.880	0.906	0.918	0.924	0.928	0.934	

\*Axle Adjustment Factors are applied to counts taken with portable counters utilizing a single pneumatic road tube. This type of counter registers two axle impacts as one vehicle. The axle factor is used to account for vehicle types having more than two axles, typically trucks with three or more axles.

**ANNUAL GROWTH FACTORS  
BY FUNCTIONAL CLASSIFICATION 2004 - 2014\***

U1_SWG	Urban - Interstate (1), Principal Arterial (Freeways and Expressways) (2)											
	YEAR TO	YEAR FROM										
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
2004	-	0.975	0.958	0.922	0.941	0.924	0.920	0.906	0.898	0.909	0.890	
2005	1.026	-	0.983	0.945	0.966	0.948	0.944	0.930	0.922	0.933	0.913	
2006	1.043	1.017	-	0.962	0.982	0.964	0.960	0.946	0.937	0.949	0.928	
2007	1.085	1.058	1.040	-	1.021	1.002	0.998	0.984	0.975	0.987	0.965	
2008	1.062	1.035	1.018	0.979	-	0.981	0.977	0.963	0.954	0.966	0.945	
2009	1.083	1.055	1.038	0.998	1.019	-	0.996	0.981	0.973	0.984	0.963	
2010	1.087	1.059	1.042	1.002	1.023	1.004	-	0.985	0.976	0.988	0.967	
2011	1.103	1.075	1.057	1.017	1.038	1.019	1.015	-	0.991	1.003	0.982	
2012	1.113	1.085	1.067	1.026	1.048	1.028	1.024	1.009	-	1.012	0.990	
2013	1.100	1.072	1.054	1.013	1.035	1.016	1.012	0.997	0.988	-	0.978	
2014	1.124	1.095	1.077	1.036	1.058	1.038	1.034	1.019	1.010	1.022	-	

U2_SWG	Urban - Other Principal Arterials (3), Minor Arterials (4), Collectors (5 & 6), Locals (7)											
	YEAR TO	YEAR FROM										
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
2004	-	0.999	0.992	1.005	1.037	1.041	1.034	1.016	1.017	1.031	1.021	
2005	1.001	-	0.993	1.006	1.038	1.042	1.035	1.017	1.018	1.032	1.022	
2006	1.008	1.007	-	1.013	1.046	1.050	1.042	1.024	1.025	1.040	1.029	
2007	0.995	0.994	0.987	-	1.032	1.036	1.029	1.011	1.012	1.026	1.016	
2008	0.964	0.963	0.956	0.969	-	1.004	0.997	0.979	0.980	0.994	0.984	
2009	0.960	0.959	0.953	0.965	0.996	-	0.993	0.975	0.976	0.990	0.981	
2010	0.967	0.966	0.959	0.972	1.003	1.007	-	0.982	0.983	0.997	0.987	
2011	0.984	0.983	0.977	0.989	1.021	1.025	1.018	-	1.001	1.015	1.005	
2012	0.983	0.982	0.976	0.988	1.020	1.024	1.017	0.999	-	1.014	1.004	
2013	0.970	0.969	0.962	0.975	1.006	1.010	1.003	0.985	0.986	-	0.990	
2014	0.979	0.978	0.971	0.984	1.016	1.020	1.013	0.995	0.996	1.010	-	

R1_SWGA	Rural - Interstate (1), Principal Arterial (Freeways and Expressways) (2)											
	YEAR TO	YEAR FROM										
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
2004	-	0.995	0.987	0.979	0.996	1.005	1.009	1.007	0.988	0.989	0.977	
2005	1.005	-	0.992	0.984	1.001	1.010	1.014	1.012	0.992	0.993	0.981	
2006	1.013	1.008	-	0.992	1.009	1.018	1.022	1.020	1.000	1.001	0.989	
2007	1.021	1.016	1.008	-	1.017	1.027	1.031	1.029	1.008	1.009	0.997	
2008	1.004	0.999	0.991	0.983	-	1.009	1.013	1.011	0.991	0.992	0.980	
2009	0.995	0.990	0.982	0.974	0.991	-	1.004	1.002	0.982	0.983	0.972	
2010	0.991	0.986	0.978	0.970	0.987	0.996	-	0.998	0.978	0.979	0.968	
2011	0.993	0.988	0.980	0.972	0.989	0.998	1.002	-	0.980	0.981	0.970	
2012	1.013	1.008	1.000	0.992	1.009	1.018	1.022	1.020	-	1.001	0.989	
2013	1.012	1.007	0.999	0.991	1.008	1.017	1.021	1.019	0.999	-	0.988	
2014	1.024	1.019	1.011	1.003	1.02	1.029	1.033	1.031	1.011	1.012	-	

R2_SWGA	Rural - Other Principal Arterials (3), Minor Arterials (4)											
	YEAR TO	YEAR FROM										
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
2004	-	1.001	0.992	0.992	1.043	1.048	1.052	1.051	1.043	1.011	0.997	
2005	0.999	-	0.991	0.991	1.042	1.047	1.051	1.049	1.042	1.010	0.996	
2006	1.008	1.009	-	1.000	1.052	1.057	1.060	1.059	1.052	1.019	1.005	
2007	1.008	1.009	1.000	-	1.052	1.057	1.060	1.059	1.052	1.019	1.005	
2008	0.959	0.960	0.951	0.951	-	1.005	1.008	1.007	1.000	0.969	0.956	
2009	0.954	0.955	0.946	0.946	0.995	-	1.003	1.002	0.995	0.964	0.951	
2010	0.951	0.952	0.943	0.943	0.992	0.997	-	0.999	0.992	0.961	0.948	
2011	0.952	0.953	0.944	0.944	0.993	0.998	1.001	-	0.993	0.962	0.949	
2012	0.959	0.960	0.951	0.951	1.000	1.005	1.008	1.007	-	0.969	0.956	
2013	0.989	0.990	0.981	0.981	1.032	1.037	1.040	1.039	1.032	-	0.986	
2014	1.003	1.004	0.995	0.995	1.046	1.052	1.055	1.054	1.046	1.014	-	

R3_SWGA	Rural - Major Collectors (5), Minor Collectors (6), Locals (7)											
	YEAR TO	YEAR FROM										
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
2004	-	1.013	1.018	1.011	1.081	1.073	1.077	1.073	1.073	1.065	1.055	
2005	0.987	-	1.005	0.998	1.067	1.059	1.063	1.059	1.059	1.052	1.041	
2006	0.982	0.995	-	0.993	1.062	1.054	1.058	1.054	1.054	1.046	1.036	
2007	0.989	1.002	1.007	-	1.070	1.061	1.065	1.061	1.061	1.054	1.043	
2008	0.925	0.937	0.942	0.935	-	0.992	0.996	0.992	0.992	0.985	0.975	
2009	0.932	0.944	0.949	0.942	1.008	-	1.004	1.000	1.000	0.993	0.983	
2010	0.928	0.941	0.945	0.939	1.004	0.996	-	0.996	0.996	0.989	0.979	
2011	0.932	0.944	0.949	0.942	1.008	1.000	1.004	-	1.000	0.993	0.983	
2012	0.932	0.944	0.949	0.942	1.008	1.000	1.004	1.000	-	0.993	0.983	
2013	0.939	0.951	0.956	0.949	1.015	1.007	1.011	1.007	1.007	-	0.990	
2014	0.948	0.960	0.965	0.959	1.025	1.017	1.021	1.017	1.017	1.010	-	

\*Factors in this table are used to adjust previous year AADTs to a more current year for similarly classed roads (e.g. to adjust a 2006 urban interstate AADT to a 2010 equivalent, you would multiply the 2006 AADT by 1.042).



# TRANSITION FROM OLD TO NEW FUNCTIONAL CLASSIFICATION AND FACTOR GROUPS

Old Functional Class Code	2010 Functional Class Code	2010 Functional Class Description	Rural Code	Factor Group - Seasonal, Weekday, and Growth	Factor Group - Axle
01	1	Interstates	0	R1_SWGA	R1_SWGA
Not Applicable	2	Principal Arterial (Freeways and Expressways)	0	R1_SWGA	R1_SWGA
02	3	Other Principal Arterials	0	R2_SWGA	R2_SWGA
06	4	Minor Arterials	0	R2_SWGA	R2_SWGA
07	5	Major Collectors	0	R3_SWGA	R3_SWGA
08	6	Minor Collectors	0	R3_SWGA	R3_SWGA
09	7	Locals	0	R3_SWGA	R3_SWGA
11	1	Interstates	1	U1_SWG	U1_A
12	2	Principal Arterial (Freeways and Expressways)	1	U1_SWG	U2_A
14	3	Other Principal Arterials	1	U2_SWG	U2_A
16	4	Minor Arterials	1	U2_SWG	U3_A
17	5	Major Collectors	1	U2_SWG	U3_A
Not Applicable	6	Minor Collectors	1	U2_SWG	U3_A
19	7	Locals	1	U2_SWG	U3_A
11	1	Interstates	2	U1_SWG	U1_A
12	2	Principal Arterial (Freeways and Expressways)	2	U1_SWG	U2_A
14	3	Other Principal Arterials	2	U2_SWG	U2_A
16	4	Minor Arterials	2	U2_SWG	U3_A
17	5	Major Collectors	2	U2_SWG	U3_A
Not Applicable	6	Minor Collectors	2	U2_SWG	U3_A
19	7	Locals	2	U2_SWG	U3_A
01	1	Interstates	3	R1_SWGA	R1_SWGA
Not Applicable	2	Principal Arterial (Freeways and Expressways)	3	R2_SWGA	R2_SWGA
02	3	Other Principal Arterials	3	R2_SWGA	R2_SWGA
06	4	Minor Arterials	3	R3_SWGA	R3_SWGA
07	5	Major Collectors	3	R3_SWGA	R3_SWGA
08	6	Minor Collectors	3	R3_SWGA	R3_SWGA
09	7	Locals	3	R3_SWGA	R3_SWGA

Factor Initial
S = Seasonal Adjustment
W = Weekday Adjustment
G = Annual Growth
A = Axle Adjustment

Rural Code
0 = Outside Urban Area Boundary, Outside Corporation Boundary
1 = Inside Urban Area Boundary, Inside Corporation Boundary
2 = Inside Urban Area Boundary, Outside Corporation Boundary
3 = Outside Urban Area Boundary, Inside Corporation Boundary