



# INDIANA DEPARTMENT OF TRANSPORTATION

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**Eric Holcomb, Governor**  
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## Latest INDOT Traffic Adjustment Factors

Effective for 2023

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 and other public roads. 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:

1. A Statewide Traffic Monitoring System consisting of 135 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, DAY OF WEEK 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 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). Video data collection is also deployed. The coverage count program operates on a two-year cycle for Interstates, a three-year cycle other State Owned routes and many non-state owned urban and highly traveled rural roads that are Federal Aid Eligible. One-third of all sections are collected annually, or approximately 8,000 of the 25,000 count sites. Where possible, portable classifiers are used so that approximately 65% of all coverage counts collected are classification counts. Use of video data collection expands the reach of classification counts in urban areas. Additional counts are taken within this program to support specific projects. In addition INDOT also contracts with some Metropolitan Planning Organizations (MPOs) and Regional Planning Organizations (RPOs) to collect coverage count data within their areas as well as contracting with Consultants. We are expanding the number of MPO and RPO counting partners in the future.

Annual average daily traffic is the total volume for the year divided by 365 days. Only 135 of INDOT's 8,000 Traffic Count Stations 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 more than 25,000 count locations, approximately 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.

## **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.

### **DAY OF WEEK ADJUSTMENT FACTORS**

The purpose of these factors is to normalize the variability of traffic counts that exists between counts taken on a given weekday, Friday, Saturdays and/or Sundays. In developing the weekday factors we found little difference in the Monday through Thursday trends so an average weekday can be used. INDOTs Traffic Count Database System (TCDS) applies factors for each day of week for each hour within a collection to calculate the AADT. INDOT typically collects data during the period from Monday through Thursday.

## **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 135 continuous counting telemetry sites and averaged for the five factor groups (FG).

Beginning in 2020, publication of the average of the most recent five (5) and ten (10) Annual Growth Factors for each Factor Group was implemented. These rates are sometimes used to make crude forecast estimates of future traffic in the absence of extensive historic data specific to a location. The average of the most recent ten (10) years' rates is used to estimate the Future Year AADT reported to the Federal Highway Administration (FHWA) as part of the annual submission of data to the Highway Performance Monitoring System (HPMS).

## **FACTOR APPLICATION**

The new factors published herein were developed from data collected during the 2023 calendar year and will be applied to all counts processed into the INDOT Traffic Count Database beginning on January 1, 2023, 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 2024 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 2019-2023\*

U1_SWG	Urban - Interstate (1), Principal Arterial (Freeways and Expressways) (2)												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	2023	1.138	1.045	1.007	1.002	0.958	0.939	0.982	0.95	0.976	0.988	1.006	1.044
	2022	1.161	1.11	0.983	0.966	0.96	0.944	0.964	0.94	0.959	0.974	0.996	1.062
	2021	1.178	1.199	0.996	0.967	0.971	0.942	0.937	0.951	0.962	0.980	1.006	1.019
	2020	0.922	0.897	1.052	1.504	1.202	0.954	0.914	0.935	0.916	0.920	0.998	1.003
	2019	1.153	1.091	1.016	0.987	0.973	0.982	0.970	0.939	0.966	0.949	1.003	1.035
	5 YR AVG	1.110	1.068	1.011	1.085	1.013	0.952	0.953	0.943	0.956	0.962	1.002	1.033

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
	2023	1.131	1.051	1.025	0.989	0.963	0.951	0.976	0.952	0.954	0.982	1.005	1.055
	2022	1.121	1.079	1.011	0.970	0.950	0.952	0.990	0.949	0.939	0.977	1.019	1.075
	2021	1.165	1.141	1.006	0.971	0.968	0.944	0.961	0.949	0.958	0.972	0.997	1.020
	2020	0.956	0.928	1.091	1.335	1.051	0.932	0.940	0.936	0.918	0.937	1.021	1.032
	2019	1.188	1.058	1.032	0.973	0.951	0.954	0.951	0.936	0.965	0.966	1.032	1.064
	5 YR AVG	1.112	1.051	1.033	1.048	0.977	0.947	0.964	0.944	0.947	0.967	1.015	1.049

R1_SWGA	Rural - Interstate (1), Principal Arterial (Freeways and Expressways) (2)												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	2023	1.194	1.104	1.035	1.019	0.948	0.887	0.916	0.930	0.954	0.978	1.005	1.079
	2022	1.225	1.184	1.005	0.985	0.953	0.916	0.922	0.957	0.955	0.940	0.980	1.082
	2021	1.294	1.320	1.048	1.004	0.960	0.886	0.852	0.918	0.951	0.943	0.972	1.038
	2020	0.999	0.968	1.094	1.583	1.168	0.916	0.839	0.866	0.891	0.890	0.988	1.015
	2019	1.256	1.142	1.040	1.008	0.948	0.911	0.896	0.899	0.983	0.973	1.019	1.049
	2018	1.239	1.137	1.023	1.010	0.943	0.906	0.898	0.916	0.975	0.961	1.000	1.088
	5 YR AVG	1.194	1.144	1.044	1.120	0.995	0.903	0.885	0.914	0.947	0.945	0.993	1.053

R2_SWGA	Rural - Principal Arterials (3), Minor Arterials (4)												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	2023	1.185	1.084	1.051	0.995	0.933	0.911	0.953	0.946	0.934	0.977	1.020	1.093
	2022	1.170	1.134	1.014	0.985	0.958	0.943	0.972	0.942	0.921	0.962	1.009	1.098
	2021	1.200	1.193	1.025	0.974	0.956	0.913	0.913	0.932	0.939	0.959	0.997	1.059
	2020	1.027	0.998	1.126	1.343	1.056	0.900	0.903	0.914	0.899	0.908	1.012	1.059
	2019	1.168	1.055	1.043	0.996	0.946	0.944	0.963	0.940	0.953	0.973	1.029	1.066
	2018	1.180	1.077	1.052	1.011	0.952	0.938	0.975	0.922	0.959	0.954	1.010	1.091
	5 YR AVG	1.155	1.090	1.052	1.051	0.967	0.925	0.947	0.933	0.934	0.956	1.013	1.078

R3_SWGA	Rural - Major Collectors (5), Minor Collectors (6), Locals (7)												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	2023	1.185	1.091	1.046	0.97	0.895	0.899	0.986	0.953	0.95	0.966	1.005	1.127
	2022	1.186	1.141	1.016	0.958	0.923	0.915	0.988	0.944	0.951	0.94	1.008	1.094
	2021	1.188	1.199	1.017	0.949	0.931	0.949	0.948	0.953	0.934	0.947	0.966	1.062
	2020	1.077	1.072	1.14	1.184	1.006	0.892	0.894	0.906	0.903	0.913	1.012	1.083
	2019	1.197	1.085	1.055	0.959	0.928	0.942	0.952	0.941	0.961	0.954	1.034	1.097
	2018	1.213	1.134	1.072	0.994	0.932	0.918	0.945	0.94	0.952	0.946	1.014	1.083
	5 YR AVG	1.174	1.120	1.058	1.002	0.936	0.919	0.952	0.940	0.942	0.944	1.007	1.091

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

## WEEKDAY FACTORS BY FUNCTIONAL CLASSIFICATION 2023\*

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	0.948	0.939	0.943	0.948	0.935	0.963	0.959	0.956	0.955	0.958	0.940	0.937	0.948
	Monday	1.003	0.996	0.982	1.000	0.973	1.056	0.996	0.974	1.006	1.049	0.978	0.959	1.072
	Tuesday	0.950	0.895	0.927	0.947	0.940	0.962	0.969	1.035	0.956	0.953	0.945	0.925	0.943
	Wednesday	0.931	0.980	0.939	0.933	0.941	0.930	0.947	0.924	0.941	0.931	0.921	0.898	0.892
	Thursday	0.909	0.886	0.924	0.910	0.887	0.902	0.924	0.891	0.916	0.900	0.917	0.967	0.884
	Friday	0.878	0.843	0.875	0.921	0.876	0.871	0.883	0.858	0.883	0.862	0.873	0.925	0.866
	Saturday	1.129	1.118	1.127	1.144	1.115	1.115	1.127	1.111	1.155	1.128	1.135	1.158	1.113
	Sunday	1.336	1.426	1.355	1.356	1.299	1.299	1.313	1.249	1.310	1.321	1.326	1.352	1.423

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	0.950	0.944	0.944	0.941	0.933	0.964	0.960	0.946	0.958	0.968	0.945	0.940	0.954
	Monday	1.001	0.997	0.978	0.981	0.970	1.047	0.999	0.973	0.998	1.055	0.980	0.952	1.078
	Tuesday	0.941	0.897	0.917	0.940	0.933	0.962	0.966	0.961	0.955	0.957	0.944	0.918	0.941
	Wednesday	0.934	0.970	0.949	0.921	0.935	0.933	0.943	0.937	0.953	0.939	0.923	0.907	0.902
	Thursday	0.923	0.911	0.933	0.920	0.894	0.914	0.932	0.912	0.927	0.919	0.933	0.984	0.893
	Friday	0.886	0.857	0.889	0.933	0.884	0.884	0.891	0.877	0.886	0.867	0.874	0.915	0.869
	Saturday	1.098	1.087	1.097	1.133	1.088	1.084	1.090	1.113	1.112	1.080	1.104	1.107	1.079
	Sunday	1.356	1.419	1.378	1.381	1.368	1.316	1.358	1.269	1.348	1.320	1.339	1.393	1.382

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	1.012	0.988	0.989	1.002	1.005	1.021	1.032	1.032	1.024	1.025	1.018	1.011	0.991
	Monday	1.057	1.002	1.019	1.059	1.045	1.077	1.053	1.059	1.071	1.051	1.057	1.052	1.135
	Tuesday	1.037	0.966	0.991	1.032	1.042	1.064	1.081	1.117	1.048	1.060	1.050	1.016	0.971
	Wednesday	1.005	1.040	0.993	0.992	1.018	1.012	1.031	1.007	1.022	1.036	1.003	0.962	0.945
	Thursday	0.948	0.945	0.952	0.925	0.914	0.932	0.961	0.944	0.956	0.954	0.960	1.013	0.914
	Friday	0.849	0.838	0.840	0.882	0.848	0.829	0.850	0.849	0.850	0.839	0.825	0.886	0.850
	Saturday	1.050	1.053	1.072	1.090	1.079	1.032	1.051	1.038	1.028	1.049	1.045	1.049	1.017
	Sunday	1.112	1.191	1.199	1.126	1.066	1.082	1.053	1.032	1.047	1.105	1.077	1.052	1.308

R2_SWGA	Rural - Principal Arterials (3), Minor Arterials (4)													
		Average	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Average Weekday	0.955	0.936	0.943	0.941	0.942	0.970	0.983	0.964	0.962	0.983	0.944	0.942	0.946
	Monday	1.008	0.999	0.977	0.984	0.980	1.064	1.024	0.977	1.006	1.073	0.990	0.962	1.061
	Tuesday	0.952	0.890	0.926	0.947	0.944	0.970	0.994	1.015	0.956	0.978	0.941	0.925	0.940
	Wednesday	0.936	0.956	0.936	0.920	0.943	0.933	0.972	0.937	0.945	0.947	0.927	0.915	0.904
	Thursday	0.921	0.897	0.931	0.912	0.901	0.914	0.941	0.925	0.939	0.932	0.916	0.965	0.879
	Friday	0.861	0.832	0.866	0.904	0.861	0.854	0.856	0.852	0.856	0.844	0.851	0.904	0.846
	Saturday	1.099	1.116	1.129	1.127	1.077	1.073	1.062	1.087	1.107	1.076	1.112	1.133	1.093
	Sunday	1.367	1.477	1.418	1.439	1.370	1.296	1.360	1.243	1.341	1.317	1.367	1.399	1.373

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	0.938	0.920	0.928	0.914	0.912	0.952	0.967	0.934	0.954	0.960	0.940	0.940	0.930
	Monday	0.989	0.966	0.952	0.958	0.944	1.056	1.005	0.954	1.003	1.048	0.986	0.972	1.028
	Tuesday	0.927	0.872	0.916	0.907	0.895	0.948	0.978	0.946	0.959	0.931	0.916	0.932	0.925
	Wednesday	0.921	0.935	0.918	0.904	0.929	0.907	0.951	0.918	0.925	0.946	0.924	0.911	0.884
	Thursday	0.912	0.907	0.924	0.887	0.879	0.895	0.932	0.916	0.927	0.916	0.934	0.945	0.881
	Friday	0.892	0.861	0.890	0.946	0.901	0.887	0.888	0.875	0.891	0.874	0.884	0.937	0.866
	Saturday	1.130	1.115	1.157	1.257	1.161	1.126	1.046	1.176	1.131	1.092	1.091	1.078	1.129
	Sunday	1.382	1.487	1.379	1.401	1.429	1.370	1.365	1.265	1.353	1.396	1.401	1.413	1.326

\*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 2019-2023\*

U1_A	Urban - Interstate (1)												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	<b>2023</b>	<b>0.875</b>	<b>0.875</b>	<b>0.864</b>	<b>0.885</b>	<b>0.879</b>	<b>0.874</b>	<b>0.881</b>	<b>0.872</b>	<b>0.877</b>	<b>0.885</b>	<b>0.896</b>	<b>0.904</b>
	2022	0.885	0.870	0.866	0.871	0.877	0.864	0.886	0.872	0.865	0.875	0.873	0.875
	2021	0.852	0.846	0.848	0.866	0.860	0.858	0.876	0.864	0.860	0.897	0.896	0.892
	2020	0.861	0.860	0.840	0.819	0.847	0.847	0.857	0.848	0.844	0.849	0.846	0.846
2019	0.863	0.856	0.874	0.861	0.870	0.874	0.873	0.867	0.863	0.855	0.863	0.872	

U2_A	Urban - Freeways and Expressways (2) Principal Arterials (3)												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	<b>2023</b>	<b>0.937</b>	<b>0.950</b>	<b>0.947</b>	<b>0.953</b>	<b>0.943</b>	<b>0.935</b>	<b>0.942</b>	<b>0.937</b>	<b>0.941</b>	<b>0.938</b>	<b>0.938</b>	<b>0.943</b>
	2022	0.942	0.934	0.910	0.925	0.930	0.926	0.943	0.936	0.939	0.937	0.936	0.941
	2021	0.929	0.931	0.926	0.924	0.926	0.924	0.945	0.938	0.934	0.938	0.938	0.937
	2020	0.941	0.946	0.925	0.919	0.936	0.934	0.944	0.940	0.933	0.927	0.929	0.933
2019	0.952	0.943	0.949	0.949	0.952	0.957	0.954	0.953	0.956	0.960	0.962	0.960	

U3_A	Urban - Minor Arterials (4), Collectors (5 & 6), Locals (7)												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	<b>2023</b>	<b>0.936</b>	<b>0.936</b>	<b>0.934</b>	<b>0.934</b>	<b>0.935</b>	<b>0.935</b>	<b>0.930</b>	<b>0.930</b>	<b>0.927</b>	<b>0.923</b>	<b>0.930</b>	<b>0.941</b>
	2022	0.932	0.935	0.934	0.935	0.932	0.929	0.933	0.933	0.925	0.932	0.933	0.936
	2021	0.928	0.931	0.926	0.928	0.940	0.937	0.938	0.937	0.935	0.936	0.935	0.933
	2020	0.973	0.977	0.961	0.954	0.957	0.962	0.967	0.969	0.954	0.965	0.934	0.978
2019	0.964	0.963	0.964	0.953	0.935	0.936	0.931	0.933	0.929	0.921	0.910	0.946	

R1_SWGA	Rural - Interstate (1), Principal Arterial (Freeways and Expressways) (2)												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	<b>2023</b>	<b>0.673</b>	<b>0.678</b>	<b>0.682</b>	<b>0.702</b>	<b>0.707</b>	<b>0.714</b>	<b>0.723</b>	<b>0.708</b>	<b>0.706</b>	<b>0.708</b>	<b>0.710</b>	<b>0.716</b>
	2022	0.646	0.647	0.665	0.675	0.690	0.712	0.707	0.697	0.682	0.708	0.702	0.693
	2021	0.653	0.638	0.664	0.677	0.702	0.704	0.725	0.703	0.705	0.704	0.701	0.691
	2020	0.676	0.682	0.663	0.618	0.686	0.708	0.712	0.701	0.700	0.704	0.697	0.665
2019	0.682	0.676	0.714	0.717	0.733	0.741	0.769	0.746	0.721	0.724	0.723	0.751	

R2_SWGA	Rural - Other Principal Arterials (3), Minor Arterials (4)												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	<b>2023</b>	<b>0.889</b>	<b>0.898</b>	<b>0.893</b>	<b>0.898</b>	<b>0.899</b>	<b>0.898</b>	<b>0.904</b>	<b>0.895</b>	<b>0.904</b>	<b>0.896</b>	<b>0.902</b>	<b>0.909</b>
	2022	0.908	0.901	0.909	0.909	0.924	0.933	0.938	0.927	0.907	0.904	0.905	0.906
	2021	0.879	0.876	0.871	0.874	0.889	0.895	0.912	0.904	0.897	0.913	0.913	0.896
	2020	0.903	0.912	0.886	0.871	0.903	0.910	0.919	0.911	0.900	0.896	0.895	0.902
2019	0.899	0.907	0.910	0.904	0.913	0.918	0.926	0.924	0.909	0.909	0.918	0.921	

R3_SWGA	Rural - Major Collectors (5), Minor Collectors (6), Locals (7)												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	<b>2023</b>	<b>0.953</b>	<b>0.959</b>	<b>0.953</b>	<b>0.955</b>	<b>0.954</b>	<b>0.956</b>	<b>0.957</b>	<b>0.956</b>	<b>0.952</b>	<b>0.952</b>	<b>0.955</b>	<b>0.964</b>
	2022	0.947	0.949	0.948	0.936	0.936	0.938	0.950	0.943	0.953	0.964	0.969	0.973
	2021	0.937	0.954	0.948	0.933	0.924	0.944	0.942	0.926	0.923	0.921	0.910	0.939
	2020	0.950	0.957	0.955	0.955	0.935	0.925	0.933	0.934	0.932	0.921	0.922	0.937
2019	0.955	0.960	0.958	0.958	0.960	0.963	0.960	0.962	0.959	0.953	0.964	0.965	

\*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 2013 - 2023\*

U1_SWG	Urban - Interstate (1), Principal Arterial (Freeways and Expressways) (2)											
	Year To	Year From										
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
2013	-	0.978	0.936	0.934	0.942	0.929	0.927	1.056	0.931	0.944	0.928	
2014	1.022	-	0.957	0.954	0.962	0.948	0.946	1.078	0.951	0.964	0.947	
2015	1.068	1.045	-	0.997	1.005	0.991	0.989	1.126	0.993	1.007	0.989	
2016	1.071	1.048	1.003	-	1.008	0.994	0.992	1.130	0.996	1.010	0.992	
2017	1.062	1.040	0.995	0.992	-	0.986	0.984	1.121	0.988	1.002	0.984	
2018	1.077	1.055	1.009	1.006	1.014	-	0.999	1.138	1.003	1.017	0.999	
2019	1.079	1.057	1.011	1.008	1.016	1.001	-	1.139	1.004	1.018	1.000	
2020	0.947	0.928	0.888	0.885	0.892	0.879	0.878	-	0.882	0.894	0.879	
2021	1.074	1.052	1.007	1.004	1.012	0.997	0.996	1.134	-	1.014	0.996	
2022	1.059	1.037	0.993	0.990	0.998	0.983	0.982	1.118	0.986	-	0.982	
2023	1.078	1.056	1.011	1.008	1.016	1.001	1.000	1.138	1.004	1.018	-	

U2_SWG	Urban - Other Principal Arterials (3), Minor Arterials (4), Collectors (5 & 6), Locals (7)											
	Year To	Year From										
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
2013	-	0.990	0.948	0.945	0.936	0.933	0.931	1.060	0.997	0.997	0.976	
2014	1.010	-	0.978	0.976	0.967	0.963	0.962	1.095	1.030	1.030	1.008	
2015	1.055	1.022	-	0.997	0.988	0.984	0.982	1.119	1.052	1.052	1.029	
2016	1.058	1.025	1.003	-	0.991	0.987	0.985	1.122	1.055	1.055	1.032	
2017	1.068	1.034	1.012	1.009	-	0.996	0.994	1.133	1.064	1.064	1.041	
2018	1.072	1.038	1.016	1.013	1.004	-	0.994	1.133	1.064	1.064	1.041	
2019	1.074	1.040	1.018	1.015	1.006	1.006	-	1.133	1.064	1.064	1.041	
2020	0.943	0.913	0.894	0.891	0.883	0.883	-	0.940	0.940	0.920	0.920	
2021	1.003	0.971	0.951	0.948	0.940	0.940	0.940	1.064	-	1.000	0.978	
2022	1.003	0.971	0.951	0.948	0.940	0.940	0.940	1.064	1.000	-	0.978	
2023	1.025	0.992	0.972	0.969	0.961	0.961	0.961	1.087	1.022	1.022	-	

R1_SWGA	Rural - Interstate (1), Principal Arterial (Freeways and Expressways) (2)											
	Year To	Year From										
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
2013	-	0.988	0.945	0.933	0.941	0.942	0.940	1.071	0.951	0.943	0.914	
2014	1.012	-	0.961	0.948	0.955	0.956	0.954	1.087	0.965	0.957	0.929	
2015	1.058	1.041	-	0.987	0.995	0.996	0.994	1.133	1.006	0.997	0.967	
2016	1.072	1.055	1.013	-	1.008	1.009	1.007	1.147	1.018	1.009	0.978	
2017	1.063	1.047	1.005	0.992	-	1.001	0.999	1.138	1.010	1.001	0.971	
2018	1.062	1.046	1.004	0.991	0.999	-	0.984	1.121	0.996	0.987	0.958	
2019	1.064	1.048	1.006	0.993	1.001	1.016	-	1.145	1.017	1.008	0.978	
2020	0.934	0.920	0.883	0.872	0.879	0.892	0.873	-	0.888	0.880	0.854	
2021	1.052	1.036	0.994	0.982	0.990	1.004	0.983	1.126	-	0.991	0.962	
2022	1.061	1.045	1.003	0.991	0.999	1.013	0.992	1.136	1.009	-	0.970	
2023	1.094	1.077	1.034	1.022	1.030	1.044	1.023	1.171	1.040	1.031	-	

R2_SWGA	Rural - Other Principal Arterials (3), Minor Arterials (4)											
	Year To	Year From										
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
2013	-	0.986	0.943	0.928	0.923	0.920	0.918	1.046	0.941	0.958	0.909	
2014	1.014	-	0.981	0.965	0.961	0.957	0.955	1.088	0.978	0.996	0.945	
2015	1.060	1.019	-	0.983	0.978	0.975	0.973	1.107	0.996	1.014	0.962	
2016	1.078	1.036	1.017	-	0.995	0.991	0.989	1.126	1.013	1.032	0.979	
2017	1.083	1.041	1.022	1.005	-	0.996	0.994	1.133	1.018	1.037	0.984	
2018	1.087	1.045	1.026	1.009	1.004	-	0.995	1.134	1.019	1.038	0.985	
2019	1.089	1.047	1.028	1.011	1.006	1.005	-	1.080	0.971	0.989	0.938	
2020	0.956	0.919	0.903	0.888	0.883	0.882	0.926	-	0.899	0.916	0.869	
2021	1.063	1.022	1.004	0.987	0.982	0.981	1.030	1.112	-	1.018	0.966	
2022	1.044	1.004	0.986	0.969	0.964	0.963	1.011	1.092	0.982	-	0.949	
2023	1.100	1.058	1.039	1.021	1.016	1.015	1.066	1.151	1.035	1.054	-	

R3_SWGA	Rural - Major Collectors (5), Minor Collectors (6), Locals (7)											
	Year To	Year From										
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
2013	-	0.990	0.948	0.943	0.948	0.966	0.964	1.099	1.033	1.043	1.031	
2014	1.010	-	0.994	0.989	0.994	1.013	1.011	1.152	1.082	1.092	1.080	
2015	1.055	1.006	-	0.995	1.000	1.019	1.017	1.159	1.089	1.099	1.087	
2016	1.060	1.011	1.005	-	1.005	1.025	1.022	1.164	1.094	1.104	1.092	
2017	1.055	1.006	1.000	0.995	-	1.019	1.017	1.159	1.089	1.099	1.087	
2018	1.035	0.987	0.981	0.976	0.981	-	0.998	1.136	1.068	1.078	1.066	
2019	1.037	0.989	0.983	0.978	0.983	1.002	-	1.094	1.029	1.038	1.027	
2020	0.910	0.868	0.863	0.859	0.863	0.880	0.914	-	0.940	0.949	0.938	
2021	0.968	0.924	0.918	0.914	0.918	0.936	0.972	1.064	-	1.009	0.998	
2022	0.959	0.916	0.910	0.906	0.910	0.928	0.963	1.054	0.991	-	0.989	
2023	0.970	0.926	0.920	0.916	0.920	0.938	0.974	1.066	1.002	1.011	-	

\*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 2014 urban interstate AADT to a 2017 equivalent, you would multiply the 2014 AADT by 1.040).

Average of Annual Growth Rates					
Factor Group	U1_SWG	U2_SWG	R1_SWGA	R2_SWGA	R3_SWGA
Average of Last Five (5) Annual Growth Rates	1.003	0.991	1.005	1.006	0.996
Average of Last Ten (10) Annual Growth Rates	1.006	0.999	1.008	1.012	0.998

## 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	R1_SWGA	R1_SWGA
02	3	Other Principal Arterials	3	R2_SWGA	R2_SWGA
06	4	Minor Arterials	3	R2_SWGA	R2_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