



## **2012 HPMS Annual Growth Factors Report**

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The NCDOT reports highway inventory and performance data annually to FHWA to meet the requirements of the Highway Performance Monitoring System (HPMS). A component of this is Annual Average Daily Traffic (AADT) on the full extent of the system reported. The HPMS requires that AADT be based on counts collected during the reporting year or growth factored from previous year counts. This report provides the growth factors used to meet these requirements. The growth factors are one year factors used to estimate reporting year AADT from previous year AADT.

### Growth Factoring Process

Factors are generated for Rural and Urban area designations and Primary and Secondary route designations. Rural areas are defined by county and urban areas are generally defined by their planning boundaries. Primary routes include all US and NC route designations. Secondary include SR and locally maintained routes. Interstates are counted annually and AADT are generated using a ramp balancing process. No growth factor data is generated for the interstates.

Rural primary routes are counted annually and factors are generated using reporting year and previous year AADT data. Rural secondary routes are counted on alternating years and a one year factor is calculated using AADT from the reporting year and count based AADT collected two years previously. Urban areas are counted on alternating years also and those counted in the reporting year have growth factors calculated for both primary and secondary designations in the same manner as rural secondary. Urban areas that are not counted in the reporting year require use of data from the two previous cycles. A one year factor is calculated from data collected the previous year and three years previously. It is assumed the growth in these off cycle urban areas will be similar to the trend identified using the previous data.

An initial average factor is calculated for each area and route combination. Any station having a growth factor exceeding +/- 2 standard deviations from the initial factor for its area is excluded. The final average factor is calculated without the excluded stations. This is done to eliminate outliers caused by non-growth related changes in travel.

The factors are applied in the same manner as calculated. A growth factor is selected based on the area and route designations for a station. The factor is applied to the count based factored AADT for the previous year, not the rounded value used for reporting. If a station requires more than one year of growth factoring, then the factors for each reporting year are used. The growth factored AADT is rounded using the AASHTO rounding technique for AADT data for reporting purposes.

Local area growth factors provide a more reliable estimate of AADT than the more generalized statewide growth factors used by many States. However, actual growth at individual stations may vary considerably from the estimated growth due to localized conditions. The growth estimates represented in the factors in this report are intended to be used for one year growth adjustments. It is recommend they not be used for long term projections or other purposes not consistent with this growth factoring process.

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## 2011 to 2012 HPMS Growth Factors

Area	Primary Routes				Secondary Routes			
	Factor	Sta.	Excl.	Avg AADT	Factor	Sta.	Excl.	Avg AADT
0 Alamance	1.0124	34	2	3800	0.9530	80	4	1100
1 Alexander	0.9681	26	1	6300	0.9416	110	4	1100
2 Alleghany	0.9668	42	3	2400	0.9494	49	4	420
3 Anson	0.9099	60	5	6600	0.9528	148	5	430
4 Ashe	1.0279	60	7	5300	0.9702	55	2	670
5 Avery	0.9016	54	1	4500	0.9566	31	2	640
6 Beaufort	1.0360	75	4	6600	0.9811	104	6	960
7 Bertie	1.0087	67	3	4100	0.9918	62	4	590
8 Bladen	0.9770	120	8	4100	0.9864	93	4	580
9 Brunswick	1.0963	86	3	12000	1.0017	61	3	1600
10 Buncombe	0.9895	23	1	9100	0.9749	76	4	1900
11 Burke	0.9974	102	4	8200	0.9400	71	3	2200
12 Cabarrus	See Concord-Kannapolis Urban (111)							
13 Caldwell	1.0170	72	2	9800	0.9596	52	3	2500
14 Camden	1.1205	24	0	6300	1.0048	28	2	820
15 Carteret	1.0562	53	2	14000	0.9860	52	3	1900
16 Caswell	0.9918	60	3	3700	0.9753	59	6	760
17 Catawba	See Hickory Urban (114)							
18 Chatham	1.0651	70	3	9100	1.0405	122	10	1200
19 Cherokee	1.0920	42	1	7300	0.9340	73	5	770
20 Chowan	1.0388	32	0	4900	0.9736	41	2	690
21 Clay	1.0076	27	1	4600	1.0081	40	2	730
22 Cleveland	1.0412	135	8	9600	1.0364	201	13	1500
23 Columbus	0.9586	126	8	6100	0.9918	154	6	810
24 Craven	1.0045	53	3	14000	0.9899	91	3	2000
25 Cumberland	See Fayetteville Urban (104)							
26 Currituck	0.9110	33	1	9600	1.0038	30	2	960
27 Dare	0.9574	37	2	7800	0.9776	26	1	750
28 Davidson	0.9906	93	9	7700	0.9985	211	9	2300
29 Davie	0.9761	66	3	6700	0.9919	96	5	960
30 Duplin	1.0080	123	2	4900	0.9978	151	10	840
31 Durham	See Durham-Chapel Hill Urban (103)							

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	Factor	Sta.	Excl.	Avg AADT	Factor	Sta.	Excl.	Avg AADT
32 Edgecombe	0.9895	111	2	4600	0.9864	48	4	640
33 Forsyth	See Winston-Salem Urban (110)							
34 Franklin	1.0023	84	4	7100	1.0505	103	3	1100
35 Gaston	See Gastonia Urban (105)							
36 Gates	0.9921	54	2	2700	0.9983	39	2	410
37 Graham	1.0203	39	3	3000	0.9438	26	2	330
38 Granville	0.9962	65	4	6300	1.0384	88	4	1400
39 Greene	1.0078	60	4	5000	0.9725	76	2	540
40 Guilford	See Greensboro Urban (106)							
41 Halifax	0.9705	124	9	3900	1.0061	101	4	890
42 Harnett	1.1081	105	3	8900	1.0363	139	6	2000
43 Haywood	1.0761	23	2	5800	1.0523	17	2	910
44 Henderson	0.9283	26	1	4900	0.9449	39	1	1200
45 Hertford	1.0523	73	2	4200	1.0287	55	2	1100
46 Hoke	0.9562	33	1	8800	1.0473	67	5	2000
47 Hyde	0.8934	28	2	1100	0.9089	33	1	270
48 Iredell	1.0216	104	6	10000	1.0086	272	2	2200
49 Jackson	0.9415	58	1	11000	0.9651	66	3	1300
50 Johnston	1.0654	152	3	8700	1.0319	169	5	2100
51 Jones	0.9511	33	2	5200	1.0083	34	2	510
52 Lee	1.0505	52	1	14000	1.0320	121	8	2100
53 Lenoir	0.9687	96	4	9700	1.0245	124	10	1400
54 Lincoln	1.0796	95	7	10000	1.0388	108	9	2100
55 Macon	0.9939	54	4	9200	0.9547	94	5	890
56 Madison	0.9632	49	4	3000	0.9613	41	3	440
57 Martin	0.9782	89	4	4300	0.9753	79	3	770
58 McDowell	0.9356	65	3	7100	0.9842	70	6	1700
59 Mecklenburg	See Charlotte Urban (102)							
60 Mitchell	0.9769	29	2	4900	0.9862	31	2	1100
61 Montgomery	1.0852	61	4	4200	0.9353	119	8	530
62 Moore	1.0346	113	6	9700	1.0589	178	11	1500
63 Nash	0.9304	59	3	4400	0.9621	77	3	470

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	Factor	Sta.	Excl.	Avg AADT	Factor	Sta.	Excl.	Avg AADT
64 New Hanover	See Wilmington Urban (109)							
65 Northampton	1.0514	83	5	3300	1.0042	57	4	440
66 Onslow	1.0805	46	4	11000	1.0305	77	1	2400
67 Orange	1.0341	40	1	7200	1.0041	80	5	1700
68 Pamlico	1.0337	28	1	4000	0.9817	38	0	580
69 Pasquotank	1.0404	33	3	12000	1.0269	49	4	1400
70 Pender	1.0010	93	5	6600	1.0023	79	4	720
71 Perquimans	1.1086	23	1	7200	1.0285	46	2	790
72 Person	0.9809	52	4	8100	1.0059	104	5	1100
73 Pitt	1.0668	104	2	6000	0.9830	155	1	990
74 Polk	0.9458	38	1	4600	0.9791	82	2	610
75 Randolph	1.0626	89	2	8900	1.0399	236	16	1200
76 Richmond	0.9568	56	1	7300	0.9373	131	6	1200
77 Robeson	0.9649	171	9	5500	0.9768	153	8	1200
78 Rockingham	0.9739	141	7	8400	0.9896	198	13	1600
79 Rowan	1.0633	50	4	13000	1.0549	98	6	3200
80 Rutherford	1.0180	93	3	7300	0.9919	168	5	1500
81 Sampson	1.0048	127	7	5500	1.0193	179	9	840
82 Scotland	0.9597	73	3	6400	1.0079	94	5	1000
83 Stanly	1.1258	84	1	8000	0.9940	155	10	1100
84 Stokes	0.9945	75	5	3800	0.9549	117	7	1300
85 Surry	1.1079	105	3	8200	0.9973	127	4	1600
86 Swain	1.0165	30	3	6900	0.9924	31	1	1500
87 Transylvania	0.9507	47	2	7900	0.9837	51	4	1300
88 Tyrrell	1.1821	17	2	3400	1.0327	21	1	550
89 Union	0.9402	112	6	14000	0.9750	235	1	2900
90 Vance	0.9798	47	3	8000	1.0472	86	7	2500
91 Wake	See Raleigh Urban (108)							
92 Warren	1.0197	47	2	3100	0.9592	83	3	680
93 Washington	1.0110	45	1	4800	0.9803	39	3	790
94 Watauga	0.9797	55	4	11000	0.9267	48	3	2000
95 Wayne	1.0936	59	3	4900	1.0303	96	8	710

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	Factor	Sta.	Excl.	Avg AADT	Factor	Sta.	Excl.	Avg AADT
96 Wilkes	1.0771	70	4	9800	1.0376	166	8	1300
97 Wilson	0.9847	106	4	8200	1.0303	133	1	1600
98 Yadkin	0.9764	44	4	7100	0.9656	78	2	1000
99 Yancey	0.9725	45	1	5900	0.9768	37	2	1100
100 Asheville	0.9973	248	10	15000	1.0124	534	42	3300
101 Burlington	1.0039	160	6	11000	0.9988	355	12	4100
102 Charlotte	1.0082	243	15	27000	1.0076	819	40	12000
103 Durham-Chapel Hill	1.0025	164	9	18000	0.9940	543	24	6800
104 Fayetteville	0.9789	173	7	20000	0.9878	608	25	6500
105 Gastonia	0.9908	244	11	12000	0.9747	552	25	3700
106 Greensboro	1.0126	116	5	14000	0.9891	592	28	6600
107 High Point	0.9667	78	3	17000	0.9748	357	19	4900
108 Raleigh	0.9940	235	7	22000	1.0028	1152	41	8800
109 Wilmington	1.0064	129	7	25000	0.9849	222	15	7600
110 Winston-Salem	1.0069	167	11	16000	0.9901	929	61	5900
111 Concord-Kannapolis	0.9984	154	7	14000	0.9748	578	32	3700
112 Jacksonville	0.9744	31	3	28000	1.0007	65	5	11000
113 Goldsboro	0.9792	86	6	13000	0.9820	264	10	3100
114 Hickory	0.9990	122	9	13000	0.9827	509	16	3700
115 Greenville	0.9947	79	6	17000	0.9959	310	10	6400
116 Rocky Mount	0.9864	130	4	11000	0.9844	329	17	3100