

Stella Daniel



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
P. O. BOX 25201
RALEIGH 27611

March 28, 1986

JAMES G. MARTIN
GOVERNOR

JAMES E. HARRINGTON
SECRETARY

DIVISION OF HIGHWAYS

MEMORANDUM

TO: Area Traffic Engineers and Unit Heads
FROM: S. K. Smith, Accident Studies Engineer *SKS*
THRU: J. M. Lynch, P.E., State Traffic Engineer *JML*
SUBJECT: Traffic Accident Rates by Road Types and Systems - 1985

The attached tables list various traffic accident rates for rural and municipal (Urban) route systems for 1985 traffic accidents. These tables are for your information and use in any accident studies.

If you have need for any other types of traffic accident data summaries on a yearly basis, then give us a description of the specific information that you require and we will incorporate it in future summaries.

SKS:1b

Att.

- cc: Mr. J. M. Lynch, P.E., Att.
- Mr. C. C. Sessoms, Jr., P.E., Att.
- Mr. W. A. Ward, P.E., Att.
- Traffic Engineers, Att.
- Division Traffic Engineers, Att.
- Accident Studies Staff, Att.
- Mr. Charles Adkins, P.E., Att (10)

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING BRANCH
1985 ACCIDENT RATES

ITEMS	RURAL STATE HIGHWAYS					TOTAL RURAL
	INTER	US	NC	PRI	SR	
TOTAL ACCIDENTS	2318	14777	13971	31066	37907	68973
FATAL ACCIDENTS	43	240	237	520	452	972
NON-FATAL INJURY ACC	992	6810	6689	14491	17414	31905
NIGHT ACCIDENTS	728	4181	4288	9197	13794	22991
WET ACCIDENTS	444	3319	2984	6747	7324	14071
% FATAL ACCIDENTS	1.9%	1.6%	1.7%	1.7%	1.2%	1.4%
% NON-FATAL INJ ACC	42.8%	46.1%	47.9%	46.6%	45.9%	46.3%
% NIGHT ACCIDENTS	31.4%	28.3%	30.7%	29.6%	36.4%	33.3%
% WET ACCIDENTS	19.2%	22.5%	21.4%	21.7%	19.3%	20.4%
MILES OF ROAD	669	4388	6974	12031	59264	71295
ADT (1)	18790	5275	2349	4331	410	1070
TRAVEL (100MVM)	45.92	84.50	59.78	190.20	88.69	278.89
TOTAL ACC RATE (2)	50.5	174.9	233.7	163.3	427.4	247.3
FATAL ACC RATE (2)	0.9	2.8	4.0	2.7	5.1	3.5
NON-FAT INJ RATE (2)	21.6	80.6	111.9	76.2	196.3	114.4
NIGHT ACC RATE (2)	15.9	49.5	71.7	48.4	155.5	82.4
WET ACC RATE (2)	9.7	39.3	49.9	35.5	82.6	50.4
SEVERITY INDEX (3)	14.6	14.9	15.4	15.1	14.6	14.9

ITEMS	URBAN STATE HIGHWAYS					TOTAL	
	INT	US	NC	PRI	SR (4)	NON SYS	URBAN
TOTAL ACCIDENTS	2498	15123	7725	25346	14106	46945	86397
FATAL ACCIDENTS	14	55	33	102	34	133	269
NON-FATAL INJURY ACC	1029	5773	3084	9886	5438	17444	32768
NIGHT ACCIDENTS	577	3285	1776	5638	3047	11159	19844
WET ACCIDENTS	710	3398	1664	5772	2946	9692	18410
% FATAL ACCIDENTS	0.6%	0.4%	0.4%	0.4%	0.2%	0.3%	0.3%
% NON-FATAL INJ ACC	41.2%	38.2%	39.9%	39.0%	38.6%	37.2%	37.9%
% NIGHT ACCIDENTS	23.1%	21.7%	23.0%	22.2%	21.6%	23.8%	23.0%
% WET ACCIDENTS	28.4%	22.5%	21.5%	22.8%	20.9%	20.6%	21.3%
MILES OF ROAD	112	1007	792	1911	1408	15193	18512
ADT (1)	35953	11399	6617	10852	5527	1000	2361
TRAVEL (100MVM) (1)	14.67	41.89	19.14	75.70	28.39	55.46	159.55
TOTAL ACC RATE (2)	170.2	361.0	403.6	334.8	496.7	846.5	541.5
FATAL ACC RATE (2)	1.0	1.3	1.7	1.3	1.3	2.4	1.7
NON-FAT INJ RATE (2)	70.1	137.8	161.1	130.6	191.5	314.5	205.4
NIGHT ACC RATE (2)	39.3	78.4	92.8	74.5	107.3	201.2	124.4
WET ACC RATE (2)	48.4	81.1	86.9	76.2	103.7	174.8	115.4
SEVERITY INDEX (3)	12.0	11.1	12.0	11.4	10.8	10.9	11.0

(1) ESTIMATED VALUE

(2) RATE IS FOR 100 MILLION VEHICLE MILES OF TRAVEL.

(3) SEVERITY INDEX=(64(F+A)+19.1(B+C)+PDO)/TOTAL ACC.

(4) INCLUDES ONLY ROUTE SEGMENTS WITH COMPUTERIZED TRAFFIC

F=FATAL ACC

A=A INJ ACC

B=B INJ ACC

C=C INJ ACC

PDO=PROPERTY

DAMAGE ONLY

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 TRAFFIC ENGINEERING BRANCH
 ACCIDENT RATES
 1985
 BY ROAD TYPES & SYSTEMS

RURAL INTERSTATES ROUTES

Accident Rates (per 100MVM)

ROAD TYPES	SYSTEM MILES	TOTAL	FATAL	NON-FAT INJURY	NIGHT	WET
2 LANES UNDIVIDED	0	-	-	-	-	-
3 LANES UNDIVIDED	0	-	-	-	-	-
4+ UNDIVIDED NO	0	-	-	-	-	-
4+ DIVIDED NO	0	-	-	-	-	-
4+ DIVIDED PARTIAL	0	-	-	-	-	-
4+ DIVIDED FULL	670	50.5	0.9	21.6	15.9	9.7
TOTAL	670	50.5	0.9	21.6	15.9	9.7

URBAN INTERSTATE ROUTES

Accident Rates (per 100MVM)

ROAD TYPES	SYSTEM MILES	TOTAL	FATAL	NON-FAT INJURY	NIGHT	WET
2 LANES UNDIVIDED	0	-	-	-	-	-
3 LANES UNDIVIDED	0	-	-	-	-	-
4+ UNDIVIDED	0	-	-	-	-	-
4+ DIVIDED NO	0	-	-	-	-	-
4+ DIVIDED PARTIAL	0	-	-	-	-	-
4+ DIVIDED FULL	112	170.2	1.0	70.1	39.3	48.4
TOTAL	112	170.2	1.0	70.1	39.3	48.4

NOTE: Includes only route segments with computerized traffic volume

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 TRAFFIC ENGINEERING BRANCH
 ACCIDENT RATES
 1985
 BY ROAD TYPES & SYSTEMS

RURAL UNITED STATES ROUTES

Accident Rates (per 100MVM)

ROAD TYPES	SYSTEM MILES	TOTAL	FATAL	NON-FAT INJURY	NIGHT	WET
2 LANES UNDIVIDED	3283	201.8	3.7	93.8	57.3	45.5
3 LANES UNDIVIDED	44	218.9	1.9	92.9	61.6	40.7
4+ UNDIVIDED NO	138	265.2	2.7	117.0	64.9	65.6
4+ DIVIDED NO	493	166.5	2.3	76.2	47.0	34.4
4+ DIVIDED PARTIAL	153	98.3	1.1	46.7	29.9	24.5
4+ DIVIDED FULL	278	60.5	1.0	27.5	20.9	13.5
TOTAL	4388	174.9	2.8	80.6	49.5	39.3

URBAN UNITED STATES ROUTES

Accident Rates (per 100MVM)

ROAD TYPES	SYSTEM MILES	TOTAL	FATAL	NON-FAT INJURY	NIGHT	WET
2 LANES UNDIVIDED	521	351.5	0.9	133.2	70.3	74.1
3 LANES UNDIVIDED *	6	172.3	0.0	84.1	50.4	50.4
4+ UNDIVIDED	269	462.7	1.8	177.6	102.6	103.4
4+ DIVIDED NO	113	418.3	0.9	158.0	93.7	94.8
4+ DIVIDED PARTIAL	50	183.6	2.1	69.0	43.1	49.4
4+ DIVIDED FULL	48	146.5	0.9	58.4	33.6	38.8
TOTAL	1007	361.0	1.3	137.8	78.4	81.1

NOTE: Includes only route segments with computerized traffic volume
 * Rates are not significant.

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 TRAFFIC ENGINEERING BRANCH
 ACCIDENT RATES
 1985
 BY ROAD TYPES & SYSTEMS

RURAL NORTH CAROLINA ROUTES

Accident Rates (per 100MVM)

ROAD TYPES	SYSTEM MILES	TOTAL	FATAL	NON-FAT INJURY	NIGHT	WET
2 LANES UNDIVIDED	6829	236.0	4.1	113.6	72.6	50.4
3 LANES UNDIVIDED *	12	199.7	0.0	62.0	41.3	48.2
4+ UNDIVIDED NO	41	329.4	6.5	143.6	72.2	75.5
4+ DIVIDED NO	63	218.3	1.3	96.6	78.8	46.8
4+ DIVIDED PARTIAL *	18	105.2	2.3	66.3	34.3	11.4
4+ DIVIDED FULL	0	-	-	-	-	-
TOTAL	9674	233.7	4.0	111.9	71.7	49.9

URBAN NORTH CAROLINA ROUTES

Accident Rates (per 100MVM)

ROAD TYPES	SYSTEM MILES	TOTAL	FATAL	NON-FAT INJURY	NIGHT	WET
2 LANES UNDIVIDED	629	380.7	2.2	149.8	82.0	81.2
3 LANES UNDIVIDED	0	-	-	-	-	-
4+ UNDIVIDED	120	458.8	0.9	184.3	114.9	102.1
4+ DIVIDED NO	33	485.4	2.0	203.8	119.9	101.4
4+ DIVIDED PARTIAL	0	-	-	-	-	-
4+ DIVIDED FULL *	8	112.6	0.0	47.8	13.9	23.1
TOTAL	792	403.6	1.7	161.1	92.8	86.9

NOTE: Includes only route segments with computerized traffic volume
 * Rates are not significant.

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 TRAFFIC ENGINEERING BRANCH
 ACCIDENT RATES
 1985
 BY ROAD TYPES & SYSTEMS

RURAL TOTAL PRIMARY ROUTES

Accident Rates (per 100MM)

ROAD TYPES	SYSTEM MILES	TOTAL	FATAL	NON-FAT INJURY	NIGHT	WET
2 LANES UNDIVIDED	10112	220.6	3.9	104.7	65.7	48.2
3 LANES UNDIVIDED	56	216.6	1.7	89.1	59.1	41.6
4+ UNDIVIDED NO	180	277.4	3.4	122.1	66.3	67.5
4+ DIVIDED NO	555	172.8	2.2	78.7	50.8	35.9
4+ DIVIDED PARTIAL	171	98.6	1.1	47.7	30.2	23.7
4+ DIVIDED FULL	958	51.5	0.9	22.3	16.5	10.2
TOTAL	12031	163.3	2.7	76.2	48.4	35.5

URBAN TOTAL PRIMARY ROUTES

Accident Rates (per 100MM)

ROAD TYPES	SYSTEM MILES	TOTAL	FATAL	NON-FAT INJURY	NIGHT	WET
2 LANES UNDIVIDED	1150	365.5	1.5	141.1	75.9	77.5
3 LANES UNDIVIDED *	7	186.0	0.0	81.4	50.4	50.4
4+ UNDIVIDED	389	461.6	1.6	179.4	106.0	103.1
4+ DIVIDED NO	146	432.5	1.2	167.7	99.3	96.2
4+ DIVIDED PARTIAL	51	184.5	2.1	69.0	44.1	49.3
4+ DIVIDED FULL	168	162.9	0.9	66.7	37.2	45.4
TOTAL	1911	334.8	1.3	130.6	74.5	76.2

NOTE: Includes only route segments with computerized traffic volume

* Rates are not significant.