

1. Report No.		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle Traffic Accident Rates in Kentucky (1982)				5. Report Date March 1984	
				6. Performing Organization Code	
7. Author(s) K. R. Agent				8. Performing Organization Report No. UKTRP-84-5	
9. Performing Organization Name and Address Kentucky Transportation Research Program College of Engineering University of Kentucky				10. Work Unit No. (TRAIS)	
				11. Contract or Grant No. KYHPR-84-94	
12. Sponsoring Agency Name and Address Kentucky Transportation Cabinet State Office Building Frankfort, Kentucky 40622				13. Type of Report and Period Covered Interim	
				14. Sponsoring Agency Code	
15. Supplementary Notes Study Title: Determination of Average Accident Rates in Kentucky					
16. Abstract The primary objective of this study was to determine average accident statistics in Kentucky for 1982. These statistics could then be used in Kentucky's high-accident location identification program. The 1982 data were combined with 1980 and 1981 data to calculate more long-term accident statistics. Average accident rates were calculated using several methods of classifying highways. A series of tables was prepared giving criteria that could be used to determine if specific locations have accident problems.					
17. Key Words Accident Rate Federal Aid System Critical Rate Directional Analysis Highway Type Functional Classification				18. Distribution Statement	
19. Security Classif. (of this report)		20. Security Classif. (of this page)		21. No. of Pages	22. Price

Research Report
UKTRP-84-5

TRAFFIC ACCIDENT RATES IN KENTUCKY (1982)

by

Kenneth R. Agent
Senior Transportation Research Engineer

Kentucky Transportation Research Program
College of Engineering
University of Kentucky
Lexington, Kentucky

in cooperation with
Transportation Cabinet
Commonwealth of Kentucky

and

Federal Highway Administration
US Department of Transportation

The contents of this report reflect the views of the author who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the University of Kentucky, the Kentucky Transportation Cabinet, nor the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.

March 1984

ACKNOWLEDGEMENTS

This report was prepared with the guidance of the following members of the Study Advisory Committee:

Lance Gorman, Chairman, Division of Traffic,
Kentucky Department of Highways

Ron George, Federal Highway Administration

Joe Ann O'Hara, Highway Safety Standards Section,
Kentucky State Police

Additional appreciation is also expressed to Forest Harrod of the Kentucky Department of Highways for providing access to the Statewide Mileage Tape. Valuable assistance was also provided by the following members of the Kentucky Transportation Research Program staff: Mike Salsman who performed much of the data analysis, Louise Hensley who organized the computer tapes, and Carla Crossfield who typed and edited the report.

TABLE OF CONTENTS

	Page
I. INTRODUCTION	1
II. PROCEDURE	1
III. RESULTS	2
A. Highway Type	2
B. Directional Analysis	3
C. Highway System Classification	3
D. County and City	4
E. Other Variables	4
IV. SUMMARY	5
V. REFERENCES	6
VI. TABLES	7
VII. APPENDIX A. Critical Number of Accidents Tables	27
VIII. APPENDIX B. Critical Accident Rate Tables for Highway Sections	31
IX. APPENDIX C. Critical Accident Rate Tables for "Spots"	45

INTRODUCTION

Kentucky has a systematic procedure to identify locations that have abnormal rates or numbers of accidents. However, before this procedure can be utilized, average accident rates and numbers must be known. Those average rates and numbers must be determined for appropriate highway categories and for rural and urban areas. The primary objective of this study was to determine average accident statistics in Kentucky for 1982. Those statistics could then be used in the high-accident location identification program. Statewide accident statistics have previously been determined for 1978 (1), 1980 (2), and 1981 (3). Determining accident rates on an annual basis enables the most recently available data to be used in the program. Also, that allows the combination of several years of data when a long-term rate is desired, and accident trends may be analyzed. In this study, accident rates were calculated based on 1982 data. Also, the 1982 data were combined with the 1980 and 1981 data to calculate more long-term accident statistics.

Statewide rural and urban accident rates were calculated by highway classification, which was based primarily on number of lanes as used in the high-accident location program. Rates using other classification methods -- functional classification, by federal-aid system, and by administrative system -- also were determined.

The statistics given apply only to streets and highways having route numbers, mileposts, and traffic volumes. Those requirements limited available data, particularly in cities. Rates for counties and cities used 1980 through 1982 data to increase the available data base.

The available information was also used to compute accident rates as a function of other variables such as access control. Accidents were also classified by directional analysis codes.

PROCEDURE

Two data bases were used to obtain the statistics presented in this report.

Those were the 1982 accident tape and the 1982 statewide mileage tape. The necessary accident information was obtained from the accident tape, while traffic volumes and roadway classifications were obtained from the statewide mileage tape.

The same computer program used in the previous analyses was used with minor modifications to allow some additional summaries. In this program, a record is first read from the statewide mileage tape and checked to determine whether traffic volume, route, and mileposts are present. Where those are not all present, the record is omitted from the analysis since all of this information is necessary to locate accidents and determine rates. When that information is present, accident information for the roadway section is obtained from the accident tape. The program is written so that each data base is read only once.

General accident statistics for 1982 were compared to those for 1980 and 1981. The rates given, except for those for cities and counties, are for 1982 only as well as 1980 through 1982. The rates given for cities and counties apply only to combined 1980 through 1982 statistics, providing a larger data base.

In addition to average rates, critical rates and numbers of accidents are needed in the high-accident location program. Both types of rates are given. The following formula is used to calculate critical accident rates:

$$Ac = Aa + K(\text{sqrt}(Aa/M)) + 1/(2M) \quad (1)$$

in which Ac = critical accident rate,

Aa = average accident rate,

K = constant related to level of statistical significance selected (a P of 0.995 was used giving a K of 2.576), and

M = exposure (for sections, M was in terms of 100 million vehicle-miles (100 MVM); for spots, M was in terms of million vehicles).

To determine the critical number of accidents, the following formula was used:

$$Nc = Na + K(\text{sqrt}(Na)) + 0.5 \quad (2)$$

in which Nc = critical number of

accidents, and
Na = average number of
accidents.

RESULTS

The accident statistics apply either to 1982 only or for the combined years of 1980 through 1982. All statistics apply only for streets and highways having known traffic volumes, route numbers, and mileposts given on the statewide mileage tape.

A comparison of 1980, 1981, and 1982 accident statistics is given in Table 1. The various accident rates have remained remarkably constant over this three-year period. For example, the overall accident rate has varied from 310 accidents per 100 million vehicles-miles (ACC/100 MVM) in 1980 to 318 ACC/100 MVM in 1981 to 316 ACC/100 MVM in 1982.

The estimated total vehicle-miles travelled in Kentucky in 1982 was 25,627 million. There were 124,745 accidents reported on the state police accident tape in 1982; this yields a statewide accident rate of 487 ACC/100 MVM. This compares to 497 ACC/100 MVM in 1981 and 509 ACC/100 MVM in 1980. Those rates are substantially higher than that found when only considering routes with a known route number, mileposts, and traffic volume.

HIGHWAY TYPE

Accident rates needed to implement the high-accident spot-improvement program in Kentucky are average rural and urban rates by highway type. Current classification is basically by number of lanes, except that four-lane highways are separated into divided and undivided highways. Also, interstates and parkways are classified separately. Rates for rural highways are given in Table 2, while Table 3 gives rates for urban highways. Highways were placed into either the rural or urban category based on the rural-urban designation denoted on the statewide mileage file. For sections having a volume, route, and milepost cited in the statewide mileage file, the "rural or urban" and highway type classifications were determined. The number of accidents

were determined. The number of accidents for each section was then located on the accident tape. The total accident rate per 100 million vehicle-miles as well as injury and fatal accident rates were calculated.

On rural highways, the small sample of three-lane highways had the highest rate, when either all accidents or injury accidents were considered (Table 2). One-lane highways also had high rates. Interstates had the lowest rates, followed closely by parkways. The advantage of providing a median is shown when comparing rates for four-lane divided (no access control) and four-lane undivided highways. The overall accident rate for the divided highway was about one-half of that of the undivided highway. The accident rate on two-lane rural parkways (98 ACC/100 MVM) was higher than that for four-lane rural parkways (69 ACC/100 MVM), although the average volume on four-lane sections (ADT = 3,950) was higher than on two-lane sections (ADT = 2,914). This illustrates the reduction in accident rates obtained when constructing four, rather than two, lanes. A comparison of rates on rural interstates showed higher rates on six-lane sections (65 ACC/100 MVM) than four-lane sections (50 ACC/100 MVM). This would be related to the much higher volumes on six-lane sections (ADT = 29,189) compared to four-lane sections (ADT = 16,549).

On urban highways, the highest overall accident rate was on four-lane undivided highways, followed closely by two-lane highways (Table 3). Those two highway types also had the highest injury and fatal accident rates. The lowest rates were on interstates and parkways. The rate on six-lane interstates (133 accidents per 100 MVM) was slightly less than on four-lane interstates (147 accidents per 100 MVM), although traffic volumes on six-lane sections were substantially greater.

Comparing the overall rates in Tables 2 and 3 shows that total accident rates on urban highways were over twice that on rural highways. Also, the injury rate on urban highways was about 50 percent greater than on rural highways. However,

the fatal accident rate on urban highways was only about one-half that on rural highways.

The same information as given in Tables 2 and 3, except for a three-year period (1980-1982), are given in Tables 4 and 5, respectively. For any given highway type, the rates for 1982 are very similar to that for the combined years of 1980 through 1982. Using 1980 through 1982 data gives a longer-term alternative to using 1982 data only.

The variation in accident rates by rural and urban highway-type classifications is given in Table 6. This table shows how stable the rates have been over this time period. In only one instance was the 1982 rate more than 10 percent different from the 1980-1981 average rate.

Average rates listed in Tables 2 and 3 (1982) or Tables 4 and 5 (1980-1982) may be used to determine critical accident rates for sections of highway of various lengths. In addition to highway sections, Kentucky's high-accident location procedure uses highway spots, defined as having a length of 0.3 mile and representing a specific identifiable point on a highway. Statewide accident rates for "spots", by highway-type classification, are given in Table 7 for 1982 and Table 8 for 1980 through 1982.

Kentucky's procedure for identifying high-accident locations first involves identifying spots and sections that have more than the critical numbers of accidents. Then, the accident rates for those locations are compared to critical accident rates. Statewide averages and critical numbers of accidents for "spots" and 1-mile sections by highway-type classification are presented in Table 9 for 1982 and Table 10 for 1980 through 1982. The critical numbers of accidents listed in Tables 9 and 10 are used to establish the "number of accidents" criteria for determining the initial list of locations. Critical numbers of accidents for various section lengths were determined for each highway type using Equation 2. The results are presented in tables in APPENDIX A (for one-year and three-year periods). Section lengths up

to 20 miles for rural roads and up to 10 miles for urban roads were included.

After the initial list of locations meeting the critical number criteria is compiled, comparisons between accident rates for those locations and critical accident rates are made. Critical accident rate tables for highway sections are presented in APPENDIX B (for one-year and three-year periods). Critical accident rates for the various rural and urban highways were determined as a function of section length and traffic volume (AADT). The rates are given in units of accidents per 100 MVM and were calculated using Equation 1. Critical accident rate tables for "spots" are contained in APPENDIX C (for one-year and three-year periods). Those rates are presented in units of accidents per million vehicles and also were determined using Equation 1.

DIRECTIONAL ANALYSIS

Descriptions of accidents that have occurred are beneficial when analysing potential high-accident sites. Directional analysis codes have been developed for this purpose (4). A summary of 1980 through 1982 accident data by the major directional analysis categories is given in Table 11 for the various highway types. A detailed description of the accidents may be obtained by analysis of the detailed directional analysis codes.

Accidents are divided into intersection and "section or midblock" categories in Table 11. The percentages vary significantly by location and highway type. Almost one-half of the urban accidents occurred at an intersection compared to slightly less than 20 percent of rural accidents. The percentage of intersection accidents was highest for four-lane divided (no access control) and four-lane undivided highways and lowest for interstates and parkways.

HIGHWAY SYSTEM CLASSIFICATION

Highways are grouped into various system classifications. Three common types of grouping include: 1) functional classification, 2) federal-aid system, and 3) administrative classification.

Statewide accident rates were determined for each of those groupings. Data for 1980 through 1982 were used to give long-term rates. Following is a summary of the findings.

Average statewide rates by functional classification are listed in Table 12. Highways were grouped into a rural or urban category and then into systems such as arterial, collector, and local. Rates were determined considering all accidents, injury accidents only, and fatal accidents only. The highest overall accident rate was for urban minor arterials followed by urban principal arterials (non-interstate or freeway) and urban collectors. The lowest overall rates were for rural principal arterials (interstate) followed by urban principal arterials (interstate and other freeway). Injury accident rates for the various categories were ordered similar to overall accident rates. However, fatal accident rates were different. The highest fatal accident rates were for rural collectors and minor arterials. The lowest fatal accident rates were for urban and rural principal arterials (interstate).

Statewide accident rates by federal-aid system are shown in Table 13. The highest rate was on the federal-aid urban system and the lowest rate was on the interstate system. The federal-aid primary, federal-aid secondary, and non-federal-aid systems had similar rates.

Statewide accident rates by administrative classification are given in Table 14. The rate for the primary system was lowest, and rates for the secondary, rural secondary, and unclassified systems were similar.

COUNTY AND CITY

Accident rates for counties and incorporated cities having populations over 1,000 are given in Tables 15 and 16, respectively. As noted before, those rates are for roads having known volumes, route numbers, and mileposts. Similar rates are used in the problem identification section of the Kentucky Highway Safety Plan (5). However, in that report, rates for cities were calculated using population rather than vehicle-miles

as the exposure measure, and rates for counties were calculated using an estimate of the total miles driven in each county. Use of vehicle-miles travelled would be the optimum exposure measure, but there is only a limited mileage for which that information is available, especially for individual cities. For this reason, 1980 through 1982 data were combined in Tables 15 and 16 to provide a larger and more reliable data base.

Counties and cities were divided into categories based on population. Average rates for the various categories were calculated, and the counties and cities having the highest accident rates in their population category are listed (Tables 17 and 18).

Marion County had the highest county accident rate followed by Mason and Campbell Counties. Wolfe County had the lowest accident rate followed by Lyon County. Counties having the highest rate in their population category included Campbell, Jessamine, Marion, Lewis, and Owen. Average accident rates for population categories increased as population increased.

There are 160 cities included in Table 16. The list of incorporated cities having populations over 1,000 was obtained from a problem identification report that included 186 cities (6). However, cities having less than one mile of highway with known volumes, route numbers, and mileposts were excluded from this analysis because of the limited data available. Those were basically the smaller cities. Cities having the highest accident rate in their population category included Lexington, Owensboro, Florence, Shelbyville, Grayson, and Falmouth. For cities, a relationship between population category and average accident rate was not apparent.

The counties and cities identified as having the highest rates were very similar to those identified in the last report (3). This illustrates the year-to-year consistency of the accident data.

OTHER VARIABLES

Information available from the statewide mileage tape allowed rates to be

calculated as a function of numerous variables. A few of those variables were selected for analysis.

The benefits of providing a median and access control are shown in Tables 19 and 20, respectively. Increasing the median width to over 30 feet provides an additional accident-rate reduction as shown in Table 19.

An analysis of accident rates for rural highways by federal-aid system and terrain is given in Table 21. Each county has been given a terrain classification as either flat, rolling, or mountainous terrain, since a classification was not available for each road segment. Considering the entire system, the lowest rate was for flat terrain and the highest rate was for mountainous terrain. Also, for each system, the lowest rate was for flat terrain. However, when individual systems were considered, the highest rate varied between rolling and mountainous terrain.

Rates by rural-urban designation are given in Table 22. The lowest rate was for rural areas. The highest rate was for small urban areas rather than urbanized areas, although the average traffic volume was much higher in urbanized areas. The presence of more freeway-type highways in the urbanized areas may account for this finding.

The summary of accident rates by route signing identifier shows that US-signed routes have a slightly higher rate than state-marked routes, with interstates having a much lower rate (Table 23). The US-signed routes have a higher average volume than state-marked routes, which may account for the higher accident rate.

The relationship between accident rate and traffic volume for various federal-aid highway classifications is illustrated in Table 24. For interstates, which have high standard design criteria, the accident rate increased with volume. For federal-aid primary and non-federal aid highways, rates were highest for the lowest and highest volume ranges. For federal-aid urban and federal-aid secondary highways, rates decreased with volume. One reason for a high rate at low-volume locations is the fact that a

few accidents may increase the rate substantially. A rate given in terms of accidents per mile increases dramatically with increasing traffic volume. Lower volume roads also are built to less stringent design standards, which could contribute to a higher rate.

Of 124,745 police-reported accidents in 1982, 67,826 (54 percent) could be related to a highway with a known traffic volume, route, and milepoint. Approximately 30 percent of the remaining accidents occurred in parking lots. Others occurred on county and city streets off the state-maintained system. A comparison of total statewide mileage by federal-aid classification with the mileages included in this analysis for the various federal-aid classifications (Table 13) shows where the remainder of the missing accidents may be found. Except for the federal-aid urban category, the mileages given in Table 13 agree closely with total statewide mileages. However, the miles of federal-aid urban highways given in Table 13 are only slightly more than one-half of the statewide total. Information must have been missing from the remaining sections of federal-aid urban highways, which excluded them from the analysis.

SUMMARY

Average accident rates, using 1982 accident data only as well as combined 1980 through 1982 data, were calculated for Kentucky highways. Comparison of 1982 to combined 1980 through 1982 rates show that the rates have remained remarkably stable. Several methods of classifying highways were used when determining average rates. Those average rates may be used in the high-accident location identification program. Average and critical numbers of accidents were also determined for use in the high-accident location program.

A series of tables is presented in the Appendices to give the critical numbers of accidents and critical rates for highway sections and spots as a function of highway type, traffic volume, and section length. Two sets of tables

are given. They apply to either a one-year or three-year period. This allows use of both short- and long-term critical accident rates. Those tables provide a convenient method for determining whether specific locations have accident problems.

Rates were calculated as a function of several other variables, and a general description of the types of accidents occurring on specific types of highways was given using the directional analysis code. Rates, using combined 1980 through 1982 data, were calculated for individual counties and for incorporated cities having a population over 1,000. Counties and cities having the highest rates for their population category were identified.

REFERENCES

1. Agent, K. R.; "Traffic Accidents in Kentucky (1978)," University of Kentucky Transportation Research Program, UKTRP-81-9, June 1981.
2. Agent, K. R.; "Traffic Accident Rates in Kentucky (1980)," University of Kentucky Transportation Research Program, UKTRP-82-11, August 1982.
3. Agent, K. R.; "Traffic Accident Rates in Kentucky (1981)," University of Kentucky Transportation Research Program, UKTRP-83-11, May 1983.
4. Zegeer, C. V.; Agent, K. R.; and Rizenbergs, R. L.; "Identification, Analysis, and Correction of High-Accident Locations in Kentucky," University of Kentucky Transportation Research Program, UKTRP-81-15, August 1981.
5. Pigman, J. G.; Agent, K. R.; and Creasey, T.; "Problem Identification for Highway Safety Plan (FY 1984)," University of Kentucky Transportation Research Program, UKTRP-83-19, September 1983.
6. Pigman, J. G.; Agent, K. R.; and Crabtree, J. D.; "Problem Identification for Highway Safety Plan (FY 1983)," University of Kentucky Transportation Research Program, UKTRP-82-5, May 1982.

TABLE 1. COMPARISON OF 1980, 1981, and 1982 ACCIDENT STATISTICS*

STATISTIC	1980	1981	1980-1981 AVERAGE	1982	PERCENT CHANGE
Accidents	67,262	68,389	67,826	68,251	+0.6
Mileage	24,723	24,763	24,743	24,837	+0.4
Accidents per Mile	2.72	2.76	2.74	2.75	+0.4
Vehicle Miles (Billion)	21.683	21.476	21.580	21.607	+0.1
AADT	2,402	2,375	2,389	2,383	-0.3
Accident Rate**	310	318	314	316	+0.6
Fatal Accident Rate**	2.77	2.85	2.81	2.86	+1.8
Injury Accident Rate**	84	89	87	88	+1.1

* Data apply to streets and highways having known traffic volumes, route numbers, and mileposts.

** Accident rates are given in terms of accidents per 100 million vehicle-miles (ACC/100 MVM).

TABLE 2. STATEWIDE RURAL ACCIDENT RATES BY HIGHWAY TYPE CLASSIFICATION (1982)

HIGHWAY TYPE	TOTAL MILEAGE	AADT	ACCIDENT RATES (ACCIDENTS PER 100 MVM)		
			ALL	INJURY	FATAL
One-Lane	337	187	578	122	4.3
Two-Lane	21,357	1,135	311	105	4.8
Three-Lane	14	2,153	809	318	0.0
Four-Lane Divided (No Access Control)	247	7,154	167	63	2.3
Four-Lane Undivided	64	9,589	309	89	2.7
Interstate	594	16,817	51	17	0.7
Parkway	603	3,757	72	20	2.1
All	23,217	1,679	225	76	3.5

TABLE 3. STATEWIDE URBAN ACCIDENT RATES BY HIGHWAY
TYPE CLASSIFICATION (1982)

HIGHWAY TYPE	TOTAL MILEAGE	AADT	ACCIDENT RATES (ACCIDENTS PER 100 MVM)		
			ALL	INJURY	FATAL
Two-Lane	1,039	6,518	668	156	3.4
Four-Lane Divided (No Access Control)	213	18,676	509	125	1.7
Four-Lane Undivided	177	17,955	740	153	2.1
Interstate	141	41,640	141	32	0.6
Parkway	37	5,702	92	29	0.0
All	1,623	12,460	491	113	1.7

TABLE 4. STATEWIDE RURAL ACCIDENT RATES BY HIGHWAY
TYPE CLASSIFICATION (1980-1982)

HIGHWAY TYPE	TOTAL MILEAGE*	AADT	ACCIDENT RATES (ACCIDENTS PER 100 MVM)		
			ALL	INJURY	FATAL
One-Lane	338	184	569	140	5.9
Two-Lane	21,408	1,146	313	106	4.7
Three-Lane	14	2,218	785	265	5.9
Four-Lane Divided (No Access Control)	199	7,916	169	59	2.4
Four-Lane Undivided	61	9,552	348	95	3.3
Interstate	595	16,804	50	16	0.6
Parkway	612	3,647	68	22	1.5
All	23,231	1,695	227	76	3.4

*Average of the three years.

TABLE 5. STATEWIDE URBAN ACCIDENT RATES BY HIGHWAY TYPE CLASSIFICATION (1980-1982)

HIGHWAY TYPE	TOTAL MILEAGE*	AADT	ACCIDENT RATES (ACCIDENTS PER 100 MVM)		
			ALL	INJURY	FATAL
Two-Lane	973	6,514	676	156	2.3
Four-Lane Divided (No Access Control)	194	18,514	487	119	1.7
Four-Lane Undivided	179	18,086	730	148	2.0
Interstate	141	43,013	141	32	1.2
Parkway	32	5,365	96	27	2.1
All	1,544	12,800	491	109	1.7

*Average of the three years.

TABLE 6. COMPARISON OF 1980, 1981 and 1982, ACCIDENT RATES BY RURAL AND URBAN HIGHWAY TYPE CLASSIFICATION

LOCATION	HIGHWAY TYPE	ACCIDENT RATE (ACC/100 MVM)				PERCENT CHANGE
		1980	1981	1980-1981 AVERAGE	1982	
Rural	One-Lane	574	544	559	578	+3
	Two-Lane	306	328	317	311	-2
	Three-Lane	775	799	787	809	+3
	Four-Lane Divided (No Access Control)	159	180	170	167	-2
	Four-Lane Undivided	367	380	374	309	-17
	Interstate	50	51	51	51	0
	Parkway	66	68	67	72	+7
	All	225	230	228	225	-1
Urban	Two-Lane	723	711	717	668	+7
	Four-Lane Divided (No Access Control)	413	539	476	509	+7
	Four-Lane Undivided	692	760	726	740	+2
	Interstate	150	133	142	141	+1
	Parkway	95	102	98	92	-6
	All	483	499	491	491	0

TABLE 7. STATEWIDE ACCIDENT RATES FOR "SPOTS" BY HIGHWAY
TYPE CLASSIFICATION (1982)

RURAL OR URBAN	HIGHWAY TYPE	NUMBER OF ACCIDENTS	NUMBER OF SPOTS*	MILLION VEHICLES PER SPOT PER YEAR	ACCIDENTS PER MILLION VEHICLES PER SPOT
Rural	One-Lane	133	1,124	0.068	1.74
	Two-Lane	27,540	71,191	0.414	0.93
	Three-Lane	89	47	0.786	2.41
	Four-Lane Divided (No Access Control)	1,078	822	2.611	0.50
	Four-Lane Undivided	692	214	3.50	0.92
	Interstate	1,861	1,981	6.14	0.15
	Parkway	595	2,010	1.37	0.22
	All Rural	31,990	77,390	0.613	0.67
Urban	Two-Lane	16,523	3,463	2.37	2.01
	Four-Lane Divided (No Access Control)	7,397	710	6.82	1.53
	Four-Lane Undivided	8,591	590	6.55	2.22
	Interstate	3,019	470	15.2	0.42
	Parkway	71	123	2.08	0.28
	All Urban	36,261	5,410	4.55	1.47

* The length of a spot is defined to be 0.3 mile.

TABLE 8. STATEWIDE ACCIDENT RATES FOR "SPOTS" BY HIGHWAY
TYPE CLASSIFICATION (1980-1982)

RURAL OR URBAN	HIGHWAY TYPE	NUMBER OF ACCIDENTS	NUMBER OF SPOTS*	MILLION VEHICLES PER SPOT	ACCIDENTS PER MILLION VEHICLES PER SPOT
Rural	One-Lane	389	1,125	0.201	1.72
	Two-Lane	84,629	71,363	1.255	0.94
	Three-Lane	267	48	2.429	2.29
	Four-Lane Divided (No Access Control)	2,914	664	8.668	0.51
	Four-Lane Undivided	2,239	202	10.459	1.06
	Interstate	5,519	1,985	18.400	0.15
	Parkway	1,673	2,040	3.993	0.21
	All Rural	97,664	77,438	1.856	0.68
Urban	Two-Lane	49,704	3,278	7.133	2.13
	Four-Lane Divided (No Access Control)	19,372	650	20.273	1.47
	Four-Lane Undivided	25,889	595	19.804	2.20
	Interstate	9,376	469	47.099	0.42
	Parkway	181	106	5.875	0.29
	All Urban	106,238	5,146	14.016	1.47

* Average of three years.

TABLE 9. STATEWIDE AVERAGE AND CRITICAL NUMBERS OF ACCIDENTS FOR "SPOTS"
AND ONE-MILE SECTIONS BY HIGHWAY TYPE CLASSIFICATION (1982)*

RURAL OR URBAN	HIGHWAY TYPE	ACCIDENTS PER SPOT		ACCIDENTS PER ONE-MILE SECTION	
		AVERAGE	CRITICAL NUMBER	AVERAGE	CRITICAL NUMBER
Rural	One-Lane	0.12	2	0.40	3
	Two-Lane	0.39	3	1.30	5
	Three-Lane	1.89	6	6.30	14
	Four-Lane Divided (No Access Control)	1.31	5	4.37	11
	Four-Lane Undivided	3.23	9	10.77	20
	Interstate	0.94	4	3.13	9
	Parkway	0.30	3	1.00	5
	All Rural	0.41	3	1.37	5
Urban	Two-Lane	4.77	11	15.90	27
	Four-Lane Divided (No Access Control)	10.41	20	34.70	51
	Four-Lane Undivided	14.56	25	48.53	67
	Interstate	6.42	14	21.40	34
	Parkway	0.58	4	1.93	6
	All Urban	6.70	14	22.33	35

* The length of a spot is defined to be 0.3 mile.

TABLE 10. STATEWIDE AVERAGE AND CRITICAL NUMBERS OF ACCIDENTS FOR "SPOTS" AND ONE-MILE SECTIONS BY HIGHWAY TYPE CLASSIFICATION (1980-1982)*

RURAL OR URBAN	HIGHWAY TYPE	ACCIDENTS PER SPOT		ACCIDENTS PER ONE-MILE SECTION	
		AVERAGE	CRITICAL NUMBER	AVERAGE	CRITICAL NUMBER
Rural	One-Lane	0.35	3	1.17	5
	Two-Lane	1.19	5	3.97	10
	Three-Lane	5.56	13	18.53	31
	Four-Lane Divided (No Access Control)	4.39	11	14.63	25
	Four-Lane Undivided	11.08	21	36.93	54
	Interstate	2.78	8	9.27	18
	Parkway	0.82	4	2.73	8
	All Rural	1.26	5	4.20	10
Urban	Two-Lane	15.16	26	50.53	70
	Four-Lane Divided (No Access Control)	29.80	45	99.33	126
	Four-Lane Undivided	43.51	61	145.03	177
	Interstate	19.99	32	66.63	89
	Parkway	1.71	6	5.70	13
	All Urban	20.64	33	68.80	91

* The length of a spot is defined to be 0.3 mile.

TABLE 11. SUMMARY OF ACCIDENTS BY DIRECTIONAL ANALYSIS FOR VARIOUS HIGHWAY TYPES (1980-1982 DATA)

LOCATION	HIGHWAY TYPE	PERCENT OF TOTAL				
		DIRECTIONAL ANALYSIS				
		INTERSECTION	SECTION OR MIDBLOCK	BRIDGE	INTERCHANGE RAMP	OTHER
Rural	One-Lane	4.7	94.1	0.8	0.0	0.4
	Two-Lane	18.5	80.4	0.6	0.1	0.4
	Three-Lane	18.8	80.7	0.0	0.0	0.5
	Four-Lane Divided (No Access Control)	31.9	66.1	0.8	0.8	0.4
	Four-Lane Undivided	36.8	62.2	0.5	0.2	0.3
	Interstate	1.7	95.5	0.8	1.9	0.1
	Parkway	3.4	94.3	1.0	0.9	1.3
	All Rural	18.4	80.7	0.6	0.3	0.3
Urban	Two-Lane	49.2	49.4	0.6	0.3	0.5
	Four-Lane Divided (No Access Control)	51.8	45.8	0.2	1.8	0.4
	Four-Lane Undivided	51.2	47.7	0.1	0.6	0.4
	Interstate	13.8	68.8	1.6	15.7	0.1
	Parkway	20.9	69.0	0.0	10.1	0.0
	All Urban	47.1	50.0	0.5	2.0	0.4

TABLE 12. STATEWIDE ACCIDENT RATES BY FUNCTIONAL CLASSIFICATION
(1980-1982 DATA)

LOCATION	FUNCTIONAL CLASSIFICATION	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATES (ACC PER 100 MVM)		
				ALL	INJURY	FATAL
Rural	Principal Arterial, Interstate	595	16,793	50	16	0.8
	Principal Arterial, Other	1,493	4,943	158	52	2.6
	Minor Arterial	1,814	2,886	303	97	4.7
	Major Collector	7,271	1,458	345	116	5.1
	Minor Collector	9,230	482	361	127	4.9
	Local System	2,832	482	296	86	3.3
Urban	Principal Arterial, Interstate	140	43,227	141	31	0.8
	Principal Arterial, Other Freeway	68	13,307	107	27	1.0
	Principal Arterial, Other	326	14,699	664	149	2.0
	Minor Arterial	693	8,418	708	160	2.3
	Collector	186	3,510	651	164	2.9
	Local System	71	2,610	409	96	3.0

TABLE 13. STATEWIDE ACCIDENT RATES BY FEDERAL-AID SYSTEM
(1980-1982 DATA)

FEDERAL-AID SYSTEM	ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATE (ACC/100 MVM)
Interstate	14,867	739	22,191	83
Federal-Aid Primary (other than Interstate)	63,386	3,689	4,890	321
Federal-Aid Urban	62,554	938	8,594	708
Federal-Aid Secondary (Rural Only)	40,028	7,271	1,471	342
Non-Federal Aid	23,067	12,143	497	349

TABLE 14. STATEWIDE ACCIDENT RATES BY ADMINISTRATIVE CLASSIFICATION
(1980-1982 DATA)

ADMINISTRATIVE CLASSIFICATION	ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATE (ACC/100 MVM)
Primary	93,373	4,653	7,865	233
Secondary	73,352	7,636	1,937	453
Rural Secondary	29,667	9,813	626	441
Unclassified	7,510	2,680	600	427

TABLE 15. COMBINED 1980-1982 ACCIDENT RATES BY COUNTY

COUNTY	NUMBER OF ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATE (ACC/100 MVM)
Adair	710	253	890	289
Allen	703	178	1,050	343
Anderson	682	131	1,710	277
Ballard	503	149	1,230	250
Barren	1,983	310	2,370	247
Bath	314	145	1,270	157
Bell	1,774	213	2,370	321
Boone	4,295	214	6,090	301
Bourbon	1,269	151	1,950	392
Boyd	3,091	145	5,200	375
Boyle	1,341	137	2,570	347
Bracken	167	131	690	169
Breathitt	731	253	1,230	214
Breckinridge	797	312	780	300
Bullitt	1,952	167	5,150	207
Butler	500	226	950	213
Caldwell	759	221	1,450	217
Calloway	1,560	236	1,530	394
Campbell	4,933	161	5,490	510
Carlisle	235	138	874	178
Carroll	807	125	2,280	259
Carter	971	266	1,750	191
Casey	395	222	830	196
Christian	3,439	436	2,600	277
Clark	1,772	170	3,380	282
Clay	994	241	1,190	316
Clinton	342	146	880	243
Crittenden	481	169	1,280	203
Cumberland	201	153	790	152
Daviess	5,094	308	4,150	364
Edmonson	402	142	1,200	216
Elliott	229	141	490	304
Estill	596	139	1,090	359
Fayette	10,930	273	11,460	319
Fleming	646	224	720	365
Floyd	2,521	274	2,280	368
Franklin	2,659	181	3,710	361
Fulton	400	177	940	219
Gallatin	439	102	2,710	145
Garrard	592	127	1,320	323

TABLE 15. COMBINED 1980-1982 ACCIDENT RATES BY COUNTY (continued)

COUNTY	NUMBER OF ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATE (ACC/100 MVM)
Grant	912	173	3,720	130
Graves	1,788	432	1,260	299
Grayson	1,111	300	1,100	307
Green	486	171	880	295
Greenup	1,359	191	2,400	271
Hancock	313	121	940	253
Hardin	4,700	396	3,990	271
Harlan	2,318	290	1,940	376
Harrison	687	156	1,050	384
Hart	691	276	2,130	107
Henderson	2,914	279	3,100	307
Henry	701	207	1,560	198
Hickman	292	196	680	203
Hopkins	2,765	372	2,500	272
Jackson	342	167	740	253
Jefferson	42,190	426	19,460	465
Jessamine	1,416	107	2,800	432
Johnson	1,323	205	1,580	374
Kenton	9,235	201	9,060	463
Knott	727	198	1,140	295
Knox	1,165	207	1,960	262
Larue	657	162	1,610	230
Laurel	2,266	311	3,100	215
Lawrence	551	217	1,240	187
Lee	172	109	660	217
Leslie	584	166	1,160	278
Letcher	1,012	240	1,530	252
Lewis	592	193	710	397
Lincoln	745	217	1,490	210
Livingston	470	194	1,020	218
Logan	1,294	333	1,120	318
Lyon	270	133	1,960	95
McCracken	4,562	269	3,450	450
McCreary	503	187	950	260
McLean	440	197	760	267
Madison	3,281	262	4,680	244
Magoffin	642	189	850	367
Marion	1,113	184	990	558
Marshall	1,374	282	2,470	180
Martin	343	120	840	310

TABLE 15. COMBINED 1980-1982 ACCIDENT RATES BY COUNTY (continued)

COUNTY	NUMBER OF ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATE (ACC/100 MVM)
Mason	1,661	169	1,650	542
Meade	1,116	224	1,400	324
Menifee	199	104	580	300
Mercer	849	148	1,830	287
Metcalfe	300	175	730	215
Monroe	357	180	780	233
Montgomery	1,174	144	2,180	342
Morgan	491	223	620	323
Muhlenberg	1,858	281	1,880	327
Nelson	1,634	281	1,620	328
Nicholas	153	114	810	151
Ohio	1,069	311	1,400	224
Oldham	1,216	147	2,730	277
Owen	402	222	460	356
Owsley	190	103	490	345
Pendleton	466	154	750	367
Perry	2,126	222	2,190	399
Pike	4,542	410	2,370	427
Powell	374	148	1,490	155
Pulaski	2,375	364	2,060	289
Robertson	36	74	370	120
Rockcastle	748	207	3,120	106
Rowan	1,236	155	2,060	354
Russell	497	173	990	265
Scott	1,451	204	4,230	153
Shelby	1,741	245	2,570	252
Simpson	870	170	2,590	180
Spencer	267	117	620	339
Taylor	1,051	188	1,320	388
Todd	415	185	980	208
Trigg	577	212	1,210	206
Trimble	276	94	1,010	266
Union	946	264	1,040	314
Warren	5,557	340	4,410	338
Washington	543	192	940	275
Wayne	717	203	840	386
Webster	809	241	1,170	261
Whitley	1,559	255	4,750	117
Wolfe	299	158	1,970	88
Woodford	1,232	140	3,410	236

TABLE 16. COMBINED 1980-1982 ACCIDENT RATES FOR INCORPORATED CITIES HAVING POPULATIONS OVER 1,000*

CITY	POPULATION	NUMBER OF ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATE (ACC 100/MVM)
Adairville	1,105	8	2.1	1,450	240
Albany	2,083	105	4.7	3,660	557
Alexandria	4,735	104	2.3	6,240	662
Ashland	27,064	2,046	15.0	15,630	797
Auburn	1,467	59	3.7	2,270	642
Augusta	1,455	8	1.3	1,040	706
Barbourville	3,233	274	7.2	4,080	851
Bardstown	6,155	454	4.4	9,200	1,024
Beattyville	1,068	35	3.5	2,950	310
Beaver Dam	3,185	116	2.5	3,510	1,206
Benton	3,700	323	12.2	3,220	751
Berea	8,226	322	8.1	6,580	551
Bowling Green	40,450	2,046	21.0	10,290	865
Brandenburg	1,831	45	3.2	2,400	535
Burgin	1,008	15	2.7	2,290	222
Burkesville	2,051	39	3.7	3,540	272
Cadiz	1,661	131	2.9	5,970	691
Calhoun	1,080	33	1.5	1,210	1,666
Calvert City	2,388	29	4.9	2,820	192
Campbellsville	8,715	314	6.8	5,480	769
Carlisle	1,757	20	1.7	3,470	309
Carrollton	3,967	136	2.9	4,220	1,014
Catlettsburg	3,005	281	6.2	12,850	322
Cave City	2,098	42	2.8	5,330	257
Central City	5,214	320	6.9	4,970	852
Clay	1,356	46	2.7	2,370	655
Clay City	1,276	10	5.0	2,080	88
Clinton	1,720	56	4.8	2,180	489
Cloverport	1,585	47	2.7	2,500	637
Cold Springs	2,117	217	1.2	19,760	836
Columbia	3,710	207	6.5	2,950	985
Corbin	8,075	491	13.2	7,680	442
Covington	49,013	4,249	25.2	27,180	566
Cumberland	3,712	2	3.6	3,580	14
Cynthiana	5,881	167	4.4	4,040	857
Danville	12,942	522	7.4	8,780	734
Dawson Springs	3,275	112	6.4	3,210	498
Dry Ridge	1,250	87	2.0	5,000	794
Earlington	2,011	29	2.3	3,340	345
Eddyville	1,949	3	2.0	1,250	110

* Cities with a total mileage less than one mile were not included. When mileages for the various years were different, the higher mileage is given.

TABLE 16. COMBINED 1980-1982 ACCIDENT RATES FOR INCORPORATED
CITIES HAVING POPULATIONS OVER 1,000* (continued)

CITY	POPULATION	NUMBER OF ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATE (ACC 100/MVM)
Edmonton	1,401	51	2.5	4,100	455
Elizabethtown	15,380	1,309	27.7	7,810	553
Elkhorn City	1,416	34	2.5	3,430	362
Elkton	1,815	111	3.6	3,310	850
Eminence	2,260	56	2.2	4,260	546
Erlanger	14,433	922	4.1	17,709	1,160
Evarts	1,234	37	1.4	2,090	1,154
Falmouth	2,482	98	2.2	1,910	2,128
Fleming-Neon	1,195	13	1.5	3,250	244
Flemingsburg	2,835	170	5.7	3,810	715
Florence	15,586	1,235	6.4	9,490	1,857
Fort Thomas	16,012	131	6.6	6,810	266
Frankfort	25,973	1,348	24.5	9,110	551
Franklin	7,738	331	7.7	4,520	868
Fulton	3,137	125	5.4	8,120	260
Georgetown	10,972	420	4.9	8,220	952
Glasgow	12,958	689	18.1	7,110	489
Grayson	3,423	120	2.2	2,600	1,918
Greensburg	2,377	56	1.8	3,670	774
Greenville	4,631	164	4.1	7,060	517
Hardinsburg	2,211	72	2.6	3,500	722
Harlan	3,024	320	5.5	7,310	727
Harrodsburg	7,265	426	14.6	3,510	760
Hartford	2,512	7	2.3	5,140	54
Hawesville	1,036	28	2.6	1,150	859
Hazard	5,429	536	8.8	8,420	661
Henderson	24,834	725	6.2	13,550	788
Hickman	2,894	51	6.4	1,250	580
Highland Heights	4,435	434	3.2	14,580	849
Hodgenville	2,459	128	3.6	6,830	476
Hopkinsville	27,318	1,732	75.3	3,900	539
Horse Cave	2,045	12	3.9	3,440	82
Independence	7,998	45	1.1	3,000	1,247
Irvine	2,889	172	5.1	3,870	796
Irvington	1,409	18	1.0	1,620	1,020
Jackson	2,651	61	3.5	2,030	785
Jamestown	1,441	22	1.8	2,480	451
Jenkins	3,271	50	6.3	3,660	198
Junction City	2,045	26	1.7	2,840	491
LaCenter	1,044	35	1.3	2,130	1,154

* Cities with a total mileage under one mile were not included.
When mileages for the various years were different, the higher
mileage is given.

TABLE 16. COMBINED 1980-1982 ACCIDENT RATES FOR INCORPORATED
CITIES HAVING POPULATIONS OVER 1,000* (continued)

CITY	POPULATION	NUMBER OF ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATE (ACC 100/MVM)
LaGrange	2,971	77	2.2	4,020	795
Lakeside Park	3,026	205	1.4	13,090	1,022
Lancaster	3,365	139	3.0	4,090	1,036
Lawrenceburg	5,167	156	3.0	7,670	619
Lebanon	6,590	354	6.2	6,170	846
Lebanon Junction	1,581	6	1.9	2,700	107
Leitchfield	4,533	360	6.2	4,220	1,257
Lewisport	1,832	3	1.2	3,170	72
Lexington	204,165	5,784	35.9	21,810	675
Liberty	2,206	71	9.3	2,750	254
Livermore	1,672	26	1.6	3,240	459
London	4,002	422	6.4	6,770	890
Louisa	1,832	86	2.0	5,910	665
Louisville	490,095	21,806	150.0	30,500	429
Loyall	1,210	29	1.3	1,700	1,201
Madisonville	16,979	728	40.1	2,220	747
Manchester	1,838	139	3.7	2,910	1,180
Marion	3,392	164	3.8	6,190	637
Mayfield	10,705	663	7.2	7,520	1,118
Maysville	7,982	671	9.2	6,110	1,091
Middlesboro	12,251	581	21.7	4,730	517
Monticello	5,677	406	16.0	1,890	1,224
Morehead	7,789	327	2.4	11,850	1,050
Morganfield	3,781	198	3.9	4,440	1,044
Morgantown	2,000	56	3.1	2,270	725
Mortons Gap	1,201	12	2.2	3,780	132
Mount Sterling	5,820	312	4.8	7,210	824
Mount Vernon	2,334	76	4.4	3,720	424
Mount Washington	3,997	62	1.8	2,700	1,166
Muldraugh	1,752	13	1.0	2,220	535
Munfordville	1,783	71	2.9	2,690	831
Murray	14,248	752	9.8	8,520	823
Newport	21,587	2,703	19.7	13,170	951
Nicholasville	10,400	443	5.2	7,460	1,042
Nortonville	1,336	16	2.6	5,160	109
Olive Hill	2,539	53	3.7	3,030	432
Owensboro	54,450	2,187	14.2	10,700	1,314
Owenton	1,341	83	3.3	3,620	635
Owingsville	1,419	30	2.2	2,550	488
Paducah	29,758	2,024	47.2	5,860	668

* Cities with a total mileage under one mile were not included.
When mileages for the various years were different, the higher
mileage is given.

TABLE 16. COMBINED 1980-1982 ACCIDENT RATES FOR INCORPORATED
CITIES HAVING POPULATIONS OVER 1,000* (continued)

CITY	POPULATION	NUMBER OF ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATE (ACC 100/MVM)
Paintsville	3,815	254	4.4	5,910	883
Paris	7,935	426	11.3	4,740	727
Phelps	1,126	30	2.5	2,550	430
Pikeville	4,756	493	7.7	7,630	767
Pineville	2,559	249	3.8	6,330	946
Prestonsburg	4,011	313	4.1	8,940	780
Princeton	7,073	334	18.2	2,530	664
Providence	4,434	75	4.9	3,510	398
Radcliff	14,579	854	13.7	8,760	650
Richmond	21,705	765	5.5	13,240	959
Russell	3,824	19	1.8	4,350	222
Russell Springs	1,831	79	5.7	3,230	391
Russellville	7,520	471	46.1	1,820	513
Salyersville	1,352	105	2.9	3,680	899
Scottsville	4,278	176	5.6	3,610	795
Sebree	1,516	37	2.5	3,890	347
Shelbyville	5,308	504	2.3	7,170	2,789
Sheperdsville	4,454	201	3.0	4,860	1,259
Somerset	10,649	837	12.1	8,960	705
South Shore	1,525	522	19.4	8,970	274
Springfield	3,179	152	4.5	3,760	820
Stanford	2,764	170	7.4	3,960	530
Stanton	2,691	30	2.9	2,180	433
Sturgis	2,293	59	2.4	4,610	487
Tompkinsville	4,366	151	5.5	3,030	828
Uniontown	1,169	14	2.2	1,740	333
Vanceburg	1,939	87	3.6	2,530	873
Versailles	6,427	451	7.5	7,610	721
Vine Grove	3,583	130	8.0	2,220	670
Walton	1,651	86	2.0	4,580	857
Warsaw	1,328	44	2.5	1,760	910
West Liberty	1,381	81	2.3	3,260	986
West Point	1,339	8	1.0	3,260	224
Whitesburg	1,525	50	2.5	6,260	292
Wickliffe	1,044	96	2.2	6,970	572
Williamsburg	5,560	163	12.7	3,210	365
Williamstown	2,509	38	2.5	3,820	363
Wilmore	3,787	23	2.2	1,510	633
Winchester	15,216	676	8.8	10,170	690
Worthington	1,948	15	1.3	2,740	385

* Cities with a total mileage under one mile were not included.
When mileages for the various years were different, the higher
mileage is given.

TABLE 17. COUNTIES HAVING HIGHEST ACCIDENT RATES (1980-1982 DATA)
(BY POPULATION CATEGORY)

POPULATION CATEGORY	NUMBER OF COUNTIES	AVERAGE RATE (ACC/100 MVM)	COUNTY	NUMBER OF ACCIDENTS (1980-1982)	ACCIDENT RATE (ACC/100 MVM)
Over 50,000	12	395	Campbell	4,933	510
25,000-50,000	26	288	Jessamine	1,416	432
15,000-24,999	26	285	Marion	1,113	558
			Mason	1,661	542
10,000-14,999	30	234	Lewis	592	397
Under 10,000	26	166	Owen	402	356
			Owsley	190	345
			Spencer	267	339

TABLE 18. CITIES HAVING HIGHEST ACCIDENT RATES (1980-1982 DATA)
(BY POPULATION CATEGORY)

POPULATION CATEGORY	NUMBER OF CITIES	AVERAGE RATE (ACC PER 100 MVM)	CITY	NUMBER OF ACCIDENTS (1980-1982)	AVERAGE RATE (ACC PER 100 MVM)
Over 200,000	2	470	Lexington	5,784	675
20,000-55,000	10	725	Owensboro	2,187	1,314
10,000-19,999	15	748	Florence	1,235	1,857
			Erlanger	922	1,160
5,000-9,000	22	764	Shelbyville	504	2,789
2,500-4,999	44	700	Grayson	120	1,918
1,000-2,499	67	467	Falmouth	98	2,128

TABLE 19. STATEWIDE ACCIDENT RATES BY MEDIAN TYPE (RURAL ROADS WITH FOUR OR MORE LANES)(1980-1982 DATA)

MEDIAN TYPE	ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATE (ACC/100 MVM)
Undivided, No Median	2,333	81	10,021	262
Divided, Median Less than 30, Feet, No Barrier	2,789	209	10,299	118
Divided, Median Greater than 30 Feet, No Barrier	6,708	1,074	10,266	56

TABLE 20. STATEWIDE ACCIDENT RATES BY ACCESS CONTROL (1980-1982 DATA)

ACCESS CONTROL	ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATE (ACC/100 MVM)
Full Control	17,537	1,416	13,773	82
Partial Control	998	29	13,637	229
No Control	185,332	23,325	1,682	431

TABLE 21. ACCIDENT RATES FOR RURAL HIGHWAYS BY FEDERAL-AID SYSTEM AND TERRAIN (1980-1982 DATA)

FEDERAL-AID SYSTEM	ACCIDENT RATE (ACC/100 MVM)		
	TERRAIN CLASSIFICATION		
	FLAT	ROLLING	MOUNTAINOUS
Interstate	44	58	45
Federal-Aid Primary	215	232	219
Federal-Aid Secondary	243	374	341
Non-Federal Aid	272	342	352
ALL	218	247	255

TABLE 22. STATEWIDE ACCIDENT RATES BY RURAL-URBAN DESIGNATION (1980-1982 DATA)

RURAL-URBAN DESIGNATION	ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATE (ACC/100 MVM)
Rural	97,664	23,230	1,695	226
Small Urban Area	34,168	806	7,382	525
Urbanized Area	72,070	738	18,716	476

TABLE 23. STATEWIDE ACCIDENT RATES BY ROUTE SIGNING IDENTIFIER (1980-1982 DATA)

ROUTE SIGNING IDENTIFIER	ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATE (ACC/100 MVM)
Interstate	14,898	736	21,810	85
US	86,874	3,513	5,380	420
State	102,126	20,522	1,178	386

TABLE 24. RELATIONSHIP BETWEEN ACCIDENT RATE AND TRAFFIC VOLUME

VOLUME RANGE (AADT)	ACCIDENT RATE (ACC/100 MVM)				
	INTERSTATE	FEDERAL-AID PRIMARY	FEDERAL-AID URBAN	FEDERAL-AID SECONDARY	NON-FEDERAL AID
0 - 1,000	*	622	1,133	412	367
1,000-2,499	*	294	738	328	370
2,500-4,999	50	198	718	357	291
5,000-9,999	51	260	781	269	227
10,000-19,999	61	445	669	201	370
20,000-29,999	47	627	660	*	*
30,000-39,990	91	353	635	*	*
40,000 or more	159	744	346	*	*

* No data in this volume range.

APPENDIX A

CRITICAL "NUMBERS OF ACCIDENTS" TABLES

TABLE A-1. CRITICAL NUMBERS OF ACCIDENTS ON RURAL HIGHWAYS BY HIGHWAY TYPE AND SECTION LENGTH (ONE-YEAR PERIOD)

HIGHWAY TYPE	SECTION LENGTH (MILES)						
	0.4	1	2	5	10	15	20
One-Lane	2	3	4	7	10	13	16
Two-Lane	3	5	7	13	22	30	38
Three-Lane	8	14	23	47	85	122	157
Four-Lane Divided (No Access Control)	6	11	17	35	62	87	112
Four-Lane Undivided	11	20	35	74	136	196	255
Interstate	5	9	14	27	47	66	84
Parkway	3	5	7	12	19	26	32

TABLE A-2. CRITICAL NUMBERS OF ACCIDENTS ON URBAN HIGHWAYS BY HIGHWAY TYPE AND SECTION LENGTH (ONE-YEAR PERIOD)

HIGHWAY TYPE	SECTION LENGTH (MILES)					
	0.4	1	2	5	8	10
Two-Lane	14	27	47	103	157	193
Four-Lane Divided (No Access Control)	24	51	92	209	322	396
Four-Lane Undivided	32	67	123	284	439	543
Interstate	17	34	61	135	206	253
Parkway	4	6	10	19	26	31

TABLE A-3. CRITICAL NUMBERS OF ACCIDENTS ON RURAL HIGHWAYS BY HIGHWAY TYPE AND SECTION LENGTH (THREE-YEAR PERIOD)

HIGHWAY TYPE	SECTION LENGTH (MILES)						
	0.4	1	2	5	10	15	20
One-Lane	3	5	7	13	21	29	36
Two-Lane	5	8	12	24	41	57	72
Three-Lane	16	31	55	122	227	331	433
Four-Lane Divided (No Access Control)	13	25	44	96	179	259	337
Four-Lane Undivided	26	53	96	219	417	612	805
Interstate	10	18	31	65	119	170	222
Parkway	5	8	12	24	42	58	74

TABLE A-4. CRITICAL NUMBERS OF ACCIDENTS ON URBAN HIGHWAYS BY HIGHWAY TYPE AND SECTION LENGTH (ONE-YEAR PERIOD)

HIGHWAY TYPE	SECTION LENGTH (MILES)					
	0.4	1	2	5	8	10
Two-Lane	33	70	128	295	462	565
Four-Lane Divided (No Access Control)	57	126	236	555	873	1,076
Four-Lane Undivided	78	177	334	793	1,245	1,545
Interstate	41	88	164	380	592	732
Parkway	7	13	21	43	63	77

APPENDIX B

CRITICAL ACCIDENT RATE TABLES

FOR HIGHWAY SECTIONS

TABLE B-1. CRITICAL ACCIDENT RATES FOR RURAL ONE-LANE SECTIONS (ONE-YEAR PERIOD)

CRITICAL ACCIDENT RATE (ACC/100 MVM)

SECTION LENGTH (MILES)

AADT	0.5	1	2	5	10
100	7,903	5,190	3,556	2,302	1,741
200	5,190	3,556	2,542	1,741	1,372
300	4,139	2,907	2,130	1,507	1,216
400	3,556	2,542	1,896	1,372	1,125
500	3,177	2,302	1,741	1,282	1,064
700	2,703	1,999	1,543	1,166	986
1,000	2,302	1,741	1,372	1,064	916
1,500	1,945	1,507	1,216	971	852
2,000	1,741	1,372	1,125	916	815
2,500	1,605	1,282	1,064	879	789
3,000	1,507	1,216	1,020	852	770

TABLE B-2. CRITICAL ACCIDENT RATES FOR RURAL TWO-LANE SECTIONS (ONE-YEAR PERIOD)

CRITICAL ACCIDENT RATE (ACC/100 MVM)

SECTION LENGTH (MILES)

AADT	0.5	1	2	5	10	20
100	6,414	4,059	2,678	1,649	1,200	912
300	3,166	2,141	1,511	1,017	791	641
500	2,363	1,649	1,200	842	675	563
1,000	1,649	1,200	912	675	563	486
1,500	1,402	1,017	791	604	515	453
2,000	1,200	912	722	563	486	434
3,000	1,017	791	641	515	453	411
4,000	912	722	594	486	434	397
5,000	842	675	563	467	421	388
6,000	791	641	540	453	411	381
7,000	753	615	522	443	403	376
8,000	722	594	508	434	397	372
9,000	696	577	496	427	392	368
10,000	675	563	486	421	388	365

TABLE B-3. CRITICAL ACCIDENT RATES FOR RURAL THREE-LANE SECTIONS (ONE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM)				
	SECTION LENGTH (MILES)				
	0.5	1	2	3	5
100	8,973	6,014	4,206	3,480	2,799
300	4,854	3,480	2,603	2,240	1,891
500	3,783	2,799	2,159	1,891	1,631
1,000	2,799	2,159	1,736	1,555	1,379
1,500	2,393	1,891	1,555	1,412	1,271
2,000	2,160	1,936	1,450	1,327	1,207
3,000	1,891	1,555	1,327	1,229	1,132
4,000	1,736	1,450	1,255	1,171	1,088
5,000	1,631	1,379	1,207	1,132	1,058
6,000	1,555	1,327	1,171	1,103	1,035
7,000	1,497	1,287	1,143	1,081	1,018
8,000	1,450	1,255	1,121	1,063	1,005
9,000	1,412	1,229	1,103	1,048	993
10,000	1,379	1,207	1,088	1,035	993

TABLE B-4. CRITICAL ACCIDENT RATES FOR RURAL FOUR-LANE DIVIDED SECTIONS (NO ACCESS CONTROL) (ONE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM)				
	SECTION LENGTH (MILES)				
	0.5	1	2	5	10
500	1,817	1,221	855	571	441
1,000	1,221	855	626	441	355
2,500	770	571	441	334	283
5,000	571	441	355	283	248
7,500	489	387	319	261	233
10,000	441	355	298	249	224
15,000	387	319	273	233	213
20,000	355	298	258	223	207
30,000	319	273	241	213	200
40,000	298	258	231	207	195
50,000	283	249	224	203	192

TABLE B-5. CRITICAL ACCIDENT RATES FOR RURAL FOUR-LANE UNDIVIDED SECTIONS (ONE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM)					
	SECTION LENGTH (MILES)					
	0.5	1	2	5	10	
500	2,356	1,643	1,196	838	672	
1,000	1,643	1,196	908	672	560	
2,500	1,089	838	672	532	465	
5,000	838	672	560	465	418	
7,500	733	601	512	436	398	
10,000	672	560	484	418	386	
20,000	560	484	431	386	363	
30,000	512	451	409	372	353	
40,000	484	431	395	363	347	
50,000	465	418	386	357	343	

TABLE B-6. CRITICAL ACCIDENT RATES FOR RURAL INTERSTATE SECTIONS (ONE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM)					
	SECTION LENGTH (MILES)					
	0.5	1	2	5	10	20
500	1,208	756	492	298	215	161
1,000	756	492	335	215	161	126
2,500	433	298	315	148	117	97
5,000	298	215	161	117	97	83
7,500	245	180	139	104	88	77
10,000	215	161	126	97	83	73
20,000	161	126	103	83	73	67
30,000	139	111	93	77	69	64
40,000	126	103	87	73	67	62
50,000	117	97	83	71	65	61

TABLE B-7. CRITICAL ACCIDENT RATES FOR RURAL PARKWAY SECTIONS (ONE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM)					
	SECTION LENGTH (MILES)					
	0.5	1	2	5	10	20
400	1,566	987	648	397	288	218
700	1,075	701	476	305	229	179
1,000	858	571	397	262	201	160
1,500	673	459	327	223	175	143
2,000	571	397	288	201	160	133
3,000	459	327	243	175	143	121
4,000	397	288	218	160	133	115
5,000	356	262	201	150	126	110
7,000	305	229	179	138	118	104
10,000	262	201	160	126	110	99
20,000	201	160	133	110	99	91
40,000	160	133	115	99	91	85

TABLE B-8. CRITICAL ACCIDENT RATES FOR URBAN TWO-LANE SECTIONS (ONE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM)				
	SECTION LENGTH (MILES)				
	0.5	1	2	5	10
500	3,420	2,501	1,908	1,420	1,189
1,000	2,501	1,908	1,516	1,189	1,031
2,500	1,764	1,420	1,189	991	894
5,000	1,420	1,189	1,031	894	827
7,500	1,274	1,089	962	852	798
10,000	1,189	1,031	922	827	780
15,000	1,089	962	874	798	759
20,000	1,031	922	846	780	747
30,000	962	874	813	759	733
40,000	922	846	793	747	724
50,000	894	827	780	739	718

TABLE B-9. CRITICAL ACCIDENT RATES FOR URBAN FOUR-LANE DIVIDED SECTIONS (NO ACCESS CONTROL) (ONE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM)				
	SECTION LENGTH (MILES)				
	0.5	1	2	5	10
1,000	2,144	1,608	1,258	967	827
2,500	1,479	1,173	967	793	707
5,000	1,173	967	827	707	648
10,000	967	827	731	648	607
15,000	878	767	690	622	589
20,000	827	731	665	607	578
25,000	793	707	648	597	571
30,000	767	690	636	589	565
40,000	731	665	619	578	558
50,000	707	648	607	571	553
60,000	690	636	598	565	549

TABLE B-10. CRITICAL ACCIDENT RATES FOR URBAN FOUR-LANE UNDIVIDED SECTIONS) (ONE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM)				
	SECTION LENGTH (MILES)				
	0.5	1	2	5	10
1,000	2,655	2,037	1,629	1,287	1,121
2,500	1,888	1,529	1,287	1,080	978
5,000	1,529	1,287	1,121	978	907
10,000	1,287	1,121	1,007	907	858
15,000	1,182	1,049	957	876	836
20,000	1,121	1,007	927	858	823
25,000	1,080	978	907	845	814
30,000	1,049	957	893	836	808
40,000	1,007	927	872	823	799
50,000	978	907	858	814	793
60,000	957	893	848	808	788

TABLE B-11. CRITICAL ACCIDENT RATES FOR URBAN INTERSTATE SECTIONS (ONE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM)				
	SECTION LENGTH (MILES)				
	0.5	1	2	5	10
1,000	1,131	785	568	395	315
5,000	517	395	315	248	216
10,000	395	315	262	216	193
20,000	315	262	225	193	178
30,000	281	239	209	184	171
40,000	262	225	200	178	167
50,000	248	216	193	173	164
60,000	239	209	189	171	162
70,000	231	204	185	169	161
80,000	225	200	182	167	160
90,000	220	196	180	166	159
100,000	216	193	178	165	158

TABLE B-12. CRITICAL ACCIDENT RATES FOR URBAN PARKWAY SECTIONS (ONE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM)				
	SECTION LENGTH (MILES)				
	0.5	1	2	5	10
500	1,458	945	638	406	303
1,000	945	638	450	303	236
2,500	568	406	303	219	180
5,000	406	303	236	180	153
7,500	340	260	207	163	142
10,000	303	236	191	153	135
15,000	260	207	172	142	127
20,000	236	191	161	135	122
30,000	207	172	148	127	117
40,000	191	161	140	122	113
50,000	180	153	135	119	111

TABLE B-13. CRITICAL ACCIDENT RATES FOR RURAL ONE-LANE SECTIONS (THREE-YEAR PERIOD)

CRITICAL ACCIDENT RATE (ACC/100 MVM)

SECTION LENGTH (MILES)

AADT	0.5	1	2	5	10
100	4,108	2,883	2,110	1,491	1,202
200	2,883	2,110	1,612	1,202	1,008
300	2,390	1,793	1,403	1,079	924
400	2,110	1,612	1,283	1,008	874
500	1,182	1,491	1,202	959	841
700	1,693	1,337	1,098	896	798
1,000	1,491	1,202	1,008	841	760
1,500	1,308	1,079	924	790	724
2,000	1,202	1,008	875	760	703
2,500	1,131	959	841	739	689
3,000	1,079	924	817	724	678

TABLE B-14. CRITICAL ACCIDENT RATES FOR RURAL TWO-LANE SECTIONS (THREE-YEAR PERIOD)

CRITICAL ACCIDENT RATE (ACC/100 MVM)

SECTION LENGTH (MILES)

AADT	0.5	1	2	5	10	20
100	3,174	2,147	1,516	1,021	795	644
300	1,742	1,261	952	700	580	499
500	1,367	1,021	795	607	517	456
1,000	1,021	795	644	517	456	413
1,500	877	700	580	479	429	395
2,000	384	644	543	456	413	384
3,000	700	580	499	429	395	370
4,000	644	543	473	413	384	363
5,000	607	517	456	402	376	358
6,000	580	499	443	395	370	354
7,000	559	485	433	388	366	351
8,000	543	473	425	384	363	348
9,000	529	464	419	379	360	346
10,000	517	456	413	376	358	345

TABLE B-15. CRITICAL ACCIDENT RATES FOR RURAL THREE-LANE SECTIONS (THREE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM)				
	SECTION LENGTH (MILES)				
	0.5	1	2	3	5
100	4,783	3,423	2,556	2,197	1,852
300	2,871	2,197	1,752	1,563	1,379
500	2,348	1,852	1,521	1,379	1,240
1,000	1,852	1,521	1,296	1,199	1,103
1,500	1,643	1,379	1,199	1,121	1,043
2,000	1,521	1,296	1,142	1,075	1,008
3,000	1,379	1,199	1,075	1,020	967
4,000	1,296	1,142	1,035	988	942
5,000	1,240	1,103	1,008	967	925
6,000	1,199	1,075	988	951	913
7,000	1,167	1,053	973	938	903
8,000	1,142	1,035	961	928	896
9,000	1,121	1,020	951	920	889
10,000	1,103	1,008	942	913	884

TABLE B-16. CRITICAL ACCIDENT RATES FOR RURAL FOUR-LANE DIVIDED SECTIONS (NO ACCESS CONTROL) (THREE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM)				
	SECTION LENGTH (MILES)				
	0.5	1	2	5	10
500	992	713	535	390	322
1,000	713	535	419	322	275
2,500	492	390	322	264	235
5,000	390	322	275	235	216
7,500	347	292	255	223	207
10,000	322	275	243	216	202
20,000	275	243	221	202	192
30,000	255	229	212	196	188
40,000	243	221	206	192	186
50,000	235	216	202	190	184

TABLE B-17. CRITICAL ACCIDENT RATES FOR RURAL FOUR-LANE UNDIVIDED SECTIONS (THREE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM)					
	SECTION LENGTH (MILES)					
	0.5	1	2	5	10	
500	1,450	1,089	853	657	563	
1,000	1,089	853	696	563	498	
2,500	796	657	563	482	442	
5,000	657	563	498	442	414	
7,500	598	522	470	425	402	
10,000	563	498	453	414	395	
20,000	498	453	422	395	381	
30,000	470	434	409	386	375	
40,000	453	422	400	381	372	
50,000	442	414	395	378	369	

TABLE B-18. CRITICAL ACCIDENT RATES FOR RURAL INTERSTATE SECTIONS (THREE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM)					
	SECTION LENGTH (MILES)					
	0.5	1	2	5	10	20
500	581	388	270	179	137	110
1,000	388	270	196	137	110	92
2,500	243	179	137	103	87	76
5,000	178	137	110	87	76	68
7,500	153	120	98	80	71	65
10,000	137	110	92	76	68	63
20,000	110	92	79	68	63	59
30,000	98	84	74	65	61	58
40,000	92	79	71	63	59	57
50,000	87	76	68	62	58	56

TABLE B-19. CRITICAL ACCIDENT RATES FOR RURAL PARKWAY SECTIONS (THREE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM)					
	SECTION LENGTH (MILES)					
	0.5	1	2	5	10	20
400	751	504	353	235	181	146
700	542	376	273	190	152	126
1,000	447	317	235	168	137	116
1,500	364	265	201	149	124	107
2,000	317	235	181	137	116	102
3,000	265	201	159	124	107	95
4,000	235	181	146	116	102	92
5,000	215	168	137	111	98	89
7,000	190	152	126	104	93	86
10,000	168	137	116	98	89	83
20,000	137	116	102	89	83	79
40,000	116	102	92	83	79	76

TABLE B-20. CRITICAL ACCIDENT RATES FOR URBAN TWO-LANE SECTIONS (THREE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM)				
	SECTION LENGTH (MILES)				
	0.5	1	2	5	10
500	2,139	1,673	1,362	1,100	972
1,000	1,673	1,362	1,152	972	883
2,500	1,286	1,100	972	861	806
5,000	1,100	972	883	806	768
7,500	1,019	916	845	782	751
10,000	972	883	822	768	741
15,000	916	845	795	751	729
20,000	883	822	779	741	722
30,000	845	795	760	729	714
40,000	822	779	749	722	709
50,000	806	768	741	717	705

TABLE B-21. CRITICAL ACCIDENT RATES FOR URBAN FOUR-LANE DIVIDED SECTIONS (NO ACCESS CONTROL) (THREE-YEAR PERIOD)

CRITICAL ACCIDENT RATE (ACC/100 MVM)

SECTION LENGTH (MILES)

AADT	0.5	1	2	5	10
1,000	1,347	1,076	894	740	664
2,500	1,010	849	740	645	598
5,000	849	740	664	598	565
10,000	740	664	611	565	542
15,000	692	631	588	551	532
20,000	664	611	575	542	526
25,000	645	598	565	536	522
30,000	631	588	558	532	519
40,000	611	575	548	526	515
50,000	598	565	542	522	512
60,000	588	558	537	519	510

TABLE B-22. CRITICAL ACCIDENT RATES FOR URBAN FOUR-LANE (UNDIVIDED SECTIONS) (THREE-YEAR PERIOD)

CRITICAL ACCIDENT RATE (ACC/100 MVM)

SECTION LENGTH (MILES)

AADT	0.5	1	2	5	10
1,000	1,762	1,441	1,224	1,037	945
2,500	1,362	1,169	1,037	922	865
5,000	1,169	1,037	945	865	825
10,000	1,037	945	882	825	797
15,000	979	905	853	808	785
20,000	945	882	837	797	778
25,000	922	865	825	790	773
30,000	905	853	817	785	769
40,000	882	837	805	778	764
50,000	865	825	797	773	760
60,000	853	817	792	769	758

TABLE B-23. CRITICAL ACCIDENT RATES FOR URBAN INTERSTATE SECTIONS (THREE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM)				
	SECTION LENGTH (MILES)				
	0.5	1	2	5	10
1,000	646	479	371	281	239
5,000	345	281	239	202	184
10,000	281	371	209	184	171
20,000	371	209	189	171	162
30,000	220	196	180	166	157
40,000	209	189	175	162	156
50,000	202	184	171	160	155
60,000	196	180	169	159	154
70,000	192	177	167	157	153
80,000	189	175	165	156	152
90,000	186	173	164	155	151
100,000	184	171	162	155	151

TABLE B-24. CRITICAL ACCIDENT RATES FOR URBAN PARKWAY SECTIONS (THREE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM)				
	SECTION LENGTH (MILES)				
	0.5	1	2	5	10
500	762	529	383	267	213
1,000	529	282	290	213	177
2,500	349	367	213	168	147
5,000	367	213	177	147	132
7,500	233	191	162	137	125
10,000	213	177	153	132	121
15,000	191	162	142	125	116
20,000	177	153	136	121	114
30,000	162	142	128	116	111
40,000	153	136	124	114	109
50,000	147	132	121	112	107

APPENDIX C

CRITICAL ACCIDENT RATE TABLES FOR "SPOTS"

TABLE C-1. CRITICAL ACCIDENT RATES FOR "SPOTS" ON RURAL ONE-LANE, TWO-LANE, AND THREE-LANE HIGHWAYS (ONE-YEAR PERIOD)

CRITICAL ACCIDENT RATE (ACC/MVM)

HIGHWAY TYPE

AADT	ONE-LANE	TWO-LANE	THREE-LANE
100	33.2	27.7	37.1
500	12.5	9.49	14.6
1,000	8.74	6.42	10.4
2,500	5.85	4.08	7.15
5,000	4.53	3.05	5.65
7,500	3.98	2.62	5.01
10,000	3.66	2.37	4.65
15,000	3.29	2.09	4.22
20,000	3.07	1.92	3.96

TABLE C-2. CRITICAL ACCIDENT RATES FOR "SPOTS" ON RURAL FOUR-LANE HIGHWAYS, INTERSTATES, AND PARKWAYS (ONE-YEAR PERIOD)

CRITICAL ACCIDENT RATE (ACC/MVM)

HIGHWAY TYPE

AADT	FOUR-LANE UNDIVIDED	FOUR-LANE DIVIDED (NO ACCESS CONTROL)	INTERSTATE	PARKWAY
500	9.45	7.51	5.23	5.79
1,000	6.38	4.89	3.17	3.59
2,500	4.06	2.96	1.74	2.04
5,000	3.03	2.13	1.17	1.39
10,000	2.36	1.60	0.81	0.99
15,000	2.07	1.37	0.67	0.83
20,000	1.91	1.25	0.59	0.74
30,000	1.72	1.10	0.50	0.64
40,000	1.60	1.02	0.45	0.58
50,000	1.53	0.96	0.41	0.54

TABLE C-3. CRITICAL ACCIDENT RATES FOR "SPOTS" ON URBAN TWO-LANE HIGHWAYS AND PARKWAYS (ONE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/MVM)	
	HIGHWAY TYPE	
	TWO-LANE	PARKWAY
500	13.3	7.07
1,000	9.43	4.56
2,500	6.39	2.72
5,000	4.99	1.93
7,500	4.40	1.62
10,000	4.06	1.44
15,000	3.67	1.22
20,000	3.44	1.11
30,000	3.16	0.98
40,000	3.00	0.90

TABLE C-4. CRITICAL ACCIDENT RATES FOR "SPOTS" ON URBAN FOUR-LANE HIGHWAYS AND INTERSTATES (ONE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/MVM)		
	HIGHWAY TYPE		
	FOUR-LANE UNDIVIDED	FOUR-LANE, DIVIDED (NO ACCESS CONTROL)	INTERSTATE
1,000	9.95	8.18	3.91
5,000	5.34	4.17	1.57
10,000	4.37	3.34	1.14
15,000	3.96	2.99	0.96
20,000	3.71	2.78	0.86
30,000	3.43	2.54	0.74
40,000	3.26	2.40	0.68
50,000	3.15	2.31	0.63
60,000	3.07	2.24	0.60
70,000	3.00	2.18	0.57
80,000	2.95	2.14	0.55
90,000	2.91	2.11	0.54
100,000	2.87	2.08	0.52

TABLE C-5. CRITICAL ACCIDENT RATES FOR "SPOTS" ON RURAL ONE-LANE, TWO-LANE, AND THREE-LANE HIGHWAYS (THREE-YEAR PERIOD)

CRITICAL ACCIDENT RATE (ACC/MVM)			
HIGHWAY TYPE			
AADT	ONE-LANE	TWO-LANE	THREE-LANE
100	16.4	13.2	18.9
500	7.15	5.26	8.60
1,000	5.37	3.81	6.59
2,500	3.92	2.66	4.92
5,000	3.23	2.12	4.13
7,500	2.94	1.89	3.79
10,000	2.77	1.76	3.59
15,000	2.56	1.60	3.36
20,000	2.45	1.51	3.22

TABLE C-6. CRITICAL ACCIDENT RATES FOR "SPOTS" ON RURAL FOUR-LANE HIGHWAYS, INTERSTATES, AND PARKWAYS (THREE-YEAR PERIOD)

CRITICAL ACCIDENT RATE (ACC/MVM)				
HIGHWAY TYPE				
AADT	FOUR-LANE UNDIVIDED	FOUR-LANE DIVIDED (NO ACCESS CONTROL)	INTERSTATE	PARKWAY
500	5.54	3.88	2.42	2.72
1,000	4.03	2.70	1.56	1.80
2,500	2.83	1.79	0.94	1.11
5,000	2.27	1.37	0.68	0.81
10,000	1.90	1.10	0.50	0.62
15,000	1.74	0.98	0.43	0.54
20,000	1.64	0.92	0.39	0.49
30,000	1.53	0.84	0.34	0.44
40,000	1.47	0.79	0.32	0.40
50,000	1.42	0.76	0.30	0.38

TABLE C-7. CRITICAL ACCIDENT RATES FOR "SPOTS" ON URBAN TWO-LANE HIGHWAYS AND PARKWAYS (THREE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/MVM)	
	TWO-LANE	PARKWAY
500	8.06	3.08
1,000	6.13	2.08
2,500	4.54	1.32
5,000	3.79	0.98
7,500	3.47	0.84
10,000	3.28	0.76
15,000	3.06	0.67
20,000	2.93	0.61
30,000	2.77	0.55
40,000	2.68	0.52

TABLE C-8. CRITICAL ACCIDENT RATES FOR "SPOTS" ON URBAN FOUR-LANE HIGHWAYS AND INTERSTATES (THREE-YEAR PERIOD)

AADT	CRITICAL ACCIDENT RATE (ACC/MVM)		
	FOUR-LANE UNDIVIDED	FOUR-LANE, DIVIDED (NO ACCESS CONTROL)	INTERSTAT
1,000	7.00	4.91	2.98
5,000	4.44	2.89	1.23
10,000	3.88	2.46	0.98
15,000	3.64	2.27	0.87
20,000	3.49	2.16	0.80
30,000	3.32	2.03	0.73
40,000	3.22	1.95	0.69
50,000	3.15	1.90	0.66
60,000	3.10	1.86	0.64
70,000	3.06	1.83	0.62
80,000	3.03	1.81	0.61
90,000	3.01	1.79	0.60
100,000	2.98	1.77	0.59