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16. Abstract

An annual highway safety program is proposed each year for the State of Kentucky in order to comply with Section 402, Title 23 of the United States Code. This program includes the identification, programming, budgeting, and evaluation of safety projects. This report is the fifth in a series of annual reports which have been included as the problem identification portion of Kentucky's Annual Highway Safety Plan.

In the past, the approach to problem identification has been to identify problem areas in the 18 highway safety program areas (standards). While the search for problems in each of these standard areas will continue, certain program areas were identified for emphasis. The result was an analysis of 12 problem areas, with emphasis on alcohol and occupant protection. Recommendations were made for programs which could serve as countermeasures for the highway safety problems identified and for studies to develop and evaluate such programs.

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Research Report
UKTRP-83-19

PROBLEM IDENTIFICATION FOR HIGHWAY SAFETY PLAN (FY 1984)

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Commonwealth of Kentucky

The contents of this report reflect the views of the authors, who are 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 nor of the Kentucky State Police. This report does not constitute a standard, specification, or regulation.

September 1983

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TABLE OF CONTENTS

Page

I. Introduction 1

II. Problem Areas Investigated 1

A. County Accident Statistics 1

B. City Accident Statistics 10

C. Alcohol- and Drug-Related Accidents 17

D. Occupant Protection 29

E. Speed-Related Accidents and 55 mph National Maximum Speed Limit 35

F. General Accident Statistics 44

1. Accident Trend Analysis 44

2. Pedestrian Accidents 44

3. Bicycle Accidents 45

4. Motorcycle Accidents 45

5. School Bus Accidents 45

6. Vehicle Defects 46

III. Recommendations 63

IV. References 65

INTRODUCTION

An annual highway safety program is prepared each year for the state of Kentucky in order to comply with Section 402, Title 23 of the United States Code. This program includes the identification, programming, budgeting, and evaluation of safety projects with the objective of reducing the number and severity of traffic accidents. This is the fifth in a series of annual reports that have been included as the problem identification portion of Kentucky's Annual Highway Safety Plan (1, 2, 3, 4).

In the past, the approach to problem identification has been to identify problem areas in the 18 highway safety program areas (standards). While the search for problems in each of these standard areas will continue, certain program areas have been identified for emphasis. Currently, those areas include 1) Alcohol and 2) Occupant Protection.

To identify problems in these "program emphasis" areas as well as any of the other "highway standard" areas, 12 problem identification areas were investigated:

1. County Accident Statistics,
2. City Accident Statistics,
3. Alcohol- and Drug-Related Accidents,
4. Occupant Protection,
5. Speed-Related Accidents and 55 mph National Maximum Speed Limit,
6. Pedestrian Accidents,
7. Bicycle Accidents,
8. Motorcycle Accidents,
9. School Bus Accidents,
10. Vehicle Defects,
11. General Trend Analysis, and
12. Accidents by Police Reporting Agency.

The "Records Analysis for Problem Identification and Definition (RAPID)" computer software package was used for analyses. Except where noted otherwise, all accident analyses were for a 5-year period (1978-1982).

In this report, problems that have contributed to the number and severity of traffic accidents were identified. Problem areas associated with any of the "highway standard" areas were investigated, with the "program emphasis" areas receiving particular attention. Recommendations were made for programs that could serve as countermeasures for the highway safety problems which were identified. Recommendations were also made for studies with the objectives of developing and evaluating such programs.

PROBLEM AREAS INVESTIGATED

COUNTY ACCIDENT STATISTICS

As in previous problem identification reports, average accident rates were calculated for each county (Table 1). Vehicle-miles travelled was the exposure measure used in the accident rate analyses. These rates were used to identify the counties, by population category, having the highest accident rates. The rates were also used, together with other statistics, in analyses of other problem identification areas.

Rates, in terms of accidents per 100 million vehicle-miles, were calculated for the categories of total accidents, fatal accidents, and injury-or-fatal accidents. Vehicle-miles-travelled data were for a 5-year period (1978-1982). To assist in the analysis of county accident statistics, county populations in descending order were tabulated and presented in Table 2. Miles travelled in 1981 and 1982 were determined from the statewide mileage tape and added to the 1978-1980 total presented in a previous report (4). This figure represents total miles driven in each county. It was obtained by adding the known miles driven on the state-maintained highway system and the estimated miles driven on the remaining streets and highways.

Average and critical accident rates were calculated for each county population category (Table 3). The critical accident rate was calculated using the following formula:

$$Ac = Aa + K(SQRT(Aa/m)) + 1/(2m)$$

in which Ac = critical rate,
Aa = average rate,
K = constant related to level of statistical significance selected

(for P=0.995, K=2.576),
SQRT = square root, and
m = annual mileage driven per county.

Critical rates (in terms of accidents per 100 million vehicle-miles) were calculated for total accidents, fatal accidents, and injury-or-fatal accidents. The numbers of counties having rates above critical in each population category were determined. The total number was 40 for total accidents, 24 for injury-or-fatal accidents, and one for fatal accidents.

Presented in Table 4 are numbers of accidents and accident rates for all counties grouped by population category. It should be noted that population categories have been changed since the last report (4). A more balanced number of counties within each category results. Counties within each population category are listed in order of descending accident rate with the critical rates identified. Those counties having the highest rates in each of the population groups were Carroll, Lewis, Mason, Franklin, and Campbell. The four highest accident rates in the state were in counties in the group with populations over 50,000. They were Campbell, Kenton, Fayette, and Jefferson counties. Because of the use of a 5-year data base, counties identified as having critical accident rates in Table 4 should represent relatively long-term accident problems.

An alternative to using total accidents is to exclude property-damage-only accidents and use only injury-or-fatal accidents. All counties, by population category, having injury-or-fatal accident rates at or above critical are given in Table 5. Counties having the highest rates for their population categories were Trigg, Magoffin, Marion, Henderson, and Campbell. Presented in Table 6 are fatal accident rates for counties listed by population category. Only Pike County had a fatal accident rate that was determined to be critical.

A summary of the other miscellaneous accident data used in the problem identification process is presented by county in Table 7. This table includes number of accidents by county by year; percent change in the 1982 accident total from the previous 4-year average; percentages of accidents involving alcohol, drugs, and speeding; percentage of fatal accidents; percentage of injury-or-fatal accidents; and percentage of drivers using safety equipment.

TABLE 1. ACCIDENT RATES BY COUNTY (1978 - 1982 DATA)

COUNTY	TOTAL NUMBER OF ACCIDENTS	POPULATION	VEHICLE MILES (100 MILLION)	ACCIDENTS PER 100 MILLION VEHICLE MILES	NUMBER OF LICENSED DRIVERS	NUMBER OF REGISTERED VEHICLES	NUMBER OF FATAL ACCIDENTS	FATAL ACCIDENTS PER 100 MILLION VEHICLE MILES	NUMBER OF FATAL OR INJURY ACCIDENTS	FATAL AND INJURY ACCIDENTS PER 100 MILLION VEHICLE MILES
Adair	1,690	15,233	4.8613	348	8,673	10,272	15	3.09	402	82.7
Allen	1,474	14,128	4.1471	355	8,618	10,361	23	5.55	429	103.4
Anderson	2,017	12,567	4.7430	425	6,427	9,809	14	2.95	452	95.3
Ballard	1,167	8,798	4.0762	286	6,149	7,715	14	3.43	380	93.2
Barren	5,961	34,009	14.2786	417	21,202	26,135	41	2.87	1,493	104.6
Bath	803	10,025	3.6054	223	5,833	7,420	8	2.22	216	59.9
Bell	4,457	34,330	11.1451	400	17,515	20,135	43	3.86	1,126	101.0
Boone	13,177	45,842	23.8365	553	31,300	35,701	60	2.52	2,820	118.3
Bourbon	3,655	19,403	6.4679	565	11,983	14,025	35	5.41	948	146.6
Boyd	13,091	55,513	18.4394	710	35,032	42,053	33	1.79	2,306	125.1
Boyle	5,002	25,066	7.9585	629	15,795	18,689	24	3.02	924	116.1
Bracken	535	7,738	2.0825	257	4,641	5,355	10	4.80	94	45.1
Breathitt	1,690	17,004	6.1563	275	8,052	9,299	29	4.71	607	98.6
Breckenridge	1,958	16,861	5.4379	360	10,281	12,927	18	3.31	485	89.2
Bullitt	5,350	43,346	16.4608	325	26,169	30,302	53	3.22	1,542	93.7
Butler	1,213	11,064	4.6650	260	6,420	8,430	18	3.86	356	76.3
Caldwell	2,344	13,473	6.6117	355	9,067	11,497	21	3.18	515	77.9
Calloway	4,744	30,031	9.1160	520	18,574	34,309	36	3.95	1,248	136.9
Campbell	18,994	83,317	19.3017	984	50,648	55,534	43	2.23	3,391	175.7
Carlisle	524	5,487	2.6331	199	3,841	4,780	9	3.42	200	76.0
Carroll	2,383	9,270	5.1746	461	5,904	7,099	27	5.22	644	124.5
Carter	2,802	25,060	9.1486	306	13,641	16,763	39	4.26	735	80.3
Casey	1,032	14,816	4.1039	251	8,611	10,594	18	3.90	296	72.1
Christian	10,722	66,878	23.8587	449	30,123	37,591	61	2.56	2,230	93.5
Clark	6,344	28,322	10.5734	600	18,122	21,393	29	2.74	1,312	124.1
Clay	2,379	22,752	6.5014	366	10,555	12,648	36	5.54	623	95.8
Clinton	781	9,321	2.8398	275	5,478	6,336	9	3.17	203	71.5
Crittenden	1,223	9,207	4.0356	303	6,174	7,590	16	3.96	359	89.0
Cumberland	612	7,289	2.4511	250	4,231	4,871	7	2.86	128	52.2
Daviess	21,741	85,949	27.9028	779	57,462	67,391	59	2.11	3,940	141.2
Edmonson	998	9,962	3.6340	275	6,318	7,175	18	4.95	351	96.6
Elliott	539	6,908	1.6786	321	3,573	4,003	13	7.74	153	91.1
Estill	1,439	14,495	3.4678	415	8,449	10,269	15	4.33	302	87.1
Fayette	56,955	204,165	69.3268	822	131,689	148,266	148	2.13	11,021	159.0
Fleming	1,468	12,323	3.9057	376	7,378	10,316	22	5.67	357	91.4
Floyd	5,755	48,764	13.3783	430	23,719	28,585	52	3.89	1,601	119.7
Franklin	9,423	41,830	13.2910	709	27,613	31,979	36	2.71	1,710	102.5
Fulton	1,360	8,971	3.5268	386	5,646	7,080	8	2.27	276	78.2
Gallatin	942	4,842	4.6804	201	3,052	4,734	12	2.56	286	61.1
Garrard	1,558	10,853	3.7165	419	7,012	7,784	21	5.65	422	113.5
Grant	2,530	13,308	10.9410	231	8,913	10,798	15	1.37	767	70.1
Graves	9,334	34,049	12.4535	428	22,573	27,731	46	3.69	1,276	102.8
Grayson	3,114	20,854	7.3521	424	12,506	15,794	22	2.99	784	106.6
Green	1,292	11,043	3.4916	370	6,803	8,037	13	3.72	323	92.5
Greenup	4,627	35,732	10.0600	424	24,476	28,311	23	2.16	1,117	104.8
Hancock	783	7,742	2.5929	302	5,286	6,047	6	2.31	213	82.1
Hardin	12,208	88,917	33.4473	365	42,063	54,374	67	2.00	3,027	90.5
Harlan	5,392	41,889	16.3024	477	22,257	25,140	53	4.69	1,477	130.7
Harrison	2,370	15,166	4.0769	581	10,113	11,977	14	3.43	439	107.7
Hart	1,766	15,402	10.9574	161	9,573	10,711	31	2.83	532	48.6
Henderson	11,084	40,849	17.1114	648	28,054	33,804	50	2.92	2,353	137.5
Henry	1,666	12,740	6.2968	265	8,269	9,926	15	2.38	475	75.4
Hickman	720	6,065	2.8658	251	4,142	5,219	12	4.19	241	84.1
Hopkins	8,925	46,174	19.6638	454	29,765	35,436	54	2.75	2,131	108.4
Jackson	861	11,996	2.9421	293	6,024	7,182	16	5.44	203	69.0
Jefferson	165,186	684,793	201.8582	818	447,302	480,766	464	2.30	26,638	141.9
Jessamine	4,181	26,653	7.1054	588	15,732	18,236	30	4.22	821	115.5
Johnson	3,365	24,432	7.6376	441	13,695	15,996	27	3.54	798	104.5
Kenton	35,312	107,058	38.7971	910	84,299	88,873	77	1.98	6,720	173.2
Knott	1,575	17,940	4.8834	323	8,994	9,427	28	5.73	543	111.2
Knox	3,200	30,229	9.1485	350	15,561	15,825	45	4.92	871	95.2
Larue	1,569	11,983	5.5427	283	7,930	10,306	29	5.23	424	76.5
Laurel	6,243	33,982	19.8801	314	22,557	25,203	50	2.52	1,437	72.3
Lawrence	1,646	14,121	6.1613	267	7,304	8,254	19	3.08	463	75.1
Lee	500	7,754	1.8208	275	4,067	4,986	7	3.84	128	70.3
Leslie	1,101	14,882	4.0748	270	7,027	6,887	29	7.12	388	94.7
Letcher	2,244	30,687	8.4128	267	16,040	18,561	37	4.40	722	85.8
Lewis	1,498	14,545	3.4141	439	7,845	9,364	14	4.10	423	123.9
Lincoln	1,838	19,053	7.1076	267	10,777	13,032	24	3.38	496	69.8
Livingston	1,059	9,219	4.1512	255	6,108	7,625	15	3.61	347	83.6
Logan	3,618	24,138	8.2904	436	15,109	18,119	32	3.86	971	117.1
Lyon	746	6,490	4.3007	173	3,923	4,338	10	2.33	228	53.0
McCracken	14,660	61,310	22.6579	647	43,836	53,192	50	2.21	2,783	122.8
McCreary	1,195	15,434	4.1383	289	7,825	8,768	29	7.01	356	86.0
McLean	999	10,090	3.5906	278	6,976	9,351	8	2.23	359	100.0
Madison	11,610	53,352	22.0647	526	28,776	33,740	45	2.04	2,070	93.8
Magoffin	1,313	13,515	3.6762	357	6,617	6,523	22	5.98	461	125.4
Marion	3,140	17,910	4.1856	750	10,590	11,775	19	4.54	643	153.6
Marshall	3,478	25,637	14.6667	237	18,309	27,078	28	1.74	986	67.2
Martin	772	13,925	3.1848	242	7,094	8,418	15	4.71	214	67.2
Mason	4,846	17,760	6.1346	790	10,862	12,957	23	3.75	797	129.9
Meade	2,766	22,854	6.8058	406	10,458	12,867	35	5.14	844	124.0
Menifee	427	5,117	1.4280	299	3,095	3,878	8	5.60	135	94.5
Mercer	3,112	19,011	6.4199	485	12,320	15,379	24	3.74	631	98.3
Metcalfe	716	9,484	2.8169	254	5,487	6,360	8	2.84	215	76.3
Monroe	1,099	12,353	3.2919	334	7,208	8,784	23	6.99	255	77.5
Montgomery	3,448	20,046	6.5019	530	11,788	14,857	18	2.77	728	77.6
Morgan	1,346	12,103	3.5355	381	6,202	8,551	13	3.68	406	114.8
Muhlenburg	5,017	32,238	11.4994	436	20,207	24,711	36	3.13	1,276	111.0
Nelson	4,487	27,584	9.9784	450	17,461	20,553	48	4.81	1,064	106.8
Nicholas	423	7,157	2.1006	201	4,342	5,484	6	2.86	100	47.6
Ohio	2,498	21,765	9.6388	259	13,681	16,772	41	4.25	748	77.6
Oldham	3,166	26,094	8.1407	389	16,167	19,223	31	3.81	949	116.5
Owen	863	8,924	2.6304	328	5,098	6,416	10	3.81	250	95.0
Owsley	419	5,709	1.2364	338	2,864	2,933	9	7.27	116	93.7
Pendleton	1,207	10,909	2.8418	425	6,665	8,118	10	3.52	342	120.3
Perry	5,531	33,763	9.9832	534	16,865	20,077	57	5.71	1,303	130.5
Pike	10,726	81,123	22.9006	468	41,644	53,731	106	4.63	2,953	128.9
Powell	1,089	11,101	4.7852	228	6,333	6,854	19	3.97	309	64.6
Pulaski	6,533	45,803	15.8324	210	27,376	34,602	53	3.35	1,444	91.2
Robertson	118	2,270	0.6809	173	1,435	1,726	2	2.94	41	60.2
Rockcastle	1,727	13,973	11.0267	157	9,045	9,314	29	2.63	439	39.8
Rowan	3,857	19,049	6.3768	605	9,873	11,514	20	3.14	842	132.0
Russell	1,038	13,708	4.0518	256	8,467	10,525	20	4.94	294	72.6
Scott	4,278	21,813	15.8806	269	13,666	15,831	23	1.45	946	59.6
Shelby	4,414	23,328	12.0547	366	14,959	18,642	33	2.74	1,107	91.8
Simpson	2,349	14,673	7.8849	298	9,671	11,641	19	2.41	588	72.0
Spencer	644	5,929	1.8630	346	4,102	4,882	13	6.98	238	127.8
Taylor	3,365	21,178	5.6241	598	13,220	15,713	26	4.62	664	118.1
Todd	1,026	11,784	3.9861	257	6,825	8,918	17	4.26	312	78.3
Trigg	1,616	9,384	5.0155	322	6,766	8,261	14	2.79	413	206.4
Trimble	574	6,253	2.0014	287	3,867	4,438	5	2.50	176	87.9
Union	2,848	17,821	5.9503	479	11,815	12,406	30	5.04	761	127.9
Warren	20,287	71,828	28.7506	706	45,176	50,946	86	2.99	4,059	141.2
Washington	1,368	10,764	3.8820	352	6,691	8,132	12	3.09	270	69.6
Wayne	2,021	17,022	4.1537	487	9,521	11,858	13	3.13	374	90.0
Webster	2,151	14,832	6.2748	343	9,773	12,650	23	3.67	547	87.2
Whitley	4,667	33,396	22.2708	210	17,456	24,790	36	1.62	957	43.0
Wolfe	720	6,698	5.3207	135	3,630	4,117	17	3.20	226	42.5
Woodford	3,417	17,778	9.1308	374	11,956	13,074	20	2.19	744	81.5
TOTAL	677,541	2,623,698	1270.8149	533	1,222,317	2,594,832	3,808	3.00	143,287	112.8

TABLE 2. COUNTY POPULATIONS (1980 CENSUS) IN DESCENDING ORDER

COUNTY	POPULATION	COUNTY	POPULATION	COUNTY	POPULATION
Jefferson	684,793	Shelby	23,328	Monroe	12,353
Fayette	204,165	Meade	22,854	Fleming	12,323
Kenton	107,058	Clay	22,752	Morgan	12,103
Hardin	88,917	Scott	21,813	Jackson	11,996
Daviess	85,949	Ohio	21,765	Larue	11,983
Campbell	83,317	Taylor	21,178	Todd	11,784
Pike	81,123	Grayson	20,854	Powell	11,101
Warren	71,828	Montgomery	20,046	Butler	11,064
Christian	66,878	Bourbon	19,405	Green	11,043
McCracken	61,310	Lincoln	19,053	Pendleton	10,909
Boyd	55,513	Rowan	19,049	Garrard	10,853
Madison	53,352	Mercer	19,011	Washington	10,764
Floyd	48,764	Knott	17,940	McLean	10,090
Hopkins	46,174	Marion	17,910	Bath	10,025
Boone	45,842	Union	17,821	Edmonson	9,962
Pulaski	45,803	Woodford	17,773	Metcalfe	9,484
Bullitt	43,346	Mason	17,760	Trigg	9,384
Harlan	41,889	Wayne	17,022	Clinton	9,321
Franklin	41,830	Breathitt	17,004	Carroll	9,270
Henderson	40,849	Breckenridge	16,861	Livingston	9,219
Greenup	39,132	McCreary	15,434	Crittenden	9,207
Bell	34,330	Hart	15,402	Fulton	8,971
Graves	34,049	Adair	15,233	Owen	8,924
Barren	34,009	Harrison	15,166	Ballard	8,798
Laurel	33,982	Leslie	14,862	Lee	7,754
Perry	33,763	Webster	14,832	Hancock	7,742
Whitley	33,396	Casey	14,818	Bracken	7,738
Muhlenburg	32,328	Simpson	14,673	Cumberland	7,289
Letcher	30,687	Lewis	14,545	Nicholas	7,157
Knox	30,229	Estill	14,495	Elliott	6,908
Calloway	30,031	Allen	14,128	Wolfe	6,698
Clark	28,322	Lawrence	14,121	Lyon	6,490
Nelson	27,584	Rockcastle	13,973	Trimble	6,253
Jessamine	26,653	Martin	13,925	Hickman	6,065
Oldham	26,094	Russell	13,708	Spencer	5,929
Marshall	25,637	Magoffin	13,515	Owsley	5,709
Boyle	25,066	Caldwell	13,473	Carlisle	5,487
Carter	25,060	Grant	13,308	Menifee	5,117
Johnson	24,432	Anderson	12,740	Gallatin	4,842
Logan	24,138	Henry	12,567	Robertson	2,270

TABLE 3. AVERAGE AND CRITICAL ACCIDENT RATES BY COUNTY POPULATION CATEGORY (1978-19B2 DATA)

POPULATION CATEGORY	NUMBER OF COUNTIES IN CATEGORY	TOTAL POPULATION	TOTAL MILEAGE DRIVEN (100 MVM)
UNDER 10,000	26	191,993	77.6399
10,000 - 14,999	30	659,943	143.8448
15,000 - 24,999	26	1,127,559	1B2.7261
25,000 - 50,000	26	648,187	337.2983
OVER 50,000	12	996,016	529.3058

POPULATION CATEGORY	TOTAL NUMBER OF ACCIDENTS	ACCIDENTS PER 100 MVM	CRITICAL ACCIDENT RATE (ACC/100 MVM)	NUMBER OF COUNTIES AT OR ABOVE CRITICAL RATE
UNDER 10,000	21,392	276	332	4
10,000 - 14,999	42,995	299	345	12
15,000 - 24,999	74,283	407	451	10
25,000 - 50,000	147,124	436	470	9
OVER 50,000	391,492	740	740	5

POPULATION CATEGORY	TOTAL NUMBER OF FATAL ACCIDENTS	FATAL ACCIDENTS PER 100 MVM	CRITICAL RATE ACCIDENT RATE (ACC/100 MVM)	NUMBER OF COUNTIES AT OR ABOVE CRITICAL RATE
UNDER 10,000	285	3.67	10.87	0
10,000 - 14,999	567	3.94	9.68	0
15,000 - 24,999	665	3.64	8.13	0
25,000 - 50,000	1,090	3.23	6.30	0
OVER 50,000	1,239	2.34	3.73	1

POPULATION CATEGORY	TOTAL NUMBER OF FATAL OR INJURY ACCIDENTS	FATAL OR INJURY ACCIDENTS PER 100 MVM	CRITICAL FATAL OR INJURY ACCIDENT RATE (ACC/100 MVM)	NUMBER OF COUNTIES AT OR ABOVE CRITICAL RATE
UNDER 10,000	6,141	79.1	109.5	3
10,000 - 14,999	11,585	80.5	104.6	5
15,000 - 24,999	17,813	97.5	122.9	6
25,000 - 50,000	34,711	102.9	119.3	7
OVER 50,000	73,138	138.2	149.4	3

TABLE 4. ACCIDENT RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED) (1978 - 1982 DATA)

COUNTY	NUMBER OF ACCIDENTS	ACCIDENT RATE (ACCIDENTS PER 100 MVM)
POPULATION CATEGORY UNDER 10,000		
Carroll	2,383	461*
Fulton	1,360	386*
Spencer	644	346*
Owsley	419	338*
Owen	863	328
Trigg	1,616	322
Elliott	539	321
Crittenden	1,223	303
Hancock	783	302
Menifee	427	299
Trimble	574	287
Ballard	1,167	286
Clinton	781	275
Edmonson	998	275
Lee	500	275
Bracken	535	257
Livingston	1,059	255
Metcalfe	716	254
Hickman	720	251
Cumberland	612	250
Gallatin	942	201
Nicholas	423	201
Carlisle	524	199
Lyon	746	173
Robertson	118	173
Wolfe	720	135
POPULATION CATEGORY 10,000-14,999		
Lewis	1,498	439*
Anderson	2,017	425*
Pendleton	1,207	425*
Garrard	1,558	419*
Estill	1,439	415*
Morgan	1,346	381*
Fleming	1,468	376*
Green	1,292	370*
Magoffin	1,313	357*
Allen	1,474	355*
Caldwell	2,344	355*
Washington	1,368	352*
Webster	2,151	343
Monroe	1,099	334
Simpson	2,349	298
Jackson	861	293
Larue	1,569	283
McLean	999	278
Leslie	1,101	270
Lawrence	1,646	267
Henry	1,666	265
Butler	1,213	260
Todd	1,026	257
Russell	1,038	256
Casey	1,032	251
Martin	772	242
Grant	2,530	231
Powell	1,089	228
Bath	803	223
POPULATION CATEGORY 15,000-24,999		
Mason	4,846	790*
Marion	3,140	750*
Rowan	3,857	605*
Taylor	3,365	598*
Harrison	2,370	581*
Bourbon	3,655	565*
Montgomery	3,448	530*
Wayne	2,021	487*
Mercer	3,112	485*
Union	2,848	479*
Johnson	3,365	441
Logan	3,618	436
Grayson	3,114	424
Meade	2,766	406
Woodford	3,417	374
Clay	2,379	366
Shelby	4,414	366
Breckenridge	1,958	360
Adair	1,690	348
Knott	1,575	323
McCreary	1,195	289
Breathitt	1,690	275
Scott	4,278	269
Lincoln	1,898	267
Ohio	2,498	259
Hart	1,766	161
POPULATION CATEGORY 25,000-50,000		
Franklin	9,423	709*
Henderson	11,084	648*
Boyle	5,002	629*
Clark	6,344	600*
Jessamine	4,181	588*
Perry	5,531	554*
Boone	13,177	553*
Calloway	4,744	520*
Harlan	5,392	477*
Hopkins	8,925	454
Nelson	4,487	450
Muhlenburg	5,017	436
Greenup	4,627	434
Floyd	5,755	430
Graves	5,334	428
Barren	5,961	417
Pulaski	6,533	413
Bell	4,457	400
Oldham	3,166	389
Knox	3,200	350
Bullitt	5,350	325
Laurel	6,243	314
Carter	2,802	306
Letcher	2,244	267
Marshall	3,478	237
Whitley	4,667	210
POPULATION CATEGORY OVER 50,000		
Campbell	18,994	984*
Kenton	35,312	910*
Fayette	56,955	822*
Jefferson	165,186	818*
Daviess	21,741	779*
Boyd	13,091	710
Warren	20,287	706
McCracken	14,660	647
Madison	11,610	526
Pike	10,726	468
Christian	10,722	449
Hardin	12,208	365

* Critical accident rate.

TABLE 5. INJURY OR FATAL ACCIDENT RATE BY COUNTY AND POPULATION CATEGORY (WITH CRITICAL RATES IDENTIFIED) (1978 - 1982 DATA)

COUNTY	NUMBER OF FATAL OR INJURY ACCIDENTS	ACCIDENT RATE (ACCIDENTS PER 100 MVM)
POPULATION CATEGORY UNDER 10,000		
Trigg	413	206.4*
Spencer	238	127.8*
Carroll	644	124.5*
Edmonson	351	96.6
Owen	250	95.0
Menifee	135	94.5
Owsley	116	93.7
Ballard	380	93.2
Elliott	153	91.1
Crittenden	359	89.0
Trimble	176	87.9
Hickman	241	84.1
Livingston	347	83.6
Hancock	213	82.1
Fulton	276	78.2
Metcalfe	215	76.3
Carlisle	200	76.0
Clinton	203	71.5
Lee	128	70.3
Gallatin	286	61.1
Robertson	41	60.2
Lyon	228	53.0
Cumberland	128	52.2
Nicholas	100	47.6
Bracken	94	45.1
Wolfe	226	42.5
POPULATION CATEGORY 10,000-14,999		
Magoffin	461	125.4*
Lewis	423	123.9*
Pendleton	342	120.3*
Morgan	406	114.8*
Garrard	422	113.5*
Allen	429	103.4
McLean	359	100.0
Anderson	452	95.3
Leslie	386	94.7
Green	323	92.5
Fleming	357	91.4
Webster	547	87.2
Estill	302	87.1
Todd	312	78.3
Caldwell	515	77.9
Monroe	255	77.5
Larue	424	76.5
Butler	356	76.3
Henry	475	75.4
Lawrence	463	75.1
Russell	294	72.6
Casey	296	72.1
Simpson	568	72.0
Grant	767	70.1
Washington	270	69.6
Jackson	203	69.0
Martin	214	67.2
Powell	309	64.6
Bath	216	59.9
Rockcastle	439	39.8

COUNTY	NUMBER OF FATAL OR INJURY ACCIDENTS	ACCIDENT RATE (ACCIDENTS PER 100 MVM)
POPULATION CATEGORY 15,000-24,999		
Marion	643	153.6*
Bourbon	948	146.6*
Rowan	842	132.0*
Mason	797	129.9*
Union	761	127.9*
Meade	844	124.0*
Taylor	664	118.1
Logan	971	117.1
Montgomery	728	112.0
Knott	543	111.2
Harrison	439	107.7
Grayson	784	106.6
Johnson	798	104.5
Breathitt	607	98.6
Mercer	631	98.3
Clay	623	95.8
Shelby	1,107	91.8
Wayne	374	90.0
Breckenridge	485	89.2
McCreary	356	86.0
Adair	402	82.7
Woodford	744	81.5
Ohio	748	77.6
Lincoln	496	69.8
Scott	946	59.6
Hart	532	48.6
POPULATION CATEGORY 25,000-50,000		
Henderson	2,353	137.5*
Calloway	1,248	136.9*
Harlan	1,477	130.7*
Perry	1,303	130.5*
Franklin	1,710	128.7*
Clark	1,312	124.1*
Floyd	1,601	119.7*
Oldham	965	118.5
Boone	2,820	118.3
Boyle	924	116.1
Jessamine	821	115.5
Muhlenberg	1,276	111.0
Hopkins	2,131	108.4
Nelson	1,064	106.6
Greenup	1,117	104.8
Barren	1,493	104.6
Graves	1,276	102.5
Bell	1,126	101.0
Knox	871	95.2
Bullitt	1,542	93.7
Pulaski	1,444	91.2
Letcher	722	85.8
Carter	735	80.3
Laurel	1,437	72.3
Marshall	986	67.2
Whitley	957	43.0
POPULATION CATEGORY OVER-50,000		
Campbell	3,391	175.7*
Kenton	6,720	173.2*
Fayette	11,021	159.0*
Jefferson	28,638	141.9
Daviess	3,940	141.2
Warren	4,059	141.2
Pike	2,953	128.9
Boyd	2,306	125.1
McCracken	2,783	122.8
Madison	2,070	93.8
Christian	2,230	93.5
Hardin	3,027	90.5

* Critical accident rate.

TABLE 6. FATAL ACCIDENT RATE BY COUNTY AND POPULATION CATEGORY
(IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)
(1978 - 1982 DATA)

COUNTY	NUMBER OF FATAL ACCIDENTS	ACCIDENT RATE (ACCIDENTS PER 100 MVM)
POPULATION CATEGORY UNDER 10,000		
Elliott	13	7.74
Owsley	9	7.27
Spencer	13	6.98
Menifee	8	5.60
Carroll	27	5.22
Edmonson	18	4.95
Bracken	10	4.80
Hickman	12	4.19
Crittenden	16	3.96
Lee	7	3.84
Owen	10	3.81
Livingston	15	3.61
Ballard	14	3.43
Carlisle	9	3.42
Wolfe	17	3.20
Clinton	9	3.17
Robertson	2	2.94
Cumberland	16	3.96
Nicholas	6	2.86
Metcalfe	8	2.84
Trigg	14	2.79
Gallatin	12	2.56
Trimble	5	2.50
Lyon	10	2.33
Hancock	6	2.31
Fulton	8	2.27
POPULATION CATEGORY 10,000-14,999		
Leslie	29	7.12
Monroe	23	6.99
Magoffin	22	5.98
Garrard	21	5.65
Fleming	22	5.63
Allen	23	5.55
Jackson	16	5.44
Larue	29	5.23
Russell	20	4.94
Martin	15	4.71
Estill	15	4.33
Todd	17	4.26
Lewis	14	4.10
Powell	19	3.97
Casey	16	3.90
Butler	18	3.86
Green	13	3.72
Morgan	13	3.68
Webster	23	3.67
Pendleton	10	3.52
Caldwell	21	3.18
Washington	12	3.09
Lawrence	19	3.08
Anderson	14	2.95
Rockcastle	29	2.63
Simpson	19	2.41
Henry	15	2.38
McLean	8	2.23
Bath	8	2.22
Grant	15	1.37

COUNTY	NUMBER OF FATAL ACCIDENTS	ACCIDENT RATE (ACCIDENTS PER 100 MVM)
POPULATION CATEGORY 15,000-24,999		
McCreary	29	7.01
Knott	28	5.73
Clay	36	5.54
Bourbon	35	5.41
Meade	35	5.14
Union	30	5.04
Breathitt	29	4.71
Taylor	26	4.62
Marion	19	4.54
Ohio	41	4.25
Logan	32	3.86
Mason	23	3.75
Mercer	24	3.74
Johnson	27	3.54
Harrison	14	3.43
Lincoln	24	3.38
Breckenridge	18	3.31
Rowan	20	3.14
Wayne	13	3.13
Adair	15	3.09
Grayson	22	2.99
Hart	31	2.83
Montgomery	18	2.77
Shelby	33	2.74
Woodford	20	2.19
Scott	23	1.45
POPULATION CATEGORY 25,000-50,000		
Perry	57	5.71
Knox	45	4.92
Nelson	48	4.81
Harlan	53	4.69
Letcher	37	4.40
Carter	39	4.26
Jessamine	30	4.22
Calloway	36	3.95
Floyd	52	3.89
Bell	43	3.86
Oldham	31	3.81
Graves	46	3.69
Pulaski	53	3.35
Bullitt	53	3.22
Muhlenberg	36	3.13
Boyle	24	3.02
Henderson	50	2.92
Barren	41	2.87
Hopkins	54	2.75
Clark	29	2.74
Franklin	36	2.71
Boone	60	2.52
Laurel	50	2.52
Greenup	23	2.16
Marshall	28	1.74
Whitley	36	1.62
POPULATION CATEGORY OVER 50,000		
Pike	106	4.63*
Warren	86	2.99
Christian	61	2.56
Jefferson	464	2.30
Campbell	43	2.23
McCracken	50	2.21
Fayette	148	2.13
Daviess	59	2.11
Madison	45	2.04
Hardin	67	2.00
Kenton	77	1.98
Boyd	33	1.79

* Critical accident rate.

TABLE 7. MISCELLANEOUS ACCIDENT DATA FOR EACH COUNTY

COUNTY	NUMBER OF ACCIDENTS BY YEAR 1978	1979	1980	1981	1982	1978-1981 AVERAGE	1982 PERCENT CHANGE	PERCENT OF ACCIDENTS INVOLVING ALCOHOL	PERCENT OF ACCIDENTS INVOLVING DRUGS	PERCENT FATAL ACCIDENTS	PERCENT INJURY OR FATAL ACCIDENTS	PERCENT OF DRIVERS USING SAFETY BELTS	PERCENT OF ACCIDENTS INVOLVING SPEEDING
Adair	306	366	326	339	353	334	+5.9	11.8	0.3	0.89	23.8	1.8	9.6
Allen	292	288	275	256	363	278	+30.6	6.0	0.3	1.56	29.1	1.4	15.6
Anderson	422	426	379	362	428	397	+7.8	8.0	0.2	0.69	22.4	2.3	13.7
Ballard	275	230	224	205	233	233	0.0	7.3	0.3	1.20	32.6	1.8	16.7
Barren	1,295	1,290	1,153	1,093	1,130	1,207	-6.4	6.0	0.2	0.69	25.0	1.5	7.2
Bath	162	169	123	148	201	150	+34.0	13.4	0.4	1.00	26.9	3.1	17.6
Bell	937	933	856	863	868	897	-3.2	7.0	0.3	0.98	29.7	2.9	10.2
Boone	3,016	2,847	2,928	2,442	2,342	2,709	-13.5	9.1	0.7	0.46	21.4	6.7	10.0
Bourbon	764	783	691	701	716	735	-2.6	10.9	0.5	0.96	25.9	2.2	11.1
Boyd	3,246	2,889	2,373	2,224	2,359	2,683	-12.1	5.3	0.4	0.29	17.6	2.8	5.9
Boyle	1,104	1,119	911	911	957	1,011	-5.3	4.8	0.3	0.48	18.5	2.4	6.4
Bracken	97	106	89	76	165	92	+79.3	8.4	0.6	1.87	17.6	1.8	10.1
Breathitt	324	364	312	309	381	327	+16.5	9.4	0.3	1.72	35.9	1.1	25.0
Breckenridge	419	449	349	363	378	395	-4.3	6.3	0.1	0.92	24.8	2.4	9.7
Bullitt	1,182	1,143	981	1,011	1,033	1,079	-4.3	8.3	0.4	0.99	28.8	3.1	9.6
Butler	268	226	197	272	250	241	+3.7	6.0	0.1	1.48	29.3	1.3	5.9
Caldwell	501	535	481	429	396	486	-18.1	6.0	0.5	0.90	22.0	1.1	6.8
Calloway	1,095	985	886	837	941	951	-1.0	6.8	0.6	0.76	26.3	1.6	8.7
Campbell	4,429	4,259	3,819	3,347	3,140	3,964	-20.8	6.5	0.4	0.23	17.9	3.5	3.5
Carlisle	105	120	101	105	93	108	-13.9	9.5	1.1	1.72	38.2	1.9	21.2
Carroll	539	522	444	462	416	492	-15.4	8.8	0.3	1.15	27.0	4.4	12.8
Carter	637	608	568	502	487	579	-15.9	9.0	0.2	1.39	26.2	1.7	16.7
Casey	284	223	139	226	160	216	-26.6	9.4	0.3	1.26	28.7	0.8	16.0
Christian	2,506	2,362	1,549	1,928	1,977	2,186	-9.7	8.8	0.2	0.57	20.8	3.2	9.0
Clark	1,446	1,349	1,121	1,211	1,217	1,282	-5.1	7.9	0.5	0.46	20.7	2.2	9.8
Clay	468	482	438	490	501	470	+6.6	8.4	0.2	1.51	26.2	1.2	15.8
Clinton	160	153	133	161	174	152	+14.5	7.6	0.5	1.15	26.0	2.6	7.8
Crittenden	235	273	238	238	219	251	-12.7	6.4	0.2	1.31	29.4	1.0	7.8
Cumberland	151	135	102	102	122	122	0.0	7.8	0.8	1.14	20.9	1.2	10.1
Daviess	5,045	4,748	4,067	3,900	3,981	4,440	-10.3	7.1	0.4	0.27	18.1	3.3	4.9
Edmonson	209	200	213	162	214	196	+9.2	7.8	0.3	1.80	35.2	2.1	22.5
Elliott	109	144	132	86	68	118	-42.4	11.1	0.4	2.41	28.4	1.8	25.8
Estill	288	333	287	270	261	294	-11.2	7.1	0.3	1.04	21.0	0.5	12.6
Fayette	12,051	12,602	11,015	10,709	10,578	11,594	-8.8	8.3	0.4	0.26	19.4	9.1	4.8
Fleming	290	300	288	326	262	302	-13.2	6.3	0.2	1.50	24.3	1.8	12.3
Floyd	1,097	1,263	1,180	1,113	1,122	1,158	-3.1	7.7	0.1	0.90	27.8	4.3	17.2
Franklin	2,108	2,010	1,793	1,790	1,722	1,925	-10.5	7.4	0.2	0.38	18.1	4.8	9.1
Fulton	291	288	280	270	231	282	-18.1	8.4	0.4	0.59	20.3	1.6	6.5
Gallatin	168	218	201	178	177	191	-7.3	13.2	0.7	1.27	30.4	4.9	23.9
Garrard	327	351	271	284	325	308	+5.5	6.9	0.0	1.35	27.1	1.7	19.3
Grant	620	569	470	437	434	524	-17.2	9.5	0.5	0.59	30.3	7.6	24.7
Graves	1,310	1,198	968	920	938	1,099	-14.6	6.2	0.3	0.86	23.9	3.5	7.9
Grayson	670	687	569	596	592	630	-6.0	6.4	0.2	0.71	25.2	6.4	10.4
Green	283	264	256	235	254	260	-2.3	6.0	0.1	1.01	25.0	0.9	6.8
Greenup	1,137	1,015	864	832	779	962	-19.0	6.3	0.3	0.50	24.1	3.5	9.4
Hancock	189	141	154	150	149	158	-5.7	6.3	0.2	0.77	27.2	2.1	6.6
Hardin	2,745	2,602	2,135	2,247	2,479	2,432	+1.9	8.6	0.2	0.55	24.8	5.0	11.7
Harlan	1,081	1,060	1,033	1,233	985	1,102	-10.6	10.2	0.8	0.98	29.4	2.9	13.1
Harrison	595	489	400	419	467	476	-1.9	7.8	0.1	0.59	18.5	1.4	9.4
Hart	383	405	319	314	303	355	-14.6	10.5	0.2	1.76	30.1	4.4	11.6
Henderson	2,478	2,381	2,158	2,088	1,979	2,276	-13.0	7.4	0.2	0.45	21.2	2.1	6.4
Henry	350	327	314	326	349	329	+6.1	11.8	0.4	0.90	28.5	3.4	27.6
Hickman	143	160	125	150	142	144	-1.4	11.0	0.7	1.67	33.5	2.3	14.7
Hopkins	1,946	1,948	1,699	1,650	1,682	1,811	-7.1	7.2	0.2	0.61	23.9	1.9	9.3
Jackson	167	192	182	170	150	178	-15.7	9.2	0.3	1.86	23.6	0.6	14.6
Jefferson	39,739	36,343	31,049	29,571	26,484	34,176	-16.6	6.0	0.2	0.28	17.3	8.7	5.7
Jessamine	815	884	773	818	691	822	+8.4	6.6	0.2	0.72	19.6	1.0	9.3
Johnson	726	747	698	549	645	680	-5.1	7.9	0.4	0.80	23.7	2.5	11.6
Kenton	8,162	7,633	6,964	6,338	6,015	7,324	-17.9	8.9	0.8	0.22	19.0	4.1	5.7
Knott	292	329	315	350	289	322	-10.2	11.2	0.3	1.78	34.5	1.5	28.4
Knox	645	721	623	627	584	654	-10.7	7.9	0.5	1.41	27.2	2.1	14.3
Larue	340	332	273	305	319	312	+2.2	8.2	0.1	1.85	27.0	1.9	17.8
Laurel	1,358	1,301	1,150	1,196	1,238	1,251	-1.0	7.4	0.3	0.80	23.0	3.3	12.3
Lawrence	408	427	259	272	280	342	-18.1	8.0	0.4	1.15	28.1	2.4	13.6
Lee	131	103	91	73	102	100	+2.0	8.6	1.2	1.40	25.6	1.1	17.6
Leslie	202	194	228	280	197	226	-12.8	11.6	0.1	2.63	35.1	1.7	33.2
Letcher	370	470	469	422	513	433	+18.5	8.9	0.3	1.65	32.2	1.1	32.4
Lewis	312	359	283	262	282	304	-7.2	7.7	0.1	0.93	28.2	2.2	15.8
Lincoln	401	402	369	358	368	362	+1.7	6.9	0.0	1.26	26.1	1.1	9.1
Livingston	227	219	220	199	194	216	-10.2	10.2	0.8	1.42	32.8	1.8	18.4
Logan	807	819	616	654	716	724	-1.1	7.0	0.4	0.88	26.8	1.4	7.9
Lyon	132	176	140	141	157	147	+6.8	7.5	0.0	1.34	30.6	2.3	10.1
McCracken	3,110	3,097	2,698	2,848	2,907	2,936	-1.0	9.1	0.6	0.34	19.0	1.6	6.3
McCreary	263	234	237	238	223	243	-8.2	9.8	0.1	2.43	29.8	2.5	20.8
McLean	221	191	171	207	209	196	+6.6	8.7	0.2	0.80	35.9	2.8	10.3
Madison	2,509	2,426	2,201	2,202	2,272	2,334	-2.6	9.3	0.4	0.39	17.8	2.6	12.9
Magoffin	245	277	251	253	267	256	+12.1	12.8	0.6	1.68	35.1	5.2	24.5
Marion	620	720	586	633	581	640	-9.2	11.9	0.5	0.61	20.5	1.0	10.1
Marshall	856	797	611	601	613	716	-14.4	8.0	0.7	0.81	28.3	2.3	12.5
Martin	212	167	146	126	119	163	-27.0	10.4	1.0	1.94	27.7	1.7	31.9
Mason	1,095	1,090	950	627	884	990	-10.7	6.3	0.3	0.47	16.4	1.7	3.9
Meade	642	596	490	535	503	566	-11.1	15.2	0.4	1.27	30.5	2.6	13.0
Menifee	68	102	90	88	79	87	-9.2	13.8	0.0	1.87	31.6	2.3	30.7
Mercer	693	661	574	635	549	641	-14.3	7.8	0.3	0.77	20.3	1.4	8.9
Metcalfe	113	161	136	147	139	144	-3.4	9.2	0.3	1.13	30.0	1.5	13.7
Monroe	221	294	223	180	161	230	-21.3	10.3	0.5	2.09	23.2	0.8	14.0
Montgomery	659	679	696	678	736	678	+8.6	7.6	0.2	0.52	21.1	0.7	8.2
Morgan	349	299	253	226	219	282	-22.3	10.1	0.1	0.97	30.2	1.2	19.1
Muhlenburg	1,013	1,138	926	935	1,005	1,003	0.1	8.2	0.3	0.72	29.4	1.3	13.2
Nelson	1,020	917	845	861	844	911	-7.4	10.5	0.3	1.07	23.7	3.1	11.8
Nicholas	91	79	43	81	129	74	+74.3	8.3	0.7	1.42	23.6	1.7	13.7
Ohio	544	481	493	445	535	491	+9.0	6.8	0.2	1.64	29.9	2.3	14.5
Oldham	696	657	565	625	623	634	-1.7	10.0	0.6	0.98	30.5	7.2	16.6
Owen	170	165	165	166	197	166	+18.7	4.5	0.5	1.16	29.0	1.4	16.5
Owsley	78	96	71	83	91	82	+11.0	6.2	0.0	2.15	27.7	1.3	19.6
Pendleton	287	244	237	266	171	259	-34.0	7.5	0.2	0.83	28.3	3.2	17.3
Perry	1,163	1,248	1,063	1,095	962	1,142	-15.8	8.3	0.5	1.03	23.6	1.0	17.3
Pike	2,019	2,230	2,207	2,093	2,177	2,137	+1.9	7.8	0.2	0.99	27.5	1.7	15.9
Powell	299	241	184	147	216	216	0.0	9.2	0.3	1.74	28.4	1.3	10.4
Pulaski	1,444	1,347	1,235	1,216	1,291	1,310	-1.4	5.0	0.4	0.81	22.1	2.0	9.3
Robertson	25	36	17	22	18	25	-28.0	7.6	0.0	1.69	34.7	4.1	29.7
Rockcastle	359	391	325	339	313	354	-11.6	8.3	0.4	1.68	25.4	4.5	22.9
Rowan	814	809	776	711	747	776	-4.0	8.4	0.7	0.52	21.8	3.0	12.2
Russell	177	213	225	175	248	196	+25.2	13.0	0.2	1.93	28.3	4.2	13.0
Scott	974	906	783	786	829	862	-3.8	7.5	0.5	0.54	22.1	3.9	8.4
Shelby	940	931	795	850	898	879	+2.2	9.2	0.5	0.74	25.1	3.8	15.5
Simpson	489	515	436	446	463	472	-1.9	4.5	0.2	0.81	24.2	1.4	8.2
Spencer	159	109	107	141	128	129	-0.1	11.3	0.9	2.02	37.0	3.0	23.3
Taylor	677	643	645	698	702	666	+5.4	6.4	0.3	0.77	19.7	1.2	6.4
Todd	234	253	168	176	175	213	-17.8	9.8	0.7	1.66	30.4	2.2	19.0
Trigg	421	358	291	280	266	338	-21.3	5.5	0.4	0.87	25.6	2.7	13.6
Trimble	109	112	103	119	131	111	+18.0	10.6	0.2	0.87	30.7	2.2	22.2
Union	653	612	553	492	538	578	-6.9	11.0	0.4	1.05	26.7	1.4	12.6
Warren	4,433	4,309	3,850	3,699	3,796	4,123	-7.9	7.7	0.5	0.42	20.0	1.7	6.4
Washington	283	299	252	267	267	275	-2.9	5.7	0.3	0.88	19.7	1.9	8.0
Wayne	441	418	377	351	434	397	+9.3	5.6	0.4	0.64	18.5	0.6	8.5
Webster	516	472	419	403	341	452	-24.6	8.2	0.3	1.07	25.4	2.8	6.6
Whitley	1,227	916	818	855	851	954	-10.8	5.6	0.4	0.77	20.5	2.9	9.9
Wolfe	160	170	142	134	114	152	-25.0	9.6	0.3	2.36	31.4	3.4	32.5
Woodford	698	753	580	660	726	673	+7.9	9.6	0.2	0.59	21.8	4.2	9.4

CITY ACCIDENT STATISTICS

Accident statistics were analyzed for cities using 1978 through 1982 accident data. The primary group of cities included in the analysis were those having a population over 2,500 that were incorporated and had a police agency. Incorporated cities were eliminated if they did not have a police agency even though they were listed in the 1980 census. This analysis of city accident statistics is different from that of previous years because some cities in Jefferson County, such as St. Matthews, Jeffersontown, and Shively, were included separately from Louisville because of a desire to analyze accidents for each police reporting agency. Therefore, only the Louisville city area was included with a population of 298,451 as compared to a metropolitan area population of 490,095 used in last year's problem identification report (4).

Presented in Table 8 is a summary of detailed accident statistics for cities having populations more than 2,500 that are incorporated and have police agencies. Included in this table were 110 cities. Rates were calculated in terms of accidents per 1,000 population, because the total number of vehicle-miles traveled in each city was not known. Rates were calculated for all accidents as well as fatal, pedestrian, bicycle, and motorcycle accidents. The percentages of accidents involving speeding and alcohol also were determined. As supplemental information, accident statistics for all cities listed in the 1980 census were summarized in Table 9. Included for 369 cities were population, number of accidents, and accident rate.

Average and critical accident rates by population category were calculated and are shown in Table 10. Only those cities having populations more than 2,500 that were incorporated and had a police agency were included. Critical fatal accident rates were not tabulated because no cities were found to have rates that exceeded the critical rate. Total accident rates for cities by population category are listed in Table 11. They are tabulated in order of descending accident rates and critical rates are identified. A total of 27 cities were identified as having total accident rates above critical. Louisville, Bowling Green, Florence, Maysville, and Pikeville had the highest rates in their respective population ranges. Fatal accident rates, by city and population category, are listed in Table 12. They also are tabulated in order of descending fatal accident rates and there were no cities with rates above critical.

TABLE 8. ACCIDENT DATA FOR CITIES WITH POPULATION OVER 2,500 (INCORPORATED CITIES WITH POLICE AGENCIES)

CITY	POPULATION	NUMBER OF ACCIDENTS (1978-1982)	ANNUAL ACCIDENTS PER 1,000 POPULATION	NUMBER OF FATAL ACCIDENTS (1978-1982)	ANNUAL FATAL ACCIDENTS PER 10,000 POPULATION	NUMBER OF PEDESTRIAN MOTOR VEHICLE ACCIDENTS (1978-1982)	ANNUAL PEDESTRIAN ACCIDENTS PER 10,000 POPULATION	NUMBER OF BICYCLE-RELATED MOTOR VEHICLE ACCIDENTS (1978-1982)	ANNUAL BICYCLE ACCIDENTS PER 10,000 POPULATION	NUMBER OF MOTORCYCLE ACCIDENTS (1978-1982)	ANNUAL MOTORCYCLE ACCIDENTS PER 10,000 POPULATION	PERCENT OF ACCIDENTS INVOLVING SPEEDING	PERCENT OF ACCIDENTS INVOLVING ALCOHOL
Louisville	298,451	112,333	75.3	267	1.79	1,911	12.8	860	5.8	1,359	9.1	5.6	5.0
Lexington	204,165	55,760	54.6	130	1.27	820	8.0	407	4.0	696	6.6	4.6	8.3
Owensboro	54,450	16,832	61.8	13	0.48	156	5.7	196	7.2	151	5.5	1.7	4.9
Covington	49,013	17,271	70.5	22	0.90	398	16.2	174	7.1	164	6.7	3.9	9.3
Bowling Green	40,450	16,742	82.8	28	1.38	126	6.1	85	4.2	213	10.5	3.4	7.1
Paducah	29,758	10,360	69.6	21	1.41	90	6.0	47	3.2	146	9.8	3.0	8.3
Ashland	27,064	8,963	66.2	8	0.59	122	9.0	43	3.2	106	7.8	2.8	4.1
Hopkinsville	27,318	7,988	58.5	19	1.39	97	7.1	56	4.1	78	5.7	4.3	6.0
Frankfort	25,973	6,752	52.0	12	0.92	90	7.0	34	2.6	48	3.7	2.6	5.4
Henderson	24,834	8,461	68.1	22	1.77	110	8.9	68	5.2	89	7.2	2.6	6.2
Richmond	21,705	6,648	61.3	9	0.83	70	6.3	24	2.2	57	5.3	2.9	7.3
Newport	21,587	7,787	72.1	8	0.74	252	23.3	68	6.3	68	6.3	2.1	4.7
Madisonville	18,979	4,596	56.1	8	0.94	52	6.1	30	3.5	58	6.8	2.5	4.8
Shively	18,819	5,877	69.9	11	1.31	66	7.8	48	5.7	84	10.0	3.9	7.6
Fort Thomas	18,012	2,357	29.4	4	0.50	25	3.1	30	3.7	18	2.2	6.0	8.7
Jeffersontown	15,795	3,327	42.1	4	0.51	28	3.5	23	2.9	38	4.6	4.4	7.3
Florence	15,586	7,316	93.9	15	1.92	58	7.4	26	3.3	77	9.9	5.1	5.7
Elizabethtown	15,380	4,501	58.5	11	1.43	47	6.1	29	3.8	69	9.0	3.3	5.1
Winchester	15,216	4,142	54.4	4	0.53	58	7.6	22	2.9	32	4.2	3.0	5.8
Radcliff	14,519	3,102	42.7	12	1.65	33	4.5	15	2.1	101	13.9	7.8	8.2
Erlanger	14,433	4,890	67.8	8	1.11	61	8.5	36	5.0	48	6.7	4.4	7.2
Murray	14,248	3,312	46.5	8	1.12	21	2.9	17	2.4	66	9.3	3.6	4.6
St. Matthews	13,354	4,588	68.7	5	0.75	50	7.5	32	4.8	35	5.2	1.3	3.4
Glasgow	12,958	3,630	56.0	7	1.08	28	4.3	15	2.3	32	4.9	2.4	3.6
Danville	12,942	3,342	51.6	4	0.62	40	6.2	28	4.3	38	5.9	1.7	2.9
Middlesboro	12,251	2,049	33.5	5	0.82	26	4.2	13	2.1	17	2.8	1.8	4.2
Georgetown	10,972	2,231	40.7	1	0.18	18	3.3	12	2.2	12	2.2	3.1	4.6
Mayfield	10,705	3,159	59.0	2	0.37	35	6.5	15	2.8	34	6.4	1.5	2.7
Somerset	10,649	3,707	69.6	5	0.94	49	9.2	8	1.5	25	4.7	4.2	3.4
Nicholasville	10,400	2,190	42.1	2	0.38	21	4.0	6	1.2	29	5.6	2.8	4.9
Corbin	8,975	2,243	50.0	3	0.67	15	3.4	6	1.4	32	7.3	2.7	4.5
Campbellsville	8,715	2,374	54.5	4	0.92	9	2.2	15	3.6	11	2.7	3.5	4.0
Flatwoods	8,354	1,191	28.5	1	0.24	7	1.7	5	1.2	16	3.8	3.9	4.2
Berea	8,226	1,304	31.7	2	0.49	18	4.0	7	1.6	23	5.1	3.4	4.8
Independence	7,998	1,502	37.6	10	2.50	21	5.3	11	2.8	24	6.0	13.0	10.7
Maysville	7,982	3,322	83.2	2	0.50	30	7.6	14	3.5	13	3.3	1.6	5.6
Paris	7,935	1,814	45.7	7	1.76	24	6.0	9	2.3	18	4.5	3.5	8.0
Morehead	7,789	2,132	54.7	3	0.77	17	4.4	9	2.3	14	3.6	2.8	4.5
Franklin	7,738	1,493	38.6	3	0.78	13	3.4	6	1.6	16	4.1	2.3	3.8
Bellevue	7,678	1,774	46.2	0	0.00	37	9.6	33	8.6	11	2.9	2.0	5.4
Russellville	7,520	1,931	51.4	6	1.60	26	6.9	6	1.6	24	6.4	3.6	5.2
Fort Mitchell	7,297	1,481	40.6	3	0.83	15	4.1	14	3.9	17	4.7	8.0	8.2
Harrodsburg	7,265	1,973	54.3	7	1.93	21	5.8	9	2.5	19	5.2	2.9	4.5
Edgewood	7,230	1,174	32.5	1	0.28	18	5.0	7	1.9	19	5.3	4.3	6.9
Elsmere	7,203	1,209	33.6	3	0.83	16	4.4	11	3.0	17	4.7	7.5	6.6
Princeton	7,073	1,683	47.6	7	1.98	28	7.9	8	2.3	17	4.6	4.3	5.3
Dayton	6,979	859	24.6	1	0.29	24	6.9	13	3.7	9	2.6	3.3	11.2
Lebanon	6,590	1,775	53.9	1	0.30	16	5.5	10	3.0	13	3.9	3.5	7.2
Versailles	6,427	1,621	50.4	4	1.24	20	5.0	8	2.5	10	3.1	3.8	7.1
Bardstown	6,155	2,150	69.9	6	1.95	20	6.5	12	3.9	19	6.2	2.7	8.9
Cynthiana	5,881	1,330	45.2	3	1.02	30	6.8	9	1.7	18	6.1	3.6	5.1
Mount Sterling	5,820	2,096	72.0	2	0.69	9	10.3	4	1.4	13	4.5	2.8	7.0
Monticello	5,667	1,502	53.0	3	1.06	10	3.2	7	2.5	7	2.5	3.8	4.7
Williamsburg	5,560	1,082	38.9	5	1.80	21	3.6	5	1.8	25	9.0	3.6	4.9
Hazard	5,429	2,179	80.3	3	1.11	22	7.7	2	3.7	19	7.0	3.3	5.2
Shelbyville	5,308	1,868	70.4	2	0.75	19	8.3	11	4.1	12	4.5	2.1	4.6
Central City	5,214	1,481	56.8	5	1.92	5	7.3	4	1.5	15	5.8	3.7	5.9
Hillview	5,198	398	15.3	1	0.38	15	4.8	6	2.3	1	1.0	3.0	3.0
Lawrenceburg	5,167	996	38.6	4	1.54	21	5.8	5	1.9	9	3.5	4.1	4.9
Ludlow	4,959	826	33.3	0	0.00	3	8.5	14	5.6	5	2.0	4.1	9.7
Pikeville	4,756	2,461	104.3	5	2.10	26	1.3	3	1.3	9	3.8	3.7	4.7
Alexandria	4,735	833	35.2	3	1.27	4	10.9	5	2.1	15	6.3	3.7	4.9
Greenville	4,631	909	39.3	3	1.30	17	1.7	4	1.7	6	2.6	4.2	1.3
Leitchfield	4,533	1,525	67.3	1	0.44	17	7.5	5	2.2	13	5.7	5.6	3.5
Taylor Mill	4,509	634	28.1	2	0.89	8	7.6	3	1.3	17	7.6	9.3	8.0
Fort Wright	4,481	1,666	74.4	3	1.34	8	3.6	5	2.3	8	3.6	3.2	8.9
Shepherdsville	4,454	1,426	64.0	5	2.25	10	4.5	3	1.4	12	5.4	6.5	7.0
Highland Heights	4,435	1,073	48.4	2	0.90	8	3.5	3	1.3	11	4.9	2.5	2.4
Providence	4,434	751	33.9	3	1.35	0	0.0	0	0.0	0	0.0	1.9	2.7
Villa Hills	4,402	118	5.4	0	0.00	0	0.0	4	1.8	0	0.0	11.0	8.5
Douglas Hills	4,387	165	7.5	0	0.00	3	1.4	0	0.0	9	4.1	7.3	6.7
Tompkinsville	4,366	714	32.7	6	2.75	11	5.1	0	0.0	6	2.8	8.0	5.0
Scottsville	4,278	686	32.1	6	2.81	13	5.8	8	3.6	26	11.6	9.6	3.8
Prestonsburg	4,011	1,501	74.8	3	1.50	8	4.0	1	0.5	7	3.5	3.0	2.5
London	4,002	1,848	92.3	3	1.50	23	11.5	9	4.5	18	9.0	1.6	3.0
Mount Washington	3,997	492	24.6	3	1.50	8	4.0	4	2.0	19	12.1	3.3	4.9
Carrollton	3,967	1,090	55.0	5	1.51	12	6.0	4	2.0	8	4.0	1.9	7.4
Russell	3,824	1,308	68.4	7	3.66	8	4.2	1	0.5	10	5.2	1.0	4.1
Paintsville	3,815	1,798	94.2	3	1.57	10	5.2	1	0.5	11	5.8	2.3	3.3
Wilmore	3,787	119	6.3	1	0.53	1	0.5	2	1.1	1	0.5	4.2	3.4
Morganfield	3,781	967	51.2	1	0.53	14	7.4	10	5.3	17	9.0	5.1	7.3
Cumberland	3,712	60	3.2	3	1.62	8	4.3	1	0.5	6	3.2	15.0	10.0
Columbia	3,710	899	48.5	4	2.16	2	1.1	0	0.0	2	1.1	5.7	5.9
Benton	3,700	969	52.4	0	0.00	4	2.2	3	1.6	11	5.9	2.1	2.9
Vine Grove	3,583	401	22.4	0	0.00	5	2.8	2	1.1	12	6.7	8.5	12.2
Park Hills	3,500	496	28.3	1	0.57	6	3.4	7	4.0	6	3.4	3.8	6.9
Grayson	3,423	866	50.7	2	1.17	11	6.4	0	0.0	6	3.5	3.9	5.4
Marion	3,392	719	42.4	2	1.18	9	5.3	3	1.7	19	11.2	3.8	3.1
Lancaster	3,365	645	38.3	2	1.19	14	8.3	3	1.8	5	3.0	2.3	2.9
Dawson Springs	3,275	595	36.3	0	0.00	8	4.9	2	1.2	9	5.6	2.5	5.0
Jenkins	3,271	55	3.4	2	1.22	11	6.7	3	1.8	8	4.9	41.8	20.9
Barbourville	3,233	918	56.8	3	1.86	0	0.0	0	0.0	0	0.0	3.9	3.9
Beaver Dam	3,185	718	45.1	0	0.00	1	0.6	2	1.3	15	9.4	3.3	4.6
Springfield	3,179	673	42.3	5	3.15	9	5.7	4	2.5	2	1.3	3.1	3.7
Fulton	3,137	681	43.4	1	0.64	4	2.6	6	3.8	5	3.2	18.6	6.9
Lakeside Park	3,026	419	27.7	1	0.66	3	2.4	3	2.4	2	1.6	5.5	7.6
Harlan	3,024	1,279	84.6	3	1.98	4	2.6	2	1.3	4	2.6	2.6	4.6
Catlettsburg	3,005	951	63.3	1	0.67	17	11.2	6	4.0	16	10.6	4.1	7.3
LaGrange	2,971	344	36.6	1	0.67	4	2.7	5	3.3	10	6.7	3.5	6.1
Hickman	2,894	397	27.4	0	0.00	3	2.1	3	2.1	6	4.1	4.3	6.0
Irvine	2,889	745	51.6	4	2.77	9	6.2	0	0.0	7	4.8	6.6	2.7
Flemingsburg	2,835	622	43.9	1	0.71	3	2.1	1	0.7	8	5.6	3.9	3.9
Southgate	2,833	648	45.7	1	0.71	5	3.5	5	3.5	5	3.5	4.9	8.6
Stanford	2,764	688	49.8	5	3.62	2	1.4	3	2.2	5	3.6	2.5	4.2
Stanton	2,691	289	21.5	0	0.00	5	3.4	5	3.4	5	3.4	4.4	7.6
Jackson	2,631	319	24.1	2	1.51	2	1.5	0	0.0	4	3.0	10.0	9.6
Pineville	2,599	800	61.6	3	2.31	3	2.3	1	0.8	2	1.5	4.1	3.8
Olive Hill	2,539	398	31.4	0	0.00	0	0.0	0	0.0	1	0.8	7.3	5.5
Hartford	2,512	93	7.4	1	0.80	11	8.5	3	2.3	10	7.7	10.8	1.1
Williamstown	2,509	346	27.6	0	0.00	4	3.2	0	0.0	5	3.9	16.8	8.4

TABLE 9. ACCIDENTS AND ACCIDENT RATES FOR ALL INCORPORATED CITIES (1978-1982 DATA)

CITY	POPULATION	NUMBER OF ACCIDENTS (78-82)	ANNUAL ACCIDENTS PER 1000 POPULATION
Adairville	1105	55	10.0
Albany	2083	387	37.2
Alexandria	4735	833	35.2
Allen	338	208	12.9
Allensville	170	11	18.0
Anchorage	1726	187	21.7
Arlington	511	46	18.0
Ashland	27064	8963	66.2
Auburn	1467	139	19.0
Audubon Park	1571	23	2.9
Augusta	1455	209	28.7
Barbourville	3233	918	56.8
Bardstown	6155	2150	69.9
Bardwell	988	111	22.5
Barlow	746	47	12.6
Beattyville	1068	174	32.6
Beaver Dam	3185	718	45.1
Bedford	835	75	18.0
Beechwood Village	1462	0	0.0
Bellefonte	908	38	8.4
Bellevue	7678	1774	46.2
Bellewood	307	1	1.3
Benham	936	72	15.4
Benton	3700	969	52.4
Berea	8226	1304	31.7
Berry	287	18	12.5
[illegible]	[illegible]	[illegible]	[illegible]
Bloomfield	954	153	32.1
Blue Ridge Manor	465	0	0.0
Bonnieville	372	33	17.7
[illegible]	[illegible]	[illegible]	[illegible]
Bowling Green	40450	16742	82.8
Bradfordville	331	35	21.1
Brandenburg	1831	527	57.6
Bremen	179	35	39.1
Briarwood	374	0	0.0
Broadfields	295	0	0.0
Brodhead	686	48	14.0
Bromley	844	59	14.0
Brooksville	680	46	13.5
Brownsville	674	221	65.6
Burgin	1008	107	21.2
Burkesville	2051	341	33.3
Burnside	775	136	35.1
Butler	663	47	14.2
Cadiz	1661	663	79.8
Calhoun	1080	151	28.0
California	135	*	---
Calvert City	2388	266	22.3
Camargo	1301	28	4.3
Campbellsburg	714	94	26.3
Campbellsville	8715	2374	54.5
Campton	486	194	79.8
Caneyville	642	82	25.5
Carlisle	1757	133	15.1
Carrollton	3967	1090	54.9
Carrsville	99	4	8.1
Caseyville	43	*	---
Catlettsburg	3005	951	63.3
Cave City	2098	414	39.5
Cedarville	81	0	0.0
Centertown	462	32	13.8
Central City	5214	1481	56.8
Cherrywood	362	1	0.6
[illegible]	[illegible]	[illegible]	[illegible]
Clay	1356	162	23.9
Clay City	1276	147	23.0
Clinton	1720	301	35.0
Cloverport	1585	157	19.8
Coal Run	348	13	7.5
Cold Springs	2117	608	57.4
Columbia	3712	899	48.4
Columbus	296	29	19.6
Corbin	8075	2245	55.6
Corinth	249	50	40.2
Corydon	874	93	21.3
Covington	49013	17271	70.5
Crab Orchard	843	53	12.6
Cresent Park	351	50	28.5
Cresent Springs	1951	1010	103.5
Crestview	520	33	12.7
Crestview Hills	1408	430	61.1
Crestwood	531	276	103.9
Crittenden	597	161	53.9
Crofton	823	61	14.8
Cumberland	3712	60	3.2
Cynthiana	5881	1330	45.2
Danville	12942	3342	51.6
Dawson Springs	3275	595	36.3
Dayton	6979	859	24.6
Dixon	533	107	40.9
Douglas Hills	4387	165	7.5
Dover	305	20	13.1
Drakesboro	798	96	24.1
Dry Ridge	1250	425	68.0
Dycusburg	64	*	---
Earlington	2011	114	42.3
Eddyville	1949	196	20.1
Edgewood	7230	1174	32.5
Edmonton	1401	237	33.8
Ekron	239	18	15.1
Elizabethtown	15380	4501	58.5
Elkhorn City	1416	117	16.5
Elkton	1815	335	36.9
Elsmere	7203	1209	33.6
Eminence	2260	203	18.0
Erlanger	14433	4890	67.8
Eubank	207	21	20.3
Evarts	1234	188	30.5
Fairfield	169	12	14.2
Fairview	198	68	68.7
Falmouth	2482	462	37.2
Ferguson	1009	57	11.3
Flatwoods	8354	1191	28.5
Flemingsburg	2835	622	43.9
Fleming-Neon	1195	70	11.7
Florence	15586	7316	93.9
Fordsville	561	70	25.0
[illegible]	[illegible]	[illegible]	[illegible]
Fort Mitchell	7297	1481	40.6
Fort Thomas	16012	2357	29.4
Fort Wright	4481	1666	74.4
[illegible]	[illegible]	[illegible]	[illegible]
Fountain Run	340	9	5.3
Frankfort	25973	6752	52.0
Franklin	7738	1493	38.6
Fredonia	535	36	13.4
Frenchburg	550	84	30.5
Fulton	3137	681	43.4
Gamaliel	456	31	13.6
Georgetown	10972	2231	40.7
Germantown	347	23	13.2
Ghent	439	30	13.7
Glasgow	12958	3630	56.0
Glencoe	354	10	5.6
Grand Rivers	428	48	22.4
Gratz	124	5	8.1
Grayson	3423	868	50.7
Greensburg	2377	558	46.9
Greenup	1386	315	45.4
Greenville	4631	909	39.3
Guthrie	1361	14	2.1
Hanson	485	39	16.1
Hardin	545	65	23.8
Hardinsburg	2211	598	54.1
Harlan	3024	1279	84.6
Harrodaburg	7265	1973	54.3
Hartford	2512	93	7.4
Hawesville	1036	210	40.5
Hazard	5429	2179	80.3
Hazel	465	55	23.6
Henderson	24834	8461	68.1
Hickman	2894	397	27.4
Highland Heights	4435	1073	48.4
Hillview	5196	398	15.3
Hindman	876	277	63.2
[illegible]	[illegible]	[illegible]	[illegible]
Hodgenville	2459	521	42.4
Hollow Creek	1023	*	---
Hopkinsville	27318	7988	58.5
Horse Cave	2045	117	11.4
Houston Acres	608	2	0.6
Hustonville	339	28	16.5
Hyden	488	121	49.6
Independence	7998	1502	37.6
Indian Hills	787	8	2.0
Irvine	2889	745	51.6
Irvington	1409	125	17.7
Island	532	49	18.4
Jackson	2651	319	24.1
Jamestown	1441	89	12.4
Jeffersontown	15795	3327	42.1
Jeffersonville	1528	75	9.8
Jenkins	3271	55	3.4
Junction City	2045	303	29.6
Kenton Vale	145	6	8.3
Kevil	382	50	26.2
Kingsley	464	1	0.4
Kuttawa	560	37	13.2
LaCenter	1044	161	30.8
LaFayette	160	5	6.2
LaGrange	2971	544	36.6
Lakeside Park	3026	419	27.7
Lancaster	3365	645	38.2

* This city not included in the list of cities coded by the Kentucky State Police.

TABLE 9. ACCIDENTS AND ACCIDENT RATES FOR ALL INCORPORATED CITIES
(1978-1982 DATA)
(continued)

CITY	POPULATION	NUMBER OF ACCIDENTS (78-82)	ANNUAL ACCIDENTS PER 1000 POPULATION
Latonia Lakes	396	50	25.3
Lawrenceburg	5167	996	38.6
Lebanon	6590	1775	53.9
Lebanon Junction	1581	130	16.4
Leitchfield	4533	1525	67.3
Lewisburg	972	125	25.7
Lewisport	1832	54	5.9
Lexington	204165	55760	54.6
Liberty	2206	395	30.4
Livermore	1672	104	12.4
Livingston	334	11	6.6
Lockport	84	5	11.9
London	4002	1846	92.3
Loretto	954	101	21.2
Louisa	1832	646	70.5
Louisville	298451	112333	75.3
Loyall	1210	118	19.5
Ludlow	4959	826	33.3
Lynch	1614	14	1.7
Lyndon	1553	42	5.4
Lynnview	1157	19	3.3
McHenry	582	49	16.8
McKee	759	162	42.7
Mackville	229	16	14.0
Madisonville	16979	4596	54.1
Manchester	1838	560	60.9
Manor Creek	241	*	---
Marion	3392	719	42.4
Martin	827	232	56.1
Mayfield	10705	3159	59.0
Maysville	7982	3322	83.2
Meadow Vail	1008	60	11.9
Meadowview Estates	212	1	0.9
Mentor	169	19	22.4
Middlesboro	12251	2049	33.5
Middletown	414	109	52.7
Midway	1443	171	23.7
Millersburg	987	58	11.8
Milton	718	140	39.0
Minor Lane Heights	1882	26	2.8
Monterey	186	10	10.8
Monticello	5677	1502	53.0
Moorland	513	55	21.4
Morehead	7789	2132	54.7
Morganfield	3781	967	51.2
Morgantown	2000	356	35.6
Mortons Gap	1201	69	11.5
Mount Olivet	346	45	26.0
Mount Sterling	5820	2096	72.0
Mount Vernon	2334	404	34.6
Mount Washington	3997	492	24.6
Muldraugh	1752	443	50.6
Munfordville	1783	379	42.5
Murray	14248	3312	46.5
Nebo	269	29	21.6
Newcastle	832	76	18.3
New Haven	926	136	29.4
Newport	21587	7787	72.1
Nicholasville	10400	2190	42.1
Norbourne Estates	212	1	0.9
Northfield	906	38	8.4
North Middletown	637	41	12.9
Nortonville	1336	82	12.3
Oak Grove	2088	750	71.8
Oakland	264	6	4.5
Olive Hill	2539	398	31.4
Owensboro	54450	16832	61.8
Owenton	1341	297	44.3
Owingsville	1419	245	34.5
Paducah	29758	10360	69.6
Paintsville	3815	1796	94.2
Paris	7935	1814	45.7
Park City	614	52	16.9
Park Hills	3500	496	28.3
Pembroke	636	34	10.7
Perryville	841	99	23.5
Pewee Valley	982	149	30.3
Phelps	1126	151	26.8
Pikeville	4756	2481	104.3
Pineville	2599	800	61.6
Pioneer Village	390	*	---
Plantation	969	41	8.5
Pleasant Valley	342	1	0.6
Pleasureville	837	55	13.1
Plum Springs	393	3	2.9
Powderly	848	110	25.9
Prestonsburg	4011	1501	74.8
Prestonville	205	13	12.7
Princeton	7073	1683	47.6
Providence	4434	751	33.9
Raceland	1970	198	20.1
Radcliff	14519	3102	42.7
Ravenna	793	45	11.3
Richlawn	405	*	---
Richmond	21705	6648	61.3
Ridgeview Heights	729	46	12.6
Rochester	289	4	2.8
Rockport	511	17	6.6
Rolling Hills	1067	12	2.2
Russell	3824	1308	68.4
Russell Springs	1831	414	45.6
Russellville	7520	1931	51.4
Ryland Heights	252	*	---
Sacramento	538	55	20.4
Sadieville	253	10	7.9
St. Charles	405	34	16.8
St. Matthews	13354	4588	68.7
Salem	833	91	21.8
Salt Lick	347	43	24.8
Salyersville	1352	390	13.3
Sanders	332	8	4.8
Sandy Hook	627	155	49.4
Sardis	203	13	12.8
Science Hill	655	63	19.2
Scottsville	4278	686	32.1
Sebree	1516	150	19.8
Seneca Gardens	748	2	0.5
Sharpsburg	339	21	12.4
Shelbyville	5308	1868	70.4
Shepherdsville	4454	1426	64.0
Shively	16819	5877	69.9
Silver Grove	1260	197	31.3
Simpsonville	642	68	21.2
Slaughters	269	26	19.3
Smithfield	137	3	4.4
Smithland	512	97	37.9
Smiths Grove	767	118	30.8
Somerset	10649	3707	69.6
Sonora	416	118	56.7
South Carrollton	262	43	32.8
Southgate	2833	648	45.7
South Shore	1525	134	17.6
Sparta	192	35	36.4
Springfield	3179	673	42.3
Stamping Ground	562	15	5.3
Stanford	2764	688	49.8
Stanton	2691	289	21.5
Strathmore Village	456	0	0.0
Sturgis	2293	441	38.5
Taylor Mill	4509	634	28.1
Taylorsville	801	176	43.9
Tollesboro	808	101	25.0
Tompkinsville	4366	714	32.7
Trenton	465	15	6.4
Union	601	132	43.9
Uniontown	1169	59	10.1
Upton	731	74	20.2
Vanceburg	1939	350	36.1
Versailles	6429	1621	50.4
Vicco	456	79	34.6
Villa Hills	4402	118	5.4
Vine Grove	3583	401	22.4
Visalia	198	30	30.3
Wallins Creek	459	85	37.0
Walton	1651	403	48.8
Warsaw	1328	181	27.2
Washington	624	58	18.6
Water Valley	395	17	8.6
Waverly	434	73	33.6
Wayland	601	40	13.3
Wellington	653	2	0.6
West Liberty	1381	446	64.6
West Point	1339	230	34.4
Westwood	826	465	112.6
Wheatcroft	325	34	20.9
Wheelwright	865	40	9.2
White Plains	859	61	14.2
Whitesburg	1525	367	48.1
Whitesville	788	118	29.9
Wickliffe	1044	237	45.4
Wilder	633	499	157.7
Wildwood	309	0	0.0
Williamsburg	5560	1082	38.9
Williamstown	2509	246	27.6
Willisburg	235	22	18.7
Wilmore	3787	119	6.3
Winchester	15216	4142	54.4
Wingo	606	42	13.7
Woodburn	330	23	13.9
Woodlawn	331	0	0.0
Woodlawn Park	1052	2	0.4
Worthington	1948	110	11.3
Worthville	272	13	9.6
Wurtland	1303	109	16.7
Yorktown	155	2	2.6

* This city not included in the list of cities coded by the Kentucky State Police.

TABLE 10. AVERAGE AND CRITICAL ACCIDENT RATES BY CITY POPULATION CATEGORY

POPULATION CATEGORY	NUMBER OF CITIES IN CATEGORY	TOTAL POPULATION	AVERAGE POPULATION PER CITY	TOTAL ACCIDENTS (1978-1982)	ANNUAL AVERAGE ACCIDENTS PER CITY	ANNUAL ACCIDENTS PER 1,000 POP.
2,500 - 4,999	51	183,948	3,607	40,161	157	43.5
5,000 - 9,999	29	199,481	6,879	47,939	331	48.1
10,000 - 19,999	18	249,218	13,845	68,316	759	54.8
20,000 - 55,000	10	322,152	32,215	107,804	2,156	66.9
55,001 - 200,000	-	-	-	-	-	-
OVER 200,000	2	502,616	251,308	168,093	16,809	66.9

POPULATION CATEGORY	CRITICAL RATE (TOTAL ACCIDENTS PER 1,000) POPULATION	NUMBER OF CITIES AT OR ABOVE CRITICAL RATE (TOTAL ACCIDENTS)	TOTAL FATAL ACCIDENTS (1978-1982)	ANNUAL AVERAGE FATAL ACCIDENTS PER CITY	ANNUAL FATAL ACCIDENTS PER 10,000 POP.
2,500 - 4,999	52.6	13	111	0.4	1.21
5,000 - 9,999	55.0	6	102	0.7	1.02
10,000 - 19,999	59.9	5	116	1.3	0.93
20,000 - 55,000	70.6	2	162	3.2	0.99
55,001 - 200,000	-	0	0	0.0	-
OVER 200,000	68.2	1	397	39.7	1.58

TABLE 11. TOTAL ACCIDENT RATES BY CITY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)

CITY	NUMBER OF ACCIDENTS (1978-1982)	ANNUAL ACCIDENT RATE (ACCIDENTS PER 1000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Louisville	112,333	75.3*
Lexington	55,760	54.6
POPULATION CATEGORY 20,000-55,000		
Bowling Green	16,742	82.8*
Newport	7,787	72.1*
Covington	17,271	70.5
Paducah	10,360	69.6
Henderson	8,461	68.1
Ashland	8,963	66.2
Owensboro	16,832	61.8
Richmond	6,648	61.3
Hopkinsville	7,988	58.5
Frankfort	6,752	52.0
POPULATION CATEGORY 10,000-19,999		
Florence	7,316	93.9*
Shively	5,877	69.9*
Somerset	3,707	69.6*
St. Matthews	4,588	68.7*
Erlanger	4,890	67.8*
Mayfield	3,159	59.0
Elizabethtown	4,501	58.5
Glasgow	3,630	56.0
Winchester	4,142	54.4
Madisonville	4,596	54.1
Danville	3,342	51.6
Murray	3,312	46.5
Radcliff	3,102	42.7
Jeffersontown	3,327	42.1
Nicholasville	2,190	42.1
Georgetown	2,231	40.7
Middlesboro	2,049	33.5
Fort Thomas	2,357	29.4
POPULATION CATEGORY 5,000-9,999		
Maysville	3,322	83.2*
Hazard	2,179	80.3*
Mount Sterling	2,096	72.0*
Shelbyville	1,868	70.4*
Bardstown	2,150	69.9*
Central City	1,481	56.8*
Morehead	2,132	54.7
Campbellsville	2,374	54.5
Harrodsburg	1,973	54.3
Lebanon	1,775	53.9
Monticello	1,502	53.0
Russellville	1,931	51.4
Versailles	1,621	50.4
Corbin	2,245	50.0
Princeton	1,683	47.6
Bellevue	1,774	46.2
Paris	1,814	45.7
Cynthiana	1,330	45.2
Fort Mitchell	1,481	40.6
Williamsburg	1,082	38.9
Franklin	1,493	38.6
Lawrenceburg	996	38.6
Independence	1,502	37.6
Elsmere	1,209	33.6
Edgewood	1,174	32.5
Berea	1,304	31.7
Flatwoods	1,191	28.5
Dayton	859	24.6
Hillview	398	15.3
Pikeville	2,481	104.3*
Paintsville	1,796	94.2*
London	1,846	92.3*
Harlan	1,279	84.6*
Prestonsburg	1,501	74.8*
Fort Wright	1,666	74.4*
Russell	1,308	68.4*
Leitchfield	1,525	67.3*
Shepherdsville	1,426	64.0*
Catlettsburg	951	63.3*
Pineville	800	61.6*
Barbourville	918	56.8*
Carrollton	1,090	55.0*
Benton	969	52.4
Irvine	745	51.6
Morganfield	967	51.2
Grayson	868	50.7
Stanford	688	49.8
Columbia	899	48.5
Highland Heights	1,073	48.4
Southgate	648	45.7
Beaver Dam	718	45.1
Flemingsburg	622	43.9
Fulton	681	43.4
Marion	719	42.4
Springfield	673	42.3
Greenville	909	39.3
Lancaster	645	38.3
LaGrange	544	36.6
Dawson Springs	595	36.3
Alexandria	833	35.2
Providence	751	33.9
Ludlow	826	33.3
Tomkinsville	714	32.7
Scottsville	686	32.1
Olive Hill	398	31.4
Park Hills	496	28.3
Taylor Mill	634	28.1
Lakeside Park	419	27.7
Williamstown	346	27.6
Hickman	397	27.4
Mount Washington	492	24.6
Jackson	319	24.1
Vine Grove	401	22.4
Stanton	289	21.5
Douglas Hills	165	7.5
Hartford	93	7.4
Wilmore	119	6.3
Villa Hills	118	5.4
Jenkins	55	3.4
Cumberland	60	3.2

* CRITICAL ACCIDENT RATE.

TABLE 12. FATAL ACCIDENT RATES BY CITY AND POPULATION CATEGORY (IN DESCENDING ORDER OF DECREASING RATES)

CITY	NUMBER OF FATAL ACCIDENTS (1978-1982)	ANNUAL FATAL ACCIDENT RATE (ACCIDENTS PER 10,000 POP)
POPULATION CATEGORY OVER 200,000		
Louisville	267	1.79
Lexington	130	1.27
POPULATION CATEGORY 20,000-55,000		
Henderson	22	1.77
Paducah	21	1.41
Hopkinsville	19	1.39
Bowling Green	28	1.38
Frankfort	12	0.92
Covington	22	0.90
Richmond	9	0.83
Newport	8	0.74
Ashland	8	0.59
Owensboro	13	0.48
POPULATION CATEGORY 10,000-19,999		
Florence	15	1.92
Radcliff	12	1.65
Elizabethtown	11	1.43
Shively	11	1.31
Murray	8	1.12
Erlanger	8	1.11
Glasgow	7	1.08
Madisonville	8	0.94
Somerset	5	0.94
Middlesboro	5	0.82
St. Matthews	5	0.75
Danville	4	0.62
Winchester	4	0.53
Jeffersontown	4	0.51
Fort Thomas	4	0.50
Nicholasville	2	0.38
Mayfield	2	0.37
Georgetown	1	0.18
POPULATION CATEGORY 5,000-9,999		
Independence	10	2.50
Princeton	7	1.98
Bardstown	6	1.95
Harrodsburg	7	1.93
Central City	5	1.92
Williamsburg	5	1.80
Paris	7	1.76
Russellville	6	1.60
Lawrenceburg	4	1.54
Versailles	4	1.24
Hazard	3	1.11
Monticello	3	1.06
Cynthiana	3	1.02
Campbellsville	4	0.92
Elsmere	3	0.83
Fort Mitchell	3	0.83
Franklin	3	0.78
Morehead	3	0.77
Shelbyville	2	0.75
Mount Sterling	2	0.69
Corbin	3	0.67
Maysville	2	0.50
Berea	2	0.49
Hillview	1	0.38
Lebanon	1	0.30
Dayton	1	0.29
Edgewood	1	0.28
Flatwoods	1	0.24
Bellevue	0	0.00
POPULATION CATEGORY 2,500-4,999		
Russell	7	3.66
Stanford	5	3.62
Springfield	5	3.15
Scottsville	6	2.81
Irvine	4	2.77
Tomkinsville	6	2.75
Pineville	3	2.31
Shepherdsville	5	2.25
Columbia	4	2.16
Pikeville	5	2.10
Harlan	3	1.98
Barbourville	3	1.86
Cumberland	3	1.62
Paintsville	3	1.57
Carrollton	3	1.51
Jackson	2	1.51
London	3	1.50
Mount Washington	3	1.50
Prestonsburg	3	1.50
Providence	3	1.35
Fort Wright	3	1.34
Greenville	3	1.30
Alexandria	3	1.27
Jenkins	2	1.22
Lancaster	2	1.19
Marion	2	1.18
Grayson	2	1.17
Highland Heights	2	0.90
Taylor Mill	2	0.89
Hartford	1	0.80
Flemingsburg	1	0.71
Southgate	1	0.71
Catlettsburg	1	0.67
LaGrange	1	0.67
Lakeside Park	1	0.66
Fulton	1	0.64
Park Hills	1	0.57
Morganfield	1	0.53
Wilmore	1	0.53
Leitchfield	1	0.44
Beaver Dam	0	0.00
Benton	0	0.00
Dawson Springs	0	0.00
Douglas Hills	0	0.00
Hickman	0	0.00
Ludlow	0	0.00
Olive Hill	0	0.00
Stanton	0	0.00
Villa Hills	0	0.00
Vine Grove	0	0.00
Williamstown	0	0.00

ALCOHOL- AND DRUG-RELATED ACCIDENTS

Alcohol- and drug-related accidents continue to be one of the highest priority problem identification areas and considerable emphasis is being placed on programs to impact the problems. Over the past 10 years, the number of highway deaths involving alcohol nationwide has averaged approximately 25,000 per year. Economic losses due to drunk driving are also staggering. A conservative estimate of the total economic cost of drunk driving is between five and six billion dollars per year. In Kentucky, the number of alcohol-related accidents has averaged slightly over 10,000 each of the past five years. Alcohol-related fatal accidents have averaged 193 during the past five years. When the costs of a fatality and an injury are considered, the estimated annual cost of alcohol-related accidents in Kentucky is $86 million.

The effectiveness of alcohol enforcement programs has had varied results over a period of years in various parts of the country. In Kentucky, several enforcement programs are currently in progress and it is too early to determine their effectiveness, except for the Lexington Traffic Alcohol Program. Preliminary results from the program of increased enforcement in Lexington show a significant reduction (29.7 percent) in alcohol-related accidents during the enforcement hours of the program. In addition, the number of DUI arrests increased from 929 in the year before to 4,427 during the first year of the program. Of those arrested, 95 percent have been convicted of DUI. Public acceptance of the program has been very good. Results from a survey of registered vehicle owners show 78 percent felt the program reduced their chances of involvement in an alcohol-related accident and 85 percent favored increased enforcement as a means of reducing drunk driving. Overall, the program has been determined to be one of the most successful of its type ever undertaken. Implementation of enforcement programs similar to the Lexington project could have major impact on the drunk-driving accident problem.

To identify alcohol-related accident problem areas, percentages of accidents involving alcohol were summarized for counties and cities as shown in Tables 13 and 14, respectively. In Table 13, number and percentage of accidents involving alcohol were listed by county population group in order of descending percentages. Counties in each population category having the highest percentage of accidents involving alcohol are Menifee, Bath, Meade, Nelson, and Madison. Table 14 is a summary of number and percentage of accidents involving alcohol for cities. For each population category, cities having the highest percentages of accidents involving alcohol are Lexington, Covington, Fort Thomas, Dayton, and Vine Grove.

Additional analyses were performed to show number and rate of convictions by county (Table 15). Rates are in terms of convictions per 1,000 licensed drivers and convictions per alcohol-related accident. Those same rates are presented in Table 16 with counties grouped by population ranges and rates listed in order of descending percentages. Counties in each population group having the lowest rates of alcohol convictions per 1,000 licensed drivers were Owen, Magoffin, Knott, Graves, and Pike. Counties having the lowest rates of alcohol convictions per alcohol-related accident were Trimble, Magoffin, Knott, Perry, and Pike. Counties having low rates for either convictions per 1,000 licensed driver or convictions per alcohol-related accident may be candidates for increased enforcement or other special programs. Data in Table 15 show there was a 31.2 percent increase, statewide, in the number of alcohol convictions in 1982 when compared to 1981. The largest increase occurred in Fayette County, apparently as a result of the Traffic Alcohol Program, which was started in May 1982.

In many cases, it has been determined that a drunk-driving offense may be reduced to a charge of reckless driving. That occurs when a person is arrested for drunk driving because of erratic driving behavior and field sobriety or BAC tests fail to confirm the drunk-driving charge. In addition, the severity of the penalty

for drunk driving has influenced many police officers to reduce the drunk-driving charge to reckless driving. Similarly, the judicial system has been at fault in many cases. For these reasons, it was determined that a summary of reckless driving convictions would be beneficial. Presented in Table 17 are numbers of reckless driving convictions and the rate of convictions per 1,000 licensed drivers for each county. Data in Table 17 show there was a 24.4 percent reduction in reckless driving convictions when 1982 data were compared with data of the previous 4 years.

Even though drugs were listed as a contributing factor in a relatively small percentage of all accidents, there has been a general upward trend in those types of accidents during the 1978-1982 study period. Presented in Table 18 are percentages of accidents involving drugs by county and population category. Within each population category, counties having the highest percentages of drug-related accidents were Lee, Martin, Rowan, Boone, and Kenton. Another summary was prepared to show percentages of accidents involving drugs by city population categories (Table 19). Within each population category, cities having the highest percentages of drug-related accidents were Lexington, Covington, Georgetown, Independence, and Beaver Dam.

TABLE 13. ACCIDENTS INVOLVING ALCOHOL BY COUNTY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)

COUNTY	NUMBER OF ALCOHOL-RELATED ACCIDENTS (1978-1982)	PERCENTAGE OF ACCIDENTS INVOLVING ALCOHOL
POPULATION CATEGORY UNDER 10,000		
Menifee	59	13.8
Gallatin	124	13.2
Spencer	73	11.3
Elliott	60	11.1
Hickman	79	11.0
Trimble	61	10.6
Livingston	108	10.2
Wolfe	69	9.6
Carlisle	50	9.5
Metcalfe	66	9.2
Carroll	209	8.8
Lee	43	8.6
Bracken	45	8.4
Fulton	114	8.4
Nicholas	35	8.3
Ballard	92	7.9
Cumberland	48	7.8
Edmonson	78	7.8
Clinton	59	7.6
Robertson	9	7.6
Lyon	56	7.5
Crittendon	78	6.4
Hancock	49	6.3
Owsley	26	6.2
Trigg	89	5.5
Owen	39	4.5
POPULATION CATEGORY 10,000-14,999		
Bath	108	13.4
Russell	135	13.0
Magoffin	168	12.8
Henry	196	11.8
Leslie	128	11.6
Martin	80	10.4
Monroe	113	10.3
Morgan	136	10.1
Todd	101	9.8
Grant	240	9.5
Casey	97	9.4
Jackson	79	9.2
Powell	100	9.2
McLean	87	8.7
Rockcastle	143	8.3
Larue	128	8.2
Webster	177	8.2
Anderson	162	8.0
Lawrence	131	8.0
Lewis	116	7.7
Pendleton	91	7.5
Estill	102	7.1
Garrard	108	6.9
Fleming	92	6.3
Allen	89	6.0
Butler	73	6.0
Caldwell	140	6.0
Green	77	6.0
Washington	78	5.7
Simpson	106	4.5
POPULATION CATEGORY 15,000-24,999		
Meade	420	15.2
Marion	373	11.9
Adair	199	11.8
Knott	176	11.2
Union	313	11.0
Bourbon	384	10.5
Hart	186	10.5
McCreary	117	9.8
Woodford	327	9.6
Breathitt	159	9.4
Shelby	406	9.2
Clay	200	8.4
Rowan	323	8.4
Johnson	265	7.9
Harrison	184	7.8
Mercer	243	7.8
Montgomery	263	7.6
Scott	322	7.5
Logan	254	7.0
Lincoln	131	6.9
Ohio	169	6.8
Grayson	198	6.4
Taylor	216	6.4
Breckenridge	124	6.3
Mason	303	6.3
Wayne	113	5.6
POPULATION CATEGORY 25,000-50,000		
Nelson	470	10.5
Harlan	550	10.2
Oldham	317	10.0
Boone	1196	9.1
Carter	251	9.0
Letcher	199	8.9
Bullitt	445	8.3
Perry	460	8.3
Muhlenberg	411	8.2
Marshall	277	8.0
Clark	501	7.9
Knox	253	7.9
Floyd	443	7.7
Franklin	694	7.4
Henderson	815	7.4
Laurel	461	7.4
Hopkins	640	7.2
Bell	311	7.0
Calloway	324	6.8
Jessamine	276	6.6
Greenup	292	6.3
Graves	330	6.2
Barren	356	6.0
Whitley	263	5.6
Pulaski	328	5.0
Boyle	240	4.8
POPULATION CATEGORY OVER 50,000		
Madison	1105	9.5
McCracken	1340	9.1
Kenton	3129	8.9
Christian	945	8.8
Hardin	1046	8.6
Fayette	4745	8.3
Pike	835	7.8
Warren	1570	7.7
Daviess	1540	7.1
Campbell	1230	6.5
Jefferson	9979	6.0
Boyd	693	5.3

TABLE 14. ACCIDENTS INVOLVING ALCOHOL BY CITY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES)

CITIES	NUMBER OF ALCOHOL-RELATED ACCIDENTS (1978-1982)	PERCENTAGE OF ACCIDENTS INVOLVING ALCOHOL
POPULATION CATEGORY OVER 200,000		
Lexington	4604	8.3
Louisville	5617	5.0
POPULATION CATEGORY 20,000 - 55,000		
Covington	1601	9.3
Paducah	864	8.3
Richmond	501	7.5
Bowling Green	1187	7.1
Henderson	522	6.2
Hopkinsville	483	6.0
Owensboro	995	5.9
Frankfort	367	5.4
Newport	364	4.7
Ashland	368	4.1
POPULATION CATEGORY 10,000 - 19,999		
Fort Thomas	206	8.7
Radcliff	255	8.2
Shively	448	7.6
Jeffersontown	248	7.5
Erlanger	354	7.2
Winchester	242	5.8
Florence	418	5.7
Elizabethtown	230	5.1
Nicholasville	107	4.9
Madisonville	221	4.8
Murray	151	4.6
Georgetown	102	4.6
Middlesboro	86	4.2
Glasgow	132	3.6
St. Matthews	158	3.4
Somerset	127	3.4
Danville	96	2.9
Mayfield	84	2.7
POPULATION CATEGORY 5,000 - 9,999		
Dayton	96	11.2
Independence	160	10.7
Fort Mitchell	122	8.2
Paris	145	8.0
Lebanon	128	7.2
Versailles	115	7.1
Mount Sterling	146	7.0
Edgewood	81	6.9
Bardstown	149	6.9
Elsmere	80	6.6
Central City	88	5.9
Maysville	187	5.6
Bellevue	95	5.4
Princeton	89	5.3
Russellville	101	5.2
Hazard	114	5.2
Cynthiana	68	5.1
Lawrenceburg	49	4.9
Williamsburg	53	4.9
Berea	62	4.8
Monticello	70	4.7
Shelbyville	86	4.6
Corbin	101	4.5
Harrodsburg	89	4.5
Morehead	97	4.5
Flatwoods	50	4.2
Campbellsville	95	4.0
Franklin	57	3.8
Hillview	12	3.0
Vine Grove	49	12.2
Jenkins	6	10.9
Cumberland	6	10.0
Ludlow	80	9.7
Southgate	56	8.6
Fort Wright	142	8.5
Villa Hills	10	8.5
Taylor Mill	51	8.0
Lakeside Park	32	7.6
Stanton	22	7.6
Carrollton	81	7.4
Catlettsburg	69	7.3
Morganfield	71	7.3
Shepherdsville	100	7.0
Fulton	47	6.9
Park Hills	34	6.9
Douglas Hills	11	6.7
Williamstown	22	6.4
LaGrange	33	6.1
Hickman	24	6.0
Columbia	53	5.9
Jackson	18	5.6
Olive Hill	22	5.5
Grayson	47	5.4
Dawson Springs	30	5.0
Tomkinsville	36	5.0
Alexandria	41	4.9
Mount Washington	24	4.9
Pikeville	116	4.7
Beaver Dam	33	4.6
Harlan	59	4.6
Stanford	29	4.2
Russell	53	4.1
Barbourville	36	3.9
Flemingsburg	24	3.9
Pineville	30	3.8
Scottsville	26	3.8
Springfield	25	3.7
Leitchfield	54	3.5
Wilmore	4	3.4
Paintsville	60	3.3
Marion	22	3.1
London	55	3.0
Benton	28	2.9
Lancaster	19	2.9
Irvine	20	2.7
Providence	20	2.7
Prestonsburg	37	2.5
Highland Heights	26	2.4
Greenville	32	1.3
Hartford	1	1.1

TABLE 15. SUMMARY OF ALCOHOL CONVICTIONS BY COUNTY (1981 - 1982 DATA)

COUNTY	ALCOHOL CONVICTIONS 1981	ALCOHOL CONVICTIONS 1982	1982 PERCENT CHANGE	ANNUAL AVERAGE ALCOHOL CONVICTIONS PER 1,000 LICENSED DRIVERS	ALCOHOL CONVICTIONS PER ALCOHOL-RELATED ACCIDENT
Adair	171	200	17.0	21.4	3.8
Allen	19	23	21.0	2.5	1.7
Anderson	89	83	6.7	10.3	2.4
Ballard	23	31	34.8	4.4	1.9
Barren	309	292	-5.5	14.2	4.4
Bath	25	16	-36.0	3.5	1.1
Bell	352	480	36.4	23.8	7.1
Boone	346	343	-0.9	11.0	1.4
Bourbon	180	254	41.1	18.1	3.1
Boyd	262	266	1.5	7.6	1.8
Boyle	217	156	-28.1	11.8	4.3
Bracken	28	52	85.7	8.7	4.4
Breathitt	30	33	10.0	3.9	1.0
Breckenridge	72	48	-33.3	5.9	2.4
Bullitt	178	389	118.5	10.8	3.1
Butler	53	52	-1.9	8.2	4.2
Caldwell	114	118	3.5	12.8	4.8
Calloway	88	108	22.7	5.3	1.7
Campbell	544	505	-7.2	10.4	2.2
Carlisle	14	18	28.6	4.2	1.9
Carroll	82	109	32.9	16.2	2.3
Carter	155	240	54.8	14.5	4.0
Casey	65	103	58.5	9.8	5.1
Christian	342	406	18.7	12.4	1.9
Clark	374	415	11.0	21.8	3.8
Clay	24	55	129.2	3.8	0.8
Clinton	59	70	18.6	11.8	5.9
Crittendon	68	47	-30.9	9.3	3.1
Cumberland	25	58	92.0	9.9	4.6
Daviess	542	930	71.6	12.8	2.4
Edmonson	34	34	0.0	5.4	2.5
Elliott	44	31	-29.6	10.6	3.1
Estill	33	13	-60.6	2.7	1.1
Fayette	733	2,570	250.6	12.6	1.7
Fleming	44	55	25.0	6.7	3.5
Floyd	367	231	9.8	12.6	3.4
Franklin	440	523	18.9	9.5	3.2
Fulton	84	91	8.3	15.7	1.0
Gallatin	28	40	42.9	11.2	1.4
Garrard	34	73	114.7	7.7	2.5
Grant	109	167	53.2	15.5	2.7
Graves	55	95	72.7	3.3	1.1
Grayson	111	115	3.5	9.1	3.2
Green	15	10	-33.3	1.9	0.7
Greenup	156	150	-3.9	6.3	2.9
Hancock	28	46	64.3	7.0	3.4
Hardin	294	289	-1.7	6.9	1.3
Harlan	87	197	126.4	6.4	1.2
Harrison	50	81	62.0	6.5	1.6
Hart	63	109	73.0	9.0	2.5
Henderson	301	343	14.0	11.5	2.0
Henry	33	61	84.9	5.7	1.1
Hickman	22	24	9.1	5.6	1.2
Hopkins	326	343	5.2	11.3	2.5
Jackson	33	41	24.2	6.2	2.4
Jefferson	2,570	2,968	15.5	6.2	1.3
Jessamine	144	242	68.1	12.3	3.4
Johnson	203	240	18.2	16.2	4.4
Kenton	1,006	1,138	3.2	12.7	1.7
Knott	15	28	86.7	2.4	0.7

TABLE 15. SUMMARY OF ALCOHOL CONVICTIONS BY COUNTY (1981 - 1982 DATA) (CONTINUED)

COUNTY	ALCOHOL CONVICTIONS 1981	ALCOHOL CONVICTIONS 1982	1982 PERCENT CHANGE	ANNUAL AVERAGE ALCOHOL CONVICTIONS PER 1,000 LICENSED DRIVERS	ALCOHOL CONVICTIONS PER ALCOHOL-RELATED ACCIDENT
Knox	124	153	23.4	8.9	1.9
Larue	43	121	181.4	10.4	2.7
Laurel	282	318	12.8	13.3	2.9
Lawrence	91	105	15.4	13.4	4.9
Lee	33	19	-42.4	6.4	3.7
Leslie	26	48	84.6	5.3	1.3
Letcher	162	165	1.9	10.2	3.1
Lewis	16	45	181.3	3.9	1.1
Lincoln	85	98	15.3	8.5	3.6
Livingston	45	56	24.4	8.3	2.6
Logan	92	144	56.5	7.8	2.5
Lyon	20	24	20.0	5.7	1.8
McCracken	518	664	28.2	13.5	2.0
McCreary	92	91	-1.1	11.8	4.7
McLean	34	33	-2.9	4.8	1.6
Madison	559	712	27.4	22.1	2.5
Magoffin	6	15	150.0	1.6	0.3
Marion	51	68	33.3	5.6	0.9
Marshall	123	162	31.7	7.8	2.9
Martin	41	137	234.2	12.6	5.6
Mason	105	104	-1.0	9.6	1.6
Meade	102	225	120.6	15.7	1.8
Menifee	12	8	-33.3	3.3	1.1
Mercer	99	102	4.0	8.2	2.0
Metcalfe	49	54	10.2	9.4	5.7
Monroe	37	34	-2.7	4.9	2.1
Montgomery	130	243	86.9	15.8	3.1
Morgan	62	76	22.6	11.2	2.5
Muhlenberg	119	144	21.0	6.5	1.5
Nelson	116	336	17.2	13.0	2.2
Nicholas	21	47	123.8	7.9	4.5
Ohio	78	93	19.2	6.3	2.8
Oldham	132	146	10.6	8.6	2.0
Owen	5	15	200.0	2.0	1.3
Owlsey	48	32	-33.3	14.0	6.7
Pendleton	7	64	814.3	5.2	1.9
Perry	47	122	159.6	5.0	1.0
Pike	231	232	0.4	5.6	1.3
Powell	84	87	3.6	13.5	4.6
Pulaski	362	301	-16.9	12.1	4.9
Robertson	9	5	-44.4	4.9	4.7
Rockcastle	98	101	3.1	11.0	3.2
Rowan	101	94	-6.9	9.9	1.6
Russell	71	95	33.8	9.8	3.0
Scott	243	211	-13.2	16.6	3.5
Shelby	248	250	0.8	16.7	2.8
Simpson	37	40	8.1	4.0	1.7
Spencer	23	24	4.3	5.8	1.6
Taylor	67	76	13.4	5.4	1.4
Todd	12	21	75.0	2.5	0.8
Trigg	36	71	97.2	8.0	3.2
Trimble	8	11	37.5	2.5	0.8
Union	67	153	128.4	9.3	1.8
Warren	375	608	62.1	10.9	1.7
Washington	17	24	41.2	3.1	1.2
Wayne	24	83	245.8	5.7	2.3
Webster	51	47	-7.8	5.0	1.6
Whitley	211	218	3.3	12.3	4.3
Wolfe	17	13	-23.5	4.2	1.5
Woodford	154	202	31.2	14.9	2.2
TOTAL	18,470	24,238	31.2	9.6	2.0

TABLE 16. ALCOHOL CONVICTION RATES IN DECREASING ORDER (BY COUNTY POPULATION CATEGORIES)(1981 - 1982 DATA)

POPULATION CATEGORY	COUNTIES	ANNUAL AVERAGE ALCOHOL CONVICTIONS PER 1,000 LICENSED DRIVERS	COUNTIES	ALCOHOL CONVICTIONS PER ALCOHOL-RELATED ACCIDENT
UNDER 10,000	Carroll	16.2	Owsley	6.7
	Fulton	15.7	Clinton	5.9
	Owsley	14.0	Metcalfe	5.7
	Clinton	11.8	Robertson	4.7
	Gallatin	11.2	Cumberland	4.6
	Elliott	10.6	Nicholas	4.5
	Cumberland	9.9	Bracken	4.4
	Metcalfe	9.4	Lee	3.7
	Crittendon	9.3	Hancock	3.4
	Bracken	8.7	Trigg	3.2
	Livingston	8.3	Crittendon	3.1
	Trigg	8.0	Elliott	3.1
	Nicholas	7.9	Livingston	2.6
	Hancock	7.0	Edmonson	2.5
	Lee	6.4	Carroll	2.3
	Spencer	5.8	Ballard	1.9
	Lyon	5.7	Carlisle	1.9
	Hickman	5.6	Lyon	1.8
	Edmonson	5.4	Spencer	1.6
	Robertson	4.9	Wolfe	1.5
	Ballard	4.4	Gallatin	1.4
	Carlisle	4.2	Owen	1.3
	Wolfe	4.2	Hickman	1.2
	Menifee	3.3	Menifee	1.1
	Trimble	2.5	Fulton	1.0
	Owen	2.0	Trimble	0.8
10,000-14,999	Grant	15.5	Martin	5.6
	Powell	13.5	Casey	5.1
	Lawrence	13.4	Lawrence	4.9
	Caldwell	12.8	Caldwell	4.8
	Martin	12.6	Powell	4.6
	Morgan	11.2	Butler	4.2
	Rockcastle	11.0	Fleming	3.5
	Larue	10.4	Rockcastle	3.2
	Anderson	10.3	Russell	3.0
	Casey	9.8	Grant	2.7
	Russell	9.8	Larue	2.7
	Butler	8.2	Garrard	2.5
	Garrard	7.7	Morgan	2.5
	Fleming	6.7	Anderson	2.4
	Jackson	6.2	Jackson	2.4
	Henry	5.7	Monroe	2.1
	Leslie	5.3	Pendleton	1.9
	Pendleton	5.2	Allen	1.7
	Webster	5.0	Simpson	1.7
	Monroe	4.9	McLean	1.6
	McLean	4.8	Webster	1.6
	Simpson	4.0	Leslie	1.3
	Lewis	3.9	Washington	1.2
	Bath	3.5	Bath	1.1
	Washington	3.1	Estill	1.1
	Estill	2.7	Henry	1.1
	Allen	2.5	Lewis	1.1
	Todd	2.5	Todd	0.8
	Green	1.9	Green	0.7
	Magoffin	1.6	Magoffin	0.3

TABLE 16. ALCOHOL CONVICTION RATES IN DECREASING ORDER (BY COUNTY POPULATION CATEGORIES) (1981 - 82 DATA)
(CONTINUED)

POPULATION CATEGORY	COUNTIES	ANNUAL AVERAGE ALCOHOL CONVICTIONS PER 1,000 LICENSED DRIVERS	COUNTIES	ALCOHOL CONVICTIONS PER ALCOHOL-RELATED ACCIDENT
15,000-24,999	Adair	21.4	McCreary	4.7
	Bourbon	18.1	Johnson	4.4
	Shelby	16.7	Adair	3.8
	Scott	16.6	Lincoln	3.6
	Johnson	16.2	Scott	3.5
	Montgomery	15.8	Grayson	3.2
	Meade	15.7	Bourbon	3.1
	Woodford	14.9	Montgomery	3.1
	McCreary	11.8	Ohio	2.8
	Rowan	9.9	Shelby	2.8
	Mason	9.6	Hart	2.5
	Union	9.3	Logan	2.5
	Grayson	9.1	Breckenridge	2.4
	Hart	9.0	Wayne	2.3
	Lincoln	8.5	Woodford	2.2
	Mercer	8.2	Mercer	2.0
	Logan	7.8	Meade	1.8
	Harrison	6.5	Union	1.8
	Ohio	6.3	Harrison	1.6
	Breckenridge	5.9	Mason	1.6
	Wayne	5.7	Rowan	1.6
	Marion	5.6	Taylor	1.4
	Taylor	5.4	Breathitt	1.0
	Breathitt	3.9	Marion	1.6
	Clay	3.8	Clay	0.8
	Knott	2.4	Knott	0.7
25,000-50,000	Bell	23.8	Bell	7.1
	Clark	21.8	Pulaski	4.9
	Carter	14.5	Barren	4.4
	Barren	14.2	Boyle	4.3
	Laurel	13.3	Whitley	4.3
	Nelson	13.0	Carter	4.0
	Floyd	12.6	Clark	3.8
	Jessamine	12.3	Floyd	3.4
	Whitley	12.3	Jessamine	3.4
	Pulaski	12.1	Franklin	3.2
	Boyle	11.8	Bullitt	3.1
	Henderson	11.5	Letcher	3.1
	Hopkins	11.3	Greenup	2.9
	Boone	11.0	Laurel	2.9
	Bullitt	10.8	Marshall	2.9
	Letcher	10.4	Hopkins	2.5
	Franklin	9.5	Nelson	2.2
	Knox	8.9	Henderson	2.0
	Oldham	8.6	Oldham	2.0
	Marshall	7.8	Knox	1.9
	Muhlenberg	6.5	Calloway	1.7
	Harlan	6.4	Muhlenburg	1.0
	Greenup	6.3	Boone	1.4
	Calloway	5.3	Harlan	1.2
	Perry	5.0	Graves	1.1
	Graves	3.3	Perry	1.0
OVER 50,000	Madison	22.1	Madison	2.5
	McCracken	13.5	Daviess	2.4
	Daviess	12.8	Campbell	2.2
	Kenton	12.7	McCracken	2.0
	Fayette	12.6	Christian	1.9
	Christian	12.4	Boyd	1.8
	Warren	10.9	Fayette	1.7
	Campbell	10.4	Kenton	1.7
	Boyd	7.6	Warren	1.7
	Hardin	6.9	Hardin	1.3
	Jefferson	6.2	Jefferson	1.3
	Pike	5.6	Pike	1.3

TABLE 17. SUMMARY OF RECKLESS DRIVING CONVICTIONS BY COUNTY

COUNTY	ANNUAL AVERAGE RECKLESS DRIVING CONVICTIONS 1978-81	RECKLESS DRIVING CONVICTIONS 1982	1982 PERCENT CHANGE	ANNUAL AVERAGE RECKLESS DRIVING CONVICTIONS PER 1,000 LICENSED DRIVERS
Adair	47	52	+10.6	5.5
Allen	25	19	-24.0	2.8
Anderson	51	24	-52.9	5.4
Ballard	29	15	-48.3	4.2
Barren	114	99	-13.1	5.2
Bath	52	22	-57.6	7.8
Bell	56	56	0.0	3.2
Boone	185	202	+9.2	6.0
Bourbon	92	82	-10.9	7.5
Boyd	143	113	-21.0	3.9
Boyle	70	43	-38.5	4.1
Bracken	34	46	+35.3	7.9
Breathitt	27	26	-3.7	3.3
Breckinridge	56	31	-44.6	5.0
Bullitt	148	128	-13.5	5.5
Butler	60	35	-41.7	8.6
Caldwell	43	49	+13.9	4.8
Calloway	140	62	-55.7	6.7
Campbell	330	223	-32.4	16.6
Carlisle	16	13	-18.7	4.0
Carroll	28	22	-21.4	4.5
Carter	59	30	-49.1	3.9
Casey	48	43	-10.4	5.5
Christian	210	183	-12.8	6.8
Clark	108	89	-17.6	5.7
Clay	84	42	-50.0	7.2
Clinton	31	21	-32.2	5.3
Crittenden	35	26	-25.7	5.3
Cumberland	32	17	-48.9	6.9
Daviess	262	261	-0.4	4.5
Edmonson	29	23	-20.7	4.4
Elliott	21	15	-28.6	5.6
Estill	41	13	-68.3	4.2
Fayette	871	834	-4.2	6.6
Fleming	47	68	+44.7	7.0
Floyd	68	50	-26.5	2.7
Franklin	194	126	-35.0	6.5
Fulton	22	18	-18.2	3.8
Gallatin	11	13	+18.2	3.6
Garrard	33	33	0.0	4.7
Grant	47	37	-21.3	5.0
Graves	167	148	-11.4	7.2
Grayson	87	41	-52.9	6.2
Green	47	71	+51.1	7.6
Greenup	131	84	-35.9	5.0
Hancock	18	18	0.0	3.4
Hardin	176	122	-30.7	3.9
Harlan	130	102	-21.5	5.6
Harrison	47	40	-14.9	4.5
Hart	42	21	-50.0	3.9
Henderson	175	89	-49.1	5.6
Henry	35	41	+17.1	4.3
Hickman	16	18	+12.5	3.9
Hopkins	171	122	-28.6	5.4
Jackson	51	31	-39.2	7.7
Jefferson	3,831	2,563	-33.1	8.0
Jessamine	78	70	-10.2	4.8
Johnson	71	73	+2.8	5.2
Kenton	558	495	-11.3	6.5
Knott	22	16	-27.3	2.3

TABLE 17. SUMMARY OF RECKLESS DRIVING CONVICTIONS BY COUNTY (CONTINUED)

COUNTY	ANNUAL AVERAGE RECKLESS DRIVING CONVICTIONS 1978-81	RECKLESS DRIVING CONVICTIONS 1982	1982 PERCENT CHANGE	ANNUAL AVERAGE RECKLESS DRIVING CONVICTIONS PER 1,000 LICENSED DRIVERS
Knox	70	37	-47.1	4.1
Larue	29	23	-20.7	3.5
Laurel	88	57	-35.2	3.6
Lawrence	44	49	+11.4	6.2
Lee	18	17	-5.6	4.3
Leslie	41	33	-19.5	5.3
Letcher	68	62	-8.8	4.1
Lewis	40	35	-12.5	4.9
Lincoln	51	31	-39.2	4.4
Livingston	46	20	-56.5	6.6
Logan	162	79	-51.2	9.6
Lyon	33	17	-48.5	7.6
McCracken	227	175	-22.9	4.9
McCreary	34	27	-20.6	4.1
McLean	27	28	+3.7	3.9
Madison	159	148	-6.9	5.4
Magoffin	59	17	-71.2	7.6
Marion	109	113	+3.7	10.4
Marshall	129	54	-58.1	6.2
Martin	50	123	+146.0	9.1
Mason	68	46	-32.3	5.9
Meade	51	28	-45.1	4.4
Menifee	23	12	-47.8	6.6
Mercer	59	48	-18.6	4.6
Metcalfe	27	19	-29.6	4.6
Monroe	47	15	-68.1	5.6
Montgomery	112	55	-50.9	8.6
Morgan	37	24	-35.1	5.5
Muhlenburg	99	53	-46.5	4.4
Nelson	102	66	-35.3	5.4
Nicholas	25	26	+4.0	5.7
Ohio	64	55	-14.1	4.5
Oldham	54	43	-20.3	3.2
Owen	22	22	0.0	4.3
Owsley	15	8	-46.7	4.7
Pendleton	57	48	-15.8	8.0
Perry	84	50	-40.5	4.6
Pike	227	153	-32.6	5.1
Powell	39	40	+2.6	6.1
Pulaski	128	79	-38.3	4.3
Robertson	7	7	0.0	4.9
Rockcastle	42	47	+11.9	4.8
Rowan	50	29	-42.0	4.6
Russell	34	69	+102.9	4.8
Scott	105	74	-29.5	7.2
Shelby	93	83	-10.7	6.1
Simpson	43	28	-34.9	4.2
Spencer	26	19	-26.9	5.9
Taylor	124	156	+25.8	9.8
Todd	67	30	-55.2	8.7
Trigg	28	19	-32.1	3.9
Trimble	8	5	-37.5	1.9
Union	69	49	-29.0	5.5
Warren	377	200	-46.9	7.6
Washington	55	59	+7.3	8.3
Wayne	46	45	-2.2	4.8
Webster	57	29	-49.1	5.3
Whitley	45	58	+28.9	2.7
Wolfe	22	13	-40.9	5.6
Woodford	65	91	+40.0	5.9
Total	14,039	10,614	-24.4	6.0

TABLE 18. PERCENTAGE OF ACCIDENTS INVOLVING DRUGS BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DESCENDING PERCENTAGES)

COUNTY	NUMBER OF DRUG-RELATED ACCIDENTS (1978-1982)	PERCENTAGE OF ACCIDENTS INVOLVING DRUGS
POPULATION CATEGORY UNDER 10,000		
Lee	6	1.2
Carlisle	6	1.1
Spencer	6	0.9
Cumberland	5	0.8
Livingston	8	0.8
Gallatin	7	0.7
Hickman	5	0.7
Nicholas	3	0.7
Bracken	3	0.6
Clinton	4	0.5
Owen	4	0.5
Elliott	2	0.4
Fulton	6	0.4
Trigg	6	0.4
Ballard	4	0.3
Carroll	8	0.3
Edmonson	3	0.3
Metcalfe	2	0.3
Wolfe	2	0.3
Crittenden	3	0.2
Hancock	2	0.2
Trimble	1	0.2
Lyon	0	0.0
Menifee	0	0.0
Owsley	0	0.0
Robertson	0	0.0
POPULATION CATEGORY 10,000-14,999		
Martin	8	1.0
Todd	7	0.7
Magoffin	9	0.6
Caldwell	11	0.5
Grant	13	0.5
Monroe	6	0.5
Bath	3	0.4
Henry	7	0.4
Lawrence	7	0.4
Rockcastle	7	0.4
Allen	4	0.3
Casey	3	0.3
Estill	4	0.3
Jackson	3	0.3
Powell	3	0.3
Washington	4	0.3
Webster	6	0.3
Anderson	4	0.2
Fleming	3	0.2
McLean	2	0.2
Pendleton	2	0.2
Russell	2	0.2
Simpson	4	0.2
Butler	1	0.1
Green	1	0.1
Larue	1	0.1
Leslie	1	0.1
Lewis	1	0.1
Morgan	2	0.1
Garrard	0	0.0
POPULATION CATEGORY 15,000-24,999		
Rowan	28	0.7
Bourbon	18	0.5
Marion	15	0.5
Scott	22	0.5
Shelby	24	0.5
Johnson	12	0.4
Logan	13	0.4
Meade	10	0.4
Union	12	0.4
Wayne	9	0.4
Adair	5	0.3
Breathitt	5	0.3
Knott	5	0.3
Mason	16	0.3
Mercer	8	0.3
Taylor	9	0.3
Clay	4	0.2
Grayson	7	0.2
Hart	5	0.2
Montgomery	8	0.2
Ohio	5	0.2
Woodford	7	0.2
Breckenridge	1	0.1
Harrison	3	0.1
McCreary	1	0.1
Lincoln	0	0.0
POPULATION CATEGORY 25,000-50,000		
Boone	90	0.7
Marshall	23	0.7
Calloway	30	0.6
Harlan	31	0.6
Oldham	20	0.6
Clark	32	0.5
Knox	15	0.5
Perry	27	0.5
Bullitt	22	0.4
Pulaski	25	0.4
Whitley	17	0.4
Bell	13	0.3
Boyle	13	0.3
Graves	15	0.3
Greenup	15	0.3
Laurel	20	0.3
Letcher	6	0.3
Muhlenburg	16	0.3
Nelson	12	0.3
Barren	13	0.2
Carter	6	0.2
Franklin	23	0.2
Henderson	27	0.2
Hopkins	22	0.2
Jessamine	9	0.2
Floyd	8	0.1
POPULATION CATEGORY OVER-50,000		
Kenton	268	0.8
McCracken	89	0.6
Warren	105	0.5
Boyd	55	0.4
Campbell	71	0.4
Daviess	96	0.4
Fayette	232	0.4
Madison	43	0.4
Christian	21	0.2
Hardin	22	0.2
Jefferson	333	0.2
Pike	17	0.2

TABLE 19. PERCENTAGE OF ACCIDENTS INVOLVING DRUGS BY CITY POPULATION CATEGORY (LISTED IN ORDER OF DESCENDING PERCENTAGES)

CITY	NUMBER OF ACCIDENTS INVOLVING DRUGS	PERCENT OF ACCIDENTS INVOLVING DRUGS
POPULATION CATEGORY OVER 200,000		
Lexington	224	0.40
Louisville	175	0.16
POPULATION CATEGORY 20,000 - 100,000		
Covington	155	0.90
Paducah	69	0.67
Bowling Green	90	0.54
Owensboro	83	0.49
Ashland	37	0.41
Richmond	24	0.36
Henderson	23	0.27
Newport	21	0.27
Hopkinsville	15	0.19
Frankfort	11	0.16
POPULATION CATEGORY 10,000 - 19,999		
Georgetown	16	0.72
Florence	48	0.66
Murray	18	0.54
Fort Thomas	12	0.51
Erlanger	24	0.49
Jeffersontown	15	0.45
Somerset	16	0.43
Winchester	16	0.39
Middlesboro	6	0.29
Glasgow	9	0.25
Mayfield	8	0.25
Nicholasville	5	0.23
St. Matthews	10	0.22
Madisonville	9	0.20
Shively	11	0.19
Radcliff	4	0.13
Danville	4	0.12
Elizabethtown	2	0.04
POPULATION CATEGORY 5,000 - 9,999		
Independence	20	1.33
Berea	1	0.77
Morehead	16	0.75
Shelbyville	13	0.70
Princeton	10	0.59
Dayton	5	0.58
Elsmere	7	0.58
Bellevue	10	0.56
Central City	8	0.54
Monticello	8	0.53
Edgewood	6	0.51
Paris	9	0.50
Corbin	11	0.49
Fort Mitchell	7	0.47
Hazard	10	0.46
Maysville	14	0.42
Lebanon	7	0.39
Russellville	7	0.36
Flatwoods	4	0.34
Campbellsville	8	0.33
Bardstown	6	0.28
Williamsburg	3	0.28
Franklin	3	0.20
Mount Sterling	4	0.19
Cynthiana	2	0.15
Harrodsburg	2	0.10
Lawrenceburg	1	0.10
Versailles	1	0.06
Hillview	0	0.00
POPULATION CATEGORY 2,500 - 4,999		
Beaver Dam	1	1.81
Cumberland	1	1.67
Hartford	1	1.08
Ludlow	7	0.85
Harlan	10	0.78
Vine Grove	3	0.75
Tomkinsville	5	0.70
Jackson	2	0.63
Morganfield	6	0.62
Mount Washington	3	0.61
Williamstown	2	0.58
Barbourville	5	0.54
Fort Wright	9	0.54
Hickman	2	0.50
Catlettsburg	4	0.42
Park Hills	2	0.40
London	7	0.38
Leitchfield	5	0.33
Paintsville	6	0.33
Flemingsburg	2	0.32
Taylor Mill	2	0.31
Fulton	2	0.30
Highland Heights	3	0.28
Alexandria	2	0.24
Lakeside Park	1	0.24
Russell	3	0.23
Columbia	2	0.22
Shepherdsville	3	0.21
Prestonsburg	3	0.20
Jenkins	1	0.17
Pikeville	4	0.16
Southgate	1	0.15
Marion	1	0.14
Scottsville	1	0.14
Springfield	1	0.14
Irvine	1	0.13
Providence	1	0.13
Grayson	1	0.12
Pineville	1	0.12
Benton	1	0.10
Dawson Springs	0	0.00
Douglas Hills	0	0.00
Greenville	0	0.00
LaGrange	0	0.00
Lancaster	0	0.00
Olive Hill	0	0.00
Stanford	0	0.00
Stanton	0	0.00
Villa Hills	0	0.00
Wilmore	0	0.00

OCCUPANT PROTECTION

The percentage of drivers or passengers involved in traffic accidents who wore safety belts is listed by county in Table 7. Drivers of passenger cars were used in the analysis so comparisons could be made to observational surveys being conducted across the state. These percentages are listed in descending order by county population category in Table 20. The rates varied from a high of 9.1 percent in Fayette County to a low of 0.5 percent in Estill and Adair counties. Counties having the greatest potential for intensive promotion campaigns are identified. Those counties were selected on the basis of their safety belt usage, accident rate, and location in the state. Counties having low usage rates and high accident rates were identified. Also, an effort was made to select counties so they would be distributed in the various state police posts across the state. A total of 26 counties was identified.

The variance of safety belt usage by year from 1978 through 1982 is given in Table 21 along with the relationship between county population and safetybelt usage. The percentage using safety belts decreased from 1978 to 1980 and then increased slightly in 1981 and 1982. However, it did not increase to the levels of 1978 and 1979. Those usage percentages for accident-involved drivers agree well with the 4.2 percent usage determined from a 1982 observational survey (5). This table also shows the large increase in usage for counties having over 50,000 population.

Safety belts are recognized as an effective method of reducing accident severity. This is confirmed by data presented in Table 22. This table shows that, when a driver of a motor vehicle is wearing a safety belt at the time of an accident, the chances of being fatally injured is reduced by 77 percent. Also, the chance of receiving an incapacitating injury is reduced by 46 percent and the chance of receiving a non-incapacitating injury is reduced by 17 percent. The reduction for the less severe injury is less. Safety belts will greatly decrease the possibility of injury in accidents involving large deceleration forces, but some injury or complaint of soreness or discomfort will exist. In fact, the category of "possible injury" involving a complaint of pain without visible signs of injury increased from 4.56 percent for drivers not wearing safety belts to 4.81 for drivers wearing safety belts.

There has been a gradual increase in the percentage of drivers sustaining given injuries over the past few years (Table 23). For example, the percentage of incapacitating injuries for drivers not wearing a safety belt has increased from 1.96 percent in 1978 to 2.49 percent in 1982. For drivers wearing safety belts, the percentage increased from 0.94 percent in 1978 to 1.50 percent in 1982. That may be related to the high number of small cars on the highways.

Potential savings associated with increased safety belt usage were estimated and are shown in Table 24. This table lists the annual potential dollar savings in the event all drivers wore safety belts. The total numbers of drivers sustaining either a fatal, incapacitating, or non-incapacitating injury for the years 1978 through 1982 were determined. Percentages listed in Table 22 for drivers using safety belts provided estimates of the number of drivers who would have sustained the given injury in the event all drivers used safety equipment. Annual reductions for the various injuries were calculated. The 1981 National Safety Council costs for injuries resulting from motor-vehicle accidents were used to compute an annual potential savings of 97.6 million dollars in the event all drivers in Kentucky wore a safety belt. A potential dollar savings in accident costs of about one million dollars may result for each one percent increase in safety belt usage by drivers in Kentucky.

A summary of usage and effectiveness of child safety seats for children under the age of four who were involved in traffic accidents is given in Table 25. Data are for 1978 through 1982. Age categories in the RAPID accident file governed the age category that was used. Most children three years of age or younger would be placed in a child

restraint rather than a seatbelt or harness. However, many were coded as wearing a safety belt, so the categories of restraint used were 1) none, 2) safety belt or harness, 3) child safety seat, and 4) any restraint.

Of the 65 fatalities occurring during the study period, only five involved use of a restraint. Also, of 470 incapacitating injuries, only 19 involved use of a restraint. However, since the reported usage of restraints for those involved in accidents is low, a better measure of effectiveness would be the percentage sustaining a specific injury. This analysis revealed the percentage of fatalities was lowest for children who were in a child safety seat. This percentage was slightly higher for the "safety belt or other" category compared to the "none" category.

The larger sample size of severe (incapacitating) injuries should provide more reliable results. It was determined that the percentage of restrained children receiving a severe injury was about one-third that for unrestrained children. The percentage of restrained children receiving a non-incapacitating injury was also substantially lower than that for unrestained children. The comparison of incapacitating and non-incapacitating injuries did not indicate an advantage of child restraints over a safety belt or harness. However, the percent ejected was lowest for the child safety seat.

An analysis of injury by seat position indicated rear-seat restraints as being more effective. Of the five fatalities involving restrained children, the children were sitting in the middle-front-seat position.

An analysis of the percentage of children in restraints revealed the percentage was highest for rear-seat locations. A comparison of percent usage by year indicated usage has increased substantially. That is in contrast to a slight decline in total seatbelt usage from 1978 to 1982. Increased usage of child restraints may be partly attributed to a law that became effective in July 1982. That law required the use of child safety seats for children 40 inches in height or less. A survey of child safety seat usage was conducted in 1982 before the new law became effective and it was determined that 15.4 percent of affected children used a restraint (5). That compares well with the percentage determined in this analysis.

TABLE 20. SAFETY BELT USAGE (DRIVERS OF PASSENGER CARS) BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER)

COUNTIES	PERCENT SEAT BELT USAGE
POPULATION CATEGORY UNDER 10,000	
Gallatin	4.9
Carroll	4.4
Robertson	4.1
Wolfe	3.4
Spencer	3.0
Trigg	2.7
Clinton	2.6
Hickman	2.3
Lyon	2.3
Menifee	2.3
Trimble	2.2
Edmonson	2.1
Hancock	2.1
Carlisle	1.9
Ballard	1.8
Bracken	1.8
Elliott	1.8
Fulton	1.8
Livingston	1.8
Nicholas	1.7
Metcalfe	1.5
Owen*	1.4
Owsley	1.3
Cumberland	1.2
Lee	1.1
Crittenden	1.0
POPULATION CATEGORY 10,000-14,999	
Grant	7.6
Magoffin	5.2
Rockcastle	4.5
Russell	4.2
Henry	3.4
Pendleton	3.2
Bath	3.1
McLean	2.8
Webster	2.8
Anderson*	2.5
Lawrence	2.4
Lewis	2.2
Todd	2.2
Larue	1.9
Washington	1.9
Fleming	1.8
Garrard	1.7
Leslie	1.7
Martin	1.7
Allen	1.4
Simpson	1.4
Butler	1.3
Powell	1.3
Morgan	1.2
Caldwell*	1.1
Green*	0.9
Casey	0.8
Jackson	0.6
Monroe	0.6
Estill*	0.5

*Counties with potential for intensive promotion campaigns. Selected based on safety belt usage, accident rate, and location in state.

COUNTIES	PERCENT SEAT BELT USAGE
POPULATION CATEGORY 15,000-24,999	
Grayson	6.4
Hart	4.4
Woodford	4.2
Scott	3.9
Shelby	3.8
Rowan	3.0
Meade	2.6
Johnson	2.5
McCreary	2.5
Breckenridge	2.4
Ohio	2.3
Bourbon	2.2
Mason*	1.7
Knott	1.5
Harrison*	1.4
Logan	1.4
Mercer	1.4
Union*	1.4
Clay	1.2
Taylor	1.2
Breathitt	1.1
Lincoln	1.1
Marion*	1.0
Montgomery*	0.7
Wayne*	0.6
Adair	0.5
POPULATION CATEGORY 25,000-50,000	
Oldham	7.2
Boone	6.7
Franklin	4.8
Floyd	4.3
Graves	3.5
Greenup	3.5
Laurel	3.3
Bullitt	3.1
Nelson*	3.1
Bell	2.9
Harlan	2.9
Whitley	2.9
Boyle	2.4
Marshall	2.3
Clark*	2.2
Henderson*	2.1
Knox	2.1
Pulaski	2.0
Hopkins*	1.9
Carter*	1.7
Calloway*	1.6
Barren	1.5
Muhlenburg	1.3
Letcher	1.1
Jessamine	1.0
Perry*	1.0
POPULATION CATEGORY OVER 50,000	
Fayette	9.1
Jefferson	8.7
Hardin	5.0
Kenton	4.1
Campbell	3.5
Daviess	3.3
Christian	3.2
Boyd	2.8
Madison	2.6
Pike*	1.7
Warren*	1.7
McCracken*	1.6

TABLE 21. CHANGE IN SAFETY BELT USAGE FOR 1978 - 1982 (PASSENGER CAR DRIVERS INVOLVED IN ACCIDENTS) BY POPULATION CATEGORY.

	PERCENT USAGE					
	POPULATION CATEGORY					
YEAR	UNDER 10,000	10,000 - 15,000	15,000 - 25,000	25,000 - 50,000	OVER 50,000	ALL
1978	2.3	2.4	2.1	3.5	8.4	6.2
1979	2.7	2.6	2.2	3.2	6.8	5.2
1980	1.9	2.2	2.1	2.8	5.3	4.1
1981	2.4	1.9	2.2	2.7	5.6	4.3
1982	2.3	2.6	3.1	2.9	5.8	4.6
ALL	2.3	2.4	2.3	3.0	6.3	4.9

TABLE 22. ACCIDENT SEVERITY VERSUS SAFETY BELT USAGE (ALL DRIVERS)

	PERCENTAGE SUSTAINING A GIVEN INJURY	
TYPE OF INJURY	NOT WEARING SAFETY BELT	WEARING SAFETY BELT
Fatal	0.22	0.05
Incapacitating	2.26	1.22
Non-Incapacitating	4.46	3.71

TABLE 23. CHANGE IN SEVERITY OF INJURIES BY YEAR

	PERCENTAGE SUSTAINING A GIVEN INJURY									
	NOT WEARING SAFETY BELT					WEARING SAFETY BELT				
Type of Injury	1978	1979	1980	1981	1982	1978	1979	1980	1981	1982
Fatal	0.21	0.19	0.24	0.23	0.26	0.06	0.04	0.08	0.06	0.02
Incapacitating	1.96	2.17	2.36	2.41	2.49	0.94	1.21	1.30	1.37	1.50
Non-Incapacitating	4.02	4.27	4.59	4.73	4.79	3.17	3.98	4.01	3.76	3.91

TABLE 24. POTENTIAL SAVINGS ASSOCIATED WITH INCREASED SAFETY BELT USAGE

TYPE OF INJURY	NUMBER OF DRIVERS NOT WEARING SAFETY BELT WITH GIVEN INJURY (1978 - 1982)	REVISED NUMBERS USING PERCENT INJURIES ASSOCIATED WITH SAFETY BELT USAGE	ANNUAL REDUCTION IF ALL DRIVERS WORE SAFETY BELTS
Fatal	2,111	511	320
Incapacitating	21,396	11,579	1,963
Non-Incapacitating	42,162	35,139	1,405

TYPE OF INJURY	COST PER INJURY (1981 NATIONAL SAFETY COUNCIL)	ANNUAL POTENTIAL DOLLAR SAVINGS (MILLIONS)
Fatal	$190,000	$60.8
Incapacitating	15,400	30.2
Non-Incapacitating	4,700	6.6

TABLE 25. USAGE AND EFFECTIVENESS OF CHILD SAFETY SEATS (1978 - 1982)ACCIDENT DATA FOR CHILDREN (AGE THREE AND UNDER)

VARIABLE	CATEGORY	RESTRAINT USED: NONE	SAFETY BELT OR OTHER	CHILD SAFETY SEAT	ANY RESTRAINT
Number With Given Injury	Fatal	60	3	2	5
	Incapacitating	451	4	15	19
	Non-Incapacitating	1,163	38	75	113
	Possible Injury	1,897	86	128	214
	None	26,593	1,110	2,062	3,172
Percent With Given Injury	Fatal	0.20	0.24	0.09	.14
	Incapacitating	1.47	0.32	0.66	0.54
	Non-Incapacitating	5.42	3.06	3.29	3.21
	Possible Injury	6.19	6.93	5.61	6.07
	None	86.72	89.44	90.36	90.04
Ejection	Yes	245	11	13	24
	No	30,450	1,188	2,271	3,459
	Percent Ejected	.80	.92	.57	.69
Percent Usage By Seat Position	Middle Front	91.6	2.6	5.8	8.4
	Right Front	90.6	4.0	5.4	9.4
	Left Rear	86.0	5.0	8.9	14.0
	Middle Rear	89.4	3.3	7.2	10.6
	Right Rear	83.3	5.4	11.2	16.6
	Total	89.7	3.6	6.7	10.3
Percent With Given Injury By Seat Position (Middle Front)	Fatal	.17	.90	.26	.46
	Incapacitating	1.41	.60	1.32	1.10
	Non-Incapacitating	6.39	1.80	4.08	3.39
	Possible Injury	6.56	8.98	6.32	7.05
(Right Front)	Fatal	.24	0	0	0
	Incapacitating	1.67	.23	.50	.38
	Non-Incapacitating	5.94	4.28	3.82	4.02
	Possible Injury	6.86	6.76	5.98	6.31
(Left Rear)	Fatal	.26	0	0	0
	Incapacitating	1.28	0	.35	.23
	Non-Incapacitating	3.44	3.75	1.76	2.48
	Possible Injury	4.65	3.12	4.23	3.83
(Middle Rear)	Fatal	.19	0	0	0
	Incapacitating	1.51	0	0	0
	Non-Incapacitating	3.90	3.36	3.11	3.19
	Possible Injury	5.79	13.45	4.67	7.45
(Right Rear)	Fatal	.11	0	0	0
	Incapacitating	1.13	.54	.26	.35
	Non-Incapacitating	3.15	1.63	2.11	1.95
	Possible Injury	4.18	2.71	5.26	4.43
Percent Usage By Year	1978	92.9	3.0	4.1	7.1
	1979	92.4	2.9	4.7	7.6
	1980	91.4	3.2	5.5	8.6
	1981	87.8	3.9	8.3	12.2
	1982	82.9	5.3	11.8	17.1

SPEED-RELATED ACCIDENTS AND 55 NATIONAL MAXIMUM SPEED LIMIT

Speed has been observed to be one of the most common contributing factors in total accidents and fatal accidents. However, the number of speed-related accidents has decreased gradually for the 1978 through 1982 study period, as has total accidents. Speed-related fatal accidents have remained about the same over the 5-year period. As a means of addressing the subject, accidents involving unsafe speeds were summarized by county and population category in Table 26. When arranged in order of decreasing percentages of speed-related accidents, those counties having the highest percentages in each population category were Wolfe, Leslie, Knott, Letcher, and Pike. There appears to be a concentration of counties having a high percentage of speed-related accidents in the southeastern section of the state. A similar summary of accidents involving unsafe speeds for cities was prepared and is presented in Table 27. Those cities having the highest percentages in each population category were Louisville, Hopkinsville, Radcliff, Independence, and Jenkins.

In addition to accident analysis, the other major area of analysis for unsafe speed was speeding convictions. Areas having large percentages of accidents involving speeding and low conviction rates are candidates for increased enforcement. Table 28 presents a summary of speeding convictions by county. Numbers of speeding convictions, speeding convictions per 1,000 licensed drivers, and speeding convictions per speed-related accident are included. Statewide, the number of speeding convictions in 1982 was 27.8 percent lower than the annual average from 1978 through 1981. To assist in identifying areas having the potential for increased enforcement, Table 29 was prepared with speeding conviction rates listed in descending order by county population categories. Within each population category, those counties having the lowest speeding conviction rates per 1,000 licensed driver are Menifee, Monroe, Knott, Letcher, and Pike. Counties having the lowest rates of speeding convictions per speed-related accidents are Menifee, Morgan, Knott, Letcher, and Pike.

The relationship between speeds and accident rates was investigated in an earlier study (6). Accident rates were observed to increase as speeds increased. The relationship was more pronounced for wet-surface accidents. It was concluded that continuation of the 55-mph speed limit on all rural highways would be advisable.

The percentage of vehicles exceeding the 55-mph speed limit has been monitored and reported by the Kentucky Department of Highways on a quarterly basis since 1978. A summary of data for the fiscal year ending September 30, 1982, is given in Table 30. That summary shows 429,279 vehicles were monitored at 50 locations. The percentage of vehicles exceeding 55 mph on all roads was 36.4 percent. The average speed was highest on sections of rural interstate and lowest on urban arterials. Only 10 percent of the vehicles were exceeding the 55-mph limit on urban arterials as compared to 70 percent on sections of rural interstate.

Another summary was prepared to show overall compliance with the 55-mph speed limit from 1979 through 1982 (Table 31). When considering statewide totals, the percentage of vehicles exceeding 55 mph in 1982 (36.4 percent) increased as compared to the three previous years (an average of 29.3 percent). On urban interstates, the increase in 1982 was even more significant. However, on rural interstates, the percent exceeding 55 mph was considerably less than the previous three-year average. It should be noted that, beginning July 1982, some significant changes occurred in data collection requirements that may have affected the reported speed data. The primary difference was a change from monitoring the speed of the first vehicle in a queue to monitoring all vehicles in the traffic stream. In addition, the change from radar meters to automatic speed monitoring equipment has enabled data collection to include 1,200 hours measurement in 1982 as compared to 162 hours in 1981. The number of vehicles

measured has also increased tremendously, from 24,397 in 1981 to 429,279 in 1982. Because the automatic speed monitoring equipment measures data only within five-mile-per-hour ranges, the precise speed cannot be determined. Therefore, speed data reported for 1982 is a weighted average for the various speed ranges and may be expected to fall somewhere in a five-mile-per-hour range.

TABLE 26. ACCIDENTS INVOLVING UNSAFE SPEED BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES)

COUNTY	NUMBER OF SPEED-RELATED ACCIDENTS (1978-1982)	PERCENTAGE OF ACCIDENTS INVOLVING SPEEDING
POPULATION CATEGORY UNDER 10,000		
Wolfe	234	32.5
Menifee	131	30.7
Robertson	35	29.7
Gallatin	225	23.9
Spencer	150	23.3
Edmonson	225	22.5
Trimble	128	22.2
Carlisle	111	21.2
Owsley	82	19.6
Ballard	218	18.7
Livingston	195	18.4
Lee	88	17.6
Owen	142	16.5
Hickman	106	14.7
Metcalfe	98	13.7
Nicholas	58	13.7
Trigg	220	13.6
Carroll	304	12.8
Bracken	54	10.1
Cumberland	62	10.1
Lyon	75	10.1
Clinton	61	7.8
Crittenden	96	7.8
Hancock	52	6.6
Fulton	88	6.5
POPULATION CATEGORY 10,000-14,999		
Leslie	365	33.2
Martin	246	31.9
Henry	460	27.6
Grant	626	24.7
Magoffin	322	24.5
Rockcastle	396	22.9
Garrard	300	19.3
Morgan	257	19.1
Todd	195	19.0
Larue	279	17.8
Bath	141	17.6
Pendleton	209	17.3
Casey	165	16.0
Lewis	236	15.8
Allen	230	15.6
Jackson	126	14.6
Monroe	154	14.0
Anderson	276	13.7
Lawrence	224	13.6
Russell	135	13.0
Estill	182	12.6
Fleming	181	12.3
Powell	113	10.4
McLean	103	10.3
Simpson	193	8.2
Washington	109	8.0
Caldwell	159	6.8
Green	88	6.8
Webster	146	6.8
Butler	71	5.9
POPULATION CATEGORY 15,000-24,999		
Knott	447	28.4
Breathitt	423	25.0
McCreary	249	20.8
Clay	377	15.8
Shelby	682	15.5
Ohio	363	14.5
Meade	360	13.0
Union	358	12.6
Rowan	470	12.2
Hart	204	11.6
Johnson	389	11.6
Bourbon	405	11.1
Grayson	325	10.4
Marion	317	10.1
Breckenridge	189	9.7
Adair	163	9.6
Harrison	222	9.4
Woodford	321	9.4
Lincoln	173	9.1
Mercer	276	8.9
Wayne	171	8.5
Scott	359	8.4
Logan	286	7.9
Taylor	214	6.4
Montgomery	214	6.4
Mason	187	3.9
POPULATION CATEGORY 25,000-50,000		
Letcher	727	32.4
Oldham	588	18.6
Perry	956	17.3
Floyd	988	17.2
Carter	467	16.7
Knox	457	14.3
Muhlenburg	660	13.2
Harlan	706	13.1
Marshall	434	12.5
Laurel	768	12.3
Nelson	529	11.8
Bell	455	10.2
Boone	1,314	10.0
Whitley	463	9.9
Clark	622	9.8
Bullitt	514	9.6
Greenup	433	9.4
Hopkins	829	9.3
Jessamine	389	9.3
Pulaski	606	9.3
Franklin	859	9.1
Calloway	411	8.7
Graves	424	7.9
Barren	430	7.2
Boyle	318	6.4
Henderson	706	6.4
POPULATION CATEGORY OVER-50,000		
Pike	1,709	15.9
Madison	1,497	12.9
Hardin	1,425	11.7
Christian	963	9.0
Warren	1,295	6.4
McCracken	924	6.3
Boyd	777	5.9
Jefferson	9,460	5.7
Kenton	2,010	5.7
Daviess	1,072	4.9
Fayette	2,737	4.8
Campbell	663	3.5

TABLE 27. PERCENTAGE OF ACCIDENTS INVOLVING UNSAFE SPEED BY CITY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES)

CITY	NUMBER OF SPEED-RELATED ACCIDENTS (1978-1982)	PERCENTAGE OF ACCIDENTS INVOLVING SPEEDING
POPULATION CATEGORY OVER 200,000		
Louisville	6,344	5.6
Lexington	2,558	4.6
POPULATION CATEGORY 20,000 - 55,000		
Hopkinsville	342	4.3
Covington	679	3.9
Bowling Green	572	3.4
Paducah	309	3.0
Richmond	193	2.9
Ashland	255	2.8
Frankfort	189	2.8
Henderson	220	2.6
Newport	166	2.1
Owensboro	280	1.7
POPULATION CATEGORY 10,000 - 19,999		
Radcliff	243	7.8
Fort Thomas	142	6.0
Florence	376	5.1
Erlanger	215	4.4
Jeffersontown	145	4.4
Somerset	154	4.2
Shively	228	3.9
Murray	118	3.6
Elizabethtown	147	3.3
Georgetown	69	3.1
Winchester	78	3.0
Nicholasville	62	2.8
Madisonville	115	2.5
Glasgow	86	2.4
Middlesboro	36	1.8
Danville	58	1.7
Mayfield	47	1.5
St. Matthews	59	1.3
POPULATION CATEGORY 5,000 - 9,999		
Independence	195	13.0
Fort Mitchell	118	8.0
Elsmere	91	7.5
Williamsburg	61	5.6
Edgewood	51	4.3
Princeton	72	4.3
Lawrenceburg	41	4.1
Flatwoods	46	3.9
Monticello	57	3.8
Versailles	61	3.8
Central City	55	3.7
Cynthiana	48	3.6
Russellville	69	3.6
Campbellsville	83	3.5
Lebanon	62	3.5
Paris	63	3.5
Berea	44	3.4
Dayton	28	3.3
Hazard	71	3.3
Hillview	12	3.0
Harrodsburg	58	2.9
Mount Sterling	58	2.8
Morehead	59	2.8
Bardstown	58	2.7
Corbin	61	2.7
Franklin	35	2.3
Shelbyville	39	2.1
Bellevue	35	2.0
Maysville	53	1.6
POPULATION CATEGORY 2,500 - 4,999		
Jenkins	23	41.8
Fulton	16	18.6
Williamstown	58	16.8
Cumberland	9	15.0
Villa Hills	13	11.0
Hartford	10	10.8
Jackson	32	10.0
Scottsville	66	9.6
Taylor Mill	60	9.5
Vine Grove	34	8.5
Tomkinsville	57	8.0
Douglas Hills	12	7.3
Olive Hill	29	7.3
Irvine	49	6.6
Shepherdsville	93	6.5
Columbia	51	5.7
Leitchfield	85	5.6
Lakeside Park	23	5.5
Morganfield	49	5.1
Southgate	32	4.9
Stanton	13	4.4
Hickman	17	4.3
Greenville	38	4.2
Wilmore	5	4.2
Catlettsburg	39	4.1
Ludlow	34	4.1
Pineville	33	4.1
Barbourville	36	3.9
Flemingsburg	24	3.9
Grayson	34	3.9
Marion	27	3.8
Park Hills	19	3.8
Alexandria	31	3.7
Pikeville	92	3.7
LaGrange	19	3.5
Mount Washington	17	3.5
Beaver Dam	24	3.3
Fort Wright	54	3.2
Springfield	21	3.1
Prestonsburg	45	3.0
Harlan	33	2.6
Dawson Springs	15	2.5
Highland Heights	27	2.5
Stanford	17	2.5
Lancaster	15	2.3
Paintsville	42	2.3
Benton	20	2.1
Carrollton	21	1.9
Providence	14	1.9
Russell	23	1.8
London	30	1.6

TABLE 28. SUMMARY OF SPEEDING CONVICTIONS BY COUNTY (1978 - 1982 DATA)

COUNTIES	ANNUAL AVERAGE SPEEDING CONVICTIONS (1978 - 1981)	SPEEDING CONVICTIONS 1982	1982 PERCENT CHANGE	ANNUAL AVERAGE SPEEDING CONVICTIONS PER 1,000 LICENSED DRIVERS	SPEEDING CONVICTIONS PER SPEED-RELATED ACCIDENT
Adair	291	307	5.5	34.2	9.0
Allen	187	108	-42.2	19.9	3.7
Anderson	344	200	-41.9	37.5	5.7
Ballard	243	143	-41.2	36.6	5.1
Barren	769	458	-40.4	33.3	8.2
Bath	189	115	-39.2	30.0	6.2
Bell	756	371	-50.9	38.8	7.4
Boone	2,021	1,910	-5.5	63.9	7.6
Bourbon	574	360	-37.3	44.3	6.6
Boyd	1,512	928	-38.6	39.9	9.0
Boyle	733	442	-39.7	43.0	10.6
Bracken	168	185	10.1	37.1	15.8
Breathitt	239	182	-23.8	28.0	2.7
Breckenridge	342	203	-40.6	30.8	8.3
Bullitt	810	637	-21.4	29.7	7.5
Butler	277	160	-42.2	39.5	17.8
Caldwell	381	279	-26.8	39.8	11.3
Calloway	884	612	-30.8	44.7	10.1
Campbell	3,235	2,247	-30.5	60.0	22.9
Carlisle	123	77	-37.4	30.0	5.1
Carroll	119	241	102.5	24.3	2.4
Carter	569	365	-35.9	38.8	5.6
Casey	276	192	-30.4	30.1	7.8
Christian	1,847	1,599	-13.4	59.7	9.3
Clark	826	617	-25.3	43.3	6.3
Clay	405	264	-34.8	35.7	5.0
Clinton	226	174	-23.0	39.2	17.6
Crittendon	351	290	-17.4	54.9	17.6
Cumberland	174	122	-29.9	38.8	13.2
Daviess	3,331	3,464	4.0	58.4	5.8
Edmonson	164	94	-42.7	23.8	3.3
Elliott	131	75	-42.7	33.6	4.3
Estill	286	155	-45.8	30.8	7.1
Fayette	9,266	6,677	-27.9	66.4	16.0
Fleming	291	273	-6.2	38.9	7.9
Floyd	176	549	-23.3	28.8	3.4
Franklin	1,450	953	-34.3	48.9	7.8
Fulton	177	92	-48.0	28.3	9.1
Gallatin	141	136	-3.5	45.8	3.1
Garrard	224	154	-31.3	29.9	3.1
Grant	399	368	-7.8	44.2	3.1
Graves	744	440	-40.9	30.3	8.0
Grayson	420	237	-43.6	30.6	5.9
Green	206	163	-20.9	28.9	11.2
Greenup	1,147	641	-44.1	42.9	12.1
Hancock	216	163	-24.5	38.8	19.7
Hardin	1,925	1,284	-33.3	42.7	6.3
Harlan	1,066	520	-51.2	43.0	6.8
Harrison	351	336	-4.3	34.4	7.8
Hart	270	209	-22.6	27.0	6.3
Henderson	1,407	708	-49.7	45.2	9.0
Henry	300	254	-15.3	35.2	3.2
Hickman	150	73	-51.3	32.6	6.3
Hopkins	1,800	1,264	-29.8	57.0	10.2
Jackson	133	108	-18.8	21.3	5.1
Jefferson	21,582	14,154	-34.4	44.9	10.6
Jessamine	756	520	-31.2	45.1	9.1
Johnson	523	327	-37.5	35.6	6.2
Kenton	4,259	3,879	-8.9	49.6	10.4
Knott	160	200	25.0	18.7	1.9

TABLE 28. SUMMARY OF SPEEDING CONVICTIONS BY COUNTY (1978 - 1982 DATA) (CONTINUED)

COUNTIES	ANNUAL AVERAGE SPEEDING CONVICTIONS (1978 - 1981)	SPEEDING CONVICTIONS 1982	1982 PERCENT CHANGE	ANNUAL AVERAGE SPEEDING CONVICTIONS PER 1,000 LICENSED DRIVERS	SPEEDING CONVICTIONS PER SPEED-RELATED ACCIDENT
Knox	785	365	-53.5	45.1	7.7
Larue	230	144	-37.4	27.0	3.8
Laurel	911	771	-15.4	39.2	5.8
Lawrence	287	171	-40.4	36.0	5.9
Lee	123	74	-39.8	27.8	6.4
Leslie	242	154	-36.4	32.0	3.1
Letcher	477	330	-30.8	27.9	3.1
Lewis	259	123	-52.5	29.7	4.9
Lincoln	406	231	-43.1	34.4	10.7
Livingston	350	230	-34.3	53.4	8.4
Logan	430	262	-39.1	26.2	6.9
Lyon	156	90	-42.3	36.4	9.5
McCracken	1,986	1,737	-12.5	44.2	10.5
McCreary	319	205	-35.7	38.0	5.9
McLean	418	251	-40.1	55.8	18.7
Madison	1,395	968	-30.6	45.5	4.4
Magoffin	280	165	-41.1	38.9	4.0
Marion	321	265	-17.4	29.3	4.9
Marshall	911	644	-29.3	46.9	9.9
Martin	208	105	-49.5	26.3	3.8
Mason	335	269	-19.7	29.6	8.6
Meade	301	180	-40.2	26.5	3.8
Menifee	66	59	-10.6	20.7	2.4
Mercer	592	336	-43.2	43.9	9.8
Metcalfe	174	135	-22.4	30.3	8.5
Monroe	136	112	-17.6	18.2	4.2
Montgomery	461	309	-33.0	36.5	10.0
Morgan	170	116	-31.8	25.6	3.1
Muhlenberg	806	498	-38.2	36.8	5.6
Nelson	695	421	-39.4	31.8	6.0
Nicholas	170	130	-23.5	31.6	14.0
Ohio	565	343	-39.3	37.8	7.2
Oldham	804	639	-20.5	47.7	6.6
Owen	169	110	-34.9	30.8	5.5
Owsley	72	52	-27.8	23.8	4.1
Pendleton	378	316	-16.4	53.0	8.7
Perry	685	472	-31.1	38.0	3.4
Pike	918	995	8.4	22.4	2.7
Powell	224	136	-39.3	32.5	9.1
Pulaski	1,275	1,098	-13.9	45.3	10.2
Robertson	34	38	11.8	24.4	5.0
Rockcastle	293	174	-40.6	29.7	3.4
Rowan	490	268	-45.3	45.1	4.7
Russell	258	273	5.8	30.8	9.6
Scott	605	423	-30.1	41.6	7.9
Shelby	719	514	-28.5	45.4	5.0
Simpson	369	215	-41.7	34.9	8.8
Spencer	131	85	-35.1	29.8	4.1
Taylor	518	405	-21.8	37.4	11.6
Todd	267	177	-33.7	36.6	6.4
Trigg	282	261	-7.5	41.1	6.3
Trimble	119	87	-26.9	29.0	4.4
Union	534	303	-43.3	41.3	6.8
Warren	2,171	1,568	-27.8	45.3	7.9
Washington	277	200	-27.8	39.2	12.0
Wayne	343	233	-32.1	33.8	9.4
Webster	526	325	-38.2	49.7	16.6
Whitley	551	579	5.1	31.9	6.0
Wolfe	140	102	-27.1	36.4	2.8
Woodford	576	465	-19.3	46.3	8.6
TOTAL	101,015	72,964	-27.8	43.1	8.2

TABLE 29. SPEEDING CONVICTION RATES IN DESCENDING ORDER (BY COUNTY POPULATION CATEGORY)(1978 - 1982 DATA)

POPULATION CATEGORY	COUNTIES	ANNUAL AVERAGE SPEEDING CONVICTIONS PER 1,000 LICENSED DRIVERS	COUNTIES	SPEEDING CONVICTIONS PER SPEED-RELATED ACCIDENT
UNDER 10,000	Crittenden	54.9	Hancock	19.7
	Livingston	53.4	Clinton	17.6
	Gallatin	45.8	Crittenden	17.6
	Trigg	41.1	Bracken	15.8
	Clinton	39.2	Nicholas	14.0
	Cumberland	38.8	Cumberland	13.2
	Hancock	38.8	Lyon	9.5
	Bracken	37.1	Fulton	9.1
	Ballard	36.6	Metcalfe	8.5
	Lyon	36.4	Livingston	8.4
	Wolfe	36.4	Lee	6.4
	Elliott	33.6	Hickman	6.3
	Hickman	32.6	Trigg	6.3
	Nicholas	31.6	Owen	5.5
	Owen	30.8	Ballard	5.1
	Metcalfe	30.3	Carlisle	5.1
	Carlisle	30.0	Robertson	5.0
	Spencer	29.8	Trimble	4.4
	Trimble	29.0	Elliott	4.3
	Fulton	28.3	Owsley	4.1
	Lee	27.8	Spencer	4.1
	Robertson	24.4	Edmonson	3.3
	Carroll	24.3	Gallatin	3.1
	Edmonson	23.8	Wolfe	2.8
	Owsley	23.8	Carroll	2.4
	Menifee	20.7	Menifee	2.4
10,000-14,999	McLean	55.8	McLean	18.7
	Pendleton	53.0	Butler	17.8
	Webster	49.7	Webster	16.6
	Grant	44.2	Washington	12.0
	Caldwell	39.8	Caldwell	11.3
	Butler	39.5	Green	11.2
	Washington	39.2	Russell	9.6
	Fleming	38.9	Powell	9.1
	Magoffin	38.9	Simpson	8.8
	Anderson	37.5	Pendleton	8.7
	Todd	36.6	Fleming	7.9
	Lawrence	36.0	Casey	7.8
	Henry	35.2	Estill	7.1
	Simpson	34.9	Todd	6.4
	Powell	32.5	Bath	6.2
	Leslie	32.0	Lawrence	5.9
	Estill	30.8	Anderson	5.7
	Russell	30.8	Jackson	5.1
	Casey	30.1	Lewis	4.9
	Bath	30.0	Monroe	4.2
	Garrard	29.9	Magoffin	4.0
	Lewis	29.7	Larue	3.8
	Rockcastle	29.7	Martin	3.8
	Green	28.9	Allen	3.7
	Larue	27.0	Garrard	3.5
	Martin	26.3	Rockcastle	3.4
	Morgan	25.6	Henry	3.2
	Jackson	21.3	Grant	3.1
	Allen	19.9	Leslie	3.1
	Monroe	18.2	Morgan	3.1

TABLE 29. SPEEDING CONVICTION RATES IN DESCENDING ORDER (BY COUNTY POPULATION CATEGORY) (1978-1982 DATA) (CONTINUED)

POPULATION CATEGORY	COUNTIES	ANNUAL AVERAGE SPEEDING CONVICTIONS PER 1,000 LICENSED DRIVERS	COUNTIES	SPEEDING CONVICTIONS PER SPEED-RELATED ACCIDENT
15,000-24,999	Woodford	46.3	Taylor	11.6
	Shelby	45.4	Lincoln	10.7
	Rowan	45.1	Montgomery	10.0
	Bourbon	44.3	Mercer	9.8
	Mercer	43.9	Wayne	9.4
	Scott	41.6	Adair	9.0
	Union	41.3	Mason	8.6
	McCreary	38.0	Woodford	8.6
	Ohio	37.8	Breckenridge	8.3
	Taylor	37.4	Scott	7.9
	Montgomery	36.5	Harrison	7.8
	Clay	35.7	Ohio	7.2
	Johnson	35.6	Logan	6.9
	Harrison	34.4	Union	6.8
	Lincoln	26.2	Bourbon	6.6
	Adair	34.2	Hart	6.3
	Wayne	33.8	Johnson	6.2
	Breckenridge	30.8	Grayson	5.9
	Grayson	30.6	McCreary	5.9
	Mason	29.6	Shelby	5.0
	Marion	29.3	Clay	5.0
	Breathitt	28.0	Marion	4.9
	Hart	27.0	Rowan	4.7
	Meade	26.5	Meade	3.8
	Logan	26.2	Breathitt	2.7
	Knott	18.7	Knott	1.9
25,000-50,000	Boone	63.9	Greenup	12.1
	Hopkins	57.0	Boyle	10.6
	Franklin	48.9	Pulaski	10.2
	Oldham	47.7	Hopkins	10.2
	Marshall	46.9	Calloway	10.1
	Pulaski	45.3	Marshall	9.9
	Henderson	45.2	Jessamine	9.1
	Jessamine	45.1	Henderson	9.0
	Knox	45.1	Barren	8.2
	Calloway	44.7	Graves	8.0
	Clark	43.3	Franklin	7.8
	Boyle	43.0	Knox	7.7
	Harlan	43.0	Boone	7.6
	Greenup	42.9	Bullitt	7.5
	Laurel	39.2	Bell	7.4
	Bell	38.8	Harlan	6.8
	Carter	38.8	Oldham	6.6
	Perry	38.8	Clark	6.3
	Muhlenberg	36.8	Nelson	6.0
	Barren	33.3	Whitley	6.0
	Whitley	31.9	Laurel	5.8
	Nelson	31.8	Carter	5.6
	Graves	30.3	Muhlenburg	5.6
	Bullitt	29.7	Floyd	3.4
	Floyd	28.8	Perry	3.4
	Letcher	27.9	Letcher	3.1
OVER 50,000	Fayette	66.4	Campbell	22.9
	Campbell	60.0	Fayette	16.0
	Christian	59.7	Jefferson	10.6
	Daviess	58.4	McCracken	10.5
	Kenton	49.6	Kenton	10.4
	Madison	45.5	Christian	9.3
	Warren	45.3	Boyd	9.0
	Jefferson	44.9	Warren	7.9
	McCracken	44.2	Hardin	6.3
	Hardin	42.7	Daviess	5.8
	Boyd	39.9	Madison	4.4
	Pike	22.4	Pike	2.7

TABLE 30. SUMMARY OF SPEED MONITORING PROGRAM FOR 1982

HIGHWAY TYPE	MILES	NUMBER OF MONITOR LOCATIONS	NUMBER OF VEHICLES MEASURED	DURATION OF MEASUREMENT (HOURS)
Urban, Interstate	140	6	128,008	144
Urban, Arterials	1,152	10	15,165	240
Rural, Interstate	597	8	67,890	192
Rural, Arterials	3,331	13	37,108	312
Rural, Major Collector	7,262	13	181,108	312
State Total	12,482	50	429,279	1,200

Highway Type	AVERAGE SPEED (MPH)	MEDIAN SPEED (MPH)	85TH PERCENTILE SPEED (MPH)	PERCENT OF MOTORISTS EXCEEDING 55 MPH	60 MPH	65 MPH
Urban, Interstate	55.8	59.0	67.5	69.3	45.8	22.4
Urban, Arterials	44.9	46.4	54.2	10.2	2.7	0.8
Rural, Interstate	57.2	57.9	64.8	69.7	35.5	10.7
Rural, Arterials	52.5	52.6	59.0	35.2	10.7	3.1
Rural, Major Collector	45.7	47.6	58.1	21.9	12.3	4.3
State Total	50.4	51.7	59.7	36.4	17.3	6.4

TABLE 31. COMPLIANCE WITH 55-MPH SPEED LIMIT (COMPARISON OF 1979 THROUGH 1982 DATA).

HIGHWAY TYPE	MEDIAN SPEED				85TH PERCENTILE SPEED				PERCENT OF MOTORISTS EXCEEDING 55 MPH			
	1979	1980	1981	1982	1979	1980	1981	1982	1979	1980	1981	1982
Interstate, Urban	54.8	54.9	55.4	59.0	60.1	59.9	60.5	67.5	45.0	45.2	50.3	69.3
Interstate, Rural	59.2	58.7	57.6	57.9	64.5	64.1	62.9	64.8	76.1	73.9	68.1	69.7
State Total	52.7	52.7	51.0	51.7	58.6	58.3	56.8	59.7	31.9	30.8	25.3	36.4

GENERAL ACCIDENT STATISTICS

Several types of general statistics were developed for use in analyses of specific problem areas. Included were accident trends over a five-year period, a summary of accidents by police reporting agency, and several types of statistics for accidents involving pedestrians, bicycles, motorcycles, and school buses.

Accident Trend Analysis

An analysis of accident trends over the five-year period is summarized in Table 32. The change in 1982 accidents was compared to an average of the preceeding four years (1978-1981). There was a substantial reduction in total accidents, as well as fatalities and injuries, when comparing 1982 to the previous four years.

There was a total of 677,541 accidents in the five-year period, of which 3,808 were fatal and 139,479 were injury accidents. Those accidents resulted in 4,287 fatalities and 211,200 injuries. Using 1981 National Safety Council motor-vehicle cost estimates yields an average annual cost of 576 million dollars for motor-vehicle accidents in Kentucky for the period 1978 through 1982.

A listing of numbers of accidents reported by various police agencies is presented in Table 33. For each agency listed, the numbers of accidents reported for 1978 through 1982 are listed. An average per year for 1978 through 1981 is listed, as well as the percent change of the 1982 total from that average. Agencies are listed in descending order of the three-year average and only the 130 agencies having the highest number of accidents are listed. Those 130 agencies account for 95 percent of the total accidents reported in Kentucky. The highest number of accidents was reported by the Kentucky State Police, followed by the Louisville Police Department, the Jefferson County Police Department, and the Lexington-Fayette County Police Department.

There was a substantial decrease in number of reported accidents for 1980 through 1982 when compared to 1978 and 1979. There was a 12.2 percent decrease in total reported accidents in 1982 compared to the average for 1978 through 1981. Also, of the 130 agencies listed in Table 33, 96 (72 percent) showed a decrease in accidents in 1981 compared to the 1978 through 1980 average. There were some large changes in reported accidents that may be attributed to changes in reporting responsibility.

Analysis of contributing factors (human, vehicular, and roadway) presented in Table 34 also was used in problem identification. The percentage of accidents in which a factor was listed as a contributing factor was summarized for various accident types. Included are total accidents, fatal accidents, and accidents involving pedestrians, bicycles, motorcycles, and school buses.

Presented in Table 35 are additional general statistics compiled by county for accidents involving pedestrians, bicycles, motorcycles, and school buses. Included were numbers of accidents and average annual accidents per 10,000 population. Another table was prepared summarizing accident severity for various accident types. Included in Table 36 are percentages of fatal and injury accidents for all accidents and for accidents involving pedestrians, bicycles, motorcycles, and school buses.

Pedestrian Accidents

A summary of pedestrian accident statistics by county and population category is presented in Table 37. Included are numbers of accidents and annual accident rates per 10,000 population. From the listing of accident rates in descending order, the following counties had the highest rates in each population category: Ballard, Caldwell, Bourbon, Henderson, and Kenton. A similar analysis was performed for pedestrian accidents by city and population category. Results are summarized in Table 38 and the following cities had the highest rates in their respective population categories: Louisville, Newport, Somerset, Mt. Sterling, and London.

As previously noted, accident-contributing factors were summarized for several vehicle types in Table 34. The

most common human factors associated with pedestrian accidents were driver inattention, failure to yield right of way, unsafe speed, and alcohol. The most common vehicular contributing factor was defective brakes, and the most common roadway factors were view obstruction and slippery surface.

Results previously presented in Table 36 indicate pedestrian accidents tended to be severe. Almost seven percent resulted in fatalities and 89 percent resulted in injuries. For all accidents, only one-half percent were fatal accidents and 21 percent were injury accidents. Pedestrian accidents have shown a general decrease (Table 32).

Bicycle Accidents

Numbers and rates of motor-vehicle accidents involving bicycles are listed in Table 39. Counties were grouped by population category and the counties having the highest accident rate in each category are Ballard, Caldwell, Marion, Henderson, and Kenton. A similar summary was prepared for cities and the results are presented in Table 40. Cities having the highest rate of bicycle-related accidents are Louisville, Owensboro, Shively, Bellevue, and Ludlow.

The most common human factors contributing to motor-vehicle accidents involving bicycles were driver inattention and failure to yield right of way (Table 34). Those were the most common contributing factors of any type. Among vehicular factors, defective brakes were the most common problem, while obstructed view was the most frequently listed roadway contributing factor.

Bicycle accidents also tended to be severe, as shown in Table 36. Over 80 percent of the motor-vehicle accidents involving bicycles resulted in injuries and 1.2 percent resulted in fatalities. The number of bicycle accidents has remained relatively constant for the 1978-1981 period with a five percent decrease in 1982 (Table 32).

Motorcycle Accidents

County and city statistics for accidents involving motorcycles are presented in Tables 41 and 42, respectively. For each population category, counties having the highest rates for motorcycle accidents per 10,000 population were Carroll, Garrard, Meade, Boone, and McCracken (Table 41). From Table 42, those cities having the highest rates in each population category were Louisville, Bowling Green, Radcliff, Williamsburg, and Carrollton.

Additional information on motorcycle accidents may be obtained from Table 34, which lists contributing factors, and Table 36, which contains severity data. The most frequently listed factors contributing to motorcycle accidents were failure to yield right of way, driver inattention, and unsafe speed. The principal vehicular factors were tire failure and defective brakes. Slippery surface and obstruction of view were the major roadway contributing factors. Motorcycle accidents tended to be severe, with almost three percent resulting in fatalities and 73 percent resulting in injuries. Motorcycle accidents have remained at a level of about 1,800 per year over the five-year period, with a slight decrease in 1982 as compared to the four previous years.

School Bus Accidents

School bus accident statistics were summarized for counties and cities and the results are presented in Tables 43 and 44. Table 43 lists numbers and rates of school bus accidents, by county and population category. Counties having the highest rates in each population category are Robertson, Grant, Union, Clark, and Fayette. A similar summary was prepared for cities by population categories, as shown in Table 44. Those cities having the highest rates in each population category are Louisville, Hopkinsville, Nicholasville, Independence, and London.

As with all accidents, the leading human factors contributing to school bus accidents were driver inattention and failure to yield right of way (Table 34). The leading vehicular factor was defective brakes and the most frequently occurring roadway factors were slippery surface and view obstruction.

School bus accidents tended not to be severe, as shown in Table 36. Only 15 percent of the accidents resulted in injuries, while less than one-half percent resulted in fatalities. From the trend analysis presented in Table 32, school bus accidents have varied significantly over the five-year period. When comparing 1982 with the previous four-year average, the number of school bus accidents decreased by almost 11 percent.

Vehicle Defects

The requirement for an annual vehicle inspection was repealed in 1978. A summary of the involvement of vehicle defects in accidents before and after repeal of that law is given in Table 45. The percent of accidents involving a vehicle defect was 5.86 percent before repeal of the vehicle inspection law. The percent increased to 7.09 in the first 19 months after repeal of the law and was about 7.5 percent for 1981 and 1982.

Applying the "before" percentage of accidents involving a vehicle defect (5.86 percent) to the 1981 and 1982 data provides an estimate of increase in the number of "vehicle defect" related accidents that may be attributed to repeal of the vehicle inspection law. Applying this "before" percentage yielded 2,058 fewer accidents in 1981 and 1,979 fewer accidents in 1982, or an average of about 2,000 accidents. The average cost of an accident in 1981 and 1982 was about $4,400 using 1981 National Safety Council figures. Therefore, 2,000 additional accidents would result in 8.8 million dollars in accident costs that could be partially attributed to repeal of the vehicle inspection law.

TABLE 32. ACCIDENT TREND ANALYSIS

ACCIDENT STATISTIC	NUMBER IN GIVEN YEAR 1978	1979	1980	1981	4-YEAR AVERAGE 1978-81	1982	1982 PERCENT CHANGE
Total Accidents	152,303	147,247	128,130	125,116	138,199	124,745	-9.7
Fatal Accidents	785	801	750	733	767	739	-3.7
Fatalities	893	905	825	828	863	836	-3.1
Injury Accidents	29,019	29,447	27,028	27,050	28,136	26,935	-4.3
Injuries	44,403	44,814	40,786	40,679	42,671	40,518	-5.0
Fatal and Injury Accidents	29,804	30,248	27,778	27,783	28,903	27,674	-4.3
Speed-Related Accidents	13,497	12,994	11,214	10,505	12,053	10,536	-12.6
Speed-Related Fatal Accidents	297	282	291	279	287	284	-1.1
Alcohol-Related Accidents	9,117	10,140	10,708	10,899	10,216	10,163	-0.5
Alcohol-Related Fatal Accidents	190	196	196	197	195	185	-5.0
Drug-Related Accidents	383	452	584	498	479	460	-4.0
Pedestrian Accodents	1,741	1,779	1,607	1,626	1,688	1,534	-9.1
Bicycle Accidents	747	756	749	783	759	718	-5.4
Motorcycle Accidents	1,811	1,844	1,873	1,671	1,800	1,736	-3.5
School Bus Accidents	737	823	693	717	743	664	10.6

TABLE 33. NUMBER OF ACCIDENTS REPORTED BY REPORTING AGENCY

REPORTING AGENCY	1978 ACCIDENTS	1979 ACCIDENTS	1980 ACCIDENTS	1981 ACCIDENTS	78-81 AVG	1982 ACCIDENTS	1982 PERCENT CHANGE
Kentucky State Police							
Post 9	2,916	3,094	2,887	2,678	2,894	2,692	-7.0
Post 11	2,868	2,557	2,373	2,521	2,580	2,433	-5.7
Post 1	3,109	2,651	2,197	2,044	2,500	1,822	-27.1
Post 2	2,430	2,441	2,108	2,326	2,326	2,078	-10.7
Post 7	2,219	2,282	2,027	1,937	2,116	1,630	-23.0
Post 4	2,427	2,191	1,658	1,709	1,996	1,615	-19.1
Post 16	2,363	2,030	1,817	1,617	1,957	1,552	-20.7
Post 13	1,840	2,004	1,884	2,035	1,941	1,739	-10.4
Post 3	2,195	2,107	1,735	1,603	1,910	1,508	-21.0
Post 12	1,896	1,775	1,485	1,468	1,656	1,549	-6.5
Post 10	1,577	1,570	1,560	1,691	1,600	1,292	-19.3
Post 14	1,798	1,581	1,320	1,186	1,471	960	-34.7
Post 6	1,839	1,617	1,281	1,023	1,440	906	-37.1
Post 8	1,477	1,445	1,322	1,267	1,378	1,139	-17.3
Post 15	1,111	1,312	1,259	1,225	1,227	1,002	-18.3
Post 5	1,237	1,258	1,078	1,034	1,152	955	-17.1
Ky DOT Enforcement	18	98	214	307	159	87	-45.3
Totals	33,320	32,013	28,205	27,440	30,245	24,959	-17.5
Louisville PD	20,893	19,391	16,654	15,296	18,059	14,724	-18.5
Jefferson Co. PD	15,298	13,749	11,425	11,123	12,899	10,784	-16.4
Lex-Fayette Co. PD	11,618	12,210	10,709	10,421	11,240	10,333	-8.1
Bowling Green PD	5,278	3,426	2,945	2,817	3,617	2,869	-20.7
Covington PD	3,971	3,786	3,454	3,052	3,566	2,841	-20.3
Owensboro PD	3,713	3,603	3,113	2,892	3,330	2,979	-10.5
Paducah PD	2,144	2,077	1,767	1,906	1,974	2,044	3.5
Ashland PD	2,219	1,971	1,609	1,475	1,819	1,600	-12.0
Henderson PD	1,824	1,758	1,645	1,594	1,705	1,488	-12.7
Newport PD	1,889	1,804	1,560	1,372	1,656	1,265	-23.6
Hopkinsville PD	1,741	1,649	1,337	1,278	1,501	1,303	-13.2
Frankfort PD	1,484	1,371	1,280	1,280	1,354	1,222	-9.7
Florence PD	1,513	1,367	1,244	1,230	1,339	1,191	-11.1
Shively PD	1,375	1,283	1,049	1,025	1,183	1,004	-15.1
Richmond PD	1,201	1,144	1,001	1,071	1,104	1,041	-5.7
Erlanger PD	1,097	1,015	835	810	939	810	-13.7
Boone Co. PD	867	975	953	934	932	853	-8.5
Madisonville PD	976	1,000	899	807	921	868	-5.8
St. Matthews PD	982	913	764	936	899	897	-0.2
Elizabethtown PD	832	920	740	764	814	929	14.1
Winchester PD	922	866	687	740	804	736	-8.5
Somerset PD	728	781	717	663	722	698	-3.3
Glasgow PD	754	743	701	666	716	699	-2.4
Maysville PD	722	718	649	550	660	605	-8.3
Jeffersontown PD	781	654	604	592	658	627	-4.7
Mayfield PD	767	728	594	505	649	522	-19.6
Murray PD	770	661	600	517	637	622	-2.4
Danville PD	659	669	620	580	632	624	-1.3
Radcliff PD	733	627	538	563	615	625	1.6
Kenton Co. PD	591	585	486	478	535	456	-14.8
Ft. Thomas PD	541	595	506	390	508	323	-36.4
Campbellsville PD	568	502	536	523	532	421	-20.9
Campbell Co. PD	509	478	454	465	477	414	-13.2
Pikeville PD	493	457	475	469	474	446	-5.9
Hazard PD	458	477	433	383	438	338	-22.8
Corbin PD	511	462	380	374	432	437	1.2
Georgetown PD	489	455	397	387	432	361	-16.4
Middlesboro PD	495	442	387	332	414	415	0.2
Nicholasville PD	366	453	388	390	399	441	10.5
Harrodsburg PD	429	401	369	389	397	342	-13.9
Bardstown PD	442	379	396	367	396	377	-4.8
Russellville PD	411	405	318	362	374	378	1.1
Lebanon PD	363	411	332	381	372	343	-7.8
Shelbyville PD	381	378	339	390	372	353	-5.1
Bellevue PD	426	426	309	318	370	283	-23.5
McCracken Co. SO	60	407	475	482	356	443	24.4
Mt. Sterling PD	379	346	347	332	351	379	7.8
London PD	409	383	309	289	348	352	1.1
Daviess Co. SO	349	331	304	399	346	390	12.7
Princeton PD	344	394	344	294	345	249	-27.8
Morehead PD	353	362	344	322	345	327	-5.2
Paris PD	288	354	350	351	336	378	12.5
Paintsville PD	334	318	335	340	332	363	9.3
Bullitt Co. PD	331	318	312	325	322	316	-1.9
Ft. Wright PD	376	306	313	288	321	276	-14.0

TABLE 33. NUMBER OF ACCIDENTS REPORTED BY REPORTING AGENCY (CONTINUED)

REPORTING AGENCY	1978 ACCIDENTS	1979 ACCIDENTS	1980 ACCIDENTS	1981 ACCIDENTS	78-81 AVG	1982 ACCIDENTS	PERCENT CHANGE
Versailles PD	366	368	242	293	317	310	-2.2
Pike Co. SO	126	350	393	361	308	429	39.3
Woodford Co. PD	255	335	299	323	303	361	19.1
Ft. Mitchell PD	355	337	260	239	298	199	-33.2
Central City PD	281	344	276	277	295	291	-1.4
Prestonsburg PD	276	330	259	292	289	296	2.4
Leitchfield PD	314	305	244	288	288	299	3.8
Russell PD	353	296	234	214	274	223	-18.6
Franklin PD	247	276	257	286	267	270	1.1
Monticello PD	270	254	277	260	265	301	13.6
Mason Co. SO	297	292	240	223	263	260	-1.1
Cynthiana PD	350	255	192	234	258	246	-4.7
Berea PD	295	261	230	234	255	262	2.7
Elsmere PD	231	303	252	216	251	238	-5.2
Shepherdsville PD	257	264	224	254	250	261	4.4
Flatwoods PD	276	243	216	244	245	219	-10.6
Montgomery Co. SO	143	261	259	276	235	283	20.4
Jessamine Co. SO	234	224	204	266	232	361	55.6
Edgewood PD	259	250	205	215	232	250	7.8
Scott Co. PD	243	245	198	216	226	292	29.2
Carrollton PD	244	200	200	208	213	175	-17.8
UK Security	228	217	197	207	212	189	-10.8
Bourbon Co. SO	222	217	170	234	211	232	10.0
EKU Security	214	223	224	179	210	176	-16.2
Independence PD	189	210	228	203	208	217	4.3
Williamsburg PD	236	207	180	210	208	210	1.0
Clark Co. SO	224	190	195	220	207	276	33.3
Cresent Springs PD	235	203	179	192	202	173	-14.4
Morganfield PD	205	231	182	160	195	180	-7.7
Harlan PD	224	158	150	230	191	234	22.5
Grayson Co. SO	170	212	185	191	190	127	-33.2
Catlettsburg PD	215	229	148	164	189	179	-5.3
Lawrenceburg PD	207	203	173	169	188	190	1.1
Oldham Co. PD	111	168	194	258	183	266	45.4
Greenville PD	194	202	163	168	182	148	-18.7
Meade Co. SO	192	159	179	196	182	265	45.6
Ludlow PD	211	170	178	166	181	102	-43.6
Barbourville PD	183	195	168	170	179	165	-7.8
Dayton PD	230	188	161	131	178	138	-22.5
Highland Heights PD	162	204	198	149	178	187	5.1
Benton PD	193	175	159	179	177	176	-0.6
WKU PD	213	168	155	145	170	112	-34.1
Grayson PD	172	164	178	156	168	143	-14.9
Columbia PD	157	192	144	138	158	196	24.1
Providence PD	195	162	138	132	157	103	-34.4
Alexandria PD	176	142	139	160	154	134	-13.0
Lakeside Park PD	103	168	172	163	152	166	9.2
Warren Co. SO	182	155	111	150	150	180	20.0
Fulton PD	151	156	131	155	148	96	-35.1
Pineville PD	122	146	146	162	144	156	8.3
Oak Grove PD	146	136	136	155	143	177	23.8
Southgate PD	145	135	143	125	137	122	-10.9
Springfield PD	143	130	118	140	133	127	-4.5
Henderson Co. PD	133	132	88	168	130	196	50.8
Tompkinsville PD	109	172	127	117	131	137	4.6
Irvine PD	112	159	116	128	129	102	-20.9
Marion PD	96	171	134	110	128	98	-23.4
Scottsville PD	113	144	121	135	128	136	6.3
Breckenridge Co. SO	115	153	108	130	127	145	14.2
Lincoln Co. SO	149	123	98	136	127	134	5.5
Beaver Dam PD	127	128	132	117	126	141	11.9
Powell Co. SO	134	161	125	81	125	74	-40.8
Harrison Co. SO	130	150	111	108	125	162	29.6
Cadiz PD	157	128	112	99	124	95	-23.4
Lancaster PD	125	133	105	115	120	127	5.8
Boyle Co. SO	143	160	71	103	119	163	37.0
Flemingsburg PD	111	129	108	126	119	98	-17.6
Dawson Springs PD	139	135	98	101	118	109	-7.6
Hardinsburg PD	145	120	102	102	117	96	-17.9
Taylor Mill PD	116	113	109	131	117	107	-8.5
Stanford PD	107	125	119	110	115	134	16.5
Park Hills PD	145	119	117	74	114	76	-33.3
Cold Springs PD	98	113	140	100	113	136	20.4
Lewis Co. SO	106	124	111	106	112	87	-22.3
Total*	152,303	147,247	128,130	125,116	138,199	124,745	-9.7

* Total is for all agencies in state.

TABLE 34. ACCIDENT CONTRIBUTING FACTORS FOR VARIOUS ACCIDENT TYPES.

	PERCENT OF ACCIDENTS INVOLVING GIVEN FACTOR				
	ALL ACCIDENTS	PEDESTRIAN ACCIDENTS	MOTORCYCLE ACCIDENTS	FATAL ACCIDENTS	SCHOOL BUS ACCIDENTS
HUMAN CONTRIBUTING FACTORS					
Unsafe Speed	8.9	4.9	15.9	38.4	7.3
Failure to Yield Right-of-Way	16.8	5.9	23.1	15.9	17.9
Following Too Closely	4.6	0.2	3.9	0.6	5.2
Improper Passing	1.4	0.6	3.2	2.4	2.0
Disregard Traffic Controls	2.5	0.9	2.2	3.3	1.9
Improper Turn	2.8	0.3	3.3	0.7	3.8
Alcohol	7.7	4.5	7.7	25.6	1.1
Drugs	0.4	0.2	0.9	0.7	0.1
Sick	0.1	0.0	0.0	0.4	0.1
Fell Asleep	1.1	0.2	0.2	2.9	0.2
Lost Consciousness	0.2	0.1	0.1	0.5	0.1
Driver Inattention	24.8	11.4	19.2	10.4	26.0
Distraction	1.8	1.4	1.1	1.2	3.0
Physical Disability	0.3	0.2	0.1	0.3	0.1
Other (Human)	12.2	11.7	12.6	12.3	17.4
VEHICULAR CONTRIBUTING FACTORS					
Defective Brakes	2.1	1.3	1.3	1.4	5.3
Headlights	0.1	0.1	0.4	0.1	0.0
Other Lights	0.3	0.2	0.5	0.2	0.3
Steering Failure	0.5	0.0	0.7	0.4	0.2
Tire Failure-Inadequate	1.0	0.2	1.6	3.6	0.4
Tow Hitch Defective	0.1	0.1	0.0	0.1	0.0
Over or Improper Load	0.1	0.1	0.1	0.5	0.2
Over Sized Load	0.1	0.0	0.1	0.2	0.3
Other (Vehicular)	3.0	2.9	4.0	3.5	2.9
ENVIRONMENTAL CONTRIBUTING FACTORS					
Animal Action	1.2	0.2	1.6	0.3	0.2
Glare	0.7	1.9	0.5	0.7	0.8
View Obstructed-Limited	3.5	5.3	4.1	3.9	6.3
Debris in Roadway	0.4	0.2	2.0	0.6	0.3
Improper-Non Work Traffic Controls	0.2	0.0	0.2	0.2	0.2
Shoulders Defective	0.5	0.0	0.3	1.2	1.0
Holes-Deep Ruts -Bumps	0.3	0.1	1.0	0.6	0.3
Road Under Construction	0.4	0.4	0.5	0.5	0.4
Improperly Parked Vehicles	0.6	0.9	0.3	0.4	1.4
Fixed Object	0.3	0.2	0.4	0.3	0.5
Slippery Surface	11.2	5.0	3.0	7.9	12.8
Water Pooling	0.5	0.2	0.2	0.9	0.3
Other (Roadway)	2.3	2.2	2.5	2.4	4.5

TABLE 35. NUMBER OF ACCIDENTS AND RATES BY ACCIDENT TYPE FOR EACH COUNTY

COUNTY	PEDESTRIAN ACCIDENTS		BICYCLE ACCIDENTS		MOTORCYCLE ACCIDENTS		SCHOOL BUS ACCIDENTS	
	NUMBER	RATE*	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE
Adair	11	1.4	2	0.3	17	2.2	12	1.6
Allen	13	4.1	1	0.1	13	1.8	10	1.4
Anderson	26	4.1	8	1.3	24	3.8	16	2.5
Ballard	9	4.8	10	2.3	18	4.1	9	2.0
Barren	48	2.8	18	1.1	71	4.2	29	1.7
Bath	13	2.6	1	0.2	6	1.2	8	1.6
Bell	63	3.7	23	1.3	62	3.6	18	1.0
Boone	117	5.1	45	2.0	179	8.0	45	2.0
Bourbon	39	4.0	17	1.8	33	3.5	24	2.5
Boyd	151	5.4	58	2.1	163	5.9	55	2.0
Boyle	55	4.4	35	2.8	70	5.6	24	1.9
Bracken	3	0.8	4	1.0	5	1.3	8	2.1
Breathitt	24	2.8	6	0.7	21	2.5	21	2.5
Breckenridge	18	2.1	3	0.4	28	3.3	18	2.1
Bullitt	63	2.9	22	1.0	96	4.4	37	1.7
Butler	10	1.8	2	0.4	15	2.7	17	3.1
Caldwell	32	4.8	10	1.5	29	4.3	20	3.0
Calloway	35	2.3	21	1.4	106	7.1	8	0.5
Campbell	373	9.0	171	4.1	187	4.5	61	1.5
Carlisle	9	3.3	2	0.7	6	2.2	5	1.8
Carroll	16	3.5	9	1.9	37	8.0	13	2.8
Carter	31	2.5	3	0.2	38	3.0	22	1.7
Casey	11	1.5	1	0.1	9	1.2	6	0.8
Christian	131	3.9	64	1.9	141	4.2	54	1.6
Clark	69	4.9	26	1.8	89	6.3	52	3.7
Clay	26	2.3	1	0.1	27	2.4	25	2.2
Clinton	7	1.5	0	0.0	9	1.9	6	1.3
Crittenden	12	2.6	5	1.1	9	2.0	6	1.3
Cumberland	6	1.6	0	0.0	7	1.9	6	1.6
Daviess	189	4.4	212	4.9	243	5.7	82	1.9
Edmonson	6	1.2	5	1.0	12	2.4	11	2.2
Elliott	8	2.3	1	0.3	8	2.3	2	0.6
Estill	14	1.9	2	0.3	15	2.1	11	1.5
Fayette	829	8.1	410	4.0	718	7.0	286	2.8
Fleming	6	1.0	2	0.3	16	2.6	9	1.5
Floyd	59	2.4	14	0.6	64	2.6	51	2.1
Franklin	110	5.3	39	1.9	88	4.2	42	2.0
Fulton	8	1.8	10	2.2	16	3.6	2	0.4
Gallatin	6	2.5	5	2.1	13	5.4	8	3.3
Garrard	19	3.5	5	0.9	35	6.4	8	1.5
Grant	16	2.4	6	0.9	27	4.1	24	3.6
Graves	56	3.3	23	1.4	77	4.5	7	0.4
Grayson	32	3.1	9	0.9	38	3.6	22	2.1
Green	8	1.4	2	0.4	15	2.7	15	2.7
Greenup	34	1.7	11	0.6	70	3.6	38	1.9
Hancock	3	0.8	3	0.8	6	1.5	7	1.8
Hardin	117	2.6	59	1.3	314	7.1	54	1.2
Harlan	89	4.2	35	1.7	113	5.4	35	1.7
Harrison	24	3.2	6	0.8	30	4.0	5	0.7
Hart	15	1.9	3	0.4	15	1.9	11	1.4
Henderson	136	6.7	79	6.9	141	6.9	32	1.6
Henry	22	3.5	5	0.8	19	3.0	11	1.7
Hickman	5	1.6	1	0.3	7	2.3	5	1.6
Hopkins	101	4.4	41	1.8	145	6.3	23	1.0
Jackson	8	1.3	2	0.3	16	2.7	5	0.8
Jefferson	2544	7.4	1247	3.6	2051	6.0	896	2.6
Jessamine	31	2.3	11	0.8	55	4.1	37	2.8
Johnson	28	2.3	4	0.4	33	2.7	13	1.1
Kenton	616	11.5	296	5.5	396	7.4	144	2.7
Knott	19	2.1	4	0.4	24	2.7	17	1.9

TABLE 35. NUMBER OF ACCIDENTS AND RATES BY ACCIDENT TYPE FOR EACH COUNTY (CONTINUED)

COUNTY	PEDESTRIAN ACCIDENTS		BICYCLE ACCIDENTS		MOTORCYCLE ACCIDENTS		SCHOOL BUS ACCIDENTS	
	NUMBER	RATE*	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE
Knox	36	2.4	17	1.1	60	4.0	32	2.1
Larue	12	2.0	6	1.0	26	4.3	10	1.7
Laurel	65	3.8	21	1.2	106	6.2	57	3.4
Lawrence	21	3.0	0	0.0	21	3.0	12	1.7
Lee	7	1.8	0	0.0	3	0.8	9	2.3
Leslie	21	2.8	1	0.1	23	3.1	17	2.3
Letcher	36	2.3	7	0.5	45	2.9	22	1.4
Lewis	14	1.9	9	1.2	19	3.3	7	1.0
Lincoln	13	1.4	5	0.5	28	2.9	19	2.0
Livingston	9	2.0	1	0.2	23	0.5	5	1.1
Logan	40	3.3	11	0.9	48	4.0	26	2.2
Lyon	4	1.2	3	0.9	15	4.6	1	0.3
McCracken	139	4.5	69	2.3	256	8.4	58	1.9
McCreary	20	2.6	2	0.3	29	3.8	9	1.2
McLean	8	1.6	4	0.8	20	4.0	10	2.0
Madison	102	3.8	47	1.8	124	4.6	48	1.8
Magoffin	22	3.3	3	0.4	19	2.8	5	0.7
Marion	28	3.1	17	1.9	31	3.5	22	2.3
Marshall	20	1.6	12	0.9	49	3.8	15	1.2
Martin	13	1.9	2	0.3	10	1.4	7	1.0
Mason	32	3.6	11	1.2	38	4.3	22	2.4
Meade	23	2.0	6	0.5	69	6.0	9	0.8
Menifee	4	1.6	0	0.0	8	3.1	3	1.2
Mercer	26	2.7	13	1.4	43	4.5	5	0.5
Metcalfe	4	0.8	1	0.2	9	1.9	9	1.9
Monroe	7	1.1	0	0.0	19	3.1	8	1.3
Montgomery	37	3.7	11	1.1	31	3.1	20	2.0
Morgan	14	2.3	3	0.5	14	2.3	12	2.0
Muhlenburg	48	3.0	14	0.9	58	3.6	10	0.6
Nelson	47	3.4	17	1.2	63	4.6	24	1.7
Nicholas	3	0.8	0	0.0	3	0.8	5	1.4
Ohio	14	1.3	3	0.3	43	4.0	22	2.0
Oldham	26	2.0	12	0.9	49	3.8	28	2.1
Owen	9	2.0	2	0.4	11	2.5	10	2.2
Owsley	8	2.8	1	0.4	5	1.8	6	2.1
Pendleton	7	1.3	4	0.7	10	1.8	9	1.7
Perry	53	3.1	11	0.7	82	4.9	41	2.4
Pike	125	3.1	25	0.6	146	3.6	77	1.9
Powell	11	2.0	1	0.2	20	3.6	9	1.6
Pulaski	74	3.2	15	0.7	82	3.6	42	1.8
Robertson	1	0.9	0	0.0	1	0.9	4	3.5
Rockcastle	15	2.1	4	0.6	18	2.6	10	1.4
Rowan	28	2.9	13	1.4	42	4.4	26	2.7
Russell	6	0.9	3	0.4	17	2.5	5	0.7
Scott	33	3.0	12	1.1	41	3.8	18	1.7
Shelby	40	3.4	20	1.7	59	5.1	25	2.1
Simpson	18	2.5	6	0.8	28	3.8	7	1.0
Spencer	6	2.0	2	0.7	10	3.4	6	2.0
Taylor	21	2.0	7	0.7	49	4.6	17	1.6
Todd	7	1.2	2	0.3	20	3.4	6	1.0
Trigg	14	3.0	4	0.9	22	4.7	9	1.9
Trimble	4	1.3	5	1.6	13	4.2	2	0.6
Union	30	3.4	16	1.8	43	4.8	25	2.8
Warren	158	4.4	102	2.8	296	8.2	73	2.0
Washington	10	1.9	5	0.9	15	2.8	13	2.4
Wayne	14	1.6	8	0.9	14	1.6	10	1.2
Webster	24	3.2	7	0.9	33	4.4	9	1.2
Whitley	43	2.6	15	0.9	84	5.0	30	1.8
Wolfe	7	2.1	3	0.9	12	3.6	9	2.7
Woodford	27	3.0	11	1.2	25	2.8	16	1.8

* Rates are annual accidents per 10,000 population.

TABLE 36. ACCIDENT SEVERITY FOR VARIOUS ACCIDENT TYPES.

VARIABLE	ALL ACCIDENTS	PEDESTRIAN ACCIDENTS	BICYCLE ACCIDENTS	MOTORCYCLE ACCIDENTS	SCHOOL BUS ACCIDENTS
Percent Fatal Accidents	0.56	6.52	1.20	2.97	0.39
Percent Injury Accidents	20.6	89.2	80.5	73.1	14.7

TABLE 37. PEDESTRIAN ACCIDENT RATES BY COUNTY AND POPULATION CATEGORY (1978-1982 DATA) (IN ORDER OF DESCENDING RATES)

COUNTY	NUMBER OF PEDESTRIAN ACCIDENTS	ANNUAL ACCIDENT RATE (ACC/10,000 POP)
POPULATION CATEGORY UNDER 10,000		
Ballard	9	4.8
Carroll	16	3.5
Carlisle	9	3.3
Trigg	14	3.0
Owsley	8	2.8
Gallatin	6	2.5
Elliott	8	2.3
Wolfe	7	2.1
Livingston	9	2.0
Owen	9	2.0
Spencer	6	2.0
Fulton	8	1.8
Lee	7	1.8
Cumberland	6	1.6
Hickman	5	1.6
Menifee	4	1.6
Clinton	7	1.5
Trimble	4	1.3
Edmonson	6	1.2
Lyon	4	1.2
Robertson	1	0.9
Bracken	3	0.8
Hancock	3	0.8
Metcalfe	4	0.8
Nicholas	3	0.8
POPULATION CATEGORY 10,000 - 14,999		
Caldwell	32	4.8
Anderson	26	4.1
Garrard	19	3.5
Henry	22	3.5
Magoffin	22	3.3
Webster	24	3.2
Lawrence	21	3.0
Leslie	21	2.8
Bath	13	2.6
Simpson	18	2.5
Grant	16	2.4
Morgan	14	2.3
Rockcastle	15	2.1
Larue	12	2.0
Powell	11	2.0
Estill	14	1.9
Lewis	14	1.9
Martin	13	1.9
Washington	10	1.9
Allen	13	1.8
Butler	10	1.8
McLean	8	1.6
Casey	11	1.5
Green	8	1.4
Jackson	8	1.3
Pendleton	7	1.3
Todd	7	1.2
Monroe	7	1.1
Fleming	6	1.0
Russell	6	0.9
POPULATION CATEGORY 15,000 - 24,999		
Bourbon	39	4.0
Montgomery	37	3.7
Mason	32	3.6
Shelby	40	3.4
Union	30	3.4
Logan	40	3.3
Harrison	24	3.2
Grayson	32	3.1
Marion	28	3.1
Scott	33	3.0
Woodford	27	3.0
Rowan	28	2.9
Breathitt	24	2.8
Mercer	26	2.7
McCreary	20	2.6
Clay	26	2.3
Johnson	28	2.3
Breckenridge	18	2.1
Knott	19	2.1
Meade	23	2.0
Taylor	21	2.0
Hart	15	1.9
Wayne	14	1.6
Adair	11	1.4
Lincoln	13	1.4
Ohio	14	1.3
POPULATION CATEGORY 25,000 - 50,000		
Henderson	136	6.7
Franklin	110	5.3
Boone	117	5.1
Clark	69	4.9
Boyle	55	4.4
Hopkins	101	4.4
Harlan	89	4.2
Laurel	65	3.8
Bell	63	3.7
Nelson	47	3.4
Graves	56	3.3
Pulaski	74	3.2
Perry	53	3.1
Muhlenburg	48	3.0
Bullitt	63	2.9
Barren	48	2.8
Whitley	43	2.6
Carter	31	2.5
Floyd	59	2.4
Knox	36	2.4
Calloway	35	2.3
Jessamine	31	2.3
Letcher	36	2.3
Oldham	26	2.0
Greenup	34	1.7
Marshall	20	1.6
POPULATION CATEGORY OVER - 50,000		
Kenton	616	11.5
Campbell	373	9.0
Fayette	829	8.1
Jefferson	2,544	7.4
Boyd	151	5.4
McCracken	139	4.5
Daviess	189	4.4
Warren	158	4.4
Christian	131	3.9
Madison	102	3.8
Pike	125	3.1
Hardin	117	2.6

TABLE 38. PEDESTRIAN ACCIDENT RATES BY CITY AND POPULATION CATEGORY (IN ORDER OF DESCENDING RATES)

CITY	NUMBER OF PEDESTRIAN-RELATED ACCIDENTS (1978-1982)	ANNUAL ACCIDENT RATE (ACCIDENTS PER 10,000 POPULATION
POPULATION CATEGORY OVER 100,000		
Louisville	1,911	12.8
Lexington	820	8.0
POPULATION CATEGORY 20,000 - 100,000		
Newport	252	23.3
Covington	398	16.2
Ashland	122	9.0
Henderson	110	8.9
Hopkinsville	97	7.1
Frankfort	91	7.0
Richmond	70	6.5
Bowling Green	124	6.1
Paducah	90	6.0
Owensboro	156	5.7
POPULATION CATEGORY 10,000 - 19,999		
Somerset	49	9.2
Erlanger	61	8.5
Shively	66	7.8
Winchester	58	7.6
St. Matthews	50	7.5
Florence	58	7.4
Mayfield	35	6.5
Danville	40	6.2
Madisonville	52	6.1
Elizabethtown	47	6.1
Radcliff	33	4.5
Glasgow	28	4.3
Middlesboro	26	4.2
Nicholasville	21	4.0
Jeffersontown	28	3.5
Georgetown	18	3.3
Fort Thomas	25	3.1
Murray	21	2.9
POPULATION CATEGORY 5,000 - 9,999		
Mount Sterling	30	10.3
Bellevue	37	9.6
Shelbyville	22	8.3
Princeton	28	7.9
Hazard	21	7.7
Central City	19	7.3
Russellville	26	6.9
Dayton	24	6.9
Cynthiana	20	6.8
Bardstown	20	6.5
Maysville	24	6.0
Harrodsburg	21	5.8
Lawrenceburg	15	5.8
Lebanon	18	5.5
Independence	21	5.3
Elsmere	18	5.0
Versailles	16	5.0
Hillview	5	4.8
Morehead	17	4.4
Fort Mitchell	16	4.4
Edgewood	15	4.1
Corbin	18	4.0
Williamsburg	10	3.6
Campbellsville	15	3.4
Franklin	13	3.4
Monticello	9	3.2
Berea	9	2.2
Flatwoods	7	1.7
POPULATION CATEGORY 2,500 - 4,999		
London	23	11.5
Harlan	17	11.2
Pikeville	26	10.9
Ludlow	21	8.5
Pineville	11	8.5
Lancaster	14	8.3
Shepherdsville	17	7.6
Leitchfield	17	7.5
Morganfield	14	7.4
Dawson Springs	11	6.7
Grayson	11	6.4
Irvine	9	6.2
Prestonsburg	12	6.0
Fort Wright	13	5.8
Springfield	9	5.7
Marion	9	5.3
Paintsville	10	5.2
Scottsville	11	5.1
Barbourville	8	4.9
Providence	10	4.5
Columbia	8	4.3
Russell	8	4.2
Carrollton	8	4.0
Mount Washington	8	4.0
Highland Heights	8	3.6
Southgate	5	3.5
Taylor Mill	8	3.5
LaGrange	5	3.4
Park Hills	6	3.4
Olive Hill	4	3.2
Vine Grove	5	2.8
Catlettsburg	4	2.7
Fulton	4	2.6
Lakeside Park	4	2.6
Williamstown	3	2.4
Jackson	3	2.3
Benton	4	2.2
Hickman	3	2.1
Flemingsburg	3	2.1
Greenville	4	1.7
Stanton	2	1.5
Stanford	2	1.4
Tompkinsville	3	1.4
Alexandria	3	1.3
Cumberland	2	1.1
Beaver Dam	1	0.6
Wilmore	1	0.5
Douglas Hills	0	0.0
Hartford	0	0.0
Jenkins	0	0.0
Villa Hills	0	0.0

TABLE 39. BICYCLE ACCIDENT RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES)

COUNTIES	NUMBER OF BICYCLE ACCIDENTS	ANNUAL ACCIDENT RATES (ACC/10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Ballard	10	2.3
Fulton	10	2.2
Gallatin	10	2.1
Carroll	9	1.9
Trimble	5	1.6
Crittenden	5	1.1
Bracken	4	1.0
Edmonson	5	1.0
Lyon	3	0.9
Trigg	4	0.9
Wolfe	3	0.9
Hancock	3	0.8
Carlisle	2	0.7
Spencer	2	0.7
Owen	2	0.4
Owsley	1	0.4
Elliott	1	0.3
Hickman	1	0.3
Livingston	1	0.2
Metcalfe	1	0.2
Clinton	0	0.0
Cumberland	0	0.0
Lee	0	0.0
Menifee	0	0.0
Nicholas	0	0.0
Robertson	0	0.0
POPULATION CATEGORY 10,000-14,999		
Caldwell	10	1.5
Anderson	8	1.3
Lewis	9	1.2
Larue	6	1.0
Garrard	5	0.9
Grant	6	0.9
Washington	5	0.9
Webster	7	0.9
Henry	5	0.8
McLean	4	0.8
Simpson	6	0.8
Pendleton	4	0.7
Rockcastle	4	0.6
Morgan	3	0.5
Butler	2	0.4
Green	2	0.4
Magoffin	3	0.4
Russell	3	0.4
Estill	2	0.3
Fleming	2	0.3
Jackson	2	0.3
Martin	2	0.3
Todd	2	0.3
Bath	2	0.2
Powell	1	0.2
Allen	1	0.1
Casey	1	0.1
Leslie	1	0.1
Lawrence	0	0.0
Monroe	0	0.0
POPULATION CATEGORY 15,000-24,999		
Marion	17	1.9
Bourbon	17	1.8
Union	16	1.8
Shelby	20	1.7
Mercer	13	1.4
Rowan	13	1.4
Mason	11	1.2
Woodford	11	1.2
Montgomery	11	1.1
Scott	12	1.1
Grayson	9	0.9
Logan	11	0.9
Wayne	8	0.9
Harrison	6	0.8
Breathitt	6	0.7
Taylor	7	0.7
Lincoln	5	0.5
Meade	6	0.5
Breckenridge	3	0.4
Knott	4	0.4
Hart	3	0.4
Adair	2	0.3
Johnson	4	0.3
McCreary	2	0.3
Ohio	3	0.3
Clay	1	0.1
POPULATION CATEGORY 25,000-50,000		
Henderson	79	3.9
Boyle	35	2.8
Boone	45	2.0
Franklin	39	1.9
Clark	26	1.8
Hopkins	41	1.8
Harlan	35	1.7
Calloway	21	1.4
Graves	23	1.4
Bell	23	1.3
Laurel	21	1.2
Nelson	17	1.2
Barren	18	1.1
Knox	17	1.1
Bullitt	22	1.0
Marshall	12	0.9
Muhlenburg	14	0.9
Oldham	12	0.9
Whitley	15	0.9
Jessamine	11	0.8
Perry	11	0.7
Pulaski	15	0.7
Floyd	14	0.6
Greenup	11	0.6
Letcher	7	0.5
Carter	3	0.2
POPULATION CATEGORY Over-50,000		
Kenton	296	5.5
Daviess	212	4.9
Campbell	171	4.1
Fayette	410	4.0
Jefferson	1,247	3.6
Warren	102	2.8
McCracken	69	2.3
Boyd	58	2.1
Christian	64	1.9
Madison	47	1.8
Hardin	59	1.3
Pike	25	0.6

TABLE 40. BICYCLE ACCIDENT RATES BY CITY AND POPULATION CATEGORY (IN ORDER OF DECREASING RATES)

CITY	NUMBER OF BICYCLE ACCIDENTS	ANNUAL ACCIDENT RATE (ACC/10,000 POP)
POPULATION CATEGORY OVER 100,000		
Louisville	860	5.8
Lexington	407	4.0
POPULATION CATEGORY 20,000 - 55,000		
Owensboro	196	7.2
Covington	174	7.1
Newport	68	6.3
Henderson	68	5.5
Bowling Green	85	4.2
Hopkinsville	56	4.1
Ashland	43	3.2
Paducah	47	3.2
Frankfort	34	2.6
Richmond	24	2.2
POPULATION CATEGORY 10,000 - 19,999		
Shively	48	5.7
Erlanger	36	5.0
St. Matthews	32	4.8
Danville	28	4.3
Elizabethtown	29	3.8
Fort Thomas	30	3.7
Madisonville	30	3.5
Florence	26	3.3
Jeffersontown	23	2.9
Winchester	22	2.9
Mayfield	15	2.8
Murray	17	2.4
Glasgow	15	2.3
Georgetown	12	2.2
Middlesboro	13	2.1
Radcliff	15	2.1
Somerset	8	1.5
Nicholasville	6	1.2
POPULATION CATEGORY 5,000 - 9,999		
Bellevue	33	8.6
Shelbyville	11	4.1
Bardstown	12	3.9
Edgewood	14	3.9
Dayton	13	3.7
Hazard	2	3.7
Berea	15	3.6
Paris	14	3.5
Fort Mitchell	11	3.0
Lebanon	10	3.0
Independence	11	2.8
Harrodsburg	9	2.5
Monticello	7	2.5
Versailles	8	2.5
Hillview	4	2.3
Maysville	9	2.3
Morehead	9	2.3
Princeton	8	2.3
Elsmere	7	1.9
Lawrenceburg	5	1.9
Williamsburg	5	1.8
Cynthiana	5	1.7
Corbin	7	1.6
Franklin	6	1.6
Russellville	6	1.6
Central City	4	1.5
Campbellsville	6	1.4
Mount Sterling	4	1.4
Flatwoods	5	1.2
POPULATION CATEGORY 2,500 - 4,999		
Ludlow	14	5.6
Morganfield	10	5.3
London	9	4.5
Harlan	6	4.0
Park Hills	7	4.0
Fulton	6	3.8
Fort Wright	8	3.6
Southgate	5	3.5
LaGrange	5	3.4
Catlettsburg	5	3.3
Springfield	4	2.5
Williamstown	3	2.4
Highland Heights	5	2.3
Pineville	3	2.3
Leitchfield	5	2.2
Stanford	3	2.2
Hickman	3	2.1
Pikeville	5	2.1
Carrollton	4	2.0
Prestonsburg	4	2.0
Dawson Springs	3	1.8
Douglas Hills	4	1.8
Lancaster	3	1.8
Greenville	4	1.7
Marion	3	1.7
Benton	3	1.6
Providence	3	1.4
Alexandria	3	1.3
Beaver Dam	2	1.3
Lakeside Park	2	1.3
Shepherdsville	3	1.3
Taylor Mill	3	1.3
Barbourville	2	1.2
Vine Grove	2	1.1
Wilmore	2	1.1
Jackson	1	0.8
Flemingsburg	1	0.7
Columbia	1	0.5
Mount Washington	1	0.5
Paintsville	1	0.5
Russell	1	0.5
Cumberland	0	0.0
Grayson	0	0.0
Hartford	0	0.0
Irvine	0	0.0
Jenkins	0	0.0
Olive Hill	0	0.0
Scottsville	0	0.0
Stanton	0	0.0
Tomkinsville	0	0.0
Villa Hills	0	0.0

TABLE 41. MOTORCYCLE ACCIDENT RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DESCENDING RATES)

COUNTY	NUMBER OF MOTORCYCLE ACCIDENTS (1978-1982)	ANNUAL ACCIDENT RATE (ACCIDENTS PER 10,000 POPULATION)
POPULATION CATEGORY UNDER 10,000		
Carroll	37	8.0
Gallatin	13	5.4
Livingston	23	5.0
Trigg	22	4.7
Lyon	15	4.6
Trimble	13	4.2
Ballard	18	4.1
Fulton	16	3.6
Wolfe	12	3.6
Spencer	10	3.4
Menifee	8	3.1
Owen	11	2.5
Edmonson	12	2.4
Elliott	8	2.3
Hickman	7	2.3
Carlisle	6	2.2
Crittenden	9	2.0
Clinton	9	1.9
Cumberland	7	1.9
Metcalfe	9	1.9
Owsley	5	1.8
Hancock	6	1.5
Bracken	5	1.3
Robertson	1	0.9
Lee	3	0.8
Nicholas	3	0.8
POPULATION CATEGORY 10,000-14,999		
Garrard	35	6.4
Webster	33	4.4
Caldwell	29	4.3
Larue	26	4.3
Grant	27	4.1
McLean	20	4.0
Anderson	24	3.8
Simpson	28	3.8
Powell	20	3.6
Todd	20	3.4
Lewis	19	3.3
Leslie	23	3.1
Monroe	19	3.1
Henry	19	3.0
Lawrence	21	3.0
Magoffin	19	2.8
Washington	15	2.8
Butler	15	2.7
Green	15	2.7
Jackson	16	2.7
Fleming	16	2.6
Rockcastle	18	2.6
Russell	17	2.5
Morgan	14	2.3
Estill	15	2.1
Allen	13	1.8
Pendleton	10	1.8
Martin	10	1.4
Bath	6	1.2
Casey	9	1.2
POPULATION CATEGORY 15,000-24,999		
Meade	69	6.0
Shelby	59	5.1
Union	43	4.8
Taylor	49	4.6
Mercer	43	4.5
Rowan	42	4.4
Harrison	30	4.0
Logan	48	4.0
Ohio	43	4.0
McCreary	29	3.8
Scott	41	3.8
Grayson	38	3.6
Bourbon	33	3.5
Marion	31	3.5
Breckenridge	28	3.3
Montgomery	31	3.1
Lincoln	28	2.9
Woodford	25	2.8
Johnson	33	2.7
Knott	24	2.7
Breathitt	21	2.5
Clay	27	2.4
Adair	17	2.2
Hart	15	1.9
Wayne	14	1.6
POPULATION CATEGORY 25,000-50,000		
Boone	179	8.0
Calloway	106	7.1
Henderson	141	6.9
Clark	89	6.3
Hopkins	145	6.3
Laurel	106	6.2
Boyle	70	5.6
Harlan	113	5.4
Whitley	84	5.0
Perry	82	4.9
Nelson	63	4.6
Graves	77	4.5
Bullitt	96	4.4
Barren	71	4.2
Franklin	88	4.2
Jessamine	55	4.1
Knox	60	4.0
Marshall	49	3.8
Oldham	49	3.8
Bell	62	3.6
Greenup	70	3.6
Muhlenburg	58	3.6
Pulaski	82	3.6
Carter	38	3.0
Letcher	45	2.9
Floyd	64	2.6
POPULATION CATEGORY OVER 50,000		
McCracken	256	8.4
Warren	296	8.2
Kenton	396	7.4
Hardin	314	7.1
Fayette	718	7.0
Jefferson	2,051	6.0
Boyd	163	5.9
Daviess	243	5.7
Madison	124	4.6
Campbell	187	4.5
Christian	141	4.2
Pike	146	3.6

TABLE 42. MOTORCYCLE ACCIDENT RATES BY CITY POPULATION CATEGORY
(IN ORDER OF DESCENDING RATES)

CITY	NUMBER OF MOTORCYCLE ACCIDENTS (1978-1982)	ANNUAL ACCIDENT RATE (ACCIDENTS PER 10,000 POPULATION)
POPULATION CATEGORY OVER 100,000		
Louisville	1,359	9.1
Lexington	696	6.8
POPULATION CATEGORY 20,000 - 55,000		
Bowling Green	213	10.5
Paducah	146	9.8
Ashland	106	7.8
Henderson	89	7.2
Covington	164	6.7
Hopkinsville	78	5.7
Owensboro	151	5.5
Richmond	57	5.3
Frankfort	48	3.7
POPULATION CATEGORY 10,000 - 19,999		
Radcliff	101	13.9
Shively	84	10.0
Florence	77	9.9
Murray	66	9.3
Elizabethtown	69	9.0
Madisonville	58	6.8
Erlanger	48	6.7
Mayfield	34	6.4
Danville	38	5.9
Nicholasville	29	5.6
St. Matthews	35	5.2
Glasgow	32	4.9
Somerset	25	4.7
Jeffersontown	36	4.6
Winchester	32	4.2
Middlesboro	17	2.8
Fort Thomas	18	2.2
Georgetown	12	2.2
POPULATION CATEGORY 5,000 - 9,999		
Williamsburg	25	9.0
Campbellsville	32	7.3
Hazard	19	7.0
Russellville	24	6.4
Bardstown	19	6.2
Cynthiana	18	6.1
Independence	24	6.0
Central City	15	5.8
Elsmere	19	5.3
Harrodsburg	19	5.2
Corbin	23	5.1
Princeton	17	4.8
Edgewood	17	4.7
Fort Mitchell	17	4.7
Maysville	18	4.5
Mount Sterling	13	4.5
Shelbyville	12	4.5
Franklin	16	4.1
Lebanon	13	3.9
Flatwoods	16	3.8
Morehead	14	3.6
Lawrenceburg	9	3.5
Paris	13	3.3
Versailles	10	3.1
Bellevue	11	2.9
Berea	11	2.7
Dayton	9	2.6
Monticello	7	2.5
Hillview	1	1.0

CITY	NUMBER OF MOTORCYCLE ACCIDENTS (1978-1982)	ANNUAL ACCIDENT RATE (ACCIDENTS PER 10,000 POPULATION)
POPULATION CATEGORY 2,500 - 4,999		
Carrollton	19	12.1
Fort Wright	26	11.6
Marion	19	11.2
Harlan	16	10.6
Beaver Dam	15	9.4
London	18	9.0
Morganfield	17	9.0
Pineville	10	7.7
Shepherdsville	17	7.6
Catlettsburg	10	6.7
Vine Grove	12	6.7
Pikeville	15	6.3
Benton	11	5.9
Paintsville	11	5.8
Leitchfield	13	5.7
Barbourville	9	5.6
Flemingsburg	8	5.6
Providence	12	5.4
Russell	10	5.2
Dawson Springs	8	4.9
Taylor Mill	11	4.9
Irvine	7	4.8
Hickman	6	4.1
Tompkinsville	9	4.1
Prestonsburg	8	4.0
Olive Hill	5	3.9
Alexandria	9	3.8
Highland Heights	8	3.6
Stanford	5	3.6
Grayson	6	3.5
Mount Washington	7	3.5
Southgate	5	3.5
Park Hills	6	3.4
LaGrange	5	3.4
Columbia	6	3.2
Fulton	5	3.2
Lancaster	5	3.0
Stanton	4	3.0
Scottsville	6	2.8
Greenville	6	2.6
Lakeside Park	4	2.6
Ludlow	5	2.0
Williamstown	2	1.6
Jackson	2	1.5
Springfield	2	1.3
Cumberland	2	1.1
Hartford	1	0.8
Wilmore	1	0.5
Douglas Hills	0	0.0
Jenkins	0	0.0
Villa Hills	0	0.0

TABLE 43. SCHOOL BUS ACCIDENT RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DESCENDING RATES)

COUNTY	NUMBER OF SCHOOL BUS ACCIDENTS (1978-1982)	ANNUAL ACCIDENT RATE (ACCIDENTS PER 10,000 POPULATION)
POPULATION CATEGORY UNDER 10,000		
Robertson	4	3.5
Gallatin	8	3.3
Carroll	13	2.8
Wolfe	9	2.7
Lee	9	2.3
Edmonson	11	2.2
Owen	10	2.2
Bracken	8	2.1
Owsley	6	2.1
Ballard	9	2.0
Spencer	6	2.0
Metcalfe	9	1.9
Trigg	9	1.9
Carlisle	5	1.8
Hancock	7	1.8
Cumberland	6	1.6
Hickman	5	1.6
Nicholas	5	1.4
Clinton	6	1.3
Crittenden	6	1.3
Menifee	3	1.2
Livingston	5	1.1
Elliott	2	0.6
Trimble	2	0.6
Fulton	2	0.4
Lyon	1	0.3
POPULATION CATEGORY 10,000-14,999		
Grant	24	3.6
Butler	17	3.1
Caldwell	20	3.0
Green	15	2.7
Anderson	16	2.5
Washington	13	2.4
Leslie	17	2.3
McLean	10	2.0
Morgan	12	2.0
Henry	11	1.7
Larue	10	1.7
Lawrence	12	1.7
Pendleton	9	1.7
Bath	8	1.6
Powell	9	1.6
Fleming	9	1.5
Garrard	8	1.5
Estill	11	1.5
Rockcastle	10	1.4
Allen	10	1.4
Monroe	8	1.3
Webster	9	1.2
Martin	7	1.0
Todd	6	1.0
Simpson	7	1.0
Lewis	7	1.0
Jackson	5	0.8
Casey	6	0.8
Magoffin	5	0.7
Russell	5	0.7

COUNTY	NUMBER OF SCHOOL BUS ACCIDENTS (1978-1982)	ANNUAL ACCIDENT RATE (ACCIDENTS PER 10,000 POPULATIO
POPULATION CATEGORY 15,000-24,999		
Union	25	2.8
Rowan	26	2.7
Bourbon	24	2.5
Breathitt	21	2.5
Mason	22	2.4
Marion	22	2.3
Clay	25	2.2
Logan	26	2.2
Breckenridge	18	2.1
Grayson	22	2.1
Shelby	25	2.1
Lincoln	19	2.0
Montgomery	20	2.0
Ohio	22	2.0
Knott	17	1.9
Woodford	16	1.8
Scott	28	1.7
Adair	12	1.6
Taylor	17	1.6
Hart	11	1.4
McCreary	9	1.2
Wayne	10	1.2
Johnson	13	1.1
Meade	9	0.8
Harrison	5	0.7
Mercer	5	0.5
POPULATION CATEGORY 25,000-50,000		
Clark	52	3.7
Laurel	57	3.4
Jessamine	37	2.8
Perry	41	2.4
Floyd	51	2.1
Knox	32	2.1
Oldham	28	2.1
Boone	45	2.0
Franklin	42	2.0
Boyle	24	1.9
Greenup	38	1.9
Pulaski	42	1.8
Whitley	30	1.8
Barren	29	1.7
Bullitt	37	1.7
Carter	22	1.7
Harlan	35	1.7
Nelson	24	1.7
Henderson	32	1.6
Letcher	22	1.4
Marshall	15	1.2
Bell	18	1.0
Hopkins	23	1.0
Muhlenburg	10	0.6
Calloway	8	0.5
Graves	7	0.4
POPULATION CATEGORY OVER-50,000		
Fayette	286	2.8
Kenton	144	2.7
Jefferson	896	2.6
Boyd	55	2.0
Warren	73	2.0
Daviess	82	1.9
McCracken	58	1.9
Pike	77	1.9
Madison	48	1.8
Christian	54	1.6
Campbell	61	1.5
Hardin	54	1.2

TABLE 44. SCHOOL BUS ACCIDENT RATES BY CITY AND POPULATION CATEGORY (IN ORDER OF DESCENDING RATES)

CITY	NUMBER OF SCHOOL BUS ACCIDENTS (1978-1982)	ANNUAL ACCIDENT RATE (PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Louisville	621	4.2
Lexington	180	1.8
POPULATION CATEGORY 20,000 - 55,000		
Hopkinsville	35	2.6
Richmond	22	2.5
Bowling Green	46	2.3
Paducah	32	2.2
Frankfort	27	2.1
Ashland	22	2.0
Owensboro	48	1.8
Covington	37	1.5
Henderson	16	1.3
Newport	13	1.2
POPULATION CATEGORY 10,000 - 19,999		
Nicholasville	23	4.4
Winchester	32	4.2
Shively	32	3.8
Jeffersontown	21	2.7
Somerset	14	2.6
Danville	15	2.3
Florence	16	2.1
Elizabethtown	15	2.0
Glasgow	13	2.0
St. Matthews	10	1.5
Georgetown	7	1.3
Erlanger	8	1.1
Middlesboro	7	1.1
Radcliff	5	0.7
Madisonville	4	0.5
Mayfield	2	0.4
Fort Thomas	2	0.2
Murray	1	0.1
POPULATION CATEGORY 5,000 - 9,999		
Independence	22	5.1
Lebanon	14	4.2
Morehead	15	3.9
Edgewood	13	3.6
Mount Sterling	10	3.4
Shelbyville	9	3.4
Russellville	12	3.2
Flatwoods	13	3.1
Paris	11	2.8
Lawrenceburg	7	2.7
Hazard	7	2.6
Monticello	7	2.5
Princeton	9	2.5
Campbellsville	10	2.3
Versailles	7	2.2
Corbin	9	2.0
Bardstown	6	1.9
Fort Mitchell	5	1.4
Bellevue	5	1.3
Franklin	5	1.3
Maysville	5	1.3
Williamsburg	3	1.1
Elsmere	3	0.8
Hillview	2	0.8
Cynthiana	2	0.7
Berea	2	0.5
Central City	1	0.4
Harrodsburg	1	0.3
Dayton	0	0.0
POPULATION CATEGORY 2,500 - 4,999		
London	11	5.5
Shepherdsville	11	4.9
Morganfield	9	4.8
Williamstown	6	4.8
Park Hills	8	4.6
Beaver Dam	7	4.4
Leitchfield	10	4.4
LaGrange	6	4.0
Prestonsburg	8	4.0
Jackson	5	3.8
Carrollton	7	3.5
Grayson	9	3.4
Pikeville	8	3.4
Columbia	6	3.2
Springfield	5	3.1
Taylor Mill	7	3.1
Irvine	4	2.8
Harlan	4	2.6
Dawson Springs	4	2.4
Olive Hill	3	2.4
Benton	4	2.2
Stanford	3	2.2
Stanton	3	2.2
Alexandria	5	2.1
Wilmore	4	2.1
Catlettsburg	3	2.0
Barbourville	3	1.9
Scottsville	4	1.9
Fort Wright	4	1.8
Greenville	4	1.7
Providence	3	1.4
Lakeside Park	2	1.3
Lancaster	2	1.2
Marion	2	1.2
Highland Heights	2	0.9
Tompkinsville	2	0.9
Flemingsburg	1	0.7
Hickman	1	0.7
Southgate	1	0.7
Vine Grove	1	0.6
Douglas Hills	1	0.5
Mount Washington	1	0.5
Paintsville	1	0.5
Russell	1	0.5
Villa Hills	1	0.5
Ludlow	1	0.4
Cumberland	0	0.0
Fulton	0	0.0
Hartford	0	0.0
Jenkins	0	0.0
Pineville	0	0.0

TABLE 45. ACCIDENTS INVOLVING VEHICLE DEFECT BEFORE AND AFTER REPEAL OF VEHICLE INSPECTION LAW

TIME PERIOD	TOTAL NUMBER OF ACCIDENTS	NUMBER OF ACCIDENTS INVOLVING VEHICLE DEFECTS	PERCENT OF ALL ACCIDENTS INVOLVING VEHICLE DEFECT
October 1976 -May 1978 (20 Months Before Repeal of Law)	246,500	14,440	5.86
June 1978 -December 1979 (19 Months After Repeal of Law)	233,155	16,527	7.09
January 1980 - December 1980	124,503	9,176	7.37
January 1981 - December 1981	121,810	9,196	7.55
January 1982 - December 1982	121,080	9,074	7.49

RECOMMENDATIONS

ALCOHOL- AND DRUG-RELATED ACCIDENTS

1. Alcohol is second to unsafe speed as a contributing factor in fatal accidents and is the fifth most common contributing factor to all accidents. The number of alcohol-related accidents has remained relatively unchanged over the five-year period even though the total number of accidents has decreased significantly during the same time period.

As part of the analysis, percentages of alcohol-related accidents were tabulated for counties and cities. In addition, alcohol conviction rates were tabulated by county. Those counties having high percentages of alcohol-related accidents and low alcohol conviction rates were identified as potential locations where increased enforcement may be beneficial. Counties that had high accident locations as well as 250 or more alcohol-related accidents during the five-year analysis period were judged potential counties for the increased alcohol-related enforcement program. Those counties are listed below by State Police Post:

Post Number	Counties
1	McCracken, Marshall
2	Christian, Muhlenburg
3	Warren
4	Hardin, Nelson, Meade
5	Oldham
6	Kenton, Boone
9	Pike
10	Harlan
12	Fayette
13	Perry
14	Carter
15	Marion
16	Union

2. An analysis was performed for cities similar to that for counties. However, alcohol conviction rates were not available for cities and consideration was given to conviction rates for counties within which a city was located. Again, the criterion of 250 or more alcohol-related accidents within a five-year period were applied. Cities where a program of increased alcohol enforcement is recommended are:

1. Lexington
2. Bowling Green
3. Paducah
4. Covington
5. Radcliff
6. Shively

3. Drug-related accidents continue to be a problem in some parts of the state. From the analysis of counties and cities, only a few locations have a sufficient number and/or rate of drug-related accidents to warrant a special enforcement program. It is recommended that consideration be given to a special enforcement program in Lexington because it has the highest number of drug-related accidents. Covington has the highest rate of drug-related accidents and it should be targeted for a drug-related enforcement program.

OCCUPANT PROTECTION

1. The large potential for reduction in injury and accident costs associated with increased use of safety belts warrants programs having the objective of increasing safety belt usage. Safety belt programs such as those described by the National Highway Traffic Safety Administration (NHTSA) should be implemented, with the objectives of increasing awareness of risks of traffic accidents, increasing understanding of benefits of safety belt usage, and providing assistance to organizations willing to promote safety belt usage. This should be implemented on a statewide level. Counties that are candidates for more intensive promotion campaigns were identified in Table 20. A list of those counties, by State Police Post, follows:

Post Number	Counties
1	Calloway, McCracken
2	Caldwell, Hopkins
3	Allen, Warren, Barren
4	Nelson
5	Owen
6	Harrison, Kenton
7	Estill, Jessamine, Clark

8	Mason, Montgomery
9	Pike
10	Bell
11	Wayne, Pulaski
12	Anderson, Franklin
13	Perry
14	Carter
15	Marion, Taylor
16	Henderson, Daviess

2. A current study involves a survey of the use of child safety seats after implementation of the mandatory usage law became effective in July 1982. That survey also includes observation of safety belt usage of drivers. In the next year, the Kentucky General Assembly will meet and modificatons to the current child safety seat law could be enacted. Also, intensive programs having the objective of increasing safety belt usage will be implemented. To maintain up-to-date usage statistics and to determine the effect of new or modified laws or promotional campaigns, an updated observational study should be conducted in 1984.

3. The age at which a child may safely be placed in a safety belt rather than a child safety seat has not been determined. While accident statistics (Table 25) indicate a difference in accident severity may exist between child safety seats and safety belts, a more detailed investigation is needed. An analysis should be conducted through use of a report supplement to be completed by investigating officers when a child in a restraint is involved in an accident.

4. More detailed information should be obtained for accidents in which a driver or passenger wearing a safety belt is either fatally or severely injured. A report supplement should be developed for use when an occupant wearing a safety belt receives a fatal or incapacitating injury.

5. A mandatory safety belt usage law for all drivers would provide the greatest potential for increasing safety belt usage but might be difficult to enact. However, a law requiring drivers of certain types of vehicles, such a school buses and emergency vehicles, to wear seatbelts might have a possibility of being enacted. While such a law would only affect a limited number of drivers, it would serve to publicize the need for wearing safety belts and it could have an effect on overall usage rates. A survey of public opinion on various types of safety-belt legislation would provide valuable input to the General Assembly.

SPEED-RELATED ACCIDENTS

1. Unsafe speed continues to be the primary contributing factor in fatal accidents and the fourth most frequent contributing factor in all accidents. Problems were identified for counties and cities by determining the percentages of speed-related accidents. In addition, speeding conviction rates were tabulated by county. Those counties having high percentages of speed-related accidents and low conviction rates were identified as possibilities for increased enforcement. Locations meeting the criteria for accidents and convicitions also had to have at least 250 speed-related accidents during the five-year study period. Following is a list of counties (tabulated by State Police Post) recommended for programs of increased speed enforcement:

Post Number	Counties
1	Marshall, McCracken
2	Christian, Muhlenberg
3	Warren
4	Hardin, Nelson, Meade
5	Oldham, Henry
6	Grant
7	Madison
8	Rowan, Morgan
9	Pike, Floyd, Martin
10	Harlan
11	Laurel, Clay
12	Shelby
13	Letcher, Perry, Knott, Breathitt, Leslie
14	Carter
15	Marion
16	Ohio

It should be noted that all counties in Post 13 were identified.

2. By analyzing speed-related accident rates for cities and applying the criterion of at least 250 accidents during

the five-year period, the following cities were recommended for additional programs of speed enforcement:

1. Louisville
2. Covington
3. Bowling Green
4. Hopkinsville
5. Florence

VEHICLE DEFECTS

The percentage of accidents involving vehicle defects has increased since repeal of the vehicle inspection law. It may be concluded that repeal of that law resulted in additional accidents involving vehicle defects. However, before that conclusion can be reached, a detailed study of defects involved should be conducted. There is a need for such a study to determine whether the defects that have contributed to accidents since repeal of the vehicle inspection law were of the type that might have been detected under the previous inspection program. That study could also reveal types of inspection necessary to detect defects contributing to accidents.

PEDESTRIANS

Accidents involving pedestrians were the most severe of the types investigated. The accident rate analyses identified the Newport and Covington area in northern Kentucky as a particular problem area when compared to other cities in the state (Table 38). A study to determine factors contributing to this problem with recommendations for improved traffic control measures or increased police enforcement or driver and pedestrian education programs is warranted.

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