Research Report
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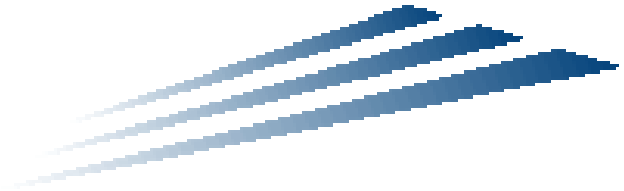
ANALYSIS OF TRAFFIC CRASH DATA IN KENTUCKY (1998 - 2002)



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ANALYSIS OF TRAFFIC CRASH DATA IN KENTUCKY (1998 - 2002)

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TABLE OF CONTENTS

TABLE OF CONTENTS (continued)

LIST OF TABLES

LIST OF TABLES (continued)

LIST OF TABLES (continued)

LIST OF TABLES (continued)

LIST OF TABLES (continued)

LIST OF FIGURES

EXECUTIVE SUMMARY

This report documents an analysis of traffic crash data in Kentucky for the years of 1998 through 2002. A primary objective of this study was to determine average crash statistics for Kentucky highways. Average and critical numbers and rates of crashes were calculated for various types of highways in rural and urban areas. These data can be used in Kentucky's procedure to identify locations that have abnormal rates or numbers of crashes.

The other primary objective of this study was to provide data that can be used in the preparation of the problem identification portion of Kentucky's Annual Highway Safety Plan. County and city crash statistics were analyzed. A summary of results and recommendations in several problem identification areas is presented. These general areas include alcohol involvement, occupant protection, speed, teenage drivers, pedestrians, bicycles, motorcycles, trucks, and vehicle defects. Other areas included in the analysis for which specific recommendations were not made include drug involvement, school bus crashes, and train crashes.

The police report was changed starting in January 2000. Some of the codes were changed from previous years, which may result in changes in some of the data. Also, the crash data are now contained in the Collision Report Analysis for Safer Highways (CRASH) data base. This data base is updated daily so the number of crashes in a given calendar year will continue to change for a substantial time after the end of that year.

1.0 INTRODUCTION

Annual reports have previously been prepared since 1978 dealing with the calculation of statewide traffic crash rates for Kentucky and preparation of the problem identification portion of Kentucky's Annual Highway Safety Plan. This is the 17th report providing a combination of those two report areas. Traffic crash data for the five-year period of 1998 through 2002 were used in the preparation of this report.

Kentucky has a systematic procedure to identify locations that have had abnormal rates or numbers of traffic crashes. However, before that procedure may be utilized, average crash rates and numbers must be determined for appropriate highway categories and for rural and urban areas. A primary objective of this study was to determine average traffic crash statistics for Kentucky. Those statistics may then be used in the high-crash location identification program to identify locations that should be investigated to determine whether changes should be made.

A highway safety program is prepared each year for 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 crashes. The second major objective of this report is to provide data that may be included as the problem identification portion of Kentucky's Annual Highway Safety Plan. Results from this report are used to provide benchmark data for that process.

2.0 PROCEDURE

Crash and volume data bases were used to obtain traffic crash statistics. Traffic crash data have been maintained in a computer file containing all police-reported crashes. The crash report was changed in 2000 with the data now contained in the Collision Report Analysis for Safer Highways (CRASH) data base. The computer files and data base were obtained from the Kentucky State Police (KSP). All police agencies in the state are required to send traffic crash reports to the KSP.

Parking lot crashes were not included in the computer file from 1994 through 1999. Parking lot crashes are now contained in the CRASH data base but they were excluded from the analysis to maintain consistency with previous years. Crashes coded as occurring on private property were also excluded from the data for 2000 through 2002 so it would be consistent with other reports. All crashes included in the analysis occurred on a public highway. Summaries were prepared from an analysis of the crash data from a combination of the computer files from 1998 through 1999 and CRASH data base for 2000 through 2002.

Volume data, along with other data describing highway characteristics such as number of lanes, were obtained from a computer file containing roadway characteristics data for all state-maintained highways. This information is obtained from the Highway Performance Monitoring System (HPMS) file. Data for a five-year period of 1998 through 2002 were obtained from this

file. The HPMS file was used to obtain the roadway information needed to compute crash rates as a function of various roadway characteristics such as number of lanes.

A computer program using both crash data from the crash data base and roadway characteristics information from the HPMS file was used to calculate rates for the state-maintained system. A separate computer program was used to obtain additional summaries of various crash variables with this program using all reported traffic crashes (excluding parking lots and private property).

Rates were calculated for: 1) state-maintained roads having known traffic volumes, route numbers, and mileposts and 2) all public streets and highways on and off the state-maintained system. Rates were provided in terms of crashes per 100 million vehicle-miles (C/100 MVM) where traffic volumes could be determined. Population was used as the measure of exposure in instances where traffic volume data were not available to use as the exposure measure. Population data from the 2000 census were used.

In addition to average rates, critical rates and numbers of crashes are required for the high-crash location program. Both types of rates were calculated. The following formula (Equation 1) was used to calculate critical crash rates.

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

in which

C_c = critical crash rate
C_a = average crash rate
sqrt = square root
K = constant related to level of statistical significance selected (a probability of 0.995 was used wherein K = 2.576)
M = exposure (for sections, M was in terms of 100 million vehicle-miles (100 MVM); for spots, M was in terms of million vehicles)

To determine the critical number of crashes, the following formula (Equation 2) was used.

$$N_c = N_a + K(\text{sqrt}(N_a)) + 0.5 \quad (2)$$

in which

N_c = critical number of crashes
N_a = average number of crashes

There are highway safety problem areas (standards) identified by the National Highway Traffic Safety Administration. Problem areas that have been identified for emphasis include alcohol and occupant protection. To identify problems in these areas, as well as other "highway standard" areas, the analyses focused on the following.

1. Statewide Crash Rates
2. County Crash Statistics
3. City Crash Statistics
4. Alcohol- and Drug-Related Crashes
5. Occupant Protection
6. Speed-Related Crashes
7. Teenage Drivers
8. Pedestrian Crashes
9. Bicycle Crashes
10. Motorcycle Crashes
11. School Bus Crashes
12. Truck Crashes
13. Train Crashes
14. Vehicle Defects
15. General Trend Analysis

3.0 STATEWIDE CRASH RATES

All of the rates referred to in this section apply to state-maintained roads having known traffic volumes, route numbers, and mileposts. Crash rates are given in terms of crashes per 100 million vehicle-miles (C/100 MVM). Using the HPMS file results in over 28,000 miles being included in this category. This compares to over 80,000 miles of public roads in Kentucky. While only approximately 40 percent of the total miles are state-maintained, in 2002 these roads accounted for approximately 86 percent of the vehicle miles traveled and 65 percent of the crashes. The crash rate on the state-maintained system is dramatically less than on the non-state maintained system. A major reason for the higher crash rate on roads not included in the analysis of the state-maintained system is the large number of crashes that occurred on state-maintained roadways but were not provided with the information necessary to be assigned to a specific location on a roadway. These crashes could not be included in the crash total assigned to the state-maintained category. There is a need to improve the procedure for placing route and milepoint information on the crash report, and this need has been addressed as part of the CRASH process started in 2000.

A comparison of 1998 through 2002 crash statistics on streets and highways having known traffic volumes, route numbers, and mileposts is shown in Table 1. The number of crashes on the state-maintained road system was higher in 2002 compared to the average of the previous four years. The smaller increase in the number of crashes compared with the increase in vehicle-miles driven resulted in a 1.3 percent decrease in the crash rate in 2002 compared to the previous four-year average. The overall crash rate in 2002 was 201 crashes per 100 million

vehicle-miles (C/100 MVM). The crash rates for the previous four years varied from 196 to 219 C/100 MVM.

The fatal crash rate showed an increase (4.1 percent) in 2002 compared to the previous four-year average. The fatal crash rate ranged from 1.44 C/100MVM in 2000 to 1.61 C/100MVM in 1998. The injury crash rate decreased by 7.3 percent in 2002 compared to the previous four-year average. The injury crash rate of 54 C/100MVM in 2001 and 2002 was the lowest during the five years. The injury crash rate has remained fairly stable for the five-year period with the range from 54 to 61 C/100MVM.

An analysis of statewide crash rates as a function of several variables, such as highway system classification, was conducted. Also included is information concerning the percentage of crashes occurring for various road conditions and during darkness. Results of this analysis are presented in APPENDIX A.

Crash rates required to implement the high-crash spot-improvement program in Kentucky are average rural and urban rates by highway type. The current classification uses number of lanes with an additional separation of four-lane highways (non-interstate or parkway) into divided and undivided categories. Interstates and parkways are classified separately. Rates for rural highways for the five-year period (1998 through 2002) are listed in Table 2. The rates for urban highways are listed in Table 3. Highways were placed into either the rural or urban category based upon the rural-urban designation denoted on the HPMS file. For sections having a volume, route, and milepost, the rural or urban and highway type classifications were determined. The crash could not be used in this analysis if the county and route were given but the milepoint was not noted. The number of crashes for each section was then obtained from the crash file. The total crash rate (crashes per 100 million vehicle-miles), as well as injury and fatal crash rates, were calculated.

On rural highways, four-lane undivided highways have the highest rate for all crashes (Table 2) followed closely by two-lane highways. Two-lane highways have the highest injury crash rate. The fatal crash rate on two-lane highways is substantially higher than the other road types. Interstates and parkways have the lowest fatal crash rates. The advantage of median-separated highways is shown when comparing the crash rates for four-lane divided (non-interstate or parkway) and four-lane undivided highways. The overall crash rate for a non-interstate or parkway divided highway (which would not typically have access control) is about 50 percent less than for an undivided highway, although the average daily traffic was fairly similar.

On urban highways, the highest overall crash rates are on four-lane undivided and three-lane highways (Table 3). The same two highway types also have the highest injury crash rates. Urban parkways, four-lane undivided highways, and the small sample of three-lane highways have a slightly higher fatal crash rate than the other types. The lowest overall crash rate and injury crash rate are on interstates and parkways. Interstates have the lowest fatal crash rates.

Tables 2 and 3 show that the overall total crash rate on urban highways is almost 44 percent higher than that on rural highways. Also, the injury rate on urban highways is 8 percent greater than that for rural highways. However, the fatal crash rate on urban highways is only 38 percent of that for rural highways.

Variations in crash rates by rural and urban highway-type classifications over the five-year period are listed in Table 4. There was a larger decrease in the overall crash rate in urban areas (3.5 percent) compared to rural areas (0.2 percent). Only a small percentage (about 11 percent) of state-maintained mileage is classified as urban. The rates generally fluctuated more for the highway types that had only a small number of miles.

Trends in overall crash rates representative of rural and urban areas are shown graphically in Figure 1 for the five-year period of 1998 through 2002. In addition, trends in crash rates for types of highways are shown for rural highways (Figure 2) and urban highways (Figure 3). These rates apply to state-maintained roads having known traffic volumes, route numbers, and mileposts.

Average rates listed in Tables 2 and 3 may be used to determine critical crash rates for sections of highway of various lengths. In addition to highway sections, Kentucky's high-crash location procedure uses highway “spots”, defined as having a length of 0.3 or 0.1 mile. The highway “spot” represents a specific identifiable point on a highway. Statewide crash rates for "spots", by highway-type classification, are listed in Table 5 using 1998 through 2002 data.

The first step in Kentucky's procedure for identifying high-crash locations involves identifying “spots” and sections that have more than the critical numbers of crashes. Then, the crash rates for those locations are compared to critical crash rates. Statewide averages and critical numbers of crashes for 0.3-mile "spots" and one-mile sections by highway-type classification are presented in Table 6 for 1998 through 2002. Critical numbers of crashes, such as those listed in Table 6, are used to establish the "number of crashes" criterion for determining the initial list of potential high-crash locations. For example, six crashes in this time period would be the critical number of crashes for a 0.3 mile “spot” on a rural, two-lane highway.

The numbers and rates presented in Tables 2, 3, 5, and 6 could be calculated for various numbers of years. A three-year period is used in some analyses. The data shown in those tables were calculated for a three-year period (2000-2002) with the results shown in APPENDIX B. Data for 0.1 mile “spots” are also given.

Critical numbers of crashes for various section lengths were determined for each highway type using Equation 2 on page 2. Results are presented in the tables found in APPENDIX C. Section lengths up to 20 miles for rural roads and up to 10 miles for urban roads are included. The critical numbers of crashes given in this appendix are for the five-year period of 1998 through 2002.

After the initial list of locations meeting the critical number criterion is compiled, comparisons between crash rates for those locations and critical crash rates are made. Critical rate tables for highway sections for the five-year period of 1998 through 2002 are presented in

APPENDIX D. Critical crash rates for the various rural and urban highways were determined as a function of section length and traffic volume (AADT). The rates are listed in units of crashes per 100 MVM and were calculated using Equation 1 on page 2.

Critical rate tables for 0.3 mile "spots" are contained in APPENDIX E. Those rates are presented in units of crashes per million vehicles and also were determined using Equation 1. These rates are for the five-year period of 1998 through 2002.

4.0 COUNTY CRASH STATISTICS

Crash rates were calculated for each county considering 1) only the state-maintained system and 2) all roads within the county. The crash rates are presented in terms of C/100 MVM. Total crash rates were calculated for both categories. Also, using all roads in the county, crash rates were calculated considering fatal crashes only and fatal-or-injury crashes only. Those rates are presented in Table 7. The numbers given represent the crashes reported by the various police agencies in each county. If any agency does not report all of the crashes they investigate, the number of crashes listed in that county will be lower than the actual number that occurred. Total miles traveled in each county were determined by combining miles traveled on roads having known traffic volumes with those having no recorded volumes. The HPMS file was used to tabulate vehicle-miles traveled by county on roads having traffic volume counts. The difference between the statewide total of vehicle-miles traveled on roads having known traffic volumes (provided by the Kentucky Transportation Cabinet) compared to the total estimated miles driven in the state was then distributed to each county. The distribution was based upon the percentage of registered vehicles in each county of the total in the state. The total miles driven in each county was then obtained by adding the known miles driven on the state-maintained highway system and the estimated miles driven on the remaining streets and highways.

To assist in the analysis of county crash statistics, county populations were tabulated (in descending order) and presented in Table 8. The population data used are from the 2000 census. The counties were then grouped into five categories based upon population. Using crashes on all roads in the county, average and critical crash rates were calculated (Table 9). The total crash rate and injury-or-fatal crash rates generally increased as population increased while the fatal crash rate decreased with increased population. The critical crash rate was calculated using Equation 1. Critical rates (in terms of crashes per 100 million vehicle-miles) were calculated for total crashes, fatal crashes, and injury-or-fatal crashes. The numbers of counties having rates above critical in each population category were determined. The total number was 38 for total crashes, 36 for injury-or-fatal crashes, and three for fatal crashes. There has been consistency over the past few years in the counties that have a critical rate. For example, all 38 counties determined to have a critical crash rate when total crashes were considered were also identified in the most recent report.

Table 10 contains the number of crashes and total crash rates for all counties grouped by population category (considering all roads in the county). Counties within each population

category are listed in order of descending crash rate, with the critical rates identified with an asterisk.

Crash rates for each county were also calculated considering only the state-maintained system. Those rates, grouped by population category, are presented in Table 11. The rankings of counties in Tables 10 and 11 are similar. In three of the five population categories, the same county had the highest rate considering all roads or state-maintained roads. These counties are Crittenden County (in the under 10,000 population category), Pendleton County (in the 10,000 to 14,999 population category), and Harrison County (in the 15,000 to 24,999 population category). In the 25,000 to 50,000 population category, Boyd County has the highest rate for all roads while Jessamine County has the highest rate for the state-maintained system. In the over 50,000 population category, Fayette County has the highest rate for all roads while Kenton County has the highest rate for the state-maintained system. When all roads are considered, Fayette and Daviess Counties have the highest rates in the state. When only state-maintained roads are considered, Harrison and Jessamine Counties have the highest rates in the state. Gallatin County, which is in the lowest population category, has the lowest rate in the state for all roads. Crash rates were higher when all roads were considered compared to rates for only the state-maintained system.

Using crashes on all roads in each county, injury or fatal crash rates are listed in Table 12 in descending order by population category. Counties having critical rates are identified with an asterisk. Counties having the highest rates for their population categories are Crittenden, Leslie, Breathitt, Perry, and Pike. Breathitt County has the highest rate in the state while Lyon County had the lowest rate.

Similar rates for fatal crashes are listed in Table 13. Counties having the highest rates for their population categories are Cumberland, Lewis, Breathitt, Meade, and Pike. The highest rates are generally for the smallest counties where there would be more driving on two-lane rural roads which have been found to have the highest fatal crash rate (Table 2). Breathitt, Pike, and Pulaski Counties are the only counties identified as having a critical fatal crash rate.

A summary of other miscellaneous crash data used in the problem identification process is presented by county in Table 14. This table includes the number of crashes by year for the last five years; percent change in the 2002 crash total from the previous four-year average; percentages of crashes involving alcohol, drugs, and speeding; percentage of fatal crashes; percentage of injury-or-fatal crashes; and percentage of drivers using safety belts.

5.0 CITY CRASH STATISTICS

Crash statistics were analyzed for cities by using the 1998 through 2002 crash data. The primary group of cities included in the analysis were those having a population over 2,500 which had a city code in the computer file allowing crash data to be summarized. Incorporated cities in Jefferson County, such as St. Matthews, Jeffersontown, and Shively, were included separately from Louisville. Therefore, for Louisville, only the population of the city area was included instead of a metropolitan area population.

Table 15 is a summary of crash rates for cities included in the 2000 census having populations of more than 2,500 where crash data could be related to the city for all five years. Crashes recorded as occurring in the city are included. However, crashes using the city as a reference but recorded as occurring any distance from the city were not included. Table 15 includes 117 cities. There were 10 cities for which no data could be obtained for the state-maintained system. Rates in terms of C/100 MVM are listed for the state-maintained system while rates in terms of crashes per 1,000 population are listed using all streets in the city. The table notes a few cities where no data was available for the state-maintained system. There were also some cities for which only 2000 through 2002 data were available.

Additional statistics are listed in Table 16 for the 116 cities that had five years of crash data available for analysis. Rates for fatal crashes, pedestrian-motor vehicle crashes, bicycle-related motor vehicle crashes, and motorcycle crashes are provided. Those rates are in terms of crashes per 10,000 population. Percentages of crashes involving speeding or alcohol are also listed.

Total crash rates for all cities listed in the 2000 census are summarized in APPENDIX F (Table F-1). A total of 359 cities were listed with a population in the census. Information included for the cities were population, number of crashes, and crash rate (crashes per 1,000 population). However, a city code was not available for several small cities and there was no data prior to 2000 for a few other cities. This resulted in data being available for 351 cities in Appendix F.

Crashes on the state-maintained system of highways within a city typically only accounted for a portion of all the crashes occurring within any city. Therefore, total crash rates were used to determine critical crash rates for cities. Crash rates on the state-maintained system, by city and by population category, are shown in Table 17. The cities are listed in descending order by crash rate for each population category. The cities for which a match could not be obtained using a city code listed in the HPMS file would not be listed in Table 17. Lexington, Richmond, Saint Matthews, Shepherdsville, Marion, and Dry Ridge have the highest crash rate on state-maintained streets in their population category. Cities in the 1,000 to 2,499 population category are also included in this table. This table provides data for 165 cities. The average crash rate for all cities in a category is also listed. The overall rates are highest for cities in the population category between 10,000 and 19,999. The lowest overall rate is for the 1,000 to 2,499 population category. The large range in rates is related in part to the detail of reporting. For example, the higher rate in Lexington compared to Louisville resulted from the Louisville police not reporting the state route number in many cases and non-reporting of property damage only crashes.

Total crash rates for cities by population category are listed in Table 18. They are tabulated in order of descending crash rates and critical rates are identified with an asterisk. The order of rates for cities is very different in Table 18 compared to Table 17. Twenty-four cities were identified as having total crash rates above critical. Louisville, Florence, Somerset, London, and Hazard have the highest total crash rates in their respective population ranges. Fatal crash rates, by city and population category, are listed in Table 19. They also are tabulated

in order of descending fatal crash rates. Louisville, Elizabethtown, Somerset, Pikeville, and Mount Vernon have the highest fatal crash rates in their respective population ranges with no city identified as having a critical fatal crash rate. Mount Vernon has the highest rate overall.

6.0 ALCOHOL- AND DRUG-RELATED CRASHES

Alcohol- and drug-related crashes continue to be one of the highest priority problem identification areas and considerable emphasis is being placed on programs to impact those problems. In Kentucky, the number of traffic crashes in which alcohol was listed as a contributing factor on the crash report has averaged about 5,696 per year for the past five years. Alcohol-related fatalities have averaged 201 per year during the past five years (using Fatal Analysis Reporting System data). If the cost of an average motor-vehicle crash is used, the estimated annual cost of alcohol-related crashes in Kentucky is in the range of $92 to $259 million depending on the source of the crash cost estimates (economic cost or comprehensive cost from the National Safety Council).

The number of alcohol-related crashes has generally decreased over the past several years. In the early 1980's, the annual number of alcohol crashes was over 10,000. In 1984, there were 9,007 alcohol-related crashes (6.6 percent of all crashes). This number decreased to the relatively constant level of approximately 7,700 to 8,100 from 1985 through 1990. There was then a gradual reduction in alcohol-related crashes to a low of 5,995 in 1994. The first yearly increase since 1990 occurred in 1995 (to 6,163). The number of alcohol-related crashes then decreased yearly during 1996-1998 from 6,150 to 5,222. In 1999, there was a slight increase to 5,441 and a larger increase in 2000 to 6,127. In 2001, the decrease in alcohol-related crashes started again with a total of 5,853 and 5,839 in 2002. Even though the total decreased in 2002, it represents a 3.1 percent increase compared to the previous four-year average. The number in 1998 was the lowest number since this trend analysis was started in 1978. Alcohol-related crashes represented 4.4 percent of all crashes during the latest five-year period. The number of alcohol-related fatalities in 2002 (209) increased by 5.0 percent over the 1998 through 2000 average (199). The number in 2002 ended the decreasing trend over the past several years.

To identify alcohol-related crash problem areas, percentages of crashes involving alcohol were summarized for counties and cities as shown in Tables 20 and 21, respectively. In Table 20, the number and percentage of crashes involving alcohol were determined by considering all drivers and those under 21 years of age. This allowed a separate analysis for young drivers. The counties are listed by county population group in order of descending percentages of alcohol crashes for all drivers. Counties in each population category having the highest percentage of crashes involving alcohol, considering all drivers, are Menifee, Spencer, Marion, Floyd, and Pike.

The information provided in Table 20 also may be used to determine the counties that have the highest percentages of crashes involving alcohol for young drivers by county population category. The counties identified as having the highest percentages of alcohol-related crashes, considering only young drivers, were not typically the same as those identified when all drivers were considered. For 16 through 20 years of age drivers, the county in each population category

having the highest percentage of crashes involving alcohol are Menifee, Lewis, Breathitt, Floyd, and Madison.

Table 21 is a summary of number and percentage of crashes involving alcohol for cities. For each population category, cities having the highest percentages of crashes involving alcohol are Lexington, Covington, Shelbyville, Dayton, and Vine Grove.

Additional analyses were performed to show the number and rate of alcohol convictions by county (Table 22). Rates are in terms of convictions per 1,000 licensed drivers and convictions per alcohol-related crash. Five years of conviction data (1998 through 2002) were used in the analysis. The data were obtained from records maintained by the Administrative Office of the Courts (AOC). Those same rates are presented in Table 23 with counties grouped by population ranges and rates are listed in order of descending percentages. Counties in each population group having the lowest rates of alcohol convictions per 1,000 licensed drivers are Robertson, Edmonson, Breckinridge, Oldham, and Jefferson. Counties having the lowest rates of alcohol convictions per alcohol-related crash are Menifee, Owen, Mason, Letcher, and Madison. Counties having low rates for either convictions per 1,000 licensed drivers or convictions per alcohol-related crash may be candidates for increased enforcement or other special programs (especially if they have a high percentage of alcohol-related crashes). Data in Table 22 show that, statewide, the number of alcohol convictions has remained fairly constant during the five-year period from a low of slightly over 26,000 in 2001 to a high of over 28,000 in 2000. The number of alcohol convictions in 2002 was slightly lower (2.9 percent) than the average of the previous four years.

A comparison was also made between the total alcohol filings, convictions and non-convictions, by county, for the five years of 1998 through 2002 (Table 24). The data for "driving under the influence" filings and the results of the filings were obtained from the AOC. The statewide percentage of alcohol convictions per filing over these five years was 62.9 percent. The percentages varied from a low of 54.4 percent in Leslie County to a high of 92.1 percent in Henry County. In previous years, the percentages would be affected by the overlapping effects of filings being made and convictions being prosecuted in different calendar years. However, the current procedure calculates conviction rate using those filings which are resolved with either a conviction or non-conviction in the same calendar year as the filing. Three counties have a conviction percentage of 90 percent or more. The highest rates, in descending order, were found in Henry, Henderson, and Shelby Counties. Two counties have a conviction rate under 60 percent. The lowest rates, in descending order, were found in Leslie and Clay Counties.

The counties are grouped by population category and are placed in decreasing order of conviction percentage in Table 25. The average conviction percentage did not vary substantially by population category with a range of from 78.4 to 81.0 percent. Counties having the highest conviction percentages in the various population categories are McLean, Lewis, Henry, Henderson, and Fayette. Counties having the lowest conviction percentages for the various population categories are Owsley, Leslie, Clay, Barren, and Jefferson.

A drunk-driving offense may be reduced to a charge of reckless driving. This could occur when a person is arrested for drunk driving because of erratic driving behavior, and then

field sobriety or BAC tests fail to confirm the drunk-driving charge. In addition, the severity of the penalty for drunk driving could result in a reduction of the drunk-driving charge to reckless driving. For those reasons, it was determined that a summary of reckless driving convictions would be beneficial. Numbers of reckless driving convictions and the rate of convictions per 1,000 licensed drivers for each county are presented in Table 26. In the time period of 1998 through 2002, the highest number of convictions was in 1998. There has been a decrease in the number of reckless driving convictions since that year. The number in 2002 was a 13.5 percent decrease from the average number in the previous four years. The highest rates (convictions per 1,000 licensed drivers) occurred in Lyon, Gallatin, and Clinton Counties. The lowest rates are in Trimble, Oldham, and Marshall Counties.

Drugs continue to be listed as a contributing factor in a relatively small percentage of all crashes. The number of drug-related crashes decreased in 2002; however, when compared to the previous four-year average, the crashes increased 10.9 percent. The 1999 through 2002 data were the only available data that included follow-up studies of drivers from FARS. Only about 500 drug-related crashes had been reported prior to 1999 with the number increasing to 1,206 in 2001. In 2002, there was a slight decrease to 1,091 drug-related crashes. The number of drug-related injury crashes increased by 24.9 percent in 2002 compared to the previous four-year average. The number of drug-related fatal crashes increased by 15.3 percent in 2002 compared to the previous three-year average. There were 143 fatal drug-related crashes in 2002.

Percentages of crashes involving drugs (as noted by the investigating officer) by county and population category are presented in Table 27. Counties having the highest percentages of drug-related crashes by population category are Owsley, Martin, Johnson, Floyd, and Pike. The data in Table 27 show most of the counties with the highest percentages are in southeastern Kentucky. The highest percentages of this type of crash are in Martin, Johnson, Leslie, Magoffin, and Clay counties.

Another summary was prepared to show percentages of crashes involving drugs by city population categories (Table 28). Within each population category, cities having the highest percentages of drug-related crashes were Lexington, Ashland, Middlesboro, Pikeville, and Paintsville.

7.0 OCCUPANT PROTECTION

The percentages of drivers of passenger cars involved in traffic crashes that were reported as wearing safety belts are listed by county in Table 14. Those percentages are listed in descending order by county population category in Table 29. Those percentages are for the five-year period of 1998 through 2002. The rates varied from a high of 95.7 percent in Fayette County to a low of 77.9 percent in Robertson County. Observational surveys have been conducted across the state for several years and have shown significantly lower rates than that reported in the crash data. The data in Table 29 can be used to rank counties but cannot be used for absolute percentages since they are substantially higher than observed levels. Considering the five-year study period, 44 counties had rates over 90 percent while only 4 had a rate under 80 percent.

It should be noted that a statewide safety belt law was passed with an effective date in July 1994. Prior to the statewide law, local ordinances had been enacted by several cities and counties. The first such ordinances were enacted in Fayette County effective July 1, 1990 and in the city of Louisville effective July 1, 1991. Similar ordinances were adopted in Jefferson County, Murray, Kenton County, Bowling Green, Corbin, Bardstown, and Midway. Observational surveys conducted since the enactment of the local ordinances and statewide law have demonstrated their effectiveness in increasing usage rates.

Even though a statewide safety belt law has been passed, there is a need for continued promotion and enforcement of the law. Counties having the potential for intensive promotional campaigns are identified by an asterisk in Table 29. Those counties were selected on the basis of their safety belt usage rate, crash rates, and location in the state. Counties having low usage rates were identified with the criterion of selecting one county from within each of the 16 Kentucky State Police Posts' areas of jurisdiction. When possible, an attempt was made to select counties having high crash rates (either total crash rate or injury or fatal crash rate). Also, an attempt was made to select counties that had not been identified in the past couple of years.

The variances of safety belt usage rate reported by passenger car drivers involved in traffic crashes, by year, from 1998 through 2002 are presented in Table 30 along with the relationship between county population and safety belt usage rate. The reported percentage using safety belts has increased slightly from 1998 through 2002. The annual increase had been decreasing prior to 1994 when there was an increase of almost 14 percentage points from the previous year. This large increase corresponded with the enactment of the statewide safety belt law. It should be noted that the usage rate computed using crash data has been substantially higher than determined from observational surveys. For example, the statewide observational survey for 2002 resulted in a driver usage rate of 62 percent compared to the 92 percent reflected in the crash data. This table also shows the higher usage percentages for counties having over 50,000 population. Counties in the over 50,000 population category had a usage rate about 7 percent higher than for counties in the under 10,000 population category. This difference has been found to be higher in the observation survey.

Safety belts are recognized as an effective method of reducing the severity of injuries in traffic crashes. This is confirmed by data presented in Table 31. This table shows that, when a driver of a motor vehicle is wearing a safety belt at the time of a crash, the chance of being fatally injured is reduced by about 95 percent compared to not wearing a safety belt. Also, the chance of receiving an incapacitating injury is reduced by 82 percent and the chance of receiving a non-incapacitating injury is reduced by 69 percent. Safety belts will greatly decrease the possibility of injury in crashes involving large deceleration forces, but some injury or complaint of soreness or discomfort may persist. In many instances, use of seat belts will reduce a severe injury to a less severe injury. The category of "possible injury", which involves a complaint of pain without visible signs of injury, decreased only 40 percent (from 11.71 percent for drivers not wearing safety belts to 7.08 percent for drivers wearing safety belts). The chance of receiving either a fatal or incapacitating injury was reduced by 84 percent. These percentages are high when compared to national statistics concerning the effectiveness of safety belts in reducing fatal or serious injuries. The reason would probably be related to the over reporting of

seat belt usage (as shown in Table 30). This would occur more often for drivers who were not injured so there was no physical evidence of whether they were wearing a seat belt.

The change in crash severity for drivers wearing and not wearing a safety belt is presented in Table 32 for the years 1998 through 2002. The reduction in severity from the use of safety belts has remained consistent.

Potential savings associated with increased safety belt usage were estimated and are shown in Table 33. This table lists the annual potential reduction in the number of fatalities, serious injuries (those listed as incapacitating on the crash report), and the associated crash cost savings resulting from that reduction. Those savings are given for driver usage rates from 70 to 90 percent. To obtain these results, safety belt usage statistics from 1998 through 2002 were used along with an estimate of the economic cost of traffic crashes provided by the National Safety Council (as shown in the footnote in Table 33). The actual number of fatalities and incapacitating injuries for 1998 through 2002 were used along with the average usage rate over this time period. Also used was the reduction associated with safety belt usage of 95 percent for fatalities and 83 percent for incapacitating injuries. Crash cost estimates were $1,090,000 for a fatality and $52,100 for an incapacitating injury. For example, if 70 percent of all drivers involved in crashes in Kentucky wore safety belts, there would be a potential annual reduction of about 118 fatalities and a potential annual reduction in the cost of fatalities and serious injuries of approximately 172 million dollars.

A summary of usage and effectiveness of child safety seats for children under the age of four who were involved in traffic crashes is presented in Table 34. Data are for 1998 through 2002. Age categories in the crash file governed the age category that was used. Most children three years of age or younger would be placed in a child safety seat rather than a seat belt 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 33 fatalities (children age three and under) occurring during the study period, 18 involved use of a restraint. The use of a restraint in over one-half of the fatalities would be related to the very high usage rate and possibly to improper usage. Also, of 396 incapacitating injuries, 300 involved use of a restraint. A better measure of effectiveness would be the percentage sustaining a specific injury. This analysis revealed the percentages of fatalities and incapacitating and non-incapacitating injuries were much lower for children who were in a child safety seat or safety belt compared to those using no restraint. Comparison of the "any restraint" and "none" categories revealed there was a 94-percent reduction in fatalities for children in restraints, an 85-percent reduction in incapacitating injuries, a 77-percent reduction in non-incapacitating injuries, and a 57-percent reduction in possible injuries.

An analysis of the percentage of children in restraints revealed the percentage was higher in the rear seat than in the front seat. A comparison of percent usage by year shows the constant very high usage rate. The most recent usage rate using the crash data was 97 percent in 2002. This compares to the usage rate of 93 percent found in the 2002 observational survey.

8.0 SPEED-RELATED CRASHES

Speed is one of the most common contributing factors in total crashes and fatal crashes. Speed-related crashes had remained fairly constant during the previous years. In 2001, the number of speed-related crashes was the lowest it has been since the inception of this report. In 2002, the number of speed-related crashes decreased by 0.3 percent compared to the previous four- year average. For the five-year period (1998-2002), speed-related crashes represented 6.9 percent of all crashes, 10.6 percent of injury crashes, and 23.1 percent of fatal crashes. The number of speed-related fatal crashes increased by 2.3 percent in 2002 compared to the previous four- year average. The number of speed-related fatal crashes ranged from a high of 201 in 1999 to a low of 154 in 2000 and 2001. The number of speed-related injury crashes decreased by 11.6 percent in 2002 compared to the previous four years. The number of speed-related injury crashes ranged from a high of 4,030 in 1998 to a low of 3,122 in 2001.

As a means of analyzing speed-related crashes, crashes having "unsafe speed" coded as a contributing factor were summarized by county and population category in Table 35. Starting in 2000, there were two codes indicating speed was a contributing factor. These codes are “exceeded stated speed limit” and “too fast for conditions.” When arranged in order of decreasing percentages of speed-related crashes, those counties having the highest percentages in each population category are Menifee, Owen, Lincoln, Carter, and Pike. A similar summary of crashes involving unsafe speeds for cities was prepared and is presented in Table 36. Those cities having the highest percentages in each population category are Lexington, Hopkinsville, Erlanger, Villa Hills, and Park Hills.

In addition to crash analysis, the other major area of analysis for unsafe speed was speed convictions. Areas having large percentages of crashes involving speeding and low conviction rates are candidates for increased enforcement. Table 37 presents a summary of speeding convictions by county. Numbers of speed convictions, speed convictions per 1,000 licensed drivers, and speeding convictions per speed-related crash are included. For the five-year period examined, the number of speeding convictions for the entire state ranged from 84,961 in 2001 to 103,126 in 1999.

To assist in identifying areas having the potential for increased enforcement, Table 38 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 drivers are Elliott, Monroe, McCreary, Harlan, and Pike. The counties identified as having the lowest rates of speeding convictions per speed-related crash are Elliott, Jackson, McCreary, Harlan, and Pike. There was a predominance of counties having high percentages of speed-related crashes and low rates of convictions in the southeastern section of Kentucky.

The percentage of vehicles exceeding the 55-mph speed limit was monitored and reported by the Kentucky Department of Highways on a quarterly basis from 1978 through 1994. This requirement was eliminated with federal legislation passed in 1995 that changed speed limit requirements. The speed monitoring program was then ended. As part of a 1997 study of Kentucky speed limits, moving speed data were taken on various highway types. Summary of

that data for cars and trucks are given in Tables 39 and 40, respectively. The average and 85th percentile speeds are given along with the percent over the current speed limit. The data show the speeds for trucks are less than that for cars and a large percentile of drivers exceed the posted speed limit. The report recommended a slight increase in speed limits on some types of roads with the speed limit for cars 5 mph higher than for trucks on some roads. For example, the recommended speed limits on rural interstates and four lane parkways were 70 mph for cars and 65 mph for trucks. Speed limits of 60 mph for cars and 55 mph for trucks were recommended on two lane parkways and rural two lane roads with a full width shoulder.

9.0 TEENAGE DRIVERS

A separate analysis was conducted to determine the frequency of crashes involving teenage drivers. A review of driver records show that teenage drivers account for approximately 5.9 percent of licensed drivers in Kentucky. However, crash data show that teenage drivers are involved in a much higher percentage of traffic crashes. Using 2002 data, it was found that teenage drivers were involved in about 21 percent of all crashes, 23 percent of injury crashes, and 19 percent of fatal crashes. Teenage drivers (including drivers with a learner permit) are over represented by a factor of 3.6 in all crashes, 3.9 in injury crashes, and 3.2 in fatal crashes.

The involvement rate of teenage drivers compared to all drivers in total and fatal crashes was analyzed (using 2002 data). Considering all crashes, the rate was 69 crashes per 1,000 drivers for all drivers compared to 177 crashes per 1,000 drivers for teenage drivers. Considering fatal crashes, the rate was 38 fatal crashes per 100,000 drivers for all drivers compared to 95 fatal crashes per 100,000 teenage drivers. These rates again show the over representation of teenage drivers in both total and fatal crashes.

10.0 GENERAL CRASH STATISTICS

Several types of general statistics were developed for use in analyses of specific problem areas. Included were crash trends over a five-year period and several types of statistics for crashes involving pedestrians, bicycles, motorcycles, school buses, trucks, and trains.

10.1 CRASH TREND ANALYSIS

An analysis of crash trends over the five-year period is summarized in Table 41. The crashes in 2002 were compared to an average of the preceding four years (1998-2001). There was a decrease in total crashes (0.3 percent) when comparing 2002 to the previous four years. It should be noted that crashes in parking lots were not included in the analysis.

The highest number of crashes occurred in 2000 (135,079) with the lowest number occurring in 1998 (125,698). The number in 1998 was affected by incomplete data submitted from Jefferson County at the time of data analysis. When the subsequent reports are considered, the number of crashes in 1998 was very similar to the other years. This did not affect the number of reported fatal crashes in 1998. The number of fatal crashes and fatalities in 2002 increased

compared to the previous four-year average. The number of fatal crashes increased by 8.7 percent while the number of fatalities increased by 9.3 percent. The number of fatalities ranged from 819 in 1999 to 917 in 2002. The number of injury crashes and injuries in 2002 was lower than the previous four-year average. There was a 6.2 percent decrease in injury crashes with a 6.5 percent decrease in injuries. The number of injuries varied from 49,329 in 2002 to 54,951 in 1999.

Vehicle-miles traveled has generally remained constant over the five-year period ranging from 46.255 billion miles in 2001 to 47.816 billion miles in1999. The vehicle miles traveled in 2002 has increased slightly (0.1 percent) compared to the previous four-year average. There were increases in 2002 in the fatal crash rate (9.7 percent) and fatality crash rate (9.9 percent). The total crash rate varied from a low of 270 C/100 MVM in 1998 to 289 C/100 MVM in 2000. The fatality crash rate in 1999 had the lowest rate in this five-year period with the highest in 2002.

Trends in the number of specific types of crashes also are presented in Table 41. Those trends are discussed in the section dealing with that crash category.

There was a total of 653,530 crashes in the five-year period, of which 3,800 (0.6 percent) were fatal crashes and 170,523 (26.1 percent) were injury crashes. Those crashes resulted in 4,271 fatalities and 260,280 injuries. There is a large range used when estimating crash costs. Using National Safety Council estimates of motor vehicle crash cost, considering economic or comprehensive costs, results in an estimate for 2002 of 2.1 to 5.9 billion dollars for the cost of Kentucky traffic crashes or an average cost of $16,200 to $45,400 per crash.

Additional general statistics compiled by county for crashes involving pedestrians, bicycles, motorcycles, school buses, and trucks are included in Table 42. Numbers of crashes and average annual crashes per 10,000 population were included.

10.2 PEDESTRIAN CRASHES

The number of pedestrian crashes had a large decrease of 12.5 percent in 2002 compared to the period from 1998 through 2001. The number of crashes has remained fairly constant from 1998 through 2000 with a range of from 1,077 to 1,124. Since 2000, there has been a constant decrease in the number of pedestrian crashes. Pedestrian collisions are a severe type of crash. In 2002, pedestrian crashes accounted for only 0.7 percent of all crashes but 2.4 percent of injury crashes and 6.5 percent of fatal crashes. The number of injury crashes decreased by 15.7 percent in 2002 while the number of fatal crashes decreased by 5.4 percent in 2002 compared to the 1998 through 2001 average. Injury crashes ranged from 786 in 2002 to 1,011 in 1999 while fatal crashes ranged from 52 in 2000 to 65 in 1998.

A summary of pedestrian crash statistics by county and population category is presented in Table 43. Numbers of crashes and annual crash rates per 10,000 population are included. From the listing of crash rates in descending order, the following counties have the highest rates in each population category: Crittenden, Carroll, Grant, Henderson, and Jefferson. A similar analysis was performed for pedestrian crashes by city and population category.

Results are summarized in Table 44 and the following cities have the highest rates in their respective population categories: Louisville, Covington, Newport, Lebanon, and Williamstown. Newport and Covington had substantially higher rates than any other city.

10.3 BICYCLE CRASHES

Numbers and rates of motor-vehicle crashes involving bicycles by county are listed in Table 45. Counties were grouped by population category. The counties having the highest crash rate in each category are Fulton, Carroll, Mason, Henderson, and Campbell. A similar summary was prepared for cities and the results are presented in Table 46. Cities having the highest rate of bicycle-related crashes in each population category are Louisville, Covington, Newport, Bellevue, and Carrollton and Fulton.

The number of bicycle crashes decreased in 2002 (13.0 percent) compared to the average of 1998 through 2001. The number of bicycle crashes has ranged from 497 in 2002 to 606 in 1999. This is a severe type of crash. In 2002, while bicycle crashes accounted for 0.4 percent of all crashes, they accounted for 1.1 percent of injury crashes and also 1.1 percent of fatal crashes. The number of injury crashes decreased by 23.6 percent in 2002 while the number of fatal crashes increased by 12.5 percent compared to the 1998 through 2001 average. The range in injury crashes was from 349 in 2002 to 512 in 1999 while the number of fatal crashes ranged from 4 in 2000 to 10 in 1999.

10.4 MOTORCYCLE CRASHES

County and city statistics for crashes involving motorcycles are presented in Tables 47 and 48, respectively. For each population category, counties having the highest rates for motorcycle crashes per 10,000 population are Elliott, Pendleton, Breathitt, Boyd, and Pike (Table 47). The highest rate is in Pike County. From Table 48, those cities having the highest rates in each population category are Louisville, Paducah, Madisonville, Pikeville, and Fulton. The rate in Pikeville was substantially above any other city.

There was a significant increase in the number of motorcycle crashes in 2002 (22.1 percent) compared to the 1998 through 2001 average. The numbers over the five-year period ranged from a high of 1,300 in 2002 to a low of 835 in 1998. This is a severe type of crash. Data in 2002 show that motorcycle crashes accounted for 1.0 percent of all crashes but 2.9 percent of injury crashes and 5.2 percent of fatal crashes. The number of injury crashes increased by 18.2 percent while the number of fatal crashes increased by 2.4 percent in 2002 compared to the 1998 through 2001 average. The number of injury crashes ranged from 647 in 1998 to 924 in 2002 while the number of fatal crashes ranged from 26 in 1998 to 60 in 2001. It should be noted that 1999 was the first full year after repeal of the law requiring a motorcyclist to wear a helmet and this corresponded to the increase in the number of motorcycle-related crashes.

10.5 SCHOOL BUS CRASHES

School bus crash statistics were summarized for counties and cities and results are presented in Tables 49 and 50, respectively. Table 49 lists numbers and rates of school bus

crashes by county and population category. Counties having the highest rates in each population category are Crittenden and Owsley, Metcalfe and Morgan, Clay, Jessamine, and Jefferson. A similar summary was prepared for cities by population categories, as shown in Table 50. Those cities having the highest rates in each population category are Louisville, Hopkinsville, Nicholasville, London, and Hazard. The highest rate was in London.

The trend analysis presented in Table 41 indicates there was an increase in this type of crash in 2002 (5.8 percent increase) compared to the 1998 through 2001 average. The annual number of this type of crash ranged from a high of 932 in 2000 to a low of 648 in 1999. The number of injury crashes ranged from 149 in 2000 to 110 in 1999. There were three fatal crashes involving a school bus in 2002.

10.6 TRUCK CRASHES

Truck crashes included both single unit and combination trucks. A truck is defined as a vehicle with a registered weight of 10,000 pounds or more. A summary of those crashes by county is given in Table 51. Counties having the highest rates in each population category are Gallatin, Carroll, Simpson, Scott, and Boone. All of these counties contain at least one interstate highway. Other counties having a high rate either contained an interstate highway or had a large amount of coal truck traffic.

The trend analysis showed there was an increase in the number of truck crashes in 2002 (1.4 percent) compared to the previous four-year average. This change may be partially related to the "type of unit" coding started with the new collision report. The number of truck crashes ranged from a high of 10,276 in 2000 to a low of 7,642 in 1999. The increase in total crashes in 2000 through 2002 reversed the decreasing trend over the past several years. The number of injury crashes decreased by 2.3 percent while the number of fatal crashes increased by 28.9 percent in 2002 compared to the 1998 through 2001 average. The number of injury crashes ranged from 1,665 in 1999 to 2,181 in 2000 while the number of fatal crashes ranged from 82 in 1999 to 116 in 2002. Considering the five-year period, truck crashes represent 6.7 percent of all crashes, 5.4 percent of injury crashes, and 12.5 percent of fatal crashes.

10.7 TRAIN CRASHES

A summary of motor vehicle-train crashes by county is presented in Table 52. Counties having the highest rates in each population category are Bracken, Todd, Grant, Hopkins, and Jefferson. The highest rate is in Todd County with the highest number in Jefferson County. There were no train crashes in 54 of the 120 counties in the five-year period of 1998 through 2002. Several of the counties with the highest rates in their population category were in counties with a large amount of coal production.

The trend analysis for motor vehicle-train crashes is given in Table 41. There was a range in train crashes from 70 in 1998 to 57 in 1999. The number of train crashes in 2002 was 6.3 percent more than the 1998 through 2001 average. The number of injury crashes increased by 15.8 percent in 2002 compared to the 1998 through 2001 average with a range of from 16 in

1999 to 25 in 1998. The number of fatal crashes ranged from two in 1999 to five in 2001 for the five-year period.

10.8 VEHICLE DEFECTS

The requirement for an annual vehicle inspection was repealed in 1978. A summary of the involvement of vehicle defects in crashes before and after repeal of that law is presented in Table 53. The percent of crashes 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 7.43 percent in 1980 through 1984 but has decreased since that time. Starting in 1995, the percentage of crashes involving a vehicle defect was lower than that noted prior to repeal of the vehicle inspection requirement. The percent of crashes in which a vehicle defect was noted on the report was 4.71 percent in 2002.

11.0 SUMMARY AND RECOMMENDATIONS

11.1 STATEWIDE CRASH RATES

For the high-crash-location safety improvement program in Kentucky to be successful, procedures for identifying high-crash locations and scheduling improvements must be used. A computer program has been developed to identify high-crash locations. Inputs into this program are average and critical crash numbers and rates for rural and urban highway classifications. Various crash rates are presented throughout the report text, tables, and appendices, which can be used to implement a safety improvement program.

Each crash must be identified accurately to perform a complete crash analysis. In past years, many crashes that occurred on a state-maintained road did not have the necessary route and milepoint information to be included in the detailed analysis. Efforts have been made as part of the implementation of the new collision report form to increase the number of crash reports having the necessary location information. Part of this effort should be to inform the investigating agencies of the importance of placing the proper route and milepoint for all crashes occurring on state-maintained roads. The roadway reference log has been updated to provide a more comprehensive list of milepoints that should be used.

The crash report form which was implemented starting in 2000 contains fields to use the Global Positioning System (GPS) to report the latitude and longitude for each crash. The accuracy of this data must be documented.

The fatal crash rate on rural, two lane roadways is much higher than any road type. The factors contributing to this high rate have been investigated with countermeasures recommended. An effort should be made to review and implement as many of these countermeasures as practical.

11.2 COUNTY AND CITY CRASH STATISTICS

The various types of crash rates calculated and included in this report were used in the analysis of various problem identification areas.

In the past, a program was available to provide funds for the purchase of appropriate traffic signs to bring signing on city and county streets and roadways into compliance with the standards and guidelines included in the Manual on Uniform Traffic Control Devices. A large number of cities have taken advantage of this program, which was expanded to include counties. Funding for this program has not been provided in the past few years. Efforts should be made to renew funding of the program. The following cities have critical crash rates (as shown in Table 18) but have not been included in this signing program. It is recommended that, if funding again becomes available, they should be considered as candidates for participation in the program.

1. Shively
2. Crestview Hills
3. Prestonsburg
4. Mt. Vernon
5. Grayson

11.3 ALCOHOL-RELATED CRASHES

1. The number of alcohol-related crashes increased in 2002 compared to the previous four-year average but has decreased from the level prior to 1996. In general, there has been a decreasing trend in the number of alcohol-related fatal crashes and fatalities. This may be related to increased enforcement and public information campaigns in the past several years that have increased public awareness.

As part of the analysis, percentages of alcohol-related crashes were tabulated for counties and cities. In addition, alcohol conviction rates were tabulated by county. Those counties having relatively high percentages of alcohol-related crashes (Table 20) and low average numbers of alcohol convictions per alcohol crash (Table 23) were identified as potential locations where increased enforcement may be beneficial. Counties were also required to have 100 or more alcohol-related crashes during the five-year analysis period to be considered as potential counties for the increased alcohol-related enforcement program. Following is a list of those counties by State Police Post (reference was made to the counties recommended in the past few years).

Post Number	County
1	Graves
2	Christian
3	Simpson
4	Meade
5	Oldham
6	Bourbon
7	Mercer

Post Number	County
8	Mason
9	Johnson
10	Bell
11	Whitney
12	Scott
13	Knott
14	Carter
15	Taylor
16	McLean

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. The number and percentage of crashes involving alcohol were considered (Table 21). The following are candidate cities for a program of increased alcohol enforcement.

1. Covington
2. Richmond
3. Owensboro
4. Hopkinsville
5. Frankfort
6. Newport
7. Shively

11.4 OCCUPANT PROTECTION

1. Even though a statewide safety belt law has been passed, efforts to increase safety belt usage must continue. The various types of safety belt programs that have been conducted in several locations across the state in the past should continue. These programs have the objectives of increasing awareness of risks of traffic crashes, increasing understanding of benefits of safety belt usage, and providing assistance to organizations willing to promote safety belt usage. Enforcement of the statewide law should be another objective of these programs. The success of the "Buckle Up Kentucky: It's the Law and It's Enforced" campaign conducted around the Memorial Day holiday in 2003 shows that these types of programs (which includes increased enforcement along with publicity) can be effective when implemented on a statewide level. Usage rates and crash rates were considered when choosing candidates for more intensive promotion and enforcement campaigns. Consideration was given to past campaign recommendations and the location in the state (State Police Post). Since safety belt usage is lower in rural areas, counties in the more rural areas of the posts were identified when possible. These counties were identified in Table 29. A list of those counties, by State Police Post, follows.

Post Number	County
1	Marshall
2	Muhlenberg
3	Logan
4	Nelson
5	Henry
6	Bourbon
7	Garrard
8	Mason
9	Magoffin
10	Bell
11	Wayne
12	Spencer
13	Knott
14	Greenup
15	Metcalfe
16	Daviess

2. To maintain up-to-date usage statistics and to monitor the effect of the statewide safety belt law, annual statewide observational surveys should continue to be conducted.

3. The current statewide law allows secondary type of enforcement. To obtain a substantial increase in usage, the current law should be modified to allow primary, rather than secondary, enforcement. As a minimum, primary enforcement should apply to drivers while they are in the permit and intermediate phase of the graduated license program.

11.5 SPEED-RELATED CRASHES

1. Unsafe speed has been shown to be a primary contributing factor in fatal crashes and a common contributing factor in all crashes. Those counties having high percentages of speed-related crashes (Table 35) and low average number of speeding convictions per speed-related crash (Table 38) were identified as possible locations for increased enforcement. Locations meeting the criteria for crashes and convictions also were required to have at least 150 speed-related crashes during the five-year study period and speed-related crashes were at least 6.0 percent of total crashes. The following is a list of counties (tabulated by State Police Post) recommended for programs of increased speed enforcement (reference was made to the counties recommended in the past few years).

Post Number	County
1	McCracken
2	Hopkins
3	Simpson
4	Grayson
5	Oldham

Post Number	County
6	Kenton
7	Lincoln
8	Mason
9	Magoffin
10	Harlan
11	Wayne
12	Scott
13	Knott
14	Carter
15	Washington
16	Henderson

2. By analyzing speed-related crash rates for cities and applying the criterion of at least 150 crashes during the five-year period and speed related crashes of five percent or more of total crashes (Table 36), the following cities were recommended for additional programs of speed enforcement:

1. Lexington
2. Hopkinsville
3. Richmond
4. Frankfort
5. Erlanger
6. Somerset
7. Pikeville

3. Increased speed enforcement should be implemented on roads that have been identified as having the highest percentage of speed-related crashes. Consideration should be given to the types of roadways that have the highest crash rates. This would indicate more enforcement on rural two-lane and four-lane (non-interstate and parkway) roadways as opposed to interstate and parkways that have much lower crash rates.

4. Federal legislation has changed allowing states to increase speed limits to above the 55 mph and 65 mph limits. Data show current speeds do not reflect speed limits on several types of highways. There is a need to review current speed limits and establish speed limits based on the 85^{th} percentile speed. Recommendations for speed limits on various types of roads in Kentucky have been developed.

11.6 TEENAGE DRIVERS

1. Graduated licensing legislation was passed in the 1996 Kentucky legislature as a method to restrict teenage drivers from being exposed to driving environments that surpass their driving experience. The evaluation of the graduated license program shows a reduction in crashes for 16-year-old drivers while they are in the permit phase but this reduction has not been found to continue. These results indicate the need for increasing restrictions on teenage drivers who have completed the permit stage. This would require an intermediate phase to be added to the process.

3. The lack of driving experience would be related to the over representation of teenage drivers in traffic crashes. Experience is particularly important when it is necessary to take an evasive maneuver. The use of an advanced technology driving simulator should be considered as a method of allowing teenage drivers to gain experience of real world driving situations without the on-the-road risks.

11.7 GENERAL CRASH STATISTICS

Pedestrians

The crash rate analyses identified Newport and Covington as cities having substantially higher pedestrian crash rates than any other city (Table 44). A study to determine factors contributing to this problem in those cities and recommendations for improved traffic control measures, increased police enforcement, or driver and pedestrian education programs is warranted.

Bicycles

Newport also had a high crash rate in their population category for this type of crash (Table 46) (as with pedestrian crashes). A study of this type of crash could be included with the previously mentioned study of pedestrian crashes.

Motorcycles

1. Pike County had the highest crash rate in the state (Table 47) as did the city of Pikeville (Table 48) which is in Pike County. An evaluation of this type of crash in this county and city could be warranted.

2. The law requiring motorcyclists to wear a helmet was repealed in the 1998 legislature. Observations have shown the helmet usage rate has dramatically decreased. Also, the number of total motorcycle crashes increased dramatically since 1998 along with a substantial increase for injury crashes. An investigation should be made to determine if this increase was related to the repeal of the helmet law. The combination of the lowering in usage rate and increase in injury and fatal crashes support the need to reenact the requirement for the use of motorcycle helmets.

3. The large increase in the number of motorcycle crashes warrants a more detailed analysis to determine the reasons for the increase in the number and severity of this type of crash.

Truck Crashes

Counties with a large number of truck crashes either contained an interstate highway or had a large amount of coal truck traffic. Volume counts show that interstate highways have a high percentage of truck traffic. Coal trucks are hauling on an extended weight system that allows heavy loads. A 1999 research report conducted by the University of Kentucky investigated heavy truck involvement in traffic crashes on all types of highways while a 2002

research report investigated the impact of large trucks on interstate highway safety. Both of these reports recommended countermeasures related to the vehicle, driver, or roadway. Implementation of these countermeasures should be considered.

Vehicle Defects

The percentage of crashes involving vehicle defects increased after repeal of the vehicle inspection law. It could be concluded that the repeal of that law resulted in additional crashes involving vehicle defects. However, the percentage of crashes involving a vehicle defect has decreased in recent years, with the percentage starting in 1995 and continuing through 2002, less than before repeal of the inspection law. A study could be conducted to determine whether the defects that have contributed to crashes 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 inspections necessary to detect defects contributing to crashes for various types of vehicles.

TABLE 1. COMPARISON OF 1998 - 2002 CRASH RATES*

STATISTIC	1998	1999	2000	2001	1998-2001 Average	2002	Percent Change***
Crashes	79,301	79,893	89,480	81,556	82,558	84,816	2.7
Fatal Crashes	629	591	591	633	611	666	9.0
Injury Crashes	23,716	23,418	24,555	22,459	23,537	22,999	-2.3
Mileage	27,881	28,081	27,941	28,499	28,101	28,449	1.2
Crashes Per Mile	2.84	2.85	3.20	2.86	2.94	2.98	1.4
Vehicle Miles (Billion)	39.11	40.56	40.92	41.70	40.57	42.30	4.3
AADT	3,843	3,958	4,013	4,009	3,956	4,073	3.0
Crash Rate**	203	197	219	196	204	201	-1.3
Fatal Crash Rate**	1.61	1.46	1.44	1.52	1.51	1.57	4.1
Injury Crash Rate**	61	58	60	54	58	54	-7.3

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

** Crash rates are given in terms of crashes per 100 million vehicle-miles (C/100 MVM).

*** Percent change from 1998 through 2001 average to 2002.

TABLE 2. STATEWIDE RURAL CRASH RATES BY HIGHWAY TYPE CLASSIFICATION (1998-2002)

HIGHWAY TYPE	TOTAL MILEAGE*	AADT	CRASH RATES (CRASHES PER 100 MVM) ALL	INJURY	FATAL
One-Lane	58	870	171	54	1.1
Two-Lane	23,357	1,590	248	83	3.0
Three-Lane	33	5,170	188	51	2.2
Four-Lane Divided (Non-Interstate or Parkway)	525	11,390	124	39	1.3
Four-Lane Undivided	49	14,800	267	61	1.5
Interstate	527	31,380	49	12	0.7
Parkway	565	9,110	58	16	0.7
All	25,115	2,620	172	55	2.1

* Average for the five years.

TABLE 3. STATEWIDE URBAN CRASH RATES BY HIGHWAY TYPE CLASSIFICATION (1998-2002)

HIGHWAY TYPE	TOTAL MILEAGE*	AADT	CRASH RATES (CRASHES PER 100 MVM) ALL	INJURY	FATAL
Two-Lane	2,039	6,710	290	72	0.9
Three-Lane	33	11,840	477	99	1.8
Four-Lane Divided (Non-Interstate or Parkway)	384	24,170	295	75	0.9
Four-Lane Undivided	273	19,380	484	115	1.1
Interstate	248	65,220	91	21	0.4
Parkway	52	11,960	105	25	1.1
All **	3,055	15,150	247	60	0.8

* Average for the five years.

** Includes small number of one-, five-, and six-lane highways.

TABLE 4. COMPARISON OF 1998 - 2002 CRASH RATES BY RURAL AND URBAN HIGHWAY TYPE CLASSIFICATION

LOCATION	HIGHWAY TYPE	1998	1999	2000	2001	1998-2001 Average	2002	Percent Change*
Rural	One-Lane	269	53	285	324	233	259	11.5
	Two-Lane	254	236	255	248	248	247	-0.4
	Three-Lane	269	198	142	142	188	193	2.9
	Four-Lane Divided (Non-Interstate or Parkway)	115	120	124	130	122	128	5.0
	Four-Lane Undivided	237	241	341	270	272	256	-5.9
	Interstate	46	50	51	48	49	50	1.4
	Parkway	54	50	61	64	57	63	9.8
	All	174	163	177	173	172	172	-0.2
Urban	Two-Lane	301	285	333	268	297	268	-9.7
	Three-Lane	475	430	547	449	475	475	-0.1
	Four-Lane Divided	305	311	323	247	296	293	-1.1
	Four-Lane Undivided	467	485	546	434	483	486	0.6
	Interstate	84	94	98	91	92	88	-4.4
	Parkway	98	103	98	115	104	110	6.6
	All	245	247	278	226	249	240	-3.5

* Percent change from 1998 through 2001 to 2002.

TABLE 5. STATEWIDE CRASH RATES FOR "SPOTS" BY HIGHWAY TYPE CLASSIFICATION (1998-2002)

RURAL OR URBAN	HIGHWAY TYPE	NUMBER OF CRASHES	NUMBER OF SPOTS*	MILLION VEHICLES PER YEAR	CRASHES PER MILLION VEHICLES PER SPOT
Rural	One-Lane	159	195	0.32	0.51
	Two-Lane	168,461	77,857	0.58	0.74
	Three-Lane	586	110	1.89	0.56
	Four-Lane Divided (Non-Interstate or Parkway)	13,487	1,750	4.16	0.37
	Four-Lane Undivided	3,500	162	5.40	0.80
	Interstate	14,814	1,757	11.45	0.15
	Parkway	5,481	1,885	3.32	0.17
	All Rural	206,488	83,717	0.96	0.52
Urban	Two-Lane	72,302	6,795	2.45	0.87
	Three-Lane	3,364	109	4.32	1.43
	Four-Lane Divided	50,095	1,282	8.82	0.89
	Four-Lane Undivided	46,677	909	7.07	1.45
	Interstate	26,787	825	23.80	0.27
	Parkway	1,180	172	4.37	0.31
	All Urban**	208,533	10,183	5.53	0.74

* Average for the five years. The length of a spot is defined to be 0.3 mile.
** Includes small number of miles of one-, five-, and six-lane highways.

TABLE 6. STATEWIDE AVERAGE AND CRITICAL NUMBERS OF CRASHES FOR "SPOTS" AND ONE-MILE SECTIONS BY HIGHWAY TYPE CLASSIFICATION (1998-2002)

RURAL OR URBAN	HIGHWAY TYPE	CRASHES PER SPOT*		CRASHES PER ONE-MILE SECTION	
		AVERAGE	CRITICAL NUMBER	AVERAGE	CRITICAL NUMBER
Rural	One-Lane	0.82	4	2.72	7
	Two-Lane	2.16	6	7.21	15
	Three-Lane	5.33	12	17.76	29
	Four-Lane Divided (Non-Interstate or Parkway)	7.71	15	25.69	39
	Four-Lane Undivided	21.60	34	72.02	94
	Interstate	8.43	16	28.11	42
	Parkway	2.91	8	9.69	18
	All Rural	2.47	7	8.22	16
Urban	Two-Lane	10.64	20	35.47	51
	Three-Lane	30.94	46	103.14	130
	Four-Lane Divided	39.09	56	130.29	160
	Four-Lane Undivided	51.34	70	171.14	205
	Interstate	32.46	48	108.20	135
	Parkway	6.86	14	22.88	36
	All Urban**	20.48	33	68.26	90

* The length of a spot is defined to be 0.3 mile.
** Includes small number of miles of one-, five-, and six-lane highways.

TABLE 7. CRASH RATES BY COUNTY FOR STATE-MAINTAINED SYSTEM AND ALL ROADS (1998-2002)

	STATE-MAINTAINED		ALL ROADS					
			TOTAL CRASHES		FATAL CRASHES		FATAL OR INJURY CRASHES	
COUNTY	TOTAL CRASHES	CRASH RATE*	NUMBER	RATE*	NUMBER	RATE*	NUMBER	RATE*
Adair	1,395	172	2,435	255	24	2.5	672	70
Allen	1,457	235	2,103	282	16	2.1	655	88
Anderson	1,777	193	2,392	223	17	1.6	680	63
Ballard	762	175	1,039	206	11	2.2	350	69
Barren	3,270	153	6,561	269	29	1.2	1,872	77
Bath	1,118	139	1,482	167	14	1.6	438	49
Bell	2,324	167	3,398	218	31	2.0	1,095	70
Boone	13,087	211	17,343	250	54	0.8	3,987	58
Bourbon	2,249	244	3,156	293	22	2.0	870	81
Boyd	5,804	261	9,759	375	35	1.3	2,500	96
Boyle	3,501	310	4,509	337	29	2.2	1,126	84
Bracken	998	216	1,291	246	15	2.9	370	71
Breathitt	1,966	274	2,184	269	39	4.8	1,022	126
Breckinridge	1,083	163	1,360	165	17	2.1	524	64
Bullitt	5,239	150	6,696	168	44	1.1	1,900	48
Butler	1,019	140	1,257	150	24	2.9	422	50
Caldwell	1,063	127	1,642	173	17	1.8	445	47
Calloway	3,285	281	4,489	318	33	2.3	1,099	78
Campbell	8,285	239	13,813	340	38	0.9	2,712	67
Carlisle	332	124	366	117	7	2.2	144	46
Carroll	1,868	166	2,194	181	17	1.4	566	47
Carter	2,338	131	3,405	170	39	1.9	1,082	54
Casey	977	174	1,232	183	22	3.3	421	63
Christian	7,441	205	9,619	239	62	1.5	2,671	66
Clark	3,112	147	5,894	247	39	1.6	1,323	56
Clay	1,911	178	2,451	203	37	3.1	1,003	83
Clinton	696	165	798	161	13	2.6	224	45
Crittenden	1,002	291	1,159	276	9	2.1	425	101
Cumberland	307	94	403	105	20	5.2	140	37
Daviess	6,933	206	17,202	421	50	1.2	3,910	96
Edmonson	928	186	1,199	203	16	2.7	397	67
Elliott	530	281	599	262	9	3.9	229	100
Estill	1,261	248	1,721	275	14	2.2	570	91
Fayette	26,268	226	63,884	476	133	1.0	14,090	105
Fleming	1,036	179	1,361	195	21	3.0	443	63
Floyd	4,359	184	5,234	196	57	2.1	2,424	91
Franklin	6,172	247	8,375	291	34	1.2	1,765	61
Fulton	575	175	996	264	12	3.2	301	80
Gallatin	882	81	1,076	94	8	0.7	373	33
Garrard	1,573	256	2,009	279	12	1.7	632	88
Grant	3,536	160	4,371	182	36	1.5	1,158	48
Graves	3,236	178	4,739	225	38	1.8	1,344	64
Grayson	2,394	179	2,950	192	35	2.3	1,043	68
Green	830	209	1,270	266	13	2.7	397	83
Greenup	2,464	176	3,793	226	26	1.6	1,149	69
Hancock	629	139	798	153	9	1.7	238	46
Hardin	10,540	187	13,538	214	82	1.3	3,252	51
Harlan	2,914	198	3,650	218	39	2.3	1,271	76
Harrison	1,881	342	2,739	398	16	2.3	718	104
Hart	1,740	98	2,198	116	34	1.8	715	38
Henderson	6,489	252	9,658	331	30	1.0	2,359	81
Henry	1,756	143	2,047	152	25	1.9	623	46
Hickman	381	120	478	134	6	1.7	182	51
Hopkins	5,948	215	8,144	259	43	1.4	1,901	61
Jackson	1,143	255	1,391	257	17	3.1	537	99
Jefferson	63,901	218	131,751	388	341	1.0	30,493	90
Jessamine	5,118	324	6,494	337	30	1.6	1,599	83
Johnson	2,627	243	2,891	231	23	1.8	1,084	87
Kenton	15,915	250	27,977	380	55	0.7	5,711	77
Knott	1,563	185	1,900	199	32	3.4	852	89

TABLE 7. CRASH RATES BY COUNTY FOR STATE-MAINTAINED SYSTEM AND ALL ROADS (1998-2002)(continued)

	STATE-MAINTAINED		ALL ROADS					
			TOTAL CRASHES		FATAL CRASHES		FATAL OR INJURY CRASHES	
COUNTY	TOTAL CRASHES	CRASH RATE*	NUMBER	RATE*	NUMBER	RATE*	NUMBER	RATE*
Knox	3,056	216	4,053	254	37	2.3	1,462	92
Larue	1,343	165	1,676	181	22	2.4	468	51
Laurel	7,049	200	8,454	215	63	1.6	2,365	60
Lawrence	1,096	119	1,514	146	19	1.8	543	52
Lee	386	147	517	164	9	2.9	185	59
Leslie	1,039	168	1,338	193	29	4.2	712	102
Letcher	2,348	207	2,881	219	32	2.4	1,200	91
Lewis	1,184	176	1,448	189	34	4.4	479	62
Lincoln	1,534	144	1,990	163	21	1.7	724	59
Livingston	1,018	160	1,140	160	9	1.3	374	52
Logan	2,567	198	3,379	224	19	1.3	981	65
Lyon	957	87	1,157	100	11	1.0	343	30
McCracken	8,240	242	13,338	340	65	1.7	3,753	96
McCreary	1,258	199	1,597	220	21	2.9	558	77
McLean	980	204	1,132	191	14	2.4	363	61
Madison	9,040	221	13,085	294	82	1.8	3,050	69
Magoffin	1,029	164	1,225	173	15	2.1	621	87
Marion	1,890	287	2,489	314	23	2.9	711	90
Marshall	3,335	157	4,075	160	38	1.5	1,180	46
Martin	1,228	189	1,326	177	13	1.7	566	76
Mason	2,552	244	3,674	320	35	3.0	853	74
Meade	2,087	196	2,567	205	37	3.0	832	66
Menifee	442	206	514	196	6	2.3	207	79
Mercer	2,027	223	2,995	278	16	1.5	868	81
Metcalfe	912	180	1,077	185	17	2.9	310	53
Monroe	497	125	936	192	13	2.7	302	62
Montgomery	2,824	235	3,841	274	33	2.4	1,081	77
Morgan	1,417	243	1,579	233	21	3.1	640	95
Muhlenberg	3,628	222	4,620	245	46	2.4	1,377	73
Nelson	4,438	225	5,889	259	41	1.8	1,424	63
Nicholas	545	167	854	224	13	3.4	272	71
Ohio	2,220	147	2,878	170	32	1.9	991	59
Oldham	3,846	184	4,554	187	22	0.9	1,169	48
Owen	941	254	1,168	259	11	2.4	407	90
Owsley	289	173	337	168	7	3.5	106	53
Pendleton	1,375	277	1,947	318	15	2.4	546	89
Perry	3,657	241	5,015	287	47	2.7	1,877	108
Pike	7,881	225	10,547	263	105	2.6	4,482	112
Powell	1,162	138	1,695	181	19	2.0	569	61
Pulaski	6,569	249	8,909	285	78	2.5	2,290	73
Robertson	98	143	123	141	2	2.3	44	50
Rockcastle	1,993	94	2,342	104	30	1.3	735	33
Rowan	3,419	254	4,445	297	23	1.5	1,179	79
Russell	1,123	151	1,429	168	15	1.8	444	52
Scott	4,470	141	6,419	188	32	0.9	1,632	48
Shelby	4,525	171	5,784	198	58	2.0	1,422	49
Simpson	2,315	154	2,728	167	26	1.6	723	44
Spencer	775	169	1,075	195	13	2.4	365	66
Taylor	2,478	277	3,693	343	18	1.7	805	75
Todd	882	172	1,165	195	13	2.2	362	61
Trigg	1,184	140	1,481	157	15	1.6	484	51
Trimble	822	255	996	260	10	2.6	295	77
Union	1,735	236	2,217	261	20	2.4	726	85
Warren	13,278	247	20,606	340	92	1.5	5,205	86
Washington	1,086	183	1,445	213	15	2.2	425	63
Wayne	1,647	219	2,106	236	29	3.2	661	74
Webster	1,572	173	1,877	185	15	1.5	601	59
Whitley	3,508	133	4,827	165	56	1.9	1,395	48
Wolfe	772	143	956	161	18	3.0	356	60
Woodford	2,290	176	3,543	238	26	1.7	780	52
STATEWIDE	415,046	203	653,530	279	3,786	1.6	172,378	74

* Crashes per 100 million vehicle-miles (C/100 MVM)

TABLE 8. COUNTY POPULATIONS (2000 CENSUS) IN DESCENDING ORDER

COUNTY	POPULATION	COUNTY	POPULATION	COUNTY	POPULATION
Jefferson	693,604	Meade	26,349	Jackson	13,495
Fayette	260,512	Letcher	25,277	Larue	13,373
Kenton	151,464	Clay	24,556	Magoffin	13,332
Hardin	94,174	Grayson	24,053	Powell	13,237
Warren	92,522	Johnson	23,445	Caldwell	13,060
Daviess	91,545	Lincoln	23,361	Butler	13,010
Campbell	88,616	Woodford	23,208	Trigg	12,597
Boone	85,991	Taylor	22,927	Martin	12,578
Christian	72,265	Ohio	22,916	Leslie	12,401
Madison	70,872	Montgomery	22,554	Todd	11,971
Pike	68,736	Grant	22,384	Spencer	11,766
McCracken	65,514	Rowan	22,094	Monroe	11,756
Bullitt	61,236	Mercer	20,817	Edmonson	11,644
Pulaski	56,217	Wayne	19,923	Green	11,518
Laurel	52,715	Bourbon	19,360	Bath	11,085
Boyd	49,752	Anderson	19,111	Washington	10,916
Franklin	47,687	Breckinridge	18,648	Owen	10,547
Hopkins	46,519	Marion	18,212	Carroll	10,155
Oldham	46,178	Harrison	17,983	Metcalfe	10,037
Henderson	44,829	Allen	17,800	McLean	9,938
Floyd	42,441	Knott	17,649	Livingston	9,804
Jessamine	39,041	Hart	17,445	Clinton	9,634
Barren	38,033	Adair	17,244	Crittenden	9,384
Nelson	37,477	McCreary	17,080	Hancock	8,392
Graves	37,028	Mason	16,800	Ballard	8,286
Greenup	36,891	Rockcastle	16,582	Bracken	8,279
Whitley	35,865	Simpson	16,405	Trimble	8,125
Calloway	34,177	Russell	16,315	Lyon	8,080
Shelby	33,337	Breathitt	16,100	Lee	7,916
Harlan	33,202	Union	15,637	Gallatin	7,870
Clark	33,144	Lawrence	15,569	Fulton	7,752
Scott	33,061	Casey	15,447	Cumberland	7,147
Muhlenberg	31,839	Estill	15,307	Wolfe	7,065
Knox	31,795	Henry	15,060	Nicholas	6,813
Marshall	30,125	Garrard	14,792	Elliott	6,748
Bell	30,060	Pendleton	14,390	Menifee	6,556
Perry	29,390	Webster	14,120	Carlisle	5,351
Boyle	27,697	Lewis	14,092	Hickman	5,262
Carter	26,889	Morgan	13,948	Owsley	4,858
Logan	26,573	Fleming	13,792	Robertson	2,266
				TOTAL	4,041,769

Table 9. AVERAGE AND CRITICAL CRASH RATES BY POPULATION CATEGORY
(1998-2002)

POPULATION CATEGORY	NUMBER OF COUNTIES IN CATEGORY	TOTAL POPULATION	TOTAL MILEAGE DRIVEN 100 MVM
UNDER 10,000	21	155,526	99.51
10,000 - 14,999	25	313,612	183.04
15,000 - 24,999	32	611,992	377.02
25,000 - 50,000	27	954,656	585.42
OVER 50,000	15	2,005,983	1,096.96

POPULATION CATEGORY	TOTAL NUMBER OF CRASHES	CRASHES PER 100 MVM	CRITICAL CRASH RATE (C/100 MVM)	NUMBER OF COUNTIES AT OR ABOVE CRITICAL RATE
UNDER 10,000	16,729	168	203	7
10,000 - 14,999	36,263	198	228	6
15,000 - 24,999	81,611	216	241	13
25,000 - 50,000	142,165	243	262	8
OVER 50,000	376,762	343	356	4

POPULATION CATEGORY	TOTAL NUMBER OF FATAL CRASHES	FATAL CRASHES PER 100 MVM	CRITICAL FATAL RATE (C/100 MVM)	NUMBER OF COUNTIES AT OR ABOVE CRITICAL RATE
UNDER 10,000	218	2.19	6.63	0
10,000 - 14,999	431	2.35	5.96	0
15,000 - 24,999	796	2.11	4.76	1
25,000 - 50,000	997	1.70	3.43	0
OVER 50,000	1,344	1.23	2.00	2

POPULATION CATEGORY	TOTAL NUMBER OF FATAL OR INJURY CRASHES	FATAL OR INJURY CRASHES PER 100 MVM	CRITICAL FATAL OR INJURY CRASH RATE (C/100 MVM)	NUMBER OF COUNTIES AT OR ABOVE CRITICAL RATE
UNDER 10,000	5,521	55.5	75.7	5
10,000 - 14,999	12,134	66.3	84.0	7
15,000 - 24,999	24,992	66.3	80.2	11
25,000 - 50,000	39,860	68.1	78.4	8
OVER 50,000	89,871	81.9	88.1	5

TABLE 10. CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)(1998-2002)(ALL ROADS)

COUNTY	NUMBER OF CRASHES	CRASH RATE (CRASHES PER 100 MVM)	
POPULATION CATEGORY UNDER 10,000			
Crittenden	1,159	276	*
Fulton	996	264	*
Elliott	599	262	*
Trimble	996	260	*
Bracken	1,291	246	*
Nicholas	854	224	*
Ballard	1,039	206	*
Menifee	514	196	
McLean	1,132	191	
Owsley	337	168	
Lee	517	164	
Clinton	798	161	
Wolfe	956	161	
Livingston	1,140	160	
Hancock	798	153	
Robertson	123	141	
Hickman	478	134	
Carlisle	366	117	
Cumberland	403	105	
Lyon	1,157	100	
Gallatin	1,076	94	
POPULATION CATEGORY 10,000-14,999			
Pendleton	1,947	318	*
Garrard	2,009	279	*
Green	1,270	266	*
Owen	1,168	259	*
Jackson	1,391	257	*
Morgan	1,579	233	*
Washington	1,445	213	
Edmonson	1,199	203	
Fleming	1,361	195	
Todd	1,165	195	
Spencer	1,075	195	
Leslie	1,338	193	
Monroe	936	192	
Lewis	1,448	189	
Webster	1,877	185	
Metcalfe	1,077	185	
Powell	1,695	181	
Carroll	2,194	181	
Larue	1,676	181	
Martin	1,326	177	
Magoffin	1,225	173	
Caldwell	1,642	173	
Bath	1,482	167	
Trigg	1,481	157	
Butler	1,257	150	
POPULATION CATEGORY 15,000-24,999			
Harrison	2,739	398	*
Taylor	3,693	343	*
Mason	3,674	320	*
Marion	2,489	314	*
Rowan	4,445	297	*
Bourbon	3,156	293	*
Allen	2,103	282	*
Mercer	2,995	278	*
Estill	1,721	275	*
Montgomery	3,841	274	*
Breathitt	2,184	269	*
Union	2,217	261	*
Adair	2,435	255	*
Woodford	3,543	238	
Wayne	2,106	236	
Johnson	2,891	231	
Anderson	2,392	223	
McCreary	1,597	220	
Clay	2,451	203	
Knott	1,900	199	
Grayson	2,950	192	
Casey	1,232	183	
Grant	4,371	182	
Ohio	2,878	170	
Russell	1,429	168	
Simpson	2,728	167	
Breckinridge	1,360	165	
Lincoln	1,990	163	
Henry	2,047	152	
Lawrence	1,514	146	
Hart	2,198	116	
Rockcastle	2,342	104	
POPULATION CATEGORY 25,000-50,000			
Boyd	9,759	375	*
Boyle	4,509	337	*
Jessamine	6,494	337	*
Henderson	9,658	331	*
Calloway	4,489	318	*
Franklin	8,375	291	*
Perry	5,015	287	*
Barren	6,561	269	*
Nelson	5,889	259	
Hopkins	8,144	259	
Knox	4,053	254	
Clark	5,894	247	
Muhlenberg	4,620	245	
Greenup	3,793	226	
Graves	4,739	225	
Logan	3,379	224	
Letcher	2,881	219	
Harlan	3,650	218	
Bell	3,398	218	
Meade	2,567	205	
Shelby	5,784	198	
Floyd	5,234	196	
Scott	6,419	188	
Oldham	4,554	187	
Carter	3,405	170	
Whitley	4,827	165	
Marshall	4,075	160	
POPULATION CATEGORY OVER 50,000			
Fayette	63,884	476	*
Daviess	17,202	421	*
Jefferson	131,751	388	*
Kenton	27,977	380	*
Warren	20,606	340	
Campbell	13,813	340	
McCracken	13,338	340	
Madison	13,085	294	
Pulaski	8,909	285	
Pike	10,547	263	
Boone	17,343	250	
Christian	9,619	239	
Laurel	8,454	215	
Hardin	13,538	214	
Bullitt	6,696	168	

* Critical crash rate

TABLE 11. CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)(1998-2002)(STATE-MAINTAINED SYSTEM)

COUNTY	NUMBER OF CRASHES	CRASH RATE (CRASHES PER 100 MVM)	
POPULATION CATEGORY UNDER 10,000			
Crittenden	1,002	291	*
Elliott	530	281	*
Trimble	822	255	*
Bracken	998	216	*
Menifee	442	206	*
McLean	980	204	*
Ballard	762	175	
Fulton	575	175	
Owsley	289	173	
Nicholas	545	167	
Clinton	696	165	
Livingston	1,018	160	
Lee	386	147	
Wolfe	772	143	
Robertson	98	143	
Hancock	629	139	
Carlisle	332	124	
Hickman	381	120	
Cumberland	307	94	
Lyon	957	87	
Gallatin	882	81	
POPULATION CATEGORY 10,000-14,999			
Pendleton	1,375	277	*
Garrard	1,573	256	*
Jackson	1,143	255	*
Owen	941	254	*
Morgan	1,417	243	*
Green	830	209	*
Martin	1,228	189	
Edmonson	928	186	
Washington	1,086	183	
Metcalfe	912	180	
Fleming	1,036	179	
Lewis	1,184	176	
Webster	1,572	173	
Todd	882	172	
Spencer	775	169	
Leslie	1,039	168	
Carroll	1,868	166	
Larue	1,343	165	
Magoffin	1,029	164	
Butler	1,019	140	
Trigg	1,184	140	
Bath	1,118	139	
Powell	1,162	138	
Caldwell	1,063	127	
Monroe	497	125	
POPULATION CATEGORY 15,000-24,999			
Harrison	1,881	342	*
Marion	1,890	287	*
Taylor	2,478	277	*
Breathitt	1,966	274	*
Rowan	3,419	254	*
Estill	1,261	248	*
Mason	2,552	244	*
Bourbon	2,249	244	*
Johnson	2,627	243	*
Union	1,735	236	*
Montgomery	2,824	235	*
Allen	1,457	235	*
Mercer	2,027	223	*
Wayne	1,647	219	*
McCreary	1,258	199	
Anderson	1,777	193	
Knott	1,563	185	
Grayson	2,394	179	
Clay	1,911	178	
Woodford	2,290	176	
Casey	977	174	
Adair	1,395	172	
Breckinridge	1,083	163	
Grant	3,536	160	
Simpson	2,315	154	
Russell	1,123	151	
Ohio	2,220	147	
Lincoln	1,534	144	
Henry	1,756	143	
Lawrence	1,096	119	
Hart	1,740	98	
Rockcastle	1,993	94	
POPULATION CATEGORY 25,000-50,000			
Jessamine	5,118	324	*
Boyle	3,501	310	*
Calloway	3,285	281	*
Boyd	5,804	261	*
Henderson	6,489	252	*
Franklin	6,172	247	*
Perry	3,657	241	*
Nelson	4,438	225	*
Muhlenberg	3,628	222	*
Knox	3,056	216	
Hopkins	5,948	215	
Letcher	2,348	207	
Logan	2,567	198	
Harlan	2,914	198	
Meade	2,087	196	
Floyd	4,359	184	
Oldham	3,846	184	
Graves	3,236	178	
Greenup	2,464	176	
Shelby	4,525	171	
Bell	2,324	167	
Marshall	3,335	157	
Barren	3,270	153	
Clark	3,112	147	
Scott	4,470	141	
Whitley	3,508	133	
Carter	2,338	131	
POPULATION CATEGORY OVER 50,000			
Kenton	15,915	250	*
Pulaski	6,569	249	*
Warren	13,278	247	*
McCracken	8,240	242	*
Campbell	8,285	239	*
Fayette	26,268	226	
Pike	7,881	225	
Madison	9,040	221	
Jefferson	63,901	218	
Boone	13,087	211	
Daviess	6,933	206	
Christian	7,441	205	
Laurel	7,049	200	
Hardin	10,540	187	
Bullitt	5,239	150	

* Critical crash rate

TABLE 12. INJURY OR FATAL CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED) (1998-2002)(ALL ROADS)

COUNTY	NUMBER OF CRASHES	CRASH RATE (CRASHES PER 100 MVM)	
POPULATION CATEGORY UNDER 10,000			
Crittenden	425	101	*
Elliott	229	100	*
Fulton	301	80	*
Menifee	207	79	*
Trimble	295	77	*
Nicholas	272	71	
Bracken	370	71	
Ballard	350	69	
McLean	363	61	
Wolfe	356	60	
Lee	185	59	
Owsley	106	53	
Livingston	374	52	
Hickman	182	51	
Robertson	44	50	
Carlisle	144	46	
Hancock	238	46	
Clinton	224	45	
Cumberland	140	37	
Gallatin	373	33	
Lyon	343	30	
POPULATION CATEGORY 10,000-14,999			
Leslie	712	102	*
Jackson	537	99	*
Morgan	640	95	*
Owen	407	90	*
Pendleton	546	89	*
Garrard	632	88	*
Magoffin	621	87	*
Green	397	83	
Martin	566	76	
Edmonson	397	67	
Spencer	365	66	
Washington	425	63	
Fleming	443	63	
Lewis	479	62	
Monroe	302	62	
Powell	569	61	
Todd	362	61	
Webster	601	59	
Metcalfe	310	53	
Larue	468	51	
Trigg	484	51	
Butler	422	50	
Bath	438	49	
Caldwell	445	47	
Carroll	566	47	
POPULATION CATEGORY 15,000-24,999			
Breathitt	1,022	126	*
Harrison	718	104	*
Estill	570	91	*
Marion	711	90	*
Knott	852	89	*
Allen	655	88	*
Johnson	1,084	87	*
Union	726	85	*
Clay	1,003	83	*
Mercer	868	81	*
Bourbon	870	81	*
Rowan	1,179	79	
Montgomery	1,081	77	
McCreary	558	77	
Taylor	805	75	
Wayne	661	74	
Mason	853	74	
Adair	672	70	
Grayson	1,043	68	
Breckinridge	524	64	
Anderson	680	63	
Casey	421	63	
Ohio	991	59	
Lincoln	724	59	
Lawrence	543	52	
Russell	444	52	
Woodford	780	52	
Grant	1,158	48	
Henry	623	46	
Simpson	723	44	
Hart	715	38	
Rockcastle	735	33	
POPULATION CATEGORY 25,000-50,000			
Perry	1,877	108	*
Boyd	2,500	96	*
Knox	1,462	92	*
Letcher	1,200	91	*
Floyd	2,424	91	*
Boyle	1,126	84	*
Jessamine	1,599	83	*
Henderson	2,359	81	*
Calloway	1,099	78	
Barren	1,872	77	
Harlan	1,271	76	
Muhlenberg	1,377	73	
Bell	1,095	70	
Greenup	1,149	69	
Meade	832	66	
Logan	981	65	
Graves	1,344	64	
Nelson	1,424	63	
Franklin	1,765	61	
Hopkins	1,901	61	
Clark	1,323	56	
Carter	1,082	54	
Shelby	1,422	49	
Scott	1,632	48	
Oldham	1,169	48	
Whitley	1,395	48	
Marshall	1,180	46	
POPULATION CATEGORY OVER 50,000			
Pike	4,482	112	*
Fayette	14,090	105	*
Daviess	3,910	96	*
McCracken	3,753	96	*
Jefferson	30,493	90	*
Warren	5,205	86	
Kenton	5,711	77	
Pulaski	2,290	73	
Madison	3,050	69	
Campbell	2,712	67	
Christian	2,671	66	
Laurel	2,365	60	
Boone	3,987	58	
Hardin	3,252	51	
Bullitt	1,900	48	

* Critical crash rate

TABLE 13. FATAL CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)(1998-2002)(ALL ROADS)

COUNTY	NUMBER OF CRASHES	CRASH RATE (CRASHES PER 100 MVM)
POPULATION CATEGORY UNDER 10,000		
Cumberland	20	5.2
Elliott	9	3.9
Owsley	7	3.5
Nicholas	13	3.4
Fulton	12	3.2
Wolfe	18	3.0
Bracken	15	2.9
Lee	9	2.9
Trimble	10	2.6
Clinton	13	2.6
McLean	14	2.4
Robertson	2	2.3
Menifee	6	2.3
Carlisle	7	2.2
Ballard	11	2.2
Crittenden	9	2.1
Hancock	9	1.7
Hickman	6	1.7
Livingston	9	1.3
Lyon	11	1.0
Gallatin	8	0.7
POPULATION CATEGORY 10,000-14,999		
Lewis	34	4.4
Leslie	29	4.2
Jackson	17	3.1
Morgan	21	3.1
Fleming	21	3.0
Butler	24	2.9
Metcalfe	17	2.9
Green	13	2.7
Edmonson	16	2.7
Monroe	13	2.7
Spencer	13	2.4
Larue	22	2.4
Owen	11	2.4
Pendleton	15	2.4
Washington	15	2.2
Todd	13	2.2
Magoffin	15	2.1
Powell	19	2.0
Caldwell	17	1.8
Martin	13	1.7
Garrard	12	1.7
Bath	14	1.6
Trigg	15	1.6
Webster	15	1.5
Carroll	17	1.4
POPULATION CATEGORY 15,000-24,999		
Breathitt	39	4.8 *
Knott	32	3.4
Casey	22	3.3
Wayne	29	3.2
Clay	37	3.1
Mason	35	3.0
Marion	23	2.9
McCreary	21	2.9
Adair	24	2.5
Montgomery	33	2.4
Union	20	2.4
Grayson	35	2.3
Harrison	16	2.3
Estill	14	2.2
Breckinridge	17	2.1
Allen	16	2.1
Bourbon	22	2.0
Ohio	32	1.9
Henry	25	1.9
Russell	15	1.8
Hart	34	1.8
Johnson	23	1.8
Lawrence	19	1.8
Lincoln	21	1.7
Woodford	26	1.7
Taylor	18	1.7
Simpson	26	1.6
Anderson	17	1.6
Mercer	16	1.5
Rowan	23	1.5
Grant	36	1.5
Rockcastle	30	1.3
POPULATION CATEGORY 25,000-50,000		
Meade	37	3.0
Perry	47	2.7
Letcher	32	2.4
Muhlenberg	46	2.4
Knox	37	2.3
Harlan	39	2.3
Calloway	33	2.3
Boyle	29	2.2
Floyd	57	2.1
Shelby	58	2.0
Bell	31	2.0
Carter	39	1.9
Whitley	56	1.9
Graves	38	1.8
Nelson	41	1.8
Clark	39	1.6
Jessamine	30	1.6
Greenup	26	1.6
Marshall	38	1.5
Hopkins	43	1.4
Boyd	35	1.3
Logan	19	1.3
Barren	29	1.2
Franklin	34	1.2
Henderson	30	1.0
Oldham	22	0.9
Scott	32	0.9
POPULATION CATEGORY OVER 50,000		
Pike	105	2.6 *
Pulaski	78	2.5 *
Madison	82	1.8
McCracken	65	1.7
Laurel	63	1.6
Warren	92	1.5
Christian	62	1.5
Hardin	82	1.3
Daviess	50	1.2
Bullitt	44	1.1
Fayette	133	1.0
Jefferson	341	1.0
Campbell	38	0.9
Boone	54	0.8
Kenton	55	0.7

* Critical crash rate

TABLE 14. MISCELLANEOUS CRASH DATA FOR EACH COUNTY

COUNTY	NUMBER OF CRASHES BY YEAR 1998	1999	2000	2001	2002	1998-2001 AVERAGE	2002 PERCENT CHANGE*	PERCENT OF CRASHES INVOLVING ALCOHOL	PERCENT OF CRASHES INVOLVING DRUGS	PERCENT FATAL CRASHES	PERCENT INJURY OR FATAL CRASHES	PERCENT OF DRIVERS USING SAFETY BELTS	PERCENT OF CRASHES INVOLVING SPEEDING
Adair	441	466	556	471	501	484	3.6	4.5	0.8	0.99	27.6	78.2	6.6
Allen	444	509	377	336	437	417	4.9	4.8	0.8	0.76	31.1	82.7	6.3
Anderson	442	515	484	462	489	476	2.8	5.3	0.2	0.71	28.4	89.0	7.1
Ballard	226	188	256	169	200	210	-4.6	6.7	0.7	1.06	33.7	89.4	7.7
Barren	1,328	1,297	1,275	1,283	1,378	1,296	6.3	3.2	0.4	0.44	28.5	87.2	6.8
Bath	305	289	324	305	259	306	-15.3	6.4	1.0	0.94	29.6	86.8	9.0
Bell	600	612	697	717	772	657	17.6	4.4	2.6	0.91	32.2	88.6	6.6
Boone	3,337	3,507	3,691	3,333	3,475	3,467	0.2	3.4	0.2	0.31	23.0	94.3	7.0
Bourbon	717	684	625	564	566	648	-12.6	4.8	0.8	0.70	27.6	86.7	7.9
Boyd	2,009	2,073	1,915	1,822	1,940	1,955	-0.8	3.4	0.8	0.36	25.6	92.1	5.4
Boyle	965	941	949	847	807	926	-12.8	3.4	0.3	0.64	25.0	92.6	5.3
Bracken	250	279	271	264	227	266	-14.7	5.1	0.3	1.16	28.7	85.4	7.4
Breathitt	429	450	442	457	406	445	-8.7	6.6	2.2	1.79	46.8	88.2	8.2
Breckinridge	241	281	300	323	215	286	-24.9	6.1	0.1	1.25	38.5	90.6	3.8
Bullitt	1,295	1,325	1,324	1,279	1,473	1,306	12.8	4.9	0.3	0.66	28.4	91.8	4.2
Butler	260	220	231	271	275	246	12.0	5.7	0.6	1.91	33.6	86.6	8.5
Caldwell	345	323	355	304	315	332	-5.0	4.6	0.9	1.04	27.1	90.9	7.4
Calloway	408	970	1,024	1,005	1,082	852	27.0	4.7	0.5	0.74	24.5	90.2	6.3
Campbell	2,674	3,027	2,746	2,614	2,752	2,765	-0.5	4.3	0.5	0.28	19.6	93.1	5.8
Carlisle	88	35	69	68	106	65	63.1	3.8	0.3	1.91	39.3	90.8	9.0
Carroll	401	474	441	437	441	438	0.6	6.2	0.5	0.77	25.8	88.8	6.9
Carter	741	721	659	666	618	697	-11.3	5.5	1.3	1.15	31.8	86.7	14.0
Casey	169	257	264	275	267	241	10.7	7.8	1.1	1.79	34.2	82.9	11.2
Christian	1,888	1,973	1,913	1,862	1,983	1,909	3.9	4.8	0.5	0.64	27.8	92.2	9.3
Clark	1,162	1,260	1,195	1,110	1,167	1,182	-1.2	4.1	0.5	0.66	22.4	93.6	6.1
Clay	478	455	503	514	501	488	2.8	5.7	3.5	1.51	40.9	86.5	9.3
Clinton	142	175	162	164	155	161	-3.6	4.4	0.9	1.63	28.1	81.8	4.9
Crittenden	251	222	220	250	216	236	-8.4	5.3	1.5	0.78	36.7	90.6	5.4
Cumberland	65	84	100	73	81	81	0.6	5.2	1.5	4.96	34.7	84.1	6.2
Daviess	3,442	3,229	3,576	3,482	3,473	3,432	1.2	4.3	0.5	0.29	22.7	92.7	5.1
Edmonson	220	247	230	267	235	241	-2.5	5.3	0.4	1.33	33.1	88.0	12.7
Elliott	118	60	159	144	118	120	-1.9	10.4	1.3	1.50	38.2	85.5	11.5
Estill	436	399	306	288	292	357	-18.3	5.9	1.3	0.81	33.1	88.0	11.9
Fayette	12,219	12,324	13,040	13,007	13,294	12,648	5.1	4.3	0.4	0.21	22.1	95.7	5.3
Fleming	298	293	246	254	270	273	-1.0	5.6	0.6	1.54	32.5	83.3	7.3
Floyd	1,086	1,048	1,004	1,073	1,023	1,053	-2.8	6.6	2.7	1.09	46.3	89.3	9.6
Franklin	1,489	1,567	1,731	1,815	1,773	1,651	7.4	4.2	0.4	0.41	21.1	91.6	8.9
Fulton	221	158	237	182	198	200	-0.8	5.5	0.9	1.20	30.2	87.2	4.7
Gallatin	230	226	202	203	215	215	-0.1	7.4	0.5	0.74	34.7	87.6	12.0
Garrard	402	420	398	374	415	399	4.1	5.0	0.5	0.60	31.5	89.2	15.5
Grant	864	902	915	865	825	887	-6.9	3.5	0.3	0.82	26.5	92.4	9.5
Graves	998	988	895	902	956	946	1.1	4.3	0.6	0.80	28.4	91.9	7.0
Grayson	459	290	747	762	692	565	22.6	5.1	0.5	1.19	35.4	89.7	8.8
Green	276	245	231	265	253	254	-0.5	4.4	0.2	1.02	31.3	87.6	3.7
Greenup	750	738	791	834	680	778	-12.6	5.0	1.5	0.69	30.3	91.4	10.0
Hancock	195	179	137	140	147	163	-9.7	4.6	0.3	1.13	29.8	88.4	5.1
Hardin	2,558	2,611	2,773	2,744	2,852	2,672	6.8	3.2	0.4	0.61	24.0	94.5	6.5
Harlan	763	709	735	692	751	725	3.6	4.8	1.8	1.07	34.8	89.3	10.7
Harrison	544	520	584	556	535	551	-2.9	4.6	0.6	0.58	26.2	88.5	6.2
Hart	428	524	417	413	416	446	-6.6	4.5	0.6	1.55	32.5	91.9	9.1
Henderson	1,958	1,865	2,028	1,834	1,973	1,921	2.7	3.6	0.5	0.31	24.4	95.1	6.2
Henry	369	373	439	434	432	404	7.0	6.7	0.3	1.22	30.4	85.7	13.5
Hickman	96	119	100	84	79	100	-20.8	6.1	1.0	1.26	38.1	85.3	8.4
Hopkins	1,749	1,611	1,565	1,520	1,699	1,611	5.4	2.8	0.5	0.53	23.3	94.1	8.2
Jackson	273	327	261	300	230	290	-20.8	5.8	1.4	1.22	38.6	83.5	14.7
Jefferson	23,244	28,013	29,214	26,674	24,606	26,786	-8.1	3.5	0.2	0.26	23.1	94.1	3.7
Jessamine	1,188	1,188	1,344	1,372	1,402	1,273	10.1	4.9	0.6	0.46	24.6	92.1	8.3
Johnson	561	552	600	590	588	576	2.1	4.9	4.3	0.80	37.5	89.4	6.6
Kenton	5,422	6,011	5,666	5,387	5,491	5,622	-2.3	4.5	0.5	0.20	20.4	93.4	7.3
Knott	365	373	347	402	413	372	11.1	5.3	1.5	1.68	44.8	87.4	7.9
Knox	738	787	849	841	838	804	4.3	5.0	2.6	0.91	36.1	88.7	13.1

TABLE 14. MISCELLANEOUS CRASH DATA FOR EACH COUNTY (continued)

COUNTY	NUMBER OF CRASHES BY YEAR 1998	1999	2000	2001	2002	1998-2001 AVERAGE	2002 PERCENT CHANGE*	PERCENT OF CRASHES INVOLVING ALCOHOL	PERCENT OF CRASHES INVOLVING DRUGS	PERCENT FATAL CRASHES	PERCENT INJURY OR FATAL CRASHES	PERCENT OF DRIVERS USING SAFETY BELTS	PERCENT OF CRASHES INVOLVING SPEEDING
Larue	358	335	355	327	301	344	-12.4	4.2	0.2	1.31	27.9	89.9	6.8
Laurel	1,669	1,648	1,703	1,793	1,641	1,703	-3.7	3.5	1.4	0.75	28.0	92.7	6.8
Lawrence	310	329	293	297	285	307	-7.2	4.9	2.4	1.25	35.9	87.9	7.3
Lee	116	138	104	75	84	108	-22.4	7.7	1.9	1.74	35.8	85.9	12.4
Leslie	242	308	248	276	264	269	-1.7	7.4	3.8	2.17	53.2	83.0	12.0
Letcher	590	649	557	520	565	579	-2.4	5.6	1.6	1.11	41.7	86.7	9.2
Lewis	326	335	269	247	271	294	-7.9	7.5	0.8	2.35	33.1	83.1	11.4
Lincoln	408	389	506	374	313	419	-25.3	6.0	0.7	1.06	36.4	85.4	14.5
Livingston	219	222	240	215	244	224	8.9	5.3	1.2	0.79	32.8	90.6	7.8
Logan	668	714	646	668	683	674	1.3	4.6	0.7	0.56	29.0	86.4	5.1
Lyon	229	245	239	201	243	229	6.3	3.9	0.9	0.95	29.6	91.3	11.5
McCracken	2,637	2,904	2,562	2,565	2,670	2,667	0.1	4.2	0.4	0.49	28.1	93.9	4.5
McCreary	260	319	330	345	343	314	9.4	6.3	1.4	1.31	34.9	87.9	13.1
McLean	233	226	228	233	212	230	-7.8	5.3	0.4	1.24	32.1	84.7	9.8
Madison	2,646	2,541	2,615	2,628	2,655	2,608	1.8	5.1	0.5	0.63	23.3	91.0	10.9
Magoffin	255	225	245	241	259	242	7.2	7.8	3.6	1.22	50.7	86.1	9.7
Marion	472	499	524	498	496	498	-0.5	10.0	0.3	0.92	28.6	84.0	8.2
Marshall	777	710	795	890	903	793	13.9	4.1	0.8	0.93	29.0	90.1	9.7
Martin	303	253	285	265	220	277	-20.4	5.8	4.8	0.98	42.7	85.9	10.4
Mason	806	824	730	630	684	748	-8.5	5.0	0.6	0.95	23.2	86.1	6.0
Meade	522	544	520	480	501	517	-3.0	6.0	0.6	1.44	32.4	89.2	5.8
Menifee	104	134	91	109	76	110	-30.6	11.1	0.6	1.17	40.3	81.9	14.4
Mercer	662	531	599	581	622	593	4.8	5.2	0.6	0.53	29.0	88.2	9.9
Metcalfe	191	163	248	247	228	212	7.4	4.1	0.3	1.58	28.8	78.7	4.7
Monroe	161	250	195	175	155	195	-20.6	5.3	0.6	1.39	32.3	82.1	5.3
Montgomery	706	720	826	809	780	765	1.9	5.3	0.4	0.86	28.1	90.1	6.1
Morgan	310	305	309	344	311	317	-1.9	4.6	0.3	1.33	40.5	87.2	15.3
Muhlenberg	985	901	956	893	885	934	-5.2	4.1	0.8	1.00	29.8	88.1	7.9
Nelson	1,007	1,220	1,206	1,201	1,255	1,159	8.3	5.0	0.5	0.70	24.2	92.0	8.2
Nicholas	163	185	168	170	168	172	-2.0	9.3	1.3	1.52	31.9	79.4	9.4
Ohio	506	474	608	626	664	554	20.0	4.4	0.9	1.11	34.4	91.4	8.9
Oldham	915	986	867	807	979	894	9.5	3.4	0.4	0.48	25.7	95.0	10.2
Owen	231	223	269	210	235	233	0.8	7.4	0.1	0.94	34.8	84.5	17.0
Owsley	46	129	87	50	25	78	-67.9	9.8	2.1	2.08	31.5	83.9	8.6
Pendleton	392	378	381	392	404	386	4.7	6.7	0.8	0.77	28.0	90.1	7.2
Perry	1,011	993	1,048	1,005	958	1,014	-5.5	4.5	1.5	0.94	37.4	89.9	6.2
Pike	2,310	2,007	2,056	2,085	2,089	2,115	-1.2	5.1	2.8	1.00	42.5	89.7	14.8
Powell	350	370	323	316	336	340	-1.1	5.2	1.0	1.12	33.6	86.5	8.2
Pulaski	1,788	1,737	1,677	1,869	1,838	1,768	4.0	3.6	0.9	0.88	25.7	91.6	7.1
Robertson	9	15	46	34	19	26	-26.9	9.8	0.0	1.63	35.8	77.9	6.5
Rockcastle	472	505	443	437	485	464	4.5	3.5	1.1	1.28	31.4	87.4	10.2
Rowan	794	912	905	912	922	881	4.7	4.0	0.4	0.52	26.5	90.5	7.9
Russell	297	339	366	221	206	306	-32.6	5.7	1.3	1.05	31.1	84.3	9.2
Scott	1,248	1,283	1,345	1,233	1,310	1,277	2.6	3.8	0.3	0.50	25.4	92.2	8.1
Shelby	1,023	1,060	1,229	1,194	1,278	1,127	13.4	5.5	0.4	1.00	24.6	91.8	6.5
Simpson	570	564	520	560	514	554	-7.1	4.2	0.7	0.95	26.5	88.2	6.0
Spencer	209	197	235	186	248	207	20.0	7.8	0.7	1.21	34.0	87.2	11.0
Taylor	722	748	688	719	816	719	13.5	4.3	0.6	0.49	21.8	84.0	6.0
Todd	270	235	225	214	221	236	-6.4	3.8	0.7	1.12	31.1	82.6	11.8
Trigg	312	322	264	324	259	306	-15.2	4.5	0.4	1.01	32.7	89.9	5.7
Trimble	202	206	208	197	183	203	-10.0	5.0	0.4	1.00	29.6	89.3	11.1
Union	472	457	469	406	413	451	-8.4	5.5	0.4	0.90	32.7	88.4	12.3
Warren	4,070	3,893	4,003	4,200	4,440	4,042	9.9	3.8	0.5	0.45	25.3	92.5	7.9
Washington	312	269	268	276	320	281	13.8	6.1	0.2	1.04	29.4	84.0	10.9
Wayne	465	491	492	343	315	448	-29.6	3.7	0.7	1.38	31.4	82.0	7.3
Webster	425	346	400	340	366	378	-3.1	5.1	0.6	0.80	32.0	92.9	8.3
Whitley	1,029	959	1,013	944	882	986	-10.6	4.2	1.2	1.16	28.9	91.1	10.9
Wolfe	182	205	205	156	208	187	11.2	6.2	0.8	1.88	37.2	87.0	9.3
Woodford	671	639	712	692	829	679	22.2	6.3	0.3	0.73	22.0	92.5	8.4
STATEWIDE	125,698	132,216	135,079	130,190	130,347	130,796	-0.3	4.3	0.6	0.58	26.4	92.1	6.8

* Percent change in the 2002 crash total from the previous four-year total

TABLE 15. CRASH RATES FOR CITIES HAVING POPULATION OVER 2,500
(FOR STATE-MAINTAINED SYSTEM AND ALL ROADS FOR 1998-2002)

		STATE-MAINTAINED SYSTEM		ALL ROADS	
CITY	POPULATION	TOTAL CRASHES	CRASH RATE*	TOTAL CRASHES	CRASH RATE**
Lexington	260,512	10,305	550	63,496	49
Louisville	256,231	29,525	252	77,069	60
Owensboro	54,067	2,676	371	12,827	47
Bowling Green	49,296	7,631	515	15,714	64
Covington	43,370	3,828	274	10,855	50
Hopkinsville	30,089	3,937	351	6,124	41
Frankfort	27,741	3,579	380	5,825	42
Henderson	27,373	2,998	357	7,042	52
Richmond	27,152	1,394	644	6,747	50
Jeffersontown	26,633	1,531	448	4,739	36
Paducah	26,307	2,627	355	8,660	66
Florence	23,551	4,973	264	8,952	76
Elizabethtown	22,542	4,472	304	6,286	56
Ashland	21,981	2,528	497	5,913	54
Radcliff	21,961	1,655	364	2,882	26
Nicholasville	19,680	2,011	494	3,749	38
Madisonville	19,307	2,330	554	4,530	47
Georgetown	18,080	956	401	3,331	37
Newport	17,048	2,146	943	4,494	53
Winchester	16,724	1,160	333	3,955	47
Erlanger	16,676	1,732	937	4,008	48
Fort Thomas	16,495	337	391	1,210	15
Saint Matthews	15,852	272	1,555	1,681	21
Danville	15,477	1,109	727	3,536	46
Shively	15,157	847	810	4,412	58
Independence	14,982	1,795	400	1,962	26
Murray	14,950	1,373	456	2,658	36
Glasgow	13,019	871	240	3,319	51
Somerset	11,352	2,033	422	4,306	76
Campbellsville	10,498	1,039	496	2,505	48
Middlesboro	10,384	922	291	1,829	35
Bardstown	10,374	1,397	455	2,973	57
Mayfield	10,349	482	423	2,190	42
Shelbyville	10,085	1,020	538	2,594	51
Berea	9,851	905	499	1,960	40
Edgewood	9,400	158	633	818	17
Lyndon	9,369	***	***	87	2
Paris	9,183	964	419	1,810	39
Lawrenceburg	9,014	448	578	940	21
Maysville	8,993	991	250	2,445	54
Mount Washington	8,485	345	283	969	23
Shepherdsville	8,334	748	734	2,101	50
Alexandria	8,286	569	318	1,319	32
Elsmere	8,139	335	457	736	18
Fort Mitchell	8,089	470	607	1,393	34
Harrodsburg	8,014	603	543	1,682	42
Franklin	7,996	589	440	1,339	34
Villa Hills	7,948	52	269	377	10
Corbin	7,742	787	371	1,946	50
Flatwoods	7,605	128	129	679	18
Versailles	7,511	624	374	1,637	44
Russellville	7,149	481	167	1,682	47
Oak Grove	7,064	***	***	1,368	39
Taylor Mill	6,913	190	346	1,238	36
Highland Heights	6,554	511	135	949	29
Princeton	6,536	300	156	962	29
Bellevue	6,480	171	300	1,123	35
Pikeville	6,295	878	218	2,302	73
Cynthiana	6,258	587	713	1,364	44
Leitchfield	6,139	599	563	1,222	40
Monticello	5,981	531	225	1,255	42
Dayton	5,966	8	142	430	14
Morehead	5,914	987	457	2,225	75
Wilmore	5,905	129	450	255	9

TABLE 15. CRASH RATES FOR CITIES HAVING POPULATION OVER 2,500
(FOR STATE-MAINTAINED SYSTEM AND ALL ROADS FOR 1998-2002)(continued)

		STATE-MAINTAINED SYSTEM		ALL ROADS	
CITY	POPULATION	TOTAL CRASHES	CRASH RATE*	TOTAL CRASHES	CRASH RATE**
Central City	5,893	437	258	970	33
Mount Sterling	5,876	640	713	1,802	61
Middletown	5,744	***	***	98	3
Lebanon	5,718	787	537	1,334	47
London	5,692	1,843	336	3,367	118
Fort Wright	5,681	675	417	2,195	77
La Grange	5,676	231	317	1,004	35
Williamsburg	5,143	383	146	961	37
Westwood	4,888	***	***	***	***
Hazard	4,806	594	203	2,372	99
Ludlow	4,409	79	302	218	10
Greenville	4,398	432	564	940	43
Scottsville	4,327	473	444	949	44
Benton	4,197	513	685	984	47
Vine Grove	4,169	223	243	349	17
Paintsville	4,132	709	569	1,285	62
Columbia	4,014	168	174	1,107	55
Crescent Springs	3,931	***	***	801	41
Grayson	3,877	145	182	1,061	55
Carrollton	3,846	282	526	949	49
Cold Spring	3,806	641	380	1,059	56
Lancaster	3,734	204	601	701	38
Russell	3,645	313	235	791	43
Prestonsburg	3,612	536	334	1,322	73
Providence	3,611	214	316	262	15
Barbourville	3,589	405	184	851	47
Morganfield	3,494	338	600	696	40
Southgate	3,472	155	337	473	27
Stanford	3,430	96	88	447	26
West Liberty	3,277	233	422	486	30
Williamstown	3,227	***	***	687	43
Marion	3,196	190	764	521	33
Beaver Dam	3,033	62	141	595	39
Stanton	3,029	150	128	514	34
Flemingsburg	3,010	53	108	459	31
Dawson Springs	2,980	161	352	288	19
Park Hills	2,977	170	584	200	13
Union	2,893	***	***	511	35
Crestview Hills	2,889	***	***	1,137	79
Indian Hills	2,882	***	***	85	6
Hodgenville	2,874	248	543	670	47
Lakeside Park	2,869	279	465	378	26
Irvine	2,843	248	414	577	41
Fulton	2,775	130	125	468	34
Calvert City	2,701	124	117	341	25
Tompkinsville	2,660	71	90	590	44
Springfield	2,634	325	653	608	46
Wilder	2,624	***	***	695	53
Cumberland	2,611	45	113	241	19
Mount Vernon	2,592	183	358	743	57
Hartford	2,571	70	254	253	20
Hickman	2,560	44	169	152	12
Morgantown	2,544	106	542	563	44

* Crashes per 100 million vehicle-miles.
** Crashes per 1,000 population.
*** No data available.

TABLE 16. MISCELLANEOUS CRASH DATA FOR CITIES HAVING POPULATION OVER 2,500 (1998-2002) (ALL ROADS)

CITY	POPULATION	FATAL CRASHES		PEDESTRIAN MOTOR VEHICLE CRASHES		BICYCLE-RELATED MOTOR VEHICLE CRASHES		MOTORCYCLE CRASHES		PERCENT OF CRASHES INVOLVING SPEEDING	PERCENT OF CRASHES INVOLVING ALCOHOL
		NUMBER	RATE*	NUMBER	RATE*	NUMBER	RATE*	NUMBER	RATE*		
Lexington	260,512	132	1.01	590	4.50	329	2.50	351	2.7	5.3	4.3
Louisville	256,231	142	1.11	1,200	9.40	655	5.10	553	4.3	3.2	3.1
Owensboro	54,067	14	0.52	83	3.10	120	4.40	84	3.1	3.1	3.6
Bowling Green	49,296	26	1.05	89	3.60	67	2.70	105	4.3	5.8	3.1
Covington	43,370	13	0.60	254	11.70	102	4.70	59	2.7	5.0	4.4
Hopkinsville	30,089	24	1.60	66	4.40	40	2.70	36	2.4	8.2	3.6
Frankfort	27,741	13	0.94	35	2.50	20	1.40	30	2.2	6.0	3.2
Henderson	27,373	10	0.73	69	5.00	57	4.20	51	3.7	4.2	2.9
Richmond	27,152	12	0.88	47	3.50	24	1.80	37	2.7	6.0	4.3
Jeffersontown	26,633	6	0.45	25	1.90	16	1.20	20	1.5	4.3	2.0
Paducah	26,307	23	1.75	49	3.70	53	4.00	86	6.5	3.8	3.2
Florence	23,551	15	1.27	45	3.80	40	3.40	35	3.0	4.2	2.3
Elizabethtown	22,542	21	1.86	22	2.00	19	1.70	47	4.2	4.4	1.7
Ashland	21,981	13	1.18	41	3.70	22	2.00	49	4.5	3.8	2.5
Radcliff	21,961	7	0.64	18	1.60	11	1.00	27	2.5	2.9	2.8
Nicholasville	19,680	9	0.91	41	4.20	29	2.90	18	1.8	4.6	4.2
Madisonville	19,307	6	0.62	26	2.70	29	3.00	51	5.3	3.9	1.7
Georgetown	18,080	9	1.00	17	1.90	17	1.90	28	3.1	3.8	3.0
Newport	17,048	4	0.47	116	13.60	82	9.60	35	4.1	3.4	4.8
Winchester	16,724	7	0.84	26	3.10	15	1.80	24	2.9	2.5	3.0
Erlanger	16,676	12	1.44	24	2.90	19	2.30	29	3.5	10.7	3.8
Fort Thomas	16,495	4	0.48	19	2.30	8	1.00	6	0.7	7.1	3.8
Saint Matthews	15,852	1	0.13	14	1.80	6	0.80	3	0.4	1.5	2.4
Danville	15,477	12	1.55	17	2.20	10	1.30	19	2.5	3.6	2.4
Shively	15,157	6	0.79	68	9.00	26	3.40	31	4.1	3.3	4.0
Independence	14,982	6	0.80	18	2.40	6	0.80	15	2.0	7.1	4.8
Murray	14,950	4	0.54	12	1.60	11	1.50	20	2.7	3.3	2.1
Glasgow	13,019	5	0.77	19	2.90	14	2.20	22	3.4	3.9	1.8
Somerset	11,352	16	2.82	26	4.60	9	1.60	26	4.6	5.3	1.8
Campbellsville	10,498	5	0.95	11	2.10	12	2.30	15	2.9	4.4	2.8
Middlesboro	10,384	4	0.77	17	3.30	11	2.10	9	1.7	3.4	4.5
Bardstown	10,374	9	1.74	29	5.60	20	3.90	14	2.7	3.5	2.9
Mayfield	10,349	5	0.97	13	2.50	10	1.90	13	2.5	2.3	1.9
Shelbyville	10,085	13	2.58	22	4.40	12	2.40	9	1.8	3.0	5.0
Berea	9,851	8	1.62	11	2.20	9	1.80	9	1.8	5.5	2.8
Edgewood	9,400	0	0.00	7	1.50	0	0.00	3	0.6	6.0	1.7
Lyndon	9,369	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Paris	9,183	3	0.65	19	4.10	5	1.10	15	3.3	3.5	3.2
Lawrenceburg	9,014	2	0.44	10	2.20	4	0.90	6	1.3	2.6	3.7
Maysville	8,993	15	3.34	17	3.80	10	2.20	9	2.0	4.9	4.0
Mount Washington	8,485	6	1.41	13	3.10	3	0.70	8	1.9	2.3	3.9
Shepherdsville	8,334	9	2.16	12	2.90	4	1.00	17	4.1	2.1	3.4
Alexandria	8,286	7	1.69	4	1.00	4	1.00	9	2.2	6.5	2.3
Elsmere	8,139	0	0.00	15	3.70	13	3.20	5	1.2	5.7	5.4
Fort Mitchell	8,089	2	0.49	10	2.50	2	0.50	8	2.0	7.2	4.7
Harrodsburg	8,014	4	1.00	21	5.20	6	1.50	14	3.5	4.3	3.5
Franklin	7,996	6	1.50	13	3.30	10	2.50	6	1.5	2.7	3.6
Villa Hills	7,948	0	0.00	3	0.80	1	0.30	4	1.0	13.3	5.3
Corbin	7,742	7	1.81	15	3.90	13	3.40	8	2.1	4.9	1.6
Flatwoods	7,605	2	0.53	2	0.50	7	1.80	4	1.1	6.6	2.5
Versailles	7,511	1	0.27	16	4.30	5	1.30	6	1.6	4.8	3.7
Russellville	7,149	2	0.56	18	5.00	15	4.20	16	4.5	3.9	3.3
Oak Grove	7,064	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Taylor Mill	6,913	2	0.58	3	0.90	2	0.60	6	1.7	9.2	4.0
Highland Heights	6,554	2	0.61	1	0.30	7	2.10	6	1.8	7.3	3.2
Princeton	6,536	2	0.61	6	1.80	6	1.80	7	2.1	5.5	3.2
Bellevue	6,480	1	0.31	13	4.00	17	5.20	1	0.3	2.5	3.6
Pikeville	6,295	14	4.45	18	5.70	1	0.30	31	9.8	7.1	3.4
Cynthiana	6,258	2	0.64	19	6.10	12	3.80	13	4.2	2.2	2.9
Leitchfield	6,139	4	1.30	12	3.90	3	1.00	7	2.3	3.2	2.7
Monticello	5,981	9	3.01	9	3.00	3	1.00	3	1.0	6.7	2.7
Dayton	5,966	0	0.00	12	4.00	8	2.70	5	1.7	4.2	7.0

TABLE 16. MISCELLANEOUS CRASH DATA FOR CITIES HAVING POPULATION OVER 2,500 (1998-2002) (ALL ROADS)(continued)

CITY	POPULATION	FATAL CRASHES		PEDESTRIAN MOTOR VEHICLE CRASHES		BICYCLE-RELATED MOTOR VEHICLE CRASHES		MOTORCYCLE CRASHES		PERCENT OF CRASHES INVOLVING SPEEDING	PERCENT OF CRASHES INVOLVING ALCOHOL
		NUMBER	RATE*	NUMBER	RATE*	NUMBER	RATE*	NUMBER	RATE*		
Morehead	5,914	6	2.03	11	3.70	10	3.40	16	5.4	2.9	2.2
Wilmore	5,905	0	0.00	4	1.40	1	0.30	0	0.0	8.6	1.2
Central City	5,893	8	2.72	3	1.00	4	1.40	15	5.1	5.1	3.0
Mount Sterling	5,876	9	3.06	16	5.40	1	0.30	12	4.1	2.7	3.6
Middletown	5,744	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Lebanon	5,718	2	0.70	19	6.60	10	3.50	9	3.1	3.1	4.6
London	5,692	6	2.11	12	4.20	6	2.10	11	3.9	3.9	2.2
Fort Wright	5,681	1	0.35	8	2.80	2	0.70	7	2.5	6.1	3.2
La Grange	5,676	6	2.11	9	3.20	0	0.00	6	2.1	3.8	1.6
Williamsburg	5,143	5	1.94	8	3.10	2	0.80	8	3.1	5.0	3.2
Hazard	4,806	6	2.50	14	5.80	0	0.00	9	3.7	2.7	2.4
Ludlow	4,409	0	0.00	4	1.80	5	2.30	2	0.9	4.6	7.3
Greenville	4,398	5	2.27	6	2.70	5	2.30	8	3.6	4.4	2.8
Scottsville	4,327	3	1.39	2	0.90	3	1.40	6	2.8	4.0	2.8
Benton	4,197	3	1.43	5	2.40	2	1.00	6	2.9	4.6	1.4
Vine Grove	4,169	2	0.96	0	0.00	2	1.00	2	1.0	7.2	7.7
Paintsville	4,132	8	3.87	6	2.90	2	1.00	9	4.4	2.8	1.6
Columbia	4,014	1	0.50	7	3.50	3	1.50	12	6.0	4.6	2.7
Crescent Springs	3,931	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Grayson	3,877	1	0.52	8	4.10	1	0.50	6	3.1	4.9	2.5
Carrollton	3,846	3	1.56	8	4.20	7	3.60	8	4.2	3.3	4.3
Cold Spring	3,806	3	1.58	5	2.60	2	1.10	9	4.7	6.7	3.4
Lancaster	3,734	1	0.54	10	5.40	4	2.10	6	3.2	6.1	3.3
Russell	3,645	2	1.10	3	1.60	3	1.60	8	4.4	4.3	3.4
Prestonsburg	3,612	5	2.77	10	5.50	1	0.60	11	6.1	3.9	4.0
Providence	3,611	1	0.55	1	0.60	5	2.80	5	2.8	6.1	3.4
Barbourville	3,589	4	2.23	8	4.50	1	0.60	5	2.8	5.3	3.2
Morganfield	3,494	2	1.14	9	5.20	5	2.90	6	3.4	7.0	2.6
Southgate	3,472	0	0.00	5	2.90	1	0.60	1	0.6	3.4	2.7
Stanford	3,430	3	1.75	2	1.20	2	1.20	3	1.7	7.4	3.4
West Liberty	3,277	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Williamstown	3,227	2	1.24	11	6.80	2	1.20	5	3.1	7.6	3.3
Marion	3,196	1	0.63	8	5.00	0	0.00	4	2.5	2.5	1.9
Beaver Dam	3,033	4	2.64	0	0.00	2	1.30	4	2.6	3.4	3.2
Stanton	3,029	1	0.66	0	0.00	1	0.70	3	2.0	3.9	3.9
Flemingsburg	3,010	1	0.66	2	1.30	0	0.00	2	1.3	4.4	2.4
Dawson Springs	2,980	1	0.67	4	2.70	1	0.70	5	3.4	3.8	3.1
Park Hills	2,977	0	0.00	1	0.70	1	0.70	0	0.0	15.5	7.0
Union	2,893	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Crestview Hills	2,889	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Indian Hills	2,882	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Hodgenville	2,874	6	4.18	6	4.20	1	0.70	4	2.8	4.9	2.2
Lakeside Park	2,869	1	0.70	6	4.20	1	0.70	3	2.1	5.3	4.2
Irvine	2,843	0	0.00	6	4.20	3	2.10	4	2.8	4.7	4.0
Fulton	2,775	3	2.16	3	2.20	5	3.60	10	7.2	3.2	3.0
Calvert City	2,701	4	2.96	1	0.70	2	1.50	6	4.4	8.2	4.1
Tompkinsville	2,660	2	1.50	4	3.00	4	3.00	3	2.3	2.2	2.9
Springfield	2,634	1	0.76	7	5.30	0	0.00	4	3.0	5.1	3.1
Wilder	2,624	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Cumberland	2,611	0	0.00	2	1.50	1	0.80	4	3.1	2.9	3.7
Mount Vernon	2,592	7	5.40	1	0.80	2	1.50	7	5.4	5.4	2.7
Hartford	2,571	2	1.56	1	0.80	1	0.80	2	1.6	5.1	3.6
Hickman	2,560	0	0.00	1	0.80	1	0.80	1	0.8	2.0	6.6
Morgantown	2,544	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
STATEWIDE	1,619,469	850	1.05	3,734	4.6	2,209	2.73	2,460	3.0	4.4	3.3

* Crashes per 10,000 population

TABLE 17. CRASH RATES ON STATE-MAINTAINED STREETS BY CITY AND POPULATION CATEGORY (1998-2002)

POPULATION CATEGORY	NUMBER OF CITIES	AVERAGE RATE C/100 MVM	CITY	NUMBER OF CRASHES (1998-2002)	AVERAGE RATE C/100 MVM
OVER 200,000	2	293	Lexington	10,305	550
			Louisville	29,525	252
20,000-55,000	13	362	Richmond	1,394	644
			Bowling Green	7,631	515
			Ashland	2,528	497
			Jeffersontown	1,531	448
			Frankfort	3,579	380
			Owensboro	2,676	371
			Radcliff	1,655	364
			Henderson	2,998	357
			Paducah	2,627	355
			Hopkinsville	3,937	351
			Elizabethtown	4,472	304
			Covington	3,828	274
			Florence	4,973	264
10,000-19,999	19	485	Saint Matthews	272	1,555
			Newport	2,146	943
			Erlanger	1,732	937
			Shively	847	810
			Danville	1,109	727
			Madisonville	2,330	554
			Shelbyville	1,020	538
			Campbellsville	1,039	496
			Nicholasville	2,011	494
			Murray	1,373	456
			Bardstown	1,397	455
			Mayfield	482	423
			Somerset	2,033	422
			Georgetown	956	401
			Independence	1,795	400
			Fort Thomas	337	391
			Winchester	1,160	333
			Middlesboro	922	291
			Glasgow	871	240
5,000-9,999	35	334	Shepherdsville	748	734
			Cynthiana	587	713
			Mount Sterling	640	713
			Edgewood	158	633
			Fort Mitchell	470	607
			Lawrenceburg	448	578
			Leitchfield	599	563
			Harrodsburg	603	543
			Lebanon	787	537
			Berea	905	499
			Elsmere	335	457
			Morehead	987	457
			Wilmore	129	450
			Franklin	589	440
			Paris	964	419
			Fort Wright	675	417
			Versailles	624	374
			Corbin	787	371
			Taylor Mill	190	346
			London	1,843	336
			Alexandria	569	318
			La Grange	231	317
			Bellevue	171	300
			Mount Washington	345	283
			Villa Hills	52	269
			Central City	437	258

TABLE 17. CRASH RATES ON STATE-MAINTAINED STREETS BY CITY AND POPULATION CATEGORY (1998-2002)(continued)

POPULATION CATEGORY	NUMBER OF CITIES	AVERAGE RATE C/100 MVM	CITY	NUMBER OF CRASHES (1998-2002)	AVERAGE RATE C/100 MVM
5,000-9,999 (cont.)	35	334	Maysville	991	250
			Monticello	531	225
			Pikeville	878	218
			Russellville	481	167
			Princeton	300	156
			Williamsburg	383	146
			Dayton	8	142
			Highland Heights	511	135
			Flatwoods	128	129
2,500-4,999	38	308	Marion	190	764
			Benton	513	685
			Springfield	325	653
			Lancaster	204	601
			Morganfield	338	600
			Park Hills	170	584
			Paintsville	709	569
			Greenville	432	564
			Hodgenville	248	543
			Morgantown	106	542
			Carrollton	282	526
			Lakeside Park	279	465
			Scottsville	473	444
			West Liberty	233	422
			Irvine	248	414
			Cold Spring	641	380
			Mount Vernon	183	358
			Dawson Springs	161	352
			Southgate	155	337
			Prestonsburg	536	334
			Providence	214	316
			Ludlow	79	302
			Hartford	70	254
			Vine Grove	223	243
			Russell	313	235
			Hazard	594	203
			Barbourville	405	184
			Grayson	145	182
			Columbia	168	174
			Hickman	44	169
			Beaver Dam	62	141
			Stanton	150	128
			Fulton	130	125
			Calvert City	124	117
			Cumberland	45	113
			Flemingsburg	53	108
			Tompkinsville	71	90
			Stanford	96	88
1,000-2,499	58	241	Dry Ridge	287	802
			Jackson	353	628
			Horse Cave	302	589
			Uniontown	19	588
			Falmouth	45	529
			Walton	285	506
			Vanceburg	53	468
			Albany	180	385
			Livermore	68	346
			Lacenter	30	341
			Clay City	70	329
			Manchester	277	322
			Liberty	155	322

TABLE 17. CRASH RATES ON STATE-MAINTAINED STREETS BY CITY AND POPULATION CATEGORY (1998-2002)(continued)

POPULATION CATEGORY	NUMBER OF CITIES	AVERAGE RATE C/100 MVM	CITY	NUMBER OF CRASHES (1998-2002)	AVERAGE RATE C/100 MVM
1,000-2,499 (cont.)	58	241	Louisa	161	308
			Sebree	85	306
			Edmonton	196	304
			Eminence	93	293
			Munfordville	105	288
			Elkhorn City	37	287
			Salyersville	149	287
			Owingsville	122	285
			Sturgis	68	263
			Nortonville	49	254
			Harlan	373	252
			Burkesville	68	227
			Muldraugh	139	226
			Catlettsburg	237	223
			Augusta	1,286	219
			Beattyville	51	217
			Warsaw	7	210
			Cave City	177	205
			Lewisport	12	202
			Brandenburg	205	196
			Earlington	80	196
			Anchorage	36	188
			Owenton	48	188
			Whitesburg	238	188
			Clay	18	184
			Cadiz	200	182
			Jenkins	60	172
			South Shore	156	169
			Elkton	44	163
			Hardinsburg	52	161
			Junction City	17	158
			Raceland	52	156
			Russell Springs	121	154
			Pineville	81	153
			Eddyville	151	137
			Carlisle	19	119
			Olive Hill	35	116
			Worthington	9	116
			Lebanon Junction	13	108
			Evarts	9	107
			Jamestown	100	101
			Cloverport	14	79
			Clinton	14	79
			Greensburg	36	72
			Auburn	5	57

TABLE 18. TOTAL CRASH RATES BY CITY AND POPULATION CATEGORY (IN DESCENDING ORDER) (1998-2002)(ALL ROADS)

CITY	NUMBER OF CRASHES (1998-2002)	ANNUAL CRASH RATE (CRASHES PER 1000 POPULATION)	
POPULATION CATEGORY OVER 200,000			
Louisville	77,069	60.2	*
Lexington	63,496	48.7	
POPULATION CATEGORY 20,000-55,000			
Florence	8,952	76.0	*
Paducah	8,660	65.8	*
Bowling Green	15,714	63.8	*
Elizabethtown	6,286	55.8	
Ashland	5,913	53.8	
Henderson	7,042	51.5	
Covington	10,855	50.1	
Richmond	6,747	49.7	
Owensboro	12,827	47.4	
Frankfort	5,825	42.0	
Hopkinsville	6,124	40.7	
Jeffersontown	4,739	35.6	
Radcliff	2,882	26.2	
POPULATION CATEGORY 10,000-19,999			
Somerset	4,306	75.9	*
Shively	4,412	58.2	*
Bardstown	2,973	57.3	*
Newport	4,494	52.7	
Shelbyville	2,594	51.4	
Glasgow	3,319	51.0	
Erlanger	4,008	48.1	
Campbellsville	2,505	47.7	
Winchester	3,955	47.3	
Madisonville	4,530	46.9	
Danville	3,536	45.7	
Mayfield	2,190	42.3	
Nicholasville	3,749	38.1	
Georgetown	3,331	36.8	
Murray	2,658	35.6	
Middlesboro	1,829	35.2	
Independence	1,962	26.2	
Saint Matthews	1,681	21.2	
Fort Thomas	1,210	14.7	
POPULATION CATEGORY 5,000-9,999			
London	3,367	118.3	*
Fort Wright	2,195	77.3	*
Morehead	2,225	75.2	*
Pikeville	2,302	73.1	*
Mount Sterling	1,802	61.3	*
Maysville	2,445	54.4	*
Shepherdsville	2,101	50.4	*
Corbin	1,946	50.3	*
Russellville	1,682	47.1	
Lebanon	1,334	46.7	
Versailles	1,637	43.6	
Cynthiana	1,364	43.6	
Harrodsburg	1,682	42.0	
Monticello	1,255	42.0	
Leitchfield	1,222	39.8	
Berea	1,960	39.8	
Paris	1,810	39.4	
Oak Grove	1,368	38.7	
Williamsburg	961	37.4	
Taylor Mill	1,238	35.8	
La Grange	1,004	35.4	
Bellevue	1,123	34.7	
Fort Mitchell	1,393	34.4	
Franklin	1,339	33.5	
Central City	970	32.9	
Alexandria	1,319	31.8	
Princeton	962	29.4	
Highland Heights	949	29.0	
Mount Washington	969	22.8	
Lawrenceburg	940	20.9	
Elsmere	736	18.1	
Flatwoods	679	17.9	
Edgewood	818	17.4	
Dayton	430	14.4	
Villa Hills	377	9.5	
Wilmore	255	8.6	
Middletown	98	3.4	
Lyndon	87	1.9	
POPULATION CATEGORY 2,500-4,999			
Hazard	2,372	98.7	*
Crestview Hills	1,137	78.7	*
Prestonsburg	1,322	73.2	*
Paintsville	1,285	62.2	*
Mount Vernon	743	57.3	*
Cold Spring	1,059	55.6	*
Columbia	1,107	55.2	*
Grayson	1,061	54.7	*
Wilder	695	53.0	*
Carrollton	949	49.3	
Barbourville	851	47.4	
Benton	984	46.9	
Hodgenville	670	46.6	
Springfield	608	46.2	
Tompkinsville	590	44.4	
Morgantown	563	44.3	
Scottsville	949	43.9	
Russell	791	43.4	
Greenville	940	42.7	
Williamstown	687	42.6	
Crescent Springs	801	40.8	
Irvine	577	40.6	
Morganfield	696	39.8	
Beaver Dam	595	39.2	
Lancaster	701	37.5	
Union	511	35.3	
Stanton	514	33.9	
Fulton	468	33.7	
Marion	521	32.6	
Flemingsburg	459	30.5	
West Liberty	486	29.7	
Southgate	473	27.2	
Lakeside Park	378	26.4	
Stanford	447	26.1	
Calvert City	341	25.2	
Hartford	253	19.7	
Dawson Springs	288	19.3	
Cumberland	241	18.5	
Vine Grove	349	16.7	
Providence	262	14.5	
Park Hills	200	13.4	
Hickman	152	11.9	
Ludlow	218	9.9	
Indian Hills	85	5.9	

* Critical crash rate

TABLE 19. FATAL CRASH RATES BY CITY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)(1998-2002)(ALL ROADS)

CITY	NUMBER OF CRASHES (1998-2002)	ANNUAL CRASH RATE (CRASHES PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Louisville	142	1.11
Lexington	132	1.01
POPULATION CATEGORY 20,000-55,000		
Elizabethtown	21	1.86
Paducah	23	1.75
Hopkinsville	24	1.60
Florence	15	1.27
Ashland	13	1.18
Bowling Green	26	1.05
Frankfort	13	0.94
Richmond	12	0.88
Henderson	10	0.73
Radcliff	7	0.64
Covington	13	0.60
Owensboro	14	0.52
Jeffersontown	6	0.45
POPULATION CATEGORY 10,000-19,999		
Somerset	16	2.82
Shelbyville	13	2.58
Bardstown	9	1.74
Danville	12	1.55
Erlanger	12	1.44
Georgetown	9	1.00
Mayfield	5	0.97
Campbellsville	5	0.95
Nicholasville	9	0.91
Winchester	7	0.84
Independence	6	0.80
Shively	6	0.79
Glasgow	5	0.77
Middlesboro	4	0.77
Madisonville	6	0.62
Murray	4	0.54
Fort Thomas	4	0.48
Newport	4	0.47
Saint Matthews	1	0.13
POPULATION CATEGORY 5,000-9,999		
Pikeville	14	4.45
Maysville	15	3.34
Mount Sterling	9	3.06
Monticello	9	3.01
Central City	8	2.72
Shepherdsville	9	2.16
London	6	2.11
La Grange	6	2.11
Morehead	6	2.03
Williamsburg	5	1.94
Corbin	7	1.81
Alexandria	7	1.69
Berea	8	1.62
Franklin	6	1.50
Mount Washington	6	1.41
Leitchfield	4	1.30
Harrodsburg	4	1.00
Lebanon	2	0.70
Paris	3	0.65
Cynthiana	2	0.64
Princeton	2	0.61
Highland Heights	2	0.61
Taylor Mill	2	0.58
Russellville	2	0.56
Flatwoods	2	0.53
Fort Mitchell	2	0.49
Lawrenceburg	2	0.44
Fort Wright	1	0.35
Bellevue	1	0.31
Versailles	1	0.27
POPULATION CATEGORY 2,500-4,999		
Mount Vernon	7	5.40
Hodgenville	6	4.18
Paintsville	8	3.87
Calvert City	4	2.96
Prestonsburg	5	2.77
Beaver Dam	4	2.64
Hazard	6	2.50
Greenville	5	2.27
Barbourville	4	2.23
Fulton	3	2.16
Stanford	3	1.75
Cold Spring	3	1.58
Carrollton	3	1.56
Hartford	2	1.56
Tompkinsville	2	1.50
Benton	3	1.43
Scottsville	3	1.39
Williamstown	2	1.24
Morganfield	2	1.14
Russell	2	1.10
Vine Grove	2	0.96
Springfield	1	0.76
Lakeside Park	1	0.70
Dawson Springs	1	0.67
Stanton	1	0.66
Flemingsburg	1	0.66
Marion	1	0.63
Providence	1	0.55
Lancaster	1	0.54
Grayson	1	0.52

* Critical crash rate

TABLE 20. CRASHES INVOLVING ALCOHOL BY COUNTY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)

COUNTY	NUMBER OF ALCOHOL-RELATED CRASHES (1998 - 2002) ALL	NUMBER OF ALCOHOL-RELATED CRASHES (1998 - 2002) AGE 16-20	PERCENT OF TOTAL CRASHES INVOLVING ALCOHOL ALL	PERCENT OF TOTAL CRASHES INVOLVING ALCOHOL AGE 16-20
POPULATION CATEGORY UNDER 10,000				
Menifee	57	13	11.1	7.9
Elliott	62	13	10.4	7.2
Owsley	33	6	9.8	6.5
Robertson	12	2	9.8	5.0
Nicholas	79	14	9.3	5.0
Lee	40	3	7.7	2.2
Gallatin	80	12	7.4	4.1
Ballard	70	9	6.7	3.0
Wolfe	59	7	6.2	2.4
Hickman	29	6	6.1	4.5
Fulton	55	3	5.5	1.0
McLean	60	8	5.3	2.1
Crittenden	61	8	5.3	1.8
Livingston	60	3	5.3	0.8
Cumberland	21	3	5.2	1.8
Bracken	66	7	5.1	1.8
Trimble	50	8	5.0	2.4
Hancock	37	3	4.6	1.3
Clinton	35	2	4.4	0.6
Lyon	45	10	3.9	3.7
Carlisle	14	2	3.8	1.6
POPULATION CATEGORY 10,000 - 14,999				
Spencer	84	10	7.8	2.9
Magoffin	95	13	7.8	3.5
Lewis	108	15	7.5	3.6
Leslie	99	10	7.4	2.7
Owen	86	12	7.4	3.1
Pendleton	131	11	6.7	1.7
Bath	95	10	6.4	2.5
Carroll	137	14	6.2	2.1
Washington	88	18	6.1	3.3
Martin	77	13	5.8	3.1
Jackson	80	14	5.8	3.2
Butler	72	13	5.7	2.3
Fleming	76	11	5.6	2.4
Monroe	50	7	5.3	2.0
Edmonson	63	1	5.3	0.2
Powell	88	13	5.2	2.4
Webster	95	14	5.1	2.4
Garrard	100	10	5.0	1.7
Caldwell	76	8	4.6	1.5
Morgan	72	6	4.6	1.3
Trigg	67	8	4.5	1.8
Green	56	6	4.4	1.4
Larue	70	10	4.2	1.8
Metcalfe	44	3	4.1	1.0
Todd	44	6	3.8	1.6
POPULATION CATEGORY 15,000 - 24,999				
Marion	250	35	10.0	3.9
Casey	96	15	7.8	3.2
Henry	137	17	6.7	2.8
Breathitt	144	28	6.6	4.6
Woodford	223	28	6.3	2.7
McCreary	100	11	6.3	2.0
Breckinridge	83	10	6.1	1.7
Lincoln	119	23	6.0	4.0
Estill	102	15	5.9	2.5
Clay	139	9	5.7	1.3
Russell	81	13	5.7	2.9
Knott	101	14	5.3	2.3
Union	123	18	5.3	2.4

TABLE 20. CRASHES INVOLVING ALCOHOL BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (continued)

COUNTY	NUMBER OF ALCOHOL-RELATED CRASHES (1998 - 2002) ALL	NUMBER OF ALCOHOL-RELATED CRASHES (1998 - 2002) AGE 16-20	PERCENT OF TOTAL CRASHES INVOLVING ALCOHOL ALL	PERCENT OF TOTAL CRASHES INVOLVING ALCOHOL AGE 16-20
POPULATION CATEGORY 15,000 - 24,999 (continued)				
Montgomery	203	26	5.3	2.1
Anderson	126	21	5.3	2.7
Mercer	156	21	5.2	2.1
Grayson	150	12	5.1	1.1
Mason	184	21	5.0	2.0
Johnson	142	13	4.9	1.4
Lawrence	74	16	4.9	4.0
Bourbon	151	16	4.8	1.8
Allen	100	19	4.8	2.6
Harrison	125	19	4.6	1.9
Hart	99	7	4.5	1.2
Adair	109	27	4.5	2.9
Ohio	128	13	4.4	1.4
Taylor	158	33	4.3	2.2
Simpson	115	12	4.2	1.4
Rowan	177	35	4.0	2.0
Wayne	77	11	3.7	1.4
Grant	155	17	3.5	1.2
Rockcastle	81	5	3.5	0.8
POPULATION CATEGORY 25,000 - 49,999				
Floyd	347	57	6.6	3.8
Meade	153	22	6.0	2.3
Letcher	162	17	5.6	2.1
Carter	187	24	5.5	2.3
Shelby	316	26	5.5	1.6
Knox	204	17	5.0	1.3
Nelson	294	36	5.0	1.6
Greenup	189	28	5.0	2.2
Jessamine	318	37	4.9	1.7
Harlan	177	24	4.8	2.3
Calloway	209	46	4.7	2.4
Logan	156	18	4.6	1.5
Perry	224	28	4.5	1.9
Bell	148	20	4.4	1.9
Graves	203	35	4.3	2.2
Whitley	203	33	4.2	2.1
Franklin	352	45	4.2	1.9
Marshall	168	14	4.1	1.0
Muhlenberg	190	27	4.1	1.8
Clark	239	29	4.1	1.6
Scott	243	35	3.8	2.0
Barren	209	22	3.8	1.0
Henderson	345	49	3.6	1.5
Boyd	336	56	3.4	1.8
Boyle	154	22	3.4	1.6
Oldham	155	32	3.4	1.9
Hopkins	226	25	2.8	1.1
POPULATION CATEGORY 50,000 - OVER				
Pike	542	60	5.1	2.0
Madison	666	100	5.1	2.2
Bullitt	330	36	4.9	1.5
Christian	459	55	4.8	1.9
Kenton	1251	125	4.5	1.6
Daviess	744	125	4.3	1.8
Campbell	597	55	4.3	1.3
Fayette	2725	292	4.3	1.6
McCracken	566	68	4.2	1.6
Warren	793	116	3.8	1.5
Pulaski	317	38	3.6	1.3
Jefferson	4660	366	3.5	1.1
Laurel	298	35	3.5	1.3
Boone	589	84	3.4	1.4
Hardin	436	67	3.2	1.5

TABLE 21. CRASHES INVOLVING ALCOHOL BY CITY AND POPULATION CATEGORY(IN ORDER OF DECREASING PERCENTAGES)(1998-2002)

CITY	NUMBER OF ALCOHOL-RELATED CRASHES	PERCENTAGE OF CRASHES INVOLVING ALCOHOL
POPULATION CATEGORY OVER 200,000		
Lexington	2,700	4.3
Louisville	2,354	3.1
POPULATION CATEGORY 20,000-55,000		
Covington	483	4.4
Richmond	289	4.3
Owensboro	462	3.6
Hopkinsville	223	3.6
Frankfort	187	3.2
Paducah	277	3.2
Bowling Green	494	3.1
Henderson	204	2.9
Radcliff	80	2.8
Ashland	150	2.5
Florence	205	2.3
Jeffersontown	97	2.0
Elizabethtown	109	1.7
POPULATION CATEGORY 10,000-19,999		
Shelbyville	130	5.0
Independence	94	4.8
Newport	214	4.8
Middlesboro	83	4.5
Nicholasville	156	4.2
Shively	178	4.0
Fort Thomas	46	3.8
Erlanger	154	3.8
Winchester	118	3.0
Georgetown	99	3.0
Bardstown	85	2.9
Campbellsville	69	2.8
Danville	85	2.4
Saint Matthews	40	2.4
Murray	55	2.1
Mayfield	42	1.9
Glasgow	60	1.8
Somerset	78	1.8
Madisonville	77	1.7
POPULATION CATEGORY 5,000-9,999		
Dayton	30	7.0
Elsmere	40	5.4
Villa Hills	20	5.3
Fort Mitchell	65	4.7
Lebanon	61	4.6
Maysville	99	4.0
Taylor Mill	49	4.0
Mount Washington	38	3.9
Lawrenceburg	35	3.7
Versailles	60	3.7
Mount Sterling	64	3.6
Franklin	48	3.6
Bellevue	40	3.6
Harrodsburg	59	3.5
Pikeville	79	3.4
Shepherdsville	71	3.4
Russellville	55	3.3
Paris	58	3.2
Highland Heights	30	3.2
Princeton	31	3.2
Williamsburg	31	3.2
Fort Wright	71	3.2
Central City	29	3.0
Cynthiana	39	2.9
Berea	55	2.8
Monticello	34	2.7
Leitchfield	33	2.7
Flatwoods	17	2.5
Alexandria	30	2.3
Morehead	48	2.2
London	74	2.2
Edgewood	14	1.7
Corbin	32	1.6
La Grange	16	1.6
Wilmore	3	1.2
POPULATION CATEGORY 2,500-4,999		
Vine Grove	27	7.7
Ludlow	16	7.3
Park Hills	14	7.0
Hickman	10	6.6
Carrollton	41	4.3
Lakeside Park	16	4.2
Calvert City	14	4.1
Irvine	23	4.0
Prestonsburg	53	4.0
Stanton	20	3.9
Cumberland	9	3.7
Hartford	9	3.6
Russell	27	3.4
Cold Spring	36	3.4
Providence	9	3.4
Lancaster	23	3.3
Lancaster	23	3.3
Williamstown	23	3.3
Barbourville	27	3.2
Beaver Dam	19	3.2
Dawson Springs	9	3.1
Springfield	19	3.1
Fulton	14	3.0
Tompkinsville	17	2.9
Greenville	26	2.8
Scottsville	27	2.8
Southgate	13	2.7
Mount Vernon	20	2.7
Columbia	30	2.7
Morganfield	18	2.6
Grayson	26	2.5
Flemingsburg	11	2.4
Hazard	56	2.4
Hodgenville	15	2.2
Marion	10	1.9
Paintsville	21	1.6
Benton	14	1.4

TABLE 22. SUMMARY OF ALCOHOL CONVICTIONS BY COUNTY (1998 - 2002)

COUNTY	1998	1999	2000	2001	2002	TOTAL ALCOHOL CONVICTIONS (FIVE YEARS)	ANNUAL AVERAGE ALCOHOL CONVICTIONS PER 1,000 LICENSED DRIVERS	ALCOHOL CONVICTIONS PER ALCOHOL-RELATED CRASH
Adair	131	117	128	134	170	680	8.2	6.2
Allen	90	78	81	81	90	420	5.7	4.2
Anderson	157	200	109	157	145	768	8.5	6.1
Ballard	81	87	77	113	72	430	11.0	6.1
Barren	212	194	186	217	202	1,011	5.6	4.8
Bath	46	63	45	87	61	302	6.2	3.2
Bell	302	349	296	340	204	1,491	15.9	10.1
Boone	593	510	669	568	569	2,909	6.7	4.9
Bourbon	127	147	202	166	130	772	8.5	5.1
Boyd	299	290	267	249	295	1,400	6.6	4.2
Boyle	116	139	119	132	105	611	5.1	4.0
Bracken	49	39	27	41	48	204	5.5	3.1
Breathitt	107	114	90	93	65	469	8.9	3.3
Breckinridge	101	83	80	85	94	443	4.7	5.3
Bullitt	354	413	465	319	213	1,764	5.9	5.3
Butler	109	103	88	44	68	412	6.3	5.7
Caldwell	75	104	79	93	90	441	6.7	5.8
Calloway	214	154	169	172	196	905	6.6	4.3
Campbell	976	863	855	651	951	4,296	12.8	7.2
Carlisle	40	25	21	31	11	128	4.9	9.1
Carroll	123	131	178	109	138	679	13.6	5.0
Carter	148	113	190	191	174	816	6.3	4.4
Casey	163	142	103	85	120	613	9.4	6.4
Christian	875	791	661	682	461	3,470	15.3	7.6
Clark	308	320	360	298	275	1,561	10.1	6.5
Clay	248	286	267	188	137	1,126	14.9	8.1
Clinton	88	120	78	62	93	441	10.4	12.6
Crittenden	46	66	65	69	63	309	7.1	5.1
Cumberland	72	95	55	69	104	395	12.5	18.8
Daviess	609	611	586	763	689	3,258	7.8	4.4
Edmonson	31	25	37	19	31	143	2.7	2.3
Elliott	32	19	35	26	38	150	6.4	2.4
Estill	94	113	76	100	120	503	7.4	4.9
Fayette	2,163	2,042	2,021	1,857	1,976	10,059	9.8	3.7
Fleming	43	64	71	55	70	303	4.4	4.0
Floyd	346	332	382	329	370	1,759	10.3	5.1
Franklin	367	332	420	359	332	1,810	8.0	5.1
Fulton	123	113	137	97	86	556	20.7	10.1
Gallatin	79	110	95	106	92	482	13.7	6.0
Garrard	77	163	127	98	71	536	8.7	5.4
Grant	179	196	156	121	189	841	7.7	5.4
Graves	200	228	252	312	297	1,289	7.5	6.3
Grayson	193	140	129	105	137	704	6.0	4.7
Green	28	31	37	43	33	172	3.7	3.1
Greenup	265	308	344	378	400	1,695	10.5	9.0
Hancock	64	51	47	33	35	230	5.8	6.2
Hardin	538	636	628	439	511	2,752	6.5	6.3
Harlan	384	449	310	378	354	1,875	16.8	10.6
Harrison	83	93	103	80	73	432	5.6	3.5
Hart	97	105	103	77	75	457	6.4	4.6
Henderson	336	417	426	467	525	2,171	10.8	6.3
Henry	147	109	110	100	90	556	8.0	4.1
Hickman	42	32	27	30	42	173	7.5	6.0
Hopkins	337	403	356	428	423	1,947	9.3	8.6
Jackson	77	102	79	57	80	395	7.3	4.9
Jefferson	2,323	3,019	3,152	2,322	2,922	13,738	5.2	2.9
Jessamine	197	316	397	405	467	1,782	8.3	5.6
Johnson	101	159	134	196	125	715	6.9	5.0
Kenton	951	1,201	1,118	1,067	810	5,147	9.2	4.1
Knott	122	139	79	129	113	582	9.3	5.8
Knox	265	280	185	207	251	1,188	11.2	5.8
Larue	64	63	69	53	50	299	4.6	4.3
Laurel	601	614	594	535	365	2,709	11.2	9.1

TABLE 22. SUMMARY OF ALCOHOL CONVICTIONS BY COUNTY (1998 - 2002) (continued)

COUNTY	1998	1999	2000	2001	2002	TOTAL ALCOHOL CONVICTIONS (FIVE YEARS)	ANNUAL AVERAGE ALCOHOL CONVICTIONS PER 1,000 LICENSED DRIVERS	ALCOHOL CONVICTIONS PER ALCOHOL-RELATED CRASH
Lawrence	88	98	115	161	89	551	8.9	7.4
Lee	44	47	48	39	42	220	7.3	5.5
Leslie	51	93	110	97	35	386	8.5	3.9
Letcher	133	132	99	82	148	594	5.8	3.7
Lewis	113	103	97	97	79	489	8.8	4.5
Lincoln	102	94	102	102	74	474	5.0	4.0
Livingston	72	69	75	68	54	338	7.5	5.6
Logan	182	193	208	173	180	936	7.8	6.0
Lyon	64	53	92	85	100	394	12.2	8.8
McCracken	787	690	630	688	733	3,528	12.4	6.2
McCreary	99	153	138	128	71	589	12.0	5.9
McLean	123	174	173	138	251	859	11.1	14.3
Madison	219	198	175	159	135	886	6.0	1.3
Magoffin	70	109	124	121	133	557	11.3	5.9
Marion	134	128	158	141	110	671	8.5	2.7
Marshall	642	583	527	506	523	2,781	9.2	16.6
Martin	128	180	173	79	77	637	10.3	8.3
Mason	40	43	39	63	45	230	4.8	1.3
Meade	251	201	194	166	155	967	8.7	6.3
Menifee	20	32	20	22	26	120	4.2	2.1
Mercer	143	94	74	101	109	521	5.4	3.3
Metcalfe	36	52	55	26	30	199	4.5	4.5
Monroe	47	80	52	51	70	300	5.9	6.0
Montgomery	135	114	121	79	176	625	5.2	3.1
Morgan	85	66	50	80	96	377	6.8	5.2
Muhlenberg	169	175	169	191	226	930	6.4	4.9
Nelson	219	204	217	276	312	1,228	6.8	4.2
Nicholas	50	55	66	40	40	251	7.9	3.2
Ohio	91	104	110	125	143	573	5.5	4.5
Oldham	159	165	160	167	210	861	4.1	5.6
Owen	45	39	32	27	46	189	4.0	2.2
Owsley	31	26	63	54	35	209	11.0	6.3
Pendleton	95	53	68	75	108	399	5.7	3.0
Perry	277	341	268	323	293	1,502	12.0	6.7
Pike	390	382	355	541	410	2,078	7.4	3.8
Powell	126	135	113	118	143	635	11.4	7.2
Pulaski	337	388	404	297	334	1,760	6.2	5.6
Robertson	8	7	2	13	9	39	3.6	3.3
Rockcastle	173	202	203	196	112	886	12.5	10.9
Rowan	250	227	219	240	298	1,234	14.2	7.0
Russell	124	116	114	115	126	595	7.7	7.3
Scott	207	218	192	231	207	1,055	7.1	4.3
Shelby	220	354	327	235	240	1,376	8.5	4.4
Simpson	182	148	125	138	80	673	9.3	5.9
Spencer	47	62	84	79	68	340	5.5	4.0
Taylor	177	138	161	121	180	777	7.2	4.9
Todd	87	70	69	91	61	378	7.7	8.6
Trigg	119	97	89	135	116	556	9.6	8.3
Trimble	64	41	20	20	25	170	4.7	3.4
Union	141	142	186	159	149	777	11.9	6.3
Warren	1,042	842	902	784	911	4,481	11.3	5.7
Washington	46	46	48	57	71	268	5.3	3.0
Wayne	76	112	92	110	67	457	5.6	5.9
Webster	63	60	96	60	63	342	5.6	3.6
Whitley	239	312	286	188	165	1,190	7.2	5.9
Wolfe	63	73	79	69	57	341	10.1	5.8
Woodford	228	222	260	186	256	1,152	10.9	5.2
TOTAL *	27,161	28,486	28,060	26,210	26,688	136,605	8.0	4.8

* Convictions in cases filed in the same calander year.

TABLE 23. ALCOHOL CONVICTION RATES IN DECREASING ORDER (BY COUNTY POPULATION CATEGORIES)
(1998 - 2002)

POPULATION	COUNTY	ANNUAL AVERAGE ALCOHOL CONVICTIONS PER 1,000 LICENSED DRIVERS	COUNTY	ALCOHOL CONVICTIONS PER ALCOHOL-RELATED CRASH
UNDER 10,000	Fulton	20.7	Cumberland	18.8
	Gallatin	13.7	McLean	14.3
	Cumberland	12.5	Clinton	12.6
	Lyon	12.2	Fulton	10.1
	McLean	11.1	Carlisle	9.1
	Owsley	11.0	Lyon	8.8
	Ballard	11.0	Owsley	6.3
	Clinton	10.4	Hancock	6.2
	Wolfe	10.1	Ballard	6.1
	Nicholas	7.9	Gallatin	6.0
	Hickman	7.5	Hickman	6.0
	Livingston	7.5	Wolfe	5.8
	Lee	7.3	Livingston	5.6
	Crittenden	7.1	Lee	5.5
	Elliott	6.4	Crittenden	5.1
	Hancock	5.8	Trimble	3.4
	Bracken	5.5	Robertson	3.3
	Carlisle	4.9	Nicholas	3.2
	Trimble	4.7	Bracken	3.1
	Menifee	4.2	Elliott	2.4
	Robertson	3.6	Menifee	2.1
10,000-14,999	Carroll	13.6	Todd	8.6
	Powell	11.4	Trigg	8.3
	Magoffin	11.3	Martin	8.3
	Martin	10.3	Powell	7.2
	Trigg	9.6	Monroe	6.0
	Lewis	8.8	Magoffin	5.9
	Garrard	8.7	Caldwell	5.8
	Leslie	8.5	Butler	5.7
	Todd	7.7	Garrard	5.4
	Jackson	7.3	Morgan	5.2
	Morgan	6.8	Carroll	5.0
	Caldwell	6.7	Jackson	4.9
	Butler	6.3	Lewis	4.5
	Bath	6.2	Metcalfe	4.5
	Monroe	5.9	Larue	4.3
	Pendleton	5.7	Spencer	4.0
	Webster	5.6	Fleming	4.0
	Spencer	5.5	Leslie	3.9
	Washington	5.3	Webster	3.6
	Larue	4.6	Bath	3.2
	Metcalfe	4.5	Green	3.1
	Fleming	4.4	Pendleton	3.0
	Owen	4.0	Washington	3.0
	Green	3.7	Edmonson	2.3
	Edmonson	2.7	Owen	2.2
15,000-24,999	Clay	14.9	Rockcastle	10.9
	Rowan	14.2	Clay	8.1
	Rockcastle	12.5	Lawrence	7.4
	McCreary	12.0	Russell	7.3
	Union	11.9	Rowan	7.0
	Woodford	10.9	Casey	6.4
	Casey	9.4	Union	6.3
	Simpson	9.3	Adair	6.2
	Knott	9.3	Anderson	6.1
	Breathitt	8.9	Wayne	5.9
	Lawrence	8.9	McCreary	5.9
	Bourbon	8.5	Simpson	5.9
	Marion	8.5	Knott	5.8
	Anderson	8.5	Grant	5.4
	Adair	8.2	Breckinridge	5.3
	Henry	8.0	Woodford	5.2
	Grant	7.7	Bourbon	5.1
	Russell	7.7	Johnson	5.0

TABLE 23. ALCOHOL CONVICTION RATES IN DECREASING ORDER (BY COUNTY POPULATION CATEGORIES) (1998 - 2002) (continued)

POPULATION	COUNTY	PER 1,000 LICENSED DRIVERS ANNUAL AVERAGE ALCOHOL CONVICTIONS	COUNTY	RELATED PER ALCOHOL-CONVICTIONS ALCOHOL CRASH
15,000-24,999	Estill	7.4	Estill	4.9
(cont'd)	Taylor	7.2	Taylor	4.9
	Johnson	6.9	Grayson	4.7
	Hart	6.4	Hart	4.6
	Grayson	6.0	Ohio	4.5
	Allen	5.7	Allen	4.2
	Harrison	5.6	Henry	4.1
	Wayne	5.6	Lincoln	4.0
	Ohio	5.5	Harrison	3.5
	Mercer	5.4	Mercer	3.3
	Montgomery	5.2	Breathitt	3.3
	Lincoln	5.0	Montgomery	3.1
	Mason	4.8	Marion	2.7
	Breckinridge	4.7	Mason	1.3
25,000 - 49,999	Harlan	16.8	Marshall	16.6
	Bell	15.9	Harlan	10.6
	Perry	12.0	Bell	10.1
	Knox	11.2	Greenup	9.0
	Henderson	10.8	Hopkins	8.6
	Greenup	10.5	Perry	6.7
	Floyd	10.3	Clark	6.5
	Clark	10.1	Graves	6.3
	Hopkins	9.3	Meade	6.3
	Marshall	9.2	Henderson	6.3
	Meade	8.7	Logan	6.0
	Shelby	8.5	Whitley	5.9
	Jessamine	8.3	Knox	5.8
	Franklin	8.0	Jessamine	5.6
	Logan	7.8	Oldham	5.6
	Graves	7.5	Franklin	5.1
	Whitley	7.2	Floyd	5.1
	Scott	7.1	Muhlenberg	4.9
	Nelson	6.8	Barren	4.8
	Boyd	6.6	Carter	4.4
	Calloway	6.6	Shelby	4.4
	Muhlenberg	6.4	Scott	4.3
	Carter	6.3	Calloway	4.3
	Letcher	5.8	Nelson	4.2
	Barren	5.6	Boyd	4.2
	Boyle	5.1	Boyle	4.0
	Oldham	4.1	Letcher	3.7
50,000 - OVER	Christian	15.3	Laurel	9.1
	Campbell	12.8	Christian	7.6
	McCracken	12.4	Campbell	7.2
	Warren	11.3	Hardin	6.3
	Laurel	11.2	McCracken	6.2
	Fayette	9.8	Warren	5.7
	Kenton	9.2	Pulaski	5.6
	Daviess	7.8	Bullitt	5.3
	Pike	7.4	Boone	4.9
	Boone	6.7	Daviess	4.4
	Hardin	6.5	Kenton	4.1
	Pulaski	6.2	Pike	3.8
	Madison	6.0	Fayette	3.7
	Bullitt	5.9	Jefferson	2.9
	Jefferson	5.2	Madison	1.3

TABLE 24. PERCENTAGE OF DRIVERS CONVICTED OF DUI FILINGS (BY COUNTY) (1998 - 2002)*

COUNTY	TOTAL DUI FILED	TOTAL DUI CONVICTED	TOTAL DUI NON-CONVICTED	CONVICTION PERCENTAGE**
Adair	1,080	680	156	81.3
Allen	743	420	76	84.7
Anderson	1,188	768	110	87.5
Ballard	620	430	80	84.3
Barren	1,843	1,011	423	70.5
Bath	528	302	69	81.4
Bell	2,550	1,491	530	73.8
Boone	4,297	2,909	693	80.8
Bourbon	1,317	772	115	87.0
Boyd	2,204	1,400	287	83.0
Boyle	876	611	138	81.6
Bracken	324	204	39	84.0
Breathitt	930	469	262	64.2
Breckinridge	602	443	83	84.2
Bullitt	3,500	1,764	791	69.0
Butler	710	412	111	78.8
Caldwell	595	441	92	82.7
Calloway	1,489	905	235	79.4
Campbell	5,653	4,296	840	83.6
Carlisle	182	128	34	79.0
Carroll	1,192	679	209	76.5
Carter	2,018	816	306	72.7
Casey	888	613	140	81.4
Christian	5,160	3,470	812	81.0
Clark	1,963	1,561	194	88.9
Clay	2,387	1,126	785	58.9
Clinton	767	441	104	80.9
Crittenden	498	309	51	85.8
Cumberland	568	395	67	85.5
Daviess	4,444	3,258	475	87.3
Edmonson	257	143	59	70.8
Elliott	294	150	37	80.2
Estill	926	503	198	71.8
Fayette	12,359	10,059	1,159	89.7
Fleming	450	303	42	87.8
Floyd	2,906	1,759	494	78.1
Franklin	3,062	1,810	582	75.7
Fulton	761	556	112	83.2
Gallatin	921	482	244	66.4
Garrard	932	536	220	70.9
Grant	1,195	841	146	85.2
Graves	2,058	1,289	244	84.1
Grayson	978	704	126	84.8
Green	268	172	50	77.5
Greenup	2,511	1,695	340	83.3
Hancock	366	230	63	78.5
Hardin	4,372	2,752	623	81.5
Harlan	2,648	1,875	309	85.9
Harrison	715	432	106	80.3
Hart	674	457	124	78.7
Henderson	2,979	2,171	199	91.6
Henry	829	556	48	92.1
Hickman	244	173	41	80.8
Hopkins	2,337	1,947	239	89.1
Jackson	720	395	141	73.7
Jefferson	28,824	13,738	6,999	66.2
Jessamine	2,741	1,782	318	84.9
Johnson	1,335	715	203	77.9
Kenton	7,636	5,147	1,407	78.5
Knott	776	582	112	83.9
Knox	2,038	1,188	340	77.7
Larue	430	299	76	79.7

TABLE 24. PERCENTAGE OF DRIVERS CONVICTED OF DUI FILINGS (BY COUNTY) (1998 - 2002) (continued)

COUNTY	TOTAL DUI ARRESTS*	TOTAL DUI CONVICTIONS**	TOTAL DUI NON-CONVICTED	CONVICTION PERCENTAGE
Laurel	4,007	2,709	549	83.1
Lawrence	959	551	106	83.9
Lee	365	220	56	79.7
Leslie	960	386	324	54.4
Letcher	966	594	201	74.7
Lewis	651	489	63	88.6
Lincoln	721	474	136	77.7
Livingston	490	338	84	80.1
Logan	1,416	936	283	76.8
Lyon	543	394	84	82.4
McCracken	5,158	3,528	883	80.0
McCreary	834	589	100	85.5
McLean	1,428	859	264	76.5
Madison	1,261	886	150	85.5
Magoffin	924	557	106	84.0
Marion	931	671	96	87.5
Marshall	3,754	2,781	360	88.5
Martin	951	637	155	80.4
Mason	301	230	28	89.1
Meade	1,387	967	239	80.2
Menifee	291	120	47	71.9
Mercer	731	521	111	82.4
Metcalfe	363	199	79	71.6
Monroe	462	300	85	77.9
Montgomery	1,127	625	154	80.2
Morgan	593	377	77	83.0
Muhlenberg	1,280	930	173	84.3
Nelson	1,987	1,228	306	80.1
Nicholas	433	251	59	81.0
Ohio	898	573	164	77.7
Oldham	1,427	861	224	79.4
Owen	353	189	71	72.7
Owsley	474	209	106	66.3
Pendleton	697	399	151	72.5
Perry	2,424	1,502	431	77.7
Pike	4,457	2,078	884	70.2
Powell	1,097	635	248	71.9
Pulaski	3,194	1,760	787	69.1
Robertson	67	39	18	68.4
Rockcastle	1,478	886	211	80.8
Rowan	1,781	1,234	185	87.0
Russell	1,024	595	197	75.1
Scott	1,636	1,055	187	84.9
Shelby	2,011	1,376	144	90.5
Simpson	1,141	673	98	87.3
Spencer	531	340	48	87.6
Taylor	1,079	777	155	83.4
Todd	516	378	69	84.6
Trigg	742	556	85	86.7
Trimble	273	170	34	83.3
Union	1,074	777	113	87.3
Warren	6,733	4,481	856	84.0
Washington	425	268	84	76.1
Wayne	735	457	141	76.4
Webster	546	342	76	81.8
Whitley	2,343	1,190	461	72.1
Wolfe	591	341	118	74.3
Woodford	1,655	1,152	230	83.4
TOTAL	217,334	136,605	35,642	62.9

* Obtained from Administrative Office of the Courts.

** Conviction percentage is equal to the number of DUI convicted divided by the sum of DUI convicted and non-convicted.

TABLE 25. DUI CONVICTION RATES BY COUNTY AND POPULATION CATEGORY
(IN DESCENDING ORDER) (1998 - 2002)

POPULATION CATEGORY	AVERAGE CONVICTION PERCENTAGE	COUNTY	TOTAL DUI ARRESTS	TOTAL DUI CONVICTIONS	CONVICTION PERCENTAGE*
UNDER 10,000	79.3	McLean	301	230	89.1
		Crittenden	498	309	85.8
		Cumberland	568	395	85.5
		Ballard	620	430	84.3
		Bracken	324	204	84.0
		Trimble	273	170	83.3
		Fulton	761	556	83.2
		Lyon	543	394	82.4
		Nicholas	433	251	81.0
		Clinton	767	441	80.9
		Hickman	244	173	80.8
		Elliott	294	150	80.2
		Livingston	490	338	80.1
		Lee	365	220	79.7
		Carlisle	182	128	79.0
		Hancock	366	230	78.5
		Wolfe	591	341	74.3
		Menifee	291	120	71.9
		Robertson	67	39	68.4
		Gallatin	921	482	66.4
		Owsley	474	209	66.3
10,000-14,999	78.4	Lewis	651	489	88.6
		Fleming	450	303	87.8
		Spencer	531	340	87.6
		Trigg	742	556	86.7
		Magoffin	834	589	85.5
		Todd	516	378	84.6
		Martin	924	557	84.0
		Morgan	593	377	83.0
		Caldwell	595	441	82.7
		Webster	546	342	81.8
		Bath	528	302	81.4
		Larue	430	299	79.7
		Butler	710	412	78.8
		Monroe	462	300	77.9
		Green	268	172	77.5
		Carroll	1192	679	76.5
		Washington	425	268	76.1
		Jackson	720	395	73.7
		Owen	353	189	72.7
		Pendleton	697	399	72.5
		Powell	1097	635	71.9
		Metcalfe	363	199	71.6
		Garrard	932	536	70.9
		Edmonson	257	143	70.8
		Leslie	960	386	54.4
15,000-24,999	81.0	Henry	829	556	92.1
		Mason	931	671	87.5
		Anderson	1188	768	87.5
		Union	1074	777	87.3
		Simpson	1141	673	87.3
		Bourbon	1317	772	87.0
		Rowan	1781	1234	87.0
		Grant	1195	841	85.2
		Grayson	978	704	84.8
		Allen	743	420	84.7
		Breckinridge	602	443	84.2
		Lawrence	959	551	83.9
		Knott	776	582	83.9
		Taylor	1079	777	83.4
		Woodford	1655	1152	83.4

TABLE 25. DUI CONVICTION RATES BY COUNTY AND POPULATION CATEGORY
(IN DESCENDING ORDER) (1998 - 2002) (continued)

POPULATION CATEGORY	AVERAGE CONVICTION PERCENTAGE	COUNTY	TOTAL ARRESTS	TOTAL CONVICTIONS	CONVICTION PERCENTAGE*
15,000-24,999 (continued)		Mercer	731	521	82.4
		Casey	888	613	81.4
		Adair	1080	680	81.3
		Rockcastle	1478	886	80.8
		McCreary	951	637	80.4
		Harrison	715	432	80.3
		Montgomery	1127	625	80.2
		Hart	674	457	78.7
		Johnson	1335	715	77.9
		Ohio	898	573	77.7
		Lincoln	721	474	77.7
		Marion	1428	859	76.5
		Wayne	735	457	76.4
		Russell	1024	595	75.1
		Estill	926	503	71.8
		Breathitt	930	469	64.2
		Clay	2387	1126	58.9
25,000-49,999	81.0	Henderson	2979	2171	91.6
		Shelby	2011	1376	90.5
		Hopkins	2337	1947	89.1
		Clark	1963	1561	88.9
		Harlan	2648	1875	85.9
		Marshall	1261	886	85.5
		Scott	1636	1055	84.9
		Jessamine	2741	1782	84.9
		Muhlenberg	1280	930	84.3
		Graves	2058	1289	84.1
		Greenup	2511	1695	83.3
		Boyd	2204	1400	83.0
		Boyle	876	611	81.6
		Meade	1387	967	80.2
		Nelson	1987	1228	80.1
		Calloway	1489	905	79.4
		Oldham	1427	861	79.4
		Floyd	2906	1759	78.1
		Knox	2038	1188	77.7
		Perry	2424	1502	77.7
		Logan	1416	936	76.8
		Franklin	3062	1810	75.7
		Letcher	966	594	74.7
		Bell	2550	1491	73.8
		Carter	2018	816	72.7
		Whitley	2343	1190	72.1
		Barren	1843	1011	70.5
50,000 - OVER	79.5	Fayette	12359	10059	89.7
		McCracken	3754	2781	88.5
		Daviess	4444	3258	87.3
		Warren	6733	4481	84.0
		Campbell	5653	4296	83.6
		Laurel	4007	2709	83.1
		Hardin	4372	2752	81.5
		Christian	5160	3470	81.0
		Boone	4297	2909	80.8
		Madison	5158	3528	80.0
		Kenton	7636	5147	78.5
		Pike	4457	2078	70.2
		Pulaski	3194	1760	69.1
		Bullitt	3500	1764	69.0
		Jefferson	28824	13738	66.2

* Refer to Table 24 for conviction rate calculation.

TABLE 26. SUMMARY OF RECKLESS DRIVING CONVICTIONS BY COUNTY (1998 - 2002)

COUNTY	1998	1999	2000	2001	2002	TOTAL RECKLESS DRIVING CONVICTIONS (FIVE YEARS)	ANNUAL AVERAGE RECKLESS DRIVING CONVICTIONS PER 1,000 LICENSED DRIVERS
Adair	21	25	15	18	18	97	1.2
Allen	20	12	7	8	5	52	0.7
Anderson	24	38	24	19	26	131	1.4
Ballard	12	8	3	9	15	47	1.2
Barren	85	98	81	81	67	412	2.3
Bath	1	16	9	6	12	44	0.9
Bell	45	24	29	35	23	156	1.7
Boone	120	128	137	90	120	595	1.4
Bourbon	16	20	28	42	44	150	1.7
Boyd	68	78	56	71	55	328	1.5
Boyle	39	28	24	21	25	137	1.1
Bracken	17	14	18	12	9	70	1.9
Breathitt	11	27	17	17	8	80	1.5
Breckinridge	29	21	19	14	16	99	1.0
Bullitt	94	130	140	133	74	571	1.9
Butler	14	14	6	12	10	56	0.9
Caldwell	31	27	16	19	20	113	1.7
Calloway	40	18	28	26	36	148	1.1
Campbell	155	208	142	99	119	723	2.2
Carlisle	9	5	3	2	2	21	0.8
Carroll	16	18	16	18	19	87	1.7
Carter	42	45	80	98	59	324	2.5
Casey	31	15	11	10	12	79	1.2
Christian	84	90	80	90	86	430	1.9
Clark	16	22	28	36	54	156	1.0
Clay	30	42	33	23	18	146	1.9
Clinton	30	53	28	17	24	152	3.6
Crittenden	14	21	19	13	12	79	1.8
Cumberland	15	33	7	21	17	93	2.9
Daviess	122	103	67	59	79	430	1.0
Edmonson	7	5	6	2	9	29	0.5
Elliott	9	4	8	5	7	33	1.4
Estill	27	33	18	10	28	116	1.7
Fayette	437	414	445	294	331	1,921	1.9
Fleming	13	17	12	16	13	71	1.0
Floyd	77	45	47	38	38	245	1.4
Franklin	141	128	150	115	133	667	2.9
Fulton	12	16	12	8	3	51	1.9
Gallatin	20	27	33	29	34	143	4.1
Garrard	24	47	54	18	13	156	2.5
Grant	32	28	34	22	27	143	1.3
Graves	24	40	52	38	46	200	1.2
Grayson	47	33	40	38	49	207	1.8
Green	20	7	5	1	0	33	0.7
Greenup	59	75	47	71	87	339	2.1
Hancock	15	5	9	6	3	38	1.0
Hardin	179	172	117	118	146	732	1.7
Harlan	64	58	54	41	49	266	2.4
Harrison	29	22	20	12	13	96	1.2
Hart	18	7	9	9	10	53	0.7
Henderson	64	59	67	45	56	291	1.4
Henry	11	9	9	7	14	50	0.7
Hickman	9	9	8	6	12	44	1.9
Hopkins	57	42	47	43	50	239	1.1
Jackson	15	5	13	6	4	43	0.8
Jefferson	1,162	1,090	735	568	494	4,049	1.5
Jessamine	35	47	60	65	78	285	1.3
Johnson	25	25	42	33	32	157	1.5
Kenton	297	441	282	215	222	1,457	2.6
Knott	12	13	8	18	10	61	1.0
Knox	60	49	45	36	39	229	2.2
Larue	16	10	4	5	0	35	0.5
Laurel	51	44	50	50	57	252	1.0

TABLE 26. SUMMARY OF RECKLESS DRIVING CONVICTIONS BY COUNTY (1998 - 2002) (continued)

COUNTY	1998	1999	2000	2001	2002	RECKLESS DRIVING CONVICTIONS (FIVE YEARS)	RECKLESS DRIVING CONVICTIONS PER 1,000 LICENSED DRIVERS
Lawrence	16	15	20	22	19	92	1.5
Lee	8	8	4	2	2	24	0.8
Leslie	6	20	16	4	7	53	1.2
Letcher	15	27	14	20	30	106	1.0
Lewis	15	27	12	15	15	84	1.5
Lincoln	34	28	20	20	22	124	1.3
Livingston	10	13	12	28	9	72	1.6
Logan	41	39	45	36	35	196	1.6
Lyon	19	30	28	38	53	168	5.2
McCracken	91	77	83	59	86	396	1.4
McCreary	26	29	9	9	6	79	1.6
McLean	9	6	15	13	13	56	0.7
Madison	55	65	85	80	83	368	2.5
Magoffin	11	6	10	7	6	40	0.8
Marion	37	53	30	27	24	171	2.2
Marshall	24	22	31	14	28	119	0.4
Martin	4	10	15	20	16	65	1.1
Mason	31	33	23	51	24	162	3.4
Meade	66	48	27	28	39	208	1.9
Menifee	7	13	6	13	8	47	1.7
Mercer	20	14	12	12	29	87	0.9
Metcalfe	22	21	27	22	18	110	2.5
Monroe	25	29	23	11	14	102	2.0
Montgomery	25	49	28	22	41	165	1.4
Morgan	18	7	8	6	9	48	0.9
Muhlenberg	34	16	20	44	37	151	1.0
Nelson	51	62	78	70	54	315	1.8
Nicholas	14	20	19	16	10	79	2.5
Ohio	27	15	14	15	19	90	0.9
Oldham	12	14	6	17	12	61	0.3
Owen	7	6	10	23	20	66	1.4
Owsley	10	17	14	8	3	52	2.7
Pendleton	24	14	16	20	30	104	1.5
Perry	39	27	18	13	16	113	0.9
Pike	84	61	50	66	67	328	1.2
Powell	13	12	10	9	18	62	1.1
Pulaski	120	88	106	92	98	504	1.8
Robertson	1	3	6	2	1	13	1.2
Rockcastle	43	36	28	28	24	159	2.2
Rowan	33	51	42	28	32	186	2.1
Russell	7	11	10	19	11	58	0.7
Scott	57	46	48	42	35	228	1.5
Shelby	40	47	49	33	56	225	1.4
Simpson	15	19	16	15	6	71	1.0
Spencer	9	4	9	6	6	34	0.5
Taylor	40	17	28	29	30	144	1.3
Todd	15	12	12	9	19	67	1.4
Trigg	23	19	20	12	24	98	1.7
Trimble	1	0	0	2	2	5	0.1
Union	15	19	29	14	27	104	1.6
Warren	191	119	124	107	117	658	1.7
Washington	10	11	10	13	10	54	1.1
Wayne	25	20	20	12	22	99	1.2
Webster	19	16	22	6	9	72	1.2
Whitley	54	56	82	55	46	293	1.8
Wolfe	13	23	19	17	10	82	2.4
Woodford	38	43	43	40	41	205	1.9
TOTAL	6,038	6,020	5,294	4,568	4,739	26,659	2.0

TABLE 27. PERCENTAGE OF CRASHES INVOLVING DRUGS BY COUNTY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES) (1998-2002)(ALL ROADS)

COUNTY	NUMBER OF CRASHES	PERCENT OF TOTAL CRASHES
POPULATION CATEGORY UNDER 10,000		
Owsley	7	2.1
Lee	10	1.9
Cumberland	6	1.5
Crittenden	17	1.5
Elliott	8	1.3
Nicholas	11	1.3
Livingston	14	1.2
Hickman	5	1.0
Lyon	10	0.9
Fulton	9	0.9
Clinton	7	0.9
Wolfe	8	0.8
Ballard	7	0.7
Menifee	3	0.6
Gallatin	5	0.5
Trimble	4	0.4
McLean	4	0.4
Carlisle	1	0.3
Bracken	4	0.3
Hancock	2	0.3
Robertson	0	0.0
POPULATION CATEGORY 10,000-14,999		
Martin	63	4.8
Leslie	51	3.8
Magoffin	44	3.6
Jackson	19	1.4
Bath	15	1.0
Powell	17	1.0
Caldwell	15	0.9
Lewis	11	0.8
Pendleton	15	0.8
Spencer	8	0.7
Todd	8	0.7
Fleming	8	0.6
Butler	8	0.6
Webster	11	0.6
Monroe	6	0.6
Carroll	11	0.5
Garrard	10	0.5
Trigg	6	0.4
Edmonson	5	0.4
Metcalfe	3	0.3
Morgan	4	0.3
Green	3	0.2
Washington	3	0.2
Larue	4	0.2
Owen	1	0.1
POPULATION CATEGORY 15,000-24,999		
Johnson	125	4.3
Clay	85	3.5
Lawrence	36	2.4
Breathitt	48	2.2
Knott	29	1.5
McCreary	22	1.4
Estill	22	1.3
Russell	19	1.3
Rockcastle	26	1.1
Casey	13	1.1
Ohio	25	0.9
Allen	16	0.8
Bourbon	26	0.8
Adair	20	0.8
Wayne	15	0.7
Simpson	18	0.7
Lincoln	13	0.7
Harrison	16	0.6
Hart	14	0.6
Mercer	18	0.6
Mason	21	0.6
Taylor	21	0.6
Grayson	16	0.5
Rowan	18	0.4
Montgomery	14	0.4
Union	9	0.4
Woodford	10	0.3
Grant	14	0.3
Marion	7	0.3
Henry	7	0.3
Anderson	5	0.2
Breckinridge	2	0.1
POPULATION CATEGORY 25,000-50,000		
Floyd	142	2.7
Knox	106	2.6
Bell	89	2.6
Harlan	67	1.8
Letcher	47	1.6
Perry	77	1.5
Greenup	58	1.5
Carter	45	1.3
Whitley	59	1.2
Boyd	80	0.8
Marshall	33	0.8
Muhlenberg	38	0.8
Logan	23	0.7
Meade	15	0.6
Graves	28	0.6
Jessamine	37	0.6
Clark	29	0.5
Calloway	24	0.5
Nelson	28	0.5
Henderson	46	0.5
Hopkins	44	0.5
Oldham	17	0.4
Shelby	22	0.4
Franklin	32	0.4
Barren	24	0.4
Scott	19	0.3
Boyle	13	0.3
POPULATION CATEGORY OVER 50,000		
Pike	293	2.8
Laurel	116	1.4
Pulaski	76	0.9
Kenton	126	0.5
Warren	113	0.5
Daviess	87	0.5
Campbell	69	0.5
Christian	49	0.5
Madison	59	0.5
Hardin	56	0.4
Fayette	237	0.4
McCracken	59	0.4
Bullitt	18	0.3
Jefferson	253	0.2
Boone	42	0.2

TABLE 28. PERCENTAGE OF CRASHES INVOLVING DRUGS BY CITY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES)(1998-2002)

CITY	NUMBER OF DRUG-RELATED CRASHES	PERCENTAGE OF CRASHES INVOLVING DRUGS
POPULATION CATEGORY OVER 200,000		
Lexington	237	0.4
Louisville	150	0.2
POPULATION CATEGORY 20,000-55,000		
Ashland	42	0.7
Covington	62	0.6
Richmond	32	0.5
Hopkinsville	28	0.5
Henderson	32	0.5
Paducah	42	0.5
Frankfort	21	0.4
Bowling Green	66	0.4
Owensboro	53	0.4
Florence	16	0.2
Elizabethtown	15	0.2
Radcliff	6	0.2
Jeffersontown	4	0.1
POPULATION CATEGORY 10,000-19,999		
Middlesboro	35	1.9
Fort Thomas	11	0.9
Somerset	39	0.9
Nicholasville	22	0.6
Campbellsville	14	0.6
Winchester	23	0.6
Newport	21	0.5
Independence	9	0.5
Shelbyville	11	0.4
Murray	10	0.4
Glasgow	9	0.3
Erlanger	12	0.3
Mayfield	6	0.3
Madisonville	12	0.3
Bardstown	9	0.3
Danville	7	0.2
Georgetown	7	0.2
Shively	8	0.2
POPULATION CATEGORY 5,000-9,999		
Pikeville	43	1.9
Williamsburg	13	1.4
Corbin	23	1.2
London	38	1.1
Monticello	12	1.0
Princeton	9	0.9
Franklin	11	0.8
Dayton	3	0.7
Maysville	18	0.7
Flatwoods	5	0.7
Harrodsburg	11	0.7
Central City	6	0.6
Bellevue	6	0.5
Fort Wright	10	0.5
Russellville	9	0.5
Highland Heights	5	0.5
Edgewood	3	0.4
Berea	7	0.4
La Grange	4	0.4
Wilmore	1	0.4
Cynthiana	6	0.4
Villa Hills	1	0.3
Morehead	6	0.3
Taylor Mill	4	0.3
Paris	6	0.3
Shepherdsville	4	0.2
Fort Mitchell	3	0.2
Mount Sterling	3	0.2
Lawrenceburg	2	0.2
Versailles	4	0.2
Mount Washington	1	0.1
Lebanon	2	0.1
Leitchfield	1	0.1
Alexandria	1	0.1
POPULATION CATEGORY 2,500-4,999		
Paintsville	33	2.6
Barbourville	19	2.2
Hartford	5	2.0
Prestonsburg	26	2.0
Irvine	9	1.6
Russell	12	1.5
Calvert City	5	1.5
Hickman	2	1.3
Stanton	6	1.2
Beaver Dam	6	1.0
Marion	5	1.0
Park Hills	2	1.0
Flemingsburg	4	0.9
Ludlow	2	0.9
Stanford	4	0.9
Grayson	9	0.8
Grayson	9	0.8
Hazard	20	0.8
Lakeside Park	3	0.8
Cumberland	2	0.8
Williamstown	5	0.7
Tompkinsville	4	0.7
Mount Vernon	5	0.7
Cold Spring	6	0.6
Lancaster	4	0.6
Vine Grove	2	0.6
Carrollton	6	0.6
Benton	6	0.6
Southgate	3	0.6
Greenville	6	0.6
Scottsville	5	0.5
Dawson Springs	1	0.3
Columbia	3	0.3
Morganfield	2	0.3

TABLE 29. SAFETY BELT USAGE (DRIVERS OF PASSENGER CARS INVOLVED IN CRASHES BY COUNTY AND POPULATION CATEGORY) (IN DESCENDING ORDER)(1998-2002)

COUNTY	PERCENT SEAT BELT USAGE	
POPULATION CATEGORY UNDER 10,000		
Lyon	91.3	
Carlisle	90.8	
Livingston	90.6	
Crittenden	90.6	
Ballard	89.4	
Trimble	89.3	
Hancock	88.4	
Gallatin	87.6	
Fulton	87.2	
Wolfe	87.0	
Lee	85.9	
Elliott	85.5	
Bracken	85.4	
Hickman	85.3	
McLean	84.7	
Cumberland	84.1	
Owsley	83.9	
Menifee	81.9	
Clinton	81.8	
Nicholas	79.4	
Robertson	77.9	
POPULATION CATEGORY 10,000-14,999		
Webster	92.9	
Caldwell	90.9	
Pendleton	90.1	
Trigg	89.9	
Larue	89.9	
Garrard	89.2	*
Carroll	88.8	
Edmonson	88.0	
Green	87.6	
Spencer	87.2	*
Morgan	87.2	
Bath	86.8	
Butler	86.6	
Powell	86.5	
Magoffin	86.1	*
Martin	85.9	
Owen	84.5	
Washington	84.0	
Jackson	83.5	
Fleming	83.3	
Lewis	83.1	
Leslie	83.0	
Todd	82.6	
Monroe	82.1	
Metcalfe	78.7	*

COUNTY	PERCENT SEAT BELT USAGE	
POPULATION CATEGORY 15,000-24,999		
Woodford	92.5	
Grant	92.4	
Hart	91.9	
Ohio	91.4	
Breckinridge	90.6	
Rowan	90.5	
Montgomery	90.1	
Grayson	89.7	
Johnson	89.4	
Anderson	89.0	
Harrison	88.5	
Union	88.4	
Mercer	88.2	
Breathitt	88.2	
Simpson	88.2	
Estill	88.0	
Lawrence	87.9	
McCreary	87.9	
Knott	87.4	*
Rockcastle	87.4	
Bourbon	86.7	*
Clay	86.5	
Mason	86.1	*
Henry	85.7	*
Lincoln	85.4	
Russell	84.3	
Marion	84.0	
Taylor	84.0	
Casey	82.9	
Allen	82.7	
Wayne	82.0	*
Adair	78.2	
POPULATION CATEGORY 25,000-50,000		
Henderson	95.1	
Oldham	95.0	
Hopkins	94.1	
Clark	93.6	
Boyle	92.6	
Scott	92.2	
Jessamine	92.1	
Boyd	92.1	
Nelson	92.0	*
Graves	91.9	
Shelby	91.8	
Franklin	91.6	
Greenup	91.4	*
Whitley	91.1	
Calloway	90.2	
Marshall	90.1	*
Perry	89.9	
Floyd	89.3	
Harlan	89.3	
Meade	89.2	
Knox	88.7	
Bell	88.6	*
Muhlenberg	88.1	*
Barren	87.2	
Carter	86.7	
Letcher	86.7	
Logan	86.4	*
POPULATION CATEGORY OVER 50,000		
Fayette	95.7	
Hardin	94.5	
Boone	94.3	
Jefferson	94.1	
McCracken	93.9	
Kenton	93.4	
Campbell	93.1	
Laurel	92.7	
Daviess	92.7	*
Warren	92.5	
Christian	92.2	
Bullitt	91.8	
Pulaski	91.6	
Madison	91.0	
Pike	89.7	

* Counties with potential for intensive promotional campaigns. Selected based on safety belt usage, crash rates, location in state (one in each KSP post) and dates of past campaign recommendations.

TABLE 30. CHANGE IN SAFETY BELT USAGE FOR 1998-2002 (PASSENGER CAR DRIVERS INVOLVED IN CRASHES) BY POPULATION CATEGORY

	PERCENT USAGE					
	POPULATION CATEGORY					
YEAR	UNDER 10,000-	10,000- 14,999-	15,000- 24,999-	25,000- 50,000-	OVER 50,000-	ALL
1998	84.2	85.0	85.9	89.6	92.6	90.6
1999	84.2	84.9	86.6	90.2	93.4	91.3
2000	89.2	87.4	88.4	91.4	93.7	92.3
2001	89.0	88.4	88.6	92.1	94.5	92.9
2002	88.9	89.1	89.4	92.8	94.8	93.3
All	86.8	86.9	87.7	91.2	93.9	92.1

TABLE 31. CRASH SEVERITY VERSUS SAFETY BELT USAGE (ALL DRIVERS)*

	NOT WEARING SAFETY BELT		WEARING SAFETY BELT		
TYPE OF INJURY	NUMBER	PERCENT	NUMBER	PERCENT	PERCENT REDUCTION
Fatal	1,672	1.88	828	0.09	95
Incapacitating	8,090	9.09	15,792	1.65	82
Non-Incapacitating	13,848	15.56	45,907	4.79	69
Possible Injury	10,425	11.71	67,829	7.08	40
Fatal or Incapacitating	9,762	10.97	16,620	1.73	84

* Based on 1998 through 2002 crash data. Total sample size for not wearing a safety belt was 89,006 compared to 958,569 for wearing a safety belt. Excluding not applicable fatalities (motorcycle, etc.)

TABLE 32. CHANGE IN SEVERITY OF INJURIES BY YEAR (1998-2002)

Type of Injury	PERCENTAGE OF DRIVERS SUSTAINING A GIVEN INJURY				
	1998	1999	2000	2001	2002
	NOT WEARING SAFETY BELT				
Fatal	1.74	1.77	2.18	2.39	2.72
Incapacitating	8.54	8.95	7.61	9.89	10.32
Non-Incapacitating	14.45	14.26	13.63	17.13	18.13
Possible Injury	11.80	11.77	9.04	12.40	13.12
	WEARING SAFETY BELT				
Fatal	0.09	0.08	0.09	0.08	0.10
Incapacitating	1.67	1.64	1.33	1.50	1.51
Non-Incapacitating	4.62	4.64	3.90	4.93	4.93
Possible Injury	7.40	7.31	5.22	6.66	6.64

TABLE 33. POTENTIAL REDUCTION IN TRAFFIC CRASH FATALITIES AND CRASH SAVINGS FROM INCREASE IN DRIVER BELT USAGE*

DRIVER USAGE RATE (PERCENT)	POTENTIAL ANNUAL REDUCTION IN NUMBER OF		ANNUAL CRASH SAVINGS (MILLION $) FROM REDUCTION IN		
	FATALITIES	SERIOUS INJURIES**	FATALITIES	SERIOUS INJURIES	TOTAL
70	118	833	128.6	43.4	172.0
80	227	1,592	247.4	82.9	330.3
90	335	2,351	365.2	122.5	487.7

* Based on increase from the 59 percent usage rate determined from the 1998-2002 surveys, the percent reductions in Table 31, and the economic costs provided by the National Safety Council. These costs are $ 1,090,000 for a fatality and $52,100 for an incapacitating injury. The actual number of fatalities and incapacitation injuries for 1998 - 2002 was used along with the average usage rate over this time period. The usage rate reached 62 percent in 2002. Excluding not applicable fatalities (motorcycle, etc.).

** Serious injuries were defined as those listed as incapacitating on the crash report.

TABLE 34. USAGE AND EFFECTIVENESS OF CHILD SAFETY SEATS
(CHILDREN AGE THREE AND UNDER) (1998 - 2002)

			RESTRAINT USED		
VARIABLE	CATEGORY	NONE	SAFETY BELT	CHILD SEAT	ANY RESTRAINT
Number With Given Injury	Fatal	15	4	14	18
	Incapacitating	96	155	145	300
	Non-Incapacitating	246	388	757	1,145
	Possible Injury	266	920	1,409	2,329
	None Detected	942	9,660	18,607	28,267
Percent With Given Injury	Fatal	0.96	0.04	0.07	0.06
	Incapacitating	6.13	1.39	0.69	0.94
	Non-Incapacitating	15.72	3.49	3.62	3.57
	Possible Injury	17.00	8.27	6.73	7.26
	None Detected	60.19	86.82	88.89	88.17
Percent Usage By Seat Position	Front	9.93	56.98	33.08	90.07
	Rear	2.58	24.41	73.01	97.42
	All Positions	4.59	33.29	62.12	95.41
Percent With Given Injury By Seat Position					
(Front)	Fatal	1.00	0.00	0.12	0.04
	Incapacitating	6.02	1.77	0.78	1.41
	Non-Incapacitating	15.05	4.67	3.43	4.22
	Possible Injury	17.45	9.49	6.42	8.36
	None Detected	54.56	78.62	76.08	77.69
(Rear)	Fatal	0.72	0.06	0.05	0.05
	Incapacitating	5.21	0.83	0.61	0.66
	Non-Incapacitating	13.89	1.85	3.29	2.93
	Possible Injury	13.31	5.77	6.12	6.04
	None Detected	57.60	79.09	82.33	81.52
YEAR	1998	584	3,713	4,937	8,650
	1999	546	3,664	5,288	8,952
	2000	189	1,366	3,214	4,580
	2001	123	1,278	3,652	4,930
	2002	246	2,227	5,761	7,988

TABLE 35. PERCENTAGE OF CRASHES INVOLVING UNSAFE SPEED BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1998-2002)

COUNTY	NUMBER OF CRASHES	PERCENT OF TOTAL CRASHES
POPULATION CATEGORY UNDER 10,000		
Menifee	74	14.4
Lee	64	12.4
Gallatin	129	12.0
Elliott	69	11.5
Lyon	133	11.5
Trimble	111	11.1
McLean	111	9.8
Nicholas	80	9.4
Wolfe	89	9.3
Carlisle	33	9.0
Owsley	29	8.6
Hickman	40	8.4
Livingston	89	7.8
Ballard	80	7.7
Bracken	95	7.4
Robertson	8	6.5
Cumberland	25	6.2
Crittenden	63	5.4
Hancock	41	5.1
Clinton	39	4.9
Fulton	47	4.7
POPULATION CATEGORY 10,000-14,999		
Owen	199	17.0
Garrard	312	15.5
Morgan	241	15.3
Jackson	204	14.7
Edmonson	152	12.7
Leslie	161	12.0
Todd	137	11.8
Lewis	165	11.4
Spencer	118	11.0
Washington	157	10.9
Martin	138	10.4
Magoffin	119	9.7
Bath	133	9.0
Butler	107	8.5
Webster	156	8.3
Powell	139	8.2
Caldwell	122	7.4
Fleming	99	7.3
Pendleton	141	7.2
Carroll	152	6.9
Larue	114	6.8
Trigg	84	5.7
Monroe	50	5.3
Metcalfe	51	4.7
Green	47	3.7
POPULATION CATEGORY 15,000-24,999		
Lincoln	288	14.5
Henry	276	13.5
McCreary	210	13.1
Union	272	12.3
Estill	205	11.9
Casey	138	11.2
Rockcastle	238	10.2
Mercer	297	9.9
Grant	416	9.5
Clay	228	9.3
Russell	131	9.2
Hart	200	9.1
Ohio	255	8.9
Grayson	260	8.8
Woodford	296	8.4
Marion	203	8.2
Breathitt	178	8.2
Bourbon	248	7.9
Rowan	353	7.9
Knott	151	7.9
Wayne	154	7.3
Lawrence	111	7.3
Anderson	169	7.1
Adair	160	6.6
Johnson	190	6.6
Allen	132	6.3
Harrison	171	6.2
Montgomery	234	6.1
Simpson	165	6.0
Taylor	221	6.0
Mason	219	6.0
Breckinridge	51	3.8
POPULATION CATEGORY 25,000-50,000		
Carter	475	14.0
Knox	530	13.1
Whitley	528	10.9
Harlan	391	10.7
Oldham	464	10.2
Greenup	381	10.0
Marshall	395	9.7
Floyd	503	9.6
Letcher	265	9.2
Franklin	742	8.9
Jessamine	541	8.3
Hopkins	669	8.2
Nelson	481	8.2
Scott	519	8.1
Muhlenberg	363	7.9
Graves	334	7.0
Barren	446	6.8
Bell	224	6.6
Shelby	375	6.5
Calloway	282	6.3
Perry	312	6.2
Henderson	598	6.2
Clark	358	6.1
Meade	148	5.8
Boyd	528	5.4
Boyle	241	5.3
Logan	174	5.1
POPULATION CATEGORY OVER 50,000		
Pike	1,564	14.8
Madison	1,425	10.9
Christian	893	9.3
Warren	1,635	7.9
Kenton	2,038	7.3
Pulaski	632	7.1
Boone	1,209	7.0
Laurel	571	6.8
Hardin	879	6.5
Campbell	801	5.8
Fayette	3,382	5.3
Daviess	871	5.1
McCracken	603	4.5
Bullitt	284	4.2
Jefferson	4,934	3.7

TABLE 36. PERCENTAGE OF CRASHES INVOLVING UNSAFE SPEED BY CITY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES)(1998-2002)

CITY	NUMBER OF CRASHES (1998-2002)	PERCENT OF TOTAL CRASHES
POPULATION CATEGORY OVER 200,000		
Lexington	3,352	5.3
Louisville	2,459	3.2
POPULATION CATEGORY 20,000-55,000		
Hopkinsville	502	8.2
Richmond	402	6.0
Frankfort	351	6.0
Bowling Green	904	5.8
Covington	539	5.0
Elizabethtown	279	4.4
Jeffersontown	202	4.3
Florence	379	4.2
Henderson	297	4.2
Ashland	225	3.8
Paducah	331	3.8
Owensboro	392	3.1
Radcliff	85	2.9
POPULATION CATEGORY 10,000-19,999		
Erlanger	428	10.7
Fort Thomas	86	7.1
Independence	139	7.1
Somerset	230	5.3
Nicholasville	173	4.6
Campbellsville	110	4.4
Glasgow	128	3.9
Madisonville	176	3.9
Georgetown	127	3.8
Danville	128	3.6
Bardstown	103	3.5
Middlesboro	63	3.4
Newport	154	3.4
Murray	87	3.3
Shively	147	3.3
Shelbyville	77	3.0
Winchester	100	2.5
Mayfield	51	2.3
Saint Matthews	26	1.5
POPULATION CATEGORY 5,000-9,999		
Villa Hills	50	13.3
Taylor Mill	114	9.2
Wilmore	22	8.6
Highland Heights	69	7.3
Fort Mitchell	100	7.2
Pikeville	164	7.1
Monticello	84	6.7
Flatwoods	45	6.6
Alexandria	86	6.5
Fort Wright	134	6.1
Edgewood	49	6.0
Elsmere	42	5.7
Berea	107	5.5
Princeton	53	5.5
Central City	49	5.1
Williamsburg	48	5.0
Corbin	95	4.9
Maysville	119	4.9
Versailles	78	4.8
Harrodsburg	73	4.3
Dayton	18	4.2
London	130	3.9
Russellville	65	3.9
La Grange	38	3.8
Paris	63	3.5
Leitchfield	39	3.2
Lebanon	42	3.1
Morehead	65	2.9
Franklin	36	2.7
Mount Sterling	49	2.7
Lawrenceburg	24	2.6
Bellevue	28	2.5
Mount Washington	22	2.3
Cynthiana	30	2.2
Shepherdsville	45	2.1
POPULATION CATEGORY 2,500-4,999		
Park Hills	31	15.5
Calvert City	28	8.2
Williamstown	52	7.6
Stanford	33	7.4
Vine Grove	25	7.2
Morganfield	49	7.0
Cold Spring	71	6.7
Providence	16	6.1
Lancaster	43	6.1
Mount Vernon	40	5.4
Lakeside Park	20	5.3
Barbourville	45	5.3
Springfield	31	5.1
Hartford	13	5.1
Grayson	52	4.9
Hodgenville	33	4.9
Irvine	27	4.7
Benton	45	4.6
Ludlow	10	4.6
Columbia	51	4.6
Greenville	41	4.4
Flemingsburg	20	4.4
Russell	34	4.3
Scottsville	38	4.0
Stanton	20	3.9
Prestonsburg	52	3.9
Dawson Springs	11	3.8
Beaver Dam	20	3.4
Southgate	16	3.4
Carrollton	31	3.3
Fulton	15	3.2
Cumberland	7	2.9
Paintsville	36	2.8
Hazard	63	2.7
Marion	13	2.5
Tompkinsville	13	2.2

TABLE 37. SUMMARY OF SPEEDING CONVICTIONS BY COUNTY (1998 - 2002)

COUNTY	1998	1999	2000	2001	2002	TOTAL SPEEDING CONVICTIONS (FIVE YEARS)	ANNUAL AVERAGE SPEEDING CONVICTIONS PER 1,000 LICENSED DRIVERS	SPEEDING CONVICTIONS PER SPEED-RELATED CRASH
Adair	381	372	361	211	310	1,635	19.6	10.2
Allen	291	240	174	175	117	997	13.6	7.6
Anderson	1,608	1,409	1,382	1,210	1,400	7,009	77.2	41.5
Ballard	176	147	166	206	153	848	21.7	10.6
Barren	783	882	1,222	1,415	1,062	5,364	30.0	12.0
Bath	239	266	527	316	331	1,679	34.2	12.6
Bell	398	111	231	873	602	2,215	23.6	9.9
Boone	2,920	2,106	2,231	1,603	1,897	10,757	24.7	8.9
Bourbon	729	730	637	910	890	3,896	43.0	15.7
Boyd	1,525	1,573	1,344	1,661	1,087	7,190	33.8	13.6
Boyle	881	881	547	577	734	3,620	30.1	15.0
Bracken	478	260	174	261	237	1,410	38.3	14.8
Breathitt	96	81	106	192	68	543	10.3	3.1
Breckinridge	150	188	156	162	215	871	9.2	17.1
Bullitt	812	1,404	1,465	1,085	1,013	5,779	19.5	20.3
Butler	723	627	411	335	260	2,356	35.8	22.0
Caldwell	359	418	293	405	353	1,828	28.0	15.0
Calloway	431	518	628	636	489	2,702	19.6	9.6
Campbell	2,480	2,274	2,683	3,155	3,200	13,792	41.0	17.2
Carlisle	188	154	167	243	137	889	33.9	26.9
Carroll	572	570	614	587	822	3,165	63.2	20.8
Carter	587	960	1,361	801	888	4,597	35.5	9.7
Casey	207	143	142	127	145	764	11.7	5.5
Christian	671	754	965	987	1,053	4,430	19.6	5.0
Clark	527	554	647	867	939	3,534	22.9	9.9
Clay	757	660	200	410	238	2,265	30.0	9.9
Clinton	72	129	128	121	139	589	13.9	15.1
Crittenden	53	52	64	51	96	316	7.2	5.0
Cumberland	88	149	120	153	141	651	20.6	26.0
Daviess	2,522	2,800	2,391	1,964	2,737	12,414	29.8	14.3
Edmonson	74	38	70	84	158	424	7.9	2.8
Elliott	4	5	10	12	17	48	2.1	0.7
Estill	136	203	195	179	221	934	13.7	4.6
Fayette	9,682	9,516	7,807	6,599	5,787	39,391	38.2	11.6
Fleming	203	295	210	149	189	1,046	15.2	10.6
Floyd	475	334	153	182	252	1,396	8.2	2.8
Franklin	1,683	2,354	2,035	1,673	2,241	9,986	44.0	13.5
Fulton	157	197	166	148	172	840	31.3	17.9
Gallatin	365	654	494	528	477	2,518	71.7	19.5
Garrard	133	171	359	262	230	1,155	18.8	3.7
Grant	1,024	974	768	1,037	691	4,494	41.0	10.8
Graves	592	823	800	872	833	3,920	22.9	11.7
Grayson	714	576	349	554	806	2,999	25.6	11.5
Green	67	90	180	27	11	375	8.0	8.0
Greenup	464	597	259	544	634	2,498	15.5	6.6
Hancock	344	241	127	125	134	971	24.4	23.7
Hardin	4,593	4,805	4,008	4,312	4,992	22,710	53.9	25.8
Harlan	109	167	90	144	96	606	5.4	1.5
Harrison	366	408	407	302	307	1,790	23.1	10.5
Hart	355	343	231	215	195	1,339	18.7	6.7
Henderson	1,489	1,523	1,300	1,724	1,791	7,827	38.9	13.1
Henry	1,103	765	747	624	747	3,986	57.5	14.4
Hickman	249	167	184	148	206	954	41.3	23.9
Hopkins	1,231	1,633	1,632	1,623	1,735	7,854	37.6	11.7
Jackson	14	34	125	32	24	229	4.2	1.1
Jefferson	14,161	15,152	9,743	6,600	6,068	51,724	19.6	13.1
Jessamine	2,071	2,200	1,983	1,174	911	8,339	39.1	15.4
Johnson	176	234	139	101	156	806	7.8	4.2
Kenton	3,450	4,442	4,422	5,608	5,630	23,552	41.9	11.6
Knott	17	149	48	29	27	270	4.3	1.8
Knox	531	902	736	676	555	3,400	32.1	6.4
Larue	238	244	202	309	138	1,131	17.6	9.9
Laurel	1,549	1,402	2,129	926	1,334	7,340	30.2	12.9
Lawrence	504	400	439	318	235	1,896	30.5	17.1

TABLE 37. SUMMARY OF SPEEDING CONVICTIONS BY COUNTY (1998 - 2002) (continued)

COUNTY	1998	1999	2000	2001	2002	TOTAL SPEEDING CONVICTIONS (FIVE YEARS)	ANNUAL AVERAGE SPEEDING CONVICTIONS PER 1,000 LICENSED DRIVERS	SPEEDING CONVICTIONS PER SPEED-RELATED CRASH
Lee	32	36	29	66	39	202	6.7	3.2
Leslie	451	367	276	336	181	1,611	35.4	10.0
Letcher	72	106	98	82	210	568	5.5	2.1
Lewis	356	308	254	178	182	1,278	23.0	7.7
Lincoln	541	609	428	243	416	2,237	23.8	7.8
Livingston	358	515	424	348	375	2,020	44.7	22.7
Logan	575	542	569	396	387	2,469	20.5	14.2
Lyon	632	428	420	380	423	2,283	70.6	17.2
McCracken	1,934	1,624	1,699	1,467	1,472	8,196	28.7	13.6
McCreary	195	178	192	128	134	827	16.9	3.9
McLean	162	85	143	331	296	1,017	13.1	9.2
Madison	1,471	2,012	1,322	1,199	1,150	7,154	48.2	5.0
Magoffin	39	20	8	13	240	320	6.5	2.7
Marion	271	340	287	162	221	1,281	16.2	6.3
Marshall	929	894	779	733	636	3,971	13.2	10.1
Martin	22	29	10	12	12	85	1.4	0.6
Mason	496	576	346	433	296	2,147	45.1	9.8
Meade	376	412	364	447	443	2,042	18.3	13.8
Menifee	24	22	34	45	46	171	6.0	2.3
Mercer	436	537	271	220	350	1,814	18.9	6.1
Metcalfe	250	275	310	251	287	1,373	30.8	26.9
Monroe	31	32	29	22	69	183	3.6	3.7
Montgomery	333	453	559	298	332	1,975	16.3	8.4
Morgan	366	202	229	258	303	1,358	24.5	5.6
Muhlenberg	469	466	442	400	599	2,376	16.3	6.5
Nelson	678	1,020	1,124	773	743	4,338	24.2	9.0
Nicholas	108	226	187	150	226	897	28.1	11.2
Ohio	305	460	356	856	1,396	3,373	32.2	13.2
Oldham	970	834	1,050	1,647	1,152	5,653	26.7	12.2
Owen	76	118	107	174	323	798	16.8	4.0
Owsley	3	25	23	1	3	55	2.9	1.9
Pendleton	339	267	177	265	256	1,304	18.6	9.2
Perry	417	266	126	173	134	1,116	8.9	3.6
Pike	272	292	253	164	294	1,275	4.6	0.8
Powell	427	446	333	483	671	2,360	42.2	17.0
Pulaski	1,051	942	747	691	953	4,384	15.3	6.9
Robertson	18	10	7	9	7	51	4.7	6.4
Rockcastle	602	578	538	367	457	2,542	35.8	10.7
Rowan	643	604	944	683	604	3,478	40.1	9.9
Russell	113	73	104	77	109	476	6.1	3.6
Scott	1,710	1,505	1,471	1,344	1,274	7,304	48.9	14.1
Shelby	1,246	1,570	1,290	1,086	1,045	6,237	38.4	16.6
Simpson	333	231	143	177	155	1,039	14.4	6.3
Spencer	190	311	179	201	221	1,102	17.8	9.3
Taylor	418	414	449	392	416	2,089	19.4	9.5
Todd	116	152	191	206	204	869	17.6	6.3
Trigg	316	271	250	232	295	1,364	23.5	16.2
Trimble	59	17	48	62	59	245	6.7	2.2
Union	254	162	193	181	266	1,056	16.2	3.9
Warren	2,391	2,165	1,888	2,404	2,718	11,566	29.3	7.1
Washington	456	467	401	300	325	1,949	38.3	12.4
Wayne	55	83	40	42	41	261	3.2	1.7
Webster	116	273	249	194	238	1,070	17.7	6.9
Whitley	318	677	675	309	380	2,359	14.3	4.5
Wolfe	1,703	1,621	1,045	1,785	1,482	7,636	225.9	85.8
Woodford	1,898	2,528	2,075	1,546	1,882	9,929	94.2	33.5
TOTAL*	98,449	103,126	90,269	84,961	87,181	463,986	27.1	10.6

* Does not include speeding convictions where county was not specified.

TABLE 38. SPEEDING CONVICTION RATES IN DECREASING ORDER (BY COUNTY POPULATION CATEGORIES) (1998 - 2002)

POPULATION CATEGORY	COUNTY	ANNUAL AVERAGE SPEEDING CONVICTIONS PER 1,000 LICENSED DRIVERS	COUNTY	SPEEDING CONVICTIONS PER SPEED-RELATED CRASH
UNDER 10,000	Wolfe	225.9	Wolfe	85.8
	Gallatin	71.7	Carlisle	26.9
	Lyon	70.6	Cumberland	26.0
	McLean	45.1	Hickman	23.9
	Livingston	44.7	Hancock	23.7
	Hickman	41.3	Livingston	22.7
	Bracken	38.3	Gallatin	19.5
	Carlisle	33.9	Fulton	17.9
	Fulton	31.3	Lyon	17.2
	Nicholas	28.1	Clinton	15.1
	Hancock	24.4	Bracken	14.8
	Ballard	21.7	Nicholas	11.2
	Cumberland	20.6	Ballard	10.6
	Clinton	13.9	McLean	9.8
	Crittenden	7.2	Robertson	6.4
	Trimble	6.7	Crittenden	5.0
	Lee	6.7	Lee	3.2
	Menifee	6.0	Menifee	2.3
	Robertson	4.7	Trimble	2.2
	Owsley	2.9	Owsley	1.9
	Elliott	2.1	Elliott	0.7
10,000-14,999	Carroll	63.2	Metcalfe	26.9
	Powell	42.2	Butler	22.0
	Washington	38.3	Carroll	20.8
	Butler	35.8	Powell	17.0
	Leslie	35.4	Trigg	16.2
	Bath	34.2	Caldwell	15.0
	Metcalfe	30.8	Bath	12.6
	Caldwell	28.0	Washington	12.4
	Morgan	24.5	Fleming	10.6
	Trigg	23.5	Leslie	10.0
	Lewis	23.0	Larue	9.9
	Garrard	18.8	Spencer	9.3
	Pendleton	18.6	Pendleton	9.2
	Spencer	17.8	Green	8.0
	Webster	17.7	Lewis	7.7
	Todd	17.6	Webster	6.9
	Larue	17.6	Todd	6.3
	Magoffin	16.9	Morgan	5.6
	Owen	16.8	Owen	4.0
	Fleming	15.2	Magoffin	3.9
	Green	8.0	Garrard	3.7
	Edmonson	7.9	Monroe	3.7
	Martin	6.5	Edmonson	2.8
	Jackson	4.2	Martin	2.7
	Monroe	3.6	Jackson	1.1
15,000 - 24,999	Woodford	94.2	Anderson	41.5
	Anderson	77.2	Woodford	33.5
	Henry	57.5	Lawrence	17.1
	Bourbon	43.0	Breckinridge	17.1
	Grant	41.0	Bourbon	15.7
	Rowan	40.1	Henry	14.4
	Rockcastle	35.8	Ohio	13.2
	Ohio	32.2	Grayson	11.5
	Lawrence	30.5	Grant	10.8
	Clay	30.0	Rockcastle	10.7
	Grayson	25.6	Harrison	10.5
	Lincoln	23.8	Adair	10.2
	Harrison	23.1	Clay	9.9

TABLE 38. SPEEDING CONVICTION RATES IN DECREASING ORDER (BY COUNTY POPULATION CATEGORIES) (1998 - 2002) (continued)

POPULATION CATEGORY	COUNTY	ANNUAL AVERAGE SPEEDING CONVICTIONS PER 1,000 LICENSED DRIVERS	COUNTY	SPEEDING CONVICTIONS PER SPEED-RELATED CRASH
15,000 - 24,999 (cont'd)	Adair	19.6	Rowan	9.9
	Taylor	19.4	Taylor	9.5
	Mercer	18.9	Marion	9.2
	Hart	18.7	Montgomery	8.4
	Montgomery	16.3	Lincoln	7.8
	Union	16.2	Allen	7.6
	Mason	16.2	Hart	6.7
	Simpson	14.4	Mason	6.3
	Estill	13.7	Simpson	6.3
	Allen	13.6	Mercer	6.1
	Marion	13.1	Casey	5.5
	Casey	11.7	Estill	4.6
	Breathitt	10.3	Johnson	4.2
	Breckinridge	9.2	Union	3.9
	Johnson	7.8	Russell	3.6
	Russell	6.1	Breathitt	3.1
	Knott	4.3	Knott	1.8
	Wayne	3.2	Wayne	1.7
	McCreary	1.4	McCreary	0.6
25,000 - 49,999	Scott	48.9	Shelby	16.6
	Marshall	48.2	Jessamine	15.4
	Franklin	44.0	Boyle	15.0
	Jessamine	39.1	Logan	14.2
	Henderson	38.9	Scott	14.1
	Shelby	38.4	Meade	13.8
	Hopkins	37.6	Boyd	13.6
	Carter	35.5	Franklin	13.5
	Boyd	33.8	Henderson	13.1
	Knox	32.1	Oldham	12.2
	Boyle	30.1	Barren	12.0
	Barren	30.0	Hopkins	11.7
	Oldham	26.7	Graves	11.7
	Nelson	24.2	Bell	9.9
	Bell	23.6	Clark	9.9
	Graves	22.9	Carter	9.7
	Clark	22.9	Calloway	9.6
	Logan	20.5	Nelson	9.0
	Calloway	19.6	Greenup	6.6
	Meade	18.3	Muhlenberg	6.5
	Muhlenberg	16.3	Knox	6.4
	Greenup	15.5	Marshall	5.0
	Whitley	14.3	Whitley	4.5
	Perry	8.9	Perry	3.6
	Floyd	8.2	Floyd	2.8
	Letcher	5.5	Letcher	2.1
	Harlan	5.4	Harlan	1.5
50,000 - OVER	Hardin	53.9	Hardin	25.8
	Kenton	41.9	Bullitt	20.3
	Campbell	41.0	Campbell	17.2
	Fayette	38.2	Daviess	14.3
	Laurel	30.2	Madison	13.6
	Daviess	29.8	Jefferson	13.1
	Warren	29.3	Laurel	12.9
	Madison	28.7	Fayette	11.6
	Boone	24.7	Kenton	11.6
	Jefferson	19.6	McCracken	10.1
	Christian	19.6	Boone	8.9
	Bullitt	19.5	Warren	7.1
	Pulaski	15.3	Pulaski	6.9
	McCracken	13.2	Christian	5.0
	Pike	4.6	Pike	0.8

TABLE 39. MOVING SPEED DATA FOR VARIOUS HIGHWAY TYPES (CARS)

HIGHWAY TYPE AND SPEED LIMIT	SAMPLE SIZE	SPEED (MPH) AVERAGE	85TH PERCENTILE	PERCENT OVER SPEED LIMIT
Interstate 65 mph	11,780	68.0	72.9	70.1
Interstate 55 mph	3,885	61.4	66.7	86.0
Interstate 50 mph	163	55.8	60.8	84.0
Parkway Four Lane 65 mph	10,642	68.4	73.6	70.5
Parkway Two Lane 55 mph	1,589	62.8	68.5	90.5
Four Lane Non-Interstate or Parkway 55 mph	11,052	59.3	64.5	76.8
Two Lane Full Width Shoulder 55 mph	4,081	58.7	64.2	71.3
Two Lane Without Full Width Shoulder 55 mph	5,385	55.9	61.6	54.2

TABLE 40. MOVING SPEED DATA FOR VARIOUS HIGHWAY TYPES (TRUCKS)

HIGHWAY TYPE AND SPEED LIMIT	SAMPLE SIZE	SPEED (MPH) AVERAGE	SPEED (MPH) 85TH PERCENTILE	PERCENT OVER SPEED LIMIT
Interstate 65 mph	5,029	64.2	68.7	37.3
Interstate 55 mph	1,533	59.4	64.6	75.4
Interstate 50 mph	99	55.4	59.8	87.9
Parkway Four Lane 65 mph	3,067	64.9	69.7	45.4
Parkway Two Lane 55 mph	213	58.3	64.1	70.9
Four Lane Non-Interstate or Parkway 55 mph	1,918	56.7	61.9	60.8
Two Lane Full Width Shoulder 55 mph	595	56.5	62.1	58.5
Two Lane Without Full Width Shoulder 55 mph	673	53.6	59.7	41.2

TABLE 41. CRASH TREND ANALYSIS (1998 - 2002)

Crash Statistic	Number in Given Year 1998	1999	2000	2001	4-Year Average 1998 - 2001	2002	2002 Percent Change*
Total Crashes	125,698	132,216	135,079	130,190	130,796	130,347	-0.3
Fatal Crashes	776	729	724	759	747	812	8.7
Fatalities	869	819	823	843	839	917	9.3
Injury Crashes	34,395	36,125	34,732	32,878	34,533	32,393	-6.2
Injuries	52,952	54,951	53,129	49,919	52,738	49,329	-6.5
Fatal and Injury Crashes	35,171	36,854	35,456	33,637	35,280	33,205	-5.9
Licensed Drivers (Millions)	2.63	2.67	2.75	2.80	2.71	2.84	4.9
Registered Vehicles (Millions)	3.20	3.15	3.29	3.30	3.24	3.42	5.5
Total Vehicle Miles (Billions)	46.577	47.816	46.680	46.255	46.832	46.868	0.1
Total Crash/100 MVM	270	277	289	281	279	278	-0.3
Fatal Crash/100 MVM	1.67	1.52	1.55	1.57	1.58	1.73	9.7
Fatalities/100 MVM	1.87	1.71	1.76	1.78	1.78	1.96	9.9
Injuries/100 MVM	114	115	114	108	113	105	-6.9
Speed Related Crashes	9,099	9,112	9,633	8,310	9,039	9,013	-0.3
Speed Related Injury Crashes	4,030	3,990	3,682	3,122	3,706	3,276	-11.6
Speed Related Fatal Crashes	190	201	154	154	175	179	2.3
Speed Convictions	98,662	103,696	90,863	85,565	94,697	88,017	-7.1
Alcohol Related Crashes	5,222	5,441	6,127	5,853	5,661	5,839	3.1
Alcohol Related Injury Crashes	2,482	2,592	2,903	2,633	2,653	2,600	-2.0
Alcohol Related Fatal Crashes	187	196	181	156	180	184	2.2
Alcohol Related Fatalities	205	222	196	172	199	209	5.0
DUI Filings	43,835	44,641	44,118	43,051	43,911	41,689	-5.1
DUI Convictions	27,161	28,486	28,060	26,210	27,479	26,688	-2.9
DUI Conviction Rate (Percent)**	77.7	77.7	78.6	80.2	78.6	82.7	5.2
Number DUI Filings/Alcohol Related Fatality	214	201	225	250	223	199	-10.6
Drug Related Crashes	***	756	990	1,206	984	1,091	10.9
Drug Related Injury Crashes	278	355	461	576	418	522	24.9
Drug Related Fatal Crashes	***	112	133	127	124	143	15.3
Pedestrian Related Crashes	1,077	1,117	1,124	977	1,074	940	-12.5
Pedestrian Related Injury Crashes	966	1,011	907	842	932	786	-15.7
Pedestrian Related Fatal Crashes	65	55	52	53	56	53	-5.4
Bicycle/Motor Vehicle Related Crashes	587	606	582	507	571	497	-13.0
Bicycle Related Injury Crashes	480	512	448	389	457	349	-23.6
Bicycle Related Fatal Crashes	9	10	4	8	8	9	12.5
Motorcycle Related Crashes	835	1,033	1,110	1,283	1,065	1,300	22.1
Motorcycle Related Injury Crashes	647	774	797	910	782	924	18.2
Motorcycle Related Fatal Crashes	26	42	36	60	41	42	2.4
School Bus Crashes	775	648	932	906	815	862	5.8
School Bus Injury Crashes	144	110	149	141	136	127	-6.6
School Bus Fatal Crashes	4	0	1	2	2	3	50.0
Truck Crashes	7,670	7,642	10,276	9,134	8,681	8,805	1.4
Truck Injury Crashes	1,678	1,665	2,181	1,856	1,845	1,803	-2.3
Truck Fatal Crashes	95	82	88	95	90	116	28.9
Train Crashes	70	57	59	64	63	67	6.3
Train Injury Crashes	25	16	18	18	19	22	15.8
Train Fatal Crashes	3	2	4	5	4	4	0.0

* Percent change from 1998-2001 average to 2002.

** Conviction rate excludes pending cases.

*** Data were not available.

TABLE 42. NUMBER OF CRASHES AND RATES BY CRASH TYPE FOR EACH COUNTY

	PEDESTRIAN CRASHES		BICYCLE CRASHES		MOTORCYCLE CRASHES		SCHOOL BUS CRASHES		TRUCK CRASHES	
	NUMBER*	RATE**	NUMBER*	RATE**	NUMBER*	RATE**	NUMBER*	RATE**	NUMBER*	RATE**
Adair	12	1.4	5	0.6	31	3.6	13	1.5	167	19.4
Allen	3	0.3	4	0.4	23	2.6	8	0.9	144	16.2
Anderson	14	1.5	6	0.6	27	2.8	30	3.1	150	15.7
Ballard	5	1.2	3	0.7	7	1.7	4	1.0	155	37.4
Barren	29	1.5	17	0.9	46	2.4	26	1.4	544	28.6
Bath	4	0.7	2	0.4	14	2.5	7	1.3	148	26.7
Bell	37	2.5	15	1.0	23	1.5	30	2.0	287	19.1
Boone	76	1.8	59	1.4	124	2.9	83	1.9	1957	45.5
Bourbon	23	2.4	7	0.7	22	2.3	25	2.6	256	26.4
Boyd	50	2.0	28	1.1	108	4.3	45	1.8	683	27.5
Boyle	20	1.4	12	0.9	32	2.3	16	1.2	264	19.1
Bracken	8	1.9	3	0.7	15	3.6	8	1.9	73	17.6
Breathitt	17	2.1	6	0.7	41	5.1	28	3.5	156	19.4
Breckinridge	6	0.6	4	0.4	10	1.1	7	0.8	95	10.2
Bullitt	42	1.4	11	0.4	64	2.1	71	2.3	665	21.7
Butler	9	1.4	0	0.0	9	1.4	8	1.2	85	13.1
Caldwell	7	1.1	6	0.9	16	2.5	4	0.6	158	24.2
Calloway	23	1.3	13	0.8	50	2.9	30	1.8	284	16.6
Campbell	194	4.4	136	3.1	110	2.5	70	1.6	966	21.8
Carlisle	0	0.0	1	0.4	6	2.2	2	0.7	37	13.8
Carroll	12	2.4	10	2.0	19	3.7	12	2.4	263	51.8
Carter	14	1.0	3	0.2	49	3.6	29	2.2	324	24.1
Casey	13	1.7	2	0.3	19	2.5	5	0.6	105	13.6
Christian	82	2.3	51	1.4	79	2.2	90	2.5	775	21.4
Clark	34	2.1	18	1.1	50	3.0	45	2.7	453	27.3
Clay	11	0.9	7	0.6	26	2.1	44	3.6	159	12.9
Clinton	4	0.8	1	0.2	4	0.8	4	0.8	60	12.5
Crittenden	11	2.3	0	0.0	13	2.8	10	2.1	91	19.4
Cumberland	4	1.1	0	0.0	3	0.8	3	0.8	43	12.0
Daviess	102	2.2	137	3.0	147	3.2	70	1.5	953	20.8
Edmonson	8	1.4	0	0.0	16	2.7	9	1.5	56	9.6
Elliott	5	1.5	0	0.0	17	5.0	4	1.2	43	12.7
Estill	11	1.4	3	0.4	20	2.6	15	2.0	65	8.5
Fayette	598	4.6	331	2.5	354	2.7	267	2.0	3696	28.4
Fleming	5	0.7	0	0.0	11	1.6	13	1.9	105	15.2
Floyd	50	2.4	12	0.6	84	4.0	82	3.9	421	19.8
Franklin	40	1.7	23	1.0	62	2.6	61	2.6	461	19.3
Fulton	5	1.3	7	1.8	15	3.9	6	1.5	102	26.3
Gallatin	8	2.0	4	1.0	15	3.8	6	1.5	161	40.9
Garrard	14	1.9	5	0.7	18	2.4	17	2.3	116	15.7
Grant	33	2.9	9	0.8	44	3.9	35	3.1	448	40.0
Graves	24	1.3	13	0.7	51	2.8	29	1.6	361	19.5
Grayson	22	1.8	5	0.4	23	1.9	27	2.2	244	20.3
Green	3	0.5	1	0.2	13	2.3	8	1.4	75	13.0
Greenup	14	0.8	14	0.8	41	2.2	24	1.3	210	11.4
Hancock	1	0.2	1	0.2	10	2.4	8	1.9	84	20.0
Hardin	51	1.1	41	0.9	123	2.6	76	1.6	1124	23.9
Harlan	44	2.7	12	0.7	46	2.8	27	1.6	335	20.2
Harrison	22	2.4	12	1.3	22	2.4	15	1.7	141	15.7
Hart	12	1.4	2	0.2	16	1.8	13	1.5	341	39.1
Henderson	85	3.8	64	2.9	83	3.7	46	2.1	655	29.2
Henry	13	1.7	5	0.7	13	1.7	11	1.5	289	38.4
Hickman	4	1.5	1	0.4	5	1.9	1	0.4	38	14.4
Hopkins	38	1.6	35	1.5	95	4.1	33	1.4	554	23.8
Jackson	5	0.7	0	0.0	13	1.9	13	1.9	60	8.9
Jefferson	1724	5.0	883	2.5	963	2.8	927	2.7	8872	25.6
Jessamine	51	2.6	31	1.6	56	2.9	96	4.9	422	21.6
Johnson	9	0.8	4	0.3	38	3.2	23	2.0	153	13.1
Kenton	366	4.8	161	2.1	168	2.2	154	2.0	2205	29.1
Knott	10	1.1	7	0.8	33	3.7	23	2.6	183	20.7

TABLE 42. NUMBER OF CRASHES AND RATES BY CRASH TYPE FOR EACH COUNTY (continued)

	PEDESTRIAN CRASHES		BICYCLE CRASHES		MOTORCYCLE CRASHES		SCHOOL BUS CRASHES		TRUCK CRASHES	
	NUMBER*	RATE**	NUMBER*	RATE**	NUMBER*	RATE**	NUMBER*	RATE**	NUMBER*	RATE**
Knox	27	1.7	15	0.9	44	2.8	36	2.3	241	15.2
Larue	7	1.0	1	0.1	10	1.5	9	1.3	145	21.7
Laurel	28	1.1	13	0.5	56	2.1	64	2.4	840	31.9
Lawrence	6	0.8	4	0.5	20	2.6	11	1.4	188	24.2
Lee	7	1.8	1	0.3	2	0.5	4	1.0	29	7.3
Leslie	10	1.6	3	0.5	22	3.5	15	2.4	153	24.7
Letcher	18	1.4	4	0.3	38	3.0	37	2.9	373	29.5
Lewis	14	2.0	3	0.4	6	0.9	13	1.8	143	20.3
Lincoln	10	0.9	4	0.3	20	1.7	8	0.7	140	12.0
Livingston	3	0.6	6	1.2	11	2.2	6	1.2	99	20.2
Logan	24	1.8	18	1.4	31	2.3	21	1.6	330	24.8
Lyon	2	0.5	1	0.2	18	4.5	1	0.2	147	36.4
McCracken	66	2.0	62	1.9	141	4.3	62	1.9	862	26.3
McCreary	8	0.9	5	0.6	17	2.0	15	1.8	88	10.3
McLean	3	0.6	4	0.8	15	3.0	10	2.0	109	21.9
Madison	70	2.0	39	1.1	102	2.9	77	2.2	998	28.2
Magoffin	11	1.7	1	0.2	14	2.1	11	1.7	76	11.4
Marion	25	2.7	12	1.3	27	3.0	13	1.4	139	15.3
Marshall	8	0.5	7	0.5	45	3.0	14	0.9	342	22.7
Martin	10	1.6	0	0.0	9	1.4	11	1.7	109	17.3
Mason	20	2.4	13	1.5	31	3.7	18	2.1	314	37.4
Meade	6	0.5	5	0.4	19	1.4	11	0.8	113	8.6
Menifee	4	1.2	1	0.3	8	2.4	4	1.2	21	6.4
Mercer	24	2.3	7	0.7	37	3.6	11	1.1	172	16.5
Metcalfe	6	1.2	0	0.0	10	2.0	13	2.6	112	22.3
Monroe	4	0.7	4	0.7	5	0.9	3	0.5	71	12.1
Montgomery	22	2.0	5	0.4	37	3.3	28	2.5	234	20.8
Morgan	6	0.9	3	0.4	20	2.9	18	2.6	82	11.8
Muhlenberg	20	1.3	10	0.6	62	3.9	25	1.6	381	23.9
Nelson	36	1.9	27	1.4	55	2.9	41	2.2	331	17.7
Nicholas	2	0.6	0	0.0	6	1.8	1	0.3	37	10.9
Ohio	7	0.6	5	0.4	30	2.6	11	1.0	232	20.2
Oldham	21	0.9	6	0.3	44	1.9	49	2.1	439	19.0
Owen	5	0.9	0	0.0	15	2.8	6	1.1	76	14.4
Owsley	3	1.2	1	0.4	4	1.6	5	2.1	26	10.7
Pendleton	7	1.0	2	0.3	30	4.2	13	1.8	173	24.0
Perry	38	2.6	9	0.6	36	2.4	57	3.9	452	30.8
Pike	72	2.1	10	0.3	178	5.2	73	2.1	1246	36.3
Powell	9	1.4	5	0.8	15	2.3	10	1.5	118	17.8
Pulaski	42	1.5	19	0.7	86	3.1	45	1.6	562	20.0
Robertson	2	1.8	0	0.0	3	2.6	0	0.0	6	5.3
Rockcastle	5	0.6	3	0.4	21	2.5	20	2.4	370	44.6
Rowan	15	1.4	13	1.2	44	4.0	23	2.1	268	24.3
Russell	7	0.9	0	0.0	16	2.0	4	0.5	104	12.7
Scott	25	1.5	22	1.3	48	2.9	34	2.1	641	38.8
Shelby	34	2.0	15	0.9	46	2.8	40	2.4	524	31.4
Simpson	19	2.3	10	1.2	13	1.6	3	0.4	417	50.8
Spencer	6	1.0	3	0.5	24	4.1	12	2.0	66	11.2
Taylor	11	1.0	14	1.2	28	2.4	13	1.1	177	15.4
Todd	12	2.0	2	0.3	17	2.8	10	1.7	111	18.5
Trigg	4	0.6	1	0.2	23	3.7	4	0.6	119	18.9
Trimble	2	0.5	1	0.2	18	4.4	7	1.7	85	20.9
Union	18	2.3	6	0.8	38	4.9	14	1.8	167	21.4
Warren	112	2.4	78	1.7	155	3.4	90	1.9	1369	29.6
Washington	9	1.6	1	0.2	20	3.7	13	2.4	106	19.4
Wayne	12	1.2	4	0.4	11	1.1	14	1.4	88	8.8
Webster	5	0.7	5	0.7	15	2.1	12	1.7	212	30.0
Whitley	30	1.7	15	0.8	49	2.7	30	1.7	429	23.9
Wolfe	6	1.7	3	0.8	8	2.3	7	2.0	67	19.0
Woodford	21	1.8	5	0.4	26	2.2	28	2.4	315	27.1

* Five-Year (1998-2002) Total.

** Rates are annual crashes per 10,000 population.

TABLE 43. PEDESTRIAN CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1998-2002)(ALL ROADS)

COUNTY	NUMBER OF CRASHES	ANNUAL CRASH RATE (CRASHES PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Crittenden	11	2.3
Gallatin	8	2.0
Bracken	8	1.9
Robertson	2	1.8
Lee	7	1.8
Wolfe	6	1.7
Elliott	5	1.5
Hickman	4	1.5
Fulton	5	1.3
Owsley	3	1.2
Menifee	4	1.2
Ballard	5	1.2
Cumberland	4	1.1
Clinton	4	0.8
Livingston	3	0.6
Nicholas	2	0.6
McLean	3	0.6
Lyon	2	0.5
Trimble	2	0.5
Hancock	1	0.2
Carlisle	0	0.0
POPULATION CATEGORY 10,000-14,999		
Carroll	12	2.4
Todd	12	2.0
Lewis	14	2.0
Garrard	14	1.9
Magoffin	11	1.7
Martin	10	1.6
Washington	9	1.6
Leslie	10	1.6
Edmonson	8	1.4
Powell	9	1.4
Butler	9	1.4
Metcalfe	6	1.2
Caldwell	7	1.1
Larue	7	1.0
Pendleton	7	1.0
Spencer	6	1.0
Morgan	6	0.9
Owen	5	0.9
Monroe	4	0.7
Fleming	5	0.7
Bath	4	0.7
Webster	5	0.7
Jackson	5	0.7
Trigg	4	0.6
Green	3	0.5
POPULATION CATEGORY 15,000-24,999		
Grant	33	2.9
Marion	25	2.7
Mason	20	2.4
Bourbon	23	2.4
Harrison	22	2.4
Mercer	24	2.3
Simpson	19	2.3
Union	18	2.3
Breathitt	17	2.1
Montgomery	22	2.0
Grayson	22	1.8
Woodford	21	1.8
Henry	13	1.7
Casey	13	1.7
Anderson	14	1.5
Rowan	15	1.4
Estill	11	1.4
Adair	12	1.4
Hart	12	1.4
Wayne	12	1.2
Knott	10	1.1
Taylor	11	1.0
McCreary	8	0.9
Clay	11	0.9
Russell	7	0.9
Lincoln	10	0.9
Johnson	9	0.8
Lawrence	6	0.8
Rockcastle	5	0.6
Breckinridge	6	0.6
Ohio	7	0.6
Allen	3	0.3
POPULATION CATEGORY 25,000-50,000		
Henderson	85	3.8
Harlan	44	2.7
Perry	38	2.6
Jessamine	51	2.6
Bell	37	2.5
Floyd	50	2.4
Clark	34	2.1
Boyd	50	2.0
Shelby	34	2.0
Nelson	36	1.9
Logan	24	1.8
Whitley	30	1.7
Knox	27	1.7
Franklin	40	1.7
Hopkins	38	1.6
Scott	25	1.5
Barren	29	1.5
Boyle	20	1.4
Letcher	18	1.4
Calloway	23	1.3
Graves	24	1.3
Muhlenberg	20	1.3
Carter	14	1.0
Oldham	21	0.9
Greenup	14	0.8
Marshall	8	0.5
Meade	6	0.5
POPULATION CATEGORY OVER 50,000		
Jefferson	1,724	5.0
Kenton	366	4.8
Fayette	598	4.6
Campbell	194	4.4
Warren	112	2.4
Christian	82	2.3
Daviess	102	2.2
Pike	72	2.1
McCracken	66	2.0
Madison	70	2.0
Boone	76	1.8
Pulaski	42	1.5
Bullitt	42	1.4
Hardin	51	1.1
Laurel	28	1.1

TABLE 44. PEDESTRIAN CRASH RATES BY CITY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)(1998-2002)

CITY	NUMBER OF CRASHES (1998-2002)	ANNUAL CRASH RATE (CRASHES PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Louisville	1,200	9.4
Lexington	590	4.5
POPULATION CATEGORY 20,000-55,000		
Covington	254	11.7
Henderson	69	5.0
Hopkinsville	66	4.4
Florence	45	3.8
Ashland	41	3.7
Paducah	49	3.7
Bowling Green	89	3.6
Richmond	47	3.5
Owensboro	83	3.1
Frankfort	35	2.5
Elizabethtown	22	2.0
Jeffersontown	25	1.9
Radcliff	18	1.6
POPULATION CATEGORY 10,000-19,999		
Newport	116	13.6
Shively	68	9.0
Bardstown	29	5.6
Somerset	26	4.6
Shelbyville	22	4.4
Nicholasville	41	4.2
Middlesboro	17	3.3
Winchester	26	3.1
Erlanger	24	2.9
Glasgow	19	2.9
Madisonville	26	2.7
Mayfield	13	2.5
Independence	18	2.4
Fort Thomas	19	2.3
Danville	17	2.2
Campbellsville	11	2.1
Georgetown	17	1.9
Saint Matthews	14	1.8
Murray	12	1.6
POPULATION CATEGORY 5,000-9,999		
Lebanon	19	6.6
Cynthiana	19	6.1
Pikeville	18	5.7
Mount Sterling	16	5.4
Harrodsburg	21	5.2
Russellville	18	5.0
Versailles	16	4.3
London	12	4.2
Paris	19	4.1
Bellevue	13	4.0
Dayton	12	4.0
Leitchfield	12	3.9
Corbin	15	3.9
Maysville	17	3.8
Elsmere	15	3.7
Morehead	11	3.7
Franklin	13	3.3
La Grange	9	3.2
Mount Washington	13	3.1
Williamsburg	8	3.1
Monticello	9	3.0
Shepherdsville	12	2.9
Fort Wright	8	2.8
Fort Mitchell	10	2.5
Lawrenceburg	10	2.2
Berea	11	2.2
Princeton	6	1.8
Edgewood	7	1.5
Wilmore	4	1.4
Central City	3	1.0
Alexandria	4	1.0
Taylor Mill	3	0.9
Villa Hills	3	0.8
Flatwoods	2	0.5
Highland Heights	1	0.3
POPULATION CATEGORY 2,500-4,999		
Williamstown	11	6.8
Hazard	14	5.8
Prestonsburg	10	5.5
Lancaster	10	5.4
Springfield	7	5.3
Morganfield	9	5.2
Marion	8	5.0
Barbourville	8	4.5
Lakeside Park	6	4.2
Carrollton	8	4.2
Hodgenville	6	4.2
Irvine	6	4.2
Grayson	8	4.1
Columbia	7	3.5
Tompkinsville	4	3.0
Paintsville	6	2.9
Southgate	5	2.9
Dawson Springs	4	2.7
Greenville	6	2.7
Cold Spring	5	2.6
Benton	5	2.4
Fulton	3	2.2
Ludlow	4	1.8
Russell	3	1.6
Cumberland	2	1.5
Flemingsburg	2	1.3
Stanford	2	1.2
Scottsville	2	0.9
Mount Vernon	1	0.8
Hartford	1	0.8
Hickman	1	0.8
Calvert City	1	0.7
Park Hills	1	0.7

TABLE 45. BICYCLE CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1998-2002)

COUNTY	NUMBER OF CRASHES	ANNUAL CRASH RATE (CRASHES PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Fulton	7	1.8
Livingston	6	1.2
Gallatin	4	1.0
McLean	4	0.8
Wolfe	3	0.8
Ballard	3	0.7
Bracken	3	0.7
Hickman	1	0.4
Carlisle	1	0.4
Owsley	1	0.4
Lee	1	0.3
Menifee	1	0.3
Trimble	1	0.2
Lyon	1	0.2
Hancock	1	0.2
Clinton	1	0.2
Nicholas	0	0.0
Elliott	0	0.0
Crittenden	0	0.0
Cumberland	0	0.0
Robertson	0	0.0
POPULATION CATEGORY 10,000-14,999		
Carroll	10	2.0
Caldwell	6	0.9
Powell	5	0.8
Garrard	5	0.7
Webster	5	0.7
Monroe	4	0.7
Leslie	3	0.5
Spencer	3	0.5
Morgan	3	0.4
Lewis	3	0.4
Bath	2	0.4
Pendleton	2	0.3
Todd	2	0.3
Magoffin	1	0.2
Green	1	0.2
Trigg	1	0.2
Washington	1	0.2
Larue	1	0.1
Butler	0	0.0
Edmonson	0	0.0
Jackson	0	0.0
Martin	0	0.0
Owen	0	0.0
Fleming	0	0.0
Metcalfe	0	0.0
POPULATION CATEGORY 15,000-24,999		
Mason	13	1.5
Marion	12	1.3
Harrison	12	1.3
Simpson	10	1.2
Rowan	13	1.2
Taylor	14	1.2
Union	6	0.8
Grant	9	0.8
Knott	7	0.8
Henry	5	0.7
Mercer	7	0.7
Bourbon	7	0.7
Breathitt	6	0.7
McCreary	5	0.6
Anderson	6	0.6
Clay	7	0.6
Adair	5	0.6
Lawrence	4	0.5
Ohio	5	0.4
Allen	4	0.4
Woodford	5	0.4
Montgomery	5	0.4
Rockcastle	3	0.4
Grayson	5	0.4
Wayne	4	0.4
Breckinridge	4	0.4
Estill	3	0.4
Johnson	4	0.3
Casey	2	0.3
Lincoln	4	0.3
Hart	2	0.2
Russell	0	0.0
POPULATION CATEGORY 25,000-50,000		
Henderson	64	2.9
Jessamine	31	1.6
Hopkins	35	1.5
Logan	18	1.4
Nelson	27	1.4
Scott	22	1.3
Clark	18	1.1
Boyd	28	1.1
Franklin	23	1.0
Bell	15	1.0
Barren	17	0.9
Shelby	15	0.9
Boyle	12	0.9
Knox	15	0.9
Calloway	13	0.8
Whitley	15	0.8
Greenup	14	0.8
Harlan	12	0.7
Graves	13	0.7
Muhlenberg	10	0.6
Floyd	12	0.6
Perry	9	0.6
Marshall	7	0.5
Meade	5	0.4
Oldham	6	0.3
Letcher	4	0.3
Carter	3	0.2
POPULATION CATEGORY OVER 50,000		
Campbell	136	3.1
Daviess	137	3.0
Jefferson	883	2.5
Fayette	331	2.5
Kenton	161	2.1
McCracken	62	1.9
Warren	78	1.7
Boone	59	1.4
Christian	51	1.4
Madison	39	1.1
Hardin	41	0.9
Pulaski	19	0.7
Laurel	13	0.5
Bullitt	11	0.4
Pike	10	0.3

TABLE 46. BICYCLE CRASH RATES BY CITY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)(1998-2002)

CITY	NUMBER OF CRASHES (1998-2002)	ANNUAL CRASH RATE (CRASHES PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Louisville	655	5.1
Lexington	329	2.5
POPULATION CATEGORY 20,000-55,000		
Covington	102	4.7
Owensboro	120	4.4
Henderson	57	4.2
Paducah	53	4.0
Florence	40	3.4
Bowling Green	67	2.7
Hopkinsville	40	2.7
Ashland	22	2.0
Richmond	24	1.8
Elizabethtown	19	1.7
Frankfort	20	1.4
Jeffersontown	16	1.2
Radcliff	11	1.0
POPULATION CATEGORY 10,000-19,999		
Newport	82	9.6
Bardstown	20	3.9
Shively	26	3.4
Madisonville	29	3.0
Nicholasville	29	2.9
Shelbyville	12	2.4
Erlanger	19	2.3
Campbellsville	12	2.3
Glasgow	14	2.2
Middlesboro	11	2.1
Mayfield	10	1.9
Georgetown	17	1.9
Winchester	15	1.8
Somerset	9	1.6
Murray	11	1.5
Danville	10	1.3
Fort Thomas	8	1.0
Independence	6	0.8
Saint Matthews	6	0.8
POPULATION CATEGORY 5,000-9,999		
Bellevue	17	5.2
Russellville	15	4.2
Cynthiana	12	3.8
Lebanon	10	3.5
Morehead	10	3.4
Corbin	13	3.4
Elsmere	13	3.2
Dayton	8	2.7
Franklin	10	2.5
Maysville	10	2.2
Highland Heights	7	2.1
London	6	2.1
Princeton	6	1.8
Flatwoods	7	1.8
Berea	9	1.8
Harrodsburg	6	1.5
Central City	4	1.4
Versailles	5	1.3
Paris	5	1.1
Alexandria	4	1.0
Shepherdsville	4	1.0
Leitchfield	3	1.0
Monticello	3	1.0
Lawrenceburg	4	0.9
Williamsburg	2	0.8
Fort Wright	2	0.7
Mount Washington	3	0.7
Taylor Mill	2	0.6
Fort Mitchell	2	0.5
Wilmore	1	0.3
Villa Hills	1	0.3
Pikeville	1	0.3
Mount Sterling	1	0.3

CITY	NUMBER OF CRASHES (1998-2002)	ANNUAL CRASH RATE (CRASHES PER 10,000 POPULATION)
POPULATION CATEGORY 2,500-4,999		
Carrollton	7	3.6
Fulton	5	3.6
Tompkinsville	4	3.0
Morganfield	5	2.9
Providence	5	2.8
Greenville	5	2.3
Ludlow	5	2.3
Lancaster	4	2.1
Irvine	3	2.1
Russell	3	1.6
Mount Vernon	2	1.5
Columbia	3	1.5
Calvert City	2	1.5
Scottsville	3	1.4
Beaver Dam	2	1.3
Stanford	2	1.2
Williamstown	2	1.2
Cold Spring	2	1.1
Benton	2	1.0
Vine Grove	2	1.0
Paintsville	2	1.0
Hickman	1	0.8
Hartford	1	0.8
Cumberland	1	0.8
Park Hills	1	0.7
Hodgenville	1	0.7
Lakeside Park	1	0.7
Stanton	1	0.7
Dawson Springs	1	0.7
Prestonsburg	1	0.6
Barbourville	1	0.6
Southgate	1	0.6

TABLE 47. MOTORCYCLE CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1998-2002)

COUNTY	NUMBER OF CRASHES	ANNUAL CRASH RATE (CRASHES PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Elliott	17	5.0
Lyon	18	4.5
Trimble	18	4.4
Fulton	15	3.9
Gallatin	15	3.8
Bracken	15	3.6
McLean	15	3.0
Crittenden	13	2.8
Robertson	3	2.6
Hancock	10	2.4
Menifee	8	2.4
Wolfe	8	2.3
Livingston	11	2.2
Carlisle	6	2.2
Hickman	5	1.9
Nicholas	6	1.8
Ballard	7	1.7
Owsley	4	1.6
Clinton	4	0.8
Cumberland	3	0.8
Lee	2	0.5
POPULATION CATEGORY 10,000-14,999		
Pendleton	30	4.2
Spencer	24	4.1
Trigg	23	3.7
Carroll	19	3.7
Washington	20	3.7
Leslie	22	3.5
Morgan	20	2.9
Owen	15	2.8
Todd	17	2.8
Edmonson	16	2.7
Bath	14	2.5
Caldwell	16	2.5
Garrard	18	2.4
Powell	15	2.3
Green	13	2.3
Webster	15	2.1
Magoffin	14	2.1
Metcalfe	10	2.0
Jackson	13	1.9
Fleming	11	1.6
Larue	10	1.5
Butler	9	1.4
Martin	9	1.4
Monroe	5	0.9
Lewis	6	0.9
POPULATION CATEGORY 15,000-24,999		
Breathitt	41	5.1
Union	38	4.9
Rowan	44	4.0
Grant	44	3.9
Mason	31	3.7
Knott	33	3.7
Mercer	37	3.6
Adair	31	3.6
Montgomery	37	3.3
Johnson	38	3.2
Marion	27	3.0
Anderson	27	2.8
Lawrence	20	2.6
Ohio	30	2.6
Estill	20	2.6
Allen	23	2.6
Casey	19	2.5
Rockcastle	21	2.5
Taylor	28	2.4
Harrison	22	2.4
Bourbon	22	2.3
Woodford	26	2.2
Clay	26	2.1
McCreary	17	2.0
Russell	16	2.0
Grayson	23	1.9
Hart	16	1.8
Henry	13	1.7
Lincoln	20	1.7
Simpson	13	1.6
Wayne	11	1.1
Breckinridge	10	1.1
POPULATION CATEGORY 25,000-50,000		
Boyd	108	4.3
Hopkins	95	4.1
Floyd	84	4.0
Muhlenberg	62	3.9
Henderson	83	3.7
Carter	49	3.6
Letcher	38	3.0
Clark	50	3.0
Marshall	45	3.0
Nelson	55	2.9
Scott	48	2.9
Calloway	50	2.9
Jessamine	56	2.9
Graves	51	2.8
Harlan	46	2.8
Shelby	46	2.8
Knox	44	2.8
Whitley	49	2.7
Franklin	62	2.6
Perry	36	2.4
Barren	46	2.4
Boyle	32	2.3
Logan	31	2.3
Greenup	41	2.2
Oldham	44	1.9
Bell	23	1.5
Meade	19	1.4
POPULATION CATEGORY OVER 50,000		
Pike	178	5.2
McCracken	141	4.3
Warren	155	3.4
Daviess	147	3.2
Pulaski	86	3.1
Boone	124	2.9
Madison	102	2.9
Jefferson	963	2.8
Fayette	354	2.7
Hardin	123	2.6
Campbell	110	2.5
Christian	79	2.2
Kenton	168	2.2
Bullitt	64	2.1
Laurel	56	2.1

TABLE 48. MOTORCYCLE CRASH RATES BY CITY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)(1998-2002)

CITY	NUMBER OF CRASHES (1998-2002)	ANNUAL CRASH RATE (CRASHES PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Louisville	553	4.3
Lexington	351	2.7
POPULATION CATEGORY 20,000-55,000		
Paducah	86	6.5
Ashland	49	4.5
Bowling Green	105	4.3
Elizabethtown	47	4.2
Henderson	51	3.7
Owensboro	84	3.1
Florence	35	3.0
Covington	59	2.7
Richmond	37	2.7
Radcliff	27	2.5
Hopkinsville	36	2.4
Frankfort	30	2.2
Jeffersontown	20	1.5
POPULATION CATEGORY 10,000-19,999		
Madisonville	51	5.3
Somerset	26	4.6
Shively	31	4.1
Newport	35	4.1
Erlanger	29	3.5
Glasgow	22	3.4
Georgetown	28	3.1
Winchester	24	2.9
Campbellsville	15	2.9
Bardstown	14	2.7
Murray	20	2.7
Danville	19	2.5
Mayfield	13	2.5
Independence	15	2.0
Nicholasville	18	1.8
Shelbyville	9	1.8
Middlesboro	9	1.7
Fort Thomas	6	0.7
Saint Matthews	3	0.4
POPULATION CATEGORY 5,000-9,999		
Pikeville	31	9.8
Morehead	16	5.4
Central City	15	5.1
Russellville	16	4.5
Cynthiana	13	4.2
Mount Sterling	12	4.1
Shepherdsville	17	4.1
London	11	3.9
Harrodsburg	14	3.5
Paris	15	3.3
Williamsburg	8	3.1
Lebanon	9	3.1
Fort Wright	7	2.5
Leitchfield	7	2.3
Alexandria	9	2.2
Corbin	8	2.1
La Grange	6	2.1
Princeton	7	2.1
Maysville	9	2.0
Fort Mitchell	8	2.0
Mount Washington	8	1.9
Highland Heights	6	1.8
Berea	9	1.8
Dayton	5	1.7
Taylor Mill	6	1.7
Versailles	6	1.6
Franklin	6	1.5
Lawrenceburg	6	1.3
Elsmere	5	1.2
Flatwoods	4	1.1
Monticello	3	1.0
Villa Hills	4	1.0
Edgewood	3	0.6
Bellevue	1	0.3
POPULATION CATEGORY 2,500-4,999		
Fulton	10	7.2
Prestonsburg	11	6.1
Columbia	12	6.0
Mount Vernon	7	5.4
Cold Spring	9	4.7
Russell	8	4.4
Paintsville	9	4.4
Calvert City	6	4.4
Carrollton	8	4.2
Hazard	9	3.7
Greenville	8	3.6
Morganfield	6	3.4
Dawson Springs	5	3.4
Lancaster	6	3.2
Grayson	6	3.1
Cumberland	4	3.1
Williamstown	5	3.1
Springfield	4	3.0
Benton	6	2.9
Scottsville	6	2.8
Barbourville	5	2.8
Providence	5	2.8
Irvine	4	2.8
Hodgenville	4	2.8
Beaver Dam	4	2.6
Marion	4	2.5
Tompkinsville	3	2.3
Lakeside Park	3	2.1
Stanton	3	2.0
Stanford	3	1.7
Hartford	2	1.6
Flemingsburg	2	1.3
Vine Grove	2	1.0
Ludlow	2	0.9
Hickman	1	0.8

TABLE 49. SCHOOL BUS CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1998-2002)

COUNTY	NUMBER OF CRASHES	ANNUAL CRASH RATE (CRASHES PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Crittenden	10	2.1
Owsley	5	2.1
Wolfe	7	2.0
McLean	10	2.0
Hancock	8	1.9
Bracken	8	1.9
Trimble	7	1.7
Gallatin	6	1.5
Fulton	6	1.5
Menifee	4	1.2
Elliott	4	1.2
Livingston	6	1.2
Lee	4	1.0
Ballard	4	1.0
Clinton	4	0.8
Cumberland	3	0.8
Carlisle	2	0.7
Hickman	1	0.4
Nicholas	1	0.3
Lyon	1	0.2
Robertson	0	0.0
POPULATION CATEGORY 10,000-14,999		
Metcalfe	13	2.6
Morgan	18	2.6
Carroll	12	2.4
Washington	13	2.4
Leslie	15	2.4
Garrard	17	2.3
Spencer	12	2.0
Jackson	13	1.9
Fleming	13	1.9
Pendleton	13	1.8
Lewis	13	1.8
Magoffin	11	1.7
Todd	10	1.7
Martin	11	1.7
Webster	12	1.7
Powell	10	1.5
Edmonson	9	1.5
Green	8	1.4
Larue	9	1.3
Bath	7	1.3
Butler	8	1.2
Owen	6	1.1
Caldwell	4	0.6
Trigg	4	0.6
Monroe	3	0.5
POPULATION CATEGORY 15,000-24,999		
Clay	44	3.6
Breathitt	28	3.5
Grant	35	3.1
Anderson	30	3.1
Bourbon	25	2.6
Knott	23	2.6
Montgomery	28	2.5
Woodford	28	2.4
Rockcastle	20	2.4
Grayson	27	2.2
Mason	18	2.1
Rowan	23	2.1
Johnson	23	2.0
Estill	15	2.0
McCreary	15	1.8
Union	14	1.8
Harrison	15	1.7
Henry	11	1.5
Hart	13	1.5
Adair	13	1.5
Marion	13	1.4
Lawrence	11	1.4
Wayne	14	1.4
Mercer	11	1.1
Taylor	13	1.1
Ohio	11	1.0
Allen	8	0.9
Breckinridge	7	0.8
Lincoln	8	0.7
Casey	5	0.6
Russell	4	0.5
Simpson	3	0.4
POPULATION CATEGORY 25,000-50,000		
Jessamine	96	4.9
Perry	57	3.9
Floyd	82	3.9
Letcher	37	2.9
Clark	45	2.7
Franklin	61	2.6
Shelby	40	2.4
Knox	36	2.3
Nelson	41	2.2
Carter	29	2.2
Scott	34	2.1
Henderson	46	2.1
Oldham	49	2.1
Bell	30	2.0
Calloway	30	1.8
Boyd	45	1.8
Whitley	30	1.7
Harlan	27	1.6
Muhlenberg	25	1.6
Logan	21	1.6
Graves	29	1.6
Hopkins	33	1.4
Barren	26	1.4
Greenup	24	1.3
Boyle	16	1.2
Marshall	14	0.9
Meade	11	0.8
POPULATION CATEGORY OVER 50,000		
Jefferson	927	2.7
Christian	90	2.5
Laurel	64	2.4
Bullitt	71	2.3
Madison	77	2.2
Pike	73	2.1
Fayette	267	2.0
Kenton	154	2.0
Warren	90	1.9
Boone	83	1.9
McCracken	62	1.9
Campbell	70	1.6
Pulaski	45	1.6
Hardin	76	1.6
Daviess	70	1.5

TABLE 50. SCHOOL BUS CRASH RATES BY CITY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)(1998-2002)

CITY	NUMBER OF CRASHES (1998-2002)	ANNUAL CRASH RATE (CRASHES PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Louisville	533	4.2
Lexington	267	2.0
POPULATION CATEGORY 20,000-55,000		
Hopkinsville	72	4.8
Frankfort	41	3.0
Paducah	38	2.9
Ashland	32	2.9
Florence	33	2.8
Covington	57	2.6
Bowling Green	63	2.6
Richmond	33	2.4
Elizabethtown	24	2.1
Henderson	26	1.9
Jeffersontown	22	1.7
Owensboro	44	1.6
Radcliff	18	1.6
POPULATION CATEGORY 10,000-19,999		
Nicholasville	57	5.8
Shively	36	4.8
Shelbyville	21	4.2
Bardstown	19	3.7
Winchester	29	3.5
Independence	23	3.1
Murray	21	2.8
Somerset	14	2.5
Middlesboro	12	2.3
Georgetown	19	2.1
Campbellsville	11	2.1
Mayfield	10	1.9
Newport	16	1.9
Madisonville	16	1.7
Danville	11	1.4
Glasgow	7	1.1
Erlanger	8	1.0
Saint Matthews	4	0.5
Fort Thomas	3	0.4
POPULATION CATEGORY 5,000-9,999		
London	19	6.7
Morehead	14	4.7
Versailles	17	4.5
Alexandria	18	4.3
Lawrenceburg	16	3.6
Pikeville	11	3.5
La Grange	10	3.5
Mount Sterling	10	3.4
Monticello	10	3.3
Taylor Mill	11	3.2
Lebanon	9	3.1
Shepherdsville	13	3.1
Paris	14	3.0
Maysville	12	2.7
Cynthiana	8	2.6
Williamsburg	6	2.3
Russellville	8	2.2
Leitchfield	6	2.0
Villa Hills	8	2.0
Fort Wright	5	1.8
Edgewood	8	1.7
Central City	5	1.7
Corbin	6	1.5
Berea	7	1.4
Mount Washington	6	1.4
Wilmore	4	1.4
Dayton	4	1.3
Harrodsburg	5	1.2
Fort Mitchell	3	0.7
Bellevue	2	0.6
Elsmere	2	0.5
Franklin	2	0.5
Princeton	1	0.3
Highland Heights	1	0.3
Flatwoods	1	0.3
POPULATION CATEGORY 2,500-4,999		
Hazard	15	6.2
Prestonsburg	9	5.0
Lancaster	9	4.8
Barbourville	8	4.5
Williamstown	7	4.3
Irvine	6	4.2
Columbia	7	3.5
Morganfield	6	3.4
Flemingsburg	5	3.3
Carrollton	6	3.1
Paintsville	6	2.9
Scottsville	6	2.8
Benton	5	2.4
Tompkinsville	3	2.3
Springfield	3	2.3
Grayson	4	2.1
Beaver Dam	3	2.0
Vine Grove	4	1.9
Fulton	2	1.4
Dawson Springs	2	1.3
Ludlow	2	0.9
Greenville	2	0.9
Cumberland	1	0.8
Stanton	1	0.7
Lakeside Park	1	0.7
Marion	1	0.6
Stanford	1	0.6
Providence	1	0.6
Southgate	1	0.6

TABLE 51. TRUCK CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1998-2002)

COUNTY	NUMBER OF CRASHES	ANNUAL CRASH RATE (CRASHES PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Gallatin	161	40.9
Ballard	155	37.4
Lyon	147	36.4
Fulton	102	26.3
McLean	109	21.9
Trimble	85	20.9
Livingston	99	20.2
Hancock	84	20.0
Crittenden	91	19.4
Wolfe	67	19.0
Bracken	73	17.6
Hickman	38	14.4
Carlisle	37	13.8
Elliott	43	12.7
Clinton	60	12.5
Cumberland	43	12.0
Nicholas	37	10.9
Owsley	26	10.7
Lee	29	7.3
Menifee	21	6.4
Robertson	6	5.3
POPULATION CATEGORY 10,000-14,999		
Carroll	263	51.8
Webster	212	30.0
Bath	148	26.7
Leslie	153	24.7
Caldwell	158	24.2
Pendleton	173	24.0
Metcalfe	112	22.3
Larue	145	21.7
Lewis	143	20.3
Washington	106	19.4
Trigg	119	18.9
Todd	111	18.5
Powell	118	17.8
Martin	109	17.3
Garrard	116	15.7
Fleming	105	15.2
Owen	76	14.4
Butler	85	13.1
Green	75	13.0
Monroe	71	12.1
Morgan	82	11.8
Magoffin	76	11.4
Spencer	66	11.2
Edmonson	56	9.6
Jackson	60	8.9
POPULATION CATEGORY 15,000-24,999		
Simpson	417	50.8
Rockcastle	370	44.6
Grant	448	40.0
Hart	341	39.1
Henry	289	38.4
Mason	314	37.4
Woodford	315	27.1
Bourbon	256	26.4
Rowan	268	24.3
Lawrence	188	24.2
Union	167	21.4
Montgomery	234	20.8
Knott	183	20.7
Grayson	244	20.3
Ohio	232	20.2
Adair	167	19.4
Breathitt	156	19.4
Mercer	172	16.5
Allen	144	16.2
Harrison	141	15.7
Anderson	150	15.7
Taylor	177	15.4
Marion	139	15.3
Casey	105	13.6
Johnson	153	13.1
Clay	159	12.9
Russell	104	12.7
Lincoln	140	12.0
McCreary	88	10.3
Breckinridge	95	10.2
Wayne	88	8.8
Estill	65	8.5
POPULATION CATEGORY 25,000-50,000		
Scott	641	38.8
Shelby	524	31.4
Perry	452	30.8
Letcher	373	29.5
Henderson	655	29.2
Barren	544	28.6
Boyd	683	27.5
Clark	453	27.3
Logan	330	24.8
Carter	324	24.1
Muhlenberg	381	23.9
Whitley	429	23.9
Hopkins	554	23.8
Marshall	342	22.7
Jessamine	422	21.6
Harlan	335	20.2
Floyd	421	19.8
Graves	361	19.5
Franklin	461	19.3
Bell	287	19.1
Boyle	264	19.1
Oldham	439	19.0
Nelson	331	17.7
Calloway	284	16.6
Knox	241	15.2
Greenup	210	11.4
Meade	113	8.6
POPULATION CATEGORY OVER 50,000		
Boone	1,957	45.5
Pike	1,246	36.3
Laurel	840	31.9
Warren	1,369	29.6
Kenton	2,205	29.1
Fayette	3,696	28.4
Madison	998	28.2
McCracken	862	26.3
Jefferson	8,872	25.6
Hardin	1,124	23.9
Campbell	966	21.8
Bullitt	665	21.7
Christian	775	21.4
Daviess	953	20.8
Pulaski	562	20.0

TABLE 52. MOTOR VEHICLE-TRAIN CRASH RATES BY COUNTY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES) (1998 - 2002)

COUNTY	NUMBER OF CRASHES	ANNUAL CRASH RATE (CRASHES PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Bracken	2	0.48
Fulton	2	0.52
Lee	2	0.51
Gallatin	1	0.25
Hancock	1	0.24
Ballard	0	0.00
Carlisle	0	0.00
Clinton	0	0.00
Crittenden	0	0.00
Cumberland	0	0.00
Elliott	0	0.00
Hickman	0	0.00
Livingston	0	0.00
Lyon	0	0.00
McLean	0	0.00
Menifee	0	0.00
Nicholas	0	0.00
Owsley	0	0.00
Robertson	0	0.00
Trimble	0	0.00
Wolfe	0	0.00
POPULATION CATEGORY 10,000 - 14,999		
Todd	7	1.17
Lewis	6	0.85
Magoffin	4	0.60
Carroll	2	0.39
Webster	2	0.28
Edmonson	1	0.17
Bath	0	0.00
Butler	0	0.00
Caldwell	0	0.00
Fleming	0	0.00
Garrard	0	0.00
Green	0	0.00
Jackson	0	0.00
Larue	0	0.00
Leslie	0	0.00
Martin	0	0.00
Metcalfe	0	0.00
Monroe	0	0.00
Morgan	0	0.00
Owen	0	0.00
Pendleton	0	0.00
Powell	0	0.00
Spencer	0	0.00
Trigg	0	0.00
Washington	0	0.00
POPULATION CATEGORY 15,000 - 24,999		
Grant	12	1.07
Lincoln	8	0.68
Knott	5	0.57
Henry	4	0.53
Simpson	4	0.49
Grayson	3	0.25
Rockcastle	3	0.36
Anderson	2	0.21
Breathitt	2	0.25
Hart	2	0.23
Lawrence	2	0.26
Mercer	2	0.19
Ohio	2	0.17
Estill	1	0.13
POPULATION CATEGORY 15,000-24,999 (cont.)		
Harrison	1	0.11
Johnson	1	0.09
McCreary	1	0.12
Woodford	1	0.09
Adair	0	0.00
Allen	0	0.00
Bourbon	0	0.00
Breckinridge	0	0.00
Casey	0	0.00
Clay	0	0.00
Marion	0	0.00
Mason	0	0.00
Montgomery	0	0.00
Rowan	0	0.00
Russell	0	0.00
Taylor	0	0.00
Union	0	0.00
Wayne	0	0.00
POPULATION CATEGORY 25,000-49,999		
Hopkins	10	0.43
Oldham	9	0.39
Bell	7	0.47
Floyd	7	0.33
Henderson	7	0.31
Boyd	6	0.24
Shelby	6	0.36
Knox	5	0.31
Muhlenberg	5	0.31
Nelson	5	0.27
Perry	5	0.34
Letcher	4	0.32
Marshall	4	0.27
Scott	4	0.24
Barren	3	0.16
Whitley	3	0.17
Calloway	1	0.06
Clark	1	0.06
Greenup	1	0.05
Harlan	1	0.06
Jessamine	1	0.05
Logan	1	0.08
Boyle	0	0.00
Carter	0	0.00
Franklin	0	0.00
Graves	0	0.00
Meade	0	0.00
POPULATION CATEGORY 50,000 - OVER		
Jefferson	59	0.17
Kenton	11	0.15
Pike	10	0.29
Pulaski	10	0.36
Fayette	8	0.06
Madison	8	0.23
Daviess	7	0.15
Hardin	7	0.15
Boone	6	0.14
Christian	5	0.14
Bullitt	4	0.13
Campbell	2	0.05
Laurel	2	0.08
Warren	2	0.04
McCracken	1	0.03

TABLE 53. CRASHES INVOLVING VEHICLE DEFECT BEFORE AND AFTER REPEAL OF VEHICLE INSPECTION LAW

TIME PERIOD	TOTAL NUMBER OF CRASHES*	NUMBER OF CRASHES INVOLVING VEHICLE DEFECTS	PERCENT OF ALL CRASHES INVOLVING VEHICLE DEFECTS
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
1980-1984	624,861	46,397	7.43
1985-1989	701,119	46,552	6.64
1990-1994	663,504	40,393	6.09
1995-1999	638,623	33,655	5.27
2000	131,027	6,481	4.95
2001	126,285	5,833	4.62
2002	126,437	5,959	4.71

* Does not include crashes in which the vehicle defect code was unknown.

APPENDIX A

STATEWIDE CRASH RATES AS A FUNCTION OF SEVERAL VARIABLES

Highways are grouped into various system classifications. Three common types of groupings include: 1) functional classification, 2) federal-aid system, and 3) administrative classification. Statewide crash rates were determined for each of those groupings. The following is a summary of the findings.

Average statewide rates by functional classification are listed in Table A-1. Highways are grouped into a rural or urban category and then into systems such as arterial, collector, and local. Rates are determined considering all crashes, injury crashes only, and fatal crashes only. The highest overall crash rates are for urban principal arterials (non-interstate or freeway) followed by minor arterials. The lowest overall rates are for rural principal arterials (interstate) followed by urban principal arterials (interstate and other freeway). Urban principal arterials (other freeway) also have a low total crash rate. Injury crash rates for the various categories are ordered similar to overall crash rates. However, the ordering for the fatal crash rates is very different. The highest fatal crash rates are for rural collectors and minor arterials. Urban principal arterials (interstate and other freeway) have the lowest fatal crash rate with several other urban classifications, as well as rural interstates, also having a low fatal crash rate.

Statewide crash rates by federal-aid system are shown in Table A-2. The highest rate is for the federal-aid urban system and the lowest rate is for the interstate system. The federal-aid urban, federal-aid secondary (rural), and non-federal-aid systems have relatively similar rates.

Statewide crash rates by administrative classification are listed in Table A-3. The rate for the primary system is lowest with the rate for the secondary system highest. Rates for the rural secondary and unclassified systems are between these two levels and are similar.

The benefits of providing a median and increasing the median width are shown in Table A-4. The crash rate for rural highways having four or more lanes that are divided and have a median width of less than 30 feet is less than that for an undivided highway. The crash rate is decreased significantly more when comparing a highway that is divided with a median width of more than 30 feet to a highway having a median width of less than 30 feet.

The effect of access control is described in Table A-5. The large reduction in the crash rate for highways having full control of access compared to those with partial or no access control is shown. However, the crash rate for partial control of access is closer to no access control than to full access control.

An analysis of crash rates for rural highways by federal-aid system and terrain is presented in Table A-6. Each county was given a terrain classification as either flat, rolling, or mountainous since a classification was not available for each road segment. Considering the entire system, the rates are similar for all terrain classifications.

Rates by rural-urban designation are shown in Table A-7. The lowest rate is for rural areas and the highest rate is for small urban areas. The rate for small urban areas is similar to that for urbanized areas, although the average traffic volume is much higher in urbanized areas. The presence of more freeway-type highways in the urbanized areas may account for this finding.

The summary of crash rates by route signing identifier reveals that US-signed routes have a rate similar to that for state-marked routes, with interstates having a much lower rate (Table A-8). Although the geometric features on the US-signed routes would be expected to be superior than state-marked routes, the US-signed routes have a higher average volume which may partially account for the similar crash rate.

The relationship between crash rate and traffic volume (average annual daily traffic) for various federal-aid highway classifications is illustrated in Table A-9. For interstates that have high design criteria, the crash rate is fairly constant up until the volume range of over 40,000 vehicles per day where an increase occurred. For each of the other highway classifications, the rate for the lowest volume category (AADT under 1,000) tends to be high. One reason for a high rate at low-volume locations is the fact that a few crashes may increase the rate substantially. Lower volume roads also are constructed to less stringent design guidelines, which could contribute to a higher crash rate.

The percentage of crashes occurring during wet, snow, or icy pavement conditions or during darkness by rural or urban highway type classification is given in Table A-10. The overall percentage of crashes occurring during wet pavement conditions is 22 percent on rural roadways and 17 percent on urban roadways. There are large variations in the percentage of crashes occurring on the various highway types during snow or icy conditions. This percentage would change by year depending on the amount of snowfall any given year. The percentage on rural roads (4.5 percent) is substantially higher than that on urban roads (2.6 percent). The highest percentages are on interstates and parkways with the highest being 9 percent. There are also large variations in the percentage of crashes occurring during darkness. The percentage is higher on rural roads (30 percent) than urban roads (22 percent). The highest percentage is on urban three-lane roadways at 114 percent.

TABLE A-1. STATEWIDE CRASH RATES BY FUNCTIONAL CLASSIFICATION (1998 - 2002)

LOCATION	FUNCTIONAL CLASSIFICATION	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM) ALL	INJURY	FATAL
Rural	Principal Arterial, Interstate	526	31,419	39	10	0.5
	Principal Arterial, Other Freeway	2,056	8,386	102	32	1.3
	Minor Arterial	1,616	4,379	191	59	2.0
	Major Collector	6,955	2,262	213	71	2.4
	Minor Collector	9,454	734	218	80	3.0
	Local System	4,505	504	175	59	1.7
Urban	Principal Arterial, Interstate	228	70,428	73	17	0.3
	Principal Arterial, Other Freeway	92	25,106	80	18	0.4
	Other Principal Arterial	655	19,591	327	81	0.9
	Minor Arterial	1,097	10,095	270	66	0.7
	Collector	868	4,365	130	33	0.5
	Local System	117	2,178	190	51	1.1

TABLE A-2. STATEWIDE CRASH RATES BY FEDERAL-AID SYSTEM (1998 - 2002)

FEDERAL-AID SYSTEM	TOTAL CRASHES	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM)
Interstate	33,073	754	43,200	56
Federal-Aid Primary (other than Interstate)	105,292	3,987	8,605	168
Federal-Aid Urban	89,912	2,147	8,701	264
Federal-Aid Secondary (Rural Only)	65,701	7,115	2,373	213
Non-Federal Aid	28,162	9,551	745	217

TABLE A-3. STATEWIDE CRASH RATES BY ADMINISTRATIVE CLASSIFICATION (1998 - 2002)

ADMINISTRATIVE CLASSIFICATION	TOTAL CRASHES	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM)
Primary	170,222	4,672	14,474	138
Secondary	134,343	8,360	3,430	257
Rural Secondary	40,333	12,150	809	225
Unclassified	6,275	2,256	732	208

TABLE A-4. STATEWIDE CRASH RATES BY MEDIAN TYPE
(RURAL ROADS WITH FOUR OR MORE LANES (1998 - 2002))

MEDIAN TYPE	TOTAL CRASHES	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM)
Undivided	3,901	78	16,790	163
Divided, Median Less Than 30 Feet, No Barrier	5,955	234	13,726	102
Divided, Median Greater Than 30 Feet, No Barrier	22,568	1,311	18,447	51

TABLE A-5. STATEWIDE CRASH RATES BY ACCESS CONTROL (1998 - 2002)

ACCESS CONTROL	TOTAL CRASHES	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM)
Full Control	51,473	1,443	27,832	70
Partial Control	24,557	627	9,670	222
No Control	338,578	25,589	2,476	293

TABLE A-6. STATEWIDE CRASH RATES FOR RURAL HIGHWAYS BY FEDERAL-AID SYSTEM AND TERRAIN (1998 - 2002)

FEDERAL-AID SYSTEM	CRASH RATES BY TERRAIN CLASSIFICATION (CRASHES/100MVM)		
	FLAT	ROLLING	MOUNTAINOUS
Interstate	52	55	49
Federal-Aid Primary	176	153	155
Federal-Aid Secondary	220	273	322
Non Federal-Aid	231	282	272
All	207	184	204

TABLE A-7. STATEWIDE CRASH RATES BY RURAL-URBAN DESIGNATION (1998 - 2002)

AREA TYPE	TOTAL CRASHES	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM)
Rural	206,513	25,115	2,620	172
Small Urban Area	73,306	1,277	10,328	305
Urbanized Area	135,227	1,292	22,336	257

TABLE A-8. STATEWIDE CRASH RATES BY ROUTE SIGNING IDENTIFIER (1998 - 2002)

ROUTE SIGNING IDENTIFIER	TOTAL CRASHES	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM)
Interstate	41,553	754	43,188	70
US	159,752	3,558	8,154	302
State	212,838	23,080	1,987	254

TABLE A-9. RELATIONSHIP BETWEEN CRASH RATE AND TRAFFIC VOLUME (1998 - 2002)

VOLUME RANGE (AADT)	CRASH RATES (CRASHES PER 100 MVM)				
	INTERSTATE	FEDERAL-AID PRIMARY	FEDERAL-AID URBAN	FEDERAL-AID SECONDARY	NON-FEDERAL AID
0-999	*	358	548	328	281
1,000-2,499	*	228	274	236	393
2,500-4,999	*	232	306	287	334
5,000-9,999	*	154	241	249	223
10,000-19,999	51	174	322	299	231
20,000-29,999	47	322	439	360	*
30,000-39,999	54	396	370	*	*
40,000 or more	74	215	335	*	*

* No data in this volume range.

TABLE A-10. PERCENTAGE OF CRASHES OCCURING DURING WET OR SNOW OR ICE PAVEMENT CONDITIONS OR DURING DARKNESS BY RURAL AND URBAN HIGHWAY TYPE CLASSIFICATION (1998 - 2002)

LOCATION	HIGHWAY TYPE	PERCENT OF ALL CRASHES		
		WET	SNOW OR ICE	DARKNESS
Rural	One-Lane	18	2.5	27
	Two-Lane	22	4.2	30
	Three-Lane	15	2.4	25
	Four-Lane Divided (Non-Interstate or Parkway)	19	3.1	27
	Four-Lane Undivided	18	2.2	21
	Interstate	21	8.6	41
	Parkway	24	8.1	43
	All Rural	22	4.5	30
Urban	Two-Lane	17	2.6	17
	Three-Lane	19	1.9	114
	Four-Lane Divided (Non-Interstate or Parkway)	16	2.0	18
	Four-Lane Undivided	16	1.3	19
	Interstate	22	7.4	41
	Parkway	16	9.0	33
	All Urban	17	2.6	22

APPENDIX B

CRASH DATA FOR THREE-YEAR PERIOD (1999-2001)

TABLE B-1. STATEWIDE RURAL CRASH RATES BY HIGHWAY TYPE CLASSIFICATION (2000-2002)

HIGHWAY TYPE	TOTAL MILEAGE*	AADT	CRASHES RATES (CRASHES PER 100 MVM) ALL	INJURY	FATAL
One-Lane	43	860	290	92	0.0
Two-Lane	23,332	1,610	250	81	3.0
Three-Lane	33	5,120	159	38	2.2
Four-Lane Divided (Non-Interstate or Parkway)	543	11,380	127	38	1.2
Four-Lane Undivided	48	14,300	288	58	1.6
Interstate	526	31,710	50	12	0.7
Parkway	565	8,960	63	17	0.8
All	25,090	2,650	174	54	2.0

* Average for the three years.

TABLE B-2. STATEWIDE URBAN CRASH RATES BY HIGHWAY TYPE CLASSIFICATION (2000-2002)

HIGHWAY TYPE	TOTAL MILEAGE*	AADT	CRASHES RATES (CRASHES PER 100 MVM) ALL	INJURY	FATAL
Two-Lane	2,161	6,590	288	70	0.9
Three-Lane	33	11,740	493	94	1.9
Four-Lane Divided (Non-Interstate or Parkway)	391	24,570	288	71	0.9
Four-Lane Undivided	283	19,470	489	112	1.2
Interstate	258	63,810	92	21	0.4
Parkway	52	11,790	108	23	1.1
All **	3,206	14,880	247	58	0.8

* Average for the three years.

** Includes small number of one-, five-, and six-lane highways.

TABLE B-3. STATEWIDE CRASH RATES FOR "SPOTS" BY HIGHWAY TYPE CLASSIFICATION (2000-2002)

RURAL OR URBAN	HIGHWAY TYPE	NUMBER OF CRASHES	NUMBER OF SPOTS*	MILLION VEHICLES PER YEAR	CRASHES PER MILLION VEHICLES PER SPOT
Rural	One-Lane	117	143	0.31	0.87
	Two-Lane	102,905	77,773	0.59	0.75
	Three-Lane	294	110	1.87	0.48
	Four-Lane Divided (Non-Interstate or Parkway)	8,610	1,811	4.15	0.38
	Four-Lane Undivided	2,146	159	5.22	0.86
	Interstate	9,085	1,754	11.57	0.15
	Parkway	3,480	1,883	3.27	0.19
	All Rural	126,637	83,634	0.97	0.52
Urban	Two-Lane	44,887	7,204	2.40	0.86
	Three-Lane	2,098	110	4.29	1.48
	Four-Lane Divided	30,228	1,302	8.97	0.86
	Four-Lane Undivided	29,528	945	7.11	1.47
	Interstate	16,620	861	23.29	0.28
	Parkway	718	172	4.30	0.32
	All Urban**	129,199	10,685	5.43	0.74

* Average for the three years. The length of a spot is defined to be 0.3 mile.
** Includes small number of miles of one-, five-, and six-lane highways.

TABLE B-4. STATEWIDE AVERAGE AND CRITICAL NUMBERS OF CRASHES FOR "SPOTS" AND ONE-MILE SECTIONS BY HIGHWAY TYPE CLASSIFICATION (2000-2002)

RURAL OR URBAN	HIGHWAY TYPE	CRASHES PER SPOT*		CRASHES PER ONE MILE SECTION	
		AVERAGE	CRITICAL NUMBER	AVERAGE	CRITICAL NUMBER
Rural	One-Lane	0.82	4	2.72	7
	Two-Lane	1.32	5	4.41	10
	Three-Lane	2.67	7	8.91	17
	Four-Lane Divided (Non-Interstate or Parkway)	4.75	11	15.85	27
	Four-Lane Undivided	13.51	23	45.02	63
	Interstate	5.18	12	17.26	28
	Parkway	1.85	6	6.16	13
	All Rural	1.51	5	5.05	11
Urban	Two-Lane	6.23	13	20.77	33
	Three-Lane	19.02	31	63.41	84
	Four-Lane Divided	23.22	36	77.39	101
	Four-Lane Undivided	31.25	46	104.18	131
	Interstate	19.31	31	64.37	86
	Parkway	4.18	10	13.93	24
	All Urban**	12.09	22	40.31	57

* The length of a spot is defined to be 0.3 mile.
** Includes small number of miles of one-, five-, and six-lane highways.

TABLE B-5. STATEWIDE CRASH RATES FOR 0.1 MILE "SPOTS" BY HIGHWAY TYPE CLASSIFICATION (2000-2002)

RURAL OR URBAN	HIGHWAY TYPE	NUMBER OF CRASHES	NUMBER OF SPOTS*	MILLION VEHICLES PER YEAR	CRASHES PER MILLION VEHICLES PER SPOT
Rural	One-Lane	117	430	0.31	0.29
	Two-Lane	102,905	233,320	0.59	0.25
	Three-Lane	294	330	1.87	0.16
	Four-Lane Divided (Non-Interstate or Parkway)	8,610	5,433	4.15	0.13
	Four-Lane Undivided	2,146	477	5.22	0.29
	Interstate	9,085	5,263	11.57	0.05
	Parkway	3,480	5,650	3.27	0.06
	All Rural	126,637	250,903	0.97	0.17
Urban	Two-Lane	44,887	21,613	2.40	0.29
	Three-Lane	2,098	331	4.29	0.49
	Four-Lane Divided	30,228	3,906	8.97	0.29
	Four-Lane Undivided	29,528	2,834	7.11	0.49
	Interstate	16,620	2,582	23.29	0.09
	Parkway	718	516	4.30	0.11
	All Urban**	129,199	32,055	5.43	0.25

* Average for the three years. The length of a spot is defined to be 0.1 mile.
** Includes small number of miles of one-, five-, and six-lane highways.

TABLE B-6. STATEWIDE AVERAGE AND CRITICAL NUMBERS OF CRASHES FOR 0.1 MILE "SPOTS" AND ONE-MILE SECTIONS BY HIGHWAY TYPE CLASSIFICATION (2000-2002)

RURAL OR URBAN	HIGHWAY TYPE	CRASHES PER SPOT*		CRASHES PER ONE MILE SECTION	
		AVERAGE	CRITICAL NUMBER	AVERAGE	CRITICAL NUMBER
Rural	One-Lane	0.27	2	2.72	7
	Two-Lane	0.44	3	4.41	10
	Three-Lane	0.89	4	8.91	17
	Four-Lane Divided (Non-Interstate or Parkway)	1.58	5	15.85	27
	Four-Lane Undivided	4.50	10	45.02	63
	Interstate	1.73	6	17.26	28
	Parkway	0.62	3	6.16	13
	All Rural	0.50	3	5.05	11
Urban	Two-Lane	2.08	6	20.77	33
	Three-Lane	6.34	13	63.41	84
	Four-Lane Divided	7.74	15	77.39	101
	Four-Lane Undivided	10.42	19	104.18	131
	Interstate	6.44	13	64.37	86
	Parkway	1.39	5	13.93	24
	All Urban**	4.03	10	40.31	57

* The length of a spot is defined to be 0.1 mile.
** Includes small number of miles of one-, five-, and six-lane highways.

TABLE B-7. CRITICAL CRASH RATES FOR 0.1 MILE "SPOTS" ON RURAL ONE-LANE, TWO-LANE AND THREE-LANE HIGHWAYS (THREE-YEAR PERIOD)(2000-2002)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE		
AADT	ONE-LANE	TWO-LANE	THREE-LANE
100	9.05	8.71	7.84
500	3.08	2.90	2.47
1,000	2.07	1.94	1.60
2,500	1.31	1.21	0.97
5,000	0.97	0.89	0.69
7,500	0.83	0.76	0.58
10,000	0.75	0.68	0.52
15,000	0.66	0.60	0.44
20,000	0.61	0.55	0.40

TABLE B-8. CRITICAL CRASH RATES FOR 0.1 MILE "SPOTS" ON RURAL FOUR-LANE HIGHWAYS, INTERSTATES, AND PARKWAYS (THREE-YEAR PERIOD)(2000-2002)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE			
AADT	FOUR-LANE DIVIDED (NON-INTERSTATE AND PARKWAY)	FOUR-LANE UNDIVIDED	INTERSTATE	PARKWAY
500	2.30	3.08	1.74	1.83
1,000	1.47	2.07	1.06	1.12
2,500	0.87	1.31	0.58	0.62
5,000	0.62	0.97	0.39	0.42
10,000	0.46	0.75	0.27	0.30
15,000	0.39	0.66	0.22	0.25
20,000	0.35	0.61	0.20	0.22
30,000	0.31	0.55	0.17	0.19
40,000	0.28	0.51	0.15	0.17
50,000	0.26	0.49	0.14	0.15

TABLE B-9. CRITICAL CRASH RATES FOR 0.1 MILE "SPOTS" ON URBAN TWO-LANE AND THREE-LANE HIGHWAYS (THREE-YEAR PERIOD)(2000-2002)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE	
AADT	TWO-LANE	THREE-LANE
500	3.08	3.84
1,000	2.07	2.67
2,500	1.31	1.76
5,000	0.97	1.35
7,500	0.83	1.18
10,000	0.75	1.08
15,000	0.66	0.97
20,000	0.61	0.90
30,000	0.55	0.82
40,000	0.51	0.77

TABLE B-10. CRITICAL CRASH RATES FOR 0.1 MILE "SPOTS" ON URBAN FOUR-LANE HIGHWAYS, INTERSTATES, AND PARKWAYS (THREE-YEAR PERIOD)(2000-2002)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE			
AADT	FOUR-LANE DIVIDED (NON-INTERSTATE AND PARKWAY)	FOUR-LANE UNDIVIDED	INTERSTATE	PARKWAY
1,000	2.07	2.67	1.29	1.38
5,000	0.97	1.35	0.51	0.57
10,000	0.75	1.08	0.37	0.41
15,000	0.66	0.97	0.31	0.35
20,000	0.61	0.90	0.28	0.32
30,000	0.55	0.82	0.24	0.27
40,000	0.51	0.77	0.22	0.25
50,000	0.49	0.74	0.20	0.23
60,000	0.47	0.72	0.19	0.22
70,000	0.45	0.70	0.18	0.21
80,000	0.44	0.69	0.18	0.21
90,000	0.43	0.68	0.17	0.20
100,000	0.43	0.67	0.17	0.20

APPENDIX C

CRITICAL "NUMBERS OF CRASHES" TABLES

TABLE C-1. CRITICAL NUMBERS OF CRASH RATES ON RURAL HIGHWAYS BY HIGHWAY TYPE AND SECTION LENGTH (1998-2002)

	CRITICAL NUMBERS OF CRASHES FOR THE GIVEN SECTION LENGTH (MILES)						
HIGHWAY TYPE	0.4	1	2	5	10	15	20
One-Lane	4	7	12	24	41	58	74
Two-Lane	8	15	25	52	95	135	176
Three-Lane	14	29	51	114	212	309	404
Four-Lane Divided (Non-Interstate and Parkway)	19	39	70	158	299	436	573
Four-Lane Undivided	43	94	175	409	790	1,165	1,539
Interstate	20	42	76	172	325	475	624
Parkway	9	18	31	67	123	177	230

TABLE C-2. CRITICAL NUMBERS OF CRASH RATES ON URBAN HIGHWAYS BY HIGHWAY TYPE AND SECTION LENGTH (1998-2002)

	CRITICAL NUMBERS OF CRASHES FOR THE GIVEN SECTION LENGTH (MILES)					
HIGHWAY TYPE	0.4	1	2	5	8	10
Two-Lane	24	51	93	212	328	404
Three-Lane (Non-Interstate and Parkway)	58	130	244	575	900	1,115
Four-Lane Divided	71	160	303	718	1,126	1,396
Four-Lane Undivided	90	205	390	932	1,465	1,819
Interstate	61	135	255	601	942	1,167
Parkway	17	36	64	142	218	268

APPENDIX D

CRITICAL CRASH RATE TABLES FOR HIGHWAY SECTIONS

TABLE D-1. CRITICAL CRASH RATES FOR RURAL ONE-LANE SECTIONS (FIVE-YEAR PERIOD)(1998-2002)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
100	1,836	1,235	867	579	448
200	1,235	867	635	448	362
300	999	718	539	393	325
400	867	635	485	362	303
500	780	579	448	340	289
700	672	509	402	313	270
1,000	579	448	362	289	253
1,500	496	393	325	266	238
2,000	448	362	303	253	229
2,500	417	340	289	244	222
3,000	393	325	278	238	218

TABLE D-2. CRITICAL CRASH RATES FOR RURAL TWO-LANE SECTIONS (FIVE-YEAR PERIOD)(1998-2002)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)					
AADT	0.5	1	2	5	10	20
100	2,139	1,472	1,057	728	576	474
300	1,206	888	682	512	431	375
500	958	728	576	449	388	346
1,000	728	576	474	388	346	317
1,500	632	512	431	361	328	304
2,000	576	474	405	346	317	296
3,000	512	431	375	328	304	287
4,000	474	405	358	317	296	282
5,000	449	388	346	309	291	278
7,000	417	366	330	300	284	274
8,000	405	358	325	296	282	272
9,000	396	351	320	294	280	271
10,000	388	346	317	291	278	270

TABLE D-3. CRITICAL CRASH RATES FOR RURAL THREE-LANE SECTIONS (FIVE-YEAR PERIOD)(1998-2002)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	3	5
100	1,906	1,289	910	757	613
300	1,046	757	571	494	420
500	821	613	477	420	364
1,000	613	477	387	348	311
1,500	527	420	348	317	287
2,000	477	387	326	299	274
3,000	420	348	299	278	257
4,000	387	326	284	266	248
5,000	364	311	274	257	242
6,000	348	299	266	251	237
7,000	336	291	260	246	233
8,000	326	284	255	243	230
9,000	317	278	251	239	228
10,000	311	274	248	237	226

TABLE D-4. CRITICAL CRASH RATES FOR RURAL FOUR-LANE DIVIDED SECTIONS (NON-INTERSTATE AND PARKWAY) (FIVE-YEAR PERIOD)(1998-2002)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
500	657	478	363	269	224
1,000	478	363	287	224	193
2,500	335	269	224	186	167
5,000	269	224	193	167	154
7,500	240	205	180	159	148
10,000	224	193	172	154	145
15,000	205	180	163	148	141
20,000	193	172	158	145	139
30,000	180	163	151	141	136
40,000	172	158	148	139	134
50,000	167	154	145	137	133

TABLE D-5. CRITICAL CRASH RATES FOR RURAL FOUR-LANE UNDIVIDED SECTIONS (FIVE-YEAR PERIOD)(1998-2002)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
500	999	762	605	474	411
1,000	762	605	500	411	368
2,500	567	474	411	357	330
5,000	474	411	368	330	311
7,500	435	384	349	318	303
10,000	411	368	338	311	298
20,000	368	338	316	298	289
30,000	349	324	307	292	285
40,000	338	316	302	289	282
50,000	330	311	298	286	281

TABLE D-6. CRITICAL CRASH RATES FOR RURAL INTERSTATE SECTIONS (FIVE-YEAR PERIOD)(1998-2002)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)					
AADT	0.5	1	2	5	10	20
500	426	293	210	145	114	94
1,000	293	210	157	114	94	80
2,500	190	145	114	89	77	69
5,000	145	114	94	77	69	63
7,500	125	102	85	72	65	60
10,000	114	94	80	69	63	59
20,000	94	80	71	63	59	56
30,000	85	74	67	60	57	55
40,000	80	71	64	59	56	54
50,000	77	69	63	58	55	53

TABLE D-7. CRITICAL CRASH RATES FOR RURAL PARKWAY SECTIONS (FIVE-YEAR PERIOD)(1998-2002)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)					
AADT	0.5	1	2	5	10	20
400	521	357	255	175	138	113
700	383	272	201	144	117	99
1,000	319	231	175	129	107	92
1,500	263	195	152	115	98	86
2,000	231	175	138	107	92	82
3,000	195	152	122	98	86	78
4,000	175	138	113	92	82	75
5,000	161	129	107	89	79	73
7,000	144	117	99	84	76	71
10,000	129	107	92	79	73	69
20,000	107	92	82	73	69	66
40,000	92	82	75	69	66	64

TABLE D-8. CRITICAL CRASH RATES FOR URBAN TWO-LANE SECTIONS (FIVE-YEAR PERIOD)(1998-2002)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
500	1,048	804	642	506	440
1,000	804	642	533	440	395
2,500	602	506	440	384	356
5,000	506	440	395	356	336
7,500	465	412	375	343	328
10,000	440	395	364	336	322
15,000	412	375	350	328	316
20,000	395	364	342	322	313
30,000	375	350	332	316	309
40,000	364	342	326	313	306
50,000	356	336	322	310	304

TABLE D-9. CRITICAL CRASH RATES FOR URBAN THREE-LANE SECTIONS (FIVE-YEAR PERIOD)(1998-2002)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
500	1,420	1,121	921	752	669
1,000	1,121	921	785	669	612
2,500	872	752	669	597	562
5,000	752	669	612	562	537
7,500	700	633	587	546	526
10,000	669	612	572	537	519
15,000	633	587	554	526	511
20,000	612	572	544	519	507
30,000	587	554	531	511	501
40,000	572	544	524	507	498
50,000	562	537	519	504	496

TABLE D-10. CRITICAL CRASH RATES FOR URBAN FOUR-LANE DIVIDED SECTIONS (NON-INTERSTATE AND PARKWAY) (FIVE-YEAR PERIOD)(1998-2002)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
1,000	814	650	541	447	402
2,500	610	514	447	390	362
5,000	514	447	402	362	342
10,000	447	402	370	342	328
15,000	419	382	356	334	322
20,000	402	370	348	328	319
25,000	390	362	342	325	316
30,000	382	356	338	322	314
40,000	370	348	332	319	312
50,000	362	342	328	316	310
60,000	356	338	325	314	309

TABLE D-11. CRITICAL CRASH RATES FOR URBAN FOUR-LANE UNDIVIDED SECTIONS (FIVE-YEAR PERIOD)(1998-2002)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
1,000	1,132	931	794	677	619
2,500	881	760	677	605	569
5,000	760	677	619	569	544
10,000	677	619	579	544	526
15,000	641	594	562	533	518
20,000	619	579	551	526	514
25,000	605	569	544	522	511
30,000	594	562	539	518	508
40,000	579	551	531	514	505
50,000	569	544	526	511	503
60,000	562	539	523	508	501

TABLE D-12. CRITICAL CRASH RATES FOR URBAN INTERSTATE SECTIONS (FIVE-YEAR PERIOD)(1998-2002)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
1,000	403	300	233	178	151
5,000	217	178	151	128	117
10,000	178	151	133	117	109
20,000	151	133	120	109	104
30,000	140	125	115	106	102
40,000	133	120	112	104	100
50,000	128	117	109	103	99
60,000	125	115	108	102	98
70,000	122	113	106	101	98
80,000	120	112	105	100	97
90,000	119	110	105	100	97
100,000	117	109	104	99	97

TABLE D-13. CRITICAL CRASH RATES FOR URBAN PARKWAY SECTIONS (FIVE-YEAR PERIOD)(1998-2002)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)					
AADT	0.5	1	2	5	10	20
500	605	436	327	239	198	169
1,000	436	327	257	198	169	150
2,500	301	239	198	162	145	133
5,000	239	198	169	145	133	125
7,500	213	180	157	137	128	121
10,000	198	169	150	133	125	119
15,000	180	157	141	128	121	116
20,000	169	150	136	125	119	115
30,000	157	141	130	121	116	113
40,000	150	136	127	119	115	112
90,000	134	126	119	114	111	109
50,000	145	133	125	117	114	111

APPENDIX E

CRITICAL CRASH RATE TABLES FOR "SPOTS"
(SPOT IS DEFINED AS 0.3 MILE IN LENGTH)

TABLE E-1. CRITICAL CRASH RATES FOR "SPOTS" ON RURAL ONE-LANE, TWO-LANE AND THREE-LANE HIGHWAYS (FIVE-YEAR PERIOD)(1998-2002)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE		
AADT	ONE-LANE	TWO-LANE	THREE-LANE
100	7.56	8.67	7.81
500	2.98	3.61	3.13
1,000	2.15	2.65	2.26
2,500	1.48	1.89	1.57
5,000	1.17	1.53	1.25
7,500	1.04	1.38	1.12
10,000	0.97	1.29	1.04
15,000	0.88	1.18	0.95
20,000	0.83	1.12	0.89

TABLE E-2. CRITICAL CRASH RATES FOR "SPOTS" ON RURAL FOUR-LANE HIGHWAYS, INTERSTATES, AND PARKWAYS (FIVE-YEAR PERIOD)(1998-2002)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE			
AADT	FOUR-LANE DIVIDED (NON-INTERSTATE AND PARKWAY)	FOUR-LANE UNDIVIDED	INTERSTATE	PARKWAY
500	2.56	3.76	1.74	1.83
1,000	1.80	2.78	1.16	1.23
2,500	1.21	1.99	0.73	0.78
5,000	0.94	1.62	0.54	0.58
10,000	0.76	1.37	0.41	0.45
15,000	0.69	1.26	0.36	0.39
20,000	0.64	1.20	0.33	0.36
30,000	0.59	1.12	0.29	0.32
40,000	0.56	1.08	0.27	0.30
50,000	0.54	1.05	0.26	0.29

TABLE E-3. CRITICAL CRASH RATES FOR "SPOTS" ON URBAN TWO-LANE AND THREE-LANE HIGHWAYS (FIVE-YEAR PERIOD)(1998-2002)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE	
AADT	TWO-LANE	THREE-LANE
500	3.93	5.20
1,000	2.92	3.98
2,500	2.10	2.98
5,000	1.72	2.50
7,500	1.56	2.30
10,000	1.46	2.18
15,000	1.35	2.04
20,000	1.28	1.95
30,000	1.20	1.86
40,000	1.16	1.80

TABLE E-4. CRITICAL CRASH RATES FOR "SPOTS" ON URBAN FOUR-LANE HIGHWAYS, INTERSTATES, AND PARKWAYS (FIVE-YEAR PERIOD)(1998-2002)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE			
AADT	FOUR-LANE DIVIDED (NON-INTERSTATE AND PARKWAY)	FOUR-LANE UNDIVIDED	INTERSTATE	PARKWAY
1,000	2.96	4.02	1.53	1.65
5,000	1.75	2.53	0.77	0.84
10,000	1.49	2.20	0.61	0.67
15,000	1.37	2.06	0.54	0.60
20,000	1.31	1.98	0.51	0.56
30,000	1.23	1.88	0.46	0.51
40,000	1.18	1.82	0.43	0.48
50,000	1.15	1.78	0.42	0.47
60,000	1.13	1.75	0.40	0.45
70,000	1.11	1.73	0.39	0.44
80,000	1.09	1.71	0.38	0.43
90,000	1.08	1.70	0.38	0.42
100,000	1.07	1.68	0.37	0.42

APPENDIX F

TOTAL CRASH RATES FOR CITIES INCLUDED IN 2000 CENSUS

TABLE F-1. CRASHES AND CRASH RATES FOR ALL CITIES LISTED IN THE 2000 CENSUS (1998-2002)

CITY	POPULATION	NUMBER OF CRASHES	ANNUAL CRASHES PER 1000 POPULATION	CITY	POPULATION	NUMBER OF CRASHES	CRASHES PER 1000 POPULATION
Adairville	920	53	12	Campbellsburg	705	105	30
Albany	2,220	593	53	Campbellsville	10,498	2,505	48
Alexandria	8,286	1,319	32	Campton	424	328	155
Allen	150	140	187	Caneyville	627	84	27
Anchorage	2,264	114	10	Carlisle	1,917	324	34
Arlington	395	18	9	Carrollton	3,846	949	49
Ashland	21,981	5,913	54	Catlettsburg	1,960	584	60
Auburn	1,444	134	19	Cave City	1,880	526	56
Audubon Park	1,545	65	8	Centertown	416	30	14
Augusta	1,204	145	24	Central City	5,893	970	33
Bancroft	536	*	*	Cherrywood Village	327	2	1
Barbourmeade	1,260	1	0	Clarkson	794	159	40
Barbourville	3,589	851	47	Clay	1,179	84	14
Bardstown	10,374	2,973	57	Clay City	1,303	*	*
Bardwell	799	68	17	Clinton	1,415	*	*
Barlow	715	51	14	Cloverport	1,256	65	10
Beattyville	1,193	241	40	Coal Run	577	403	140
Beaver Dam	3,033	595	39	Cold Spring	3,806	1,059	56
Bedford	677	195	58	Columbia	4,014	1,107	55
Beechwood Village	1,173	6	1	Concord	28	3	21
Bellefonte	837	119	28	Corbin	7,742	1,946	50
Bellevue	6,480	1,123	35	Corinth	181	148	164
Bellewood	300	3	2	Corydon	744	119	32
Benham	599	35	12	Covington	43,370	10,855	50
Benton	4,197	984	47	Crab Orchard	842	98	23
Berea	9,851	1,960	40	Crescent Springs	3,931	801	41
Berry	310	23	15	Crestview	471	8	3
Blaine	245	23	19	Crestview Hills	2,889	1,137	79
Bloomfield	855	122	29	Crestwood	1,999	585	59
Blue Ridge Manor	623	2	1	Crittenden	2,401	536	45
Bonnieville	354	71	40	Crofton	838	97	23
Booneville	111	187	337	Cumberland	2,611	241	19
Bowling Green	49,296	15,714	64	Cynthiana	6,258	1,364	44
Bradfordsville	304	26	17	Danville	15,477	3,536	46
Brandenburg	2,049	434	42	Dawson Springs	2,980	288	19
Bremen	365	78	43	Dayton	5,966	430	14
Briarwood	554	1	0	Dixon	632	183	58
Broadfields	250	*	*	Dover	316	38	24
Brodhead	1,193	33	6	Drakesboro	627	96	31
Bromley	838	62	15	Dry Ridge	1,995	1,061	106
Brooksville	589	201	68	Earlington	1,649	205	25
Brownsville	921	327	71	Eddyville	2,350	273	23
Burgin	874	51	12	Edgewood	9,400	818	17
Burkesville	1,756	224	26	Edmonton	1,586	371	47
Burnside	637	160	50	Ekron	170	29	34
Butler	613	90	29	Elizabethtown	22,542	6,286	56
Cadiz	2,373	634	53	Elkhorn City	1,060	176	33
Calhoun	836	145	35	Elkton	1,984	307	31
Calvert City	2,701	341	25	Elsmere	8,139	736	18
Camargo	923	57	12	Eminence	2,231	211	19

* Data Not Available

TABLE F-1. CRASHES AND CRASH RATES FOR ALL CITIES LISTED IN THE 2000 CENSUS (1998-2002)(continued)

CITY	POPULATION	NUMBER OF CRASHES	ANNUAL CRASHES PER 1000 POPULATION	CITY	POPULATION	NUMBER OF CRASHES	CRASHES PER 1000 POPULATION
Erlanger	16,676	4,008	48	Hopkinsville	30,089	6,124	41
Eubank	358	51	29	Horse Cave	2,252	248	22
Evarts	1,101	156	28	Houston Acres	491	2	1
Ewing	278	17	12	Hustonville	347	52	30
Fairfield	72	21	58	Hyden	204	226	222
Fairview	156	27	35	Independence	14,982	1,962	26
Falmouth	2,058	417	41	Indian Hills	2,882	85	6
Ferguson	881	29	7	Inez	466	195	84
Flatwoods	7,605	679	18	Irvine	2,843	577	41
Flemingsburg	3,010	459	31	Irvington	1,257	75	12
Florence	23,551	8,952	76	Island	435	62	29
Fordsville	531	75	28	Jackson	2,490	930	75
Forest Hills	494	4	2	Jamestown	1,624	186	23
Fort Mitchell	8,089	1,393	34	Jeffersontown	26,633	4,739	36
Fort Thomas	16,495	1,210	15	Jeffersonville	1,804	278	31
Fort Wright	5,681	2,195	77	Jenkins	2,401	152	13
Fountain Run	236	21	18	Junction City	2,184	223	20
Frankfort	27,741	5,825	42	Keeneland	383	2	1
Franklin	7,996	1,339	34	Kevil	574	74	26
Fredonia	420	79	38	Kingsley	428	5	2
Frenchburg	551	153	56	Kuttawa	596	112	38
Fulton	2,775	468	34	La Grange	5,676	1,004	35
Gamaliel	439	13	6	Lacenter	1,038	58	11
Georgetown	18,080	3,331	37	Lafayette	193	5	5
Germantown	190	50	53	Lakeside Park	2,869	378	26
Ghent	371	65	35	Lancaster	3,734	701	38
Glasgow	13,019	3,319	51	Latonia Lakes	325	31	19
Glencoe	251	52	41	Lawrenceburg	9,014	940	21
Grand Rivers	343	43	25	Lebanon	5,718	1,334	47
Gratz	89	19	43	Lebanon Junction	1,801	222	25
Grayson	3,877	1,061	55	Leitchfield	6,139	1,222	40
Greensburg	2,396	534	45	Lewisburg	903	92	20
Greenup	1,198	211	35	Lewisport	1,639	124	15
Greenville	4,398	940	43	Lexington	260,512	63,496	49
Guthrie	1,469	123	17	Liberty	1,850	403	44
Hanson	625	93	30	Livermore	1,482	174	24
Hardin	564	88	31	Livingston	228	23	20
Hardinsburg	2,345	279	24	London	5,692	3,367	118
Harlan	2,081	811	78	Lone Oak	454	522	230
Harrodsburg	8,014	1,682	42	Loretto	623	84	27
Hartford	2,571	253	20	Louisa	2,018	711	71
Hawesville	971	173	36	Louisville	256,231	77,069	60
Hazard	4,806	2,372	99	Loyall	766	58	15
Hazel	440	49	22	Ludlow	4,409	218	10
Henderson	27,373	7,042	52	Lynch	900	40	9
Hickman	2,560	152	12	Lyndon	9,369	87	2
Highland Heights	6,554	949	29	Lynnview	965	41	9
Hindman	787	346	88	Mackville	206	20	19
Hiseville	224	21	19	Madisonville	19,307	4,530	47
Hodgenville	2,874	670	47	Manchester	1,738	827	95

* Data Not Available

TABLE F-1. CRASHES AND CRASH RATES FOR ALL CITIES LISTED IN THE 2000 CENSUS (1998-2002)(continued)

CITY	POPULATION	NUMBER OF CRASHES	ANNUAL CRASHES PER 1000 POPULATION	CITY	POPULATION	NUMBER OF CRASHES	CRASHES PER 1000 POPULATION
Marion	3,196	521	33	Park Hills	2,977	200	13
Martin	633	169	53	Pembroke	797	44	11
Mayfield	10,349	2,190	42	Perryville	763	44	12
Maysville	8,993	2,445	54	Pewee Valley	1,436	226	32
Mchenry	417	44	21	Phelps	1,053	269	51
Mckee	878	239	54	Pikeville	6,295	2,302	73
Mcroberts	921	44	10	Pineville	2,093	466	45
Meadowvale	765	24	6	Pippa Passes	297	86	58
Meadowview Estates	422	5	2	Plantation	902	657	146
Melbourne	457	40	18	Pleasureville	869	40	9
Mentor	181	17	19	Plymouth Village	201	1	1
Middlesboro	10,384	1,829	35	Powderly	846	87	21
Middletown	5,744	98	3	Prestonsburg	3,612	1,322	73
Midway	1,620	132	16	Prestonville	164	37	45
Millersburg	842	80	19	Princeton	6,536	962	29
Milton	525	186	71	Providence	3,611	262	15
Minor Lane Heights	1,435	49	7	Raceland	2,355	191	16
Monterey	167	31	37	Radcliff	21,961	2,882	26
Monticello	5,981	1,255	42	Ravenna	693	58	17
Moorland	464	11	5	Richmond	27,152	6,747	50
Morehead	5,914	2,225	75	Rochester	186	1	1
Morganfield	3,494	696	40	Rockport	334	8	5
Morgantown	2,544	563	44	Rolling Hills	907	1	0
Mortons Gap	952	99	21	Russell	3,645	791	43
Mount Olivet	289	29	20	Russell Springs	2,399	534	45
Mount Sterling	5,876	1,802	61	Russellville	7,149	1,682	47
Mount Vernon	2,592	743	57	Sacramento	517	59	23
Mount Washington	8,485	969	23	Sadieville	263	50	38
Muldraugh	1,298	320	49	Saint Charles	309	16	10
Munfordville	1,563	453	58	Saint Matthews	15,852	1,681	21
Murray	14,950	2,658	36	Saint Regis Park	1,520	283	37
Nebo	220	52	47	Salem	769	59	15
New Castle	919	154	34	Salt Lick	342	72	42
New Haven	849	83	20	Salyersville	1,604	449	56
Newport	17,048	4,494	53	Sanders	246	16	13
Nicholasville	19,680	3,749	38	Sandy Hook	678	149	44
Norbourne Estates	461	2	1	Sardis	149	29	39
North Middleton	562	23	8	Science Hill	634	53	17
Northfield	970	67	14	Scottsville	4,327	949	44
Nortonville	1,264	167	26	Sebree	1,558	202	26
Oak Grove	7,064	1,368	39	Seneca Gardens	699	3	1
Oakland	260	23	18	Sharpsburg	295	51	35
Olive Hill	1,813	349	39	Shelbyville	10,085	2,594	51
Owensboro	54,067	12,827	47	Shepherdsville	8,334	2,101	50
Owenton	1,387	305	44	Shively	15,157	4,412	58
Owingsville	1,488	306	41	Silver Grove	1,215	174	29
Paducah	26,307	8,660	66	Simpsonville	1,281	183	29
Paintsville	4,132	1,285	62	Slaughters	238	24	20
Paris	9,183	1,810	39	Smithfield	102	19	37
Park City	517	94	36	Smithland	401	99	49

* Data Not Available

TABLE F-1. CRASHES AND CRASH RATES FOR ALL CITIES LISTED IN THE 2000 CENSUS (1998-2002)(continued)

CITY	POPULATION	NUMBER OF CRASHES	ANNUAL CRASHES PER 1000 POPULATION
Smiths Grove	784	159	41
Somerset	11,352	4,306	76
Sonora	350	114	65
South Carrollton	184	90	98
South Shore	1,226	57	9
Southgate	3,472	473	27
Sparta	230	53	46
Springfield	2,634	608	46
Stamping Ground	566	56	20
Stanford	3,430	447	26
Stanton	3,029	514	34
Strathmoor Village	625	1	0
Sturgis	2,030	223	22
Taylor Mill	6,913	1,238	36
Taylorsville	1,009	247	49
Tompkinsville	2,660	590	44
Trenton	419	26	12
Union	2,893	511	35
Uniontown	1,064	109	21
Upton	391	65	33
Vanceburg	1,731	276	32
Versailles	7,511	1,637	44
Vicco	318	96	60
Villa Hills	7,948	377	10
Vine Grove	4,169	349	17
Wallins Creek	257	70	55
Walton	2,450	604	49
Warfield	284	99	70
Warsaw	1,811	180	20
Water Valley	316	17	11
Waverly	297	54	36
Wayland	298	34	23
Wellington	561	*	*
West Liberty	3,277	486	30
West Point	1,100	250	46
Westwood	4,888	*	*
Westwood	612	*	*
Wheatcroft	173	13	15
Wheelwright	1,042	51	10
Whipps Millgate	415	*	*
White Plains	800	56	14
Whitesburg	1,600	499	62
Whitesville	632	77	24
Whitley City	1,111	390	70
Wickliffe	794	204	51
Wilder	2,624	695	53
Wildwood	247	2	2
Williamsburg	5,143	961	37
Williamstown	3,227	687	43
Willisburg	304	32	21
Wilmore	5,905	255	9
Winchester	16,724	3,955	47
Wingo	581	52	18
Woodburn	323	33	20
Woodland Hills	657	3	1
Woodlawn Park	1,033	4	1
Worthington	1,673	44	5
Worthville	215	25	23
Wurtland	1,049	110	21

* Data Not Available