Research Report
KTC-01-25/KSP2-01-1F

KENTUCKY TRANSPORTATION CENTER

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ANALYSIS OF TRAFFIC CRASH DATA IN KENTUCKY (1996-2000)

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ANALYSIS OF TRAFFIC CRASH DATA IN KENTUCKY (1996 - 2000)

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EXECUTIVE SUMMARY

This report documents an analysis of traffic crash data in Kentucky for the years of 1996 through 2000. 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 which 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 calander 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 15th report providing a combination of those two report areas. Traffic crash data for the five-year period of 1996 through 2000 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 which 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 which 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 from 2000 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 1996 through 1999 and CRASH data base for 2000.

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 1996 through 2000 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 crash 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), and
M = exposure (for sections, M was in terms of 100 million vehicle-miles (100 MVM); for spots, M was in terms of

million vehicles).

To determine the critical number of 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 and
N_a = average number of crashes.

There are highway safety problem areas (standards) identified by the National Highway Traffic Safety Administration. Problem areas which 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 files results in approximately 28,000 miles being included in this category. This compares to over 70,000 miles of public roads in Kentucky. While only approximately 40 percent

of the total miles are state-maintained, in 2000 these roads accounted for approximately 88 percent of the vehicle miles traveled and 66 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 which 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 1996 through 2000 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 2000 compared to the average of the previous four years. The larger increase in the number of crashes compared with the increase in vehicle-miles driven resulted in a 3.9 percent increase in the crash rate in 2000 compared to the previous four-year average. The overall crash rate in 2000 was 219 crashes per 100 million vehicle-miles (C/100 MVM). The crash rates for the previous four years varied from 197 to 230 C/100 MVM.

The fatal crash rate showed a decrease (8.1 percent) in 2000 compared to the previous four-year average. The fatal crash rate in 2000 was the lowest of the five years. The fatal crash rate ranged from 1.44 C/100MVM in 2000 to 1.66 C/100MVM in 1997. The injury crash rate decreased by 4.8 percent in 2000 compared to the previous four-year average. The injury crash rate has remained fairly stable prior to 2000 with the range from 58 to 69 C/100 MVM between 1996 and 1999 compared to 60 C/100 MVM in 2000.

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 (1996 through 2000) 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, the small number of three-lane highways has the highest rate for all crashes (Table 2) followed closely by two-lane and four-lane undivided highways. Two- lane highways has the highest injury crash rate. The fatal crash rate on two-lane highways is substantially higher than the other road types. Interstates has the lowest rates, followed closely by parkways. The advantage of median-separated highways is shown when comparing all and injury 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 and four-lane undivided 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 about 55 percent higher than that on rural highways. Also, the injury rate on urban highways is 17 percent greater than that for rural highways. However, the fatal crash rate on urban highways is only 33 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 increase in the overall crash rate in urban areas (4.6 percent) compared to rural areas (2.8 percent). Only a small percentage (about 10 percent) of state-maintained mileage is classified as urban. The rates fluctuated significantly for the highway types which had only a small number of miles. The rates increased in 2000 for most highway types.

Trends in overall crash rates representative of rural and urban areas are shown graphically in Figure 1 for the five-year period of 1996 through 2000. 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 1996 through 2000 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 1996 through 2000. 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 (1998-2000) 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 3. Results are presented in tables 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 1996 through 2000.

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 1996 through 2000 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 1996 through 2000.

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 populations use data 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 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 37 for total crashes, 35 for injury-or-fatal crashes, and three for fatal crashes. There has been consistency over the past few years in the counties which have a critical rate. For example, 33 of the 37 counties determined to have a critical crash rate when total crashes were considered were also identified as having a critical crash rate in the most recent report.

Table 10 contains a list of numbers 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.

Crash rates also were calculated by county 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 four of the five population categories, the same county had the highest rate considering all roads or state-maintained roads. These counties are Trimble County (in the under 10,000 category), Pendleton County (in the 10,000 to 14,999 population category), Harrison County (in the 15,000 to 24,999 population category), and Fayette County (in the over 50,000 population category). In the 25,000 to 50,000 population category, Boyd County has the highest rate for all roads while Boyle County has the highest rate for the state-maintained system. When all roads are considered, Fayette County, followed by Jefferson, Daviess, and Harrison Counties, has the highest rates in the state. When only state-maintained roads are considered, Harrison County has the highest rate followed by Boyle, Pendleton, and Jessamine Counties. Carlisle County, which is in the lowest population category, has the lowest rate in the state. 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. Counties having the highest rates for their population categories are Crittenden, Pendleton, Breathitt, Perry, and Pike. Pike County has the highest rate in the state while Carlisle 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 Crittenden, Leslie, Clay, Knox and Boyle and Floyd, 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). Pike, Pulaski, and Madison 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 county by year; percent change in the 2000 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 1996 through 2000 crash data. The primary group of cities included in the analysis were those having a

population over 2,500 which had a code 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 having populations more than 2,500 where crash data that could be related to the city for all five years. A city code is recorded in the computer file. Crashes recorded as occurring in the city are included. Crashes using the city as a reference but recorded as occurring any distance from the city were not included. The cities used were those included with a population in the 2000 census. Table 15 includes 116 cities. There were 10 other cities for which only 2000 data were available and seven for which no data could be obtained. 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 data were available.

Additional statistics are listed in Table 16 for the 116 cities which 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 400 cities was listed with a population in the census. Included for the cities were population, number of crashes, and crash rate (crashes per 1,000 population). However, code for the city was not available for several small cities and there was no data prior to 2000 in a few other cities. This resulted in data being available for 352 cities in Appendix F.

Crashes on the state-maintained system of highways within a city only accounted for a portion of all the crashes occurring within a city. In many instances, this percentage of crashes on the state-maintained system was only a small percentage of total crashes. 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. The cities for which a match could not be obtained using city code listed in the HPMS file would not be listed in Table 17. Lexington, Richmond, Erlanger, Cynthiana, Lancaster, 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 categories between 10,000 and 60,000. 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. This should change with the new crash report which was started in 2000.

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. The order of rates for cities is very different in Table 18 compared to Table 17. Twenty-one 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, Paducah, Somerset, Pikeville, and Prestonsburg have the highest fatal crash rates in their respective population ranges with no city identified as having a critical fatal crash rate. Prestonsburg has the highest rate.

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 5,802 per year for the past five years. Alcohol-related fatalities have averaged 223 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 $84 to $234 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 from 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 decreased to 6,150 in 1996, 6,070 in 1997, and 5,222 in 1998 with a slight increase to 5,441 in 1999. The 2000 total of 6,127 is a 7.1 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 2000 (196) decreased by 14.5 percent over the 1996 through 1999 average (229). The number in 2000 was the lowest in the five-year period and continued 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, 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, considering all drivers, involving alcohol are Robertson, Magoffin, Marion, Floyd, and Bullitt.

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 counties in each population category having the highest percentages of crashes involving alcohol are Owsley, Magoffin, Lawrence, Letcher, 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, Newport, Dayton, and Park Hills.

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 (1996 through 2000) were used in the analysis. The conviction data were obtained from driving records maintained by the Division of Drivers Licensing in the Transportation Cabinet. 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, Green, Breckinridge, Oldham, and Jefferson. Counties having the lowest rates of alcohol convictions per alcohol-related crash are Robertson, Owen, Marion, Letcher and Nelson, and Kenton and Pike. 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 (which do not include data for DUI convictions where the county was not specified) show that, statewide, the number of alcohol convictions has remained fairly constant from a low

of slightly over 30,000 in 1996 to a high of almost 33,000 in 1998. The number of alcohol convictions in 2000 was slightly lower (2.6 percent) than the average of the previous four years.

A comparison was also made between the total alcohol arrests and total alcohol convictions, by county, for the five years of 1996 through 2000 (Table 24) . The arrest data for "driving under the influence" was obtained from the Administrative Office of the Courts (AOC). The statewide percentage of alcohol convictions per arrest over these five years was 72.9 percent. The percentages varied from a low of 44.2 percent in Owsley County to a high of 89.1 percent in Grant County. The percentages would be affected by the overlapping effects of arrests being made and convictions being prosecuted in different calendar years. Nine counties have a conviction percentage of 85 percent or more (Grant, Hopkins, Caldwell, McLean, Union, Rowan, Fleming, Henderson, and Fayette). Seven counties have a conviction rate under 60 percent (Owsley, Clay, Leslie, Gallatin, Carter, Robertson, and Monroe).

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 72.7 to 73.8 percent. Counties having the highest conviction percentages in the various population categories are Fayette, Hopkins, Grant, Caldwell, and McLean. Counties having the lowest conviction percentages for the various population categories are Pulaski, Carter, Clay, Leslie, and Owsley.

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 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 1996 through 2000, the highest number of convictions was in 1996. There has been a decrease in the number of reckless driving convictions. The number in 2000 is a 15.7 percent decrease from the average number in the previous four years. The highest rates (convictions per 1,000 licensed drivers) occurred in Clinton, Lyon, Gallatin, Marion, and Nicholas Counties. The lowest rates are in Trimble, Oldham, Spencer, and Knott Counties.

Drugs continue to be listed as a contributing factor in a relatively small percentage of all crashes. However, the number of drug-related crashes increased dramatically in 2000 (31.0 percent) compared to 1999. The 1999 and 2000 data were the only available data which 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 990 in 2000. The number of drug-related injury crashes increased by 59.2 percent in 2000 compared to the previous four-year average. The number of drug-related fatal crashes increased by 18.8 percent in 2000 compared to 1999. There were 133 fatal drug-related crashes in 2000 compared to no more than 15 in previous years when the FARS data were not included in the analysis.

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 Lee, Martin, Johnson, Knox, 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 and Leslie 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, Owensboro and Bowling Green and Covington and Richmond and Ashland, Middlesboro, Williamsburg, and Barbourville.

7.0 OCCUPANT PROTECTION

The percentages of drivers of passenger cars involved in traffic crashes who were reported as wearing safety belts were 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 1999 through 2000. The rates varied from a high of 94.8 percent in Fayette County to a low of 72.7 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, 26 counties had rates over 90 percent while only 13 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 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 potential for intensive promotional campaigns are identified 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 which 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 1996 through 2000 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 1996 through 2000. 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 2000 resulted in a driver usage rate of 60 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 9 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 crash severity. 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 an 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 79 percent and the chance of receiving a non-incapacitating injury is reduced by 67 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 34 percent (from 11.12 percent for drivers not wearing safety belts to 7.30 percent for drivers wearing safety belts). The chance of receiving either a fatal or incapacitating injury was reduced by 83 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 1996 through 2000. 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 1996 through 2000 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 1996 through 2000 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 79 percent for incapacitating injuries. Crash cost estimates were $1,000,000 for a fatality and $47,900 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 138 fatalities and a potential annual reduction in the cost of fatalities and serious injuries of approximately 186 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 1996 through 2000. 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 51 fatalities (children age three and under) occurring during the study period, 30 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 671 incapacitating injuries, 402 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 90-percent reduction in fatalities for children in restraints, a 84-percent reduction in incapacitating injuries, a 77-percent reduction in non-incapacitating injuries, and a 55-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 a steady increase in the usage rate. The most recent usage rate using the crash data was 96 percent in 2000. This compares to the usage rate of 87 percent found in the 2000 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 at slightly over 10,000 from 1995 through 1997 before decreasing to slightly over 9,000 in 1998 and 1999. The number of speed-related crashes in 2000 increased slightly compared to the past two years but decreased by 3.5 percent in 2000 compared to the previous four-year average. For the five-year period, speed-related crashes represented 7.4 percent of all crashes, 11.6 percent of injury crashes, and 26.2 percent of fatal crashes. The number of speed-related fatal crashes decreased by 26.1 percent in 2000 compared to the previous four- year average. The number of speed-related fatal crashes ranged from a high of 230 in 1997 to a low of 153 in 2000. The number of speed-related injury crashes decreased by 13.4 percent in 2000 compared to the previous four years. The number of speed-related injury crashes ranged from a high of 4,494 in 1996 to a low of 3,682 in 2000.

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. When arranged in order of decreasing percentages of speed-related crashes, those counties having the highest percentages in each population category are Menifee, Garrard, Lincoln, Knox, and Pike. There were several counties having a high percentage of speed-related crashes in the southeastern section of the state. 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. The number of speeding convictions ranged from 88,508 in 1996 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, Martin, Wayne, Harlan and Letcher, and Pike. The counties identified as having the lowest rates of speeding convictions per speed-related crash are Elliott, Martin, Wayne, 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 which changed speed limit requirements. The speed monitoring program was then ended. As part of a 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 slight increases 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 six percent of licensed drivers in Kentucky. However, crash data show that teenage drivers are involved in a much higher percentage of traffic crashes. Using 2000 data, it was found that teenage drivers were involved in about

22 percent of all crashes, 24 percent of injury crashes, and 17 percent of fatal crashes. Teenage drivers (including drivers with a learner permit) are over represented by a factor of 3.5 in all crashes, 3.8 in injury crashes, and 2.7 in fatal crashes.

The involvement rate of teenage drivers compared to all drivers in total and fatal crashes was analysed (using 2000 data). Considering all crashes, the rate was 49 crashes per 1,000 drivers for all drivers compared to 168 crashes per 1,000 drivers for teenage drivers. Considering fatal crashes, the rate was 26 fatal crashes per 100,000 drivers for all drivers compared to 68 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 2000 were compared to an average of the preceding four years (1996-1999). There was an increase in total crashes (2.6 percent) when comparing 2000 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 2000 decreased compared to the previous four-year average. The number of fatal crashes decreased by 4.3 percent while the number of fatalities decreased by 3.1 percent. The number of fatalities ranged from 819 in 1999 to 869 in 1998. The number of injury crashes and injuries in 2000 was slightly lower than the previous four-year average. There was a 3.2 percent decrease in injury crashes with a 3.5 percent decrease in injuries. The number of injuries varied from 52,952 in 1998 to 56,342 in 1997.

Vehicle-miles traveled has generally increased over the five-year period. The increase in vehicle miles traveled (2.7 percent) was almost the same as the increase in the number of crashes which resulted in the total crash rate in 2000 being almost equal to the previous four-year average (decrease of 0.5 percent). There were larger decreases in the fatal crash rate (7.0 percent) and fatality crash rate (6.0 percent). The total crash rate varied from a low of 270 C/100 MVM in 1998 to 317 C/100 MVM in 1996. The fatality crash rate in 2000 was close to 1999 which had the lowest rate in this five-year period. There has been a downward trend in the fatality crash rate over the past several years.

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 661,712 crashes in the five-year period, of which 3,749 (0.6 percent) were fatal crashes and 178,202 (26.9 percent) were injury crashes. Those crashes resulted in 4,222 fatalities and 273,283 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 2000 of 1.9 to 5.4 billion dollars for the cost of Kentucky traffic crashes or an average cost of $14,400 to $40,300 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 decreased by 1.9 percent in 2000 compared to the period 1996 through 1999. The number of crashes has remained fairly constant from 1996 through 2000 with a range of from 1,077 to 1,197. Pedestrian collisions are a severe type of crash. In 2000, pedestrian crashes accounted for only 0.8 percent of all crashes but 2.6 percent of injury crashes and 7.2 percent of fatal crashes. The number of injury crashes decreased by 11.9 percent in 2000 while the number of fatal crashes decreased by 12.6 percent in 2000 compared to the 1996 through 1999 average. Injury crashes ranged from 907 in 2000 to 1,085 in 1996 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: Wolfe, Washington, Mason, Henderson, and Kenton. 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, Pikeville, and Springfield. 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. The rate in Newport was substantially above any other city.

The number of bicycle crashes decreased in 2000 (8.7 percent) compared to the average of 1996 through 1999. The number of bicycle crashes has ranged from 582 in 2000 to 695 in 1996. This is a severe type of crash. In 2000, while bicycle crashes accounted for 0.4 percent of all crashes, they accounted for 1.3 percent of injury crashes and also 0.6 percent of fatal crashes. The number of injury crashes decreased by 13.1 percent in 2000 while the number of fatal crashes decreased by 54 percent compared to the 1996 through 1999 average. The range in injury crashes was from 448 in 2000 to 557 in 1996 while the number of fatal crashes ranged from 4 in 2000 to 10 in 1997 and 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 Lyon, Carroll and Leslie, Breathitt, Boyd and Hopkins and Floyd, 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 Prestonsburg.

There was a major increase in the number of motorcycle crashes in 2000 (32.5 percent) compared to the 1996 through 1999 average. The numbers over the five-year period ranged from a high of 1,033 in 1999 to a low of 736 in 1997. This is a severe type of crash. Data in 2000 show that motorcycle crashes accounted for 0.8 percent of all crashes but 2.3 percent of injury crashes and 5.0 percent of fatal crashes. The number of injury crashes increased by 24.2 percent while the number of fatal crashes increased by 18.0 percent in 20000 compared to the 1996 through 1999 average. The

number of injury crashes ranged from 565 in 1997 to 797 in 2000 while the number of fatal crashes ranged from 25 in 1996 to 42 in 1999. 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 all types of 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. 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 Trimble, Leslie, Montgomery, 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 2000 (22.0 percent increase) compared to the 1996 through 1999 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 150 in 1997 to 93 in 1996. There was one fatal crash involving a school bus in 2000.

10.6 TRUCK CRASHES

Truck crashes included both single unit and combination trucks. A truck is defined as a 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 contains 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 a large increase in the number of truck crashes in 2000 (22.6 percent) compared to the previous four-year average. This large 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 reversed the decreasing trend over the past several years. The number of injury crashes increased by 16.5 percent while the number of fatal crashes decreased by 7.4 percent in 2000 compared to the 1996 through 1999 average. The number of injury crashes ranged from 1,665 in 1999 to 2,292 in 1996 while the number of fatal crashes ranged from 82 in 1999 to

108 in 1997. Considering the five year period, truck crashes represent 6.6 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 Lee, Todd, Grant, Hopkins, and Pike. The highest rate is in Todd County with the highest number in Jefferson County. There were no train crashes in 55 of the 120 counties in the five-year period of 1996 through 2000. 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 79 in 1996 to 57 in 1997 and 1999. The number of train crashes in 2000 was 10.3 percent less than the 1996 through 2000 average. The number of injury crashes decreased by 15.3 percent compared to the 1996 through 2000 average with a range of from 16 in 1999 to 25 in 1998. The number of fatal crashes ranged from two to four over 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 but has decreased since that time. Starting in 1993, 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 4.95 percent in 2000.

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. Vital 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 which should be used.

The fatal crash rate on rural, two lane roadways is much higher than any road type. The factors contributing to this high rate have with 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 be considered as candidates for participation in the program.

1. Shively
2. Crestview Hills
3. Prestonsburg
4. Mt. Vernon
5. Cold Spring
6. Grayson
7. Wilder

11.3 ALCOHOL-RELATED CRASHES

1. The number of alcohol-related crashes increased in 2000 compared to the previous four-year average but has decreased from the level prior to 1996. There has

been a decrease 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	Marshall
2	Muhlenberg
3	Allen
4	Grayson
5	Henry
6	Pendleton
7	Estill
8	Lewis
9	Magoffin

Post Number	County
10	Harlan
11	Pulaski
12	Shelby
13	Leslie
14	Boyd
15	Russell
16	Ohio

2. An analysis was performed for cities similar to that for counties. However, alcohol conviction rates were not available for cities and consideration was given to conviction rates for counties within which a city was located. Again, the criterion of 100 or more alcohol-related crashes within a five-year period was applied (Table 21)

along with the percentage of crashes involving alcohol. The following are candidate cities for a program of increased alcohol enforcement.

1. Covington
2. Richmond
3. Newport
4. Nicholasville
5. 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 which 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 Click It or Ticket Campaign conducted around the Memorial Day holiday in 2000 shows that these types of programs 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	Hickman
2	Todd
3	Allen
4	Meade
5	Trimble
6	Bracken
7	Jackson
8	Elliott
9	Martin
10	Harlan
11	Clay

12	Shelby
13	Breathitt
14	Lawrence
15	Clinton
16	Ohio

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 7.5 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	Calloway
2	Webster
3	Hart
4	Grayson
5	Trimble
6	Grant
7	Estill
8	Morgan
9	Martin
10	Bell

11	Whitley
12	Spencer
13	Leslie
14	Lawrence
15	Russell
16	Union

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. Bowling Green
4. Frankfort
5. Richmond
6. Erlanger
7. Independence
8. Somerset
9. 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 which 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 which surpass their driving experience. The effectiveness of this legislation should be evaluated.

2. 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.

2. 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 and Covington 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. Also, McCracken County had the second highest rate of crashes in its population category while the city of Paducah (in McCracken County) had the highest rate of this type of crash in the state. Evaluations of this type of crash in these counties and cities are 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 fatal crashes increased dramatically in 1999 and 2000 along with a substantial increase for total and 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 fatal crashes support the need to reenact the requirement for the use of motorcycle helmets.

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 which allows heavy loads. A recent research report conducted by the University of Kentucky investigated heavy truck involvement in traffic crashes and 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 1993, and continuing through 2000, 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.

TABLE 1. COMPARISON OF 1996 - 2000 CRASH RATES*

STATISTIC	1996	1997	1998	1999	1996-1999 Average	2000	Percent Change***
Crashes	77,204	84,917	79,301	79,893	80,329	89,480	11.4
Mileage	27,808	23,272	27,881	28,081	26,761	27,941	4.4
Crashes Per Mile	2.78	3.65	2.84	2.85	3.03	3.20	5.6
Vehicle Miles (Billion)	36.29	36.90	39.11	40.56	38.22	40.92	7.1
AADT	3,575	4,344	3,843	3,958	3,930	4,013	2.1
Crash Rate**	213	230	203	197	211	219	3.9
Fatal Crash Rate**	1.54	1.66	1.61	1.46	1.57	1.44	-8.1
Injury Crash Rate**	64	69	61	58	63	60	-4.8

* 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 1996 through 1999 average to 2000.

TABLE 2. STATEWIDE RURAL CRASH RATES BY HIGHWAY TYPE CLASSIFICATION (1996-2000)

HIGHWAY TYPE	TOTAL MILEAGE*	AADT	CRASH RATES (CRASHES PER 100 MVM)		
			ALL	INJURY	FATAL
One-Lane	44	940	140	42	1.3
Two-Lane	22,494	1,590	250	86	3.0
Three-Lane	30	5,260	252	82	1.8
Four-Lane Divided (Non-Interstate or Parkway)	486	11,220	117	40	1.5
Four-Lane Undivided	47	15,260	247	66	1.5
Interstate	526	29,620	51	14	0.7
Parkway	566	8,850	58	16	0.8
All	24,194	2,590	173	58	2.1

* Average for the five years.

TABLE 3. STATEWIDE URBAN CRASH RATES BY HIGHWAY TYPE CLASSIFICATION (1996-2000)

HIGHWAY TYPE	TOTAL MILEAGE*	AADT	CRASH RATES (CRASHES PER 100 MVM) ALL	INJURY	FATAL
Two-Lane	1,833	6,930	323	83	0.9
Three-Lane	32	12,420	509	112	0.8
Four-Lane Divided (Non-Interstate or Parkway)	371	23,560	321	84	0.8
Four-Lane Undivided	260	19,180	519	130	1.0
Interstate	232	65,670	96	23	0.4
Parkway	51	11,870	104	24	1.0
All **	2,803	15,500	268	68	0.7

* Average for the five years.

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

TABLE 4. COMPARISON OF 1996 - 2000 CRASH RATES BY RURAL AND URBAN HIGHWAY TYPE CLASSIFICATION

LOCATION	HIGHWAY TYPE	1996	1997	1998	1999	1996-1999 Average	2000	Percent Change*
Rural	One-Lane	217	365	269	53	226	285	25.9
	Two-Lane	236	267	254	236	248	255	2.7
	Three-Lane	230	474	269	198	293	142	-51.5
	Four-Lane Divided (Non-Interstate or Parkway)	102	124	115	120	115	124	7.4
	Four-Lane Undivided	182	241	237	241	225	341	51.5
	Interstate	60	52	46	50	52	51	-1.6
	Parkway	68	60	54	50	58	61	5.5
	All	170	183	174	163	173	177	2.8
Urban	Two-Lane	333	363	301	285	320	333	4.0
	Three-Lane	513	572	475	430	498	547	10.0
	Four-Lane Divided	314	356	305	311	321	323	0.4
	Four-Lane Undivided	525	568	467	485	511	546	6.8
	Interstate	106	99	84	94	96	98	2.0
	Parkway	114	107	98	103	106	98	-6.9
	All	274	296	245	247	265	278	4.6

* Percent change from 1996 through 1999 to 2000.

TABLE 5. STATEWIDE CRASH RATES FOR "SPOTS" BY HIGHWAY TYPE CLASSIFICATION (1996-2000)

RURAL OR URBAN	HIGHWAY TYPE	NUMBER OF CRASHES	NUMBER OF SPOTS*	MILLION VEHICLES PER YEAR	CRASHES PER MILLION VEHICLES PER SPOT
Rural	One-Lane	106	147	0.34	0.42
	Two-Lane	162,882	74,981	0.58	0.75
	Three-Lane	716	99	1.92	0.76
	Four-Lane Divided (Non-Interstate or Parkway)	11,673	1,619	4.09	0.35
	Four-Lane Undivided	3,219	156	5.57	0.74
	Interstate	14,642	1,753	10.81	0.15
	Parkway	5,335	1,888	3.23	0.17
	All Rural	198,573	80,645	0.95	0.52
Urban	Two-Lane	74,794	6,111	2.53	0.97
	Three-Lane	3,681	106	4.53	1.53
	Four-Lane Divided	51,269	1,236	8.60	0.96
	Four-Lane Undivided	47,244	867	7.00	1.56
	Interstate	26,647	773	23.97	0.29
	Parkway	1,152	170	4.33	0.31
	All Urban**	212,212	9,343	5.66	0.80

* 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 (1996-2000)

RURAL OR URBAN	HIGHWAY TYPE	CRASHES PER SPOT*		CRASHES PER ONE-MILE SECTION	
		AVERAGE	CRITICAL NUMBER	AVERAGE	CRITICAL NUMBER
Rural	One-Lane	0.72	3	2.40	7
	Two-Lane	2.17	6	7.24	15
	Three-Lane	7.26	15	24.19	37
	Four-Lane Divided (Non-Interstate or Parkway)	7.21	15	24.03	37
	Four-Lane Undivided	20.63	33	68.78	91
	Interstate	8.35	16	27.84	42
	Parkway	2.83	8	9.42	18
	All Rural	2.46	7	8.21	16
Urban	Two-Lane	12.24	22	40.80	58
	Three-Lane	34.62	50	115.38	144
	Four-Lane Divided	41.47	59	138.24	169
	Four-Lane Undivided	54.49	74	181.63	217
	Interstate	34.46	50	114.87	143
	Parkway	6.76	14	22.53	35
	All Urban**	22.71	35	75.71	99

* 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 (1996-2000)

	STATE-MAINTAINED		ALL ROADS					
			TOTAL CRASHES		FATAL CRASHES		FATAL OR INJURY CRASHES	
COUNTY	TOTAL CRASHES	CRASH RATE*	NUMBER	RATE*	NUMBER	RATE*	NUMBER	RATE*
Adair	1,535	200	2,347	252	23	2.5	610	66
Allen	1,350	231	2,106	289	18	2.5	661	91
Anderson	1,677	196	2,359	229	21	2.0	690	67
Ballard	753	182	1,116	225	12	2.4	368	74
Barren	3,278	165	6,556	280	32	1.4	2,061	88
Bath	1,177	157	1,593	189	16	1.9	483	57
Bell	2,318	175	3,445	228	28	1.9	1,157	77
Boone	12,308	217	16,985	262	52	0.8	4,152	64
Bourbon	2,244	250	3,395	317	32	3.0	973	91
Boyd	5,362	247	10,179	390	20	0.8	2,613	100
Boyle	3,256	308	4,697	360	32	2.5	1,240	95
Bracken	954	233	1,303	269	12	2.5	381	79
Breathitt	1,755	250	2,147	263	31	3.8	989	121
Breckinridge	1,070	169	1,390	170	21	2.6	556	68
Bullitt	4,756	141	6,520	165	42	1.1	1,898	48
Butler	960	136	1,209	145	18	2.2	414	50
Caldwell	1,179	147	1,811	192	18	1.9	501	53
Calloway	2,456	225	3,586	259	28	2.0	1,065	77
Campbell	7,897	238	14,113	349	38	0.9	2,939	73
Carlisle	227	85	272	84	7	2.2	107	33
Carroll	1,676	162	2,182	192	14	1.2	594	52
Carter	2,503	150	3,554	185	44	2.3	1,145	60
Casey	777	146	1,078	162	22	3.3	356	54
Christian	7,222	207	9,892	251	48	1.2	2,842	72
Clark	3,140	155	6,054	258	34	1.5	1,435	61
Clay	1,730	168	2,270	191	47	4.0	946	80
Clinton	556	140	749	155	13	2.7	222	46
Crittenden	881	261	1,111	261	20	4.7	418	98
Cumberland	332	105	472	124	17	4.5	145	38
Daviess	8,128	252	17,158	421	53	1.3	3,966	97
Edmonson	847	185	1,126	200	14	2.5	402	72
Elliott	422	238	511	230	8	3.6	197	89
Estill	1,351	275	1,911	304	18	2.9	643	102
Fayette	30,758	295	62,177	496	118	0.9	14,187	113
Fleming	949	175	1,448	211	19	2.8	494	72
Floyd	4,287	182	5,260	196	67	2.5	2,418	90
Franklin	5,581	237	7,977	285	38	1.4	1,811	65
Fulton	614	189	1,047	272	10	2.6	329	86
Gallatin	933	97	1,122	108	4	0.4	388	37
Garrard	1,479	259	1,918	277	20	2.9	627	91
Grant	3,297	157	4,288	185	29	1.3	1,178	51
Graves	3,147	182	4,965	239	42	2.0	1,435	69
Grayson	1,912	144	2,344	150	30	1.9	998	64
Green	887	232	1,290	269	11	2.3	388	81
Greenup	2,676	196	3,995	236	30	1.8	1,284	76
Hancock	624	147	857	169	12	2.4	300	59
Hardin	10,408	196	13,549	221	72	1.2	3,393	55
Harlan	2,918	204	3,768	225	34	2.0	1,300	77
Harrison	1,874	365	2,742	408	21	3.1	739	110
Hart	1,664	97	2,105	113	39	2.1	692	37
Henderson	5,993	232	9,719	324	36	1.2	2,396	80
Henry	1,632	133	1,950	142	22	1.6	599	44
Hickman	398	131	515	146	9	2.5	188	53
Hopkins	5,642	205	8,215	257	39	1.2	1,947	61
Jackson	1,000	241	1,357	259	13	2.5	540	103
Jefferson	68,773	249	141,202	425	359	1.1	32,662	98
Jessamine	4,354	304	6,302	345	31	1.7	1,560	85
Johnson	2,170	212	2,801	228	21	1.7	1,143	93
Kenton	16,594	275	28,455	394	47	0.7	6,317	87
Knott	1,446	170	1,755	180	27	2.8	778	80

TABLE 7. CRASH RATES BY COUNTY FOR STATE-MAINTAINED SYSTEM AND ALL ROADS (1996-2000)(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	2,718	211	3,837	256	37	2.5	1,470	98
Larue	1,284	162	1,694	183	12	1.3	489	53
Laurel	6,356	199	8,280	226	65	1.8	2,524	69
Lawrence	961	106	1,449	140	18	1.7	539	52
Lee	415	163	569	180	13	4.1	212	67
Leslie	972	157	1,258	178	36	5.1	673	95
Letcher	2,330	204	2,968	219	31	2.3	1,237	91
Lewis	1,135	175	1,576	207	33	4.3	539	71
Lincoln	1,532	154	2,050	174	31	2.6	848	72
Livingston	924	153	1,072	155	9	1.3	373	54
Logan	2,473	207	3,436	240	27	1.9	1,007	70
Lyon	970	95	1,229	113	13	1.2	380	35
McCracken	7,193	219	14,019	360	64	1.6	4,004	103
McCreary	1,140	194	1,455	207	26	3.7	546	78
McLean	998	214	1,177	200	13	2.2	367	62
Madison	9,043	238	13,059	307	85	2.0	3,352	79
Magoffin	1,059	170	1,295	180	16	2.2	648	90
Marion	1,771	282	2,454	314	27	3.4	729	93
Marshall	2,930	144	3,817	155	37	1.5	1,164	47
Martin	1,130	166	1,341	170	11	1.4	544	69
Mason	2,618	252	4,004	341	34	2.9	925	79
Meade	2,084	202	2,575	206	27	2.2	856	68
Menifee	441	214	535	205	7	2.7	220	84
Mercer	2,004	233	3,093	292	11	1.0	944	89
Metcalfe	809	163	1,049	179	14	2.4	307	52
Monroe	574	148	914	186	17	3.5	309	63
Montgomery	2,537	224	3,776	277	30	2.2	1,020	75
Morgan	1,341	245	1,554	237	21	3.2	626	95
Muhlenberg	3,511	216	4,856	252	46	2.4	1,475	77
Nelson	3,996	215	5,594	254	47	2.1	1,463	66
Nicholas	528	168	824	218	6	1.6	246	65
Ohio	2,166	144	2,741	160	28	1.6	988	58
Oldham	3,727	196	4,537	198	21	0.9	1,214	53
Owen	939	275	1,221	282	12	2.8	428	99
Owsley	310	185	385	188	6	2.9	129	63
Pendleton	1,358	302	1,951	336	18	3.1	601	103
Perry	3,415	231	5,145	294	40	2.3	1,950	111
Pike	7,631	221	10,928	269	107	2.6	4,805	118
Powell	1,184	148	1,792	197	22	2.4	589	65
Pulaski	6,162	250	8,667	286	60	2.0	2,307	76
Robertson	75	115	98	113	1	1.2	44	51
Rockcastle	1,845	94	2,256	107	24	1.1	776	37
Rowan	3,315	268	4,167	296	22	1.6	1,129	80
Russell	1,271	177	1,644	194	16	1.9	525	62
Scott	4,107	133	6,577	195	40	1.2	1,770	53
Shelby	4,020	166	5,454	200	51	1.9	1,439	53
Simpson	2,039	145	2,663	171	25	1.6	725	46
Spencer	819	210	1,033	210	15	3.1	343	70
Taylor	2,329	276	3,674	346	17	1.6	887	84
Todd	936	202	1,269	224	17	3.0	412	73
Trigg	1,084	138	1,586	178	16	1.8	497	56
Trimble	854	284	1,037	280	9	2.4	314	85
Union	1,771	238	2,321	263	16	1.8	724	82
Warren	12,783	256	20,064	347	73	1.3	5,496	95
Washington	1,016	183	1,414	215	18	2.7	413	63
Wayne	1,678	246	2,343	277	24	2.8	711	84
Webster	1,612	181	1,963	191	12	1.2	653	64
Whitley	3,488	137	5,086	176	54	1.9	1,585	55
Wolfe	803	155	1,057	182	21	3.6	388	67
Woodford	2,194	177	3,510	242	35	2.4	926	64
STATEWIDE	410,795	212	661,712	290	3,737	1.6	180,064	79

* 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
(1996-2000)

POPULATION CATEGORY	NUMBER OF COUNTIES IN CATEGORY	TOTAL POPULATION	TOTAL MILEAGE DRIVEN 100 MVM
UNDER 10,000	21	155,526	96.57
10,000 - 14,999	25	313,612	179.01
15,000 - 24,999	32	611,992	370.44
25,000 - 50,000	27	954,656	575.25
OVER 50,000	15	2,005,983	1,062.81

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	17,058	177	213	7
10,000 - 14,999	36,844	206	237	5
15,000 - 24,999	80,588	218	243	14
25,000 - 50,000	142,154	247	267	7
OVER 50,000	385,068	362	375	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	222	2.30	6.92	0
10,000 - 14,999	433	2.42	6.12	0
15,000 - 24,999	806	2.18	4.89	0
25,000 - 50,000	993	1.73	3.48	0
OVER 50,000	1,283	1.21	1.99	3

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	5,716	59.2	80.4	5
10,000 - 14,999	12,514	69.9	88.3	7
15,000 - 24,999	25,493	68.8	83.1	10
25,000 - 50,000	41,497	72.1	82.9	8
OVER 50,000	94,844	89.2	95.7	5

TABLE 10. CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)(1996-2000)(ALL ROADS)

COUNTY	NUMBER OF CRASHES	CRASH RATE (CRASHES PER 100 MVM)	
POPULATION CATEGORY UNDER 10,000			
Trimble	1,037	280	*
Fulton	1,047	272	*
Bracken	1,303	269	*
Crittenden	1,111	261	*
Elliott	511	230	*
Ballard	1,116	225	*
Nicholas	824	218	*
Menifee	535	205	
McLean	1,177	200	
Owsley	385	188	
Wolfe	1,057	182	
Lee	569	180	
Hancock	857	169	
Clinton	749	155	
Livingston	1,072	155	
Hickman	515	146	
Cumberland	472	124	
Lyon	1,229	113	
Robertson	98	113	
Gallatin	1,122	108	
Carlisle	272	84	
POPULATION CATEGORY 10,000-14,999			
Pendleton	1,951	336	*
Owen	1,221	282	*
Garrard	1,918	277	*
Green	1,290	269	*
Jackson	1,357	259	*
Morgan	1,554	237	
Todd	1,269	224	
Washington	1,414	215	
Fleming	1,448	211	
Spencer	1,033	210	
Lewis	1,576	207	
Edmonson	1,126	200	
Powell	1,792	197	
Caldwell	1,811	192	
Carroll	2,182	192	
Webster	1,963	191	
Bath	1,593	189	
Monroe	914	186	
Larue	1,694	183	
Magoffin	1,295	180	
Metcalfe	1,049	179	
Leslie	1,258	178	
Trigg	1,586	178	
Martin	1,341	170	
Butler	1,209	145	
POPULATION CATEGORY 15,000-24,999			
Harrison	2,742	408	*
Taylor	3,674	346	*
Mason	4,004	341	*
Bourbon	3,395	317	*
Marion	2,454	314	*
Estill	1,911	304	*
Rowan	4,167	296	*
Mercer	3,093	292	*
Allen	2,106	289	*
Montgomery	3,776	277	*
Wayne	2,343	277	*
Breathitt	2,147	263	*
Union	2,321	263	*
Adair	2,347	252	*
Woodford	3,510	242	
Anderson	2,359	229	
Johnson	2,801	228	
McCreary	1,455	207	
Russell	1,644	194	
Clay	2,270	191	
Grant	4,288	185	
Knott	1,755	180	
Lincoln	2,050	174	
Simpson	2,663	171	
Breckinridge	1,390	170	
Casey	1,078	162	
Ohio	2,741	160	
Grayson	2,344	150	
Henry	1,950	142	
Lawrence	1,449	140	
Hart	2,105	113	
Rockcastle	2,256	107	
POPULATION CATEGORY 25,000-50,000			
Boyd	10,179	390	*
Boyle	4,697	360	*
Jessamine	6,302	345	*
Henderson	9,719	324	*
Perry	5,145	294	*
Franklin	7,977	285	*
Barren	6,556	280	*
Calloway	3,586	259	
Clark	6,054	258	
Hopkins	8,215	257	
Knox	3,837	256	
Nelson	5,594	254	
Muhlenberg	4,856	252	
Logan	3,436	240	
Graves	4,965	239	
Greenup	3,995	236	
Bell	3,445	228	
Harlan	3,768	225	
Letcher	2,968	219	
Meade	2,575	206	
Shelby	5,454	200	
Oldham	4,537	198	
Floyd	5,260	196	
Scott	6,577	195	
Carter	3,554	185	
Whitley	5,086	176	
Marshall	3,817	155	
POPULATION CATEGORY OVER 50,000			
Fayette	62,177	496	*
Jefferson	141,202	425	*
Daviess	17,158	421	*
Kenton	28,455	394	*
McCracken	14,019	360	
Campbell	14,113	349	
Warren	20,064	347	
Madison	13,059	307	
Pulaski	8,667	286	
Pike	10,928	269	
Boone	16,985	262	
Christian	9,892	251	
Laurel	8,280	226	
Hardin	13,549	221	
Bullitt	6,520	165	

* Critical crash rate

TABLE 11. CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)(1996-2000)(STATE-MAINTAINED SYSTEM)

COUNTY	NUMBER OF CRASHES	CRASH RATE (CRASHES PER 100 MVM)	
POPULATION CATEGORY UNDER 10,000			
Trimble	854	284	*
Crittenden	881	261	*
Elliott	422	238	*
Bracken	954	233	*
McLean	998	214	*
Menifee	441	214	*
Fulton	614	189	
Owsley	310	185	
Ballard	753	182	
Nicholas	528	168	
Lee	415	163	
Wolfe	803	155	
Livingston	924	153	
Hancock	624	147	
Clinton	556	140	
Hickman	398	131	
Robertson	75	115	
Cumberland	332	105	
Gallatin	933	97	
Lyon	970	95	
Carlisle	227	85	
POPULATION CATEGORY 10,000-14,999			
Pendleton	1,358	302	*
Owen	939	275	*
Garrard	1,479	259	*
Morgan	1,341	245	*
Jackson	1,000	241	*
Green	887	232	*
Spencer	819	210	
Todd	936	202	
Edmonson	847	185	
Washington	1,016	183	
Webster	1,612	181	
Fleming	949	175	
Lewis	1,135	175	
Magoffin	1,059	170	
Martin	1,130	166	
Metcalfe	809	163	
Carroll	1,676	162	
Larue	1,284	162	
Leslie	972	157	
Bath	1,177	157	
Monroe	574	148	
Powell	1,184	148	
Caldwell	1,179	147	
Trigg	1,084	138	
Butler	960	136	
POPULATION CATEGORY 15,000-24,999			
Harrison	1,874	365	*
Marion	1,771	282	*
Taylor	2,329	276	*
Estill	1,351	275	*
Rowan	3,315	268	*
Mason	2,618	252	*
Breathitt	1,755	250	*
Bourbon	2,244	250	*
Wayne	1,678	246	*
Union	1,771	238	*
Mercer	2,004	233	*
Allen	1,350	231	*
Montgomery	2,537	224	*
Johnson	2,170	212	*
Adair	1,535	200	
Anderson	1,677	196	
McCreary	1,140	194	
Russell	1,271	177	
Woodford	2,194	177	
Knott	1,446	170	
Breckinridge	1,070	169	
Clay	1,730	168	
Grant	3,297	157	
Lincoln	1,532	154	
Casey	777	146	
Simpson	2,039	145	
Ohio	2,166	144	
Grayson	1,912	144	
Henry	1,632	133	
Lawrence	961	106	
Hart	1,664	97	
Rockcastle	1,845	94	
POPULATION CATEGORY 25,000-50,000			
Boyle	3,256	308	*
Jessamine	4,354	304	*
Boyd	5,362	247	*
Franklin	5,581	237	*
Henderson	5,993	232	*
Perry	3,415	231	*
Calloway	2,456	225	*
Muhlenberg	3,511	216	*
Nelson	3,996	215	*
Knox	2,718	211	
Logan	2,473	207	
Hopkins	5,642	205	
Letcher	2,330	204	
Harlan	2,918	204	
Meade	2,084	202	
Greenup	2,676	196	
Oldham	3,727	196	
Graves	3,147	182	
Floyd	4,287	182	
Bell	2,318	175	
Shelby	4,020	166	
Barren	3,278	165	
Clark	3,140	155	
Carter	2,503	150	
Marshall	2,930	144	
Whitley	3,488	137	
Scott	4,107	133	
POPULATION CATEGORY OVER 50,000			
Fayette	30,758	295	*
Kenton	16,594	275	*
Warren	12,783	256	*
Daviess	8,128	252	
Pulaski	6,162	250	
Jefferson	68,773	249	
Campbell	7,897	238	
Madison	9,043	238	
Pike	7,631	221	
McCracken	7,193	219	
Boone	12,308	217	
Christian	7,222	207	
Laurel	6,356	199	
Hardin	10,408	196	
Bullitt	4,756	141	

* Critical crash rate

TABLE 12. INJURY OR FATAL CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED) (1996-2000)(ALL ROADS)

COUNTY	NUMBER OF CRASHES	CRASH RATE (CRASHES PER 100 MVM)	
POPULATION CATEGORY UNDER 10,000			
Crittenden	418	98	*
Elliott	197	89	*
Fulton	329	86	*
Trimble	314	85	*
Menifee	220	84	*
Bracken	381	79	
Ballard	368	74	
Wolfe	388	67	
Lee	212	67	
Nicholas	246	65	
Owsley	129	63	
McLean	367	62	
Hancock	300	59	
Livingston	373	54	
Hickman	188	53	
Robertson	44	51	
Clinton	222	46	
Cumberland	145	38	
Gallatin	388	37	
Lyon	380	35	
Carlisle	107	33	
POPULATION CATEGORY 10,000-14,999			
Pendleton	601	103	*
Jackson	540	103	*
Owen	428	99	*
Morgan	626	95	*
Leslie	673	95	*
Garrard	627	91	*
Magoffin	648	90	*
Green	388	81	
Todd	412	73	
Fleming	494	72	
Edmonson	402	72	
Lewis	539	71	
Spencer	343	70	
Martin	544	69	
Powell	589	65	
Webster	653	64	
Monroe	309	63	
Washington	413	63	
Bath	483	57	
Trigg	497	56	
Caldwell	501	53	
Larue	489	53	
Carroll	594	52	
Metcalfe	307	52	
Butler	414	50	
POPULATION CATEGORY 15,000-24,999			
Breathitt	989	121	*
Harrison	739	110	*
Estill	643	102	*
Marion	729	93	*
Johnson	1,143	93	*
Allen	661	91	*
Bourbon	973	91	*
Mercer	944	89	*
Taylor	887	84	*
Wayne	711	84	*
Union	724	82	
Clay	946	80	
Rowan	1,129	80	
Knott	778	80	
Mason	925	79	
McCreary	546	78	
Montgomery	1,020	75	
Lincoln	848	72	
Breckinridge	556	68	
Anderson	690	67	
Adair	610	66	
Grayson	998	64	
Woodford	926	64	
Russell	525	62	
Ohio	988	58	
Casey	356	54	
Lawrence	539	52	
Grant	1,178	51	
Simpson	725	46	
Henry	599	44	
Rockcastle	776	37	
Hart	692	37	
POPULATION CATEGORY 25,000-50,000			
Perry	1,950	111	*
Boyd	2,613	100	*
Knox	1,470	98	*
Boyle	1,240	95	*
Letcher	1,237	91	*
Floyd	2,418	90	*
Barren	2,061	88	*
Jessamine	1,560	85	*
Henderson	2,396	80	
Bell	1,157	77	
Harlan	1,300	77	
Muhlenberg	1,475	77	
Calloway	1,065	77	
Greenup	1,284	76	
Logan	1,007	70	
Graves	1,435	69	
Meade	856	68	
Nelson	1,463	66	
Franklin	1,811	65	
Hopkins	1,947	61	
Clark	1,435	61	
Carter	1,145	60	
Whitley	1,585	55	
Scott	1,770	53	
Oldham	1,214	53	
Shelby	1,439	53	
Marshall	1,164	47	
POPULATION CATEGORY OVER 50,000			
Pike	4,805	118	*
Fayette	14,187	113	*
McCracken	4,004	103	*
Jefferson	32,662	98	*
Daviess	3,966	97	*
Warren	5,496	95	
Kenton	6,317	87	
Madison	3,352	79	
Pulaski	2,307	76	
Campbell	2,939	73	
Christian	2,842	72	
Laurel	2,524	69	
Boone	4,152	64	
Hardin	3,393	55	
Bullitt	1,898	48	

* Critical crash rate

TABLE 13. FATAL CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)(1996-2000)(ALL ROADS)

COUNTY	NUMBER OF CRASHES	CRASH RATE (CRASHES PER 100 MVM)	
POPULATION CATEGORY UNDER 10,000			
Crittenden	20	4.7	
Cumberland	17	4.5	
Lee	13	4.1	
Elliott	8	3.6	
Wolfe	21	3.6	
Owsley	6	2.9	
Clinton	13	2.7	
Menifee	7	2.7	
Fulton	10	2.6	
Bracken	12	2.5	
Hickman	9	2.5	
Hancock	12	2.4	
Trimble	9	2.4	
Ballard	12	2.4	
McLean	13	2.2	
Carlisle	7	2.2	
Nicholas	6	1.6	
Livingston	9	1.3	
Lyon	13	1.2	
Robertson	1	1.2	
Gallatin	4	0.4	
POPULATION CATEGORY 10,000-14,999			
Leslie	36	5.1	
Lewis	33	4.3	
Monroe	17	3.5	
Morgan	21	3.2	
Pendleton	18	3.1	
Spencer	15	3.1	
Todd	17	3.0	
Garrard	20	2.9	
Fleming	19	2.8	
Owen	12	2.8	
Washington	18	2.7	
Edmonson	14	2.5	
Jackson	13	2.5	
Powell	22	2.4	
Metcalfe	14	2.4	
Green	11	2.3	
Butler	18	2.2	
Magoffin	16	2.2	
Caldwell	18	1.9	
Bath	16	1.9	
Trigg	16	1.8	
Martin	11	1.4	
Larue	12	1.3	
Webster	12	1.2	
Carroll	14	1.2	
POPULATION CATEGORY 15,000-24,999			
Clay	47	4.0	
Breathitt	31	3.8	
McCreary	26	3.7	
Marion	27	3.4	
Casey	22	3.3	
Harrison	21	3.1	
Bourbon	32	3.0	
Estill	18	2.9	
Mason	34	2.9	
Knott	27	2.8	
Wayne	24	2.8	
Lincoln	31	2.6	
Breckinridge	21	2.6	
Adair	23	2.5	
Allen	18	2.5	
Woodford	35	2.4	
Montgomery	30	2.2	
Hart	39	2.1	
Anderson	21	2.0	
Russell	16	1.9	
Grayson	30	1.9	
Union	16	1.8	
Johnson	21	1.7	
Lawrence	18	1.7	
Rowan	22	1.6	
Simpson	25	1.6	
Henry	22	1.6	
Ohio	28	1.6	
Taylor	17	1.6	
Grant	29	1.3	
Rockcastle	24	1.1	
Mercer	11	1.0	
POPULATION CATEGORY 25,000-50,000			
Knox	37	2.5	
Boyle	32	2.5	
Floyd	67	2.5	
Muhlenberg	46	2.4	
Carter	44	2.3	
Perry	40	2.3	
Letcher	31	2.3	
Meade	27	2.2	
Nelson	47	2.1	
Graves	42	2.0	
Harlan	34	2.0	
Calloway	28	2.0	
Whitley	54	1.9	
Shelby	51	1.9	
Bell	28	1.9	
Logan	27	1.9	
Greenup	30	1.8	
Jessamine	31	1.7	
Marshall	37	1.5	
Clark	34	1.5	
Barren	32	1.4	
Franklin	38	1.4	
Scott	40	1.2	
Hopkins	39	1.2	
Henderson	36	1.2	
Oldham	21	0.9	
Boyd	20	0.8	
POPULATION CATEGORY OVER 50,000			
Pike	107	2.6	*
Pulaski	60	2.0	*
Madison	85	2.0	*
Laurel	65	1.8	
McCracken	64	1.6	
Daviess	53	1.3	
Warren	73	1.3	
Hardin	72	1.2	
Christian	48	1.2	
Jefferson	359	1.1	
Bullitt	42	1.1	
Campbell	38	0.9	
Fayette	118	0.9	
Boone	52	0.8	
Kenton	47	0.7	

* Critical crash rate

TABLE 14. MISCELLANEOUS CRASH DATA FOR EACH COUNTY

COUNTY	NUMBER OF CRASHES BY YEAR 1996	1997	1998	1999	2000	1996-1999 AVERAGE	2000 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	432	452	441	466	556	448	24.2	4.0	0.6	0.98	26.0	77.9	6.3
Allen	377	399	444	509	377	432	-12.8	4.8	0.5	0.85	31.4	84.0	6.6
Anderson	434	484	442	515	484	469	3.3	5.9	0.3	0.89	29.2	85.9	9.3
Ballard	217	229	226	188	256	215	19.1	7.0	0.6	1.08	33.0	87.5	8.3
Barren	1,262	1,394	1,328	1,297	1,275	1,320	-3.4	3.8	0.3	0.49	31.4	83.5	7.0
Bath	367	308	305	289	324	317	2.1	5.7	0.3	1.00	30.3	85.5	11.4
Bell	758	778	600	612	697	687	1.5	4.8	1.5	0.81	33.6	86.9	7.6
Boone	3,290	3,160	3,337	3,507	3,691	3,324	11.1	3.6	0.2	0.31	24.4	92.4	7.1
Bourbon	653	716	717	684	625	693	-9.7	5.8	0.8	0.94	28.7	85.1	10.2
Boyd	2,122	2,060	2,009	2,073	1,915	2,066	-7.3	3.1	0.6	0.20	25.7	90.8	6.7
Boyle	891	951	965	941	949	937	1.3	3.3	0.2	0.68	26.4	91.4	6.7
Bracken	253	250	250	279	271	258	5.0	4.6	0.2	0.92	29.2	79.6	7.9
Breathitt	421	405	429	450	442	426	3.7	6.6	1.5	1.44	46.1	87.4	9.6
Breckinridge	225	343	241	281	300	273	10.1	5.3	0.1	1.51	40.0	87.7	5.3
Bullitt	1,341	1,235	1,295	1,325	1,324	1,299	1.9	5.7	0.4	0.64	29.1	90.0	5.0
Butler	249	249	260	220	231	245	-5.5	6.0	0.7	1.49	34.2	85.4	9.2
Caldwell	414	374	345	323	355	364	-2.5	4.5	0.4	0.99	27.7	88.9	10.2
Calloway	683	501	408	970	1,024	641	59.9	5.0	0.4	0.78	29.7	87.1	6.4
Campbell	2,949	2,717	2,674	3,027	2,746	2,842	-3.4	4.5	0.4	0.27	20.8	91.6	5.7
Carlisle	42	38	88	35	69	51	36.0	4.4	0.4	2.57	39.3	87.9	10.7
Carroll	405	461	401	474	441	435	1.3	6.4	0.5	0.64	27.2	85.6	8.8
Carter	710	723	741	721	659	724	-8.9	5.4	0.8	1.24	32.2	85.5	14.0
Casey	119	269	169	257	264	204	29.7	7.8	1.2	2.04	33.0	78.1	12.0
Christian	2,052	2,066	1,888	1,973	1,913	1,995	-4.1	4.7	0.3	0.49	28.7	92.6	9.7
Clark	1,222	1,215	1,162	1,260	1,195	1,215	-1.6	4.6	0.4	0.56	23.7	91.8	6.4
Clay	391	443	478	455	503	442	13.9	5.5	2.3	2.07	41.7	85.1	9.9
Clinton	134	136	142	175	162	147	10.4	4.5	1.1	1.74	29.6	77.3	4.9
Crittenden	225	193	251	222	220	223	-1.2	6.1	1.0	1.80	37.6	86.1	7.9
Cumberland	96	127	65	84	100	93	7.5	3.4	0.2	3.60	30.7	77.0	4.9
Daviess	3,508	3,403	3,442	3,229	3,576	3,396	5.3	3.9	0.5	0.31	23.1	91.6	5.4
Edmonson	194	235	220	247	230	224	2.7	5.9	0.4	1.24	35.7	86.8	13.9
Elliott	90	84	118	60	159	88	80.7	10.6	1.0	1.57	38.6	82.6	14.9
Estill	347	423	436	399	306	401	-23.7	7.3	0.8	0.94	33.6	85.5	13.7
Fayette	11,884	12,710	12,219	12,324	13,040	12,284	6.2	4.0	0.3	0.19	22.8	94.8	5.2
Fleming	306	305	298	293	246	301	-18.1	5.2	0.3	1.31	34.1	80.7	8.9
Floyd	1,043	1,079	1,086	1,048	1,004	1,064	-5.6	6.4	1.8	1.27	46.0	88.4	12.6
Franklin	1,627	1,563	1,489	1,567	1,731	1,562	10.9	4.4	0.4	0.48	22.7	90.0	9.8
Fulton	228	203	221	158	237	203	17.0	5.0	0.5	0.96	31.4	83.5	3.6
Gallatin	249	215	230	226	202	230	-12.2	5.8	0.4	0.36	34.6	86.9	14.3
Garrard	274	424	402	420	398	380	4.7	5.3	0.6	1.04	32.7	87.1	18.9
Grant	749	858	864	902	915	843	8.5	3.6	0.3	0.68	27.5	90.3	12.9
Graves	1,031	1,053	998	988	895	1,018	-12.0	3.8	0.3	0.85	28.9	90.4	8.2
Grayson	453	395	459	290	747	399	87.1	5.2	0.6	1.28	42.6	85.4	9.8
Green	244	294	276	245	231	265	-12.7	5.0	0.1	0.85	30.1	90.0	3.9
Greenup	871	845	750	738	791	801	-1.2	5.6	0.8	0.75	32.1	90.2	9.7
Hancock	157	189	195	179	137	180	-23.9	4.9	0.5	1.40	35.0	84.6	6.7
Hardin	2,838	2,769	2,558	2,611	2,773	2,694	2.9	3.4	0.2	0.53	25.0	93.6	6.5
Harlan	755	806	763	709	735	758	-3.1	5.1	1.4	0.90	34.5	88.2	13.9
Harrison	522	572	544	520	584	540	8.2	5.0	0.5	0.77	27.0	87.7	5.8
Hart	407	329	428	524	417	422	-1.2	4.2	0.5	1.85	32.9	91.6	8.7
Henderson	1,971	1,897	1,958	1,865	2,028	1,923	5.5	3.5	0.3	0.37	24.7	93.9	6.7
Henry	371	398	369	373	439	378	16.2	7.4	0.5	1.13	30.7	84.0	16.2
Hickman	78	122	96	119	100	104	-3.6	5.8	1.0	1.75	36.5	85.5	8.7
Hopkins	1,593	1,697	1,749	1,611	1,565	1,663	-5.9	2.9	0.5	0.47	23.7	93.8	9.4
Jackson	234	262	273	327	261	274	-4.7	7.1	1.6	0.96	39.8	83.0	15.8
Jefferson	31,122	29,609	23,244	28,013	29,214	27,997	4.3	3.4	0.2	0.25	23.1	93.0	3.5
Jessamine	1,316	1,266	1,188	1,188	1,344	1,240	8.4	5.2	0.4	0.49	24.8	90.4	8.1
Johnson	578	510	561	552	600	550	9.0	6.1	2.6	0.75	40.8	88.2	8.5
Kenton	5,817	5,539	5,422	6,011	5,666	5,697	-0.5	4.8	0.4	0.17	22.2	91.1	7.2
Knott	346	324	365	373	347	352	-1.4	6.2	1.1	1.54	44.3	88.0	9.3
Knox	694	769	738	787	849	747	13.7	5.4	2.2	0.96	38.3	86.7	15.7

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

COUNTY	NUMBER OF CRASHES BY YEAR 1996	1997	1998	1999	2000	1996-1999 AVERAGE	2000 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	325	321	358	335	355	335	6.0	4.4	0.1	0.71	28.9	87.7	7.6
Laurel	1,595	1,665	1,669	1,648	1,703	1,644	3.6	3.6	1.2	0.79	30.5	91.8	7.7
Lawrence	235	282	310	329	293	289	1.4	5.5	1.1	1.24	37.2	84.7	9.3
Lee	82	129	116	138	104	116	-10.5	7.9	1.4	2.28	37.3	82.4	14.4
Leslie	195	265	242	308	248	253	-1.8	8.0	3.3	2.86	53.5	81.3	15.5
Letcher	595	577	590	649	557	603	-7.6	6.0	1.2	1.04	41.7	86.4	9.1
Lewis	314	332	326	335	269	327	-17.7	7.1	0.4	2.09	34.2	78.0	10.6
Lincoln	349	398	408	389	506	386	31.1	6.7	0.6	1.51	41.4	81.2	18.9
Livingston	211	180	219	222	240	208	15.4	6.9	0.8	0.84	34.8	88.3	9.8
Logan	696	712	668	714	646	698	-7.4	4.6	0.3	0.79	29.3	85.2	6.5
Lyon	254	262	229	245	239	248	-3.4	3.7	0.5	1.06	30.9	89.6	12.6
McCracken	2,989	2,927	2,637	2,904	2,562	2,864	-10.6	3.8	0.3	0.46	28.6	93.0	4.8
McCreary	275	271	260	319	330	281	17.3	6.8	1.0	1.79	37.5	87.1	17.7
McLean	218	272	233	226	228	237	-3.9	4.4	0.3	1.10	31.2	86.6	10.5
Madison	2,667	2,590	2,646	2,541	2,615	2,611	0.2	5.6	0.4	0.65	25.7	89.7	12.2
Magoffin	273	297	255	225	245	263	-6.7	9.0	1.5	1.24	50.0	83.9	10.5
Marion	479	480	472	499	524	483	8.6	10.8	0.2	1.10	29.7	81.2	9.4
Marshall	778	757	777	710	795	756	5.2	4.5	0.6	0.97	30.5	88.2	8.7
Martin	278	222	303	253	285	264	8.0	5.9	3.4	0.82	40.6	84.2	11.1
Mason	824	820	806	824	730	819	-10.8	4.9	0.3	0.85	23.1	84.9	6.0
Meade	505	484	522	544	520	514	1.2	5.9	0.3	1.05	33.2	88.5	6.8
Menifee	92	114	104	134	91	111	-18.0	9.3	0.2	1.31	41.1	76.8	19.3
Mercer	649	652	662	531	599	624	-3.9	4.4	0.5	0.36	30.5	87.6	12.6
Metcalfe	215	232	191	163	248	200	23.8	4.6	0.1	1.33	29.3	77.3	6.7
Monroe	163	145	161	250	195	180	8.5	6.3	0.5	1.86	33.8	75.1	5.7
Montgomery	798	726	706	720	826	738	12.0	5.1	0.3	0.79	27.0	89.0	6.9
Morgan	313	317	310	305	309	311	-0.7	4.7	0.1	1.35	40.3	86.4	15.3
Muhlenberg	1,026	988	985	901	956	975	-1.9	3.8	0.6	0.95	30.4	86.6	9.1
Nelson	1,080	1,081	1,007	1,220	1,206	1,097	9.9	5.4	0.2	0.84	26.2	90.2	8.4
Nicholas	133	175	163	185	168	164	2.4	10.2	1.1	0.73	29.9	81.4	11.5
Ohio	576	577	506	474	608	533	14.0	4.6	0.4	1.02	36.0	89.8	8.9
Oldham	877	892	915	986	867	918	-5.5	3.4	0.4	0.46	26.8	93.2	9.8
Owen	230	268	231	223	269	238	13.0	7.1	0.1	0.98	35.1	82.0	18.5
Owsley	59	64	46	129	87	75	16.8	10.1	0.8	1.56	33.5	73.2	10.9
Pendleton	415	385	392	378	381	393	-2.9	6.0	0.4	0.92	30.8	86.5	9.6
Perry	1,074	1,019	1,011	993	1,048	1,024	2.3	5.1	1.1	0.78	37.9	89.7	7.1
Pike	2,286	2,269	2,310	2,007	2,056	2,218	-7.3	5.5	1.4	0.98	44.0	89.4	19.8
Powell	406	343	350	370	323	367	-12.0	4.5	0.4	1.23	32.9	85.1	10.3
Pulaski	1,712	1,753	1,788	1,737	1,677	1,748	-4.0	3.2	0.5	0.69	26.6	89.9	7.6
Robertson	11	17	9	15	46	13	253.8	13.3	0.0	1.02	44.9	72.4	9.2
Rockcastle	395	441	472	505	443	453	-2.3	4.0	0.9	1.06	34.4	82.9	10.6
Rowan	743	813	794	912	905	816	11.0	3.7	0.4	0.53	27.1	89.4	10.8
Russell	304	338	297	339	366	320	14.6	6.6	1.0	0.97	31.9	82.9	7.7
Scott	1,309	1,392	1,248	1,283	1,345	1,308	2.8	3.6	0.2	0.61	26.9	91.7	7.8
Shelby	1,106	1,036	1,023	1,060	1,229	1,056	16.4	4.9	0.2	0.94	26.4	89.9	7.9
Simpson	469	540	570	564	520	536	-2.9	4.1	0.5	0.94	27.2	86.0	5.7
Spencer	205	187	209	197	235	200	17.8	7.3	0.4	1.45	33.2	84.9	11.8
Taylor	720	796	722	748	688	747	-7.8	4.4	0.5	0.46	24.1	82.6	6.2
Todd	270	269	270	235	225	261	-13.8	4.7	0.6	1.34	32.5	79.5	10.7
Trigg	368	320	312	322	264	331	-20.1	3.6	0.5	1.01	31.3	89.7	6.5
Trimble	212	209	202	206	208	207	0.4	4.9	0.3	0.87	30.3	86.5	13.7
Union	485	438	472	457	469	463	1.3	5.9	0.3	0.69	31.2	87.3	12.5
Warren	3,973	4,125	4,070	3,893	4,003	4,015	-0.3	3.9	0.5	0.36	27.4	91.1	9.6
Washington	272	293	312	269	268	287	-6.5	6.6	0.1	1.27	29.2	81.6	10.2
Wayne	434	461	465	491	492	463	6.3	3.8	0.6	1.02	30.3	79.4	6.5
Webster	394	398	425	346	400	391	2.4	4.1	0.5	0.61	33.3	92.5	9.6
Whitley	1,032	1,053	1,029	959	1,013	1,018	-0.5	4.1	1.0	1.06	31.2	87.9	13.4
Wolfe	217	248	182	205	205	213	-3.8	6.4	0.7	1.99	36.7	85.1	10.9
Woodford	767	721	671	639	712	700	1.8	6.4	0.3	1.00	26.4	90.8	9.8
STATEWIDE	134,558	134,161	125,698	132,216	135,079	131,658	2.6	4.3	0.5	0.56	27.2	90.7	7.4

* Percent change in the 2000 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 1996-2000)

		STATE-MAINTAINED SYSTEM		ALL ROADS	
CITY	POPULATION	TOTAL CRASHES	CRASH RATE*	TOTAL CRASHES	CRASH RATE**
Lexington	260,512	13,276	698	61,651	47
Louisville	256,231	29,223	259	80,191	63
Owensboro	54,067	3,429	580	12,492	46
Bowling Green	49,296	6,483	525	15,049	61
Covington	43,370	5,025	358	11,136	51
Hopkinsville	30,089	3,665	320	6,317	42
Frankfort	27,741	3,374	364	5,323	38
Henderson	27,373	2,663	280	6,920	51
Richmond	27,152	1,461	732	6,646	49
Jeffersontown	26,633	905	430	4,788	36
Paducah	26,307	2,099	276	9,009	69
Florence	23,551	4,146	367	8,753	74
Elizabethtown	22,542	3,431	286	6,333	56
Ashland	21,981	2,461	506	6,089	55
Radcliff	21,961	1,175	275	2,878	26
Nicholasville	19,680	1,469	405	3,473	35
Madisonville	19,307	1,753	534	4,407	46
Georgetown	18,080	847	408	3,421	38
Newport	17,048	2,621	889	4,584	54
Winchester	16,724	1,238	359	3,891	47
Erlanger	16,676	1,743	978	4,011	48
Fort Thomas	16,495	223	370	1,244	15
Saint Matthews	15,852	604	865	3,666	46
Danville	15,477	1,119	686	3,599	47
Shively	15,157	818	746	4,733	63
Independence	14,982	1,059	402	1,754	23
Murray	14,950	863	292	1,661	22
Glasgow	13,019	601	168	3,378	52
Somerset	11,352	1,670	384	4,203	74
Campbellsville	10,498	955	419	2,551	49
Middlesboro	10,384	715	222	1,755	34
Bardstown	10,374	933	300	2,722	53
Mayfield	10,349	692	549	2,297	44
Shelbyville	10,085	1,048	373	2,227	44
Berea	9,851	825	481	1,736	35
Edgewood	9,400	89	643	910	19
Lyndon	9,369	***	***	112	2
Paris	9,183	723	318	1,839	40
Lawrenceburg	9,014	453	489	893	20
Maysville	8,993	926	248	2,633	59
Mount Washington	8,485	228	191	921	22
Shepherdsville	8,334	520	487	1,774	43
Alexandria	8,286	451	420	1,291	31
Elsmere	8,139	182	534	809	20
Fort Mitchell	8,089	276	642	1,478	37
Harrodsburg	8,014	648	537	1,759	44
Franklin	7,996	473	317	1,350	34
Villa Hills	7,948	14	139	357	9
Corbin	9,404	547	264	2,379	50
Flatwoods	7,605	133	196	677	18
Versailles	7,511	698	398	1,555	41
Russellville	7,149	684	223	1,696	47
Oak Grove	7,064	***	***	1,186	34
Taylor Mill	6,913	87	319	1,227	36
Highland Heights	6,554	528	159	922	28
Princeton	6,536	326	157	1,041	32
Bellevue	6,480	129	193	1,177	36
Pikeville	6,295	699	210	2,100	67
Cynthiana	6,258	657	707	1,380	44
Leitchfield	6,139	394	163	596	19
Monticello	5,981	462	201	1,416	47
Dayton	5,966	6	193	514	17
Morehead	5,914	837	466	1,891	64
Wilmore	5,905	125	378	234	8

TABLE 15. CRASH RATES FOR CITIES HAVING POPULATION OVER 2,500
(FOR STATE-MAINTAINED SYSTEM AND ALL ROADS FOR 1996-2000)(continued)

		STATE-MAINTAINED SYSTEM		ALL ROADS	
CITY	POPULATION	TOTAL CRASHES	CRASH RATE*	TOTAL CRASHES	CRASH RATE**
Central City	5,893	314	204	995	34
Mount Sterling	5,876	762	435	1,827	62
Middletown	5,744	***	***	216	8
Lebanon	5,718	627	476	1,261	44
London	5,692	1,650	426	3,285	115
Fort Wright	5,681	436	474	2,070	73
La Grange	5,676	257	369	953	34
Williamsburg	5,143	275	119	961	37
Westwood	4,888	***	***	0	0
Hazard	4,806	396	192	2,287	95
Ludlow	4,409	45	285	341	16
Greenville	4,398	453	457	909	41
Scottsville	4,327	539	458	1,070	50
Benton	4,197	634	437	893	43
Vine Grove	4,169	238	261	371	18
Paintsville	4,132	361	217	1,201	58
Columbia	4,014	431	270	1,019	51
Crescent Springs	3,931	***	***	794	40
Grayson	3,877	189	261	1,039	54
Carrollton	3,846	209	337	858	45
Cold Spring	3,806	582	483	1,029	54
Lancaster	3,734	234	662	675	36
Russell	3,645	190	219	849	47
Prestonsburg	3,612	525	331	1,236	68
Providence	3,611	260	344	350	19
Barbourville	3,589	299	211	845	47
Morganfield	3,494	380	575	699	40
Southgate	3,472	81	345	503	29
Stanford	3,430	84	67	380	22
West Liberty	3,277	242	388	467	29
Williamstown	3,227	***	***	691	43
Marion	3,196	269	370	508	32
Beaver Dam	3,033	103	179	595	39
Stanton	3,029	132	130	505	33
Flemingsburg	3,010	86	131	442	29
Dawson Springs	2,980	145	317	294	20
Park Hills	2,977	87	576	219	15
Union	2,893	***	***	389	27
Crestview Hills	2,889	***	***	1,031	71
Indian Hills	2,882	***	***	39	3
Hodgenville	2,874	218	290	726	51
Lakeside Park	2,869	335	503	442	31
Irvine	2,843	224	421	653	46
Fulton	2,775	224	198	479	35
Calvert City	2,701	195	142	327	24
Tompkinsville	2,660	115	160	608	46
Springfield	2,634	348	435	572	43
Wilder	2,624	***	***	679	52
Cumberland	2,611	62	88	276	21
Mount Vernon	2,592	183	282	717	55
Hartford	2,571	41	108	156	12
Hickman	2,560	30	77	174	14
Morgantown	2,544	104	158	521	41

* 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 (1996-2000) (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	117	0.90	635	4.90	397	3.00	268	2.1	5.1	4.0
Louisville	256,231	157	1.23	1,289	10.10	738	5.80	436	3.4	2.8	3.0
Owensboro	54,067	17	0.63	96	3.60	109	4.00	68	2.5	3.0	3.2
Bowling Green	49,296	24	0.97	89	3.60	58	2.40	84	3.4	6.5	2.9
Covington	43,370	9	0.42	292	13.50	121	5.60	49	2.3	4.7	4.8
Hopkinsville	30,089	15	1.00	78	5.20	47	3.10	25	1.7	8.6	3.5
Frankfort	27,741	11	0.79	37	2.70	20	1.40	26	1.9	6.1	3.3
Henderson	27,373	13	0.95	71	5.20	60	4.40	44	3.2	4.1	2.7
Richmond	27,152	16	1.18	43	3.20	27	2.00	34	2.5	5.5	4.5
Jeffersontown	26,633	4	0.30	24	1.80	18	1.40	15	1.1	3.6	2.3
Paducah	26,307	23	1.75	49	3.70	46	3.50	67	5.1	3.8	2.9
Florence	23,551	13	1.10	48	4.10	39	3.30	26	2.2	4.3	2.5
Elizabethtown	22,542	13	1.15	23	2.00	25	2.20	29	2.6	4.2	1.7
Ashland	21,981	7	0.64	48	4.40	30	2.70	44	4.0	4.6	2.1
Radcliff	21,961	7	0.64	21	1.90	13	1.20	18	1.6	1.9	3.1
Nicholasville	19,680	6	0.61	43	4.40	22	2.20	12	1.2	4.4	4.4
Madisonville	19,307	8	0.83	27	2.80	33	3.40	43	4.5	4.0	1.8
Georgetown	18,080	7	0.77	22	2.40	13	1.40	16	1.8	3.3	2.5
Newport	17,048	4	0.47	128	15.00	90	10.60	29	3.4	3.3	5.3
Winchester	16,724	4	0.48	35	4.20	19	2.30	25	3.0	2.3	3.3
Erlanger	16,676	11	1.32	23	2.80	24	2.90	25	3.0	10.4	4.0
Fort Thomas	16,495	5	0.61	19	2.30	7	0.80	6	0.7	7.6	3.6
Saint Matthews	15,852	5	0.63	23	2.90	12	1.50	7	0.9	2.0	1.8
Danville	15,477	15	1.94	24	3.10	15	1.90	12	1.6	4.3	2.2
Shively	15,157	10	1.32	57	7.50	34	4.50	26	3.4	3.4	4.1
Independence	14,982	5	0.67	20	2.70	7	0.90	10	1.3	6.7	5.2
Murray	14,950	3	0.40	10	1.30	10	1.30	13	1.7	3.8	2.3
Glasgow	13,019	4	0.61	15	2.30	15	2.30	25	3.8	3.1	2.2
Somerset	11,352	16	2.82	21	3.70	8	1.40	16	2.8	5.8	1.6
Campbellsville	10,498	3	0.57	16	3.00	13	2.50	9	1.7	4.5	2.8
Middlesboro	10,384	1	0.19	12	2.30	15	2.90	5	1.0	3.8	4.8
Bardstown	10,374	6	1.16	20	3.90	18	3.50	12	2.3	2.7	2.9
Mayfield	10,349	3	0.58	20	3.90	11	2.10	5	1.0	2.2	1.8
Shelbyville	10,085	12	2.38	23	4.60	12	2.40	9	1.8	4.0	3.7
Berea	9,851	6	1.22	8	1.60	13	2.60	4	0.8	5.0	2.7
Edgewood	9,400	0	0.00	6	1.30	7	1.50	2	0.4	4.4	2.0
Lyndon	9,369	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Paris	9,183	1	0.22	19	4.10	12	2.60	12	2.6	4.6	4.1
Lawrenceburg	9,014	2	0.44	8	1.80	5	1.10	5	1.1	2.4	4.3
Maysville	8,993	11	2.45	22	4.90	13	2.90	9	2.0	4.4	3.2
Mount Washington	8,485	1	0.24	8	1.90	1	0.20	4	0.9	3.7	4.6
Shepherdsville	8,334	12	2.88	8	1.90	3	0.70	9	2.2	2.8	3.8
Alexandria	8,286	7	1.69	7	1.70	3	0.70	7	1.7	4.9	2.4
Elsmere	8,139	0	0.00	11	2.70	9	2.20	2	0.5	6.4	4.8
Fort Mitchell	8,089	2	0.49	9	2.20	4	1.00	11	2.7	7.9	4.9
Harrodsburg	8,014	2	0.50	20	5.00	7	1.70	10	2.5	4.2	3.1
Franklin	7,996	6	1.50	10	2.50	11	2.80	7	1.8	2.7	3.5
Villa Hills	7,948	0	0.00	2	0.50	3	0.80	4	1.0	11.8	5.6
Corbin	9,404	8	1.70	13	2.80	13	2.60	10	2.1	4.8	2.3
Flatwoods	7,605	0	0.00	8	2.10	5	1.30	2	0.5	3.8	2.8
Versailles	7,511	1	0.27	19	5.10	8	2.10	8	2.1	4.7	3.2
Russellville	7,149	3	0.84	11	3.10	10	2.80	16	4.5	5.1	2.6
Oak Grove	7,064	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Taylor Mill	6,913	0	0.00	4	1.20	1	0.30	3	0.9	9.1	4.3
Highland Heights	6,554	1	0.31	4	1.20	6	1.80	6	1.8	7.7	3.3
Princeton	6,536	1	0.31	9	2.80	12	3.70	5	1.5	5.6	2.4
Bellevue	6,480	1	0.31	16	4.90	20	6.20	4	1.2	3.1	3.1
Pikeville	6,295	11	3.49	24	7.60	2	0.60	21	6.7	8.6	4.0
Cynthiana	6,258	1	0.32	17	5.40	11	3.50	6	1.9	2.1	3.0
Leitchfield	6,139	3	0.98	9	2.90	1	0.30	5	1.6	4.4	3.2
Monticello	5,981	4	1.34	11	3.70	9	3.00	4	1.3	5.5	2.5
Dayton	5,966	0	0.00	19	6.40	6	2.00	5	1.7	4.3	6.4

TABLE 16. MISCELLANEOUS CRASH DATA FOR CITIES HAVING POPULATION OVER 2,500 (1996-2000) (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	5	1.69	15	5.10	8	2.70	10	3.4	3.4	2.1
Wilmore	5,905	0	0.00	1	0.30	1	0.30	1	0.3	8.1	0.9
Central City	5,893	8	2.72	4	1.40	4	1.40	7	2.4	4.1	3.0
Mount Sterling	5,876	10	3.40	17	5.80	3	1.00	5	1.7	3.8	3.1
Middletown	5,744	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Lebanon	5,718	1	0.35	14	4.90	12	4.20	4	1.4	4.3	4.4
London	5,692	7	2.46	12	4.20	7	2.50	9	3.2	4.5	1.9
Fort Wright	5,681	1	0.35	12	4.20	2	0.70	6	2.1	6.2	3.0
La Grange	5,676	5	1.76	7	2.50	1	0.40	2	0.7	4.2	2.1
Williamsburg	5,143	6	2.33	3	1.20	3	1.20	4	1.6	5.8	3.2
Hazard	4,806	3	1.25	17	7.10	2	0.80	8	3.3	3.1	2.7
Ludlow	4,409	0	0.00	11	5.00	7	3.20	0	0.0	2.6	7.3
Greenville	4,398	6	2.73	8	3.60	4	1.80	4	1.8	5.9	2.4
Scottsville	4,327	4	1.85	3	1.40	2	0.90	6	2.8	4.3	2.4
Benton	4,197	2	0.95	3	1.40	1	0.50	4	1.9	4.9	1.9
Vine Grove	4,169	1	0.48	1	0.50	2	1.00	1	0.5	6.7	7.0
Paintsville	4,132	7	3.39	6	2.90	2	1.00	7	3.4	2.5	2.3
Columbia	4,014	3	1.49	7	3.50	3	1.50	7	3.5	4.0	2.3
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	2	1.00	3	1.5	3.8	2.0
Carrollton	3,846	3	1.56	5	2.60	9	4.70	6	3.1	3.0	4.9
Cold Spring	3,806	2	1.05	7	3.70	2	1.10	7	3.7	5.7	3.4
Lancaster	3,734	2	1.07	10	5.40	4	2.10	3	1.6	5.3	2.8
Russell	3,645	0	0.00	3	1.60	4	2.20	5	2.7	3.7	2.4
Prestonsburg	3,612	11	6.09	9	5.00	1	0.60	9	5.0	4.0	3.7
Providence	3,611	1	0.55	1	0.60	7	3.90	5	2.8	6.3	3.4
Barbourville	3,589	4	2.23	7	3.90	1	0.60	2	1.1	6.5	3.2
Morganfield	3,494	0	0.00	8	4.60	4	2.30	0	0.0	7.2	2.7
Southgate	3,472	0	0.00	3	1.70	2	1.20	2	1.2	1.8	3.4
Stanford	3,430	2	1.17	1	0.60	2	1.20	3	1.7	7.4	3.2
West Liberty	3,277	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Williamstown	3,227	3	1.86	8	5.00	1	0.60	4	2.5	8.0	2.5
Marion	3,196	1	0.63	8	5.00	1	0.60	3	1.9	2.8	2.0
Beaver Dam	3,033	2	1.32	0	0.00	1	0.70	4	2.6	3.4	2.5
Stanton	3,029	3	1.98	2	1.30	2	1.30	0	0.0	4.2	3.8
Flemingsburg	3,010	1	0.66	4	2.70	0	0.00	1	0.7	3.6	2.9
Dawson Springs	2,980	1	0.67	2	1.30	3	2.00	4	2.7	5.4	3.4
Park Hills	2,977	0	0.00	1	0.70	1	0.70	0	0.0	16.9	8.7
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	3	2.09	7	4.90	2	1.40	4	2.8	4.1	2.6
Lakeside Park	2,869	1	0.70	6	4.20	1	0.70	3	2.1	5.7	2.7
Irvine	2,843	1	0.70	9	6.30	3	2.10	3	2.1	6.4	4.6
Fulton	2,775	1	0.72	4	2.90	6	4.30	3	2.2	2.9	3.1
Calvert City	2,701	3	2.22	1	0.70	2	1.50	5	3.7	7.3	2.4
Tompkinsville	2,660	3	2.26	6	4.50	1	0.80	3	2.3	2.6	2.8
Springfield	2,634	1	0.76	10	7.60	0	0.00	2	1.5	4.2	4.4
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	1	0.80	1	0.80	4	3.1	6.5	2.9
Mount Vernon	2,592	5	3.86	4	3.10	2	1.50	5	3.9	5.3	3.2
Hartford	2,571	2	1.56	0	0.00	0	0.00	2	1.6	5.1	3.2
Hickman	2,560	0	0.00	1	0.80	4	3.10	0	0.0	1.7	4.0
Morgantown	2,544	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
STATEWIDE	1,621,131	784	0.97	3,980	4.9	2,454	3.03	1,899	2.3	4.3	3.2

* Crashes Per 10,000 Population

TABLE 17. CRASH RATES ON STATE-MAINTAINED STREETS BY CITY AND POPULATION CATEGORY (1996-2000)

POPULATION CATAGORY	NUMBER OF CITIES	AVERAGE RATE C/100 MVM	CITY	NUMBER OF CRASHES (1996-2000)	AVERAGE RATE C/100 MVM
OVER 200,000	2	322	Lexington	13,276	698
			Louisville	29,223	259
20,000-55,000	13	378	Richmond	1,461	732
			Owensboro	3,429	580
			Bowling Green	6,483	525
			Ashland	2,461	506
			Jeffersontown	905	430
			Florence	4,146	367
			Frankfort	3,374	364
			Covington	5,025	358
			Hopkinsville	3,665	320
			Elizabethtown	3,431	286
			Henderson	2,663	280
			Paducah	2,099	276
			Radcliff	1,175	275
10,000-19,999	19	442	Erlanger	1,743	978
			Newport	2,621	889
			Saint Matthews	604	865
			Shively	818	746
			Danville	1,119	686
			Mayfield	692	549
			Madisonville	1,753	534
			Campbellsville	955	419
			Georgetown	847	408
			Nicholasville	1,469	405
			Independence	1,059	402
			Somerset	1,670	384
			Shelbyville	1,048	373
			Fort Thomas	223	370
			Winchester	1,238	359
			Bardstown	933	300
			Murray	863	292
			Middlesboro	715	222
			Glasgow	601	168
5,000-9,999	35	309	Cynthiana	657	707
			Edgewood	89	643
			Fort Mitchell	276	642
			Harrodsburg	648	537
			Elsmere	182	534
			Lawrenceburg	453	489
			Shepherdsville	520	487
			Berea	825	481
			Lebanon	627	476
			Fort Wright	436	474
			Morehead	837	466
			Mount Sterling	762	435
			London	1,650	426
			Alexandria	451	420
			Versailles	698	398
			Wilmore	125	378
			La Grange	257	369
			Taylor Mill	87	319
			Paris	723	318
			Franklin	473	317
			Corbin	547	264
			Maysville	926	248
			Russellville	684	223
			Pikeville	699	210
			Central City	314	204
			Monticello	462	201

TABLE 17. CRASH RATES ON STATE-MAINTAINED STREETS BY CITY AND POPULATION CATEGORY (1996-2000)(continued)

POPULATION CATAGORY	NUMBER OF CITIES	AVERAGE RATE C/100 MVM	CITY	NUMBER OF CRASHES (1996-2000)	AVERAGE RATE C/100 MVM
5,000-9,999 (cont.)	35	309	Flatwoods	133	196
			Dayton	6	193
			Bellevue	129	193
			Mount Washington	228	191
			Leitchfield	394	163
			Highland Heights	528	159
			Princeton	326	157
			Villa Hills	14	139
			Williamsburg	275	119
2,500-4,999	38	284	Lancaster	234	662
			Park Hills	87	576
			Morganfield	380	575
			Lakeside Park	335	503
			Cold Spring	582	483
			Scottsville	539	458
			Greenville	453	457
			Benton	634	437
			Springfield	348	435
			Irvine	224	421
			West Liberty	242	388
			Marion	269	370
			Southgate	81	345
			Providence	260	344
			Carrollton	209	337
			Prestonsburg	525	331
			Dawson Springs	145	317
			Hodgenville	218	290
			Ludlow	45	285
			Mount Vernon	183	282
			Columbia	431	270
			Vine Grove	238	261
			Grayson	189	261
			Russell	190	219
			Paintsville	361	217
			Barbourville	299	211
			Fulton	224	198
			Hazard	396	192
			Beaver Dam	103	179
			Tompkinsville	115	160
			Morgantown	104	158
			Calvert City	195	142
			Flemingsburg	86	131
			Stanton	132	130
			Hartford	41	108
			Cumberland	62	88
			Hickman	30	77
			Stanford	84	67
1,000-2,499	58	214	Dry Ridge	269	695
			Walton	203	444
			Horse Cave	266	420
			Falmouth	192	397
			Jackson	163	396
			Owenton	154	329
			Livermore	58	306
			Vanceburg	67	304
			Uniontown	19	301
			Sturgis	82	299
			Brandenburg	358	299
			Clay City	67	297
			Evarts	87	282

TABLE 17. CRASH RATES ON STATE-MAINTAINED STREETS BY CITY AND POPULATION CATEGORY (1996-2000)(continued)

POPULATION CATAGORY	NUMBER OF CITIES	AVERAGE RATE C/100 MVM	CITY	NUMBER OF CRASHES (1996-2000)	AVERAGE RATE C/100 MVM
1,000-2,499 (cont.)	58	214	Owingsville	124	281
			Louisa	138	281
			Sebree	73	269
			Albany	182	268
			Elkhorn City	93	265
			Salyersville	122	253
			Manchester	353	246
			Harlan	324	244
			Cave City	377	244
			Hardinsburg	81	233
			South Shore	497	231
			Raceland	56	229
			Edmonton	112	224
			Eminence	79	222
			Augusta	1,286	219
			Lacenter	50	209
			Warsaw	30	206
			Whitesburg	152	205
			Liberty	139	200
			Beattyville	108	199
			Elkton	99	191
			Nortonville	47	188
			Junction City	24	184
			Russell Springs	326	184
			Catlettsburg	237	177
			Earlington	81	176
			Lewisport	17	172
			Pineville	87	162
			Anchorage	28	162
			Jenkins	97	159
			Cloverport	64	157
			Clinton	64	157
			Carlisle	33	155
			Cadiz	205	153
			Olive Hill	60	140
			Eddyville	172	136
			Clay	22	130
			Muldraugh	95	125
			Greensburg	47	120
			Auburn	53	112
			Lebanon Junction	15	111
			Jamestown	92	101
			Burkesville	60	101
			Worthington	6	85
			Munfordville	121	56

TABLE 18. TOTAL CRASH RATES BY CITY AND POPULATION CATEGORY (IN DESCENDING ORDER) (1996-2000)(ALL ROADS)

CITY	NUMBER OF CRASHES (1996-2000)	ANNUAL CRASH RATE (CRASHES PER 1000 POPULATION)	
POPULATION CATEGORY OVER 200,000			
Louisville	80,191	62.6	*
Lexington	61,651	47.3	
POPULATION CATEGORY 20,000-55,000			
Florence	8,753	74.3	*
Paducah	9,009	68.5	*
Bowling Green	15,049	61.1	*
Elizabethtown	6,333	56.2	
Ashland	6,089	55.4	
Covington	11,136	51.4	
Henderson	6,920	50.6	
Richmond	6,646	49.0	
Owensboro	12,492	46.2	
Hopkinsville	6,317	42.0	
Frankfort	5,323	38.4	
Jeffersontown	4,788	36.0	
Radcliff	2,878	26.2	
POPULATION CATEGORY 10,000-19,999			
Somerset	4,203	74.0	*
Shively	4,733	62.5	*
Newport	4,584	53.8	
Bardstown	2,722	52.5	
Glasgow	3,378	51.9	
Campbellsville	2,551	48.6	
Erlanger	4,011	48.1	
Winchester	3,891	46.5	
Danville	3,599	46.5	
Saint Matthews	3,666	46.3	
Madisonville	4,407	45.7	
Mayfield	2,297	44.4	
Shelbyville	2,227	44.2	
Georgetown	3,421	37.8	
Nicholasville	3,473	35.3	
Middlesboro	1,755	33.8	
Independence	1,754	23.4	
Murray	1,661	22.2	
Fort Thomas	1,244	15.1	
POPULATION CATEGORY 5,000-9,999			
London	3,285	115.4	*
Fort Wright	2,070	72.9	*
Pikeville	2,100	66.7	*
Morehead	1,891	63.9	*
Mount Sterling	1,827	62.2	*
Maysville	2,633	58.6	*
Corbin	2,379	49.9	*
Russellville	1,696	47.4	
Monticello	1,416	47.3	
Lebanon	1,261	44.1	
Cynthiana	1,380	44.1	
Harrodsburg	1,759	43.9	
Shepherdsville	1,774	42.6	
Versailles	1,555	41.4	
Paris	1,839	40.1	
Williamsburg	961	37.4	
Fort Mitchell	1,478	36.5	
Bellevue	1,177	36.3	
Taylor Mill	1,227	35.5	
Berea	1,736	35.2	
Central City	995	33.8	
Franklin	1,350	33.8	
Oak Grove	1,186	33.6	
La Grange	953	33.6	
Princeton	1,041	31.9	
Alexandria	1,291	31.2	
Highland Heights	922	28.1	
Mount Washington	921	21.7	
Elsmere	809	19.9	
Lawrenceburg	893	19.8	
Leitchfield	596	19.4	
Edgewood	910	19.4	
Flatwoods	677	17.8	
Dayton	514	17.2	
Villa Hills	357	9.0	
Wilmore	234	7.9	
Middletown	216	7.5	
Lyndon	112	2.4	
POPULATION CATEGORY 2,500-4,999			
Hazard	2,287	95.2	*
Crestview Hills	1,031	71.4	*
Prestonsburg	1,236	68.4	*
Paintsville	1,201	58.1	*
Mount Vernon	717	55.3	*
Cold Spring	1,029	54.1	*
Grayson	1,039	53.6	*
Wilder	679	51.8	*
Columbia	1,019	50.8	
Hodgenville	726	50.5	
Scottsville	1,070	49.5	
Barbourville	845	47.1	
Russell	849	46.6	
Irvine	653	45.9	
Tompkinsville	608	45.7	
Carrollton	858	44.6	
Springfield	572	43.4	
Williamstown	691	42.8	
Benton	893	42.6	
Greenville	909	41.3	
Morgantown	521	41.0	
Crescent Springs	794	40.4	
Morganfield	699	40.0	
Beaver Dam	595	39.2	
Lancaster	675	36.2	
Fulton	479	34.5	
Stanton	505	33.3	
Marion	508	31.8	
Lakeside Park	442	30.8	
Flemingsburg	442	29.4	
Southgate	503	29.0	
West Liberty	467	28.5	
Union	389	26.9	
Calvert City	327	24.2	
Stanford	380	22.2	
Cumberland	276	21.1	
Dawson Springs	294	19.7	
Providence	350	19.4	
Vine Grove	371	17.8	
Ludlow	341	15.5	
Park Hills	219	14.7	
Hickman	174	13.6	
Hartford	156	12.1	
Indian Hills	39	2.7	

* Critical crash rate

TABLE 19. FATAL CRASH RATES BY CITY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)(1996-2000)(ALL ROADS)

CITY	NUMBER OF CRASHES (1996-2000)	ANNUAL CRASH RATE (CRASHES PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Louisville	157	1.23
Lexington	117	0.90
POPULATION CATEGORY 20,000-55,000		
Paducah	23	1.75
Richmond	16	1.18
Elizabethtown	13	1.15
Florence	13	1.10
Hopkinsville	15	1.00
Bowling Green	24	0.97
Henderson	13	0.95
Frankfort	11	0.79
Radcliff	7	0.64
Ashland	7	0.64
Owensboro	17	0.63
Covington	9	0.42
Jeffersontown	4	0.30
POPULATION CATEGORY 10,000-19,999		
Somerset	16	2.82
Shelbyville	12	2.38
Danville	15	1.94
Shively	10	1.32
Erlanger	11	1.32
Bardstown	6	1.16
Madisonville	8	0.83
Georgetown	7	0.77
Independence	5	0.67
Saint Matthews	5	0.63
Fort Thomas	5	0.61
Nicholasville	6	0.61
Glasgow	4	0.61
Mayfield	3	0.58
Campbellsville	3	0.57
Winchester	4	0.48
Newport	4	0.47
Murray	3	0.40
Middlesboro	1	0.19
POPULATION CATEGORY 5,000-9,999		
Pikeville	11	3.49
Mount Sterling	10	3.40
Shepherdsville	12	2.88
Central City	8	2.72
London	7	2.46
Maysville	11	2.45
Williamsburg	6	2.33
La Grange	5	1.76
Corbin	8	1.70
Morehead	5	1.69
Alexandria	7	1.69
Franklin	6	1.50
Monticello	4	1.34
Berea	6	1.22
Leitchfield	3	0.98
Russellville	3	0.84
Harrodsburg	2	0.50
Fort Mitchell	2	0.49
Lawrenceburg	2	0.44
Fort Wright	1	0.35
Lebanon	1	0.35
Cynthiana	1	0.32
Bellevue	1	0.31
Princeton	1	0.31
Highland Heights	1	0.31
Versailles	1	0.27
Mount Washington	1	0.24
Paris	1	0.22
POPULATION CATEGORY 2,500-4,999		
Prestonsburg	11	6.09
Mount Vernon	5	3.86
Paintsville	7	3.39
Greenville	6	2.73
Tompkinsville	3	2.26
Barbourville	4	2.23
Calvert City	3	2.22
Hodgenville	3	2.09
Stanton	3	1.98
Williamstown	3	1.86
Scottsville	4	1.85
Carrollton	3	1.56
Hartford	2	1.56
Columbia	3	1.49
Beaver Dam	2	1.32
Hazard	3	1.25
Stanford	2	1.17
Lancaster	2	1.07
Cold Spring	2	1.05
Benton	2	0.95
Springfield	1	0.76
Fulton	1	0.72
Irvine	1	0.70
Lakeside Park	1	0.70
Dawson Springs	1	0.67
Flemingsburg	1	0.66
Marion	1	0.63
Providence	1	0.55
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 (1996-2000) ALL	AGE 16-20	PERCENT OF TOTAL CRASHES INVOLVING ALCOHOL ALL	AGE 16-20
	POPULATION CATEGORY UNDER 10,000			
Robertson	13	2	13.3	6.7
Elliott	54	8	10.6	4.9
Nicholas	84	11	10.2	4.4
Owsley	39	10	10.1	9.3
Menifee	50	13	9.3	7.6
Lee	45	3	7.9	2.2
Ballard	78	9	7.0	3.0
Livingston	74	4	6.9	1.2
Wolfe	68	13	6.4	4.3
Crittenden	68	12	6.1	3.0
Hickman	30	5	5.8	3.6
Gallatin	65	10	5.8	3.6
Fulton	52	3	5.0	1.2
Trimble	51	6	4.9	1.9
Hancock	42	2	4.9	0.9
Bracken	60	13	4.6	3.4
Clinton	34	1	4.5	0.4
McLean	52	6	4.4	1.5
Carlisle	12	3	4.4	3.8
Lyon	45	9	3.7	3.4
Cumberland	16	2	3.4	1.2
	POPULATION CATEGORY 10,000 - 14,999			
Magoffin	117	23	9.0	6.2
Leslie	101	7	8.0	2.0
Spencer	75	11	7.3	3.4
Owen	87	8	7.1	2.0
Lewis	112	17	7.1	3.8
Jackson	96	19	7.1	4.6
Washington	94	13	6.6	2.4
Carroll	140	18	6.4	2.9
Monroe	58	12	6.3	3.5
Pendleton	118	15	6.0	2.5
Butler	73	11	6.0	2.3
Martin	79	13	5.9	3.1
Edmonson	66	3	5.9	0.8
Bath	91	14	5.7	3.2
Garrard	102	13	5.3	2.5
Fleming	75	12	5.2	2.5
Green	65	6	5.0	1.5
Todd	60	7	4.7	1.8
Morgan	73	4	4.7	0.9
Metcalfe	48	2	4.6	0.7
Caldwell	81	8	4.5	1.4
Powell	80	14	4.5	2.5
Larue	74	16	4.4	2.9
Webster	81	16	4.1	2.7
Trigg	57	5	3.6	1.2
	POPULATION CATEGORY 15,000 - 24,999			
Marion	265	37	10.8	4.2
Casey	84	12	7.8	3.4
Henry	144	19	7.4	3.6
Estill	139	25	7.3	3.8
McCreary	99	12	6.8	2.5
Lincoln	137	25	6.7	4.2
Russell	109	17	6.6	3.6
Breathitt	141	25	6.6	4.2
Woodford	226	33	6.4	3.3
Knott	109	15	6.2	2.8
Johnson	172	22	6.1	2.5
Anderson	140	26	5.9	3.6
Bourbon	198	20	5.8	2.1

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

COUNTY	NUMBER OF ALCOHOL-RELATED CRASHES (1996-2000) ALL	NUMBER OF ALCOHOL-RELATED CRASHES (1996-2000) 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)				
Union	137	24	5.7	2.9
Clay	125	9	5.5	1.4
Lawrence	79	16	5.5	4.5
Breckinridge	74	7	5.3	1.3
Grayson	121	12	5.2	1.6
Montgomery	193	31	5.1	2.7
Harrison	138	25	5.0	2.7
Mason	196	34	4.9	3.2
Allen	102	11	4.8	1.7
Ohio	127	12	4.6	1.5
Mercer	137	17	4.4	1.7
Taylor	161	34	4.4	2.4
Hart	88	8	4.2	1.4
Simpson	109	12	4.1	1.5
Adair	95	20	4.0	2.4
Rockcastle	91	7	4.0	1.2
Wayne	89	17	3.8	2.0
Rowan	154	29	3.7	2.0
Grant	154	16	3.6	1.2
POPULATION CATEGORY 25,000 - 49,999				
Floyd	336	47	6.4	3.1
Letcher	179	31	6.0	4.0
Meade	153	24	5.9	2.5
Greenup	222	30	5.6	2.3
Carter	192	23	5.4	2.1
Knox	207	21	5.4	1.7
Nelson	300	41	5.4	2.0
Jessamine	328	39	5.2	2.0
Perry	263	32	5.1	2.1
Harlan	192	34	5.1	3.0
Calloway	178	36	5.0	2.5
Shelby	267	29	4.9	2.0
Bell	165	25	4.8	2.7
Logan	158	19	4.6	1.6
Clark	277	37	4.6	2.1
Barren	250	30	4.5	1.5
Marshall	170	17	4.5	1.4
Franklin	351	46	4.4	2.2
Whitley	208	32	4.1	2.1
Graves	190	29	3.8	1.8
Muhlenberg	184	25	3.8	1.6
Scott	237	34	3.6	1.9
Henderson	340	41	3.5	1.3
Oldham	152	29	3.4	1.8
Boyle	153	20	3.3	1.5
Boyd	318	54	3.1	1.8
Hopkins	239	26	2.9	1.1
POPULATION CATEGORY 50,000 - OVER				
Bullitt	370	37	5.7	1.7
Madison	733	121	5.6	3.0
Pike	605	76	5.5	2.5
Kenton	1361	130	4.8	1.6
Christian	462	52	4.7	1.9
Campbell	631	68	4.5	1.6
Fayette	2469	263	4.0	1.6
Daviess	664	100	3.9	1.6
Warren	775	113	3.9	1.6
McCracken	534	61	3.8	1.4
Laurel	299	38	3.6	1.6
Boone	605	80	3.6	1.4
Jefferson	4843	398	3.4	1.1
Hardin	455	63	3.4	1.5
Pulaski	279	35	3.2	1.2

TABLE 21. CRASHES INVOLVING ALCOHOL BY CITY AND POPULATION CATEGORY(IN ORDER OF DECREASING PRECENTAGES)(1996-2000)

CITY	NUMBER OF ALCOHOL-RELATED CRASHES	PERCENTAGE OF CRASHES INVOLVING ALCOHOL
POPULATION CATEGORY OVER 200,000		
Lexington	2,444	4.0
Louisville	2,422	3.0
POPULATION CATEGORY 20,000-55,000		
Covington	540	4.8
Richmond	301	4.5
Hopkinsville	218	3.5
Frankfort	174	3.3
Owensboro	404	3.2
Radcliff	89	3.1
Bowling Green	440	2.9
Paducah	262	2.9
Henderson	185	2.7
Florence	220	2.5
Jeffersontown	111	2.3
Ashland	125	2.1
Elizabethtown	110	1.7
POPULATION CATEGORY 10,000-19,999		
Newport	244	5.3
Independence	91	5.2
Middlesboro	84	4.8
Nicholasville	153	4.4
Shively	194	4.1
Erlanger	162	4.0
Shelbyville	82	3.7
Fort Thomas	45	3.6
Winchester	129	3.3
Bardstown	79	2.9
Campbellsville	71	2.8
Georgetown	85	2.5
Murray	38	2.3
Danville	78	2.2
Glasgow	74	2.2
Madisonville	81	1.8
Mayfield	41	1.8
Saint Matthews	66	1.8
Somerset	66	1.6
POPULATION CATEGORY 5,000-9,999		
Dayton	33	6.4
Villa Hills	20	5.6
Fort Mitchell	73	4.9
Elsmere	39	4.8
Mount Washington	42	4.6
Lebanon	56	4.4
Lawrenceburg	38	4.3
Taylor Mill	53	4.3
Paris	75	4.1
Pikeville	84	4.0
Shepherdsville	67	3.8
Franklin	47	3.5
Highland Heights	30	3.3
Maysville	85	3.2
Williamsburg	31	3.2
Versailles	49	3.2
Leitchfield	19	3.2
Bellevue	37	3.1
Mount Sterling	57	3.1
Harrodsburg	54	3.1
Fort Wright	63	3.0
Central City	30	3.0
Cynthiana	42	3.0
Flatwoods	19	2.8
Berea	47	2.7
Russellville	44	2.6
Monticello	36	2.5
Alexandria	31	2.4
Princeton	25	2.4
Corbin	50	2.3
Morehead	39	2.1
La Grange	20	2.1
Edgewood	18	2.0
London	62	1.9
Wilmore	2	0.9
POPULATION CATEGORY 2,500-4,999		
Park Hills	19	8.7
Ludlow	25	7.3
Vine Grove	26	7.0
Carrollton	42	4.9
Irvine	30	4.6
Springfield	25	4.4
Hickman	7	4.0
Stanton	19	3.8
Prestonsburg	46	3.7
Cold Spring	35	3.4
Southgate	17	3.4
Providence	12	3.4
Dawson Springs	10	3.4
Stanford	12	3.2
Mount Vernon	23	3.2
Hartford	5	3.2
Hartford	5	3.2
Fulton	15	3.1
Flemingsburg	13	2.9
Cumberland	8	2.9
Lancaster	19	2.8
Tompkinsville	17	2.8
Morganfield	19	2.7
Hazard	61	2.7
Lakeside Park	12	2.7
Hodgenville	19	2.6
Beaver Dam	15	2.5
Williamstown	17	2.5
Scottsville	26	2.4
Russell	20	2.4
Calvert City	8	2.4
Greenville	22	2.4
Paintsville	28	2.3
Columbia	23	2.3
Marion	10	2.0
Grayson	21	2.0
Benton	17	1.9

TABLE 22. SUMMARY OF ALCOHOL CONVICTIONS BY COUNTY (1996-2000)

COUNTY	1996	1997	1998	1999	2000	TOTAL ALCOHOL CONVICTIONS (FIVE YEARS)	ANNUAL AVERAGE ALCOHOL CONVICTIONS PER 1,000 LICENSED DRIVERS	ALCOHOL CONVICTIONS PER ALCOHOL-RELATED CRASH
Adair	158	157	160	111	153	739	13.3	7.8
Allen	96	100	119	94	97	506	8.6	5.0
Anderson	133	137	172	225	158	825	12.1	5.9
Ballard	119	122	98	93	88	520	17.1	6.7
Barren	262	286	276	225	232	1,281	9.8	5.1
Bath	56	69	62	86	55	328	8.8	3.6
Bell	380	444	337	366	357	1,884	22.0	11.4
Boone	481	641	687	550	659	3,018	9.9	5.0
Bourbon	169	161	154	173	213	870	12.7	4.4
Boyd	325	264	361	364	306	1,620	9.4	5.1
Boyle	131	164	138	151	116	700	7.5	4.6
Bracken	58	47	53	44	28	230	7.9	3.8
Breathitt	97	129	122	124	104	576	12.3	4.1
Breckinridge	73	88	111	80	83	435	6.7	5.9
Bullitt	497	475	431	464	576	2,443	10.9	6.6
Butler	94	113	134	124	116	581	13.3	8.0
Caldwell	77	80	78	97	74	406	8.5	5.0
Calloway	297	296	267	164	208	1,232	10.7	6.9
Campbell	615	845	1,030	873	855	4,218	14.1	6.7
Carlisle	37	31	44	32	21	165	8.3	13.8
Carroll	163	199	172	135	215	884	25.5	6.3
Carter	170	167	187	143	236	903	10.3	4.7
Casey	162	190	188	148	112	800	16.1	9.5
Christian	560	753	957	850	694	3,814	22.0	8.3
Clark	281	367	354	353	367	1,722	14.8	6.2
Clay	195	187	253	295	286	1,216	18.6	9.7
Clinton	110	81	134	125	93	543	16.4	16.0
Crittenden	40	43	54	68	84	289	8.8	4.3
Cumberland	61	58	77	98	65	359	14.9	22.4
Daviess	597	608	700	655	596	3,156	9.8	4.8
Edmonson	52	53	39	30	36	210	5.1	3.2
Elliott	31	44	49	27	50	201	9.2	3.7
Estill	106	130	120	131	98	585	11.5	4.2
Fayette	2,485	2,443	2,420	2,119	1,824	11,291	12.9	4.6
Fleming	65	63	48	65	78	319	6.7	4.3
Floyd	366	320	445	345	419	1,895	13.8	5.6
Franklin	473	431	455	333	443	2,135	12.7	6.1
Fulton	136	115	123	122	140	636	26.4	12.2
Gallatin	55	66	87	101	115	424	15.9	6.5
Garrard	73	78	92	171	133	547	10.8	5.4
Grant	245	249	218	217	165	1,094	14.1	7.1
Graves	255	255	268	282	311	1,371	10.7	7.2
Grayson	142	152	228	139	130	791	9.4	6.5
Green	22	37	50	37	42	188	4.8	2.9
Greenup	273	291	309	321	299	1,493	11.4	6.7
Hancock	32	51	76	56	57	272	8.8	6.5
Hardin	640	615	663	688	691	3,297	10.9	7.2
Harlan	470	484	436	475	336	2,201	21.1	11.5
Harrison	201	164	132	98	108	703	11.2	5.1
Hart	146	109	113	105	130	603	10.6	6.9
Henderson	456	412	391	447	467	2,173	13.6	6.4
Henry	181	193	166	113	114	767	14.5	5.3
Hickman	24	29	46	29	29	157	8.3	5.2
Hopkins	454	416	364	403	365	2,002	12.3	8.4
Jackson	104	123	97	101	100	525	12.3	5.5
Jefferson	4,191	3,947	3,800	3,507	3,845	19,290	8.2	4.0
Jessamine	245	223	237	314	431	1,450	11.0	4.4
Johnson	165	177	152	192	206	892	11.3	5.2
Kenton	905	1,000	1,066	1,157	1,160	5,288	10.4	3.9
Knott	127	162	138	122	77	626	11.7	5.7
Knox	319	342	327	334	208	1,530	15.6	7.4
Larue	75	72	67	72	71	357	7.5	4.8
Laurel	447	501	714	679	677	3,018	17.2	10.1
Lawrence	94	131	138	118	149	630	12.3	8.0

TABLE 22. SUMMARY OF ALCOHOL CONVICTIONS BY COUNTY (1996-2000) (continued)

COUNTY	1996	1997	1998	1999	2000	TOTAL ALCOHOL CONVICTIONS (FIVE YEARS)	ANNUAL AVERAGE ALCOHOL CONVICTIONS PER 1,000 LICENSED DRIVERS	ALCOHOL CONVICTIONS PER ALCOHOL-RELATED CRASH
Lee	57	72	44	53	59	285	11.7	6.3
Leslie	63	112	64	122	109	470	11.5	4.7
Letcher	138	152	165	140	116	711	8.4	4.0
Lewis	66	112	138	98	101	515	11.2	4.6
Lincoln	128	118	105	98	98	547	7.1	4.0
Livingston	125	128	94	77	81	505	14.0	6.8
Logan	193	173	200	205	206	977	10.7	6.2
Lyon	105	77	73	56	78	389	14.4	8.6
McCracken	771	703	751	589	573	3,387	14.0	6.3
McCreary	129	91	138	188	189	735	14.0	7.4
McLean	48	56	49	43	38	234	6.5	4.5
Madison	741	859	889	667	646	3,802	16.6	5.2
Magoffin	152	113	100	154	134	653	15.3	5.6
Marion	126	163	149	183	173	794	13.4	3.0
Marshall	137	168	250	216	190	961	8.4	5.7
Martin	91	102	85	122	178	578	14.2	7.3
Mason	165	164	147	125	164	765	13.1	3.9
Meade	290	301	302	214	193	1,300	15.7	8.5
Menifee	19	23	25	61	31	159	7.5	3.2
Mercer	183	156	171	107	76	693	9.2	5.1
Metcalfe	40	77	61	58	65	301	8.9	6.3
Monroe	55	61	49	79	55	299	7.5	5.2
Montgomery	155	159	161	178	153	806	10.3	4.2
Morgan	72	107	101	89	72	441	11.0	6.0
Muhlenberg	251	201	198	198	185	1,033	9.4	5.6
Nelson	217	243	269	207	259	1,195	8.9	4.0
Nicholas	46	45	71	51	69	282	11.0	3.4
Ohio	157	166	117	113	126	679	8.5	5.3
Oldham	128	161	177	164	150	780	4.9	5.1
Owen	24	43	57	53	38	215	6.1	2.5
Owsley	32	43	37	30	75	217	12.7	5.6
Pendleton	80	79	104	54	75	392	7.8	3.3
Perry	356	413	325	347	283	1,724	17.2	6.6
Pike	447	656	484	406	395	2,388	10.5	3.9
Powell	97	110	125	151	132	615	13.7	7.7
Pulaski	371	390	400	390	356	1,907	9.5	6.8
Robertson	6	13	9	7	3	38	4.9	2.9
Rockcastle	269	261	220	201	229	1,180	22.0	13.0
Rowan	289	290	283	219	251	1,332	19.9	8.6
Russell	158	177	167	115	128	745	12.8	6.8
Scott	177	242	239	230	199	1,087	9.4	4.6
Shelby	219	349	292	368	399	1,627	14.7	6.1
Simpson	159	153	210	183	169	874	15.3	8.0
Spencer	46	59	58	70	79	312	7.3	4.2
Taylor	168	214	212	153	169	916	11.5	5.7
Todd	47	104	95	63	75	384	9.8	6.4
Trigg	129	100	130	91	76	526	11.5	9.2
Trimble	23	34	66	49	25	197	6.8	3.9
Union	178	166	153	138	197	832	15.4	6.1
Warren	1,041	1,251	1,235	938	982	5,447	18.2	7.0
Washington	52	50	53	55	55	265	6.9	2.8
Wayne	60	81	94	101	95	431	6.8	4.8
Webster	55	38	66	56	120	335	6.8	4.1
Whitley	149	211	262	344	330	1,296	11.8	6.2
Wolfe	61	82	76	74	89	382	15.8	5.6
Woodford	180	200	250	233	262	1,125	13.2	5.0
TOTAL *	30,270	32,052	32,829	30,534	30,604	156,289	11.5	5.4

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

TABLE 23. ALCOHOL CONVICTION RATES IN DECREASING ORDER (BY COUNTY POPULATION CATEGORIES)
(1996-2000)

POPULATION	COUNTY	ANNUAL AVERAGE ALCOHOL CONVICTIONS PER 1,000 LICENSED DRIVERS	COUNTY	ALCOHOL CONVICTIONS PER ALCOHOL-RELATED CRASH
UNDER 10,000	Fulton	26.4	Cumberland	22.4
	Ballard	17.1	Clinton	16.0
	Clinton	16.4	Carlisle	13.8
	Gallatin	15.9	Fulton	12.2
	Wolfe	15.8	Lyon	8.6
	Cumberland	14.9	Livingston	6.8
	Lyon	14.4	Ballard	6.7
	Livingston	14.0	Gallatin	6.5
	Owsley	12.7	Hancock	6.5
	Lee	11.7	Lee	6.3
	Nicholas	11.0	Wolfe	5.6
	Elliott	9.2	Owsley	5.6
	Hancock	8.8	Hickman	5.2
	Crittenden	8.8	McLean	4.5
	Carlisle	8.3	Crittenden	4.3
	Hickman	8.3	Trimble	3.9
	Bracken	7.9	Bracken	3.8
	Menifee	7.5	Elliott	3.7
	Trimble	6.8	Nicholas	3.4
	McLean	6.5	Menifee	3.2
	Robertson	4.9	Robertson	2.9
10,000-14,999	Carroll	25.5	Trigg	9.2
	Magoffin	15.3	Butler	8.0
	Martin	14.2	Powell	7.7
	Powell	13.7	Martin	7.3
	Butler	13.3	Todd	6.4
	Jackson	12.3	Carroll	6.3
	Leslie	11.5	Metcalfe	6.3
	Trigg	11.5	Morgan	6.0
	Lewis	11.2	Magoffin	5.6
	Morgan	11.0	Jackson	5.5
	Garrard	10.8	Garrard	5.4
	Todd	9.8	Monroe	5.2
	Metcalfe	8.9	Caldwell	5.0
	Bath	8.8	Larue	4.8
	Caldwell	8.5	Leslie	4.7
	Pendleton	7.8	Lewis	4.6
	Larue	7.5	Fleming	4.3
	Monroe	7.5	Spencer	4.2
	Spencer	7.3	Webster	4.1
	Washington	6.9	Bath	3.6
	Webster	6.8	Pendleton	3.3
	Fleming	6.7	Edmonson	3.2
	Owen	6.1	Green	2.9
	Edmonson	5.1	Washington	2.8
	Green	4.8	Owen	2.5
15,000-24,999	Rockcastle	22.0	Rockcastle	13.0
	Rowan	19.9	Clay	9.7
	Clay	18.6	Casey	9.5
	Casey	16.1	Rowan	8.6
	Union	15.4	Simpson	8.0
	Simpson	15.3	Lawrence	8.0
	Henry	14.5	Adair	7.8
	Grant	14.1	McCreary	7.4
	McCreary	14.0	Grant	7.1
	Marion	13.4	Hart	6.9
	Adair	13.3	Russell	6.8
	Woodford	13.2	Grayson	6.5
	Mason	13.1	Union	6.1
	Russell	12.8	Anderson	5.9
	Bourbon	12.7	Breckinridge	5.9
	Breathitt	12.3	Knott	5.7
	Lawrence	12.3	Taylor	5.7
	Anderson	12.1	Ohio	5.3

TABLE 23. ALCOHOL CONVICTION RATES IN DECREASING ORDER (BY COUNTY POPULATION CATEGORIES) (1996-2000) (continued)

POPULATION	COUNTY	PER 1,000 LICENSED DRIVERS ANNUAL AVERAGE ALCOHOL CONVICTIONS	COUNTY	RELATED PER ALCOHOL-CONVICTIONS ALCOHOL CRASH
15,000-24,999	Knott	11.7	Henry	5.3
(cont'd)	Estill	11.5	Johnson	5.2
	Taylor	11.5	Harrison	5.1
	Johnson	11.3	Mercer	5.1
	Harrison	11.2	Woodford	5.0
	Hart	10.6	Allen	5.0
	Montgomery	10.3	Wayne	4.8
	Grayson	9.4	Bourbon	4.4
	Mercer	9.2	Estill	4.2
	Allen	8.6	Montgomery	4.2
	Ohio	8.5	Breathitt	4.1
	Lincoln	7.1	Lincoln	4.0
	Wayne	6.8	Mason	3.9
	Breckinridge	6.7	Marion	3.0
25,000 - 49,999	Bell	22.0	Harlan	11.5
	Harlan	21.1	Bell	11.4
	Perry	17.2	Meade	8.5
	Meade	15.7	Hopkins	8.4
	Knox	15.6	Knox	7.4
	Clark	14.8	Graves	7.2
	Shelby	14.7	Calloway	6.9
	Floyd	13.8	Greenup	6.7
	Henderson	13.6	Perry	6.6
	Franklin	12.7	Henderson	6.4
	Hopkins	12.3	Whitley	6.2
	Whitley	11.8	Clark	6.2
	Greenup	11.4	Logan	6.2
	Jessamine	11.0	Shelby	6.1
	Graves	10.7	Franklin	6.1
	Logan	10.7	Marshall	5.7
	Calloway	10.7	Floyd	5.6
	Carter	10.3	Muhlenberg	5.6
	Barren	9.8	Oldham	5.1
	Scott	9.4	Barren	5.1
	Boyd	9.4	Boyd	5.1
	Muhlenberg	9.4	Carter	4.7
	Nelson	8.9	Scott	4.6
	Letcher	8.4	Boyle	4.6
	Marshall	8.4	Jessamine	4.4
	Boyle	7.5	Nelson	4.0
	Oldham	4.9	Letcher	4.0
50,000 - OVER	Christian	22.0	Laurel	10.1
	Warren	18.2	Christian	8.3
	Laurel	17.2	Hardin	7.2
	Madison	16.6	Warren	7.0
	Campbell	14.1	Pulaski	6.8
	McCracken	14.0	Campbell	6.7
	Fayette	12.9	Bullitt	6.6
	Hardin	10.9	McCracken	6.3
	Bullitt	10.9	Madison	5.2
	Pike	10.5	Boone	5.0
	Kenton	10.4	Daviess	4.8
	Boone	9.9	Fayette	4.6
	Daviess	9.8	Jefferson	4.0
	Pulaski	9.5	Pike	3.9
	Jefferson	8.2	Kenton	3.9

TABLE 24. PERCENTAGE OF DRIVERS CONVICTED OF DUI ARREST (BY COUNTY) (1996-2000)

COUNTY	TOTAL DUI ARRESTS*	TOTAL DUI CONVICTIONS**	CONVICTION PERCENTAGE
Adair	1,054	739	70.1
Allen	685	506	73.9
Anderson	1,066	825	77.4
Ballard	625	520	83.2
Barren	1,807	1,281	70.9
Bath	489	328	67.1
Bell	2,665	1,884	70.7
Boone	4,296	3,018	70.3
Bourbon	1,253	870	69.4
Boyd	2,196	1,620	73.8
Boyle	1,042	700	67.2
Bracken	281	230	81.9
Breathitt	916	576	62.9
Breckinridge	555	435	78.4
Bullitt	3,612	2,443	67.6
Butler	744	581	78.1
Caldwell	472	406	86.0
Calloway	1,680	1,232	73.3
Campbell	5,421	4,218	77.8
Carlisle	209	165	78.9
Carroll	1,169	884	75.6
Carter	1,530	903	59.0
Casey	1,080	800	74.1
Christian	5,119	3,814	74.5
Clark	2,102	1,722	81.9
Clay	2,405	1,216	50.6
Clinton	818	543	66.4
Crittenden	342	289	84.5
Cumberland	510	359	70.4
Daviess	3,902	3,156	80.9
Edmonson	324	210	64.8
Elliott	288	201	69.8
Estill	886	585	66.0
Fayette	13,276	11,291	85.0
Fleming	373	319	85.5
Floyd	2,882	1,895	65.8
Franklin	3,141	2,135	68.0
Fulton	813	636	78.2
Gallatin	726	424	58.4
Garrard	811	547	67.4
Grant	1,228	1,094	89.1
Graves	1,850	1,371	74.1
Grayson	965	791	82.0
Green	246	188	76.4
Greenup	2,011	1,493	74.2
Hancock	349	272	77.9
Hardin	4,178	3,297	78.9
Harlan	2,629	2,201	83.7
Harrison	859	703	81.8
Hart	757	603	79.7
Henderson	2,551	2,173	85.2
Henry	946	767	81.1
Hickman	197	157	79.7
Hopkins	2,286	2,002	87.6
Jackson	768	525	68.4
Jefferson	28,995	19,290	66.5
Jessamine	1,945	1,450	74.6
Johnson	1,343	892	66.4
Kenton	8,292	5,288	63.8
Knott	894	626	70.0
Knox	2,181	1,530	70.2
Larue	470	357	76.0

TABLE 24. PERCENTAGE OF DRIVERS CONVICTED OF DUI ARREST (BY COUNTY) (1996-2000) (continued)

COUNTY	TOTAL DUI ARRESTS*	TOTAL DUI CONVICTIONS**	CONVICTION PERCENTAGE
Laurel	3,906	3,018	77.3
Lawrence	903	630	69.8
Lee	408	285	69.9
Leslie	852	470	55.2
Letcher	985	711	72.2
Lewis	634	515	81.2
Lincoln	721	547	75.9
Livingston	595	505	84.9
Logan	1,386	977	70.5
Lyon	514	389	75.7
McCracken	4,173	3,387	81.2
McCreary	1,166	735	63.0
McLean	273	234	85.7
Madison	5,185	3,802	73.3
Magoffin	838	653	77.9
Marion	1,290	794	61.6
Marshall	1,173	961	81.9
Martin	770	578	75.1
Mason	928	765	82.4
Meade	1,652	1,300	78.7
Menifee	255	159	62.4
Mercer	834	693	83.1
Metcalfe	445	301	67.6
Monroe	502	299	59.6
Montgomery	1,097	806	73.5
Morgan	543	441	81.2
Muhlenberg	1,253	1,033	82.4
Nelson	1,549	1,195	77.1
Nicholas	398	282	70.9
Ohio	905	679	75.0
Oldham	1,187	780	65.7
Owen	315	215	68.3
Owsley	502	217	43.2
Pendleton	538	392	72.9
Perry	2,430	1,724	70.9
Pike	3,852	2,388	62.0
Powell	931	615	66.1
Pulaski	3,103	1,907	61.5
Robertson	64	38	59.4
Rockcastle	1,770	1,180	66.7
Rowan	1,555	1,332	85.7
Russell	1,071	745	69.6
Scott	1,522	1,087	71.4
Shelby	2,151	1,627	75.6
Simpson	1,109	874	78.8
Spencer	451	312	69.2
Taylor	1,190	916	77.0
Todd	502	384	76.5
Trigg	683	526	77.0
Trimble	265	197	74.3
Union	971	832	85.7
Warren	7,015	5,447	77.6
Washington	373	265	71.0
Wayne	624	431	69.1
Webster	443	335	75.6
Whitley	2,138	1,296	60.6
Wolfe	545	382	70.1
Woodford	1,533	1,125	73.4
TOTAL	214,471	156,289	72.9

* Obtained from Administrative Office of the Courts

** Obtained from Division of Driver Licensing of KY Transportation Cabinet

TABLE 25. DUI ARREST CONVICTION RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER) (1996-2000)

POPULATION CATEGORY	AVERAGE CONVICTION PERCENTAGE	COUNTY	TOTAL DUI ARRESTS	TOTAL DUI CONVICTIONS	CONVICTION PERCENTAGE
UNDER 10,000	72.7	McLean	273	234	85.7
		Livingston	595	505	84.9
		Crittenden	342	289	84.5
		Ballard	625	520	83.2
		Bracken	281	230	81.9
		Hickman	197	157	79.7
		Carlisle	209	165	78.9
		Fulton	813	636	78.2
		Hancock	349	272	77.9
		Lyon	514	389	75.7
		Trimble	265	197	74.3
		Nicholas	398	282	70.9
		Cumberland	510	359	70.4
		Wolfe	545	382	70.1
		Lee	408	285	69.9
		Elliott	288	201	69.8
		Clinton	818	543	66.4
		Menifee	255	159	62.4
		Robertson	64	38	59.4
		Gallatin	726	424	58.4
		Owsley	502	217	43.2
10,000-14,999	72.8	Caldwell	472	406	86.0
		Fleming	373	319	85.5
		Lewis	634	515	81.2
		Morgan	543	441	81.2
		Butler	744	581	78.1
		Magoffin	838	653	77.9
		Trigg	683	526	77.0
		Todd	502	384	76.5
		Green	246	188	76.4
		Larue	470	357	76.0
		Webster	443	335	75.6
		Carroll	1169	884	75.6
		Martin	770	578	75.1
		Pendleton	538	392	72.9
		Washington	373	265	71.0
		Spencer	451	312	69.2
		Jackson	768	525	68.4
		Owen	315	215	68.3
		Metcalfe	445	301	67.6
		Garrard	811	547	67.4
		Bath	489	328	67.1
		Powell	931	615	66.1
		Edmonson	324	210	64.8
		Monroe	502	299	59.6
		Leslie	852	470	55.2
15,000-24,999	73.8	Grant	1228	1094	89.1
		Union	971	832	85.7
		Rowan	1555	1332	85.7
		Mercer	834	693	83.1
		Mason	928	765	82.4
		Grayson	965	791	82.0
		Harrison	859	703	81.8
		Henry	946	767	81.1
		Hart	757	603	79.7
		Simpson	1109	874	78.8
		Breckinridge	555	435	78.4
		Anderson	1066	825	77.4
		Taylor	1190	916	77.0
		Lincoln	721	547	75.9
		Ohio	905	679	75.0

TABLE 25. DUI ARREST CONVICTION RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER) (1996-2000) (continued)

POPULATION CATEGORY	AVERAGE CONVICTION PERCENTAGE	COUNTY	TOTAL ARRESTS	TOTAL CONVICTIONS	CONVICTION PERCENTAGE
15,000-24,999 (continued)		Casey	1080	800	74.1
		Allen	685	506	73.9
		Montgomery	1097	806	73.5
		Woodford	1533	1125	73.4
		Adair	1054	739	70.1
		Knott	894	626	70.0
		Lawrence	903	630	69.8
		Russell	1071	745	69.6
		Bourbon	1253	870	69.4
		Wayne	624	431	69.1
		Rockcastle	1770	1180	66.7
		Johnson	1343	892	66.4
		Estill	886	585	66.0
		McCreary	1,166	735	63.0
		Breathitt	916	576	62.9
		Marion	1290	794	61.6
		Clay	2405	1216	50.6
25,000-49,999	73.6	Hopkins	2286	2002	87.6
		Henderson	2551	2173	85.2
		Harlan	2629	2201	83.7
		Muhlenberg	1253	1033	82.4
		Marshall	1173	961	81.9
		Clark	2102	1722	81.9
		Meade	1652	1300	78.7
		Nelson	1549	1195	77.1
		Shelby	2151	1627	75.6
		Jessamine	1945	1450	74.6
		Greenup	2011	1493	74.2
		Graves	1850	1371	74.1
		Boyd	2196	1620	73.8
		Calloway	1680	1232	73.3
		Letcher	985	711	72.2
		Scott	1522	1087	71.4
		Perry	2430	1724	70.9
		Barren	1807	1281	70.9
		Bell	2665	1884	70.7
		Logan	1386	977	70.5
		Knox	2181	1530	70.2
		Franklin	3141	2135	68.0
		Boyle	1042	700	67.2
		Floyd	2882	1895	65.8
		Oldham	1187	780	65.7
		Whitley	2138	1296	60.6
		Carter	1530	903	59.0
50,000 - OVER	73.2	Fayette	13276	11291	85.0
		McCracken	4,173	3,387	81.2
		Daviess	3902	3156	80.9
		Hardin	4178	3297	78.9
		Campbell	5421	4218	77.8
		Warren	7015	5447	77.6
		Laurel	3906	3018	77.3
		Christian	5119	3814	74.5
		Madison	5185	3802	73.3
		Boone	4296	3018	70.3
		Bullitt	3612	2443	67.6
		Jefferson	28995	19290	66.5
		Kenton	8292	5288	63.8
		Pike	3852	2388	62.0
		Pulaski	3103	1907	61.5

TABLE 26. SUMMARY OF RECKLESS DRIVING CONVICTIONS BY COUNTY (1996-2000)

COUNTY	1996	1997	1998	1999	2000	TOTAL RECKLESS DRIVING CONVICTIONS (FIVE YEARS)	ANNUAL AVERAGE RECKLESS DRIVING CONVICTIONS PER 1,000 LICENSED DRIVERS
Adair	23	15	21	25	15	99	1.8
Allen	14	22	20	12	7	75	1.3
Anderson	41	17	24	38	24	144	2.1
Ballard	32	17	12	8	3	72	2.4
Barren	97	108	85	98	81	469	3.6
Bath	8	10	1	16	9	44	1.2
Bell	32	49	45	24	29	179	2.1
Boone	137	108	120	128	137	630	2.1
Bourbon	45	31	16	20	28	140	2.0
Boyd	74	59	68	78	56	335	2.0
Boyle	32	30	39	28	24	153	1.6
Bracken	32	20	17	14	18	101	3.5
Breathitt	21	12	11	27	17	88	1.9
Breckinridge	15	29	29	21	19	113	1.7
Bullitt	103	84	94	130	140	551	2.4
Butler	10	12	14	14	6	56	1.3
Caldwell	20	24	31	27	16	118	2.5
Calloway	85	39	40	18	28	210	1.8
Campbell	145	150	155	208	142	800	2.7
Carlisle	19	8	9	5	3	44	2.2
Carroll	19	18	16	18	16	87	2.5
Carter	47	21	42	45	80	235	2.7
Casey	28	25	31	15	11	110	2.2
Christian	115	133	84	90	80	502	2.9
Clark	31	21	16	22	28	118	1.0
Clay	38	29	30	42	33	172	2.6
Clinton	26	36	30	53	28	173	5.2
Crittenden	14	7	14	21	19	75	2.3
Cumberland	14	15	15	33	7	84	3.5
Daviess	88	88	122	103	67	468	1.5
Edmonson	18	16	7	5	6	52	1.3
Elliott	3	3	9	4	8	27	1.2
Estill	21	23	27	33	18	122	2.4
Fayette	626	513	437	414	445	2,435	2.8
Fleming	24	5	13	17	12	71	1.5
Floyd	58	79	77	45	47	306	2.2
Franklin	64	109	141	128	150	592	3.5
Fulton	20	7	12	16	12	67	2.8
Gallatin	23	24	20	27	33	127	4.8
Garrard	20	17	24	47	54	162	3.2
Grant	38	30	32	28	34	162	2.1
Graves	34	40	24	40	52	190	1.5
Grayson	50	34	47	33	40	204	2.4
Green	8	3	20	7	5	43	1.1
Greenup	67	46	59	75	47	294	2.2
Hancock	1	6	15	5	9	36	1.2
Hardin	183	200	179	172	117	851	2.8
Harlan	88	100	64	58	54	364	3.5
Harrison	54	29	29	22	20	154	2.5
Hart	19	19	18	7	9	72	1.3
Henderson	44	65	64	59	67	299	1.9
Henry	9	18	11	9	9	56	1.1
Hickman	4	1	9	9	8	31	1.6
Hopkins	64	76	57	42	47	286	1.8
Jackson	16	5	15	5	13	54	1.3
Jefferson	1,218	1,353	1,162	1,090	735	5,558	2.4
Jessamine	33	37	35	47	60	212	1.6
Johnson	33	38	25	25	42	163	2.1
Kenton	326	333	297	441	282	1,679	3.3
Knott	10	3	12	13	8	46	0.9
Knox	78	78	60	49	45	310	3.2
Larue	23	17	16	10	4	70	1.5
Laurel	77	46	51	44	50	268	1.5

TABLE 26. SUMMARY OF RECKLESS DRIVING CONVICTIONS BY COUNTY (1996-2000) (continued)

COUNTY	1996	1997	1998	1999	2000	RECKLESS DRIVING CONVICTIONS (FIVE YEARS)	RECKLESS DRIVING CONVICTIONS PER 1,000 LICENSED DRIVERS
Lawrence	23	24	16	15	20	98	1.9
Lee	4	6	8	8	4	30	1.2
Leslie	18	10	6	20	16	70	1.7
Letcher	12	19	15	27	14	87	1.0
Lewis	19	12	15	27	12	85	1.9
Lincoln	38	22	34	28	20	142	1.8
Livingston	27	17	10	13	12	79	2.2
Logan	34	34	41	39	45	193	2.1
Lyon	33	23	19	30	28	133	4.9
McCracken	120	112	91	77	83	483	2.0
McCreary	38	25	26	29	9	127	2.4
McLean	5	13	9	6	15	48	1.3
Madison	83	40	55	65	85	328	1.4
Magoffin	38	23	11	6	10	88	2.1
Marion	79	60	37	53	30	259	4.4
Marshall	30	18	24	22	31	125	1.1
Martin	19	19	4	10	15	67	1.6
Mason	24	21	31	33	23	132	2.3
Meade	54	63	66	48	27	258	3.1
Menifee	3	8	7	13	6	37	1.7
Mercer	32	33	20	14	12	111	1.5
Metcalfe	13	21	22	21	27	104	3.1
Monroe	14	22	25	29	23	113	2.8
Montgomery	18	23	25	49	28	143	1.8
Morgan	20	14	18	7	8	67	1.7
Muhlenberg	57	39	34	16	20	166	1.5
Nelson	56	63	51	62	78	310	2.3
Nicholas	31	20	14	20	19	104	4.1
Ohio	18	23	27	15	14	97	1.2
Oldham	12	13	12	14	6	57	0.4
Owen	6	11	7	6	10	40	1.1
Owsley	10	9	10	17	14	60	3.5
Pendleton	30	21	24	14	16	105	2.1
Perry	45	40	39	27	18	169	1.7
Pike	112	115	84	61	50	422	1.8
Powell	14	16	13	12	10	65	1.4
Pulaski	86	98	120	88	106	498	2.5
Robertson	8	5	1	3	6	23	3.0
Rockcastle	56	41	43	36	28	204	3.8
Rowan	59	34	33	51	42	219	3.3
Russell	12	16	7	11	10	56	1.0
Scott	58	76	57	46	48	285	2.5
Shelby	21	22	40	47	49	179	1.6
Simpson	15	9	15	19	16	74	1.3
Spencer	3	0	9	4	9	25	0.6
Taylor	54	33	40	17	28	172	2.2
Todd	9	17	15	12	12	65	1.7
Trigg	39	23	23	19	20	124	2.7
Trimble	3	3	1	0	0	7	0.2
Union	22	15	15	19	29	100	1.9
Warren	167	210	191	119	124	811	2.7
Washington	11	14	10	11	10	56	1.5
Wayne	26	10	25	20	20	101	1.6
Webster	8	14	19	16	22	79	1.6
Whitley	34	45	54	56	82	271	2.5
Wolfe	18	12	13	23	19	85	3.5
Woodford	31	25	38	43	43	180	2.1
TOTAL	6,688	6,384	6,038	6,020	5,294	30,424	2.2

TABLE 27. PERCENTAGE OF CRASHES INVOLVING DRUGS BY COUNTY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES) (1996-2000)(ALL ROADS)

COUNTY	NUMBER OF CRASHES	PERCENT OF TOTAL CRASHES
POPULATION CATEGORY UNDER 10,000		
Lee	8	1.4
Clinton	8	1.1
Nicholas	9	1.1
Elliott	5	1.0
Crittenden	11	1.0
Hickman	5	1.0
Livingston	9	0.8
Owsley	3	0.8
Wolfe	7	0.7
Ballard	7	0.6
Lyon	6	0.5
Hancock	4	0.5
Fulton	5	0.5
Carlisle	1	0.4
Gallatin	5	0.4
Trimble	3	0.3
McLean	4	0.3
Menifee	1	0.2
Cumberland	1	0.2
Bracken	3	0.2
Robertson	0	0.0
POPULATION CATEGORY 10,000-14,999		
Martin	46	3.4
Leslie	41	3.3
Jackson	22	1.6
Magoffin	20	1.5
Butler	9	0.7
Todd	7	0.6
Garrard	11	0.6
Webster	9	0.5
Trigg	8	0.5
Carroll	12	0.5
Monroe	5	0.5
Powell	7	0.4
Caldwell	7	0.4
Spencer	4	0.4
Lewis	7	0.4
Pendleton	8	0.4
Edmonson	4	0.4
Bath	5	0.3
Fleming	5	0.3
Green	1	0.1
Morgan	1	0.1
Washington	1	0.1
Owen	1	0.1
Larue	2	0.1
Metcalfe	1	0.1
POPULATION CATEGORY 15,000-24,999		
Johnson	72	2.6
Clay	53	2.3
Breathitt	33	1.5
Casey	13	1.2
Knott	20	1.1
Lawrence	16	1.1
Russell	16	1.0
McCreary	14	1.0
Rockcastle	21	0.9
Estill	16	0.8
Bourbon	26	0.8
Grayson	14	0.6
Lincoln	12	0.6
Wayne	14	0.6
Adair	14	0.6
Mercer	17	0.5
Harrison	13	0.5
Allen	11	0.5
Taylor	20	0.5
Hart	10	0.5
Henry	9	0.5
Simpson	12	0.5
Rowan	15	0.4
Ohio	12	0.4
Anderson	6	0.3
Mason	11	0.3
Grant	11	0.3
Union	6	0.3
Montgomery	12	0.3
Woodford	10	0.3
Marion	5	0.2
Breckinridge	1	0.1
POPULATION CATEGORY 25,000-50,000		
Knox	85	2.2
Floyd	93	1.8
Bell	53	1.5
Harlan	53	1.4
Letcher	35	1.2
Perry	58	1.1
Whitley	51	1.0
Carter	27	0.8
Greenup	30	0.8
Boyd	60	0.6
Marshall	24	0.6
Muhlenberg	29	0.6
Hopkins	38	0.5
Franklin	30	0.4
Calloway	16	0.4
Clark	27	0.4
Jessamine	26	0.4
Oldham	20	0.4
Barren	19	0.3
Graves	17	0.3
Henderson	31	0.3
Logan	10	0.3
Meade	9	0.3
Scott	13	0.2
Boyle	10	0.2
Nelson	12	0.2
Shelby	12	0.2
POPULATION CATEGORY OVER 50,000		
Pike	148	1.4
Laurel	100	1.2
Pulaski	47	0.5
Warren	99	0.5
Daviess	79	0.5
Kenton	109	0.4
Campbell	53	0.4
Madison	48	0.4
Bullitt	23	0.4
Christian	29	0.3
Fayette	216	0.3
McCracken	48	0.3
Hardin	32	0.2
Jefferson	242	0.2
Boone	36	0.2

TABLE 28. PERCENTAGE OF CRASHES INVOLVING DRUGS BY CITY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES)(1996-2000)

CITY	NUMBER OF DRUG-RELATED CRASHES	PERCENTAGE OF CRASHES INVOLVING DRUGS
POPULATION CATEGORY OVER 200,000		
Lexington	153	0.2
Louisville	93	0.1
POPULATION CATEGORY 20,000-55,000		
Owensboro	37	0.3
Bowling Green	50	0.3
Covington	37	0.3
Richmond	19	0.3
Ashland	17	0.3
Frankfort	12	0.2
Hopkinsville	12	0.2
Paducah	22	0.2
Florence	12	0.1
Elizabethtown	6	0.1
Henderson	10	0.1
Radcliff	3	0.1
POPULATION CATEGORY 10,000-19,999		
Middlesboro	19	1.1
Fort Thomas	6	0.5
Campbellsville	11	0.4
Winchester	17	0.4
Newport	16	0.3
Nicholasville	9	0.3
Madisonville	12	0.3
Somerset	11	0.3
Shively	11	0.2
Erlanger	7	0.2
Murray	3	0.2
Glasgow	8	0.2
Georgetown	3	0.1
Independence	2	0.1
Danville	3	0.1
Bardstown	4	0.1
POPULATION CATEGORY 5,000-9,999		
Williamsburg	15	1.6
Corbin	23	1.1
Monticello	9	0.6
London	21	0.6
Harrodsburg	10	0.6
La Grange	5	0.5
Central City	5	0.5
Pikeville	11	0.5
Leitchfield	3	0.5
Elsmere	3	0.4
Wilmore	1	0.4
Franklin	6	0.4
Edgewood	3	0.3
Flatwoods	2	0.3
Paris	6	0.3
Fort Mitchell	4	0.3
Bellevue	4	0.3
Highland Heights	3	0.3
Fort Wright	6	0.3
Berea	6	0.3
Princeton	2	0.2
Cynthiana	3	0.2
Versailles	3	0.2
Taylor Mill	2	0.2
Morehead	4	0.2
Mount Washington	2	0.2
Maysville	6	0.2
Russellville	4	0.2
Shepherdsville	2	0.1
Mount Sterling	1	0.1
Lawrenceburg	1	0.1
Alexandria	1	0.1
POPULATION CATEGORY 2,500-4,999		
Barbourville	15	1.8
Paintsville	14	1.2
Irvine	6	0.9
Prestonsburg	11	0.9
Beaver Dam	4	0.7
Flemingsburg	3	0.7
Ludlow	2	0.6
Hartford	1	0.6
Providence	2	0.6
Williamstown	4	0.6
Fulton	3	0.6
Tompkinsville	3	0.5
Park Hills	1	0.5
Carrollton	4	0.5
Russell	3	0.4
Lancaster	3	0.4
Hazard	9	0.4
Mount Vernon	3	0.4
Scottsville	4	0.4
Greenville	4	0.4
Stanford	1	0.3
Dawson Springs	1	0.3
Grayson	3	0.3
Stanton	1	0.2
Marion	1	0.2
Columbia	1	0.1
Benton	1	0.1

TABLE 29. SAFETY BELT USAGE (DRIVERS OF PASSENGER CARS INVOLVED IN CRASHES BY COUNTY AND POPULATION CATEGORY) (IN DESCENDING ORDER)(1996-2000)

COUNTY	PERCENT SEAT BELT USAGE	
POPULATION CATEGORY UNDER 10,000		
Lyon	89.6	
Livingston	88.3	
Carlisle	87.9	
Ballard	87.5	
Gallatin	86.9	
McLean	86.6	
Trimble	86.5	*
Crittenden	86.1	
Hickman	85.5	*
Wolfe	85.1	
Hancock	84.6	
Fulton	83.5	
Elliott	82.6	*
Lee	82.4	
Nicholas	81.4	
Bracken	79.6	*
Clinton	77.3	*
Cumberland	77.0	
Menifee	76.8	
Owsley	73.2	
Robertson	72.4	
POPULATION CATEGORY 10,000-14,999		
Webster	92.5	
Green	90.0	
Trigg	89.7	
Caldwell	88.9	
Larue	87.7	
Garrard	87.1	
Edmonson	86.8	
Pendleton	86.5	
Morgan	86.4	
Carroll	85.6	
Bath	85.5	
Butler	85.4	
Powell	85.1	
Spencer	84.9	
Martin	84.2	*
Magoffin	83.9	
Jackson	83.0	*
Owen	82.0	
Washington	81.6	
Leslie	81.3	
Fleming	80.7	
Todd	79.5	*
Lewis	78.0	
Metcalfe	77.3	
Monroe	75.1	

Note: Percentage based on reported usage by drivers. Substantially higher than observed usage.

COUNTY	PERCENT SEAT BELT USAGE	
POPULATION CATEGORY 15,000-24,999		
Hart	91.6	
Woodford	90.8	
Grant	90.3	
Ohio	89.8	*
Rowan	89.4	
Montgomery	89.0	
Johnson	88.2	
Knott	88.0	
Harrison	87.7	
Breckinridge	87.7	
Mercer	87.6	
Breathitt	87.4	*
Union	87.3	
McCreary	87.1	
Simpson	86.0	
Anderson	85.9	
Estill	85.5	
Grayson	85.4	
Bourbon	85.1	
Clay	85.1	*
Mason	84.9	
Lawrence	84.7	*
Allen	84.0	*
Henry	84.0	
Rockcastle	82.9	
Russell	82.9	
Taylor	82.6	
Marion	81.2	
Lincoln	81.2	
Wayne	79.4	
Casey	78.1	
Adair	77.9	
POPULATION CATEGORY 25,000-50,000		
Henderson	93.9	
Hopkins	93.8	
Oldham	93.2	
Clark	91.8	
Scott	91.7	
Boyle	91.4	
Boyd	90.8	
Jessamine	90.4	
Graves	90.4	
Nelson	90.2	
Greenup	90.2	
Franklin	90.0	
Shelby	89.9	*
Perry	89.7	
Meade	88.5	*
Floyd	88.4	
Marshall	88.2	
Harlan	88.2	*
Whitley	87.9	
Calloway	87.1	
Bell	86.9	
Knox	86.7	
Muhlenberg	86.6	
Letcher	86.4	
Carter	85.5	
Logan	85.2	
Barren	83.5	
POPULATION CATEGORY OVER 50,000		
Fayette	94.8	
Hardin	93.6	
Jefferson	93.0	
McCracken	93.0	
Christian	92.6	
Boone	92.4	
Laurel	91.8	
Daviess	91.6	
Campbell	91.6	
Warren	91.1	
Kenton	91.1	
Bullitt	90.0	
Pulaski	89.9	
Madison	89.7	
Pike	89.4	

* 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 1996-2000 (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
1996	83.2	83.2	85.6	89.0	91.9	89.8
1997	82.8	84.5	86.9	89.2	92.3	90.2
1998	83.7	85.3	87.0	89.9	92.7	90.6
1999	83.9	85.5	87.3	90.7	93.4	91.3
2000	88.6	88.2	88.8	91.7	93.8	92.3
All	84.2	85.3	87.1	90.0	92.8	90.7

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	1,664	1.70	762	0.08	95
Incapacitating	8,495	8.69	16,373	1.70	80
Non-Incapacitating	14,418	14.75	45,565	4.72	68
Possible Injury	11,063	11.32	69,283	7.18	37
Fatal or Incapacitating	10,159	10.39	17,135	1.78	83

* Based on 1996 through 2000 crash data. Total sample size for not wearing a safety belt was 977,65 compared to 965,062 for wearing a safety belt.

TABLE 32. CHANGE IN SEVERITY OF INJURIES BY YEAR (1996-2000)

Type of Injury	PERCENTAGE OF DRIVERS SUSTAINING A GIVEN INJURY				
	1996	1997	1998	1999	2000
	NOT WEARING SAFETY BELT				
Fatal	1.59	1.62	1.74	1.77	2.18
Incapacitating	8.03	8.19	8.54	8.95	7.61
Non-Incapacitating	13.47	14.42	14.45	14.26	13.63
Possible Injury	10.78	10.84	11.80	11.77	9.04
	WEARING SAFETY BELT				
Fatal	0.07	0.07	0.09	0.08	0.09
Incapacitating	1.74	1.69	1.67	1.64	1.33
Non-Incapacitating	4.57	4.65	4.62	4.64	3.90
Possible Injury	7.12	7.29	7.40	7.31	5.22

TABLE 33. POTENTIAL REDUCTION IN TRAFFIC CRASH FATALITIES AND CRASH SAVINGS FROM INCREASE IN DRIVER SAFETY 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	138	1,009	138.0	48.1	186.0
80	236	1,730	236.0	83.0	319.0
90	335	2,451	335.0	117.0	452.0

* Based on increase from the 56 percent usage rate determined from the 1996-2000 surveys, the percent reductions in Table 31, and the economic costs provided by the National Safety Council. These costs are $ 1,000,000 for a fatality and $47,900 for an incapacitating injury. The actual number of fatalties and incapacitation injuries for 1996 - 2000 were used along with the average usage rate over this time period. The usage rate reached 62 percent in 2001.

** 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) (1996-2000)

			RESTRAINT USED		
VARIABLE	CATEGORY	NONE	SAFETY BELT	CHILD SEAT	ANY RESTRAINT
Number With Given Injury	Fatal	21	7	23	30
	Incapacitating	169	235	167	402
	Non-Incapacitating	377	551	773	1324
	Possible Injury	425	1435	1520	2955
	None Detected	1583	13998	20669	34667
Percent With Given Injury	Fatal	0.82	0.04	0.10	0.08
	Incapacitating	6.56	1.45	0.72	1.02
	Non-Incapacitating	14.64	3.40	3.34	3.36
	Possible Injury	16.50	8.84	6.57	7.50
	None Detected	61.48	86.27	89.28	88.04
Percent Usage By Seat Position	Front	10.99	60.07	28.94	89.01
	Rear	3.32	26.25	70.44	96.68
	All Positions	6.14	38.68	55.19	93.86
Percent With Given Injury By Seat Position					
(Front)	Fatal	0.77	0.02	0.18	0.07
	Incapacitating	7.14	1.75	1.03	1.52
	Non-Incapacitating	14.93	4.60	3.81	4.34
	Possible Injury	17.23	10.44	7.60	9.52
	None Detected	59.94	83.19	87.38	84.55
(Rear)	Fatal	0.91	0.07	0.08	0.08
	Incapacitating	5.45	1.05	0.65	0.76
	Non-Incapacitating	14.09	1.79	3.23	2.84
	Possible Injury	15.11	6.72	6.32	6.43
	None Detected	64.43	90.37	89.73	89.90
YEAR	1996	663	4156	5334	9490
	1997	593	3327	4379	7706
	1998	584	3713	4937	8650
	1999	546	3664	5288	8952
	2000	189	1366	3214	4580

TABLE 35. PERCENTAGE OF CRASHES INVOLVING UNSAFE SPEED BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1996-2000)

COUNTY	NUMBER OF CRASHES	PERCENT OF TOTAL CRASHES
POPULATION CATEGORY UNDER 10,000		
Menifee	103	19.3
Elliott	76	14.9
Lee	82	14.4
Gallatin	161	14.3
Trimble	142	13.7
Lyon	155	12.6
Nicholas	95	11.5
Owsley	42	10.9
Wolfe	115	10.9
Carlisle	29	10.7
McLean	124	10.5
Livingston	105	9.8
Robertson	9	9.2
Hickman	45	8.7
Ballard	93	8.3
Bracken	103	7.9
Crittenden	88	7.9
Hancock	57	6.7
Clinton	37	4.9
Cumberland	23	4.9
Fulton	38	3.6
POPULATION CATEGORY 10,000-14,999		
Garrard	363	18.9
Owen	226	18.5
Jackson	214	15.8
Leslie	195	15.5
Morgan	237	15.3
Edmonson	157	13.9
Spencer	122	11.8
Bath	181	11.4
Martin	149	11.1
Todd	136	10.7
Lewis	167	10.6
Magoffin	136	10.5
Powell	184	10.3
Caldwell	185	10.2
Washington	144	10.2
Webster	189	9.6
Pendleton	188	9.6
Butler	111	9.2
Fleming	129	8.9
Carroll	191	8.8
Larue	129	7.6
Metcalfe	70	6.7
Trigg	103	6.5
Monroe	52	5.7
Green	50	3.9
POPULATION CATEGORY 15,000-24,999		
Lincoln	387	18.9
McCreary	257	17.7
Henry	315	16.2
Estill	261	13.7
Grant	555	12.9
Mercer	391	12.6
Union	289	12.5
Casey	129	12.0
Rowan	448	10.8
Rockcastle	240	10.6
Bourbon	346	10.2
Clay	224	9.9
Grayson	229	9.8
Woodford	345	9.8
Breathitt	207	9.6
Marion	230	9.4
Anderson	220	9.3
Lawrence	135	9.3
Knott	164	9.3
Ohio	243	8.9
Hart	183	8.7
Johnson	237	8.5
Russell	126	7.7
Montgomery	262	6.9
Allen	138	6.6
Wayne	153	6.5
Adair	148	6.3
Taylor	229	6.2
Mason	242	6.0
Harrison	158	5.8
Simpson	153	5.7
Breckinridge	73	5.3
POPULATION CATEGORY 25,000-50,000		
Knox	602	15.7
Carter	496	14.0
Harlan	522	13.9
Whitley	684	13.4
Floyd	665	12.6
Oldham	446	9.8
Franklin	781	9.8
Greenup	386	9.7
Hopkins	775	9.4
Letcher	270	9.1
Muhlenberg	442	9.1
Marshall	331	8.7
Nelson	468	8.4
Graves	406	8.2
Jessamine	510	8.1
Shelby	431	7.9
Scott	511	7.8
Bell	262	7.6
Perry	365	7.1
Barren	459	7.0
Meade	174	6.8
Boyd	678	6.7
Boyle	314	6.7
Henderson	653	6.7
Logan	222	6.5
Calloway	231	6.4
Clark	385	6.4
POPULATION CATEGORY OVER 50,000		
Pike	2,168	19.8
Madison	1,592	12.2
Christian	959	9.7
Warren	1,918	9.6
Laurel	640	7.7
Pulaski	657	7.6
Kenton	2,060	7.2
Boone	1,198	7.1
Hardin	881	6.5
Campbell	800	5.7
Daviess	919	5.4
Fayette	3,215	5.2
Bullitt	327	5.0
McCracken	671	4.8
Jefferson	4,935	3.5

TABLE 36. PERCENTAGE OF CRASHES INVOLVING UNSAFE SPEED BY CITY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES)(1996-2000)

CITY	NUMBER OF CRASHES (1996-2000)	PERCENT OF TOTAL CRASHES
POPULATION CATEGORY OVER 200,000		
Lexington	3,170	5.1
Louisville	2,247	2.8
POPULATION CATEGORY 20,000-55,000		
Hopkinsville	544	8.6
Bowling Green	975	6.5
Frankfort	325	6.1
Richmond	364	5.5
Covington	522	4.7
Ashland	279	4.6
Florence	380	4.3
Elizabethtown	265	4.2
Henderson	283	4.1
Paducah	340	3.8
Jeffersontown	171	3.6
Owensboro	377	3.0
Radcliff	54	1.9
POPULATION CATEGORY 10,000-19,999		
Erlanger	419	10.4
Fort Thomas	95	7.6
Independence	117	6.7
Somerset	242	5.8
Campbellsville	115	4.5
Nicholasville	152	4.4
Danville	155	4.3
Madisonville	177	4.0
Shelbyville	90	4.0
Middlesboro	67	3.8
Murray	63	3.8
Shively	163	3.4
Newport	151	3.3
Georgetown	114	3.3
Glasgow	105	3.1
Bardstown	73	2.7
Winchester	90	2.3
Mayfield	50	2.2
Saint Matthews	75	2.0
POPULATION CATEGORY 5,000-9,999		
Villa Hills	42	11.8
Taylor Mill	112	9.1
Pikeville	181	8.6
Wilmore	19	8.1
Fort Mitchell	117	7.9
Highland Heights	71	7.7
Elsmere	52	6.4
Fort Wright	129	6.2
Williamsburg	56	5.8
Princeton	58	5.6
Monticello	78	5.5
Russellville	86	5.1
Berea	86	5.0
Alexandria	63	4.9
Corbin	112	4.8
Versailles	73	4.7
Paris	84	4.6
London	148	4.5
Edgewood	40	4.4
Maysville	115	4.4
Leitchfield	26	4.4
Lebanon	54	4.3
Dayton	22	4.3
La Grange	40	4.2
Harrodsburg	73	4.2
Central City	41	4.1
Flatwoods	26	3.8
Mount Sterling	70	3.8
Mount Washington	34	3.7
Morehead	64	3.4
Bellevue	36	3.1
Shepherdsville	49	2.8
Franklin	36	2.7
Lawrenceburg	21	2.4
Cynthiana	29	2.1
POPULATION CATEGORY 2,500-4,999		
Park Hills	37	16.9
Williamstown	55	8.0
Stanford	28	7.4
Calvert City	24	7.3
Morganfield	50	7.2
Vine Grove	25	6.7
Barbourville	55	6.5
Cumberland	18	6.5
Irvine	42	6.4
Providence	22	6.3
Greenville	54	5.9
Cold Spring	59	5.7
Lakeside Park	25	5.7
Dawson Springs	16	5.4
Lancaster	36	5.3
Mount Vernon	38	5.3
Hartford	8	5.1
Benton	44	4.9
Scottsville	46	4.3
Springfield	24	4.2
Stanton	21	4.2
Hodgenville	30	4.1
Columbia	41	4.0
Prestonsburg	50	4.0
Grayson	40	3.8
Russell	31	3.7
Flemingsburg	16	3.6
Beaver Dam	20	3.4
Hazard	71	3.1
Carrollton	26	3.0
Fulton	14	2.9
Marion	14	2.8
Tompkinsville	16	2.6
Ludlow	9	2.6
Paintsville	30	2.5
Southgate	9	1.8

TABLE 37. SUMMARY OF SPEEDING CONVICTIONS BY COUNTY (1996-2000)

COUNTY	1996	1997	1998	1999	2000	TOTAL SPEEDING CONVICTIONS (FIVE YEARS)	ANNUAL AVERAGE SPEEDING CONVICTIONS PER 1,000 LICENSED DRIVERS	SPEEDING CONVICTIONS PER SPEED-RELATED CRASH
Adair	452	269	381	372	361	1,835	33.0	12.4
Allen	312	284	291	240	174	1,301	22.1	9.4
Anderson	1,424	1,505	1,608	1,409	1,382	7,328	107.9	33.3
Ballard	126	171	176	147	166	786	25.8	8.5
Barren	852	717	783	882	1,222	4,456	34.0	9.7
Bath	313	283	239	266	527	1,628	43.5	9.0
Bell	372	357	398	111	231	1,469	17.2	5.6
Boone	2,054	2,325	2,920	2,106	2,231	11,636	38.2	9.7
Bourbon	685	324	729	730	637	3,105	45.3	9.0
Boyd	1,452	1,487	1,525	1,573	1,344	7,381	43.0	10.9
Boyle	773	695	881	881	547	3,777	40.4	12.0
Bracken	541	396	478	260	174	1,849	63.4	18.0
Breathitt	58	153	96	81	106	494	10.5	2.4
Breckinridge	101	137	150	188	156	732	11.3	10.0
Bullitt	1,499	1,224	812	1,404	1,465	6,404	28.5	19.6
Butler	534	661	723	627	411	2,956	67.5	26.6
Caldwell	625	533	359	418	293	2,228	46.9	12.0
Calloway	708	302	431	518	628	2,587	22.5	11.2
Campbell	1,966	2,353	2,480	2,274	2,683	11,756	39.4	14.7
Carlisle	192	145	188	154	167	846	42.8	29.2
Carroll	742	628	572	570	614	3,126	90.2	16.4
Carter	464	495	587	960	1,361	3,867	43.9	7.8
Casey	110	168	207	143	142	770	15.5	6.0
Christian	803	910	671	754	965	4,103	23.7	4.3
Clark	684	431	527	554	647	2,843	24.5	7.4
Clay	348	243	757	660	200	2,208	33.7	9.9
Clinton	95	114	72	129	128	538	16.2	14.5
Crittenden	100	41	53	52	64	310	9.4	3.5
Cumberland	142	115	88	149	120	614	25.4	26.7
Daviess	1,854	2,255	2,522	2,800	2,391	11,822	36.8	12.9
Edmonson	186	136	74	38	70	504	12.2	3.2
Elliott	0	6	4	5	10	25	1.1	0.3
Estill	134	190	136	203	195	858	16.9	3.3
Fayette	9,559	9,309	9,682	9,516	7,807	45,873	52.6	14.3
Fleming	222	221	203	295	210	1,151	24.1	8.9
Floyd	167	291	475	334	153	1,420	10.4	2.1
Franklin	1,989	2,292	1,683	2,354	2,035	10,353	61.7	13.3
Fulton	70	68	157	197	166	658	27.3	17.3
Gallatin	805	571	365	654	494	2,889	108.5	17.9
Garrard	255	230	133	171	359	1,148	22.7	3.2
Grant	885	771	1,024	974	768	4,422	57.2	8.0
Graves	427	878	592	823	800	3,520	27.6	8.7
Grayson	255	328	714	576	349	2,222	26.4	9.7
Green	71	86	67	90	180	494	12.7	9.9
Greenup	645	563	464	597	259	2,528	19.3	6.5
Hancock	135	140	344	241	127	987	31.9	17.3
Hardin	4,228	4,647	4,593	4,805	4,008	22,281	73.4	25.3
Harlan	125	129	109	167	90	620	6.0	1.2
Harrison	409	246	366	408	407	1,836	29.4	11.6
Hart	417	317	355	343	231	1,663	29.3	9.1
Henderson	1,218	1,171	1,489	1,523	1,300	6,701	41.8	10.3
Henry	1,133	1,173	1,103	765	747	4,921	92.9	15.6
Hickman	74	180	249	167	184	854	45.2	19.0
Hopkins	1,158	641	1,231	1,633	1,632	6,295	38.7	8.1
Jackson	12	23	14	34	125	208	4.9	1.0
Jefferson	10,686	9,602	14,161	15,152	9,743	59,344	25.2	12.0
Jessamine	769	1,063	2,071	2,200	1,983	8,086	61.5	15.9
Johnson	178	133	176	234	139	860	10.9	3.6
Kenton	3,437	3,777	3,450	4,442	4,422	19,528	38.3	9.5
Knott	125	41	17	149	48	380	7.1	2.3
Knox	538	566	531	902	736	3,273	33.3	5.4
Larue	182	154	238	244	202	1,020	21.6	7.9
Laurel	1,591	1,524	1,549	1,402	2,129	8,195	46.7	12.8
Lawrence	544	400	504	400	439	2,287	44.5	16.9

TABLE 37. SUMMARY OF SPEEDING CONVICTIONS BY COUNTY (1996-2000)(continued)

COUNTY	1996	1997	1998	1999	2000	TOTAL SPEEDING CONVICTIONS (FIVE YEARS)	ANNUAL AVERAGE SPEEDING CONVICTIONS PER 1,000 LICENSED DRIVERS	SPEEDING CONVICTIONS PER SPEED-RELATED CRASH
Lee	28	20	32	36	29	145	6.0	1.8
Leslie	205	322	451	367	276	1,621	39.7	8.3
Letcher	85	146	72	106	98	507	6.0	1.9
Lewis	159	379	356	308	254	1,456	31.8	8.7
Lincoln	529	331	541	609	428	2,438	31.5	6.3
Livingston	476	344	358	515	424	2,117	58.7	20.2
Logan	634	767	575	542	569	3,087	33.9	13.9
Lyon	674	601	632	428	420	2,755	102.1	17.8
McCracken	1,599	1,614	1,934	1,624	1,699	8,470	34.9	12.6
McCreary	201	212	195	178	192	978	18.6	3.8
McLean	201	292	162	85	143	883	24.5	7.1
Madison	1,378	1,242	1,471	2,012	1,322	7,425	32.4	4.7
Magoffin	73	74	39	20	8	214	5.0	1.6
Marion	473	328	271	340	287	1,699	28.7	7.4
Marshall	815	962	929	894	779	4,379	38.1	13.2
Martin	15	25	22	29	10	101	2.5	0.7
Mason	330	615	496	576	346	2,363	40.5	9.8
Meade	353	464	376	412	364	1,969	23.7	11.3
Menifee	7	6	24	22	34	93	4.4	0.9
Mercer	645	546	436	537	271	2,435	32.2	6.2
Metcalfe	230	271	250	275	310	1,336	39.4	19.1
Monroe	22	18	31	32	29	132	3.3	2.5
Montgomery	168	194	333	453	559	1,707	21.8	6.5
Morgan	379	277	366	202	229	1,453	36.3	6.1
Muhlenberg	542	519	469	466	442	2,438	22.1	5.5
Nelson	516	608	678	1,020	1,124	3,946	29.5	8.4
Nicholas	114	92	108	226	187	727	28.3	7.7
Ohio	617	654	305	460	356	2,392	30.0	9.8
Oldham	763	838	970	834	1,050	4,455	27.9	10.0
Owen	84	67	76	118	107	452	12.8	2.0
Owsley	1	0	3	25	23	52	3.1	1.2
Pendleton	542	497	339	267	177	1,822	36.3	9.7
Perry	592	886	417	266	126	2,287	22.8	6.3
Pike	184	185	272	292	253	1,186	5.2	0.5
Powell	217	280	427	446	333	1,703	38.0	9.3
Pulaski	759	1,018	1,051	942	747	4,517	22.5	6.9
Robertson	22	15	18	10	7	72	9.3	8.0
Rockcastle	428	349	602	578	538	2,495	46.5	10.4
Rowan	769	680	643	604	944	3,640	54.4	8.1
Russell	119	98	113	73	104	507	8.7	4.0
Scott	1,198	1,651	1,710	1,505	1,471	7,535	65.4	14.7
Shelby	1,237	1,304	1,246	1,570	1,290	6,647	60.1	15.4
Simpson	251	362	333	231	143	1,320	23.1	8.6
Spencer	272	230	190	311	179	1,182	27.8	9.7
Taylor	763	505	418	414	449	2,549	32.1	11.1
Todd	182	212	116	152	191	853	21.9	6.3
Trigg	369	323	316	271	250	1,529	33.4	14.8
Trimble	41	64	59	17	48	229	7.9	1.6
Union	258	365	254	162	193	1,232	22.8	4.3
Warren	1,563	2,047	2,391	2,165	1,888	10,054	33.6	5.2
Washington	399	774	456	467	401	2,497	65.0	17.3
Wayne	49	62	55	83	40	289	4.6	1.9
Webster	203	130	116	273	249	971	19.8	5.1
Whitley	289	295	318	677	675	2,254	20.5	3.3
Wolfe	652	862	1,703	1,621	1,045	5,883	243.4	51.2
Woodford	1,824	1,712	1,898	2,528	2,075	10,037	118.2	29.1
TOTAL*	88,508	89,322	98,449	103,126	90,269	469,674	34.5	9.6

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

TABLE 38. SPEEDING CONVICTION RATES IN DECREASING ORDER (BY COUNTY POPULATION CATEGORIES) (1996-2000)

POPULATION CATEGORY	COUNTY	ANNUAL AVERAGE SPEEDING CONVICTIONS PER 1,000 LICENSED DRIVERS	COUNTY	SPEEDING CONVICTIONS PER SPEED-RELATED CRASH
UNDER 10,000	Wolfe	243.4	Wolfe	51.2
	Gallatin	108.5	Carlisle	29.2
	Lyon	102.1	Cumberland	26.7
	Bracken	63.4	Livingston	20.2
	Livingston	58.7	Hickman	19.0
	Hickman	45.2	Bracken	18.0
	Carlisle	42.8	Gallatin	17.9
	Hancock	31.9	Lyon	17.8
	Nicholas	28.3	Fulton	17.3
	Fulton	27.3	Hancock	17.3
	Ballard	25.8	Clinton	14.5
	Cumberland	25.4	Ballard	8.5
	McLean	24.5	Robertson	8.0
	Clinton	16.2	Nicholas	7.7
	Crittenden	9.4	McLean	7.1
	Robertson	9.3	Crittenden	3.5
	Trimble	7.9	Lee	1.8
	Lee	6.0	Trimble	1.6
	Menifee	4.4	Owsley	1.2
	Owsley	3.1	Menifee	0.9
	Elliott	1.1	Elliott	0.3
10,000-14,999	Carroll	90.2	Butler	26.6
	Butler	67.5	Metcalfe	19.1
	Washington	65.0	Washington	17.3
	Caldwell	46.9	Carroll	16.4
	Bath	43.5	Trigg	14.8
	Leslie	39.7	Caldwell	12.0
	Metcalfe	39.4	Green	9.9
	Powell	38.0	Pendleton	9.7
	Pendleton	36.3	Spencer	9.7
	Morgan	36.3	Powell	9.3
	Trigg	33.4	Bath	9.0
	Lewis	31.8	Fleming	8.9
	Spencer	27.8	Lewis	8.7
	Fleming	24.1	Leslie	8.3
	Garrard	22.7	Larue	7.9
	Todd	21.9	Todd	6.3
	Larue	21.6	Morgan	6.1
	Webster	19.8	Webster	5.1
	Owen	12.8	Edmonson	3.2
	Green	12.7	Garrard	3.2
	Edmonson	12.2	Monroe	2.5
	Magoffin	5.0	Owen	2.0
	Jackson	4.9	Magoffin	1.6
	Monroe	3.3	Jackson	1.0
	Martin	2.5	Martin	0.7
15,000 - 24,999	Woodford	118.2	Anderson	33.3
	Anderson	107.9	Woodford	29.1
	Henry	92.9	Lawrence	16.9
	Grant	57.2	Henry	15.6
	Rowan	54.4	Adair	12.4
	Rockcastle	46.5	Harrison	11.6
	Bourbon	45.3	Taylor	11.1
	Lawrence	44.5	Rockcastle	10.4
	Mason	40.5	Breckinridge	10.0
	Clay	33.7	Clay	9.9
	Adair	33.0	Ohio	9.8
	Mercer	32.2	Mason	9.8
	Taylor	32.1	Grayson	9.7

TABLE 38. SPEEDING CONVICTION RATES IN DECREASING ORDER (BY COUNTY POPULATION CATEGORIES) (1996-2000) (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)	Lincoln	31.5	Allen	9.4
	Ohio	30.0	Hart	9.1
	Harrison	29.4	Bourbon	9.0
	Hart	29.3	Simpson	8.6
	Marion	28.7	Rowan	8.1
	Grayson	26.4	Grant	8.0
	Simpson	23.1	Marion	7.4
	Union	22.8	Montgomery	6.5
	Allen	22.1	Lincoln	6.3
	Montgomery	21.8	Mercer	6.2
	McCreary	18.6	Casey	6.0
	Estill	16.9	Union	4.3
	Casey	15.5	Russell	4.0
	Breckinridge	11.3	McCreary	3.8
	Johnson	10.9	Johnson	3.6
	Breathitt	10.5	Estill	3.3
	Russell	8.7	Breathitt	2.4
	Knott	7.1	Knott	2.3
	Wayne	4.6	Wayne	1.9
25,000 - 49,999	Scott	65.4	Jessamine	15.9
	Franklin	61.7	Shelby	15.4
	Jessamine	61.5	Scott	14.7
	Shelby	60.1	Logan	13.9
	Carter	43.9	Franklin	13.3
	Boyd	43.0	Marshall	13.2
	Henderson	41.8	Boyle	12.0
	Boyle	40.4	Meade	11.3
	Hopkins	38.7	Calloway	11.2
	Marshall	38.1	Boyd	10.9
	Barren	34.0	Henderson	10.3
	Logan	33.9	Oldham	10.0
	Knox	33.3	Barren	9.7
	Nelson	29.5	Graves	8.7
	Oldham	27.9	Nelson	8.4
	Graves	27.6	Hopkins	8.1
	Clark	24.5	Carter	7.8
	Meade	23.7	Clark	7.4
	Perry	22.8	Greenup	6.5
	Calloway	22.5	Perry	6.3
	Muhlenberg	22.1	Bell	5.6
	Whitley	20.5	Muhlenberg	5.5
	Greenup	19.3	Knox	5.4
	Bell	17.2	Whitley	3.3
	Floyd	10.4	Floyd	2.1
	Letcher	6.0	Letcher	1.9
	Harlan	6.0	Harlan	1.2
50,000 - OVER	Hardin	73.4	Hardin	25.3
	Fayette	52.6	Bullitt	19.6
	Laurel	46.7	Campbell	14.7
	Campbell	39.4	Fayette	14.3
	Kenton	38.3	Daviess	12.9
	Boone	38.2	Laurel	12.8
	Daviess	36.8	McCracken	12.6
	McCracken	34.9	Jefferson	12.0
	Warren	33.6	Boone	9.7
	Madison	32.4	Kenton	9.5
	Bullitt	28.5	Pulaski	6.9
	Jefferson	25.2	Warren	5.2
	Christian	23.7	Madison	4.7
	Pulaski	22.5	Christian	4.3
	Pike	5.2	Pike	0.5

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

HIGHWAY TYPE AND SPEED LIMIT	SAMPLE SIZE	SPEED (MPH) AVERAGE	SPEED (MPH) 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 (1996 - 2000)

Crash Statistic	Number in Given Year 1996	1997	1998	1999	4-Year Average 1996-99	2000	2000 Percent Change*
Total Crashes	134,558	134,161	125,698	132,216	131,658	135,079	2.6
Fatal Crashes	738	782	776	729	756	724**	-4.3
Fatalities	846	865	869	819	850	823**	-3.1
Injury Crashes	36,434	36,516	34,395	36,125	35,868	34,732	-3.2
Injuries	55,909	56,342	52,952	54,951	55,039	53,129	-3.5
Fatal and Injury Crashes	37,182	37,298	35,171	36,854	36,626	35,456	-3.2
Licensed Drivers (Millions)	2.57	2.57	2.63	2.67	2.61	2.75	5.4
Registered Vehicles (Millions)	2.97	3.01	3.20	3.15	3.08	3.29	6.7
Total Vehicle Miles (Billions)	42.471	44.863	46.577	47.816	45.432	46.680	2.7
Total Crash/100 MVM	317	299	270	277	291	289	-0.5
Fatal Crash/100 MVM	1.74	1.74	1.67	1.52	1.67	1.55	-7.0
Fatalities/100 MVM	1.99	1.93	1.87	1.71	1.88	1.76	-6.0
Injuries/100 MVM	130	126	114	115	121	114	-6.1
Speed Related Crashes	10,713	10,435	9,099	9,112	9,840	9,497	-3.5
Speed Related Injury Crashes	4,494	4,488	4,030	3,990	4,251	3,682	-13.4
Speed Related Fatal Crashes	208	230	190	201	207	153	-26.1
Speed Convictions	88,508	89,572	98,662	103,696	95,110	90,863	-4.5
Alcohol Related Crashes	6,150	6,070	5,222	5,441	5,721	6,127	7.1
Alcohol Related Injury Crashes	2,955	2,949	2,482	2,592	2,745	2,903	5.8
Alcohol Related Fatal Crashes	242	206	187	196	208	181	-12.9
Alcohol Related Fatalities	256	234	205	222	229	196	-14.5
DUI Arrests	39,064	40,567	42,100	43,254	41,246	49,470	19.9
DUI Convictions	30,283	32,106	32,837	31,263	31,622	31,243	-1.2
DUI Conviction Percentage	78.0	79.1	78.0	72.0	76.8	63.2	-17.7
DUI Arrests/ Alcohol Related Fatalities	153	173	205	195	182	252	38.5
Drug Related Crashes	***	***	***	756	756	990	31.0
Drug Related Injury Crashes	248	277	278	355	290	461	59.2
Drug Related Fatal Crashes	***	***	***	112	112	133	18.8
Pedestrian Related Crashes	1,197	1,190	1,077	1117	1,145	1,124	-1.9
Pedestrian Related Injury Crashes	1,085	1,057	966	1011	1,030	907	-11.9
Pedestrian Related Fatal Crashes	56	62	65	55	60	52	-12.6
Bicycle/Motor Vehicle Related Crashes	695	662	587	606	638	582	-8.7
Bicycle Related Injury Crashes	557	512	480	512	515	448	-13.1
Bicycle Related Fatal Crashes	6	10	9	10	9	4	-54.3
Motorcycle Related Crashes	747	736	835	1033	838	1,110	32.5
Motorcycle Related Injury Crashes	581	565	647	774	642	797	24.2
Motorcycle Related Fatal Crashes	25	29	26	42	31	36	18.0
School Bus Crashes	810	822	775	648	764	932	22.0
School Bus Injury Crashes	93	150	144	110	124	149	19.9
School Bus Fatal Crashes	2	6	4	0	3	1	-66.7
Truck Crashes	9,975	8,249	7,670	7,642	8,384	10,276	22.6
Truck Injury Crashes	2,292	1,852	1,678	1,665	1,872	2,181	16.5
Truck Fatal Crashes	95	108	95	82	95	88	-7.4
Train Crashes	79	57	70	57	66	59	-10.3
Train Injury Crashes	21	23	25	16	21	18	-15.3
Train Fatal Crashes	3	4	3	2	3	4	33.3

* Percent change from 1996-1999 average to 2000.

** Includes 13 fatals on parking lots / private property.

*** Data for earlier years were not available. The 1999 and 2000 data include follow-up studies of drivers from FARS.

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	9	1.0	4	0.5	20	2.3	14	1.6	137	15.9
Allen	5	0.6	4	0.4	20	2.2	10	1.1	125	14.0
Anderson	12	1.3	8	0.8	15	1.6	23	2.4	134	14.0
Ballard	4	1.0	3	0.7	4	1.0	2	0.5	136	32.8
Barren	23	1.2	20	1.1	54	2.8	24	1.3	478	25.1
Bath	6	1.1	2	0.4	11	2.0	6	1.1	135	24.4
Bell	31	2.1	20	1.3	21	1.4	26	1.7	287	19.1
Boone	91	2.1	62	1.4	96	2.2	80	1.9	1831	42.6
Bourbon	23	2.4	14	1.4	19	2.0	27	2.8	215	22.2
Boyd	63	2.5	39	1.6	93	3.7	47	1.9	721	29.0
Boyle	27	1.9	17	1.2	21	1.5	17	1.2	289	20.9
Bracken	8	1.9	2	0.5	10	2.4	7	1.7	71	17.2
Breathitt	20	2.5	3	0.4	38	4.7	19	2.4	148	18.4
Breckinridge	7	0.8	3	0.3	10	1.1	7	0.8	80	8.6
Bullitt	34	1.1	12	0.4	45	1.5	58	1.9	540	17.6
Butler	7	1.1	1	0.2	10	1.5	10	1.5	69	10.6
Caldwell	11	1.7	12	1.8	10	1.5	9	1.4	136	20.8
Calloway	25	1.5	12	0.7	36	2.1	24	1.4	204	11.9
Campbell	221	5.0	142	3.2	93	2.1	60	1.4	869	19.6
Carlisle	1	0.4	0	0.0	3	1.1	1	0.4	31	11.6
Carroll	10	2.0	12	2.4	16	3.2	11	2.2	253	49.8
Carter	18	1.3	3	0.2	41	3.0	36	2.7	298	22.2
Casey	5	0.6	2	0.3	10	1.3	7	0.9	82	10.6
Christian	97	2.7	65	1.8	64	1.8	91	2.5	753	20.8
Clark	47	2.8	21	1.3	44	2.7	50	3.0	408	24.6
Clay	10	0.8	8	0.7	21	1.7	30	2.4	117	9.5
Clinton	6	1.2	0	0.0	2	0.4	2	0.4	49	10.2
Crittenden	11	2.3	1	0.2	11	2.3	9	1.9	72	15.3
Cumberland	5	1.4	0	0.0	0	0.0	2	0.6	26	7.3
Daviess	118	2.6	124	2.7	111	2.4	60	1.3	935	20.4
Edmonson	11	1.9	0	0.0	14	2.4	12	2.1	50	8.6
Elliott	6	1.8	0	0.0	13	3.9	1	0.3	38	11.3
Estill	16	2.1	5	0.7	16	2.1	15	2.0	66	8.6
Fayette	644	4.9	400	3.1	270	2.1	302	2.3	3327	25.5
Fleming	11	1.6	3	0.4	12	1.7	14	2.0	107	15.5
Floyd	52	2.5	11	0.5	78	3.7	65	3.1	425	20.0
Franklin	41	1.7	22	0.9	55	2.3	55	2.3	408	17.1
Fulton	8	2.1	12	3.1	6	1.5	5	1.3	106	27.3
Gallatin	6	1.5	3	0.8	12	3.0	2	0.5	166	42.2
Garrard	11	1.5	6	0.8	17	2.3	17	2.3	101	13.7
Grant	29	2.6	7	0.6	39	3.5	34	3.0	413	36.9
Graves	35	1.9	15	0.8	35	1.9	31	1.7	343	18.5
Grayson	15	1.2	4	0.3	22	1.8	13	1.1	189	15.7
Green	6	1.0	1	0.2	8	1.4	8	1.4	62	10.8
Greenup	19	1.0	18	1.0	24	1.3	18	1.0	205	11.1
Hancock	1	0.2	2	0.5	6	1.4	4	1.0	83	19.8
Hardin	58	1.2	52	1.1	87	1.8	67	1.4	920	19.5
Harlan	52	3.1	13	0.8	29	1.7	22	1.3	297	17.9
Harrison	22	2.4	12	1.3	13	1.4	14	1.6	143	15.9
Hart	14	1.6	3	0.3	10	1.1	16	1.8	278	31.9
Henderson	86	3.8	69	3.1	74	3.3	44	2.0	621	27.7
Henry	14	1.9	7	0.9	12	1.6	18	2.4	226	30.0
Hickman	5	1.9	1	0.4	5	1.9	3	1.1	41	15.6
Hopkins	39	1.7	41	1.8	85	3.7	34	1.5	554	23.8
Jackson	6	0.9	0	0.0	13	1.9	14	2.1	62	9.2
Jefferson	1823	5.3	1001	2.9	758	2.2	858	2.5	9058	26.1
Jessamine	51	2.6	24	1.2	33	1.7	77	3.9	387	19.8
Johnson	13	1.1	6	0.5	30	2.6	23	2.0	143	12.2
Kenton	413	5.5	195	2.6	143	1.9	157	2.1	2090	27.6
Knott	10	1.1	3	0.3	23	2.6	21	2.4	167	18.9

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	26	1.6	14	0.9	39	2.5	31	1.9	183	11.5
Larue	10	1.5	3	0.4	6	0.9	4	0.6	134	20.0
Laurel	38	1.4	19	0.7	46	1.7	55	2.1	739	28.0
Lawrence	11	1.4	4	0.5	11	1.4	8	1.0	138	17.7
Lee	5	1.3	1	0.3	3	0.8	6	1.5	31	7.8
Leslie	11	1.8	2	0.3	20	3.2	19	3.1	121	19.5
Letcher	18	1.4	5	0.4	35	2.8	31	2.5	371	29.4
Lewis	14	2.0	2	0.3	8	1.1	12	1.7	131	18.6
Lincoln	9	0.8	6	0.5	20	1.7	9	0.8	143	12.2
Livingston	7	1.4	4	0.8	8	1.6	9	1.8	79	16.1
Logan	16	1.2	13	1.0	25	1.9	23	1.7	332	25.0
Lyon	3	0.7	1	0.2	16	4.0	1	0.2	134	33.2
McCracken	69	2.1	53	1.6	116	3.5	66	2.0	816	24.9
McCreary	10	1.2	4	0.5	14	1.6	13	1.5	69	8.1
McLean	5	1.0	6	1.2	10	2.0	9	1.8	95	19.1
Madison	65	1.8	47	1.3	76	2.1	85	2.4	915	25.8
Magoffin	11	1.7	3	0.5	12	1.8	9	1.4	73	11.0
Marion	21	2.3	14	1.5	25	2.7	9	1.0	135	14.8
Marshall	9	0.6	10	0.7	38	2.5	10	0.7	280	18.6
Martin	5	0.8	0	0.0	12	1.9	7	1.1	106	16.9
Mason	24	2.9	15	1.8	28	3.3	21	2.5	299	35.6
Meade	10	0.8	5	0.4	16	1.2	11	0.8	103	7.8
Menifee	3	0.9	1	0.3	5	1.5	3	0.9	23	7.0
Mercer	21	2.0	8	0.8	27	2.6	20	1.9	182	17.5
Metcalfe	5	1.0	0	0.0	7	1.4	15	3.0	89	17.7
Monroe	9	1.5	1	0.2	8	1.4	6	1.0	48	8.2
Montgomery	24	2.1	6	0.5	21	1.9	39	3.5	226	20.0
Morgan	5	0.7	3	0.4	17	2.4	19	2.7	61	8.7
Muhlenberg	24	1.5	8	0.5	45	2.8	33	2.1	357	22.4
Nelson	30	1.6	24	1.3	43	2.3	36	1.9	281	15.0
Nicholas	3	0.9	0	0.0	5	1.5	3	0.9	32	9.4
Ohio	6	0.5	3	0.3	18	1.6	14	1.2	207	18.1
Oldham	21	0.9	10	0.4	25	1.1	41	1.8	386	16.7
Owen	7	1.3	0	0.0	11	2.1	5	0.9	70	13.3
Owsley	4	1.6	1	0.4	2	0.8	5	2.1	36	14.8
Pendleton	8	1.1	1	0.1	19	2.6	12	1.7	152	21.1
Perry	43	2.9	12	0.8	45	3.1	52	3.5	449	30.6
Pike	89	2.6	10	0.3	169	4.9	74	2.2	1254	36.5
Powell	10	1.5	5	0.8	9	1.4	11	1.7	114	17.2
Pulaski	41	1.5	19	0.7	53	1.9	40	1.4	482	17.1
Robertson	2	1.8	0	0.0	2	1.8	0	0.0	4	3.5
Rockcastle	10	1.2	3	0.4	17	2.1	24	2.9	297	35.8
Rowan	18	1.6	9	0.8	34	3.1	18	1.6	215	19.5
Russell	8	1.0	1	0.1	18	2.2	7	0.9	94	11.5
Scott	30	1.8	17	1.0	37	2.2	41	2.5	585	35.4
Shelby	39	2.3	17	1.0	31	1.9	40	2.4	457	27.4
Simpson	14	1.7	11	1.3	13	1.6	3	0.4	357	43.5
Spencer	7	1.2	3	0.5	17	2.9	14	2.4	56	9.5
Taylor	18	1.6	14	1.2	20	1.7	10	0.9	128	11.2
Todd	13	2.2	3	0.5	12	2.0	4	0.7	109	18.2
Trigg	5	0.8	2	0.3	19	3.0	4	0.6	105	16.7
Trimble	5	1.2	1	0.2	13	3.2	9	2.2	85	20.9
Union	14	1.8	8	1.0	21	2.7	12	1.5	173	22.1
Warren	110	2.4	67	1.4	132	2.9	91	2.0	1237	26.7
Washington	13	2.4	1	0.2	11	2.0	15	2.7	100	18.3
Wayne	15	1.5	10	1.0	12	1.2	22	2.2	85	8.5
Webster	7	1.0	7	1.0	11	1.6	11	1.6	237	33.6
Whitley	26	1.4	13	0.7	33	1.8	37	2.1	465	25.9
Wolfe	11	3.1	4	1.1	8	2.3	5	1.4	77	21.8
Woodford	26	2.2	8	0.7	26	2.2	22	1.9	260	22.4

* Five-Year (1996-2000) Total.

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

TABLE 43. PEDESTRIAN CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1996-2000)(ALL ROADS)

COUNTY	NUMBER OF CRASHES	ANNUAL CRASH RATE (CRASHES PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Wolfe	11	3.1
Crittenden	11	2.3
Fulton	8	2.1
Hickman	5	1.9
Bracken	8	1.9
Robertson	2	1.8
Elliott	6	1.8
Owsley	4	1.6
Gallatin	6	1.5
Livingston	7	1.4
Cumberland	5	1.4
Lee	5	1.3
Trimble	5	1.2
Clinton	6	1.2
Ballard	4	1.0
McLean	5	1.0
Menifee	3	0.9
Nicholas	3	0.9
Lyon	3	0.7
Carlisle	1	0.4
Hancock	1	0.2
POPULATION CATEGORY 10,000-14,999		
Washington	13	2.4
Todd	13	2.2
Carroll	10	2.0
Lewis	14	2.0
Edmonson	11	1.9
Leslie	11	1.8
Magoffin	11	1.7
Caldwell	11	1.7
Fleming	11	1.6
Larue	10	1.5
Garrard	11	1.5
Powell	10	1.5
Monroe	9	1.5
Owen	7	1.3
Spencer	7	1.2
Bath	6	1.1
Butler	7	1.1
Pendleton	8	1.1
Webster	7	1.0
Green	6	1.0
Metcalfe	5	1.0
Jackson	6	0.9
Martin	5	0.8
Trigg	5	0.8
Morgan	5	0.7
POPULATION CATEGORY 15,000-24,999		
Mason	24	2.9
Grant	29	2.6
Breathitt	20	2.5
Harrison	22	2.4
Bourbon	23	2.4
Marion	21	2.3
Woodford	26	2.2
Montgomery	24	2.1
Estill	16	2.1
Mercer	21	2.0
Henry	14	1.9
Union	14	1.8
Simpson	14	1.7
Rowan	18	1.6
Hart	14	1.6
Taylor	18	1.6
Wayne	15	1.5
Lawrence	11	1.4
Anderson	12	1.3
McCreary	10	1.2
Grayson	15	1.2
Rockcastle	10	1.2
Knott	10	1.1
Johnson	13	1.1
Adair	9	1.0
Russell	8	1.0
Breckinridge	7	0.8
Lincoln	9	0.8
Clay	10	0.8
Allen	5	0.6
Casey	5	0.6
Ohio	6	0.5
POPULATION CATEGORY 25,000-50,000		
Henderson	86	3.8
Harlan	52	3.1
Perry	43	2.9
Clark	47	2.8
Jessamine	51	2.6
Floyd	52	2.5
Boyd	63	2.5
Shelby	39	2.3
Bell	31	2.1
Graves	35	1.9
Boyle	27	1.9
Scott	30	1.8
Franklin	41	1.7
Hopkins	39	1.7
Knox	26	1.6
Nelson	30	1.6
Calloway	25	1.5
Muhlenberg	24	1.5
Letcher	18	1.4
Whitley	26	1.4
Carter	18	1.3
Logan	16	1.2
Barren	23	1.2
Greenup	19	1.0
Oldham	21	0.9
Meade	10	0.8
Marshall	9	0.6
POPULATION CATEGORY OVER 50,000		
Kenton	413	5.5
Jefferson	1,823	5.3
Campbell	221	5.0
Fayette	644	4.9
Christian	97	2.7
Daviess	118	2.6
Pike	89	2.6
Warren	110	2.4
Boone	91	2.1
McCracken	69	2.1
Madison	65	1.8
Pulaski	41	1.5
Laurel	38	1.4
Hardin	58	1.2
Bullitt	34	1.1

TABLE 44. PEDESTRIAN CRASH RATES BY CITY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)(1996-2000)

CITY	NUMBER OF CRASHES (1996-2000)	ANNUAL CRASH RATE (CRASHES PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Louisville	1,289	10.1
Lexington	635	4.9
POPULATION CATEGORY 20,000-55,000		
Covington	292	13.5
Hopkinsville	78	5.2
Henderson	71	5.2
Ashland	48	4.4
Florence	48	4.1
Paducah	49	3.7
Bowling Green	89	3.6
Owensboro	96	3.6
Richmond	43	3.2
Frankfort	37	2.7
Elizabethtown	23	2.0
Radcliff	21	1.9
Jeffersontown	24	1.8
POPULATION CATEGORY 10,000-19,999		
Newport	128	15.0
Shively	57	7.5
Shelbyville	23	4.6
Nicholasville	43	4.4
Winchester	35	4.2
Bardstown	20	3.9
Mayfield	20	3.9
Somerset	21	3.7
Danville	24	3.1
Campbellsville	16	3.0
Saint Matthews	23	2.9
Madisonville	27	2.8
Erlanger	23	2.8
Independence	20	2.7
Georgetown	22	2.4
Glasgow	15	2.3
Middlesboro	12	2.3
Fort Thomas	19	2.3
Murray	10	1.3
POPULATION CATEGORY 5,000-9,999		
Pikeville	24	7.6
Dayton	19	6.4
Mount Sterling	17	5.8
Cynthiana	17	5.4
Versailles	19	5.1
Morehead	15	5.1
Harrodsburg	20	5.0
Lebanon	14	4.9
Maysville	22	4.9
Bellevue	16	4.9
London	12	4.2
Fort Wright	12	4.2
Paris	19	4.1
Monticello	11	3.7
Russellville	11	3.1
Leitchfield	9	2.9
Corbin	13	2.8
Princeton	9	2.8
Elsmere	11	2.7
La Grange	7	2.5
Franklin	10	2.5
Fort Mitchell	9	2.2
Flatwoods	8	2.1
Shepherdsville	8	1.9
Mount Washington	8	1.9
Lawrenceburg	8	1.8
Alexandria	7	1.7
Berea	8	1.6
Central City	4	1.4
Edgewood	6	1.3
Highland Heights	4	1.2
Taylor Mill	4	1.2
Williamsburg	3	1.2
Villa Hills	2	0.5
Wilmore	1	0.3
POPULATION CATEGORY 2,500-4,999		
Springfield	10	7.6
Hazard	17	7.1
Irvine	9	6.3
Lancaster	10	5.4
Ludlow	11	5.0
Marion	8	5.0
Williamstown	8	5.0
Prestonsburg	9	5.0
Hodgenville	7	4.9
Morganfield	8	4.6
Tompkinsville	6	4.5
Lakeside Park	6	4.2
Grayson	8	4.1
Barbourville	7	3.9
Cold Spring	7	3.7
Greenville	8	3.6
Columbia	7	3.5
Mount Vernon	4	3.1
Paintsville	6	2.9
Fulton	4	2.9
Flemingsburg	4	2.7
Carrollton	5	2.6
Southgate	3	1.7
Russell	3	1.6
Scottsville	3	1.4
Benton	3	1.4
Dawson Springs	2	1.3
Stanton	2	1.3
Cumberland	1	0.8
Hickman	1	0.8
Calvert City	1	0.7
Park Hills	1	0.7
Providence	1	0.6
Stanford	1	0.6

TABLE 45. BICYCLE CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1996-2000)

COUNTY	NUMBER OF CRASHES	ANNUAL CRASH RATE (CRASHES PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Fulton	12	3.1
McLean	6	1.2
Wolfe	4	1.1
Livingston	4	0.8
Gallatin	3	0.8
Ballard	3	0.7
Bracken	2	0.5
Hancock	2	0.5
Hickman	1	0.4
Owsley	1	0.4
Lee	1	0.3
Menifee	1	0.3
Lyon	1	0.2
Trimble	1	0.2
Crittenden	1	0.2
Nicholas	0	0.0
Elliott	0	0.0
Carlisle	0	0.0
Clinton	0	0.0
Cumberland	0	0.0
Robertson	0	0.0
POPULATION CATEGORY 10,000-14,999		
Carroll	12	2.4
Caldwell	12	1.8
Webster	7	1.0
Garrard	6	0.8
Powell	5	0.8
Todd	3	0.5
Magoffin	3	0.5
Spencer	3	0.5
Fleming	3	0.4
Larue	3	0.4
Morgan	3	0.4
Bath	2	0.4
Lewis	2	0.3
Leslie	2	0.3
Trigg	2	0.3
Monroe	1	0.2
Butler	1	0.2
Washington	1	0.2
Green	1	0.2
Pendleton	1	0.1
Jackson	0	0.0
Martin	0	0.0
Owen	0	0.0
Edmonson	0	0.0
Metcalfe	0	0.0
POPULATION CATEGORY 15,000-24,999		
Mason	15	1.8
Marion	14	1.5
Bourbon	14	1.4
Simpson	11	1.3
Harrison	12	1.3
Taylor	14	1.2
Union	8	1.0
Wayne	10	1.0
Henry	7	0.9
Rowan	9	0.8
Mercer	8	0.8
Anderson	8	0.8
Clay	8	0.7
Estill	5	0.7
Woodford	8	0.7
Grant	7	0.6
Montgomery	6	0.5
Lincoln	6	0.5
Johnson	6	0.5
Adair	4	0.5
McCreary	4	0.5
Lawrence	4	0.5
Allen	4	0.4
Rockcastle	3	0.4
Breathitt	3	0.4
Ohio	3	0.3
Hart	3	0.3
Grayson	4	0.3
Knott	3	0.3
Casey	2	0.3
Breckinridge	3	0.3
Russell	1	0.1
POPULATION CATEGORY 25,000-50,000		
Henderson	69	3.1
Hopkins	41	1.8
Boyd	39	1.6
Bell	20	1.3
Clark	21	1.3
Nelson	24	1.3
Boyle	17	1.2
Jessamine	24	1.2
Barren	20	1.1
Shelby	17	1.0
Greenup	18	1.0
Scott	17	1.0
Logan	13	1.0
Knox	14	0.9
Franklin	22	0.9
Graves	15	0.8
Harlan	13	0.8
Perry	12	0.8
Calloway	12	0.7
Marshall	10	0.7
Whitley	13	0.7
Muhlenberg	8	0.5
Floyd	11	0.5
Oldham	10	0.4
Meade	5	0.4
Letcher	5	0.4
Carter	3	0.2
POPULATION CATEGORY OVER 50,000		
Campbell	142	3.2
Fayette	400	3.1
Jefferson	1,001	2.9
Daviess	124	2.7
Kenton	195	2.6
Christian	65	1.8
McCracken	53	1.6
Warren	67	1.4
Boone	62	1.4
Madison	47	1.3
Hardin	52	1.1
Pulaski	19	0.7
Laurel	19	0.7
Bullitt	12	0.4
Pike	10	0.3

TABLE 46. BICYCLE CRASH RATES BY CITY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)(1996-2000)

CITY	NUMBER OF CRASHES (1996-2000)	ANNUAL CRASH RATE (CRASHES PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Louisville	738	5.8
Lexington	397	3.0
POPULATION CATEGORY 20,000-55,000		
Covington	121	5.6
Henderson	60	4.4
Owensboro	109	4.0
Paducah	46	3.5
Florence	39	3.3
Hopkinsville	47	3.1
Ashland	30	2.7
Bowling Green	58	2.4
Elizabethtown	25	2.2
Richmond	27	2.0
Jeffersontown	18	1.4
Frankfort	20	1.4
Radcliff	13	1.2
POPULATION CATEGORY 10,000-19,999		
Newport	90	10.6
Shively	34	4.5
Bardstown	18	3.5
Madisonville	33	3.4
Middlesboro	15	2.9
Erlanger	24	2.9
Campbellsville	13	2.5
Shelbyville	12	2.4
Winchester	19	2.3
Glasgow	15	2.3
Nicholasville	22	2.2
Mayfield	11	2.1
Danville	15	1.9
Saint Matthews	12	1.5
Georgetown	13	1.4
Somerset	8	1.4
Murray	10	1.3
Independence	7	0.9
Fort Thomas	7	0.8
POPULATION CATEGORY 5,000-9,999		
Bellevue	20	6.2
Lebanon	12	4.2
Princeton	12	3.7
Cynthiana	11	3.5
Monticello	9	3.0
Maysville	13	2.9
Russellville	10	2.8
Franklin	11	2.8
Morehead	8	2.7
Paris	12	2.6
Berea	13	2.6
Corbin	13	2.6
London	7	2.5
Elsmere	9	2.2
Versailles	8	2.1
Dayton	6	2.0
Highland Heights	6	1.8
Harrodsburg	7	1.7
Edgewood	7	1.5
Central City	4	1.4
Flatwoods	5	1.3
Williamsburg	3	1.2
Lawrenceburg	5	1.1
Mount Sterling	3	1.0
Fort Mitchell	4	1.0
Villa Hills	3	0.8
Alexandria	3	0.7
Shepherdsville	3	0.7
Fort Wright	2	0.7
Pikeville	2	0.6
La Grange	1	0.4
Leitchfield	1	0.3
Wilmore	1	0.3
Taylor Mill	1	0.3
Mount Washington	1	0.2
POPULATION CATEGORY 2,500-4,999		
Carrollton	9	4.7
Fulton	6	4.3
Providence	7	3.9
Ludlow	7	3.2
Hickman	4	3.1
Morganfield	4	2.3
Russell	4	2.2
Irvine	3	2.1
Lancaster	4	2.1
Dawson Springs	3	2.0
Greenville	4	1.8
Columbia	3	1.5
Mount Vernon	2	1.5
Calvert City	2	1.5
Hodgenville	2	1.4
Stanton	2	1.3
Stanford	2	1.2
Southgate	2	1.2
Cold Spring	2	1.1
Vine Grove	2	1.0
Grayson	2	1.0
Paintsville	2	1.0
Scottsville	2	0.9
Hazard	2	0.8
Cumberland	1	0.8
Tompkinsville	1	0.8
Beaver Dam	1	0.7
Park Hills	1	0.7
Lakeside Park	1	0.7
Marion	1	0.6
Barbourville	1	0.6
Prestonsburg	1	0.6
Williamstown	1	0.6

TABLE 47. MOTORCYCLE CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1996-2000)

COUNTY	NUMBER OF CRASHES	ANNUAL CRASH RATE (CRASHES PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Lyon	16	4.0
Elliott	13	3.9
Trimble	13	3.2
Gallatin	12	3.0
Bracken	10	2.4
Wolfe	8	2.3
Crittenden	11	2.3
McLean	10	2.0
Hickman	5	1.9
Robertson	2	1.8
Livingston	8	1.6
Fulton	6	1.5
Nicholas	5	1.5
Menifee	5	1.5
Hancock	6	1.4
Carlisle	3	1.1
Ballard	4	1.0
Lee	3	0.8
Owsley	2	0.8
Clinton	2	0.4
Cumberland	0	0.0
POPULATION CATEGORY 10,000-14,999		
Carroll	16	3.2
Leslie	20	3.2
Trigg	19	3.0
Spencer	17	2.9
Pendleton	19	2.6
Morgan	17	2.4
Edmonson	14	2.4
Garrard	17	2.3
Owen	11	2.1
Bath	11	2.0
Washington	11	2.0
Todd	12	2.0
Martin	12	1.9
Jackson	13	1.9
Magoffin	12	1.8
Fleming	12	1.7
Webster	11	1.6
Butler	10	1.5
Caldwell	10	1.5
Monroe	8	1.4
Green	8	1.4
Metcalfe	7	1.4
Powell	9	1.4
Lewis	8	1.1
Larue	6	0.9
POPULATION CATEGORY 15,000-24,999		
Breathitt	38	4.7
Grant	39	3.5
Mason	28	3.3
Rowan	34	3.1
Marion	25	2.7
Union	21	2.7
Johnson	30	2.6
Knott	23	2.6
Mercer	27	2.6
Adair	20	2.3
Woodford	26	2.2
Allen	20	2.2
Russell	18	2.2
Rockcastle	17	2.1
Estill	16	2.1
Bourbon	19	2.0
Montgomery	21	1.9
Grayson	22	1.8
Lincoln	20	1.7
Taylor	20	1.7
Clay	21	1.7
Henry	12	1.6
McCreary	14	1.6
Simpson	13	1.6
Ohio	18	1.6
Anderson	15	1.6
Harrison	13	1.4
Lawrence	11	1.4
Casey	10	1.3
Wayne	12	1.2
Hart	10	1.1
Breckinridge	10	1.1
POPULATION CATEGORY 25,000-50,000		
Boyd	93	3.7
Hopkins	85	3.7
Floyd	78	3.7
Henderson	74	3.3
Perry	45	3.1
Carter	41	3.0
Letcher	35	2.8
Barren	54	2.8
Muhlenberg	45	2.8
Clark	44	2.7
Marshall	38	2.5
Knox	39	2.5
Nelson	43	2.3
Franklin	55	2.3
Scott	37	2.2
Calloway	36	2.1
Graves	35	1.9
Shelby	31	1.9
Logan	25	1.9
Whitley	33	1.8
Jessamine	33	1.7
Harlan	29	1.7
Boyle	21	1.5
Bell	21	1.4
Greenup	24	1.3
Meade	16	1.2
Oldham	25	1.1
POPULATION CATEGORY OVER 50,000		
Pike	169	4.9
McCracken	116	3.5
Warren	132	2.9
Daviess	111	2.4
Jefferson	758	2.2
Boone	96	2.2
Campbell	93	2.1
Fayette	270	2.1
Madison	76	2.1
Kenton	143	1.9
Pulaski	53	1.9
Christian	64	1.8
Hardin	87	1.8
Laurel	46	1.7
Bullitt	45	1.5

TABLE 48. MOTORCYCLE CRASH RATES BY CITY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)(1996-2000)

CITY	NUMBER OF CRASHES (1996-2000)	ANNUAL CRASH RATE (CRASHES PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Louisville	436	3.4
Lexington	268	2.1
POPULATION CATEGORY 20,000-55,000		
Paducah	67	5.1
Ashland	44	4.0
Bowling Green	84	3.4
Henderson	44	3.2
Elizabethtown	29	2.6
Owensboro	68	2.5
Richmond	34	2.5
Covington	49	2.3
Florence	26	2.2
Frankfort	26	1.9
Hopkinsville	25	1.7
Radcliff	18	1.6
Jeffersontown	15	1.1
POPULATION CATEGORY 10,000-19,999		
Madisonville	43	4.5
Glasgow	25	3.8
Shively	26	3.4
Newport	29	3.4
Erlanger	25	3.0
Winchester	25	3.0
Somerset	16	2.8
Bardstown	12	2.3
Georgetown	16	1.8
Shelbyville	9	1.8
Campbellsville	9	1.7
Murray	13	1.7
Danville	12	1.6
Independence	10	1.3
Nicholasville	12	1.2
Middlesboro	5	1.0
Mayfield	5	1.0
Saint Matthews	7	0.9
Fort Thomas	6	0.7
POPULATION CATEGORY 5,000-9,999		
Pikeville	21	6.7
Russellville	16	4.5
Morehead	10	3.4
London	9	3.2
Fort Mitchell	11	2.7
Paris	12	2.6
Harrodsburg	10	2.5
Central City	7	2.4
Shepherdsville	9	2.2
Corbin	10	2.1
Fort Wright	6	2.1
Versailles	8	2.1
Maysville	9	2.0
Cynthiana	6	1.9
Franklin	7	1.8
Highland Heights	6	1.8
Alexandria	7	1.7
Dayton	5	1.7
Mount Sterling	5	1.7
Williamsburg	4	1.6
Leitchfield	5	1.6
Princeton	5	1.5
Lebanon	4	1.4
Monticello	4	1.3
Bellevue	4	1.2
Lawrenceburg	5	1.1
Villa Hills	4	1.0
Mount Washington	4	0.9
Taylor Mill	3	0.9
Berea	4	0.8
La Grange	2	0.7
Flatwoods	2	0.5
Elsmere	2	0.5
Edgewood	2	0.4
Wilmore	1	0.3
POPULATION CATEGORY 2,500-4,999		
Prestonsburg	9	5.0
Mount Vernon	5	3.9
Calvert City	5	3.7
Cold Spring	7	3.7
Columbia	7	3.5
Paintsville	7	3.4
Hazard	8	3.3
Cumberland	4	3.1
Carrollton	6	3.1
Hodgenville	4	2.8
Scottsville	6	2.8
Providence	5	2.8
Russell	5	2.7
Dawson Springs	4	2.7
Beaver Dam	4	2.6
Williamstown	4	2.5
Tompkinsville	3	2.3
Fulton	3	2.2
Irvine	3	2.1
Lakeside Park	3	2.1
Marion	3	1.9
Benton	4	1.9
Greenville	4	1.8
Stanford	3	1.7
Lancaster	3	1.6
Hartford	2	1.6
Springfield	2	1.5
Grayson	3	1.5
Southgate	2	1.2
Barbourville	2	1.1
Flemingsburg	1	0.7

TABLE 49. SCHOOL BUS CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1996-2000)

COUNTY	NUMBER OF CRASHES	ANNUAL CRASH RATE (CRASHES PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Trimble	9	2.2
Owsley	5	2.1
Crittenden	9	1.9
Livingston	9	1.8
McLean	9	1.8
Bracken	7	1.7
Lee	6	1.5
Wolfe	5	1.4
Fulton	5	1.3
Hickman	3	1.1
Hancock	4	1.0
Menifee	3	0.9
Nicholas	3	0.9
Cumberland	2	0.6
Ballard	2	0.5
Gallatin	2	0.5
Carlisle	1	0.4
Clinton	2	0.4
Elliott	1	0.3
Lyon	1	0.2
Robertson	0	0.0
POPULATION CATEGORY 10,000-14,999		
Leslie	19	3.1
Metcalfe	15	3.0
Washington	15	2.7
Morgan	19	2.7
Spencer	14	2.4
Garrard	17	2.3
Carroll	11	2.2
Jackson	14	2.1
Edmonson	12	2.1
Fleming	14	2.0
Powell	11	1.7
Pendleton	12	1.7
Lewis	12	1.7
Webster	11	1.6
Butler	10	1.5
Caldwell	9	1.4
Magoffin	9	1.4
Green	8	1.4
Bath	6	1.1
Martin	7	1.1
Monroe	6	1.0
Owen	5	0.9
Todd	4	0.7
Larue	4	0.6
Trigg	4	0.6
POPULATION CATEGORY 15,000-24,999		
Montgomery	39	3.5
Grant	34	3.0
Rockcastle	24	2.9
Bourbon	27	2.8
Mason	21	2.5
Clay	30	2.4
Henry	18	2.4
Anderson	23	2.4
Breathitt	19	2.4
Knott	21	2.4
Wayne	22	2.2
Estill	15	2.0
Johnson	23	2.0
Woodford	22	1.9
Mercer	20	1.9
Hart	16	1.8
Harrison	14	1.6
Rowan	18	1.6
Adair	14	1.6
Union	12	1.5
McCreary	13	1.5
Ohio	14	1.2
Allen	10	1.1
Grayson	13	1.1
Marion	9	1.0
Lawrence	8	1.0
Russell	7	0.9
Casey	7	0.9
Taylor	10	0.9
Breckinridge	7	0.8
Lincoln	9	0.8
Simpson	3	0.4
POPULATION CATEGORY 25,000-50,000		
Jessamine	77	3.9
Perry	52	3.5
Floyd	65	3.1
Clark	50	3.0
Carter	36	2.7
Letcher	31	2.5
Scott	41	2.5
Shelby	40	2.4
Franklin	55	2.3
Muhlenberg	33	2.1
Whitley	37	2.1
Henderson	44	2.0
Nelson	36	1.9
Boyd	47	1.9
Knox	31	1.9
Oldham	41	1.8
Logan	23	1.7
Graves	31	1.7
Bell	26	1.7
Hopkins	34	1.5
Calloway	24	1.4
Harlan	22	1.3
Barren	24	1.3
Boyle	17	1.2
Greenup	18	1.0
Meade	11	0.8
Marshall	10	0.7
POPULATION CATEGORY OVER 50,000		
Jefferson	858	2.5
Christian	91	2.5
Madison	85	2.4
Fayette	302	2.3
Pike	74	2.2
Kenton	157	2.1
Laurel	55	2.1
Warren	91	2.0
McCracken	66	2.0
Boone	80	1.9
Bullitt	58	1.9
Campbell	60	1.4
Pulaski	40	1.4
Hardin	67	1.4
Daviess	60	1.3

TABLE 50. SCHOOL BUS CRASH RATES BY CITY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)(1996-2000)

CITY	NUMBER OF CRASHES (1996-2000)	ANNUAL CRASH RATE (CRASHES PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Louisville	509	4.0
Lexington	301	2.3
POPULATION CATEGORY 20,000-55,000		
Hopkinsville	69	4.6
Ashland	34	3.1
Richmond	39	2.9
Frankfort	36	2.6
Paducah	34	2.6
Bowling Green	60	2.4
Florence	27	2.3
Covington	48	2.2
Henderson	28	2.0
Elizabethtown	19	1.7
Radcliff	19	1.7
Jeffersontown	17	1.3
Owensboro	34	1.3
POPULATION CATEGORY 10,000-19,999		
Nicholasville	48	4.9
Shively	36	4.8
Independence	30	4.0
Winchester	32	3.8
Shelbyville	17	3.4
Somerset	19	3.3
Mayfield	15	2.9
Bardstown	13	2.5
Georgetown	21	2.3
Madisonville	21	2.2
Danville	13	1.7
Campbellsville	9	1.7
Newport	13	1.5
Middlesboro	8	1.5
Erlanger	12	1.4
Murray	10	1.3
Glasgow	8	1.2
Saint Matthews	9	1.1
Fort Thomas	3	0.4
POPULATION CATEGORY 5,000-9,999		
London	20	7.0
Mount Sterling	17	5.8
Monticello	16	5.4
Pikeville	13	4.1
Versailles	15	4.0
Taylor Mill	13	3.8
Morehead	11	3.7
Alexandria	15	3.6
Paris	16	3.5
Russellville	11	3.1
Maysville	13	2.9
Villa Hills	11	2.8
Cynthiana	8	2.6
Harrodsburg	10	2.5
Lawrenceburg	11	2.4
Shepherdsville	9	2.2
La Grange	6	2.1
Wilmore	6	2.0
Central City	6	2.0
Williamsburg	5	1.9
Edgewood	8	1.7
Corbin	7	1.5
Berea	6	1.2
Mount Washington	5	1.2
Fort Wright	3	1.1
Dayton	3	1.0
Highland Heights	3	0.9
Leitchfield	2	0.7
Lebanon	2	0.7
Bellevue	2	0.6
Fort Mitchell	2	0.5
Franklin	1	0.3
Flatwoods	1	0.3
Princeton	1	0.3
Elsmere	1	0.2
POPULATION CATEGORY 2,500-4,999		
Hazard	13	5.4
Irvine	7	4.9
Columbia	9	4.5
Lancaster	8	4.3
Tompkinsville	5	3.8
Barbourville	6	3.3
Scottsville	7	3.2
Grayson	6	3.1
Prestonsburg	5	2.8
Flemingsburg	4	2.7
Carrollton	5	2.6
Williamstown	4	2.5
Paintsville	5	2.4
Morganfield	4	2.3
Lakeside Park	3	2.1
Beaver Dam	3	2.0
Vine Grove	4	1.9
Providence	3	1.7
Cumberland	2	1.5
Benton	3	1.4
Ludlow	2	0.9
Greenville	2	0.9
Hickman	1	0.8
Springfield	1	0.8
Dawson Springs	1	0.7
Stanton	1	0.7
Fulton	1	0.7
Park Hills	1	0.7
Stanford	1	0.6
Marion	1	0.6
Southgate	1	0.6

TABLE 51. TRUCK CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1996-2000)

COUNTY	NUMBER OF CRASHES	ANNUAL CRASH RATE (CRASHES PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Gallatin	166	42.2
Lyon	134	33.2
Ballard	136	32.8
Fulton	106	27.3
Wolfe	77	21.8
Trimble	85	20.9
Hancock	83	19.8
McLean	95	19.1
Bracken	71	17.2
Livingston	79	16.1
Hickman	41	15.6
Crittenden	72	15.3
Owsley	36	14.8
Carlisle	31	11.6
Elliott	38	11.3
Clinton	49	10.2
Nicholas	32	9.4
Lee	31	7.8
Cumberland	26	7.3
Menifee	23	7.0
Robertson	4	3.5
POPULATION CATEGORY 10,000-14,999		
Carroll	253	49.8
Webster	237	33.6
Bath	135	24.4
Pendleton	152	21.1
Caldwell	136	20.8
Larue	134	20.0
Leslie	121	19.5
Lewis	131	18.6
Washington	100	18.3
Todd	109	18.2
Metcalfe	89	17.7
Powell	114	17.2
Martin	106	16.9
Trigg	105	16.7
Fleming	107	15.5
Garrard	101	13.7
Owen	70	13.3
Magoffin	73	11.0
Green	62	10.8
Butler	69	10.6
Spencer	56	9.5
Jackson	62	9.2
Morgan	61	8.7
Edmonson	50	8.6
Monroe	48	8.2
POPULATION CATEGORY 15,000-24,999		
Simpson	357	43.5
Grant	413	36.9
Rockcastle	297	35.8
Mason	299	35.6
Hart	278	31.9
Henry	226	30.0
Woodford	260	22.4
Bourbon	215	22.2
Union	173	22.1
Montgomery	226	20.0
Rowan	215	19.5
Knott	167	18.9
Breathitt	148	18.4
Ohio	207	18.1
Lawrence	138	17.7
Mercer	182	17.5
Adair	137	15.9
Harrison	143	15.9
Grayson	189	15.7
Marion	135	14.8
Allen	125	14.0
Anderson	134	14.0
Johnson	143	12.2
Lincoln	143	12.2
Russell	94	11.5
Taylor	128	11.2
Casey	82	10.6
Clay	117	9.5
Breckinridge	80	8.6
Estill	66	8.6
Wayne	85	8.5
McCreary	69	8.1
POPULATION CATEGORY 25,000-50,000		
Scott	585	35.4
Perry	449	30.6
Letcher	371	29.4
Boyd	721	29.0
Henderson	621	27.7
Shelby	457	27.4
Whitley	465	25.9
Barren	478	25.1
Logan	332	25.0
Clark	408	24.6
Hopkins	554	23.8
Muhlenberg	357	22.4
Carter	298	22.2
Boyle	289	20.9
Floyd	425	20.0
Jessamine	387	19.8
Bell	287	19.1
Marshall	280	18.6
Graves	343	18.5
Harlan	297	17.9
Franklin	408	17.1
Oldham	386	16.7
Nelson	281	15.0
Calloway	204	11.9
Knox	183	11.5
Greenup	205	11.1
Meade	103	7.8
POPULATION CATEGORY OVER 50,000		
Boone	1,831	42.6
Pike	1,254	36.5
Laurel	739	28.0
Kenton	2,090	27.6
Warren	1,237	26.7
Jefferson	9,058	26.1
Madison	915	25.8
Fayette	3,327	25.5
McCracken	816	24.9
Christian	753	20.8
Daviess	935	20.4
Campbell	869	19.6
Hardin	920	19.5
Bullitt	540	17.6
Pulaski	482	17.1

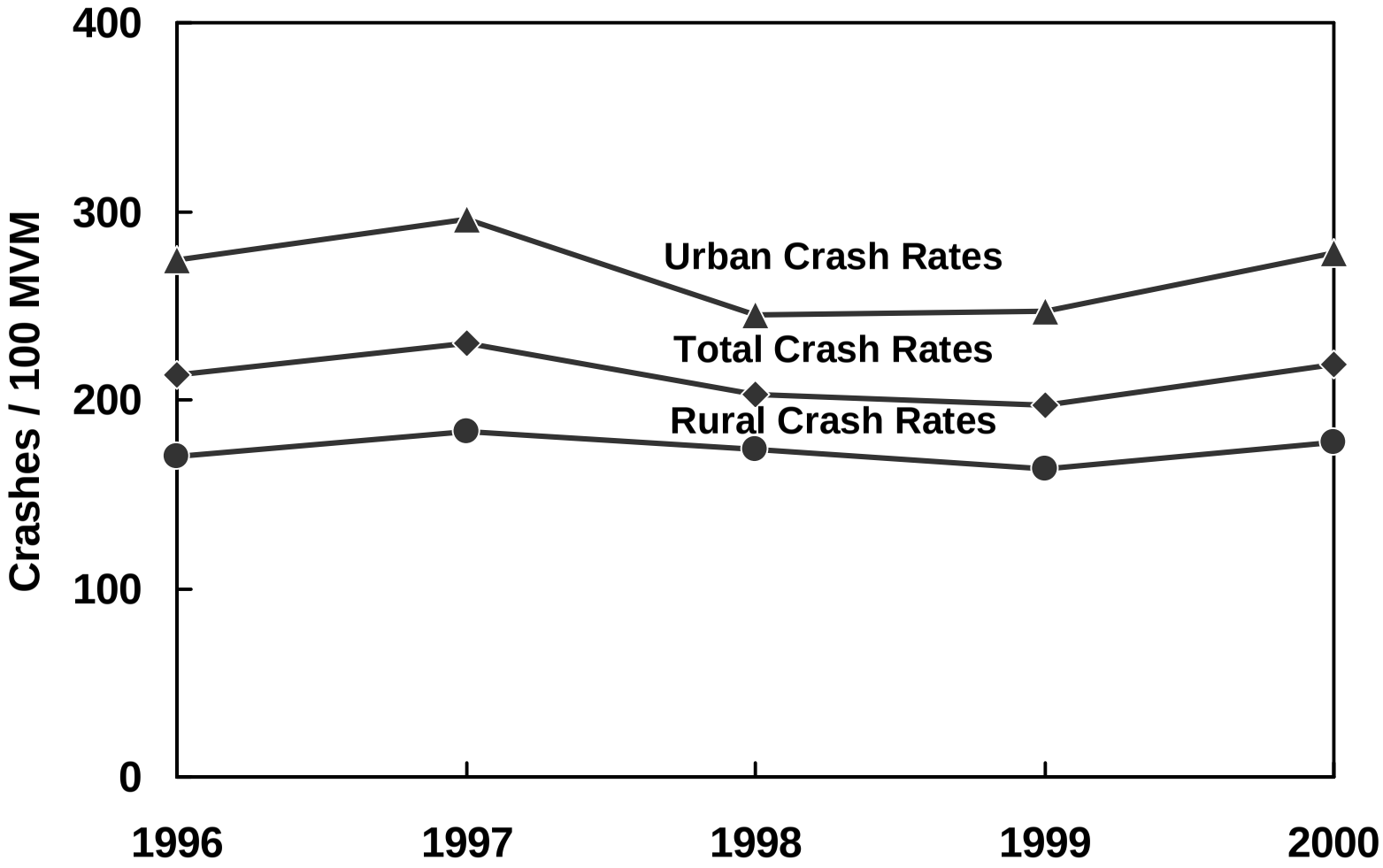

Figure 1. Trends in Crash Rates
(State-Maintained Roads)

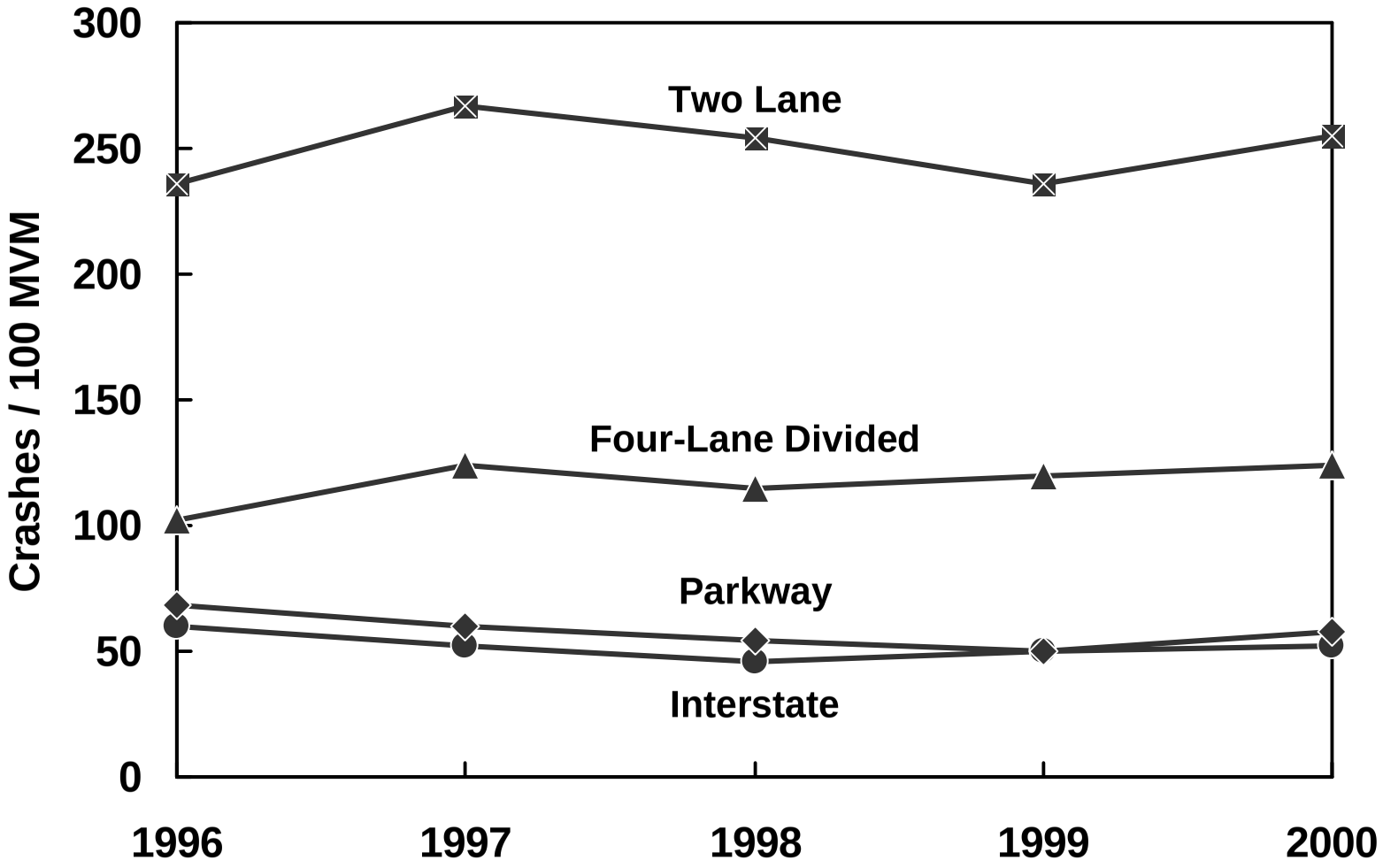

Figure 2. Trends in Rural Crash Rates
(State-Maintained Roads)

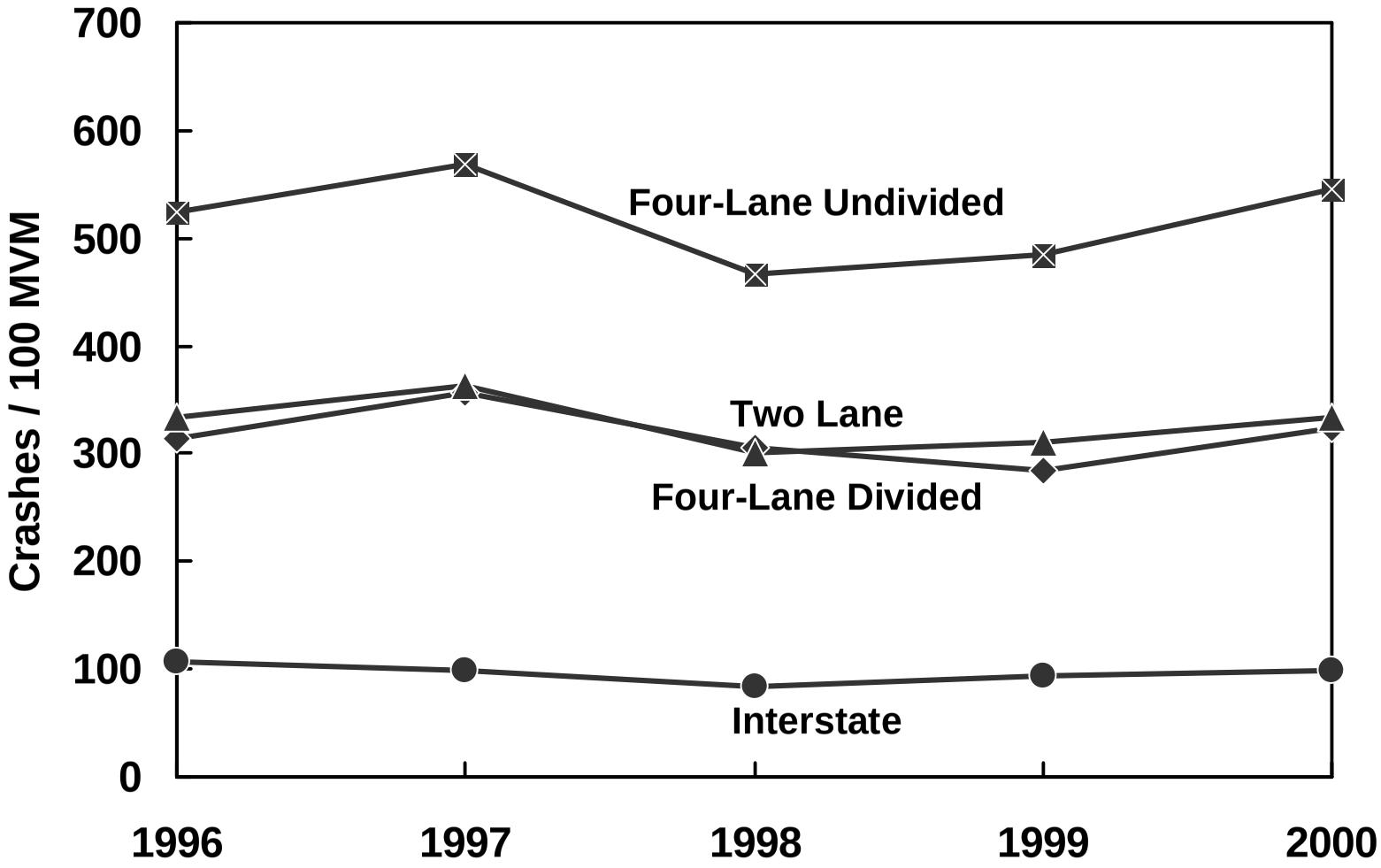

Figure 3. Trends in Urban Crash Rates
(State-Maintained Roads)

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). Rural principal arterials (non-interstate) 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 are very different. The highest fatal crash rates aere 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 fatat 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 primary (non-interstate), 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 almost identical.

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 which 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 for flat and rolling terrains are similar with the rate for mountainous terrain substantially higher.

Rates by rural-urban designation are shown in Table A-7. The lowest rate is for rural areas. The rate for small urban areas is almost identical 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 on 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, which 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 highest rate is for the lowest volume category (AADT under 1,000). 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 or 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 23 percent on both rural and 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 (5.3 percent) is substantially higher than that on urban roads (3.2 percent). The highest percentages are on interstates and parkways with the highest being about 10 percent. There are also large variations in the percentage of crashes occurring during darkness. The percentage is higher on rural roads (31 percent) than urban roads (23 percent). The highest percentages are on rural interstates and parkways with the highest being 43 percent. This would be expected given the amount of nighttime driving on these types of roadways.

TABLE A-1. STATEWIDE CRASH RATES BY FUNCTIONAL CLASSIFICATION (1996-2000)

LOCATION	FUNCTIONAL CLASSIFICATION	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM) ALL	INJURY	FATAL
Rural	Principal Arterial, Interstate	526	29,619	51	14	0.7
	Principal Arterial, Other Freeway	2,059	8,061	128	42	1.7
	Minor Arterial	1,609	4,182	243	78	2.6
	Major Collector	6,945	2,181	269	93	3.1
	Minor Collector	9,443	724	273	102	3.6
	Local System	4,503	507	208	72	2.1
Urban	Principal Arterial, Interstate	226	67,123	96	23	0.4
	Principal Arterial, Other Freeway	94	24,047	109	25	0.5
	Other Principal Arterial	651	19,194	438	111	0.9
	Minor Arterial	1,044	9,616	375	96	1.0
	Collector	697	3,957	233	62	1.0
	Local System	116	2,131	227	55	0.9

TABLE A-2. STATEWIDE CRASH RATES BY FEDERAL-AID SYSTEM (1996-2000)

FEDERAL-AID SYSTEM	TOTAL CRASHES	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM)
Interstate	41,287	753	40,882	73
Federal-Aid Primary (other than Interstate)	132,669	3,986	8,296	220
Federal-Aid Urban	114,935	1,922	8,880	369
Federal-Aid Secondary (Rural Only)	79,649	7,122	2,285	268
Non-Federal Aid	34,573	9,522	733	271

TABLE A-3. STATEWIDE CRASH RATES BY ADMINISTRATIVE CLASSIFICATION (1996-2000)

ADMINISTRATIVE CLASSIFICATION	TOTAL CRASHES	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM)
Primary	203,588	4,653	13,897	173
Secondary	167,413	6,736	4,089	333
Rural Secondary	48,706	12,159	779	282
Unclassified	8,303	2,264	730	275

TABLE A-4. STATEWIDE CRASH RATES BY MEDIAN TYPE
(RURAL ROADS WITH FOUR OR MORE LANES (1996-2000))

MEDIAN TYPE	TOTAL CRASHES	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM)
Undivided	3,512	68	17,314	163
Divided, Median Less Than 30 Feet, No Barrier	4,145	200	11,062	103
Divided, Median Greater Than 30 Feet, No Barrier	22,005	1,306	17,777	52

TABLE A-5. STATEWIDE CRASH RATES BY ACCESS CONTROL (1996-2000)

ACCESS CONTROL	TOTAL CRASHES	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM)
Full Control	51,296	1,445	26,425	74
Partial Control	28,274	790	8,918	220
No Control	330,407	25,353	2,339	305

TABLE A-6. STATEWIDE CRASH RATES FOR RURAL HIGHWAYS BY FEDERAL-AID SYSTEM AND TERRAIN (1996-2000)

FEDERAL-AID SYSTEM	CRASH RATES BY TERRAIN CLASSIFICATION (CRASHES/100MVM)		
	FLAT	ROLLING	MOUNTAINOUS
Interstate	58	58	51
Federal-Aid Primary	166	156	454
Federal-Aid Secondary	220	227	316
Non Federal-Aid	221	277	277
All	204	172	340

TABLE A-7. STATEWIDE CRASH RATES BY RURAL-URBAN DESIGNATION (1996-2000)

AREA TYPE	TOTAL CRASHES	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM)
Rural	199,572	24,193	2,593	174
Small Urban Area	68,477	1,177	10,561	302
Urbanized Area	140,627	1,276	21,896	276

TABLE A-8. STATEWIDE CRASH RATES BY ROUTE SIGNING IDENTIFIER (1996-2000)

ROUTE SIGNING IDENTIFIER	TOTAL CRASHES	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM)
Interstate	41,287	753	40,882	73
US	156,969	3,545	7,839	310
State	210,866	22,138	1,983	263

TABLE A-9. RELATIONSHIP BETWEEN CRASH RATE AND TRAFFIC VOLUME (1996-2000)

VOLUME RANGE (AADT)	CRASH RATES (CRASHES PER 100 MVM)				
	INTERSTATE	FEDERAL-AID PRIMARY	FEDERAL-AID URBAN	FEDERAL-AID SECONDARY	NON-FEDERAL AID
0-999	*	635	869	358	286
1,000-2,499	*	278	341	258	252
2,500-4,999	*	237	383	276	297
5,000-9,999	63	154	281	244	233
10,000-19,999	60	179	351	249	98
20,000-29,999	51	318	441	360	*
30,000-39,999	59	479	443	*	*
40,000 or more	78	225	373	*	*

* 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 (1996-2000)

LOCATION	HIGHWAY TYPE	PERCENT OF ALL CRASHES		
		WET	SNOW OR ICE	DARKNESS
Rural	One-Lane	16	0.9	22
	Two-Lane	23	4.9	30
	Three-Lane	18	2.6	24
	Four-Lane Divided (Non-Interstate or Parkway)	20	3.9	27
	Four-Lane Undivided	20	2.5	21
	Interstate	19	10.5	40
	Parkway	22	9.1	43
	All Rural	23	5.3	31
Urban	Two-Lane	24	3.1	22
	Three-Lane	25	2.5	24
	Four-Lane Divided (Non-Interstate or Parkway)	21	2.4	21
	Four-Lane Undivided	22	1.8	19
	Interstate	22	7.4	34
	Parkway	19	9.3	31
	All Urban	23	3.2	23

APPENDIX B

CRASH DATA FOR THREE-YEAR PERIOD (1998-2000)

TABLE B-1. STATEWIDE RURAL CRASH RATES BY HIGHWAY TYPE CLASSIFICATION (1998-2000)

HIGHWAY TYPE	TOTAL MILEAGE*	AADT	CRASHES RATES (CRASHES PER 100 MVM) ALL	INJURY	FATAL
One-Lane	69	880	123	39	1.5
Two-Lane	23,376	1,580	248	85	3.0
Three-Lane	33	5,250	202	60	2.1
Four-Lane Divided (Non-Interstate or Parkway)	508	11,430	120	39	1.3
Four-Lane Undivided	48	15,290	269	66	1.5
Interstate	527	31,090	49	12	0.6
Parkway	566	9,240	55	15	0.7
All	25,127	2,600	171	57	2.0

* Average for the three years.

TABLE B-2. STATEWIDE URBAN CRASH RATES BY HIGHWAY TYPE CLASSIFICATION (1998-2000)

HIGHWAY TYPE	TOTAL MILEAGE*	AADT	CRASHES RATES (CRASHES PER 100 MVM) ALL	INJURY	FATAL
Two-Lane	1,851	6,960	306	78	0.9
Three-Lane	33	12,260	487	103	1.4
Four-Lane Divided (Non-Interstate or Parkway)	379	23,860	313	80	0.9
Four-Lane Undivided	267	19,210	501	122	1.0
Interstate	233	68,000	92	21	0.4
Parkway	51	12,210	100	24	1.0
All **	2,840	15,780	257	64	0.7

* 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 (1998-2000)

RURAL OR URBAN	HIGHWAY TYPE	NUMBER OF CRASHES	NUMBER OF SPOTS*	MILLION VEHICLES PER YEAR	CRASHES PER MILLION VEHICLES PER SPOT
Rural	One-Lane	81	229	0.32	0.37
	Two-Lane	100,451	77,921	0.58	0.75
	Three-Lane	379	109	1.92	0.60
	Four-Lane Divided (Non-Interstate or Parkway)	7,607	1,692	4.17	0.36
	Four-Lane Undivided	2,162	160	5.58	0.81
	Interstate	8,811	1,757	11.35	0.15
	Parkway	3,148	1,887	3.37	0.16
	All Rural	122,639	83,757	0.95	0.51
Urban	Two-Lane	43,197	6,170	2.54	0.92
	Three-Lane	2,125	108	4.48	1.46
	Four-Lane Divided	31,014	1,264	8.71	0.94
	Four-Lane Undivided	28,130	889	7.01	1.50
	Interstate	15,933	776	24.82	0.28
	Parkway	682	171	4.46	0.30
	All Urban**	126,025	9,468	5.76	0.77

* 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 (1998-2000)

RURAL OR URBAN	HIGHWAY TYPE	CRASHES PER SPOT*		CRASHES PER ONE MILE SECTION	
		AVERAGE	CRITICAL NUMBER	AVERAGE	CRITICAL NUMBER
Rural	One-Lane	0.35	2	1.18	4
	Two-Lane	1.29	5	4.30	10
	Three-Lane	3.48	9	11.60	21
	Four-Lane Divided (Non-Interstate or Parkway)	4.50	10	14.98	25
	Four-Lane Undivided	13.51	23	45.04	63
	Interstate	5.02	11	16.72	28
	Parkway	1.67	5	5.56	12
	All Rural	1.46	5	4.88	11
Urban	Two-Lane	7.00	14	23.34	36
	Three-Lane	19.61	32	65.35	87
	Four-Lane Divided	24.54	38	81.80	106
	Four-Lane Undivided	31.63	47	105.45	132
	Interstate	20.53	33	68.44	90
	Parkway	4.00	10	13.33	23
	All Urban**	13.31	23	44.37	62

* 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 (1998-2000)

RURAL OR URBAN	HIGHWAY TYPE	NUMBER OF CRASHES	NUMBER OF SPOTS*	MILLION VEHICLES PER YEAR	CRASHES PER MILLION VEHICLES PER SPOT
Rural	One-Lane	81	687	0.32	0.12
	Two-Lane	100,451	233,763	0.58	0.25
	Three-Lane	379	327	1.92	0.20
	Four-Lane Divided (Non-Interstate or Parkway)	7,607	5,077	4.17	0.12
	Four-Lane Undivided	2,162	480	5.58	0.27
	Interstate	8,811	5,270	11.35	0.05
	Parkway	3,148	5,660	3.37	0.05
	All Rural	122,639	251,270	0.95	0.17
Urban	Two-Lane	43,197	18,509	2.54	0.31
	Three-Lane	2,125	325	4.48	0.49
	Four-Lane Divided	31,014	3,792	8.71	0.31
	Four-Lane Undivided	28,130	2,668	7.01	0.50
	Interstate	15,933	2,328	24.82	0.09
	Parkway	682	512	4.46	0.10
	All Urban**	126,025	28,404	5.76	0.26

* 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 (1998-2000)

RURAL OR URBAN	HIGHWAY TYPE	CRASHES PER SPOT*		CRASHES PER ONE MILE SECTION	
		AVERAGE	CRITICAL NUMBER	AVERAGE	CRITICAL NUMBER
Rural	One-Lane	0.12	2	1.18	4
	Two-Lane	0.43	3	4.30	10
	Three-Lane	1.16	4	11.60	21
	Four-Lane Divided (Non-Interstate or Parkway)	1.50	5	14.98	25
	Four-Lane Undivided	4.50	10	45.04	63
	Interstate	1.67	6	16.72	28
	Parkway	0.56	3	5.56	12
	All Rural	0.49	3	4.88	11
Urban	Two-Lane	2.33	7	23.34	36
	Three-Lane	6.54	14	65.35	87
	Four-Lane Divided	8.18	16	81.80	106
	Four-Lane Undivided	10.54	19	105.45	132
	Interstate	6.84	14	68.44	90
	Parkway	1.33	5	13.33	23
	All Urban**	4.44	10	44.37	62

* 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)(1998-2000)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE		
AADT	ONE-LANE	TWO-LANE	THREE-LANE
100	7.38	8.71	8.25
500	2.24	2.90	2.67
1,000	1.43	1.94	1.76
2,500	0.84	1.21	1.08
5,000	0.59	0.89	0.78
7,500	0.49	0.76	0.66
10,000	0.44	0.68	0.59
15,000	0.37	0.60	0.51
20,000	0.33	0.55	0.47

TABLE B-8. CRITICAL CRASH RATES FOR 0.1 MILE "SPOTS" ON RURAL FOUR-LANE HIGHWAYS, INTERSTATES, AND PARKWAYS (THREE-YEAR PERIOD)(1998-2000)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE			
AADT	FOUR-LANE DIVIDED (NON-INTERSTATE AND PARKWAY)	FOUR-LANE UNDIVIDED	INTERSTATE	PARKWAY
500	2.24	2.99	1.74	1.74
1,000	1.43	2.01	1.06	1.06
2,500	0.84	1.26	0.58	0.58
5,000	0.59	0.93	0.39	0.39
10,000	0.44	0.72	0.27	0.27
15,000	0.37	0.63	0.22	0.22
20,000	0.33	0.58	0.20	0.20
30,000	0.29	0.52	0.17	0.17
40,000	0.27	0.48	0.15	0.15
50,000	0.25	0.46	0.14	0.14

TABLE B-9. CRITICAL CRASH RATES FOR 0.1 MILE "SPOTS" ON URBAN TWO-LANE AND THREE-LANE HIGHWAYS (THREE-YEAR PERIOD)(1998-2000)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE	
AADT	TWO-LANE	THREE-LANE
500	3.16	3.84
1,000	2.14	2.67
2,500	1.36	1.76
5,000	1.01	1.35
7,500	0.87	1.18
10,000	0.79	1.08
15,000	0.69	0.97
20,000	0.64	0.90
30,000	0.58	0.82
40,000	0.54	0.77

TABLE B-10. CRITICAL CRASH RATES FOR 0.1 MILE "SPOTS" ON URBAN FOUR-LANE HIGHWAYS, INTERSTATES, AND PARKWAYS (THREE-YEAR PERIOD)(1998-2000)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE			
AADT	FOUR-LANE DIVIDED (NON-INTERSTATE AND PARKWAY)	FOUR-LANE UNDIVIDED	INTERSTATE	PARKWAY
1,000	2.14	2.70	1.29	1.34
5,000	1.01	1.37	0.51	0.54
10,000	0.79	1.10	0.37	0.39
15,000	0.69	0.98	0.31	0.33
20,000	0.64	0.91	0.28	0.30
30,000	0.58	0.83	0.24	0.26
40,000	0.54	0.79	0.22	0.23
50,000	0.51	0.76	0.20	0.22
60,000	0.49	0.73	0.19	0.21
70,000	0.48	0.71	0.18	0.20
80,000	0.47	0.70	0.18	0.19
90,000	0.46	0.69	0.17	0.19
100,000	0.45	0.68	0.17	0.18

APPENDIX C

CRITICAL "NUMBERS OF CRASHES" TABLES

TABLE C-1. CRITICAL NUMBERS OF CRASH RATES ON RURAL HIGHWAYS BY HIGHWAY TYPE AND SECTION LENGTH (1996-2000)

	CRITICAL NUMBERS OF CRASHES FOR THE GIVEN SECTION LENGTH (MILES)						
HIGHWAY TYPE	0.4	1	2	5	10	15	20
One-Lane	4	7	11	21	37	52	66
Two-Lane	8	15	25	52	95	136	176
Three-Lane	18	37	67	150	282	412	541
Four-Lane Divided (Non-Interstate and Parkway)	18	37	66	149	281	410	538
Four-Lane Undivided	42	91	168	392	756	1,115	1,472
Interstate	20	42	75	170	322	471	618
Parkway	9	18	31	65	120	172	224

TABLE C-2. CRITICAL NUMBERS OF CRASH RATES ON URBAN HIGHWAYS BY HIGHWAY TYPE AND SECTION LENGTH (1996-2000)

	CRITICAL NUMBERS OF CRASHES FOR THE GIVEN SECTION LENGTH (MILES)					
HIGHWAY TYPE	0.4	1	2	5	8	10
Two-Lane	27	58	105	241	373	461
Three-Lane (Non-Interstate and Parkway)	64	144	270	639	1,002	1,242
Four-Lane Divided	75	169	320	759	1,192	1,479
Four-Lane Undivided	95	217	413	986	1,552	1,927
Interstate	64	143	269	637	998	1,236
Parkway	17	35	63	140	215	264

APPENDIX D

CRITICAL CRASH RATE TABLES FOR HIGHWAY SECTIONS

TABLE D-1. CRITICAL CRASH RATES FOR RURAL ONE-LANE SECTIONS (FIVE-YEAR PERIOD)(1996-2000)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
100	1,695	1,126	781	513	392
200	1,126	781	564	392	313
300	904	642	476	342	279
400	781	564	426	313	259
500	700	513	392	293	246
700	599	448	350	268	229
1,000	513	392	313	246	214
1,500	436	342	279	226	200
2,000	392	313	259	214	191
2,500	363	293	246	206	186
3,000	342	279	236	200	182

TABLE D-2. CRITICAL CRASH RATES FOR RURAL TWO-LANE SECTIONS (FIVE-YEAR PERIOD)(1996-2000)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)					
AADT	0.5	1	2	5	10	20
100	2,144	1,476	1,060	730	578	476
300	1,210	891	684	514	433	377
500	962	730	578	451	390	347
1,000	730	578	476	390	347	318
1,500	634	514	433	363	329	305
2,000	578	476	407	347	318	298
3,000	514	433	377	329	305	289
4,000	476	407	359	318	298	284
5,000	451	390	347	311	293	280
7,000	418	367	332	301	286	275
8,000	407	359	327	298	284	273
9,000	398	353	322	295	282	272
10,000	390	347	318	293	280	271

TABLE D-3. CRITICAL CRASH RATES FOR RURAL THREE-LANE SECTIONS (FIVE-YEAR PERIOD)(1996-2000)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	3	5
100	2,154	1,484	1,066	896	735
300	1,217	896	689	602	518
500	967	735	582	518	455
1,000	735	582	480	436	393
1,500	638	518	436	401	366
2,000	582	480	410	380	351
3,000	518	436	380	356	332
4,000	480	410	363	342	321
5,000	455	393	351	332	314
6,000	436	380	342	325	308
7,000	422	371	335	320	304
8,000	410	363	330	315	301
9,000	401	356	325	311	298
10,000	393	351	321	308	296

TABLE D-4. CRITICAL CRASH RATES FOR RURAL FOUR-LANE DIVIDED SECTIONS (NON-INTERSTATE AND PARKWAY) (FIVE-YEAR PERIOD)(1996-2000)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
500	640	464	351	259	215
1,000	464	351	277	215	185
2,500	324	259	215	178	160
5,000	259	215	185	160	147
7,500	231	196	173	152	142
10,000	215	185	165	147	138
15,000	196	173	156	142	134
20,000	185	165	151	138	132
30,000	173	156	144	134	129
40,000	165	151	141	132	128
50,000	160	147	138	131	127

TABLE D-5. CRITICAL CRASH RATES FOR RURAL FOUR-LANE UNDIVIDED SECTIONS (FIVE-YEAR PERIOD)(1996-2000)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
500	956	726	574	448	387
1,000	726	574	473	387	345
2,500	537	448	387	334	308
5,000	448	387	345	308	290
7,500	409	360	326	297	282
10,000	387	345	315	290	277
20,000	345	315	295	277	268
30,000	326	303	286	272	264
40,000	315	295	281	268	262
50,000	308	290	277	266	261

TABLE D-6. CRITICAL CRASH RATES FOR RURAL INTERSTATE SECTIONS (FIVE-YEAR PERIOD)(1996-2000)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)					
AADT	0.5	1	2	5	10	20
500	435	300	216	149	118	98
1,000	300	216	162	118	98	83
2,500	196	149	118	92	80	71
5,000	149	118	98	80	71	65
7,500	129	105	89	75	68	63
10,000	118	98	83	71	65	61
20,000	98	83	74	65	61	58
30,000	89	77	70	63	59	57
40,000	83	74	67	61	58	56
50,000	80	71	65	60	58	56

TABLE D-7. CRITICAL CRASH RATES FOR RURAL PARKWAY SECTIONS (FIVE-YEAR PERIOD)(1996-2000)

	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	271	201	144	117	99
1,000	319	231	175	129	107	92
1,500	263	195	151	115	98	86
2,000	231	175	138	107	92	82
3,000	195	151	122	98	86	78
4,000	175	138	113	92	82	75
5,000	161	129	107	88	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	63

TABLE D-8. CRITICAL CRASH RATES FOR URBAN TWO-LANE SECTIONS (FIVE-YEAR PERIOD)(1996-2000)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
500	1,118	862	693	550	481
1,000	862	693	579	481	434
2,500	651	550	481	422	392
5,000	550	481	434	392	372
7,500	507	452	413	379	363
10,000	481	434	401	372	357
15,000	452	413	386	363	351
20,000	434	401	378	357	347
30,000	413	386	367	351	343
40,000	401	378	361	347	340
50,000	392	372	357	345	338

TABLE D-9. CRITICAL CRASH RATES FOR URBAN THREE-LANE SECTIONS (FIVE-YEAR PERIOD)(1996-2000)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
500	1,479	1,172	967	792	707
1,000	1,172	967	827	707	648
2,500	916	792	707	633	596
5,000	792	707	648	596	570
7,500	739	670	622	580	559
10,000	707	648	607	570	552
15,000	670	622	589	559	544
20,000	648	607	578	552	540
30,000	622	589	565	544	534
40,000	607	578	558	540	531
50,000	596	570	552	536	528

TABLE D-10. CRITICAL CRASH RATES FOR URBAN FOUR-LANE DIVIDED SECTIONS (NON-INTERSTATE AND PARKWAY) (FIVE-YEAR PERIOD)(1996-2000)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
1,000	860	691	577	480	432
2,500	649	549	480	420	391
5,000	549	480	432	391	370
10,000	480	432	399	370	356
15,000	450	412	385	361	350
20,000	432	399	376	356	346
25,000	420	391	370	352	343
30,000	412	385	366	350	341
40,000	399	376	360	346	339
50,000	391	370	356	343	337
60,000	385	366	353	341	335

TABLE D-11. CRITICAL CRASH RATES FOR URBAN FOUR-LANE UNDIVIDED SECTIONS (FIVE-YEAR PERIOD)(1996-2000)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
1,000	1,188	981	840	719	659
2,500	929	804	719	644	607
5,000	804	719	659	607	581
10,000	719	659	617	581	563
15,000	681	633	599	569	554
20,000	659	617	588	563	550
25,000	644	607	581	558	546
30,000	633	599	575	554	544
40,000	617	588	568	550	541
50,000	607	581	563	546	538
60,000	599	575	559	544	537

TABLE D-12. CRITICAL CRASH RATES FOR URBAN INTERSTATE SECTIONS (FIVE-YEAR PERIOD)(1996-2000)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
1,000	415	310	242	185	158
5,000	225	185	158	134	123
10,000	185	158	139	123	115
20,000	158	139	126	115	109
30,000	146	131	120	111	107
40,000	139	126	117	109	105
50,000	134	123	115	108	104
60,000	131	120	113	107	104
70,000	128	119	112	106	103
80,000	126	117	111	105	102
90,000	124	116	110	105	102
100,000	123	115	109	104	102

TABLE D-13. CRITICAL CRASH RATES FOR URBAN PARKWAY SECTIONS (FIVE-YEAR PERIOD)(1996-2000)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)					
AADT	0.5	1	2	5	10	20
500	602	434	326	238	196	168
1,000	434	326	255	196	168	149
2,500	300	238	196	161	144	132
5,000	238	196	168	144	132	124
7,500	212	179	156	136	127	120
10,000	196	168	149	132	124	118
15,000	179	156	140	127	120	115
20,000	168	149	135	124	118	114
30,000	156	140	130	120	115	112
40,000	149	135	126	118	114	111
90,000	134	125	119	113	110	109
50,000	144	132	124	116	113	110

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 (1996-2000)

CITY	POPULATION	NUMBER OF CRASHES	ANNUAL CRASHES PER 1000 POPULATION	CITY	POPULATION	NUMBER OF CRASHES	CRASHES PER 1000 POPULATION
Adairville	920	35	8	Burgin	874	36	8
Albany	2,220	545	49	Burkesville	1,756	318	36
Alexandria	8,286	1,291	31	Burlington	10,779	*	*
Allen	150	151	201	Burnside	637	99	31
Allensville	189	*	*	Butler	613	95	31
Anchorage	2,264	123	11	Cadiz	2,373	605	51
Annville	589	*	*	Calhoun	836	107	26
Arlington	395	13	7	California	86	*	*
Ashland	21,981	6,089	55	Calvert City	2,701	327	24
Auburn	1,444	112	16	Camargo	923	45	10
Audubon Park	1,545	71	9	Campbellsburg	705	78	22
Augusta	1,204	156	26	Campbellsville	10,498	2,551	49
Bancroft	536	1	0	Campton	424	426	201
Barbourmeade	1,260	1	0	Caneyville	627	95	30
Barbourville	3,589	845	47	Carlisle	1,917	327	34
Bardstown	10,374	2,722	53	Carrollton	3,846	858	45
Bardwell	799	77	19	Catlettsburg	1,960	592	60
Barlow	715	57	16	Cave City	1,880	520	55
Beattyville	1,193	252	42	Centertown	416	28	14
Beaver Dam	3,033	595	39	Central City	5,893	995	34
Bedford	677	203	60	Cherrywood	327	3	2
Beechwood Village	1,173	3	1	Clarkson	794	136	34
Bellefonte	837	111	27	Clay	1,179	103	18
Bellevue	6,480	1,177	36	Clay City	1,303	*	*
Bellewood	300	3	2	Clinton	1,415	*	*
Benham	599	37	12	Cloverport	1,256	44	7
Benton	4,197	893	43	Coal Run	577	388	135
Berea	9,851	1,736	35	Cold Spring	3,806	1,029	54
Berry	310	21	14	Columbia	4,014	1,019	51
Blackey	153	*	*	Columbus	229	*	*
Blaine	245	18	15	Concord	28	2	14
Blandville	99	*	*	Corbin	9,404	2,349	50
Bloomfield	855	100	23	Corinth	181	141	156
Blue Ridge Manor	623	2	1	Corydon	744	109	29
Bonnieville	354	58	33	Covington	43,370	11,136	51
Booneville	111	210	378	Crab Orchard	842	131	31
Bowling Green	49,296	15,049	61	Crescent Springs	3,931	794	40
Bradfordsville	304	36	24	Crestview	471	6	3
Brandenburg	2,049	561	55	Crestview Hills	2,889	1,031	71
Bremen	365	79	43	Crestwood	1,999	528	53
Briarwood	554	1	0	Crittenden	2,401	468	39
Broadfields	250	*	*	Crofton	838	89	21
Brodhead	1,193	13	2	Cumberland	2,611	276	21
Bromley	838	88	21	Cynthiana	6,258	1,380	44
Brooks	2,678	*	*	Danville	15,477	3,599	47
Brooksville	589	205	70	Dawson Springs	2,980	294	20
Brownsville	921	288	63	Dayton	5,966	514	17
Buckhorn	144	*	*	Dixon	632	178	56
Buckner	4,000	*	*	Douglass Hills	5,718	*	*
Buechel	7,272	*	*	Dover	316	27	17

TABLE F-1. CRASHES AND CRASH RATES FOR ALL CITIES LISTED IN THE 1990 CENSUS (1996-2000)(continued)

CITY	POPULATION	NUMBER OF CRASHES	ANNUAL CRASHES PER 1000 POPULATION	CITY	POPULATION	NUMBER OF CRASHES	CRASHES PER 1000 POPULATION
Drakesboro	627	83	27	Green Spring	459	*	*
Dry Ridge	1,995	932	93	Greensburg	2,396	535	45
Earlington	1,649	192	23	Greenup	1,198	231	39
East Bernstadt	774	*	*	Greenville	4,398	909	41
Eddyville	2,350	223	19	Guthrie	1,469	140	19
Edgewood	9,400	910	19	Hanson	625	83	27
Edmonton	1,586	378	48	Hardin	564	70	25
Ekron	170	18	21	Hardinsburg	2,345	322	28
Elizabethtown	22,542	6,333	56	Harlan	2,081	797	77
Elkhorn City	1,060	143	27	Harrodsburg	8,014	1,759	44
Elkton	1,984	307	31	Hartford	2,571	156	12
Elsmere	8,139	809	20	Hawesville	971	178	37
Eminence	2,231	131	12	Hazard	4,806	2,287	95
Erlanger	16,676	4,011	48	Hazel	440	43	20
Eubank	358	47	26	Henderson	27,373	6,920	51
Evarts	1,101	161	29	Hendron	4,239	*	*
Ewing	278	19	14	Hickman	2,560	174	14
Fairdale	7,658	*	*	Highland Heights	6,554	922	28
Fairfield	72	13	36	Hillview	7,037	*	*
Fairview	156	34	44	Hindman	787	268	68
Falmouth	2,058	432	42	Hiseville	224	18	16
Ferguson	881	30	7	Hodgenville	2,874	726	51
Fern Creek	17,870	*	*	Hollow Creek	815	*	*
Flatwoods	7,605	677	18	Hopkinsville	30,089	6,317	42
Fleming-neon	840	*	*	Horse Cave	2,252	224	20
Flemingsburg	3,010	442	29	Houston Acres	491	2	1
Florence	23,551	8,753	74	Hunters Hollow	372	*	*
Fordsville	531	69	26	Hustonville	347	42	24
Forest Hills	494	13	5	Hyden	204	205	201
Fort Campbell	14,338	*	*	Independence	14,982	1,754	23
Fort Knox	12,377	*	*	Indian Hills	2,882	39	3
Fort Mitchell	8,089	1,478	37	Inez	466	189	81
Fort Thomas	16,495	1,244	15	Irvine	2,843	653	46
Fort Wright	5,681	2,070	73	Irvington	1,257	58	9
Fountain Run	236	28	24	Island	435	52	24
Frankfort	27,741	5,323	38	Jackson	2,490	831	67
Franklin	7,996	1,350	34	Jamestown	1,624	194	24
Fredonia	420	66	31	Jeffersontown	26,633	4,788	36
Frenchburg	551	137	50	Jeffersonville	1,804	142	16
Fulton	2,775	479	35	Jenkins	2,401	318	27
Gamaliel	439	20	9	Junction City	2,184	161	15
Georgetown	18,080	3,421	38	Keeneland	383	2	1
Germantown	190	50	53	Kevil	574	69	24
Ghent	371	47	25	Kingsley	428	5	2
Glasgow	13,019	3,378	52	Kuttawa	596	75	25
Glencoe	251	45	36	LaGrange	5,676	953	34
Goshen	907	*	*	Lacenter	1,038	114	22
Grand Rivers	343	38	22	Lafayette	193	6	6
Gratz	89	15	34	Lakeside Park	2,869	442	31
Grayson	3,877	1,039	54	Lancaster	3,734	675	36

TABLE F-1. CRASHES AND CRASH RATES FOR ALL CITIES LISTED IN THE 1990 CENSUS (1996-2000)(continued)

CITY	POPULATION	NUMBER OF CRASHES	ANNUAL CRASHES PER 1000 POPULATION	CITY	POPULATION	NUMBER OF CRASHES	CRASHES PER 1000 POPULATION
Langdon Place	974	*	*	Morehead	5,914	1,891	64
Latonia Lakes	325	30	19	Morganfield	3,494	699	40
Lawrenceburg	9,014	893	20	Morgantown	2,544	521	41
Lebanon	5,718	1,261	44	Mortons Gap	952	85	18
Lebanon Junction	1,801	224	25	Mount Olivet	289	21	15
Ledbetter	1,700	*	*	Mount Sterling	5,876	1,827	62
Leitchfield	6,139	596	19	Mount Vernon	2,592	717	55
Lewisburg	903	81	18	Mount Washington	8,485	921	22
Lewisport	1,639	116	14	Muldraugh	1,298	284	44
Lexington	260,512	61,651	47	Munfordville	1,563	428	55
Liberty	1,850	362	39	Murray	14,950	1,661	22
Livermore	1,482	171	23	Nebo	220	37	34
Livingston	228	14	12	New Castle	919	124	27
London	5,692	3,285	115	New Haven	849	69	16
Lone Oak	454	298	131	Newport	17,048	4,584	54
Loretto	623	90	29	Nicholasville	19,680	3,473	35
Louisa	2,018	677	67	Norbourne Estates	461	4	2
Louisville	256,231	80,191	63	North Middleton	562	37	13
Loyall	766	54	14	Northfield	970	89	18
Ludlow	4,409	341	16	Nortonville	1,264	164	26
Lynch	900	55	12	Oak Grove	7,064	1,186	34
Lyndon	9,369	112	2	Oakland	260	20	15
Lynnview	965	54	11	Okolona	17,807	*	*
Mackville	206	27	26	Olive Hill	1,813	390	43
Madisonville	19,307	4,407	46	Owensboro	54,067	12,492	46
Manchester	1,738	720	83	Owenton	1,387	305	44
Manor Creek	221	*	*	Owingsville	1,488	294	40
Marion	3,196	508	32	Paducah	26,307	9,009	69
Martin	633	218	69	Paintsville	4,132	1,201	58
Masonville	1,075	*	*	Paris	9,183	1,839	40
Massac	3,888	*	*	Park City	517	76	29
Mayfield	10,349	2,297	44	Park Hills	2,977	219	15
Maysville	8,993	2,633	59	Pembroke	797	50	13
McHenry	417	46	22	Perryville	763	51	13
McKee	878	217	49	Pewee Valley	1,436	188	26
McRoberts	921	39	9	Phelps	1,053	266	51
Meadow Vale	765	73	19	Pikeville	6,295	2,100	67
Meadowbrook Farm	146	*	*	Pine Knot	1,680	*	*
Meadowview Estates	422	5	2	Pineville	2,093	473	45
Melbourne	457	39	17	Pioneer Village	2,555	*	*
Mentor	181	16	18	Pippa Passes	297	89	60
Middlesboro	10,384	1,755	34	Plantation	902	618	137
Middletown	5,744	216	8	Pleasureville	869	42	10
Midway	1,620	133	16	Plymouth Village	201	1	1
Millersburg	842	96	23	Powderly	846	94	22
Milton	525	224	85	Prestonsburg	3,612	1,236	68
Minor Lane Heights	1,435	39	5	Prestonville	164	37	45
Monterey	167	23	28	Princeton	6,536	1,041	32
Monticello	5,981	1,416	47	Prospect	4,657	*	*
Moorland	464	12	5	Providence	3,611	350	19

TABLE F-1. CRASHES AND CRASH RATES FOR ALL CITIES LISTED IN THE 1990 CENSUS (1996-2000)(continued)

CITY	POPULATION	NUMBER OF CRASHES	ANNUAL CRASHES PER 1000 POPULATION	CITY	POPULATION	NUMBER OF CRASHES	CRASHES PER 1000 POPULATION
Raceland	2,355	189	16	Stearns	1,586	*	*
Radcliff	21,961	2,878	26	Strathmoor Village	625	1	0
Ravenna	693	45	13	Sturgis	2,030	219	22
Raywick	144	*	*	Taylor Mill	6,913	1,227	36
Reidland	4,353	*	*	Taylorsville	1,009	205	41
Richlawn	454	*	*	Tompkinsville	2,660	608	46
Richmond	27,152	6,646	49	Trenton	419	18	9
Robards	564	*	*	Union	2,893	389	27
Rochester	186	1	1	Uniontown	1,064	106	20
Rockport	334	11	7	Upton	654	*	*
Rolling Hills	907	19	4	Vanceburg	1,731	277	32
Russell	3,645	849	47	Versailles	7,511	1,555	41
Russell Springs	2,399	728	61	Vicco	318	83	52
Russellville	7,149	1,696	47	Villa Hills	7,948	357	9
Ryland Heights	799	*	*	Vine Grove	4,169	371	18
Sacramento	517	64	25	Wallins Creek	257	141	110
Sadieville	263	43	33	Walton	2,450	545	45
Salem	769	64	17	Warfield	284	96	68
Salt Lick	342	100	59	Warsaw	1,811	156	17
Salyersville	1,604	367	46	Water Valley	316	18	11
Sanders	246	17	14	Waverly	297	44	30
Sandy Hook	678	120	35	Wayland	298	32	22
Sardis	149	27	36	Wellington	561	*	*
Science Hill	634	26	8	West Liberty	3,277	467	29
Scottsville	4,327	1,070	50	West Point	1,100	251	46
Sebree	1,558	204	26	Westwood	4,888	*	*
Seneca Gardens	699	5	1	Westwood	612	*	*
Sharpsburg	295	61	41	Wheatcroft	173	15	17
Shelbyville	10,085	2,227	44	Wheelwright	1,042	48	9
Shepherdsville	8,334	1,774	43	Whipps Millgate	415	*	*
Shively	15,157	4,733	63	White Plains	800	64	16
Silver Grove	1,215	153	25	Whitesburg	1,600	531	66
Simpsonville	1,281	136	21	Whitesville	632	105	33
Slaughters	238	14	12	Whitley City	1,111	339	61
Smithfield	102	14	28	Wickliffe	794	212	53
Smithland	401	77	38	Wilder	2,624	679	52
Smiths Grove	784	111	28	Wildwood	247	2	2
Somerset	11,352	4,203	74	Williamsburg	5,143	961	37
Sonora	350	103	59	Williamstown	3,227	691	43
South Carrollton	184	84	91	Willisburg	304	36	24
South Shore	1,226	104	17	Wilmore	5,905	234	8
Southgate	3,472	503	29	Winchester	16,724	3,891	47
Sparta	230	42	37	Wingo	581	61	21
Springfield	2,634	572	43	Woodburn	323	26	16
St. Charles	309	23	15	Woodland Hills	657	4	1
St. Matthews	15,852	3,666	46	Woodlawn Park	1,033	3	1
St. Regis Park	1,520	284	37	Worthington	1,673	39	5
Stamping Ground	566	50	18	Worthington Hills	1,594	*	*
Stanford	3,430	380	22	Worthville	215	23	21
Stanton	3,029	505	33	Wurtland	1,049	81	15

* Data Not Available.