Analysis of Traffic Crash Data in Kentucky (2014-2018)

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Research Report

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ANALYSIS OF TRAFFIC CRASH DATA IN KENTUCKY (2014-2018)

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EXECUTIVE SUMMARY

This report documents an analysis of traffic crash data in Kentucky for the years of 2014-2018. A primary objective of this study was to determine average crash statistics for Kentucky highways. Rates were calculated for various types of highways and for counties and cities. Difference criteria were used for exposure.

Average and critical numbers and rates of crashes were calculated for various types of highways in rural and urban areas. These rates used crashes identified on highways where traffic volumes were available. Improved methods of identifying crash locations have resulted in higher rates for the last couple of years. The crash rate data can be used in Kentucky's procedure to identify locations that have abnormal rates or numbers of crashes.

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

The crash data are stored in the Collision Report Analysis for Safer Highways (CRASH) database. This database is updated daily so the number of crashes in a given calendar year will continue to change for a substantial time after the end of that year.

1.0 INTRODUCTION

Annual reports have previously been prepared since 1978 dealing with the calculation of statewide traffic crash rates for Kentucky and preparation of the problem identification portion of Kentucky's Annual Highway Safety Plan. This is the 33rd report providing a combination of those two report areas. Traffic crash data for the five-year period of 2014-2018 were used in the preparation of this report.

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

A highway safety program is prepared each year for Kentucky in order to comply with Section 402, Title 23 of the United States Code. This program includes the identification, programming, budgeting, and evaluation of safety projects with the objective of reducing the number and severity of traffic crashes. The second major objective of this report is to provide data that may be included as the problem identification portion of Kentucky's Annual Highway Safety Plan. Results from this report are used to provide benchmark data for that process.

2.0 PROCEDURE

Crash and traffic (traffic volume and roadway geometrics) databases 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) database. The computer files and data base were obtained from the Kentucky State Police (KSP). All police agencies in the state are required to send traffic crash reports to the KSP.

Parking lot crashes were not included in the computer file from 1994 through 1999. Parking lot crashes are now contained in the CRASH data base but they were excluded from the analysis to maintain consistency with previous years. Crashes coded as occurring on private property were also excluded from the data for 2014-2018 so it would be consistent with other reports. All crashes included in the analysis occurred on a public highway. It should be noted that this data base is updated daily so the number of crashes in a given calendar year will continue to change for a substantial time after the end of that year. This would result in numbers in the tables in this report being less than those contained in the current CRASH database. Summaries were prepared from an analysis of the crash data from the CRASH database for 2014-2018.

Volume data, along with other data describing highway characteristics such as number of lanes, is obtained from a computer file containing roadway characteristics data for all state-

maintained highways and some local roads. In the past this information is obtained from the Highway Performance Monitoring System (HPMS) file. Now the Highway Information File (HIS) file is been used. Data for a five-year period of 2014-2018 were obtained from these files. The HPMS and HIS files were 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 database and roadway characteristics information from the HPMS and HIS files 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).

The matching process was significantly changed starting with 2012 data due to the change to the HIS format. Crashes are now matched to any road with traffic volume data. Previously crashes were matched to HPMS using the route number. With the improvements in crash location data, crashes are able to be matched by three different route identifiers (RT_Unique, the GIS route identifier and roadway number). The resulting matching rate is much higher than previous years, particularly for urban streets. This has resulted in an increase in crashes and resulting rates.

Rates were calculated for: 1) all roads having known traffic volumes, route numbers and 2) all public streets and highways on and off the state-maintained system. A large majority of roads with traffic volumes are state-maintained. However, this document will refer to these roads as 'identified roads' since some of these routes were locally maintained. 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 2010 census were used.

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

$$C_c = C_a + K\sqrt{\frac{C_a}{M} + \frac{1}{2M}} \qquad (1)$$

where

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

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

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

where

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

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

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

3.0 STATEWIDE CRASH RATES

All of the rates referred to in this section apply to 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 and HIS files has identified about 28,000 miles being included in this category. This compares to over 80,000 miles of public roads in Kentucky. While only approximately 35 percent of the total miles are identified, these roads account for approximately 84 percent of the vehicle miles traveled. The crash file was matched with the HPMS and HIS files. The percentage of all crashes classified as being on an identified road is 70 percent. This was further enhanced with an integrated mapping system built into the crash reporting tool. This map has replaced the need for a handheld GPS device, instead having officers click on a point on the map which returns latitude and longitude and county, route and milepoint (even for local roads).

A comparison of 2014-2018 crash statistics on streets and highways having known traffic volumes, route numbers, and mileposts is shown in Table 1. The overall crash rate in 2018 was 256 crashes per 100 million vehicle-miles (C/100 MVM). The crash rates for the previous four years varied from 227 to 281 C/100 MVM.

The fatal crash rate in 2018 was greater than 2017 at 1.37 C/100 MVM. The fatal crash rate ranged from a low of 1.31 C/100MVM in 2015 and 2017 to a high of 1.65 C/100 MVM in 2016. The injury crash rate in 2018 was 43 C/100MVM, which is a decrease of 2.3 percent from the previous four-year average. The injury crash rate of 50 C/100MVM in 2016 was the highest rate in the five-year period.

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 the 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 (2014-2018) 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 and HIS files. 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 rates (crashes per 100 million vehicle-miles) as well as injury and fatal crash rates were calculated.

On rural highways, excluding the small lengths of one-lane and three-lane highways, the highest rate for all crashes occurred on two-lane highways (Table 2). Two-lane highways have the highest injury crash rate (excluding one-lane roads). The fatal crash rate on two-lane highways is substantially higher than the other road types (excluding the small sample size of the three-lane). Interstates and parkways have the lowest total, injury, and fatal crash rates. The advantage of median-separated highways is shown when comparing the crash rates for four-lane divided (non-interstate or parkway) and four-lane undivided highways. The overall crash rate for a rural non-interstate or non-parkway divided highway (which would not typically have access control) is about 12 percent less than for an undivided highway, although the average daily traffic was fairly similar.

Excluding the small number of three lane roadways, on urban highways, the highest overall crash rates are on four-lane undivided and two-lane highways (Table 3). The fatal crash rate for four-lane (non-interstate or parkway) undivided highways was 1.2 C/100MVM, higher than the overall fatal rate of 1.0 C/100MVM. The lowest overall crash rate, along with injury and fatal crash rates, are on interstates and parkways. Parkways have the lowest fatal crash rate.

Data in Tables 2 and 3 show that the overall total crash rate on urban highways was about 58 percent higher than that for rural highways. Also, the injury rate on urban highways was 6 percent lower than that for rural highways. However, the fatal crash rate on urban highways is 35 percent less than of that for rural highways. The lower fatal crash rate is due to the slower travel speeds and the higher traffic volumes in urban areas.

Variations in crash rates by rural and urban highway-type classifications over the five-year period are listed in Table 4. The 2018 rate in urban areas was higher than the average for the previous four years with a 5.9 percent increase in urban areas. Only a small percentage (12 percent) of identified roads mileage is classified as urban. The rates generally fluctuated more for the highway types that had only a small number of miles.

Trends in overall crash rates representative of rural and urban areas are shown graphically in Figure 1 for the five-year period of 2014-2018. 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 roads having information which could be matched to crash data. The increase in matching in 2014-2018 is shown. Not all highway types are shown on Figures 2 and 3 due to low mileages for some highway types.

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 2014-2018 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. The crash rates for those locations are then 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 2014-2018. 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 (2016-2018) with the results shown in APPENDIX B. Data for 0.1 mile “spots” are also given in that appendix.

Critical numbers of crashes for various section lengths were determined for each highway type using Equation 2 on page 2 of this report. Results are presented in the tables found in APPENDIX C. Section lengths up to 20 miles for rural roads and up to 10 miles for urban roads are included. The critical numbers of crashes given in this appendix are for the five-year period of 2014-2018.

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 2014-2018 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 of this report.

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 2014-2018.

4.0 COUNTY CRASH STATISTICS

Crash rates were calculated for each county considering 1) roads that could be identified with crash and volume data related (the state-maintained system plus a few other roads with adequate data) and 2) all roads within the county. The crash rates are presented in terms of C/100 MVM (crashes per 100 million vehicle miles). 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 and HIS files were 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. The total miles driven in each county was then obtained by adding the known miles driven on the state-maintained highway system and the estimated miles driven on the remaining streets and highways.

To assist in the analysis of county crash statistics, county populations were tabulated (in descending order) and presented in Table 8. The population data used are from the 2010 census. The counties were then grouped into five categories based upon population. Using crashes on all roads in the county, average and critical crash rates were calculated (Table 9). The total crash rate and injury-or-fatal crash rates generally increased as population increased while the fatal crash rate decreased with increased population. The critical crash rate was calculated using Equation 1. Critical rates (in terms of crashes per 100 million vehicle-miles) were calculated for total crashes, fatal crashes, and injury-or-fatal crashes. The numbers of counties having rates above critical in each population category were determined. The total number was 36 for total crashes (all roads), 19 for injury-or-fatal crashes, and 1 for fatal crashes. There has been consistency in recent years regarding counties which have a critical rate. For example, of the counties determined to have a critical crash rate when total crashes were considered, 34 were also identified in the last year’s report.

Table 10 contains the number of crashes and total crash rates for all counties grouped by population category (considering all roads in the county). Counties within each population category are listed in order of descending crash rate, with the critical rates identified with an asterisk.

Crash rates for each county were also calculated considering only the identified (state-maintained and a few roads with sufficient information) system. Those rates, grouped by population category, are presented in Table 11. The rankings of counties in Tables 10 and 11 are similar. In three of the five population categories, the same county had the highest rate considering all roads or identified roads. These counties are Pendleton County (in the 10,000 to 14,999 population category), Harrison County (in the 15,000 to 24,999 population category), and Jessamine County (in the 25,000 to 50,000 population category). In the under 10,000 population category, Nicholas County had the highest rate for all roads while Crittenden County had the highest rate for the identified system. In the over 50,000 population category, Jefferson County had the highest rate for all roads while Fayette County had the highest rate for the identified system. When all roads are considered, Jefferson and Fayette Counties have the highest rates in the state. When only identified roads are considered, Fayette County had the highest rate in the state. Leslie and Bath Counties, which are in the second lowest population category, had the lowest rates in the state when considering both all roads and identified roads.

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

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

A summary of other miscellaneous crash data used in the problem identification process is presented by county in Table 14. This table includes the number of crashes by year for the last five years; percent change in the 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 2014-2018 crash data (Table 15). The primary group of cities included in the analysis was those having a population over 2,500 that had a city code in the computer file allowing crash data to be summarized. Incorporated cities in Jefferson County, such as St. Matthews, Jeffersontown, and Shively, were included

separately from Louisville. Therefore, for Louisville, only the population of the city area was included instead of a metropolitan area population.

Table 15 is a summary of crash rates for cities included in the 2010 census having populations of more than 2,500 where crash data could be related to the city for all five years. Crashes recorded as occurring in the city are included. However, crashes using the city as a reference but recorded as occurring any distance from the city were not included. Rates in terms of C/100 MVM are listed for the identified system while rates in terms of crashes per 1,000 population are listed using all streets in the city. The table notes the 12 cities where no data was available for the identified system.

Additional statistics are listed in Table 16 for the cities that had five years of crash data available for analysis. Rates for fatal crashes, pedestrian-motor vehicle crashes, bicycle-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 2010 census are summarized in APPENDIX F (Table F-1). A total of 410 cities were listed with a population in the census. Information included for the cities were population, number of crashes, and crash rate (crashes per 1,000 population). However, a city code was not available for several small cities. This resulted in data being available for 335 cities in Appendix F.

Crashes on the state-maintained system of highways within a city typically only accounted for a portion of all the crashes occurring within any city. Therefore, total crash rates, rather than on the identified system, were used to determine critical crash rates for cities. Crash rates on the identified system, by city and by population category, are shown in Table 17. The cities are listed in descending order by crash rate for each population category. The cities for which a match could not be obtained using a city code listed in the HPMS and HIS files would not be listed in Table 17. Lexington, Owensboro, Newport, Bellevue, Walton and Cave City have the highest crash rate on identified streets in their population category. Cities in the 1,000 to 2,499 population category are also included in this table. Therefore, this table provides data for more cities compared to Table 16. The average crash rate for all cities in a category is also listed. The overall rates are highest for cities in the 10,000 to 19,999 population category. The lowest overall rate is for the 1,000 to 2,499 population category. The large range in rates and number of crashes is related in part to the detail of reporting.

Total crash rates for cities by population category are listed in Table 18. They are tabulated in order of descending crash rates by population category and critical rates are identified with an asterisk. The order of rates for cities is very different in Table 18 compared to Table 17. There were 17 cities identified as having total crash rates above critical. Lexington, Florence, Somerset, Fort Wright, and Crestview Hills 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 by population category. Louisville, Paducah, Shively, Pikeville, and Prestonsburg have the highest fatal crash rates in their respective population ranges. Due to the small numbers of fatal crashes no city was

identified as having a critical fatal crash rate. Prestonsburg had the highest fatal crash rate (by a substantial amount).

6.0 ALCOHOL- AND DRUG-RELATED CRASHES

Alcohol- and drug-related crashes continue to be one of the highest priority problem identification areas (in Kentucky and across the nation) 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 4,586 per year for the past five years. Alcohol-related fatalities have averaged 157 per year during the past five years (using Fatal Analysis Reporting System data). Using the number of fatalities (reported by FARS), injuries & property damage in alcohol-related crashes (as reported on the scene), the estimated cost of alcohol-related crashes in Kentucky varied in 2018 from about $326 million using economic cost data up to about $2.4 billion using comprehensive cost data 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. This number decreased to the relatively constant level of approximately 7,700 to 8,100 from 1985 through 1990 with a gradual reduction to a low of 5,995 in 1994. The first yearly increase since 1990 occurred in 1995 (to 6,163). The number of alcohol-related crashes then decreased yearly through 1998 to 5,222. There was a slight increase in 1999 and then a larger increase in 2000. In 2001, the downward trend in alcohol-related crashes started again. In 2018 the total dropped to 3,580 which represents a 13.8 percent decrease compared to the previous four-year average. Alcohol-related crashes represented about 3 percent of all crashes during the latest five-year period. The number of alcohol-related fatalities in 2018 (124) was about 24 percent lower than the previous four-year average (164).

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

The information provided in Table 20 also may be used to determine the counties that have the highest percentages of crashes involving alcohol for young drivers by county population category. The counties identified as having the highest percentages of alcohol-related crashes, considering only young drivers, were similar to those identified when all drivers were considered. For 16 through 20 years of age drivers, the county in each population category having the highest percentage of crashes involving alcohol are Elliott, Clinton/Pendleton (tied), Knott, Harlan, and Pike.

Table 21 is a summary of number and percentage of crashes involving alcohol for cities. For each population category, the cities having the highest percentages of crashes involving alcohol in 2018 are Lexington, Covington, Fort Thomas, Dayton, and Dawson Springs.

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 (2014-2018) were used in the analysis. The data were obtained from records maintained by the Administrative Office of the Courts (AOC). Those same rates are presented in Table 23 with counties grouped by population ranges and rates are listed in order of descending percentages. Counties in each population group having the lowest rates of alcohol convictions per 1,000 licensed drivers are Menifee, Green, Breckenridge, Meade and Jefferson. Counties having the lowest rates of alcohol convictions per alcohol-related crash are Jefferson, Mason, Bracken, Madison, and Pendleton. 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 shows that, statewide, there has been a decrease each year for the last five years in the number of alcohol convictions during the five-year period from a high of 16,208 in 2014 to a low of 11,962 in 2018. The number of alcohol convictions in 2018 decreased ~15 percent from the average of the previous four years.

A comparison was also made between the total alcohol filings, convictions, and non-convictions, by county, for the five years of 2014-2018 (Table 24). The data for "driving under the influence" filings and the results of the filings were obtained from the AOC. The statewide percentage of alcohol convictions per filing over these five years was 81.8 percent. The percentages varied from a low of 58.0 percent in Leslie County to a high of 92.0 percent in Clinton County. In previous years, the percentages would be affected by the overlapping effects of filings being made and convictions being prosecuted in different calendar years. However, the current procedure calculates conviction rate using those filings that are resolved with either a conviction or non-conviction in the same calendar year as the filing. There were 6 counties with a conviction rate at or over 90 percent. Only one county, Leslie, had a conviction rate less than 60 percent.

The counties are grouped by population category and are placed in decreasing order of conviction percentage by population category in Table 25. The average conviction percentage did not vary substantially by population category with a range of from 79.1 to 81.8 percent. Counties having the highest conviction percentages in the various population categories are Lee, Clinton, Woodford, Jessamine and Oldham. Counties having the lowest conviction percentages for the various population categories are Hickman, Leslie, Clay, Bell and Pike.

A drunk-driving offense may be reduced to a charge of reckless driving. This could occur when a person is arrested for drunk driving because of erratic driving behavior, and then field sobriety or BAC tests fail to confirm the drunk-driving charge. In addition, the severity of the penalty for drunk driving could result in a reduction of the drunk-driving charge to reckless driving. For those reasons, it was determined that a summary of reckless driving convictions would be beneficial. Numbers of reckless driving convictions and the rate of convictions per

1,000 licensed drivers for each county are presented in Table 26. In the 5-year period of 2014-2018, the highest number of convictions at 2,380 was in 2015. The number in 2018 was a 19 percent decrease from the average number in the previous four years. The highest rates (convictions per 1,000 licensed drivers) occurred in Lyon, Fulton and Trigg Counties. The lowest rates are in Estill, Oldham, and Ohio Counties.

Drugs continue to be listed as a contributing factor in a relatively small percentage of all crashes. However, drugs have been found to be involved in a large number of fatal crashes (when blood tests are conducted). The number of drug-related crashes (as noted as a contributing factor on the police report) was 1,488 in 2018. In the previous four years the lowest number was 1,558 in 2014. When compared to the previous four-year average, drug-related crashes decreased by 15 percent in 2018. The number of drug-related fatal crashes saw an increase in 2018 (8.2 percent) compared to the previous four-year average. In 2018 there were 251 fatal drug-related crashes. The number of drug-related injury crashes also increased (by 44.8 percent) in 2018 compared to the previous four-year average.

Percentages of crashes involving drugs (as noted by the investigating officer) by county and population category for all roads are presented in Table 27. Counties having the highest percentages of drug-related crashes by population category are: Elliott, Magoffin, Clay, Floyd, and Pike. The data in Table 27 show most of the counties with the highest percentages are in southeastern Kentucky. Counties with the highest percentages of this type of crash are Floyd, Magoffin, Clay, Harlan, and Pike 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, Nicholasville, Lawrenceburg, Dayton, and Barbourville. Barbourville had the highest rate in the state at 4.6 percent.

7.0 OCCUPANT PROTECTION

The percentages of drivers of passenger cars involved in traffic crashes that were reported as wearing safety belts (listed by county) have been used to compare usage rates. However, it was known that these reported rates were much higher than found in observation surveys. Observation surveys were first taken in each county in 2004 by the Area Development Districts. These surveys were repeated for 2005 and 2006 but data has not been collected since 2006. These safety belt rates (for 2006) for each county were reported in Table 14. Those same percentages are listed in descending order by county population category in Table 29. The rates varied from a high of 83.0 percent in Oldham County to a low of 40.1 percent in Monroe County. The data shows that 26 counties had a usage rate over 70 percent while 18 counties had a rate under 50 percent. The 2018 statewide survey found a usage rate of 90 percent. The statewide methodology does not collect data in every county but uses a representative sample of counties.

It should be noted that the first statewide safety belt law (with secondary enforcement) was passed with an effective date in July 1994. The law was changed to allow primary

enforcement with an effective date of July 2007. Prior to the statewide laws, local ordinances had been enacted by several cities and counties. The first such ordinances were enacted in Fayette County effective July 1, 1990 and in the city of Louisville effective July 1, 1991. Similar ordinances were adopted in Jefferson County, Murray, Kenton County, Bowling Green, Corbin, Bardstown, and Midway. Observational surveys conducted since the enactment of the local ordinances and statewide law has demonstrated their effectiveness in increasing usage rates.

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

The safety belt usage rates in 2007 (from the ADD survey) are presented in Table 30 as a function of county population. This table shows the higher usage percentages for counties having a population over 50,000. Counties in the over 50,000 population category had a usage rate about 12 percent higher than for counties in the under 10,000 population category.

Safety belts are recognized as an effective method of reducing the severity of injuries in traffic crashes. This is confirmed by the crash data presented in Table 31. This table shows that, when a driver of a motor vehicle is wearing a safety belt at the time of a crash, the chance of being fatally injured is reduced by about 98 percent compared to not wearing a safety belt. Also, the chance of receiving an incapacitating injury is reduced by 94 percent and the chance of receiving a non-incapacitating injury is reduced by 81 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 67 percent (from 16.73 percent for drivers not wearing safety belts to 5.59 percent for drivers wearing safety belts). These percentages are high when compared to national statistics concerning the effectiveness of safety belts in reducing fatal or serious injuries. The reason is probably related to the over reporting of seat belt usage in traffic crashes. This would occur more often for drivers who were not injured where there was no physical evidence of whether they were wearing a seat belt.

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 32. Data are for 2014-2018. 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 22 fatalities (children age three and under) occurring during the study period 2014-2018, 21 involved use of a restraint. The use of a restraint in most of the fatalities would be related to the very high usage rate and possibly to improper usage. Also, of the 61 incapacitating injuries, 54 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 86 percent reduction in fatalities for children in restraints, a 95 percent reduction in incapacitating injuries, an 90 percent reduction in non-incapacitating injuries, and a 71 percent reduction in possible injuries.

An analysis of the percentage of children in restraints revealed the percentage was higher in the rear seat than in the front seat. A comparison of percent usage by year shows the constant very high usage rate. The usage rate using the crash data was 99 percent. This usage rate was calculated by dividing the “any restraint” total by the sum of the "any restraint" and "none" categories from Table 32. This compares to the usage rate of 98 percent found in the 2012 observational survey (this data is no longer collected after 2012.)

8.0 SPEED-RELATED CRASHES

Speed is one of the most common contributing factors in total crashes and fatal crashes. Speed-related crashes had remained fairly constant during the previous years. In 2007, the number of speed-related crashes was the lowest it has been since the inception of this report. In 2018 the number of speed-related crashes decreased by 5.1 percent when compared to the previous four-year average. For the five-year period (2014-2018), speed-related crashes represented 4.9 percent of all crashes, 7.7 percent of injury crashes, and 20.6 percent of fatal crashes. In 2018 the number of speed-related fatal crashes saw a decrease of 16 percent when compared to the previous four-year average. The number of speed-related fatal crashes ranged from a low of 100 in 2018 to a high of 131 in 2015. The number of speed-related injury crashes decreased by 8.4 percent in 2018 compared to the previous four years. The number of speed-related injury crashes ranged from a low of 1,701 in 2018 to a high of 1,979 in 2016.

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 33. The police report has two codes indicating speed was a contributing factor. These codes are “exceeded stated speed limit” and “too fast for conditions.” When arranged in order of decreasing percentages of speed-related crashes by population category, those counties having the highest percentages in each category are Bracken, Butler, Simpson, Carter, and Madison. A similar summary of crashes involving unsafe speeds for cities was prepared and is presented in Table 34. Those cities having the highest percentages in each population category are Lexington, Independence, Erlanger, Taylor Mill, and Williamstown.

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 35 presents a summary of

speeding convictions by county. Numbers of speed convictions, speed convictions per 1,000 licensed drivers, and speeding convictions per speed-related crash are included. For the five-year period examined, the number of speeding convictions for the entire state ranged from a low of 46,193 in 2017 to a high of 48,578 in 2014.

To assist in identifying areas having the potential for increased enforcement, Table 36 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, Clinton, Marion, Greenup and Pike. Many of those counties were identified as also having the lowest rates of speeding convictions per speed-related crash. Historically there has been a predominance of counties having high percentages of speed-related crashes and low rates of convictions in the southeastern region of Kentucky.

Speeds on various types of roads were obtained in 2007 and 2008 prior to and after the implementation of an increase of speed limits on rural interstates and parkways from 65 to 70 mph. In addition to interstates and parkways, data were taken on rural four-lane roads and two-lane with full width shoulders. Summary of that data for cars and trucks (single unit and combination tractor trailer) are given in Tables 37 and 38, respectively. The 85th percentile speeds are given which is the speed which should be used to establish the speed limit. The data show that the increase in speed limits on rural interstates and four-lane parkways from 65 to 70 mph resulted in only a small increase in speed. The large difference in the 85th percentile speed and posted speed limit on a few other road types justify an increase in speed limit on a limited number of high-design type roads. Speeds for trucks are less than that for cars. The speed data show that the operating speed is above the posted speed limit on all road types.

9.0 TEENAGE DRIVERS

A separate analysis (2018 Traffic Collision Facts report) was conducted to determine the frequency of crashes involving teenage drivers (16 to 19 years of age). A review of driver records shows that teenage drivers account for approximately 7 percent of licensed drivers (including learner permits) in Kentucky. Using 2018 data, it was found that teenage drivers were involved in about 14 percent of all crashes, 15 percent of injury crashes, and 9 percent of fatal crashes. Teenage drivers (including drivers with a learner permit) are overrepresented in all crash types.

The involvement rate of teenage drivers compared to all drivers in total and fatal crashes was analyzed (using 2018 data). Considering all crashes on public highways, the rate was 68 crashes per 1,000 drivers for all drivers compared to 92 crashes per 1,000 drivers for teenage drivers. Considering fatal crashes, the rate was 20 fatal crashes per 100,000 drivers for all drivers compared to 27 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 39. The crashes in 2018 were compared to an average of the preceding four years (2014-2017). There was a 0.7 percent decrease in total crashes. It should be noted that crashes in parking lots were not included in the analysis.

The highest number of crashes in this five-year span on public roads was in 2016 (140,547). The lowest number (127,326) occurred in 2014. The numbers of fatal crashes decreased by 4.9 percent in 2018 compared to the previous four years while the number of fatalities decreased by 5.0 percent. The number of fatalities in the five-year period ranged from a low of 672 in 2014 to a high of 834 in 2016. The number of injury crashes decreased 4.5 percent and injuries decreased 5.2 percent. The number of injuries varied from 33,914 in 2018 to 37,347 in 2016.

Vehicle-miles traveled increased slightly over the five-year period which ranges from 47.972 billion miles in 2014 to 49.547 billion miles in 2018. The vehicle miles traveled in 2018 saw an increase of 2.2 percent over the previous four-year average. There was a decrease in total crash rate in 2018 of 2.9 percent when compared to the previous four-year average. The total crash rate varied from a low of 265 C/100 MVM in 2014 to 286 C/100 MVM in 2016. The total crash rate has remained fairly constant in recent years.

There were decreases in 2018 in the fatal crash rate (6.9 percent) and fatality rate (6.9 percent) compared to the average of the previous four years. The fatal crash rate in 2014 (1.28) was the lowest rate in this five-year period with the highest in 2016 (1.55).

There were a total of 675,475 crashes in the five-year period, of which 3,454 (0.5 percent) were fatal crashes and 118,572 (17.6 percent) were injury crashes. Those crashes resulted in 3,773 fatalities and 177,023 injuries.

There is a large range used when estimating crash costs. Considering economic costs, an estimate for 2018 is $11.1 billion for the cost of Kentucky traffic crashes (on public roads) or an average cost of about $22,823 per crash using National Safety Council estimates of motor vehicle crash cost. Similarly, the comprehensive costs result in an estimate of $73.3 billion for the cost of Kentucky traffic crashes or an average cost of about $150,020 per crash.

Note: These figures are higher than previous publications as “No Injury Observed” was used rather than “Property Damage Only” as published by the National Safety Council in their 2016 Guide To Calculating Costs which can be found here as of the publication of this book:

https://injuryfacts.nsc.org/all-injuries/costs/guide-to-calculating-costs/data-details/

Trends in the number of specific types of crashes also are presented in Table 39. Those trends are discussed in the appropriate section dealing with that crash category. Additional general statistics compiled by county for crashes involving pedestrians, bicycles, motorcycles, school buses, and trucks are included in Table 40. Numbers of crashes and average annual crashes per 10,000 population are included.

10.2 PEDESTRIAN CRASHES

The number of pedestrian crashes decreased 6.8 percent in 2018 compared to the previous four-year period. There had been a steady decrease in pedestrian crashes from 2000 to 2007 before an increase starting in 2008. Pedestrian collisions are a severe type of crash. In 2018, pedestrian crashes accounted for only 0.8 percent of all crashes but 3.3 percent of injury crashes and 11.6 percent of fatal crashes. The number of pedestrian injury crashes decreased by 8.8 percent in 2018 compared to the previous four-year average while the number of fatal crashes in 2018 increased by 4.1 percent compared to the previous four-year average. Pedestrian injury crashes ranged from 759 in 2018 to 857 in 2015 while fatal crashes ranged from 58 in 2014 to 85 in 2017.

A summary of pedestrian crash statistics by county and population category is presented in Table 41. 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, Caldwell, Mason, Scott, and Jefferson. A similar analysis was performed for pedestrian crashes by city and population category. Results are summarized in Table 42 and the following cities have the highest rates in their respective population categories: Louisville, Covington, Shively, Bellevue, and Prestonsburg. Shively had the highest rate of any city.

10.3 BICYCLE CRASHES

Numbers and rates of motor-vehicle crashes involving bicycles by county are listed in Table 43. Counties were grouped by population category. The counties having the highest crash rate in each category are Carlisle, Caldwell, Woodford, Bell, and Fayette. A similar summary was prepared for cities and the results are presented in Table 44. Cities having the highest rate of bicycle-related crashes in each population category are Lexington, Owensboro, Georgetown, Alexandria, and Paintsville.

The number of bicycle crashes decreased by 19 percent in 2018 compared to the previous four year average. The number of bicycle crashes ranged from 342 in 2018 to 462 in 2014. This is a severe type of crash. For the five years, while bicycle crashes accounted for 0.3 percent of all crashes, they accounted for 1.0 percent of injury crashes and 1.5 percent of fatal crashes. The number of injury crashes decreased by 16.2 percent in 2018 and the number of fatal crashes increased by 42.9 percent (10 fatal crashes compared to an average of 7) compared to the 2014-2017 average. The range in injury crashes was from 233 in 2018 to 312 in 2014 while the number of fatal crashes ranged from 3 in 2014 to 10 in 2018.

10.4 MOTORCYCLE CRASHES

County and city statistics for crashes involving motorcycles are presented in Tables 45 and 46, respectively. For each population category, counties having the highest rates for motorcycle crashes per 10,000 population are Lyon, Powell, Rockcastle, Whitley, and McCracken (Table 45). The highest rate is in Lyon County with the largest number in Jefferson County. From Table 46, those cities having the highest rates in each population category are Louisville, Paducah, Shively, London, and Hazard. The rate in Hazard was substantially higher than other cities.

There was a decrease in motorcycle crashes in 2018 (13.8 percent) compared to the 2014-2017 average. The numbers over the five-year period ranged from a high of 1,785 in 2016 to a low of 1,464 in 2018. This is a severe type of crash. Data in 2018 show that motorcycle crashes accounted for 1.1 percent of all crashes but 4.8 percent of injury crashes and 12.7 percent of fatal crashes. The numbers of injury crashes decreased by 12.6 percent while the number of fatal crashes decreased by 4.5 percent in 2018 compared to the 2014-2017 average. In the five-year period the number of injury crashes ranged from 1,106 in 2018 to 1,377 in 2016 while the number of fatal crashes ranged from 74 in 2014 to 105 in 2016.

10.5 SCHOOL BUS CRASHES

School bus crash statistics were summarized for counties and cities and results are presented in Tables 47 and 48, respectively. Table 47 lists numbers and rates of school bus crashes by county and population category. Counties having the highest rates in each population category are Lee, Owen, Woodford, Clark, and Boone. A similar summary was prepared for cities by population categories, as shown in Table 48. Those cities having the highest rates in each population category are Louisville, Florence, Shively, Versailles, and Prestonsburg. The highest rates were in Shively and Prestonsburg.

The trend analysis presented in Table 39 indicates there was a decrease in this type of crash in 2018 (32.6 percent) compared to the 2014-2017 average. The annual number of this type of crash ranged from a low of 461 in 2018 to a high of 852 in 2015. There was a decrease in injury crashes of 43.8 percent in 2018 compared to 2014-2017. The number of injury crashes ranged from 50 in 2018 to 107 in 2014. There was 1 fatal crash involving a school bus in 2018 and a total of 10 for the five-year period.

10.6 TRUCK CRASHES

Truck crashes included both single unit and combination trucks. A truck is defined as a vehicle with a registered weight of 10,000 pounds or more. A summary of those crashes by county is given in Table 49. Counties having the highest rates in each population category are Gallatin, Carroll, Hart, Scott, and Boone. All these counties contain at least one interstate highway. Other counties having a high rate either contained an interstate highway or had a large amount of coal truck traffic.

The trend analysis showed there was an increase in the number of truck crashes in 2018 (8.8 percent) compared to the previous four-year average. The number of truck crashes ranged from a low of 8,664 in 2014 to a high of 9,898 in 2018. The number of injury crashes increased by 5.9 percent and the number of fatal crashes increased by 16 percent in 2018 compared to the previous four-year average. The number of injury crashes ranged from 1,261 in 2014 to 1,411 in 2018 while the number of fatal crashes ranged from 67 in 2014 to 94 in 2018. In 2018, truck crashes represented 7.4 percent of all crashes, 6.2 percent of injury crashes, and 14.2 percent of fatal crashes.

10.7 TRAIN CRASHES

A summary of motor vehicle-train crashes by county is presented in Table 50. Counties having the highest rates in each population category are Carlisle, Webster, Mercer, Hopkins, and Oldham. The highest rate is in Mercer County with the highest number in Oldham County. There were no train crashes in 72 of the 120 counties in the five-year period of 2014-2018.

The trend analysis for motor vehicle-train crashes is given in Table 39. There was a range in train crashes from 39 in 2018 to 55 in 2014 with a decrease of 15.2 percent in 2018 compared to the previous four-year average. The number of injury crashes decreased 42.9 percent from an average of 14 per year in the previous 4-year period to 8 in 2018. Injury crashes ranged from a low of 8 in 2018 to a high of 17 in 2015. The number of fatal crashes for the five-year period ranged from 2 in 2016 and 2018 to 5 in 2014 with a 33 percent decrease in 2018 compared to the previous four-year average.

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 51. The percent of crashes involving a vehicle defect was 5.86 percent before repeal of the vehicle inspection law. The percent increased to 7.09 in the first 19 months after repeal of the law and 7.43 percent in 1980 through 1984 but has decreased since that time. Starting in 1995, the percentage of crashes involving a vehicle defect was lower than that noted prior to repeal of the vehicle inspection requirement. The percent of crashes in which a vehicle defect was noted on the report was 5.73 percent in 2018.

Numbers in this year's publication may differ from previous versions slightly. The CRASH database is being used from an annual extract rather than from a live (and changing) data set and will not be dynamic as in previous years to make it more consistent with all other data in this publication.

11.0 SUMMARY AND RECOMMENDATIONS

11.1 STATEWIDE CRASH RATES

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

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

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

A detailed study of all fatal crashes in 2004 was conducted (KTC-05-36). The recommended countermeasures given in that analysis should be considered. Examples of the recommendations include: require driver retesting (specifically, vision testing), improve curve delineation, increase use of milled shoulder and centerline rumble strips, include safety improvements as part of the resurfacing program, and increase awareness of the medical review board process concerning driver licenses. Some of these countermeasures (such as improvements to curve signing and edge line and centerline rumble stripes) are currently being implemented by the Transportation Cabinet.

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.

Counties and cities with various types of critical crash rates are given in Tables 10 through 13, 18, and 19. Coordinated efforts involving engineering, enforcement, education, and emergency medical services should be implemented in counties and cities having critical rates to address those problem 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 (MUTCD). A large number of cities took advantage of this program, which was expanded to include counties. Funding for this program has not been provided for several years. However, training concerning proper signs and markings is offered to county and cities through workshops presented by the Technology Transfer Program at the Kentucky Transportation Center at the University of Kentucky. This training should continue with publicity provided to inform counties and cities that all of their traffic control devices must conform to the standards and guidelines in the MUTCD.

Technical assistance and training is also provided to counties and cities through the Safety Circuit Rider program through the Kentucky Transportation Center at the University of Kentucky. This program should be continued. A limited amount of funding is included for improved signs on a couple of roads in selected counties.

11.3 ALCOHOL-RELATED CRASHES

The number of alcohol-related crashes decreased (13.8%) in 2018 compared to the previous four-year average and has decreased from the level prior to 1996. In general, there has been a decreasing trend in the number of alcohol-related fatal crashes and fatalities. This may be related to increased enforcement and public information campaigns in the past several years that have increased public awareness.

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 that have 100 or more alcohol-related crashes during the five-year analysis period were 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	Crittenden
3	Hart
4	Meade
5	Trimble
6	Nicholas
7	Lincoln
8	Morgan
9	Pike
10	Bell
11	Wayne
12	Spencer
13	Leslie
14	Lawrence
15	Adair
16	Ohio

An analysis was performed for cities similar to that for counties. However, alcohol conviction rates were not available for cities so consideration was given to conviction rates for counties within which a city was located. Cities were chosen if they had at least 100 crashes and a percentage of alcohol-related crashes of approximately five percent (Table 21). No cities met this criteria this year.

11.4 DRUG-RELATED CRASHES

Blood tests taken after fatal crashes show more involvement with drugs than alcohol in these crashes. The problem with drugs in traffic crashes is concentrated in southeastern Kentucky. The data show that additional drug education and enforcement is warranted in this region of the state. The difference in the percentage of drug-related fatal crashes identified on the crash report compared to FARS data show that there is a need to supplement the crash report data after the blood tests are obtained.

11.5 OCCUPANT PROTECTION

Even though a statewide "primary enforcement" safety belt law has been passed, efforts to increase safety belt usage must continue. The safety belt programs that have been conducted in several locations across the state in the past should continue. These programs have the objectives of increasing awareness of risks of traffic crashes, increasing understanding of benefits of safety belt usage, and providing assistance to organizations willing to promote safety belt usage.

Enforcement of the statewide law should be another objective of these programs. The success of the "Buckle Up Kentucky: It's the Law and It's Enforced" and "Click It or Ticket"

campaigns show that these types of programs can provide benefits 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. 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	Carlisle
2	Christian
3	Barren
4	Meade
5	Carroll
6	Bracken
7	Lee
8	Morgan
9	Floyd
10	Harlan
11	Rockcastle
12	Woodford
13	Leslie
14	Lawrence
15	Adair
16	Ohio

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. The survey can identify the statewide rate as well as the difference in rates in various regions of the state. The survey results can be used to identify locations where increased education and enforcement would be most beneficial.

11.6 SPEED-RELATED CRASHES

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 33) and low average number of speeding convictions per speed-related crash (Table 36) 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 six percent of total crashes. The following is a list of counties (tabulated by State Police Post) recommended for programs of increased speed enforcement (reference was made to the counties recommended in the past few years).

Post Number	County
1	McCracken
2	Hopkins
3	Barren
4	Bullitt
5	Oldham
6	Grant
7	Boyle
8	Mason
9	Pike
10	Knox
11	Pulaski
12	Scott
13	None
14	Boyd
15	None
16	Daviess

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 six percent or more of total crashes (Table 34), the following cities were recommended for additional programs of speed enforcement:

- Lexington
- Independence
- Richmond

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

Legislation in Kentucky increased the speed limit from 65 mph to 70 mph on rural interstates and parkways. An evaluation (KTC-08-10) found this increase in speed limit resulted in only a small increase in travel speeds. Data show current speeds do not reflect speed limits on several other types of highways. There is a need to review current speed limits and establish speed limits based on the 85th percentile speed. Recommendations for speed limits on various types of roads in Kentucky have been developed which note that the large difference in 85th percentile speed and posted speed limit on a limited number of high-design type roads (in addition to rural interstates and parkways) justify an increase in speed limit. This has been implemented on a few rural multi-lane roadways.

11.7 TEENAGE DRIVERS

Graduated licensing legislation was amended in the 2007 Kentucky legislature to require an intermediate phase to be added to the process between the permit and fully-licensed stages. This change should be evaluated to determine how it has affected crashes for teenage drivers with recommendations made for improvements in the current legislation.

11.8 GENERAL CRASH STATISTICS

Pedestrians

The crash rate analyses identified Louisville, Covington, Shively, Bellevue, and Prestonsburg, as cities having the highest pedestrian crash rates (Table 42). 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

Lexington and Louisville also had a high number of this type of crash (Table 44) (as with pedestrian crashes). A study of this type of crash could be included with the previously mentioned study of pedestrian crashes. It should also be noted that Owensboro and Newport had high rates.

Motorcycles

Before 2008 the number of total and fatal motorcycle crashes had been increasing the past several years. A study to determine the causes and countermeasures related to motorcycle crashes has been completed (KTC-11-04). The length of time a permit could be maintained without a motorcycle endorsement was changed as a result of this study. The vehicle, roadway, and driver countermeasures provided in this report should be considered. 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 injury and fatal motorcycle crashes has increased dramatically. An investigation should be made to determine the increased cost associated with nonuse of motorcycle helmets. The combination of the decrease in usage rate and the increase in injury and fatal crashes supports the need to reenact the requirement for the use of motorcycle helmets.

Lyon, Powell, Rockcastle, Whitley and McCracken counties had the highest motorcycle crash rate in their population categories (Table 45) and Paducah, Shively, London, and Hazard (Table 46) had the highest motorcycle-crash rate in their population categories. An evaluation of this type of crash in these counties and cities could be warranted.

Truck Crashes

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

interstate highway safety. Both of these reports recommended countermeasures related to the vehicle, driver, or roadway. Implementation of these countermeasures should be considered.

Vehicle Defects

The percentage of crashes involving vehicle defects increased immediately after repeal of the vehicle inspection law (Table 51). 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 to less than that before repeal of the inspection law. A study could be conducted to determine whether the defects that have contributed to crashes since repeal of the vehicle inspection law were of the type that might have been detected under the previous inspection program. That study could also reveal types of inspections necessary to detect defects contributing to crashes for various types of vehicles.

Roadway Contributing Factors

A recent research study evaluated the coding of police reports relating to roadway contributing factors (KTC-14-08). The recommendations included in this report relating to coding of the police report and related police training should be implemented. The codes included in the analysis were for environmental contributing factors, traffic control devices, road surface condition, weather condition, and vehicular relate factors. The report also describes the type of coordination between police and government agencies which should occur to deal with potential roadway-related issues.

TABLE 1. COMPARISON OF 2014 - 2018 CRASH RATES*

STATISTIC	2014	2015	2016	2017	2014-2017 Average	2018	Percent Change***
Crashes	106,122	96,902	116,160	94,461	103,411	106,823	3.3
Fatal Crashes	538	537	682	544	575	573	-0.4
Injury Crashes	18,687	16,457	20,529	16,387	18,015	18,031	0.1
Mileage	28,178	28,247	28,123	28,265	28,203	28,312	0.4
Crashes Per Mile	3.77	3.43	4.13	3.34	3.67	3.77	2.8
Vehicle Miles (Billion)	40.14	41.08	41.33	41.66	41.05	41.70	1.6
AADT	3,903	3,985	4,026	4,038	3,988	4,035	1.2
Crash Rate**	264	236	281	227	252	256	1.6
Fatal Crash Rate**	1.34	1.31	1.65	1.31	1.40	1.37	-2.3
Injury Crash Rate**	47	40	50	39	44	43	-2.3

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

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

*** Percent change in 2018 compared to 2014 through 2017 average.

TABLE 2. STATEWIDE RURAL CRASH RATES BY HIGHWAY TYPE CLASSIFICATION (2014-2018)

HIGHWAY TYPE	TOTAL MILEAGE*	AADT	CRASH RATES (CRASHES PER 100 MVM)		
			ALL	INJURY	FATAL
One-Lane	25	550	624	60	0.0
Two-Lane	22,882	1,320	262	55	2.8
Three-Lane	29	6,540	280	45	1.4
Four-Lane Divided (Non-Interstate or Parkway)	616	9,550	119	24	1.2
Four-Lane Undivided	18	13,970	135	28	1.1
Interstate	635	33,910	59	10	0.5
Parkway	497	10,160	66	13	1.0
All	24,702	2,550	163	33	1.7

* Average for the five years.

TABLE 3. STATEWIDE URBAN CRASH RATES BY HIGHWAY TYPE CLASSIFICATION (2014-2018)

HIGHWAY TYPE	TOTAL MILEAGE*	AADT	CRASH RATES (CRASHES PER 100 MVM) ALL	INJURY	FATAL
Two-Lane	2,203	5,730	491	76	1.3
Three-Lane	46	10,260	691	93	0.8
Four-Lane Divided (Non-Interstate or Parkway)	815	18,330	432	71	1.4
Four-Lane Undivided	145	21,120	589	90	1.2
Interstate	217	75,570	127	20	0.4
Parkway	33	14,720	120	22	1.2
All **	3,520	14,120	366	57	1.0

* Average for the five years.

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

TABLE 4. COMPARISON OF 2014 - 2018 CRASH RATES BY RURAL AND URBAN HIGHWAY TYPE CLASSIFICATION

LOCATION	HIGHWAY TYPE	2014	2015	2016	2017	2014-2017 Average	2018	Percent Change*
Rural	One-Lane	305	574	729	892	625	902	44.4
	Two-Lane	278	264	290	236	267	244	-8.5
	Three-Lane	270	278	296	269	278	285	2.2
	Four-Lane Divided (Non-Interstate or Parkway)	141	93	141	95	117	124	5.8
	Four-Lane Undivided	130	85	174	116	126	177	40.2
	Interstate	57	57	58	57	57	64	11.7
	Parkway	63	68	70	63	66	69	4.5
	All	174	161	178	148	165	157	-4.8
Urban	Two-Lane	530	478	565	437	503	444	-11.7
	Three-Lane	669	558	795	626	662	805	21.6
	Four-Lane Divided	436	354	491	373	413	505	22.2
	Four-Lane Undivided	609	531	663	527	583	616	5.7
	Interstate	116	128	134	127	127	130	2.8
	Parkway	97	118	116	117	112	196	75.7
	All	377	330	412	328	362	383	5.9

* Percent change from 2014 through 2017 to 2018.

TABLE 5. STATEWIDE CRASH RATES FOR "SPOTS" BY HIGHWAY TYPE CLASSIFICATION (2014-2018)

RURAL OR URBAN	HIGHWAY TYPE	NUMBER OF CRASHES	NUMBER OF SPOTS*	MILLION VEHICLES PER YEAR	CRASHES PER MILLION VEHICLES PER SPOT
Rural	One-Lane	157	83	0.20	1.87
	Two-Lane	144,348	76,273	0.48	0.79
	Three-Lane	983	98	2.39	0.84
	Four-Lane Divided (Non-Interstate or Parkway)	12,738	2,053	3.49	0.36
	Four-Lane Undivided	612	59	5.10	0.40
	Interstate	23,079	2,117	12.38	0.18
	Parkway	6,120	1,657	3.71	0.20
	All Rural	188,037	82,341	0.93	0.49
Urban	Two-Lane	113,162	7,342	2.09	1.47
	Three-Lane	5,942	153	3.74	2.07
	Four-Lane Divided	117,717	2,715	6.69	1.30
	Four-Lane Undivided	33,023	485	7.71	1.77
	Interstate	38,021	722	27.58	0.38
	Parkway	1,063	110	5.37	0.36
	All Urban**	332,298	11,734	5.15	1.10

* 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 (2014-2018)

RURAL OR URBAN	HIGHWAY TYPE	CRASHES PER SPOT*		CRASHES PER ONE-MILE SECTION	
		AVERAGE	CRITICAL NUMBER	AVERAGE	CRITICAL NUMBER
Rural	One-Lane	1.88	6	6.28	13
	Two-Lane	1.89	6	6.31	13
	Three-Lane	10.03	19	33.44	49
	Four-Lane Divided (Non-Interstate or Parkway)	6.20	13	20.68	33
	Four-Lane Undivided	10.31	19	34.38	50
	Interstate	10.90	20	36.33	52
	Parkway	3.69	9	12.31	22
	All Rural	2.28	7	7.61	15
Urban	Two-Lane	15.41	26	51.37	70
	Three-Lane	38.83	55	129.44	159
	Four-Lane Divided	43.35	61	144.50	176
	Four-Lane Undivided	68.09	90	226.97	266
	Interstate	52.68	72	175.60	210
	Parkway	9.65	18	32.16	47
	All Urban**	28.32	43	94.40	120

* 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 IDENTIFIED SYSTEM AND ALL ROADS (2014-2018)

	IDENTIFIED		ALL ROADS					
			TOTAL CRASHES		FATAL CRASHES		FATAL OR INJURY CRASHES	
COUNTY	TOTAL CRASHES	CRASH RATE*	NUMBER	RATE*	NUMBER	RATE*	NUMBER	RATE*
Adair	1,282	152	1,295	128	20	2.0	271	27
Allen	1,752	245	2,251	257	24	2.7	435	50
Anderson	1,797	179	2,579	211	18	1.5	513	42
Ballard	746	195	870	186	15	3.2	183	39
Barren	5,231	216	6,815	242	44	1.6	1,370	49
Bath	709	86	867	94	11	1.2	202	22
Bell	2,930	259	3,115	234	24	1.8	676	51
Boone	19,699	296	24,517	311	56	0.7	3,561	45
Bourbon	2,511	300	3,088	289	25	2.3	493	46
Boyd	5,289	298	7,496	338	21	0.9	1,200	54
Boyle	3,258	290	4,180	302	22	1.6	697	50
Bracken	874	212	1,023	207	12	2.4	196	40
Breathitt	1,178	215	1,250	191	29	4.4	440	67
Breckinridge	856	127	1,150	133	21	2.4	358	41
Bullitt	8,347	193	10,390	205	57	1.1	2,143	42
Butler	1,330	182	1,360	159	21	2.4	274	32
Caldwell	1,849	227	1,895	202	14	1.5	393	42
Calloway	3,928	323	5,163	339	27	1.8	749	49
Campbell	12,468	348	15,452	355	41	0.9	1,826	42
Carlisle	328	144	330	118	8	2.8	149	53
Carroll	1,790	134	2,035	141	18	1.2	360	25
Carter	2,894	170	2,852	143	26	1.3	558	28
Casey	792	147	894	131	18	2.6	224	33
Christian	7,835	181	9,444	196	50	1.0	2,007	42
Clark	5,189	253	5,810	244	34	1.4	917	39
Clay	1,529	179	1,804	179	22	2.2	708	70
Clinton	798	197	956	197	12	2.5	192	40
Crittenden	863	278	951	240	14	3.5	310	78
Cumberland	476	171	549	165	8	2.4	123	37
Daviess	14,024	422	17,926	422	54	1.3	2,688	63
Edmonson	923	171	1,005	157	10	1.6	256	40
Elliott	269	178	297	147	5	2.5	86	43
Estill	745	168	742	130	10	1.8	174	31
Fayette	60,118	471	68,630	453	162	1.1	11,024	73
Fleming	838	149	1,172	168	6	0.9	223	32
Floyd	3,816	200	3,937	171	45	2.0	1,130	49
Franklin	6,417	256	7,702	259	20	0.7	1,028	35
Fulton	580	197	565	165	6	1.7	98	29
Gallatin	1,317	94	1,405	95	17	1.1	240	16
Garrard	1,584	202	1,925	208	13	1.4	393	42
Grant	3,018	126	3,889	149	15	0.6	654	25
Graves	3,592	205	4,635	217	44	2.1	990	46
Grayson	3,239	234	3,180	195	45	2.8	786	48
Green	800	232	863	198	15	3.4	201	46
Greenup	3,195	245	3,140	190	18	1.1	593	36
Hancock	636	159	662	136	8	1.6	167	34
Hardin	12,949	217	14,833	213	83	1.2	2,536	36
Harlan	2,162	202	2,260	175	26	2.0	592	46
Harrison	2,095	364	2,481	340	10	1.4	436	60
Hart	2,597	132	2,836	135	26	1.2	540	26
Henderson	6,168	281	7,973	303	28	1.1	1,409	53
Henry	2,077	154	2,027	136	19	1.3	360	24
Hickman	322	127	340	114	6	2.0	87	29
Hopkins	5,278	212	7,085	241	42	1.4	1,099	37
Jackson	846	223	921	186	15	3.0	247	50
Jefferson	91,215	338	158,997	476	425	1.3	26,471	79
Jessamine	5,327	338	7,771	373	27	1.3	1,321	63
Johnson	1,896	208	2,200	200	20	1.8	549	50
Kenton	21,761	335	28,729	366	59	0.8	3,594	46
Knott	1,115	172	1,157	150	12	1.6	367	48

TABLE 7. CRASH RATES BY COUNTY FOR IDENTIFIED SYSTEM AND ALL ROADS (2014-2018)(continued)

	IDENTIFIED		ALL ROADS					
			TOTAL CRASHES		FATAL CRASHES		FATAL OR INJURY CRASHES	
COUNTY	TOTAL CRASHES	CRASH RATE*	NUMBER	RATE*	NUMBER	RATE*	NUMBER	RATE*
Knox	2,721	211	3,148	195	30	1.9	843	52
Larue	1,309	155	1,526	156	14	1.4	322	33
Laurel	7,220	177	8,949	195	64	1.4	1,923	42
Lawrence	961	124	1,101	121	19	2.1	302	33
Lee	297	141	358	133	8	3.0	77	29
Leslie	214	46	237	43	10	1.8	86	15
Letcher	1,438	170	1,581	149	18	1.7	580	55
Lewis	601	109	716	107	19	2.8	181	27
Lincoln	1,893	194	2,125	180	29	2.5	501	42
Livingston	848	132	922	125	12	1.6	228	31
Logan	2,514	204	2,991	202	16	1.1	637	43
Lyon	1,205	91	1,328	94	12	0.9	282	20
McCracken	8,995	258	11,916	289	50	1.2	2,826	69
McCreary	1,046	183	1,086	154	18	2.6	327	46
McLean	1,045	250	1,117	217	8	1.6	316	62
Madison	10,430	218	13,379	241	51	0.9	1,954	35
Magoffin	936	181	874	141	19	3.1	295	47
Marion	2,433	355	2,372	280	24	2.8	459	54
Marshall	3,524	158	4,077	158	48	1.9	998	39
Martin	549	142	529	110	6	1.2	127	26
Mason	2,145	246	3,011	293	13	1.3	452	44
Meade	1,871	186	2,239	176	36	2.8	675	53
Menifee	282	143	351	136	10	3.9	103	40
Mercer	1,753	202	2,320	217	20	1.9	450	42
Metcalfe	1,173	242	1,264	225	15	2.7	272	48
Monroe	553	145	585	124	4	0.8	137	29
Montgomery	3,817	292	4,062	259	27	1.7	784	50
Morgan	811	164	796	132	3	0.5	217	36
Muhlenberg	4,104	283	4,261	241	30	1.7	872	49
Nelson	4,686	217	5,624	216	51	2.0	1,035	40
Nicholas	606	274	750	270	15	5.4	137	49
Ohio	2,919	190	3,202	182	23	1.3	759	43
Oldham	5,285	230	6,044	211	27	0.9	990	34
Owen	942	253	1,039	225	14	3.0	253	55
Owsley	216	166	243	141	8	4.7	71	41
Pendleton	1,332	304	1,629	282	10	1.7	332	57
Perry	2,587	201	3,683	237	38	2.4	1,022	66
Pike	5,829	207	6,798	203	78	2.3	1,906	57
Powell	1,502	199	1,436	165	25	2.9	344	40
Pulaski	8,027	287	8,782	254	59	1.7	1,570	45
Robertson	159	262	171	209	0	0.0	36	44
Rockcastle	2,702	114	2,729	109	21	0.8	507	20
Rowan	3,042	224	3,973	253	24	1.5	682	43
Russell	1,514	206	1,737	194	20	2.2	321	36
Scott	5,849	167	8,262	210	37	0.9	1,496	38
Shelby	6,337	199	6,819	191	36	1.0	1,332	37
Simpson	2,927	167	2,981	156	20	1.0	643	34
Spencer	1,268	219	1,437	190	13	1.7	359	48
Taylor	3,232	353	3,595	313	23	2.0	521	45
Todd	931	182	1,066	172	16	2.6	244	39
Trigg	1,429	138	1,771	151	17	1.4	339	29
Trimble	801	238	866	210	13	3.1	208	50
Union	1,305	229	1,524	218	14	2.0	377	54
Warren	16,137	247	23,596	313	80	1.1	4,178	55
Washington	1,218	177	1,365	173	17	2.2	308	39
Wayne	1,311	183	1,686	191	20	2.3	384	43
Webster	1,148	157	1,279	149	12	1.4	328	38
Whitley	5,024	185	5,257	173	47	1.5	1,354	45
Wolfe	724	159	767	146	20	3.8	181	34
Woodford	3,344	188	4,477	222	20	1.0	716	35
STATEWIDE	520,468	253	675,475	276	3,454	1.4	122,026	50

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

Table 8. COUNTY POPULATIONS (2010 CENSUS) IN DESCENDING ORDER

COUNTY	POPULATION	COUNTY	POPULATION	COUNTY	POPULATION
Jefferson	741,096	Logan	26,835	Breathitt	13,878
Fayette	295,803	Montgomery	26,499	Lewis	13,870
Kenton	159,720	Grayson	25,746	Webster	13,621
Boone	118,811	Woodford	24,939	Jackson	13,494
Warren	113,792	Lincoln	24,742	Magoffin	13,333
Hardin	105,543	Grant	24,662	Caldwell	12,984
Daviess	96,656	Letcher	24,519	Martin	12,929
Campbell	90,336	Taylor	24,512	Butler	12,690
Madison	82,916	Ohio	23,842	Powell	12,613
Bullitt	74,319	Johnson	23,356	Todd	12,460
Christian	73,955	Rowan	23,333	Edmonson	12,161
McCracken	65,565	Clay	21,730	Washington	11,717
Pike	65,024	Anderson	21,421	Bath	11,591
Pulaski	63,063	Mercer	21,331	Leslie	11,310
Oldham	60,316	Wayne	20,813	Green	11,258
Laurel	58,849	Breckinridge	20,059	Monroe	10,963
Boyd	49,542	Bourbon	19,985	Owen	10,841
Franklin	49,285	Allen	19,956	Carroll	10,811
Jessamine	48,586	Marion	19,820	Clinton	10,272
Scott	47,173	Harrison	18,846	Metcalfe	10,099
Hopkins	46,920	Adair	18,656	McLean	9,531
Henderson	46,250	McCreary	18,306	Livingston	9,519
Nelson	43,437	Hart	18,199	Crittenden	9,315
Barren	42,173	Russell	17,565	Trimble	8,809
Shelby	42,074	Mason	17,490	Gallatin	8,589
Floyd	39,451	Simpson	17,327	Hancock	8,565
Calloway	37,191	Spencer	17,061	Bracken	8,488
Graves	37,121	Rockcastle	17,056	Lyon	8,314
Greenup	36,910	Garrard	16,912	Ballard	8,249
Whitley	35,637	Knott	16,346	Lee	7,887
Clark	35,613	Casey	15,955	Elliott	7,852
Knox	31,883	Lawrence	15,860	Wolfe	7,355
Muhlenberg	31,499	Henry	15,416	Nicholas	7,135
Marshall	31,448	Union	15,007	Cumberland	6,856
Harlan	29,278	Pendleton	14,877	Fulton	6,813
Perry	28,712	Estill	14,672	Menifee	6,306
Bell	28,691	Fleming	14,348	Carlisle	5,104
Meade	28,602	Trigg	14,339	Hickman	4,902
Boyle	28,432	Larue	14,193	Owsley	4,755
Carter	27,720	Morgan	13,923	Robertson	2,282

TOTAL 4,339,367

Table 9. AVERAGE AND CRITICAL CRASH RATES BY POPULATION CATEGORY
(2014-2018)

POPULATION CATEGORY	NUMBER OF COUNTIES IN CATEGORY	TOTAL POPULATION	TOTAL MILEAGE DRIVEN 100 MVM
UNDER 10,000	20	146,626	94.35
10,000 - 14,999	26	329,247	184.26
15,000 - 24,999	31	615,022	373.99
25,000 - 50,000	27	982,708	582.77
OVER 50,000	16	2,265,764	1,212.38

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	13,865	147	180	7
10,000 - 14,999	29,178	158	186	8
15,000 - 24,999	70,513	189	212	10
25,000 - 50,000	133,537	229	248	7
OVER 50,000	428,382	353	366	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	205	2.17	6.61	0
10,000 - 14,999	362	1.96	5.35	0
15,000 - 24,999	602	1.61	3.92	0
25,000 - 50,000	889	1.53	3.17	0
OVER 50,000	1,396	1.15	1.89	1

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	3,278	34.7	50.9	3
10,000 - 14,999	6,747	36.6	50.1	3
15,000 - 24,999	14,641	39.1	49.7	7
25,000 - 50,000	26,163	44.9	53.3	3
OVER 50,000	71,197	58.7	63.8	3

TABLE 10. CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)(2014-2018)(ALL ROADS)

COUNTY	NUMBER OF CRASHES	CRASH RATE (CRASHES PER 100 MVM)	
POPULATION CATEGORY UNDER 10,000			
Nicholas	750	270	*
Crittenden	951	240	*
McLean	1,117	217	*
Trimble	866	210	*
Robertson	171	209	*
Bracken	1,023	207	*
Ballard	870	186	*
Cumberland	549	165	
Fulton	565	165	
Elliott	297	147	
Wolfe	767	146	
Owsley	243	141	
Hancock	662	136	
Menifee	351	136	
Lee	358	133	
Livingston	922	125	
Carlisle	330	118	
Hickman	340	114	
Gallatin	1,405	95	
Lyon	1,328	94	
POPULATION CATEGORY 10,000-14,999			
Pendleton	1,629	282	*
Metcalfe	1,264	225	*
Owen	1,039	225	*
Caldwell	1,895	202	*
Green	863	198	*
Clinton	956	197	*
Breathitt	1,250	191	*
Jackson	921	186	*
Washington	1,365	173	
Todd	1,066	172	
Fleming	1,172	168	
Powell	1,436	165	
Butler	1,360	159	
Edmonson	1,005	157	
Larue	1,526	156	
Trigg	1,771	151	
Webster	1,279	149	
Magoffin	874	141	
Carroll	2,035	141	
Morgan	796	132	
Estill	742	130	
Monroe	585	124	
Martin	529	110	
Lewis	716	107	
Bath	867	94	
Leslie	237	43	
POPULATION CATEGORY 15,000-24,999			
Harrison	2,481	340	*
Taylor	3,595	313	*
Mason	3,011	293	*
Bourbon	3,088	289	*
Marion	2,372	280	*
Allen	2,251	257	*
Rowan	3,973	253	*
Woodford	4,477	222	*
Union	1,524	218	*
Mercer	2,320	217	*
Anderson	2,579	211	
Garrard	1,925	208	
Johnson	2,200	200	
Russell	1,737	194	
Wayne	1,686	191	
Spencer	1,437	190	
Ohio	3,202	182	
Lincoln	2,125	180	
Clay	1,804	179	
Simpson	2,981	156	
McCreary	1,086	154	
Knott	1,157	150	
Grant	3,889	149	
Letcher	1,581	149	
Henry	2,027	136	
Hart	2,836	135	
Breckinridge	1,150	133	
Casey	894	131	
Adair	1,295	128	
Lawrence	1,101	121	
Rockcastle	2,729	109	
POPULATION CATEGORY 25,000-50,000			
Jessamine	7,771	373	*
Calloway	5,163	339	*
Boyd	7,496	338	*
Henderson	7,973	303	*
Boyle	4,180	302	*
Franklin	7,702	259	*
Montgomery	4,062	259	*
Clark	5,810	244	
Barren	6,815	242	
Muhlenberg	4,261	241	
Hopkins	7,085	241	
Perry	3,683	237	
Bell	3,115	234	
Graves	4,635	217	
Nelson	5,624	216	
Scott	8,262	210	
Logan	2,991	202	
Knox	3,148	195	
Grayson	3,180	195	
Shelby	6,819	191	
Greenup	3,140	190	
Meade	2,239	176	
Harlan	2,260	175	
Whitley	5,257	173	
Floyd	3,937	171	
Marshall	4,077	158	
Carter	2,852	143	
POPULATION CATEGORY OVER 50,000			
Jefferson	158,997	476	*
Fayette	68,630	453	*
Daviess	17,926	422	*
Kenton	28,729	366	*
Campbell	15,452	355	
Warren	23,596	313	
Boone	24,517	311	
McCracken	11,916	289	
Pulaski	8,782	254	
Madison	13,379	241	
Hardin	14,833	213	
Oldham	6,044	211	
Bullitt	10,390	205	
Pike	6,798	203	
Christian	9,444	196	
Laurel	8,949	195	

* Critical crash rate

TABLE 11. CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)(2014-2018)(IDENTIFIED SYSTEM)

COUNTY	NUMBER OF CRASHES	CRASH RATE (CRASHES PER 100 MVM)	
POPULATION CATEGORY UNDER 10,000			
Crittenden	863	278	*
Nicholas	606	274	*
Robertson	159	262	*
McLean	1,045	250	*
Trimble	801	238	*
Bracken	874	212	*
Fulton	580	197	*
Ballard	746	195	*
Elliott	269	178	
Cumberland	476	171	
Owsley	216	166	
Hancock	636	159	
Wolfe	724	159	
Carlisle	328	144	
Menifee	282	143	
Lee	297	141	
Livingston	848	132	
Hickman	322	127	
Gallatin	1,317	94	
Lyon	1,205	91	
POPULATION CATEGORY 10,000-14,999			
Pendleton	1,332	304	*
Owen	942	253	*
Metcalfe	1,173	242	*
Green	800	232	*
Caldwell	1,849	227	*
Jackson	846	223	*
Breathitt	1,178	215	*
Powell	1,502	199	
Clinton	798	197	
Todd	931	182	
Butler	1,330	182	
Magoffin	936	181	
Washington	1,218	177	
Edmonson	923	171	
Estill	745	168	
Morgan	811	164	
Webster	1,148	157	
Larue	1,309	155	
Fleming	838	149	
Monroe	553	145	
Martin	549	142	
Trigg	1,429	138	
Carroll	1,790	134	
Lewis	601	109	
Bath	709	86	
Leslie	214	46	
POPULATION CATEGORY 15,000-24,999			
Harrison	2,095	364	*
Marion	2,433	355	*
Taylor	3,232	353	*
Bourbon	2,511	300	*
Mason	2,145	246	*
Allen	1,752	245	*
Union	1,305	229	*
Rowan	3,042	224	*
Spencer	1,268	219	*
Johnson	1,896	208	
Russell	1,514	206	
Garrard	1,584	202	
Mercer	1,753	202	
Lincoln	1,893	194	
Ohio	2,919	190	
Woodford	3,344	188	
McCreary	1,046	183	
Wayne	1,311	183	
Anderson	1,797	179	
Clay	1,529	179	
Knott	1,115	172	
Letcher	1,438	170	
Simpson	2,927	167	
Henry	2,077	154	
Adair	1,282	152	
Casey	792	147	
Hart	2,597	132	
Breckinridge	856	127	
Grant	3,018	126	
Lawrence	961	124	
Rockcastle	2,702	114	
POPULATION CATEGORY 25,000-50,000			
Jessamine	5,327	338	*
Calloway	3,928	323	*
Boyd	5,289	298	*
Montgomery	3,817	292	*
Boyle	3,258	290	*
Muhlenberg	4,104	283	*
Henderson	6,168	281	*
Bell	2,930	259	*
Franklin	6,417	256	*
Clark	5,189	253	*
Greenup	3,195	245	
Grayson	3,239	234	
Nelson	4,686	217	
Barren	5,231	216	
Hopkins	5,278	212	
Knox	2,721	211	
Graves	3,592	205	
Logan	2,514	204	
Harlan	2,162	202	
Perry	2,587	201	
Floyd	3,816	200	
Shelby	6,337	199	
Meade	1,871	186	
Whitley	5,024	185	
Carter	2,894	170	
Scott	5,849	167	
Marshall	3,524	158	
POPULATION CATEGORY OVER 50,000			
Fayette	60,118	471	*
Daviess	14,024	422	*
Campbell	12,468	348	*
Jefferson	91,215	338	*
Kenton	21,761	335	*
Boone	19,699	296	
Pulaski	8,027	287	
McCracken	8,995	258	
Warren	16,137	247	
Oldham	5,285	230	
Madison	10,430	218	
Hardin	12,949	217	
Pike	5,829	207	
Bullitt	8,347	193	
Christian	7,835	181	
Laurel	7,220	177	

* Critical crash rate

TABLE 12. INJURY OR FATAL CRASH RATES BY COUNTY AND POPULATION CATEGORY
(IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)(2014-2018)(ALL ROADS)

COUNTY	NUMBER OF CRASHES	CRASH RATE (CRASHES PER 100 MVM)	
POPULATION CATEGORY UNDER 10,000			
Crittenden	310	78	*
McLean	316	62	*
Carlisle	149	53	*
Trimble	208	50	
Nicholas	137	49	
Robertson	36	44	
Elliott	86	43	
Owsley	71	41	
Bracken	196	40	
Menifee	103	40	
Ballard	183	39	
Cumberland	123	37	
Hancock	167	34	
Wolfe	181	34	
Livingston	228	31	
Fulton	98	29	
Lee	77	29	
Hickman	87	29	
Lyon	282	20	
Gallatin	240	16	
POPULATION CATEGORY 10,000-14,999			
Breathitt	440	67	*
Pendleton	332	57	*
Owen	253	55	*
Jackson	247	50	
Metcalfe	272	48	
Magoffin	295	47	
Green	201	46	
Caldwell	393	42	
Powell	344	40	
Clinton	192	40	
Edmonson	256	40	
Todd	244	39	
Washington	308	39	
Webster	328	38	
Morgan	217	36	
Larue	322	33	
Butler	274	32	
Fleming	223	32	
Estill	174	31	
Trigg	339	29	
Monroe	137	29	
Lewis	181	27	
Martin	127	26	
Carroll	360	25	
Bath	202	22	
Leslie	86	15	
POPULATION CATEGORY 15,000-24,999			
Clay	708	70	*
Harrison	436	60	*
Letcher	580	55	*
Marion	459	54	*
Union	377	54	*
Johnson	549	50	*
Allen	435	50	*
Spencer	359	48	
Knott	367	48	
Bourbon	493	46	
McCreary	327	46	
Taylor	521	45	
Mason	452	44	
Ohio	759	43	
Wayne	384	43	
Rowan	682	43	
Mercer	450	42	
Lincoln	501	42	
Anderson	513	42	
Garrard	393	42	
Breckinridge	358	41	
Russell	321	36	
Woodford	716	35	
Simpson	643	34	
Lawrence	302	33	
Casey	224	33	
Adair	271	27	
Hart	540	26	
Grant	654	25	
Henry	360	24	
Rockcastle	507	20	
POPULATION CATEGORY 25,000-50,000			
Perry	1,022	66	*
Jessamine	1,321	63	*
Boyd	1,200	54	*
Meade	675	53	
Henderson	1,409	53	
Knox	843	52	
Bell	676	51	
Boyle	697	50	
Montgomery	784	50	
Barren	1,370	49	
Floyd	1,130	49	
Calloway	749	49	
Muhlenberg	872	49	
Grayson	786	48	
Graves	990	46	
Harlan	592	46	
Whitley	1,354	45	
Logan	637	43	
Nelson	1,035	40	
Clark	917	39	
Marshall	998	39	
Scott	1,496	38	
Hopkins	1,099	37	
Shelby	1,332	37	
Greenup	593	36	
Franklin	1,028	35	
Carter	558	28	
POPULATION CATEGORY OVER 50,000			
Jefferson	26,471	79	*
Fayette	11,024	73	*
McCracken	2,826	69	*
Daviess	2,688	63	
Pike	1,906	57	
Warren	4,178	55	
Kenton	3,594	46	
Boone	3,561	45	
Pulaski	1,570	45	
Bullitt	2,143	42	
Christian	2,007	42	
Campbell	1,826	42	
Laurel	1,923	42	
Hardin	2,536	36	
Madison	1,954	35	
Oldham	990	34	

* Critical crash rate

TABLE 13. FATAL CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)(2014-2018)(ALL ROADS)

COUNTY	NUMBER OF CRASHES	CRASH RATE (CRASHES PER 100 MVM)
POPULATION CATEGORY UNDER 10,000		
Nicholas	15	5.4
Owsley	8	4.7
Menifee	10	3.9
Wolfe	20	3.8
Crittenden	14	3.5
Ballard	15	3.2
Trimble	13	3.1
Lee	8	3.0
Carlisle	8	2.8
Elliott	5	2.5
Bracken	12	2.4
Cumberland	8	2.4
Hickman	6	2.0
Fulton	6	1.7
Livingston	12	1.6
Hancock	8	1.6
McLean	8	1.6
Gallatin	17	1.1
Lyon	12	0.9
Robertson	0	0.0
POPULATION CATEGORY 10,000-14,999		
Breathitt	29	4.4
Green	15	3.4
Magoffin	19	3.1
Owen	14	3.0
Jackson	15	3.0
Powell	25	2.9
Lewis	19	2.8
Metcalfe	15	2.7
Todd	16	2.6
Clinton	12	2.5
Butler	21	2.4
Washington	17	2.2
Leslie	10	1.8
Estill	10	1.8
Pendleton	10	1.7
Edmonson	10	1.6
Caldwell	14	1.5
Webster	12	1.4
Trigg	17	1.4
Larue	14	1.4
Bath	11	1.2
Martin	6	1.2
Carroll	18	1.2
Fleming	6	0.9
Monroe	4	0.8
Morgan	3	0.5
POPULATION CATEGORY 15,000-24,999		
Marion	24	2.8
Allen	24	2.7
McCreary	18	2.6
Casey	18	2.6
Lincoln	29	2.5
Breckinridge	21	2.4
Wayne	20	2.3
Bourbon	25	2.3
Russell	20	2.2
Clay	22	2.2
Lawrence	19	2.1
Union	14	2.0
Taylor	23	2.0
Adair	20	2.0
Mercer	20	1.9
Johnson	20	1.8
Letcher	18	1.7
Spencer	13	1.7
Knott	12	1.6
Anderson	18	1.5
Rowan	24	1.5
Garrard	13	1.4
Harrison	10	1.4
Ohio	23	1.3
Mason	13	1.3
Henry	19	1.3
Hart	26	1.2
Simpson	20	1.0
Woodford	20	1.0
Rockcastle	21	0.8
Grant	15	0.6
POPULATION CATEGORY 25,000-50,000		
Grayson	45	2.8
Meade	36	2.8
Perry	38	2.4
Graves	44	2.1
Floyd	45	2.0
Harlan	26	2.0
Nelson	51	2.0
Knox	30	1.9
Marshall	48	1.9
Bell	24	1.8
Calloway	27	1.8
Montgomery	27	1.7
Muhlenberg	30	1.7
Boyle	22	1.6
Barren	44	1.6
Whitley	47	1.5
Clark	34	1.4
Hopkins	42	1.4
Jessamine	27	1.3
Carter	26	1.3
Henderson	28	1.1
Greenup	18	1.1
Logan	16	1.1
Shelby	36	1.0
Scott	37	0.9
Boyd	21	0.9
Franklin	20	0.7
POPULATION CATEGORY OVER 50,000		
Pike	78	2.3 *
Pulaski	59	1.7
Laurel	64	1.4
Jefferson	425	1.3
Daviess	54	1.3
Hardin	83	1.2
McCracken	50	1.2
Warren	80	1.1
Bullitt	57	1.1
Fayette	162	1.1
Christian	50	1.0
Madison	51	0.9
Oldham	27	0.9
Campbell	41	0.9
Kenton	59	0.8
Boone	56	0.7

* Critical crash rate

TABLE 14. MISCELLANEOUS CRASH DATA FOR EACH COUNTY

COUNTY	NUMBER OF CRASHES BY YEAR 2014	2015	2016	2017	2018	2014-2017 AVERAGE	2018 % CHANGE*	% CRASHES INVOLVING ALCOHOL	% CRASHES INVOLVING DRUGS	% FATAL CRASHES	% INJURY OR FATAL CRASHES	SAFETY BELT USAGE RATE**	% CRASHES INVOLVING SPEEDING
Adair	299	307	226	250	213	271	-21.3	2.9	2.7	1.54	20.9	43.8	3.8
Allen	454	420	502	412	463	447	3.6	4.0	1.1	1.07	19.3	54.0	3.2
Anderson	507	530	517	528	497	521	-4.5	4.0	1.9	0.70	19.9	57.7	4.7
Ballard	170	165	168	189	178	173	2.9	5.1	1.8	1.72	21.0	48.4	4.8
Barren	1,172	1,363	1,498	1,421	1,361	1,364	-0.2	2.7	1.1	0.65	20.1	57.9	3.5
Bath	96	159	211	218	183	171	7.0	2.9	1.2	1.27	23.3	42.0	2.5
Bell	555	667	757	606	530	646	-18.0	1.9	3.6	0.77	21.7	70.7	4.5
Boone	4,639	4,645	5,010	5,199	5,024	4,873	3.1	3.0	0.8	0.23	14.5	77.8	6.0
Bourbon	576	628	659	651	574	629	-8.7	4.0	1.1	0.81	16.0	62.2	6.5
Boyd	1,501	1,535	1,543	1,491	1,426	1,518	-6.0	2.3	1.6	0.28	16.0	66.9	3.3
Boyle	777	866	854	816	867	828	4.7	2.8	1.1	0.53	16.7	60.7	5.4
Bracken	179	240	222	208	174	212	-18.0	4.7	0.8	1.17	19.2	53.9	9.9
Breathitt	280	274	235	225	236	254	-6.9	2.8	3.9	2.32	35.2	53.8	4.6
Breckinridge	202	240	243	230	235	229	2.7	4.7	0.3	1.83	31.1	50.3	5.0
Bullitt	2,173	1,971	2,071	2,030	2,145	2,061	4.1	2.8	0.8	0.55	20.6	80.6	3.0
Butler	291	291	237	289	252	277	-9.0	4.9	1.2	1.54	20.1	57.3	9.5
Caldwell	386	376	437	357	339	389	-12.9	2.3	0.9	0.74	20.7	70.8	6.9
Calloway	967	1,041	1,073	1,108	974	1,047	-7.0	3.6	1.2	0.52	14.5	65.0	3.2
Campbell	2,906	3,130	3,082	3,193	3,141	3,078	2.1	3.4	1.3	0.27	11.8	75.8	4.5
Carlisle	86	82	53	50	59	68	-12.9	4.5	1.8	2.42	45.2	67.0	8.8
Carroll	449	439	407	346	394	410	-4.0	3.3	1.3	0.88	17.7	70.7	5.1
Carter	540	537	576	592	607	561	8.2	2.8	1.7	0.91	19.6	61.1	6.7
Casey	172	221	91	227	183	178	3.0	3.9	2.5	2.01	25.1	45.6	1.7
Christian	1,707	1,919	1,955	1,957	1,906	1,885	1.1	3.9	1.0	0.53	21.3	65.8	5.5
Clark	1,076	1,136	1,204	1,234	1,160	1,163	-0.2	3.2	1.0	0.59	15.8	67.6	4.2
Clay	370	388	354	347	345	365	-5.4	3.1	5.2	1.22	39.2	64.2	4.8
Clinton	111	224	250	208	163	198	-17.8	2.8	1.7	1.26	20.1	49.4	2.2
Crittenden	197	206	186	190	172	195	-11.7	4.7	2.1	1.47	32.6	58.2	5.4
Cumberland	126	115	128	99	81	117	-30.8	4.2	1.8	1.46	22.4	46.5	2.4
Daviess	3,217	3,637	3,712	3,642	3,718	3,552	4.7	2.7	1.1	0.30	15.0	70.9	3.5
Edmonson	217	208	211	191	178	207	-13.9	3.8	0.9	1.00	25.5	63.7	8.4
Elliott	64	44	64	67	58	60	-2.9	7.7	3.4	1.68	29.0	64.1	6.4
Estill	147	102	185	146	162	145	11.7	3.2	3.6	1.35	23.5	53.1	3.8
Fayette	12,872	13,787	14,276	14,113	13,582	13,762	-1.3	3.1	0.8	0.24	16.1	75.0	7.3
Fleming	218	249	232	208	265	227	16.9	3.9	2.0	0.51	19.0	46.5	3.2
Floyd	829	873	789	725	721	804	-10.3	4.4	5.4	1.14	28.7	59.9	4.1
Franklin	1,471	1,622	1,549	1,516	1,544	1,540	0.3	3.3	1.6	0.26	13.3	71.3	4.9
Fulton	124	128	138	73	102	116	-11.9	4.8	1.8	1.06	17.3	62.9	2.1
Gallatin	264	281	281	296	283	281	0.9	3.0	0.9	1.21	17.1	71.3	4.3
Garrard	380	402	400	373	370	389	-4.8	4.0	0.9	0.68	20.4	52.5	5.7
Grant	685	780	812	790	822	767	7.2	2.8	1.2	0.39	16.8	69.5	7.9
Graves	911	822	944	967	991	911	8.8	3.3	1.8	0.95	21.4	66.7	6.0
Grayson	626	586	688	631	649	633	2.6	3.6	1.4	1.42	24.7	64.7	3.3
Green	165	163	185	163	187	169	10.7	2.8	0.7	1.74	23.3	48.1	3.2
Greenup	594	659	655	620	612	632	-3.2	3.1	1.3	0.57	18.9	67.6	2.9
Hancock	120	135	155	137	115	137	-15.9	3.2	0.9	1.21	25.2	73.6	5.7
Hardin	2,843	2,914	2,934	3,095	3,047	2,947	3.4	3.0	1.1	0.56	17.1	66.2	5.3
Harlan	524	464	394	435	443	454	-2.5	3.1	5.1	1.15	26.2	66.3	2.9
Harrison	536	463	542	496	444	509	-12.8	3.0	1.1	0.40	17.6	59.9	5.4
Hart	532	636	535	555	578	565	2.4	2.3	1.1	0.92	19.0	40.4	5.9
Henderson	1,536	1,687	1,671	1,509	1,570	1,601	-1.9	2.4	1.0	0.35	17.7	71.8	3.3
Henry	401	411	445	395	375	413	-9.2	4.3	0.8	0.94	17.8	70.8	6.4
Hickman	80	56	62	87	55	71	-22.8	4.7	1.5	1.76	25.6	53.5	7.1
Hopkins	1,430	1,498	1,442	1,329	1,386	1,425	-2.7	2.4	1.1	0.59	15.5	70.5	5.3
Jackson	198	200	205	178	140	195	-28.3	2.7	1.7	1.63	26.8	64.5	6.1
Jefferson	29,687	32,639	33,914	31,866	30,891	32,027	-3.5	2.4	0.7	0.27	16.6	81.1	3.4
Jessamine	1,464	1,467	1,597	1,609	1,634	1,534	6.5	3.2	1.5	0.35	17.0	65.9	5.6
Johnson	459	441	457	412	431	442	-2.5	2.8	3.3	0.91	25.0	68.4	3.2
Kenton	5,309	5,677	5,901	5,970	5,872	5,714	2.8	3.4	1.3	0.21	12.5	77.5	5.6
Knott	266	228	224	222	217	235	-7.7	3.2	4.5	1.04	31.7	64.5	2.4

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

COUNTY	NUMBER OF CRASHES BY YEAR 2014	2015	2016	2017	2018	2014-2017 AVERAGE	2018 PERCENT % CHANGE*	% CRASHES INVOLVING ALCOHOL	% CRASHES INVOLVING DRUGS	% FATAL CRASHES	% INJURY OR FATAL CRASHES	SAFETY BELT USAGE RATE**	% CRASHES INVOLVING SPEEDING
Knox	465	717	690	632	644	626	2.9	2.6	4.3	0.95	26.8	66.5	6.3
Larue	236	317	331	322	320	302	6.1	4.1	1.7	0.92	21.1	58.2	6.4
Laurel	1,605	1,788	1,778	1,929	1,849	1,775	4.2	2.2	1.9	0.72	21.5	69.2	4.0
Lawrence	207	230	213	224	227	219	3.9	4.2	1.6	1.73	27.4	63.2	2.8
Lee	74	76	68	76	64	74	-12.9	5.0	2.8	2.23	21.5	51.9	4.2
Leslie	68	29	75	40	25	53	-52.8	2.1	3.0	4.22	36.3	59.4	4.6
Letcher	308	240	307	353	373	302	23.5	3.9	4.2	1.14	36.7	51.2	4.6
Lewis	123	108	139	170	176	135	30.4	5.0	2.7	2.65	25.3	56.5	4.7
Lincoln	411	438	435	432	409	429	-4.7	2.9	1.7	1.36	23.6	62.9	3.2
Livingston	181	174	186	190	191	183	4.5	3.5	1.5	1.30	24.7	71.1	6.4
Logan	552	612	647	569	611	595	2.7	3.0	0.8	0.53	21.3	60.4	4.1
Lyon	261	295	297	224	251	269	-6.8	3.5	1.7	0.90	21.2	82.9	6.8
McCracken	2,015	2,394	2,576	2,403	2,528	2,347	7.7	2.8	1.0	0.42	23.7	65.1	5.4
McCreary	206	238	216	213	213	218	-2.4	3.1	4.1	1.66	30.1	51.3	5.2
McLean	179	233	228	244	233	221	5.4	4.1	1.7	0.72	28.3	60.3	5.4
Madison	2,522	2,763	2,775	2,778	2,541	2,710	-6.2	3.2	1.4	0.38	14.6	69.4	7.5
Magoffin	180	184	169	158	183	173	5.9	3.8	5.4	2.17	33.8	59.7	4.9
Marion	430	500	492	506	444	482	-7.9	4.5	1.2	1.01	19.4	43.1	2.4
Marshall	726	837	829	872	813	816	-0.4	3.7	1.4	1.18	24.5	60.7	5.5
Martin	121	14	138	119	137	98	39.8	3.0	2.8	1.13	24.0	55.4	2.6
Mason	628	613	619	610	541	618	-12.4	5.1	1.6	0.43	15.0	53.5	5.9
Meade	404	472	487	472	404	459	-11.9	5.9	0.9	1.61	30.1	47.3	4.3
Menifee	66	56	102	67	60	73	-17.5	4.3	2.0	2.85	29.3	48.9	2.0
Mercer	483	498	484	422	433	472	-8.2	4.3	1.3	0.86	19.4	60.6	5.3
Metcalfe	224	249	273	261	257	252	2.1	3.7	0.7	1.19	21.5	42.4	4.1
Monroe	35	74	167	156	153	108	41.7	2.7	1.9	0.68	23.4	40.1	3.6
Montgomery	831	827	839	858	707	839	-15.7	3.4	1.9	0.66	19.3	47.1	3.9
Morgan	150	137	148	184	177	155	14.4	3.4	1.5	0.38	27.3	57.9	6.8
Muhlenberg	832	892	921	800	816	861	-5.3	2.6	1.9	0.70	20.5	61.8	3.8
Nelson	1,111	1,125	1,120	1,120	1,148	1,119	2.6	4.2	1.0	0.91	18.4	60.1	3.8
Nicholas	149	154	149	152	146	151	-3.3	4.5	2.3	2.00	18.3	50.6	5.3
Ohio	559	612	657	700	674	632	6.6	3.2	1.6	0.72	23.7	69.0	5.2
Oldham	1,164	1,179	1,266	1,141	1,294	1,188	9.0	3.3	0.8	0.45	16.4	83.0	5.1
Owen	131	241	232	210	225	204	10.6	4.1	1.8	1.35	24.4	57.7	5.9
Owsley	35	57	92	34	25	55	-54.1	2.5	2.5	3.29	29.2	41.1	6.2
Pendleton	296	358	337	323	315	329	-4.1	3.6	1.4	0.61	20.4	68.5	5.0
Perry	768	743	728	707	737	737	0.1	2.8	3.4	1.03	27.7	56.6	2.1
Pike	1,373	1,425	1,347	1,338	1,315	1,371	-4.1	4.1	5.0	1.15	28.0	62.3	5.5
Powell	293	336	327	252	228	302	-24.5	2.9	1.2	1.74	24.0	64.6	2.5
Pulaski	1,612	1,815	1,814	1,793	1,748	1,759	-0.6	2.2	1.0	0.67	17.9	54.2	5.2
Robertson	19	25	52	44	31	35	-11.4	2.9	1.8	0.00	21.1	53.3	6.4
Rockcastle	477	561	521	536	634	524	21.1	1.9	1.7	0.77	18.6	76.9	6.4
Rowan	791	834	830	826	692	820	-15.6	2.7	1.5	0.60	17.2	54.6	4.9
Russell	310	346	377	363	341	349	-2.3	2.9	1.6	1.15	18.5	58.7	2.2
Scott	1,515	1,583	1,670	1,663	1,831	1,608	13.9	3.4	0.8	0.45	18.1	60.8	5.0
Shelby	1,318	1,285	1,429	1,362	1,425	1,349	5.7	3.6	1.0	0.53	19.5	80.0	4.7
Simpson	599	548	608	630	596	596	0.0	3.7	0.9	0.67	21.6	60.0	8.6
Spencer	291	262	276	304	304	283	7.3	5.4	1.7	0.90	25.0	70.0	6.1
Taylor	646	727	742	760	720	719	0.2	2.7	0.9	0.64	14.5	53.3	4.1
Todd	189	197	222	236	222	211	5.2	3.4	1.0	1.50	22.9	63.8	7.1
Trigg	319	355	402	363	332	360	-7.7	3.7	1.8	0.96	19.1	64.0	6.8
Trimble	164	179	156	192	175	173	1.3	4.3	1.6	1.50	24.0	77.1	6.4
Union	303	316	306	265	334	298	12.3	3.3	1.2	0.92	24.7	76.3	6.6
Warren	4,233	4,605	4,945	5,043	4,770	4,707	1.3	2.9	0.8	0.34	17.7	63.0	4.5
Washington	288	271	270	254	282	271	4.2	3.9	0.7	1.25	22.6	46.5	5.9
Wayne	349	369	360	257	351	334	5.2	2.4	0.9	1.19	22.8	47.0	5.9
Webster	293	275	248	228	235	261	-10.0	2.0	1.4	0.94	25.6	66.3	4.1
Whitley	1,068	1,149	1,008	1,028	1,004	1,063	-5.6	2.6	2.3	0.89	25.8	74.0	5.8
Wolfe	154	176	136	151	150	154	-2.8	2.3	2.1	2.61	23.6	59.4	6.3
Woodford	853	851	943	933	897	895	0.2	3.8	0.8	0.45	16.0	70.6	6.8
STATEWIDE	**127,326**	**136,338**	**140,547**	**136,979**	**134,285**	**135,298**	**-0.7**	**3.0**	**1.2**	**0.51**	**18.1**	**67.9**	**4.8**

* Percent change in the 2018 crash total from the previous four year total

** Based on observation data collected by Area Development Districts in 2006 (no data were collected since 2006)

TABLE 15. CRASH RATES FOR CITIES HAVING POPULATION OVER 2,500
(FOR IDENTIFIED SYSTEM AND ALL ROADS FOR 2014-2018)

CITY	POPULATION	IDENTIFIED SYSTEM TOTAL CRASHES	IDENTIFIED SYSTEM CRASH RATE*	ALL ROADS TOTAL CRASHES	ALL ROADS CRASH RATE**
Louisville	597,337	33,489	350	109,001	37
Lexington	295,803	15,191	885	55,040	37
Bowling Green	58,067	4,341	381	13,844	48
Owensboro	57,265	4,694	866	11,265	39
Covington	40,640	5,219	375	7,293	36
Hopkinsville	31,577	2,800	325	4,308	27
Richmond	31,364	858	667	5,795	37
Florence	29,951	5,563	306	9,042	60
Georgetown	29,098	1,265	499	3,972	27
Henderson	28,757	2,344	408	4,572	32
Elizabethtown	28,531	2,350	238	5,417	38
Nicholasville	28,015	1,081	357	4,161	30
Jeffersontown	26,595	969	355	4,209	32
Frankfort	25,527	3,237	420	4,263	33
Paducah	25,024	1,812	387	6,412	51
Independence	24,757	1,995	368	1,797	15
Radcliff	21,688	743	660	2,414	22
Ashland	21,684	1,533	509	3,555	33
Madisonville	19,591	1,725	517	3,006	31
Winchester	18,368	1,736	896	2,915	32
Erlanger	18,082	1,705	1,172	3,499	39
Murray	17,741	1,430	578	2,727	31
Fort Thomas	16,325	525	675	1,250	15
Danville	16,218	729	500	2,614	32
Newport	15,273	2,167	1,254	3,856	51
Shively	15,264	581	754	4,067	53
Shelbyville	14,045	931	737	2,158	31
Glasgow	14,028	735	617	2,697	39
Berea	13,561	878	486	1,968	29
Bardstown	11,700	1,101	468	2,596	44
Shepherdsville	11,222	1,165	828	3,254	58
Somerset	11,196	1,604	475	3,944	71
Lyndon	11,002	***	***	860	16
Lawrenceburg	10,505	320	417	934	18
Mayfield	10,024	262	618	1,559	31
Mount Washington	9,117	666	636	1,333	29
Campbellsville	9,108	1,367	718	1,922	42
Maysville	9,011	816	345	1,558	35
Edgewood	8,575	223	1,174	755	18
Versailles	8,568	409	498	1,355	32
Paris	8,553	1,084	494	1,378	32
Alexandria	8,477	842	373	1,118	26
Elsmere	8,451	411	300	537	13
Franklin	8,408	371	484	1,498	36
Harrodsburg	8,340	364	413	1,032	25
Fort Mitchell	8,207	783	952	1,346	33
La Grange	8,082	234	509	1,088	27
London	7,993	1,880	273	3,035	76
Villa Hills	7,489	56	273	204	5
Oak Grove	7,489	***	***	1,122	30
Flatwoods	7,423	428	435	421	11
Corbin	7,304	499	651	1,573	43
Middletown	7,218	***	***	2,057	57
Russellville	6,960	421	314	1,027	30
Highland Heights	6,923	781	251	1,061	31
Pikeville	6,903	1,223	294	2,345	68
Mount Sterling	6,895	911	816	1,456	42
Morehead	6,845	934	440	2,210	65
Leitchfield	6,699	744	851	1,149	34
Taylor Mill	6,604	227	492	890	27
Cynthiana	6,402	343	614	910	28
Princeton	6,329	732	562	864	27
Monticello	6,188	290	193	1,029	33
Central City	5,978	615	506	816	27

TABLE 15. CRASH RATES FOR CITIES HAVING POPULATION OVER 2,500
(FOR IDENTIFIED SYSTEM AND ALL ROADS FOR 2014-2018)(continued)

CITY	POPULATION	IDENTIFIED SYSTEM TOTAL CRASHES	IDENTIFIED SYSTEM CRASH RATE*	ALL ROADS TOTAL CRASHES	ALL ROADS CRASH RATE**
Bellevue	5,955	406	1,333	673	23
Cold Spring	5,912	745	416	1,037	35
Fort Wright	5,723	930	545	2,255	79
Lebanon	5,539	800	615	936	34
Union	5,379	***	***	628	23
Dayton	5,338	38	404	365	14
Williamsburg	5,245	523	195	779	30
Westwood	4,746	***	***	***	***
Crestwood	4,531	***	***	803	35
Vine Grove	4,520	285	314	347	15
Hazard	4,456	545	228	1,704	77
Columbia	4,452	136	326	555	25
Ludlow	4,407	249	840	334	15
Benton	4,349	278	429	754	35
Greenville	4,312	409	590	686	32
Scottsville	4,226	441	466	679	32
Grayson	4,217	452	756	702	33
Carrollton	3,938	222	430	490	25
Williamstown	3,925	***	***	523	27
Crittenden	3,815	***	***	339	18
Southgate	3,803	392	753	643	34
Crescent Springs	3,801	***	***	923	49
Wilmore	3,686	133	461	264	14
Walton	3,635	628	1,146	808	45
Stanford	3,487	237	308	547	31
Paintsville	3,459	402	458	889	51
Lancaster	3,442	235	726	439	26
West Liberty	3,435	127	283	162	9
Beaver Dam	3,409	226	417	485	29
Russell	3,380	563	408	712	42
Morganfield	3,285	147	277	363	22
Prestonsburg	3,255	501	404	1,308	80
Hodgenville	3,206	74	242	357	22
Providence	3,193	100	286	149	9
Barbourville	3,165	239	495	590	37
Crestview Hills	3,148	***	***	1,555	99
Marion	3,039	123	614	246	16
Wilder	3,035	***	***	967	64
Park Hills	2,970	275	775	120	8
Indian Hills	2,868	***	***	185	13
Dawson Springs	2,764	186	534	198	14
Stanton	2,733	385	422	342	25
Irvine	2,715	98	244	122	9
Hartford	2,672	109	379	277	21
Lakeside Park	2,668	410	624	246	18
Flemingsburg	2,658	44	649	413	31
Brandenburg	2,643	197	362	586	44
Calvert City	2,566	171	199	449	35
Cadiz	2,558	99	149	441	35
Eddyville	2,554	157	111	346	27
Springfield	2,519	94	275	359	29

* 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 (2014-2018) (ALL ROADS)

CITY	POPULATION	FATAL CRASHES		PEDESTRIAN MOTOR VEHICLE CRASHES		BICYCLE MOTOR VEHICLE CRASHES		MOTORCYCLE CRASHES		PERCENT OF CRASHES INVOLVING SPEEDING	PERCENT OF CRASHES INVOLVING ALCOHOL
		NUMBER	RATE*	NUMBER	RATE*	NUMBER	RATE*	NUMBER	RATE*		
Louisville	597,337	304	1.02	1,483	5.00	532	1.80	1,129	3.8	3.5	2.4
Lexington	295,803	132	0.89	638	4.30	288	1.90	474	3.2	7.3	3.1
Bowling Green	58,067	22	0.76	94	3.20	66	2.30	131	4.5	3.7	2.3
Owensboro	57,265	18	0.63	86	3.00	81	2.80	123	4.3	2.4	2.4
Covington	40,640	11	0.54	130	6.40	53	2.60	60	3.0	3.2	4.3
Hopkinsville	31,577	13	0.82	31	2.00	22	1.40	65	4.1	4.2	3.3
Richmond	31,364	13	0.83	38	2.40	22	1.40	63	4.0	7.7	2.8
Florence	29,951	17	1.14	71	4.70	15	1.00	87	5.8	4.4	2.5
Georgetown	29,098	8	0.55	35	2.40	9	0.60	43	3.0	3.1	2.8
Henderson	28,757	12	0.83	41	2.90	23	1.60	58	4.0	2.8	2.2
Elizabethtown	28,531	12	0.84	29	2.00	11	0.80	72	5.0	3.7	2.5
Nicholasville	28,015	14	1.00	29	2.10	10	0.70	39	2.8	3.8	2.7
Jeffersontown	26,595	6	0.45	26	2.00	9	0.70	25	1.9	2.1	2.3
Frankfort	25,527	10	0.78	33	2.60	9	0.70	40	3.1	3.9	2.8
Paducah	25,024	16	1.28	45	3.60	31	2.50	84	6.7	4.4	2.1
Independence	24,757	2	0.16	13	1.10	6	0.50	28	2.3	11.1	3.8
Radcliff	21,688	10	0.92	26	2.40	8	0.70	56	5.2	3.1	3.4
Ashland	21,684	4	0.37	41	3.80	21	1.90	46	4.2	2.6	2.1
Madisonville	19,591	11	1.12	19	1.90	11	1.10	28	2.9	3.8	1.7
Winchester	18,368	5	0.54	26	2.80	6	0.70	27	2.9	2.8	2.8
Erlanger	18,082	8	0.88	26	2.90	8	0.90	33	3.7	5.3	2.7
Murray	17,741	7	0.79	19	2.10	18	2.00	23	2.6	1.4	2.1
Fort Thomas	16,325	4	0.49	7	0.90	2	0.20	9	1.1	4.3	3.6
Danville	16,218	6	0.74	20	2.50	11	1.40	23	2.8	4.4	2.2
Newport	15,273	4	0.52	68	8.90	24	3.10	34	4.5	3.5	3.1
Shively	15,264	22	2.88	93	12.20	18	2.40	60	7.9	3.4	3.1
Shelbyville	14,045	8	1.14	15	2.10	9	1.30	20	2.8	2.8	3.3
Glasgow	14,028	10	1.43	14	2.00	2	0.30	23	3.3	1.3	2.2
Berea	13,561	9	1.33	13	1.90	4	0.60	26	3.8	4.6	1.7
Bardstown	11,700	8	1.37	10	1.70	12	2.10	26	4.4	2.5	3.3
Shepherdsville	11,222	8	1.43	26	4.60	7	1.20	41	7.3	1.6	2.4
Somerset	11,196	14	2.50	21	3.80	4	0.70	38	6.8	2.9	1.3
Lyndon	11,002	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Lawrenceburg	10,505	5	0.95	8	1.50	1	0.20	11	2.1	2.9	2.2
Mayfield	10,024	1	0.20	16	3.20	7	1.40	12	2.4	2.3	1.3
Mount Washington	9,117	5	1.10	3	0.70	0	0.00	16	3.5	1.6	2.4
Campbellsville	9,108	2	0.44	17	3.70	2	0.40	23	5.1	1.5	1.5
Maysville	9,011	3	0.67	17	3.80	2	0.40	11	2.4	3.7	3.6
Edgewood	8,575	1	0.23	7	1.60	2	0.50	4	0.9	7.0	1.6
Versailles	8,568	4	0.93	15	3.50	4	0.90	13	3.0	3.0	3.8
Paris	8,553	4	0.94	10	2.30	3	0.70	14	3.3	3.6	2.5
Alexandria	8,477	3	0.71	2	0.50	8	1.90	14	3.3	4.7	2.1
Elsmere	8,451	1	0.24	14	3.30	3	0.70	4	0.9	3.2	2.8
Franklin	8,408	6	1.43	9	2.10	2	0.50	16	3.8	3.9	3.2
Harrodsburg	8,340	6	1.44	10	2.40	0	0.00	9	2.2	3.5	3.6
Fort Mitchell	8,207	1	0.24	10	2.40	1	0.20	11	2.7	5.2	2.2
La Grange	8,082	3	0.74	11	2.70	5	1.20	10	2.5	2.7	1.7
London	7,993	9	2.25	10	2.50	6	1.50	29	7.3	1.9	1.4
Villa Hills	7,489	0	0.00	1	0.30	1	0.30	3	0.8	10.3	3.4
Oak Grove	7,489	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Flatwoods	7,423	2	0.54	5	1.30	1	0.30	3	0.8	2.9	2.9
Corbin	7,304	4	1.10	10	2.70	2	0.50	19	5.2	3.7	2.2
Middletown	7,218	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Russellville	6,960	2	0.57	7	2.00	4	1.10	8	2.3	4.0	3.0
Highland Heights	6,923	6	1.73	11	3.20	3	0.90	8	2.3	6.3	2.5
Pikeville	6,903	8	2.32	14	4.10	3	0.90	25	7.2	3.2	3.1
Mount Sterling	6,895	1	0.29	7	2.00	0	0.00	15	4.4	2.3	2.7
Morehead	6,845	6	1.75	15	4.40	4	1.20	22	6.4	2.4	1.6
Leitchfield	6,699	5	1.49	8	2.40	0	0.00	17	5.1	1.4	2.1
Taylor Mill	6,604	1	0.30	1	0.30	1	0.30	8	2.4	10.9	3.7
Cynthiana	6,402	1	0.31	11	3.40	2	0.60	9	2.8	5.2	2.7
Princeton	6,329	4	1.26	12	3.80	4	1.30	13	4.1	5.8	1.7

TABLE 16. MISCELLANEOUS CRASH DATA FOR CITIES HAVING POPULATION OVER 2,500 (2014-2018) (ALL ROADS)(continued)

CITY	POPULATION	FATAL CRASHES		PEDESTRIAN MOTOR VEHICLE CRASHES		BICYCLE MOTOR VEHICLE CRASHES		MOTORCYCLE CRASHES		PERCENT OF CRASHES INVOLVING SPEEDING	PERCENT OF CRASHES INVOLVING ALCOHOL
		NUMBER	RATE*	NUMBER	RATE*	NUMBER	RATE*	NUMBER	RATE*		
Monticello	6,188	1	0.32	6	1.90	5	1.60	8	2.6	3.4	1.7
Central City	5,978	2	0.67	6	2.00	2	0.70	12	4.0	2.6	3.6
Bellevue	5,955	1	0.34	15	5.00	2	0.70	7	2.4	3.0	4.5
Cold Spring	5,912	4	1.35	8	2.70	0	0.00	13	4.4	6.3	2.1
Fort Wright	5,723	4	1.40	9	3.10	1	0.30	19	6.6	3.0	2.4
Lebanon	5,539	5	1.81	11	4.00	2	0.70	12	4.3	1.3	2.9
Union	5,379	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Dayton	5,338	0	0.00	13	4.90	1	0.40	3	1.1	2.2	8.2
Williamsburg	5,245	6	2.29	9	3.40	2	0.80	9	3.4	2.7	2.1
Crestwood	4,531	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Vine Grove	4,520	1	0.44	3	1.30	2	0.90	3	1.3	6.3	3.2
Hazard	4,456	6	2.69	13	5.80	0	0.00	28	12.6	1.7	2.2
Columbia	4,452	7	3.14	2	0.90	4	1.80	3	1.3	1.4	2.0
Ludlow	4,407	0	0.00	8	3.60	5	2.30	3	1.4	3.0	5.4
Benton	4,349	3	1.38	4	1.80	2	0.90	9	4.1	2.8	1.6
Greenville	4,312	0	0.00	1	0.50	0	0.00	9	4.2	2.0	2.3
Scottsville	4,226	6	2.84	6	2.80	1	0.50	13	6.2	2.4	2.8
Grayson	4,217	3	1.42	7	3.30	0	0.00	5	2.4	2.0	1.7
Carrollton	3,938	0	0.00	2	1.00	2	1.00	3	1.5	3.1	2.2
Williamstown	3,925	2	1.02	2	1.00	0	0.00	8	4.1	8.4	3.1
Crittenden	3,815	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Southgate	3,803	0	0.00	6	3.20	2	1.10	8	4.2	5.6	3.1
Crescent Springs	3,801	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Wilmore	3,686	0	0.00	2	1.10	1	0.50	1	0.5	3.0	2.7
Walton	3,635	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Stanford	3,487	2	1.15	4	2.30	0	0.00	6	3.4	1.8	1.5
Paintsville	3,459	7	4.05	11	6.40	4	2.30	7	4.0	1.5	0.8
Lancaster	3,442	1	0.58	6	3.50	2	1.20	5	2.9	2.5	3.0
West Liberty	3,435	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Beaver Dam	3,409	3	1.76	0	0.00	2	1.20	6	3.5	1.0	2.1
Russell	3,380	0	0.00	2	1.20	0	0.00	6	3.6	2.4	1.7
Morganfield	3,285	3	1.83	0	0.00	2	1.20	2	1.2	2.5	0.8
Prestonsburg	3,255	8	4.92	11	6.80	2	1.20	11	6.8	2.5	2.6
Hodgenville	3,206	0	0.00	3	1.90	0	0.00	3	1.9	3.4	2.5
Providence	3,193	0	0.00	0	0.00	0	0.00	2	1.3	4.0	1.3
Barbourville	3,165	3	1.90	6	3.80	2	1.30	8	5.1	3.4	2.2
Crestview Hills	3,148	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Marion	3,039	1	0.66	2	1.30	0	0.00	5	3.3	4.5	3.7
Wilder	3,035	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Park Hills	2,970	1	0.67	2	1.30	0	0.00	2	1.3	5.0	3.3
Indian Hills	2,868	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Dawson Springs	2,764	1	0.72	3	2.20	2	1.40	3	2.2	8.1	5.6
Stanton	2,733	1	0.73	2	1.50	1	0.70	7	5.1	1.2	1.5
Irvine	2,715	1	0.74	1	0.70	0	0.00	3	2.2	6.6	3.3
Hartford	2,672	2	1.50	1	0.70	0	0.00	8	6.0	1.8	1.8
Lakeside Park	2,668	1	0.75	3	2.20	0	0.00	3	2.2	5.7	1.6
Flemingsburg	2,658	0	0.00	3	2.30	0	0.00	5	3.8	1.9	2.2
Brandenburg	2,643	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Calvert City	2,566	1	0.78	1	0.80	0	0.00	7	5.5	5.6	3.1
Cadiz	2,558	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Eddyville	2,554	0	0.00	0	0.00	0	0.00	0	0.0	0.0	0.0
Springfield	2,519	1	0.79	3	2.40	2	1.60	5	4.0	1.7	1.7
STATEWIDE	2,057,100	930	0.90	3,724	3.6	1,476	1.44	3,661	3.6	4.0	2.5

* Crashes per 10,000 population

TABLE 17. CRASH RATES ON IDENTIFIED STREETS BY CITY AND POPULATION CATEGORY (2014-2018)

POPULATION CATEGORY	NUMBER OF CITIES	AVERAGE RATE (C/100 MVM)*	CITY	NUMBER OF CRASHES (2014-2018)	AVERAGE RATE (C/100 MVM)*
OVER 200,000	2	432	Lexington	15,191	885
			Louisville	33,489	350
20,000-60,000	16	390	Owensboro	4,694	866
			Richmond	858	667
			Radcliff	743	660
			Ashland	1,533	509
			Georgetown	1,265	499
			Frankfort	3,237	420
			Henderson	2,344	408
			Paducah	1,812	387
			Bowling Green	4,341	381
			Covington	5,219	375
			Independence	1,995	368
			Nicholasville	1,081	357
			Jeffersontown	969	355
			Hopkinsville	2,800	325
			Florence	5,563	306
			Elizabethtown	2,350	238
10,000-19,999	16	663	Newport	2,167	1,254
			Erlanger	1,705	1,172
			Winchester	1,736	896
			Shepherdsville	1,165	828
			Shively	581	754
			Shelbyville	931	737
			Fort Thomas	525	675
			Mayfield	262	618
			Glasgow	735	617
			Murray	1,430	578
			Madisonville	1,725	517
			Danville	729	500
			Berea	878	486
			Somerset	1,604	475
			Bardstown	1,101	468
			Lawrenceburg	320	417
5,000-9,999	33	426	Bellevue	406	1,333
			Edgewood	223	1,174
			Fort Mitchell	783	952
			Leitchfield	744	851
			Mount Sterling	911	816
			Campbellsville	1,367	718
			Corbin	499	651
			Mount Washington	666	636
			Lebanon	800	615
			Cynthiana	343	614
			Princeton	732	562
			Fort Wright	930	545
			La Grange	234	509
			Central City	615	506
			Versailles	409	498
			Paris	1,084	494
			Taylor Mill	227	492
			Franklin	371	484
			Morehead	934	440
			Flatwoods	428	435
			Cold Spring	745	416
			Harrodsburg	364	413
			Dayton	38	404
			Alexandria	842	373
			Maysville	816	345
			Russellville	421	314

TABLE 17. CRASH RATES ON IDENTIFIED STREETS BY CITY AND POPULATION CATEGORY (2014-2018)(continued)

POPULATION CATEGORY	NUMBER OF CITIES	AVERAGE RATE (C/100 MVM)*	CITY	NUMBER OF CRASHES (2014-2018)	AVERAGE RATE (C/100 MVM)*
5,000-9,999 (cont.)	33	426	Elsmere	411	300
			Pikeville	1,223	294
			Villa Hills	56	273
			London	1,880	273
			Highland Heights	781	251
			Williamsburg	523	195
			Monticello	290	193
2,500-4,999	36	406	Walton	628	1,146
			Ludlow	249	840
			Park Hills	275	775
			Grayson	452	756
			Southgate	392	753
			Lancaster	235	726
			Flemingsburg	44	649
			Lakeside Park	410	624
			Marion	123	614
			Greenville	409	590
			Dawson Springs	186	534
			Barbourville	239	495
			Scottsville	441	466
			Wilmore	133	461
			Paintsville	402	458
			Carrollton	222	430
			Benton	278	429
			Stanton	385	422
			Beaver Dam	226	417
			Russell	563	408
			Prestonsburg	501	404
			Hartford	109	379
			Brandenburg	197	362
			Columbia	136	326
			Vine Grove	285	314
			Stanford	237	308
			Providence	100	286
			West Liberty	127	283
			Morganfield	147	277
			Springfield	94	275
			Irvine	98	244
			Hodgenville	74	242
			Hazard	545	228
			Calvert City	171	199
			Cadiz	99	149
			Eddyville	157	111
1,000-2,499	55	310	Cave City	374	769
			Uniontown	23	642
			Jackson	255	612
			Carlisle	54	565
			Mount Vernon	240	555
			Edmonton	243	493
			Morgantown	117	477
			Louisa	189	472
			Munfordville	38	448
			Junction City	39	444
			Clay City	91	430
			Russell Springs	307	411
			Harlan	414	396
			Salyersville	179	393
			Worthington	16	379
			Liberty	172	334
			Albany	78	320

TABLE 17. CRASH RATES ON IDENTIFIED STREETS BY CITY AND POPULATION CATEGORY (2014-2018)(continued)

POPULATION CATEGORY	NUMBER OF CITIES	AVERAGE RATE (C/100 MVM)*	CITY	NUMBER OF CRASHES (2014-2018)	AVERAGE RATE (C/100 MVM)*
1,000-2,499 (cont.)	55	310	Greensburg	166	318
			Owenton	81	312
			Owingsville	108	311
			Burkesville	71	309
			Clinton	58	304
			Cloverport	58	304
			Loyall	4	303
			Falmouth	19	302
			Dry Ridge	45	296
			Manchester	209	292
			Raceland	70	286
			Lebanon Junction	39	282
			Hardinsburg	75	281
			Warsaw	3	276
			Eminence	117	266
			Fulton	246	265
			Elkton	45	263
			Cumberland	68	257
			Pineville	29	252
			Livermore	75	243
			Sturgis	51	240
			Olive Hill	42	213
			Whitesburg	245	213
			Beattyville	47	211
			Catlettsburg	206	205
			Tompkinsville	155	201
			Nortonville	105	199
			Sebree	98	197
			Earlington	88	196
			Jenkins	30	193
			Vanceburg	6	181
			Anchorage	37	180
			Jamestown	140	170
			Clay	10	167
			South Shore	41	153
			Horse Cave	11	100
			Lewisport	4	98
			Hickman	13	73

* Crashes per 100 million vehicle-miles

TABLE 18. TOTAL CRASH RATES BY CITY AND POPULATION CATEGORY (IN DESCENDING ORDER) (2014-2018)(ALL ROADS)

CITY	NUMBER OF CRASHES (2014-2018)	ANNUAL CRASH RATE (CRASHES PER 1000 POPULATION)	
POPULATION CATEGORY OVER 200,000			
Lexington	55,040	37.2	
Louisville	109,001	36.5	
POPULATION CATEGORY 20,000-60000			
Florence	9,042	60.4	*
Paducah	6,412	51.2	*
Bowling Green	13,844	47.7	
Owensboro	11,265	39.3	
Elizabethtown	5,417	38.0	
Richmond	5,795	37.0	
Covington	7,293	35.9	
Frankfort	4,263	33.4	
Ashland	3,555	32.8	
Henderson	4,572	31.8	
Jeffersontown	4,209	31.7	
Nicholasville	4,161	29.7	
Hopkinsville	4,308	27.3	
Georgetown	3,972	27.3	
Radcliff	2,414	22.3	
Independence	1,797	14.5	
POPULATION CATEGORY 10,000-19,999			
Somerset	3,944	70.5	*
Shepherdsville	3,254	58.0	*
Shively	4,067	53.3	*
Newport	3,856	50.5	*
Bardstown	2,596	44.4	
Erlanger	3,499	38.7	
Glasgow	2,697	38.5	
Danville	2,614	32.2	
Winchester	2,915	31.7	
Mayfield	1,559	31.1	
Murray	2,727	30.7	
Madisonville	3,006	30.7	
Shelbyville	2,158	30.7	
Berea	1,968	29.0	
Lawrenceburg	934	17.8	
Lyndon	860	15.6	
Fort Thomas	1,250	15.3	
POPULATION CATEGORY 5,000-9,999			
Fort Wright	2,255	78.8	*
London	3,035	75.9	*
Pikeville	2,345	67.9	*
Morehead	2,210	64.6	*
Middletown	2,057	57.0	*
Corbin	1,573	43.1	
Campbellsville	1,922	42.2	
Mount Sterling	1,456	42.2	
Franklin	1,498	35.6	
Cold Spring	1,037	35.1	
Maysville	1,558	34.6	
Leitchfield	1,149	34.3	
Lebanon	936	33.8	
Monticello	1,029	33.3	
Fort Mitchell	1,346	32.8	
Paris	1,378	32.2	
Versailles	1,355	31.6	
Highland Heights	1,061	30.7	
Oak Grove	1,122	30.0	
Williamsburg	779	29.7	
Russellville	1,027	29.5	
Mount Washington	1,333	29.2	
Cynthiana	910	28.4	
Central City	816	27.3	
Princeton	864	27.3	
Taylor Mill	890	27.0	
La Grange	1,088	26.9	
Alexandria	1,118	26.4	
Harrodsburg	1,032	24.7	
Union	628	23.4	
Bellevue	673	22.6	
Edgewood	755	17.6	
Dayton	365	13.7	
Elsmere	537	12.7	
Flatwoods	421	11.3	
Villa Hills	204	5.4	
POPULATION CATEGORY 2,500-4,999			
Crestview Hills	1,555	98.8	*
Prestonsburg	1,308	80.4	*
Hazard	1,704	76.5	*
Wilder	967	63.7	*
Paintsville	889	51.4	*
Crescent Springs	923	48.6	*
Walton	808	44.5	
Brandenburg	586	44.3	
Russell	712	42.1	
Barbourville	590	37.3	
Crestwood	803	35.4	
Calvert City	449	35.0	
Benton	754	34.7	
Cadiz	441	34.5	
Southgate	643	33.8	
Grayson	702	33.3	
Scottsville	679	32.1	
Greenville	686	31.8	
Stanford	547	31.4	
Springfield	359	28.5	
Beaver Dam	485	28.5	
Eddyville	346	27.1	
Williamstown	523	26.6	
Lancaster	439	25.5	
Stanton	342	25.0	
Carrollton	490	24.9	
Columbia	555	24.9	
Hodgenville	357	22.3	
Morganfield	363	22.1	
Hartford	277	20.7	
Lakeside Park	246	18.4	
Crittenden	339	17.8	
Marion	246	16.2	
Vine Grove	347	15.4	
Ludlow	334	15.2	
Dawson Springs	198	14.3	
Wilmore	264	14.3	
Indian Hills	185	12.9	
West Liberty	162	9.4	
Providence	149	9.3	
Irvine	122	9.0	
Park Hills	120	8.1	

* Critical crash rate

TABLE 19. FATAL CRASH RATES BY CITY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)(2014-2018)(ALL ROADS)

CITY	NUMBER OF CRASHES (2014-2018)	ANNUAL CRASH RATE (CRASHES PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Louisville	304	1.02
Lexington	132	0.89
POPULATION CATEGORY 20,000-60000		
Paducah	16	1.28
Florence	17	1.14
Nicholasville	14	1.00
Radcliff	10	0.92
Elizabethtown	12	0.84
Henderson	12	0.83
Richmond	13	0.83
Hopkinsville	13	0.82
Frankfort	10	0.78
Bowling Green	22	0.76
Owensboro	18	0.63
Georgetown	8	0.55
Covington	11	0.54
Jeffersontown	6	0.45
Ashland	4	0.37
Independence	2	0.16
POPULATION CATEGORY 10,000-19,999		
Shively	22	2.88
Somerset	14	2.50
Shepherdsville	8	1.43
Glasgow	10	1.43
Bardstown	8	1.37
Berea	9	1.33
Shelbyville	8	1.14
Madisonville	11	1.12
Lawrenceburg	5	0.95
Erlanger	8	0.88
Murray	7	0.79
Danville	6	0.74
Winchester	5	0.54
Newport	4	0.52
Fort Thomas	4	0.49
Mayfield	1	0.20
POPULATION CATEGORY 5,000-9,999		
Pikeville	8	2.32
Williamsburg	6	2.29
London	9	2.25
Lebanon	5	1.81
Morehead	6	1.75
Highland Heights	6	1.73
Leitchfield	5	1.49
Harrodsburg	6	1.44
Franklin	6	1.43
Fort Wright	4	1.40
Cold Spring	4	1.35
Princeton	4	1.26
Mount Washington	5	1.10
Corbin	4	1.10
Paris	4	0.94
Versailles	4	0.93
La Grange	3	0.74
Alexandria	3	0.71
Central City	2	0.67
Maysville	3	0.67
Russellville	2	0.57
Flatwoods	2	0.54
Campbellsville	2	0.44
Bellevue	1	0.34
Monticello	1	0.32
Cynthiana	1	0.31
Taylor Mill	1	0.30
Mount Sterling	1	0.29
Elsmere	1	0.24
Fort Mitchell	1	0.24
Edgewood	1	0.23
POPULATION CATEGORY 2,500-4,999		
Prestonsburg	8	4.92
Paintsville	7	4.05
Columbia	7	3.14
Scottsville	6	2.84
Hazard	6	2.69
Barbourville	3	1.90
Morganfield	3	1.83
Beaver Dam	3	1.76
Hartford	2	1.50
Grayson	3	1.42
Benton	3	1.38
Stanford	2	1.15
Williamstown	2	1.02
Springfield	1	0.79
Calvert City	1	0.78
Lakeside Park	1	0.75
Irvine	1	0.74
Stanton	1	0.73
Dawson Springs	1	0.72
Marion	1	0.66
Lancaster	1	0.58

* Critical crash rate

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

COUNTY	NUMBER OF ALCOHOL-RELATED CRASHES (2014 - 2018) ALL	NUMBER OF ALCOHOL-RELATED CRASHES (2014 - 2018) AGE 16-20	PERCENT OF TOTAL CRASHES INVOLVING ALCOHOL ALL	PERCENT OF TOTAL CRASHES INVOLVING ALCOHOL AGE 16-20
POPULATION CATEGORY UNDER 10,000				
Elliott	23	3	7.7	5.6
Ballard	44	3	5.1	1.5
Lee	18	2	5.0	3.8
Fulton	27	2	4.8	1.8
Crittenden	45	3	4.7	1.7
Hickman	16	0	4.7	0.0
Bracken	48	3	4.7	1.8
Carlisle	15	0	4.5	0.0
Nicholas	34	1	4.5	0.6
Menifee	15	1	4.3	1.4
Trimble	37	2	4.3	1.1
Cumberland	23	2	4.2	1.9
McLean	46	1	4.1	0.4
Lyon	47	6	3.5	2.7
Livingston	32	2	3.5	1.2
Hancock	21	4	3.2	2.4
Gallatin	42	2	3.0	1.1
Robertson	5	0	2.9	0.0
Owsley	6	0	2.5	0.0
Wolfe	18	1	2.3	0.8
POPULATION CATEGORY 10,000 - 14,999				
Lewis	36	2	5.0	1.7
Butler	66	1	4.9	0.3
Owen	43	3	4.1	1.4
Larue	63	3	4.1	0.9
Fleming	46	6	3.9	1.8
Washington	53	3	3.9	1.0
Edmonson	38	4	3.8	1.6
Magoffin	33	3	3.8	1.7
Metcalfe	47	1	3.7	0.4
Trigg	65	6	3.7	1.6
Pendleton	58	9	3.6	2.5
Morgan	27	2	3.4	1.3
Todd	36	4	3.4	1.5
Carroll	67	4	3.3	1.0
Estill	24	3	3.2	1.9
Martin	16	1	3.0	1.3
Bath	25	2	2.9	1.1
Powell	41	7	2.9	2.3
Clinton	27	5	2.8	2.5
Breathitt	35	4	2.8	2.2
Green	24	4	2.8	2.3
Monroe	16	0	2.7	0.0
Jackson	25	1	2.7	0.5
Caldwell	43	2	2.3	0.4
Leslie	5	0	2.1	0.0
Webster	26	4	2.0	1.6
POPULATION CATEGORY 15,000 - 24,999				
Spencer	77	5	5.4	1.3
Mason	153	9	5.1	1.3
Breckinridge	54	6	4.7	2.1
Marion	107	9	4.5	1.4
Henry	87	6	4.3	1.6
Mercer	99	9	4.3	1.5
Lawrence	46	2	4.2	1.0
Garrard	77	7	4.0	1.6
Allen	90	6	4.0	1.1
Anderson	102	9	4.0	1.3
Bourbon	122	8	4.0	1.4
Casey	35	3	3.9	1.5

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

COUNTY	NUMBER OF ALCOHOL-RELATED CRASHES (2014 - 2018) ALL	NUMBER OF ALCOHOL-RELATED CRASHES (2014 - 2018) 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)				
Letcher	61	5	3.9	1.9
Woodford	170	14	3.8	1.5
Simpson	110	7	3.7	1.2
Union	50	5	3.3	1.3
Ohio	104	10	3.2	1.4
Knott	37	4	3.2	2.4
McCreary	34	5	3.1	2.3
Clay	56	4	3.1	1.7
Harrison	75	13	3.0	2.2
Russell	51	4	2.9	0.9
Adair	38	5	2.9	1.5
Lincoln	62	4	2.9	0.9
Grant	108	9	2.8	1.0
Johnson	61	4	2.8	0.9
Rowan	109	6	2.7	0.5
Taylor	96	12	2.7	1.2
Wayne	41	4	2.4	1.0
Hart	66	3	2.3	0.6
Rockcastle	52	3	1.9	0.6
POPULATION CATEGORY 25,000 - 49,999				
Meade	133	6	5.9	0.9
Floyd	172	7	4.4	1.1
Nelson	239	18	4.2	1.4
Marshall	149	11	3.7	1.1
Shelby	245	15	3.6	1.0
Calloway	185	15	3.6	0.8
Grayson	113	6	3.6	0.8
Montgomery	140	12	3.4	1.3
Scott	279	16	3.4	0.9
Franklin	253	10	3.3	0.8
Graves	152	10	3.3	0.9
Jessamine	252	24	3.2	1.4
Clark	188	8	3.2	0.7
Harlan	70	9	3.1	2.2
Greenup	96	9	3.1	1.3
Logan	90	4	3.0	0.6
Boyle	119	6	2.8	0.6
Carter	81	6	2.8	1.0
Perry	103	6	2.8	1.0
Barren	187	12	2.7	0.7
Knox	83	8	2.6	1.2
Muhlenberg	112	11	2.6	1.1
Whitley	136	14	2.6	1.3
Henderson	193	9	2.4	0.5
Hopkins	167	14	2.4	0.9
Boyd	173	13	2.3	1.0
Bell	60	4	1.9	0.7
POPULATION CATEGORY 50,000 - OVER				
Pike	279	27	4.1	2.1
Christian	367	24	3.9	1.4
Kenton	988	53	3.4	1.0
Campbell	526	26	3.4	0.7
Oldham	200	13	3.3	0.8
Madison	428	48	3.2	1.3
Fayette	2096	145	3.1	1.0
Hardin	452	27	3.0	0.9
Boone	747	62	3.0	1.0
Warren	692	53	2.9	0.8
Bullitt	292	18	2.8	0.8
McCracken	331	22	2.8	0.9
Daviess	483	34	2.7	0.7
Jefferson	3769	130	2.4	0.5
Laurel	199	9	2.2	0.5
Pulaski	189	10	2.2	0.5

TABLE 21. CRASHES INVOLVING ALCOHOL BY CITY AND POPULATION CATEGORY(IN ORDER OF DECREASING PERCENTAGES)(2014-2018)

CITY	NUMBER OF ALCOHOL-RELATED CRASHES	PERCENTAGE OF CRASHES INVOLVING ALCOHOL
POPULATION CATEGORY OVER 200,000		
Lexington	1,725	3.1
Louisville	2,670	2.4
POPULATION CATEGORY 20,000-60,000		
Covington	315	4.3
Independence	68	3.8
Radcliff	82	3.4
Hopkinsville	141	3.3
Richmond	163	2.8
Georgetown	110	2.8
Frankfort	119	2.8
Nicholasville	113	2.7
Florence	228	2.5
Elizabethtown	136	2.5
Owensboro	270	2.4
Jeffersontown	96	2.3
Bowling Green	317	2.3
Henderson	100	2.2
Paducah	134	2.1
Ashland	73	2.1
POPULATION CATEGORY 10,000-19,999		
Fort Thomas	45	3.6
Bardstown	85	3.3
Shelbyville	72	3.3
Shively	128	3.1
Newport	121	3.1
Winchester	82	2.8
Erlanger	94	2.7
Shepherdsville	78	2.4
Lawrenceburg	21	2.2
Glasgow	59	2.2
Danville	58	2.2
Murray	58	2.1
Berea	33	1.7
Madisonville	51	1.7
Somerset	52	1.3
Mayfield	20	1.3
POPULATION CATEGORY 5,000-9,999		
Dayton	30	8.2
Bellevue	30	4.5
Versailles	52	3.8
Taylor Mill	33	3.7
Maysville	56	3.6
Harrodsburg	37	3.6
Central City	29	3.6
Villa Hills	7	3.4
Franklin	48	3.2
Pikeville	73	3.1
Russellville	31	3.0
Lebanon	27	2.9
Flatwoods	12	2.9
Elsmere	15	2.8
Cynthiana	25	2.7
Mount Sterling	40	2.7
Paris	34	2.5
Highland Heights	26	2.5
Mount Washington	32	2.4
Fort Wright	55	2.4
Corbin	34	2.2
Fort Mitchell	29	2.2
Leitchfield	24	2.1
Williamsburg	16	2.1
Cold Spring	22	2.1
Alexandria	23	2.1
La Grange	19	1.7
Princeton	15	1.7
Monticello	17	1.7
Morehead	36	1.6
Edgewood	12	1.6
Campbellsville	28	1.5
London	44	1.4
POPULATION CATEGORY 2,500-4,999		
Dawson Springs	11	5.6
Ludlow	18	5.4
Marion	9	3.7
Irvine	4	3.3
Park Hills	4	3.3
Vine Grove	11	3.2
Calvert City	14	3.1
Williamstown	16	3.1
Southgate	20	3.1
Lancaster	13	3.0
Scottsville	19	2.8
Wilmore	7	2.7
Prestonsburg	34	2.6
Hodgenville	9	2.5
Greenville	16	2.3
Barbourville	13	2.2
Carrollton	11	2.2
Flemingsburg	9	2.2
Beaver Dam	10	2.1
Flemingsburg	9	2.2
Columbia	11	2.0
Hartford	5	1.8
Russell	12	1.7
Springfield	6	1.7
Grayson	12	1.7
Lakeside Park	4	1.6
Benton	12	1.6
Stanford	8	1.5
Stanton	5	1.5
Providence	2	1.3
Paintsville	7	0.8

TABLE 22. SUMMARY OF ALCOHOL CONVICTIONS BY COUNTY (2014 - 2018)

COUNTY	2014	2015	2016	2017	2018	TOTAL ALCOHOL CONVICTIONS (FIVE YEARS)**	ANNUAL AVERAGE ALCOHOL CONVICTIONS PER 1,000 LICENSED DRIVERS	ALCOHOL CONVICTIONS PER ALCOHOL-RELATED CRASH
Adair	48	47	72	67	54	288	4.6	7.6
Allen	56	54	61	44	53	268	3.9	3.0
Anderson	77	56	78	110	75	396	4.6	3.9
Ballard	39	25	29	14	24	131	4.5	3.0
Barren	167	150	118	144	134	713	4.7	3.8
Bath	33	23	19	16	20	111	2.6	4.4
Bell	141	90	87	79	135	532	6.6	8.9
Boone	457	462	443	348	324	2,034	4.3	2.7
Bourbon	91	76	100	78	98	443	6.4	3.6
Boyd	226	189	191	285	224	1,115	6.9	6.4
Boyle	144	129	86	106	75	540	5.4	4.5
Bracken	11	13	22	11	8	65	2.1	1.4
Breathitt	66	60	68	53	69	316	7.2	9.0
Breckinridge	34	39	31	33	28	165	2.3	3.1
Bullitt	164	138	112	99	80	593	2.0	2.0
Butler	53	49	37	30	18	187	4.2	2.8
Caldwell	40	36	44	41	40	201	4.4	4.7
Calloway	242	164	134	219	155	914	7.5	4.9
Campbell	397	370	375	331	304	1,777	5.6	3.4
Carlisle	11	13	10	8	1	43	2.3	2.9
Carroll	59	57	69	47	27	259	7.4	3.9
Carter	78	75	73	82	88	396	4.2	4.9
Casey	74	54	46	48	27	249	4.7	7.1
Christian	245	214	200	165	170	994	5.0	2.7
Clark	198	167	129	97	85	676	5.3	3.6
Clay	81	78	101	101	91	452	7.4	8.1
Clinton	48	43	29	18	24	162	4.8	6.0
Crittenden	22	25	29	27	25	128	4.3	2.8
Cumberland	20	34	37	47	37	175	7.4	7.6
Daviess	448	331	272	216	214	1,481	4.2	3.1
Edmonson	26	31	24	19	28	128	2.9	3.4
Elliott	9	6	10	7	16	48	2.2	2.1
Estill	87	65	37	58	46	293	5.9	12.2
Fayette	1,255	929	813	801	699	4,497	4.5	2.1
Fleming	47	59	60	59	46	271	5.3	5.9
Floyd	186	217	208	140	198	949	7.7	5.5
Franklin	233	190	238	196	193	1,050	6.0	4.2
Fulton	47	71	61	96	79	354	17.9	13.1
Gallatin	39	43	49	22	29	182	6.1	4.3
Garrard	36	80	62	72	46	296	4.9	3.8
Grant	84	65	92	51	44	336	3.9	3.1
Graves	144	199	182	149	79	753	5.9	5.0
Grayson	101	141	96	107	80	525	5.7	4.6
Green	18	19	9	17	11	74	1.9	3.1
Greenup	143	138	105	119	124	629	4.8	6.6
Hancock	17	16	13	9	7	62	1.9	3.0
Hardin	468	477	419	376	280	2,020	5.4	4.5
Harlan	140	124	122	119	50	555	6.2	7.9
Harrison	60	56	47	38	31	232	3.6	3.1
Hart	74	62	52	36	33	257	4.2	3.9
Henderson	233	237	205	165	145	985	6.2	5.1
Henry	122	78	63	84	40	387	6.6	4.4
Hickman	14	18	13	17	10	72	4.6	4.5
Hopkins	230	275	210	217	213	1,145	7.1	6.9
Jackson	17	25	24	54	47	167	3.7	6.7
Jefferson	1,363	862	668	744	710	4,347	1.7	1.2
Jessamine	149	157	231	172	165	874	4.9	3.5
Johnson	133	102	95	75	81	486	6.3	8.0
Kenton	522	442	529	523	599	2,615	4.7	2.6
Knott	82	101	98	62	81	424	8.7	11.5
Knox	268	187	191	170	191	1,007	9.8	12.1
Larue	33	39	33	51	40	196	3.8	3.1
Laurel	582	530	554	483	418	2,567	12.4	12.9

TABLE 22. SUMMARY OF ALCOHOL CONVICTIONS BY COUNTY (2014 - 2018) (continued)

COUNTY	2014	2015	2016	2017	2018	TOTAL ALCOHOL CONVICTIONS (FIVE YEARS)**	ANNUAL AVERAGE ALCOHOL CONVICTIONS PER 1,000 LICENSED DRIVERS	ALCOHOL CONVICTIONS PER ALCOHOL-RELATED CRASH
Lawrence	53	58	59	41	34	245	4.6	5.3
Lee	20	22	14	38	34	128	5.9	7.1
Leslie	13	19	21	12	18	83	2.3	16.6
Letcher	81	44	77	57	63	322	4.3	5.3
Lewis	40	37	40	35	44	196	4.2	5.4
Lincoln	57	81	73	76	79	366	4.3	5.9
Livingston	24	31	36	21	12	124	3.5	3.9
Logan	129	117	106	94	98	544	5.7	6.0
Lyon	83	60	67	63	59	332	11.6	7.1
McCracken	380	403	221	297	286	1,587	6.6	4.8
McCreary	98	96	87	136	97	514	10.1	15.1
McLean	90	105	58	36	41	330	9.7	7.2
Madison	75	105	121	287	229	817	2.7	1.9
Magoffin	67	44	37	82	95	325	7.6	9.8
Marion	108	86	119	50	41	404	6.2	3.8
Marshall	308	316	339	146	124	1,233	10.3	8.3
Martin	152	102	86	54	58	452	13.3	28.3
Mason	25	26	34	67	44	196	3.3	1.3
Meade	88	78	52	50	39	307	3.1	2.3
Menifee	11	8	9	11	4	43	1.9	2.9
Mercer	47	51	70	78	63	309	3.7	3.1
Metcalfe	30	22	33	30	32	147	4.0	3.1
Monroe	35	43	39	51	64	232	6.2	14.5
Montgomery	108	66	73	74	75	396	4.1	2.8
Morgan	20	25	63	19	22	149	3.7	5.5
Muhlenberg	192	152	128	104	103	679	6.2	6.1
Nelson	154	184	174	114	84	710	4.2	3.0
Nicholas	32	43	49	35	26	185	7.3	5.4
Ohio	62	75	129	87	77	430	5.1	4.1
Oldham	234	175	123	126	109	767	3.3	3.8
Owen	17	25	28	23	21	114	2.9	2.7
Owsley	18	10	43	13	20	104	6.9	17.3
Pendleton	25	24	22	25	19	115	2.2	2.0
Perry	85	93	82	78	57	395	4.3	3.8
Pike	162	102	109	103	86	562	2.8	2.0
Powell	69	45	52	57	41	264	6.0	6.4
Pulaski	221	258	211	195	276	1,161	5.1	6.1
Robertson	5	3	2	2	5	17	2.1	3.4
Rockcastle	70	66	62	61	64	323	5.6	6.2
Rowan	124	120	158	111	93	606	8.0	5.6
Russell	47	63	65	65	47	287	4.6	5.6
Scott	194	185	158	165	196	898	4.7	3.2
Shelby	205	211	204	160	192	972	6.1	4.0
Simpson	51	42	55	65	76	289	4.3	2.6
Spencer	54	40	52	62	80	288	4.0	3.7
Taylor	88	81	67	65	55	356	4.0	3.7
Todd	66	58	38	19	51	232	6.0	6.4
Trigg	94	92	87	55	46	374	7.4	5.8
Trimble	23	21	13	17	16	90	2.8	2.4
Union	82	65	38	29	43	257	5.1	5.1
Warren	493	464	443	398	347	2,145	5.3	3.1
Washington	25	26	15	19	24	109	2.6	2.1
Wayne	33	44	46	25	40	188	2.8	4.6
Webster	16	25	47	12	8	108	2.4	4.2
Whitley	191	123	151	168	164	797	6.8	5.9
Wolfe	26	29	35	42	51	183	7.7	10.2
Woodford	176	152	107	120	124	679	7.0	4.0
TOTAL *	16,208	14,443	13,642	12,797	11,962	69,052	4.6	3.4

*Convictions in cases filed in the same calander year.
**There were 25,022 arrests on average from 2014 to 2018.

TABLE 23. ALCOHOL CONVICTION RATES IN DECREASING ORDER (BY COUNTY POPULATION CATEGORIES)
(2014 - 2018)

POPULATION	COUNTY	ANNUAL AVERAGE ALCOHOL CONVICTIONS PER 1,000 LICENSED DRIVERS	COUNTY	ALCOHOL CONVICTIONS PER ALCOHOL-RELATED CRASH
UNDER 10,000	Fulton	17.9	Owsley	17.3
	Lyon	11.6	Fulton	13.1
	McLean	9.7	Wolfe	10.2
	Wolfe	7.7	Cumberland	7.6
	Cumberland	7.4	McLean	7.2
	Nicholas	7.3	Lee	7.1
	Owsley	6.9	Lyon	7.1
	Gallatin	6.1	Nicholas	5.4
	Lee	5.9	Hickman	4.5
	Hickman	4.6	Gallatin	4.3
	Ballard	4.5	Livingston	3.9
	Crittenden	4.3	Robertson	3.4
	Livingston	3.5	Ballard	3.0
	Trimble	2.8	Hancock	3.0
	Carlisle	2.3	Carlisle	2.9
	Elliott	2.2	Menifee	2.9
	Robertson	2.1	Crittenden	2.8
	Bracken	2.1	Trimble	2.4
	Hancock	1.9	Elliott	2.1
	Menifee	1.9	Bracken	1.4
10,000-14,999	Martin	13.3	Martin	28.3
	Magoffin	7.6	Leslie	16.6
	Carroll	7.4	Monroe	14.5
	Trigg	7.4	Estill	12.2
	Breathitt	7.2	Magoffin	9.8
	Monroe	6.2	Breathitt	9.0
	Todd	6.0	Jackson	6.7
	Powell	6.0	Todd	6.4
	Estill	5.9	Powell	6.4
	Fleming	5.3	Clinton	6.0
	Clinton	4.8	Fleming	5.9
	Caldwell	4.4	Trigg	5.8
	Butler	4.2	Morgan	5.5
	Lewis	4.2	Lewis	5.4
	Metcalfe	4.0	Caldwell	4.7
	Larue	3.8	Bath	4.4
	Jackson	3.7	Webster	4.2
	Morgan	3.7	Carroll	3.9
	Owen	2.9	Edmonson	3.4
	Edmonson	2.9	Metcalfe	3.1
	Bath	2.6	Larue	3.1
	Washington	2.6	Green	3.1
	Webster	2.4	Butler	2.8
	Leslie	2.3	Owen	2.7
	Pendleton	2.2	Washington	2.1
	Green	1.9	Pendleton	2.0
15,000-24,999	McCreary	10.1	McCreary	15.1
	Knott	8.7	Knott	11.5
	Rowan	8.0	Clay	8.1
	Clay	7.4	Johnson	8.0
	Woodford	7.0	Adair	7.6
	Henry	6.6	Casey	7.1
	Bourbon	6.4	Rockcastle	6.2
	Johnson	6.3	Lincoln	5.9
	Marion	6.2	Russell	5.6
	Rockcastle	5.6	Rowan	5.6
	Ohio	5.1	Lawrence	5.3
	Union	5.1	Letcher	5.3
	Garrard	4.9	Union	5.1
	Casey	4.7	Wayne	4.6
	Anderson	4.6	Henry	4.4
	Adair	4.6	Ohio	4.1
	Lawrence	4.6	Woodford	4.0
	Russell	4.6	Hart	3.9

TABLE 23. ALCOHOL CONVICTION RATES IN DECREASING ORDER (BY COUNTY POPULATION CATEGORIES) (2014 - 2018) (continued)

POPULATION	COUNTY	ANNUAL AVERAGE ALCOHOL CONVICTIONS PER 1,000 LICENSED DRIVERS	COUNTY	ALCOHOL CONVICTIONS PER ALCOHOL-RELATED CRASH
15,000-24,999	Letcher	4.3	Anderson	3.9
(cont'd)	Simpson	4.3	Garrard	3.8
	Lincoln	4.3	Marion	3.8
	Hart	4.2	Spencer	3.7
	Taylor	4.0	Taylor	3.7
	Spencer	4.0	Bourbon	3.6
	Allen	3.9	Mercer	3.1
	Grant	3.9	Grant	3.1
	Mercer	3.7	Harrison	3.1
	Harrison	3.6	Breckinridge	3.1
	Mason	3.3	Allen	3.0
	Wayne	2.8	Simpson	2.6
	Breckinridge	2.3	Mason	1.3
25,000 - 49,999	Marshall	10.3	Knox	12.1
	Knox	9.8	Bell	8.9
	Floyd	7.7	Marshall	8.3
	Calloway	7.5	Harlan	7.9
	Hopkins	7.1	Hopkins	6.9
	Boyd	6.9	Greenup	6.6
	Whitley	6.8	Boyd	6.4
	Bell	6.6	Muhlenberg	6.1
	Harlan	6.2	Logan	6.0
	Muhlenberg	6.2	Whitley	5.9
	Henderson	6.2	Floyd	5.5
	Shelby	6.1	Henderson	5.1
	Franklin	6.0	Graves	5.0
	Graves	5.9	Calloway	4.9
	Logan	5.7	Carter	4.9
	Grayson	5.7	Grayson	4.6
	Boyle	5.4	Boyle	4.5
	Clark	5.3	Franklin	4.2
	Jessamine	4.9	Shelby	4.0
	Greenup	4.8	Perry	3.8
	Barren	4.7	Barren	3.8
	Scott	4.7	Clark	3.6
	Perry	4.3	Jessamine	3.5
	Carter	4.2	Scott	3.2
	Nelson	4.2	Nelson	3.0
	Montgomery	4.1	Montgomery	2.8
	Meade	3.1	Meade	2.3
50,000 - OVER	Laurel	12.4	Laurel	12.9
	McCracken	6.6	Pulaski	6.1
	Campbell	5.6	McCracken	4.8
	Hardin	5.4	Hardin	4.5
	Warren	5.3	Oldham	3.8
	Pulaski	5.1	Campbell	3.4
	Christian	5.0	Warren	3.1
	Kenton	4.7	Daviess	3.1
	Fayette	4.5	Boone	2.7
	Boone	4.3	Christian	2.7
	Daviess	4.2	Kenton	2.6
	Oldham	3.3	Fayette	2.1
	Pike	2.8	Bullitt	2.0
	Madison	2.7	Pike	2.0
	Bullitt	2.0	Madison	1.9
	Jefferson	1.7	Jefferson	1.2

TABLE 24. PERCENTAGE OF DRIVERS CONVICTED OF DUI FILINGS (BY COUNTY) (2014 - 2018)*

COUNTY	TOTAL DUI FILED	TOTAL DUI CONVICTED	TOTAL DUI NON-CONVICTED	CONVICTION PERCENTAGE**
Adair	569	288	89	76.4
Allen	528	268	39	87.3
Anderson	736	396	76	83.9
Ballard	241	131	47	73.6
Barren	1,578	713	250	74.0
Bath	231	111	24	82.2
Bell	1,824	532	284	65.2
Boone	3,035	2,034	298	87.2
Bourbon	722	443	60	88.1
Boyd	1,718	1,115	254	81.4
Boyle	877	540	76	87.7
Bracken	99	65	14	82.3
Breathitt	585	316	50	86.3
Breckinridge	247	165	30	84.6
Bullitt	1,465	593	214	73.5
Butler	347	187	66	73.9
Caldwell	308	201	38	84.1
Calloway	1,334	914	181	83.5
Campbell	2,466	1,777	315	84.9
Carlisle	86	43	20	68.3
Carroll	605	259	129	66.8
Carter	899	396	139	74.0
Casey	420	249	79	75.9
Christian	1,700	994	253	79.7
Clark	1,075	676	89	88.4
Clay	999	452	250	64.4
Clinton	359	162	14	92.0
Crittenden	175	128	19	87.1
Cumberland	324	175	35	83.3
Daviess	3,073	1,481	425	77.7
Edmonson	235	128	47	73.1
Elliott	116	48	18	72.7
Estill	459	293	56	84.0
Fayette	6,388	4,497	475	90.4
Fleming	568	271	75	78.3
Floyd	1,772	949	227	80.7
Franklin	1,943	1,050	237	81.6
Fulton	668	354	144	71.1
Gallatin	386	182	93	66.2
Garrard	432	296	51	85.3
Grant	673	336	142	70.3
Graves	1,601	753	260	74.3
Grayson	864	525	96	84.5
Green	160	74	20	78.7
Greenup	937	629	93	87.1
Hancock	103	62	10	86.1
Hardin	3,432	2,020	603	77.0
Harlan	1,650	555	110	83.5
Harrison	421	232	46	83.5
Hart	550	257	105	71.0
Henderson	1,852	985	192	83.7
Henry	645	387	88	81.5
Hickman	150	72	39	64.9
Hopkins	1,792	1,145	243	82.5
Jackson	270	167	46	78.4
Jefferson	10,983	4,347	867	83.4
Jessamine	1,357	874	102	89.5
Johnson	877	486	127	79.3
Kenton	3,929	2,615	451	85.3
Knott	711	424	91	82.3
Knox	1,848	1,007	269	78.9
Larue	394	196	72	73.1

TABLE 24. PERCENTAGE OF DRIVERS CONVICTED OF DUI FILINGS (BY COUNTY) (2014 - 2018) (continued)

COUNTY	TOTAL DUI FILED	TOTAL DUI CONVICTED	TOTAL DUI NON-CONVICTED	CONVICTION PERCENTAGE
Laurel	3,485	2,567	311	89.2
Lawrence	427	245	51	82.8
Lee	231	128	12	91.4
Leslie	218	83	60	58.0
Letcher	603	322	91	78.0
Lewis	284	196	31	86.3
Lincoln	603	366	81	81.9
Livingston	205	124	29	81.0
Logan	875	544	163	76.9
Lyon	543	332	70	82.6
McCracken	2,612	1,587	418	79.2
McCreary	943	514	163	75.9
McLean	606	330	84	79.7
Madison	1,404	817	200	80.3
Magoffin	574	325	45	87.8
Marion	700	404	94	81.1
Marshall	1,836	1,233	287	81.1
Martin	731	452	93	82.9
Mason	329	196	39	83.4
Meade	449	307	53	85.3
Menifee	68	43	7	86.0
Mercer	489	309	54	85.1
Metcalfe	233	147	33	81.7
Monroe	457	232	46	83.5
Montgomery	684	396	74	84.3
Morgan	310	149	47	76.0
Muhlenberg	1,244	679	85	88.9
Nelson	1,171	710	145	83.0
Nicholas	351	185	33	84.9
Ohio	878	430	160	72.9
Oldham	1,220	767	68	91.9
Owen	242	114	48	70.4
Owsley	190	104	23	81.9
Pendleton	190	115	22	83.9
Perry	1,196	395	135	74.5
Pike	2,220	562	289	66.0
Powell	494	264	65	80.2
Pulaski	2,230	1,161	299	79.5
Robertson	30	17	2	89.5
Rockcastle	835	323	151	68.1
Rowan	922	606	72	89.4
Russell	561	287	66	81.3
Scott	1,480	898	167	84.3
Shelby	1,706	972	149	86.7
Simpson	492	289	29	90.9
Spencer	589	288	74	79.6
Taylor	658	356	99	78.2
Todd	360	232	55	80.8
Trigg	624	374	95	79.7
Trimble	191	90	23	79.6
Union	405	257	61	80.8
Warren	4,431	2,145	616	77.7
Washington	209	109	29	79.0
Wayne	441	188	42	81.7
Webster	233	108	36	75.0
Whitley	1,328	797	172	82.2
Wolfe	298	183	23	88.8
Woodford	999	679	64	91.4
TOTAL	125,108	69,052	15,385	81.8

* Obtained from Administrative Office of the Courts.

** Conviction percentage is equal to the number of DUI convictions divided by the sum of DUI convictions and non-convictions. The data apply to DUIs resolved in the calendar year of the arrest. Data does not include pending cases.

TABLE 25. DUI CONVICTION RATES BY COUNTY AND POPULATION CATEGORY
(IN DESCENDING ORDER) (2014 - 2018)

POPULATION CATEGORY	AVERAGE CONVICTION PERCENTAGE	COUNTY	TOTAL DUI ARRESTS	TOTAL DUI CONVICTIONS	CONVICTION PERCENTAGE*
UNDER 10,000	80.0	Lee	231	128	91.4
		Robertson	30	17	89.5
		Wolfe	298	183	88.8
		Crittenden	175	128	87.1
		Hancock	103	62	86.1
		Menifee	68	43	86.0
		Nicholas	351	185	84.9
		Cumberland	324	175	83.3
		Lyon	543	332	82.6
		Bracken	99	65	82.3
		Owsley	190	104	81.9
		Livingston	205	124	81.0
		McLean	606	330	79.7
		Trimble	191	90	79.6
		Ballard	241	131	73.6
		Elliott	116	48	72.7
		Fulton	668	354	71.1
		Carlisle	86	43	68.3
		Gallatin	386	182	66.2
		Hickman	150	72	64.9
10,000-14,999	79.1	Clinton	359	162	92.0
		Magoffin	574	325	87.8
		Lewis	284	196	86.3
		Breathitt	585	316	86.3
		Caldwell	308	201	84.1
		Estill	459	293	84.0
		Pendleton	190	115	83.9
		Monroe	457	232	83.5
		Martin	731	452	82.9
		Bath	231	111	82.2
		Metcalfe	233	147	81.7
		Todd	360	232	80.8
		Powell	494	264	80.2
		Trigg	624	374	79.7
		Washington	209	109	79.0
		Green	160	74	78.7
		Jackson	270	167	78.4
		Fleming	568	271	78.3
		Morgan	310	149	76.0
		Webster	233	108	75.0
		Butler	347	187	73.9
		Edmonson	235	128	73.1
		Larue	394	196	73.1
		Owen	242	114	70.4
		Carroll	605	259	66.8
		Leslie	218	83	58.0
15,000-24,999	80.5	Woodford	999	679	91.4
		Simpson	492	289	90.9
		Rowan	922	606	89.4
		Bourbon	722	443	88.1
		Allen	528	268	87.3
		Garrard	432	296	85.3
		Mercer	489	309	85.1
		Breckinridge	247	165	84.6
		Anderson	736	396	83.9
		Harrison	421	232	83.5
		Mason	329	196	83.4
		Lawrence	427	245	82.8
		Knott	711	424	82.3
		Lincoln	603	366	81.9
		Wayne	441	188	81.7

TABLE 25. DUI CONVICTION RATES BY COUNTY AND POPULATION CATEGORY
(IN DESCENDING ORDER) (2014 - 2018) (continued)

POPULATION CATEGORY	AVERAGE CONVICTION PERCENTAGE	COUNTY	TOTAL DUI ARRESTS	TOTAL DUI CONVICTIONS	CONVICTION PERCENTAGE*
15,000-24,999 (continued)		Henry	645	387	81.5
		Russell	561	287	81.3
		Marion	700	404	81.1
		Union	405	257	80.8
		Spencer	589	288	79.6
		Johnson	877	486	79.3
		Taylor	658	356	78.2
		Letcher	603	322	78.0
		Adair	569	288	76.4
		McCreary	943	514	75.9
		Casey	420	249	75.9
		Ohio	878	430	72.9
		Hart	550	257	71.0
		Grant	673	336	70.3
		Rockcastle	835	323	68.1
		Clay	999	452	64.4
25,000-49,999	81.8	Jessamine	1,357	874	89.5
		Muhlenberg	1,244	679	88.9
		Clark	1,075	676	88.4
		Boyle	877	540	87.7
		Greenup	937	629	87.1
		Shelby	1,706	972	86.7
		Meade	449	307	85.3
		Grayson	864	525	84.5
		Scott	1,480	898	84.3
		Montgomery	684	396	84.3
		Henderson	1,852	985	83.7
		Calloway	1,334	914	83.5
		Harlan	1,650	555	83.5
		Nelson	1,171	710	83.0
		Hopkins	1,792	1,145	82.5
		Whitley	1,328	797	82.2
		Franklin	1,943	1,050	81.6
		Boyd	1,718	1,115	81.4
		Marshall	1,836	1,233	81.1
		Floyd	1,772	949	80.7
		Knox	1,848	1,007	78.9
		Logan	875	544	76.9
		Perry	1,196	395	74.5
		Graves	1,601	753	74.3
		Barren	1,578	713	74.0
		Carter	899	396	74.0
		Bell	1,824	532	65.2
50,000 - OVER	81.4	Oldham	1,220	767	91.9
		Fayette	6,388	4,497	90.4
		Laurel	3,485	2,567	89.2
		Boone	3,035	2,034	87.2
		Kenton	3,929	2,615	85.3
		Campbell	2,466	1,777	84.9
		Jefferson	10,983	4,347	83.4
		Madison	1,404	817	80.3
		Christian	1,700	994	79.7
		Pulaski	2,230	1,161	79.5
		McCracken	2,612	1,587	79.2
		Daviess	3,073	1,481	77.7
		Warren	4,431	2,145	77.7
		Hardin	3,432	2,020	77.0
		Bullitt	1,465	593	73.5
		Pike	2,220	562	66.0

*Refer to Table 24 for conviction rate calculation.

TABLE 26. SUMMARY OF RECKLESS DRIVING CONVICTIONS BY COUNTY (2014 - 2018)

COUNTY	2014	2015	2016	2017	2018	TOTAL RECKLESS DRIVING CONVICTIONS (FIVE YEARS)	ANNUAL AVERAGE RECKLESS DRIVING CONVICTIONS PER 1,000 LICENSED DRIVERS
Adair	7	13	13	13	14	60	1.0
Allen	8	7	1	11	14	41	0.6
Anderson	28	21	28	31	24	132	1.5
Ballard	5	11	13	5	8	42	1.4
Barren	42	39	50	39	17	187	1.2
Bath	7	3	1	3	9	23	0.5
Bell	13	14	4	9	9	49	0.6
Boone	39	41	36	39	49	204	0.4
Bourbon	19	16	13	6	9	63	0.9
Boyd	25	25	15	28	23	116	0.7
Boyle	37	33	38	16	12	136	1.4
Bracken	1	2	6	7	5	21	0.7
Breathitt	16	5	8	4	5	38	0.9
Breckinridge	5	1	2	9	5	22	0.3
Bullitt	65	61	35	30	36	227	0.8
Butler	3	2	4	3	3	15	0.3
Caldwell	8	10	19	28	14	79	1.7
Calloway	15	23	18	16	8	80	0.7
Campbell	33	25	23	28	16	125	0.4
Carlisle	1	2	1	2	0	6	0.3
Carroll	12	4	5	6	8	35	1.0
Carter	10	26	15	19	8	78	0.8
Casey	6	1	10	3	10	30	0.6
Christian	50	48	37	45	42	222	1.1
Clark	13	15	9	9	9	55	0.4
Clay	9	13	12	9	10	53	0.9
Clinton	7	3	5	7	3	25	0.7
Crittenden	2	4	3	7	6	22	0.7
Cumberland	8	11	11	15	8	53	2.2
Daviess	40	54	47	63	66	270	0.8
Edmonson	7	3	3	6	7	26	0.6
Elliott	3	1	6	2	1	13	0.6
Estill	1	2	1	1	1	6	0.1
Fayette	111	84	89	95	88	467	0.5
Fleming	0	10	9	19	10	48	0.9
Floyd	14	27	24	29	28	122	1.0
Franklin	19	50	54	47	47	217	1.2
Fulton	56	8	7	6	7	84	4.2
Gallatin	5	6	14	20	8	53	1.8
Garrard	6	14	12	7	12	51	0.8
Grant	16	16	9	7	13	61	0.7
Graves	21	61	51	32	26	191	1.5
Grayson	28	33	33	46	19	159	1.7
Green	31	4	3	4	5	47	1.2
Greenup	1	10	18	9	12	50	0.4
Hancock	10	2	8	2	7	29	0.9
Hardin	2	78	74	72	77	303	0.8
Harlan	74	21	14	14	11	134	1.5
Harrison	26	7	9	6	8	56	0.9
Hart	12	10	9	19	14	64	1.1
Henderson	10	52	56	38	16	172	1.1
Henry	43	19	13	15	9	99	1.7
Hickman	17	0	2	1	2	22	1.4
Hopkins	2	28	28	29	27	114	0.7
Jackson	42	3	6	9	4	64	1.4
Jefferson	3	218	254	364	238	1,077	0.4
Jessamine	209	17	29	16	12	283	1.6
Johnson	22	8	11	19	16	76	1.0
Kenton	19	76	69	70	72	306	0.5
Knott	70	1	2	1	3	77	1.6
Knox	3	36	12	6	8	65	0.6
Larue	24	9	7	14	12	66	1.3
Laurel	8	11	22	14	15	70	0.3

TABLE 26. SUMMARY OF RECKLESS DRIVING CONVICTIONS BY COUNTY (2014 - 2018) (continued)

COUNTY	2014	2015	2016	2017	2018	RECKLESS DRIVING CONVICTIONS (FIVE YEARS)	RECKLESS DRIVING CONVICTIONS PER 1,000 LICENSED DRIVERS
Lawrence	29	15	14	7	5	70	1.3
Lee	9	4	2	3	8	26	1.2
Leslie	2	3	3	1	4	13	0.4
Letcher	1	7	1	5	6	20	0.3
Lewis	4	5	3	4	3	19	0.4
Lincoln	2	20	12	22	8	64	0.8
Livingston	18	9	13	6	6	52	1.5
Logan	13	25	26	29	27	120	1.3
Lyon	18	64	52	64	21	219	7.7
McCracken	39	39	34	35	15	162	0.7
McCreary	39	13	8	10	8	78	1.5
McLean	8	4	4	4	2	22	0.6
Madison	3	37	30	15	25	110	0.4
Magoffin	28	3	1	8	5	45	1.1
Marion	5	28	22	20	18	93	1.4
Marshall	18	14	17	10	10	69	0.6
Martin	10	11	9	5	2	37	1.1
Mason	9	14	16	5	18	62	1.0
Meade	15	28	33	25	14	115	1.2
Menifee	27	1	3	3	1	35	1.5
Mercer	3	11	14	11	13	52	0.6
Metcalfe	10	6	3	6	8	33	0.9
Monroe	14	5	1	4	1	25	0.7
Montgomery	5	16	14	15	7	57	0.6
Morgan	17	3	3	2	1	26	0.6
Muhlenberg	4	34	38	33	20	129	1.2
Nelson	25	36	38	36	18	153	0.9
Nicholas	35	10	7	7	3	62	2.5
Ohio	2	4	4	5	4	19	0.2
Oldham	4	12	8	7	8	39	0.2
Owen	7	5	2	2	2	18	0.5
Owsley	2	1	4	5	5	17	1.1
Pendleton	3	2	8	10	9	32	0.6
Perry	7	8	27	27	25	94	1.0
Pike	5	29	19	25	14	92	0.5
Powell	28	6	9	5	1	49	1.1
Pulaski	12	14	22	20	20	88	0.4
Robertson	8	1	1	1	0	11	1.4
Rockcastle	2	9	10	7	6	34	0.6
Rowan	15	19	19	18	11	82	1.1
Russell	16	7	8	10	4	45	0.7
Scott	7	23	30	24	16	100	0.5
Shelby	28	34	34	21	32	149	0.9
Simpson	40	28	28	19	44	159	2.4
Spencer	25	14	9	5	8	61	0.8
Taylor	4	16	18	14	13	65	0.7
Todd	12	10	17	10	18	67	1.7
Trigg	10	59	37	27	19	152	3.0
Trimble	25	3	4	1	1	34	1.1
Union	2	17	19	13	7	58	1.2
Warren	9	65	80	60	65	279	0.7
Washington	74	9	9	12	11	115	2.7
Wayne	6	9	15	9	11	50	0.7
Webster	5	9	14	10	7	45	1.0
Whitley	13	25	32	20	25	115	1.0
Wolfe	16	1	3	0	1	21	0.9
Woodford	4	18	10	14	13	59	0.6
TOTAL	2,250	2,380	2,361	2,345	1,962	11,298	0.8

TABLE 27. PERCENTAGE OF CRASHES INVOLVING DRUGS BY COUNTY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES) (2014-2018)(ALL ROADS)

COUNTY	NUMBER OF CRASHES	PERCENT OF TOTAL CRASHES
POPULATION CATEGORY UNDER 10,000		
Elliott	10	3.4
Lee	10	2.8
Owsley	6	2.5
Nicholas	17	2.3
Crittenden	20	2.1
Wolfe	16	2.1
Menifee	7	2.0
Robertson	3	1.8
Ballard	16	1.8
Fulton	10	1.8
Carlisle	6	1.8
Cumberland	10	1.8
Lyon	23	1.7
McLean	19	1.7
Trimble	14	1.6
Hickman	5	1.5
Livingston	14	1.5
Gallatin	13	0.9
Hancock	6	0.9
Bracken	8	0.8
POPULATION CATEGORY 10,000-14,999		
Magoffin	47	5.4
Breathitt	49	3.9
Estill	27	3.6
Leslie	7	3.0
Martin	15	2.8
Lewis	19	2.7
Fleming	24	2.0
Monroe	11	1.9
Trigg	31	1.8
Owen	19	1.8
Larue	26	1.7
Clinton	16	1.7
Jackson	16	1.7
Morgan	12	1.5
Webster	18	1.4
Pendleton	23	1.4
Carroll	27	1.3
Powell	17	1.2
Bath	10	1.2
Butler	16	1.2
Todd	11	1.0
Caldwell	18	0.9
Edmonson	9	0.9
Washington	10	0.7
Green	6	0.7
Metcalfe	9	0.7
POPULATION CATEGORY 15,000-24,999		
Clay	94	5.2
Knott	52	4.5
Letcher	67	4.2
McCreary	45	4.1
Johnson	72	3.3
Adair	35	2.7
Casey	22	2.5
Anderson	50	1.9
Rockcastle	46	1.7
Lincoln	36	1.7
Spencer	25	1.7
Ohio	50	1.6
Lawrence	18	1.6
Russell	28	1.6
Mason	47	1.6
Rowan	59	1.5
Mercer	29	1.3
Grant	47	1.2
Marion	28	1.2
Union	18	1.2
Hart	30	1.1
Harrison	28	1.1
Bourbon	34	1.1
Allen	25	1.1
Simpson	28	0.9
Garrard	17	0.9
Wayne	16	0.9
Taylor	31	0.9
Henry	16	0.8
Woodford	34	0.8
Breckinridge	4	0.3
POPULATION CATEGORY 25,000-50,000		
Floyd	213	5.4
Harlan	115	5.1
Knox	134	4.3
Bell	113	3.6
Perry	126	3.4
Whitley	123	2.3
Muhlenberg	80	1.9
Montgomery	78	1.9
Graves	83	1.8
Carter	48	1.7
Franklin	120	1.6
Boyd	117	1.6
Jessamine	118	1.5
Grayson	43	1.4
Marshall	57	1.4
Greenup	42	1.3
Calloway	60	1.2
Barren	76	1.1
Hopkins	81	1.1
Boyle	47	1.1
Shelby	70	1.0
Nelson	56	1.0
Clark	59	1.0
Henderson	83	1.0
Meade	20	0.9
Scott	63	0.8
Logan	24	0.8
POPULATION CATEGORY OVER 50,000		
Pike	340	5.0
Laurel	170	1.9
Madison	186	1.4
Kenton	381	1.3
Campbell	206	1.3
Hardin	157	1.1
Daviess	198	1.1
Christian	92	1.0
McCracken	120	1.0
Pulaski	90	1.0
Bullitt	86	0.8
Warren	196	0.8
Fayette	523	0.8
Boone	207	0.8
Oldham	46	0.8
Jefferson	1,042	0.7

TABLE 28. PERCENTAGE OF CRASHES INVOLVING DRUGS BY CITY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)(2014-2018)

CITY	NUMBER OF DRUG-RELATED CRASHES	PERCENTAGE OF CRASHES INVOLVING DRUGS
POPULATION CATEGORY OVER 200,000		
Lexington	421	0.8
Louisville	762	0.7
POPULATION CATEGORY 20,000-60,000		
Nicholasville	68	1.6
Covington	115	1.6
Frankfort	66	1.5
Radcliff	33	1.4
Ashland	51	1.4
Richmond	73	1.3
Independence	23	1.3
Hopkinsville	46	1.1
Henderson	51	1.1
Owensboro	111	1.0
Florence	80	0.9
Paducah	54	0.8
Elizabethtown	39	0.7
Georgetown	26	0.7
Bowling Green	81	0.6
Jeffersontown	20	0.5
POPULATION CATEGORY 10,000-19,999		
Lawrenceburg	22	2.4
Fort Thomas	27	2.2
Shively	54	1.3
Glasgow	32	1.2
Newport	45	1.2
Erlanger	37	1.1
Somerset	42	1.1
Madisonville	31	1.0
Mayfield	15	1.0
Bardstown	23	0.9
Berea	18	0.9
Winchester	25	0.9
Danville	20	0.8
Shelbyville	16	0.7
Shepherdsville	21	0.6
Murray	17	0.6
POPULATION CATEGORY 5,000-9,999		
Dayton	15	4.1
Pikeville	68	2.9
Bellevue	17	2.5
Central City	17	2.1
Corbin	33	2.1
Williamsburg	14	1.8
Taylor Mill	16	1.8
Cynthiana	13	1.4
Leitchfield	15	1.3
London	38	1.3
Cold Spring	12	1.2
Harrodsburg	12	1.2
Mount Sterling	17	1.2
Flatwoods	5	1.2
Lebanon	11	1.2
Maysville	19	1.2
Fort Wright	25	1.1
Versailles	13	1.0
Villa Hills	2	1.0
Highland Heights	10	0.9
Franklin	13	0.9
Morehead	19	0.9
Russellville	9	0.9
Princeton	8	0.9
Paris	11	0.8
Campbellsville	16	0.8
Edgewood	5	0.7
La Grange	6	0.6
Monticello	6	0.6
Fort Mitchell	7	0.5
Elsmere	1	0.2
Mount Washington	2	0.2
Alexandria	1	0.1
POPULATION CATEGORY 2,500-4,999		
Barbourville	27	4.6
Hazard	60	3.5
Providence	5	3.4
Park Hills	4	3.3
Irvine	4	3.3
Prestonsburg	39	3.0
Marion	6	2.4
Ludlow	8	2.4
Southgate	15	2.3
Lancaster	8	1.8
Scottsville	12	1.8
Stanford	10	1.8
Vine Grove	6	1.7
Paintsville	15	1.7
Morganfield	6	1.7
Beaver Dam	8	1.6
Greenville	11	1.6
Flemingsburg	6	1.5
Hartford	4	1.4
Carrollton	7	1.4
Calvert City	6	1.3
Columbia	7	1.3
Hodgenville	3	0.8
Stanton	2	0.6
Benton	4	0.5
Williamstown	2	0.4
Lakeside Park	1	0.4
Wilmore	1	0.4

TABLE 29. SAFETY BELT USAGE BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER) (OBSERVED SURVEY BY ADD OF ALL FRONT SEAT OCCUPANTS IN 2007)

COUNTY	PERCENT SEAT BELT USAGE*	COUNTY	PERCENT SEAT BELT USAGE*
POPULATION CATEGORY UNDER 10,000		POPULATION CATEGORY 15,000-24,999 (CONT'D)	
Lyon	82.9	Mercer	60.6
Trimble*	77.1	Simpson	60.0
Hancock	73.6	Harrison	59.9
Gallatin	71.3	Russell	58.7
Livingston	71.1	Anderson	57.7
Carlisle	67.0	Rowan	54.6
Elliott	64.1	Allen	54.0
Fulton	62.9	Mason	53.5
McLean	60.3	Taylor	53.3
Wolfe	59.4	Garrard	52.5
Crittenden*	58.2	McCreary	51.3
Bracken	53.9	Letcher	51.2
Hickman	53.5	Breckinridge	50.3
Robertson	53.3	Wayne*	47.0
Lee	51.9	Casey	45.6
Nicholas*	50.6	Adair*	43.8
Menifee	48.9	Marion	43.1
Ballard	48.4	Hart*	40.4
Cumberland	46.5	POPULATION CATEGORY 25,000-50,000	
Metcalfe	42.4	Shelby	80.0
Owsley	41.1	Whitley	74.0
POPULATION CATEGORY 10,000-14,999		Henderson	71.8
Caldwell	70.8	Franklin	71.3
Carroll	70.7	Bell*	70.7
Pendleton	68.5	Hopkins	70.5
Webster	66.3	Laurel	69.2
Powell	64.6	Greenup	67.6
Jackson	64.5	Clark	67.6
Trigg	64.0	Boyd	66.9
Todd	63.8	Graves	66.7
Edmonson	63.7	Knox	66.5
Magoffin	59.7	Harlan	66.3
Leslie*	59.4	Jessamine	65.9
Larue	58.2	Calloway	65.0
Morgan*	57.9	Muhlenberg	61.8
Owen	57.7	Carter	61.1
Butler	57.3	Scott	60.8
Lewis	56.5	Marshall*	60.7
Martin	55.4	Boyle	60.7
Breathitt	53.8	Logan	60.4
Estill	53.1	Nelson	60.1
Clinton	49.4	Floyd	59.9
Green	48.1	Barren	57.9
Washington	46.5	Perry	56.6
Fleming	46.5	Meade	47.3
Bath	42.0	Montgomery	47.1
Monroe	40.1	POPULATION CATEGORY OVER 50,000	
POPULATION CATEGORY 15,000-24,999		Oldham	83.0
Rockcastle	76.9	Jefferson	81.1
Union	76.3	Bullitt	80.6
Henry	70.8	Boone	77.8
Woodford	70.6	Kenton	77.5
Spencer*	70.0	Campbell	75.8
Grant	69.5	Fayette	75.0
Ohio*	69.0	Daviess	70.9
Johnson	68.4	Madison	69.4
Grayson	64.7	Hardin	66.2
Knott	64.5	Christian	65.8
Clay	64.2	McCracken	65.1
Lawrence*	63.2	Warren	63.0
Lincoln*	62.9	Pike*	62.3
Bourbon	62.2	Pulaski	54.2

See page 21 for 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.

* Usage rate based on an annual seat belt study conducted by the Area Development Districts throughout the state.

TABLE 30. SAFETY BELT USAGE BY COUNTY POPULATION CATEGORY
(2007 OBSERVATIONAL DATA) (AREA DEVELOPMENT DISTRICTS)*

PERCENT USAGE				
POPULATION CATEGORY				
UNDER 10,000	10,000 - 14,999	15,000 - 24,999	25,000- 49,999	OVER 50,000
59.0	57.5	59.1	64.3	71.2

*2009 Statewide observational data resulted in a rate of 80 percent

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

	NOT WEARING SAFETY BELT		WEARING SAFETY BELT		PERCENT REDUCTION
TYPE OF INJURY	NUMBER	PERCENT	NUMBER	PERCENT	
Fatal	1,125	5.62	976	0.09	98
Incapacitating	2,006	10.02	6,801	0.63	94
Non-Incapacitating	3,296	16.47	34,135	3.18	81
Possible Injury	3,349	16.73	59,989	5.59	67
Fatal or Incapacitating	3,131	15.64	7,777	0.73	95

* Based on 2014 through 2018 crash data. Total sample size for not wearing a safety belt was 20,016 compared to 1,072,622 for wearing a safety belt.

TABLE 32. USAGE AND EFFECTIVENESS OF CHILD SAFETY SEATS
(CHILDREN AGE THREE AND UNDER) (2014 - 2018)

			RESTRAINT USED		
VARIABLE	CATEGORY	NONE	SAFETY BELT	CHILD SEAT	ANY RESTRAINT
Number With Given Injury	Fatal	1	1	20	21
	Incapacitating	7	11	43	54
	Non-Incapacitating	28	44	397	441
	Possible Injury	40	243	1,567	1,810
	None Detected	117	3,302	24,113	27,415
Percent With Given Injury	Fatal	0.52	0.03	0.08	0.07
	Incapacitating	3.63	0.31	0.16	0.18
	Non-Incapacitating	14.51	1.22	1.52	1.48
	Possible Injury	20.73	6.75	5.99	6.09
	None Detected	60.62	91.70	92.25	92.18
Percent Usage By Seat Position	Front	3.57	27.83	68.60	96.43
	Rear	0.67	15.13	84.20	99.33
	All Positions	0.85	15.93	83.22	99.15
Percent With Given Injury By Seat Position					
(Front)	Fatal	0.00	0.00	0.05	0.04
	Incapacitating	3.92	0.25	0.00	0.07
	Non-Incapacitating	8.82	2.14	1.12	1.42
	Possible Injury	10.78	4.53	4.08	4.21
	None Detected	26.47	43.02	44.74	44.25
(Rear)	Fatal	0.35	0.02	0.05	0.05
	Incapacitating	1.06	0.14	0.12	0.12
	Non-Incapacitating	6.69	0.42	1.05	0.95
	Possible Injury	10.21	3.22	4.15	4.01
	None Detected	31.69	45.99	64.88	62.01
YEAR	2014	86	1,538	7,125	8,663
	2015	86	1,789	7,980	9,769
	2016	80	1,664	8,376	10,040
	2017	78	1,290	7,447	8,737
	2018	56	950	6,844	7,794

TABLE 33. PERCENTAGE OF CRASHES INVOLVING UNSAFE SPEED BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (2014-2018)

COUNTY	NUMBER OF CRASHES	PERCENT OF TOTAL CRASHES
POPULATION CATEGORY UNDER 10,000		
Bracken	101	9.9
Carlisle	29	8.8
Hickman	24	7.1
Lyon	90	6.8
Livingston	59	6.4
Elliott	19	6.4
Robertson	11	6.4
Trimble	55	6.4
Wolfe	48	6.3
Owsley	15	6.2
Hancock	38	5.7
Crittenden	51	5.4
McLean	60	5.4
Nicholas	40	5.3
Ballard	42	4.8
Gallatin	61	4.3
Lee	15	4.2
Cumberland	13	2.4
Fulton	12	2.1
Menifee	7	2.0
POPULATION CATEGORY 10,000-14,999		
Butler	129	9.5
Edmonson	84	8.4
Todd	76	7.1
Caldwell	130	6.9
Trigg	121	6.8
Morgan	54	6.8
Larue	98	6.4
Jackson	56	6.1
Owen	61	5.9
Washington	80	5.9
Carroll	104	5.1
Pendleton	82	5.0
Magoffin	43	4.9
Lewis	34	4.7
Leslie	11	4.6
Breathitt	58	4.6
Webster	53	4.1
Metcalfe	52	4.1
Estill	28	3.8
Monroe	21	3.6
Green	28	3.2
Fleming	37	3.2
Martin	14	2.6
Bath	22	2.5
Powell	36	2.5
Clinton	21	2.2
POPULATION CATEGORY 15,000-24,999		
Simpson	255	8.6
Grant	306	7.9
Woodford	306	6.8
Union	101	6.6
Bourbon	201	6.5
Rockcastle	174	6.4
Henry	129	6.4
Spencer	87	6.1
Hart	168	5.9
Mason	177	5.9
Wayne	99	5.9
Garrard	110	5.7
Harrison	133	5.4
Mercer	122	5.3
Ohio	165	5.2
McCreary	57	5.2
Breckinridge	57	5.0
Rowan	195	4.9
Clay	87	4.8
Anderson	122	4.7
Letcher	73	4.6
Taylor	146	4.1
Adair	49	3.8
Lincoln	68	3.2
Johnson	71	3.2
Allen	73	3.2
Lawrence	31	2.8
Knott	28	2.4
Marion	57	2.4
Russell	38	2.2
Casey	15	1.7
POPULATION CATEGORY 25,000-50,000		
Carter	192	6.7
Knox	197	6.3
Graves	278	6.0
Whitley	307	5.8
Jessamine	436	5.6
Marshall	226	5.5
Boyle	224	5.4
Hopkins	372	5.3
Scott	410	5.0
Franklin	377	4.9
Shelby	323	4.7
Bell	140	4.5
Meade	96	4.3
Clark	246	4.2
Logan	123	4.1
Floyd	160	4.1
Montgomery	157	3.9
Muhlenberg	161	3.8
Nelson	215	3.8
Barren	238	3.5
Henderson	262	3.3
Boyd	249	3.3
Grayson	106	3.3
Calloway	165	3.2
Harlan	65	2.9
Greenup	92	2.9
Perry	77	2.1
POPULATION CATEGORY OVER 50,000		
Madison	1,008	7.5
Fayette	5,018	7.3
Boone	1,472	6.0
Kenton	1,618	5.6
Christian	519	5.5
Pike	372	5.5
McCracken	643	5.4
Hardin	782	5.3
Pulaski	453	5.2
Oldham	311	5.1
Warren	1,055	4.5
Campbell	690	4.5
Laurel	361	4.0
Daviess	626	3.5
Jefferson	5,398	3.4
Bullitt	310	3.0

TABLE 34. PERCENTAGE OF CRASHES INVOLVING UNSAFE SPEED BY CITY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES)(2014-2018)

CITY	NUMBER OF CRASHES (2014-2018)	PERCENT OF TOTAL CRASHES
POPULATION CATEGORY OVER 200,000		
Lexington	4,012	7.3
Louisville	3,838	3.5
POPULATION CATEGORY 20,000-60000		
Independence	199	11.1
Richmond	447	7.7
Florence	402	4.4
Paducah	280	4.4
Hopkinsville	179	4.2
Frankfort	167	3.9
Nicholasville	158	3.8
Elizabethtown	199	3.7
Bowling Green	510	3.7
Covington	232	3.2
Georgetown	125	3.1
Radcliff	75	3.1
Henderson	127	2.8
Ashland	93	2.6
Owensboro	274	2.4
Jeffersontown	87	2.1
POPULATION CATEGORY 10,000-19,999		
Erlanger	187	5.3
Berea	91	4.6
Danville	114	4.4
Fort Thomas	54	4.3
Madisonville	114	3.8
Newport	136	3.5
Shively	138	3.4
Lawrenceburg	27	2.9
Somerset	116	2.9
Shelbyville	60	2.8
Winchester	81	2.8
Bardstown	64	2.5
Mayfield	36	2.3
Shepherdsville	52	1.6
Murray	38	1.4
Glasgow	36	1.3
POPULATION CATEGORY 5,000-9,999		
Taylor Mill	97	10.9
Villa Hills	21	10.3
Edgewood	53	7.0
Highland Heights	67	6.3
Cold Spring	65	6.3
Princeton	50	5.8
Cynthiana	47	5.2
Fort Mitchell	70	5.2
Alexandria	53	4.7
Russellville	41	4.0
Franklin	58	3.9
Maysville	57	3.7
Corbin	58	3.7
Paris	50	3.6
Harrodsburg	36	3.5
Monticello	35	3.4
Elsmere	17	3.2
Pikeville	76	3.2
Versailles	41	3.0
Bellevue	20	3.0
Fort Wright	68	3.0
Flatwoods	12	2.9
La Grange	29	2.7
Williamsburg	21	2.7
Central City	21	2.6
Morehead	52	2.4
Mount Sterling	33	2.3
Dayton	8	2.2
London	59	1.9
Mount Washington	21	1.6
Campbellsville	28	1.5
Leitchfield	16	1.4
Lebanon	12	1.3
POPULATION CATEGORY 2,500-4,999		
Williamstown	44	8.4
Dawson Springs	16	8.1
Irvine	8	6.6
Vine Grove	22	6.3
Lakeside Park	14	5.7
Calvert City	25	5.6
Southgate	36	5.6
Park Hills	6	5.0
Marion	11	4.5
Providence	6	4.0
Barbourville	20	3.4
Hodgenville	12	3.4
Carrollton	15	3.1
Wilmore	8	3.0
Ludlow	10	3.0
Benton	21	2.8
Morganfield	9	2.5
Prestonsburg	33	2.5
Lancaster	11	2.5
Scottsville	16	2.4
Grayson	14	2.0
Greenville	14	2.0
Flemingsburg	8	1.9
Stanford	10	1.8
Hartford	5	1.8
Hazard	29	1.7
Springfield	6	1.7
Paintsville	13	1.5
Columbia	8	1.4
Stanton	4	1.2

TABLE 35. SUMMARY OF SPEEDING CONVICTIONS BY COUNTY (2014 - 2018)

COUNTY	2014	2015	2016	2017	2018	TOTAL SPEEDING CONVICTIONS (FIVE YEARS)	ANNUAL AVERAGE SPEEDING CONVICTIONS PER 1,000 LICENSED DRIVERS	SPEEDING CONVICTIONS PER SPEED-RELATED CRASH
Adair	222	245	243	245	177	1,132	18.2	23.1
Allen	94	100	113	71	129	507	7.4	6.9
Anderson	644	631	507	638	366	2,786	32.6	22.8
Ballard	76	48	36	69	43	272	9.3	6.5
Barren	320	323	438	521	397	1,999	13.3	8.4
Bath	101	81	83	69	120	454	10.7	20.6
Bell	445	524	578	540	445	2,532	31.6	18.1
Boone	1,001	1,177	1,332	1,515	1,251	6,276	13.4	4.3
Bourbon	331	384	442	319	541	2,017	28.9	10.0
Boyd	687	1,186	1,166	978	992	5,009	31.0	20.1
Boyle	170	62	49	84	110	475	4.8	2.1
Bracken	100	162	305	193	310	1,070	34.4	10.6
Breathitt	55	97	172	35	64	423	9.6	7.3
Breckinridge	137	104	97	154	68	560	7.8	9.8
Bullitt	1,006	596	439	639	541	3,221	10.8	10.4
Butler	125	84	74	42	89	414	9.3	3.2
Caldwell	172	242	410	404	202	1,430	31.2	11.0
Calloway	226	225	249	174	163	1,037	8.5	6.3
Campbell	1,368	1,069	1,476	1,313	973	6,199	19.5	9.0
Carlisle	102	49	35	18	20	224	12.0	7.7
Carroll	206	175	209	214	171	975	27.9	9.4
Carter	336	390	324	180	390	1,620	17.3	8.4
Casey	60	53	49	98	34	294	5.5	19.6
Christian	917	893	645	587	418	3,460	17.3	6.7
Clark	165	165	116	106	168	720	5.6	2.9
Clay	187	221	252	239	288	1,187	19.5	13.6
Clinton	44	30	37	28	24	163	4.8	7.8
Crittenden	54	59	165	87	116	481	16.2	9.4
Cumberland	56	115	91	120	96	478	20.1	36.8
Daviess	1,784	1,652	1,343	1,161	1,273	7,213	20.4	11.5
Edmonson	64	120	71	47	21	323	7.3	3.8
Elliott	8	23	18	22	22	93	4.3	4.9
Estill	79	34	46	38	54	251	5.1	9.0
Fayette	2,903	3,681	4,121	5,278	5,575	21,558	21.7	4.3
Fleming	0	355	230	157	91	833	16.2	22.5
Floyd	301	208	240	124	100	973	7.9	6.1
Franklin	182	1,039	1,336	1,103	1,566	5,226	29.6	13.9
Fulton	833	143	73	59	27	1,135	57.4	94.6
Gallatin	107	464	725	419	629	2,344	78.4	38.4
Garrard	433	114	105	118	441	1,211	20.0	11.0
Grant	110	337	549	495	677	2,168	25.0	7.1
Graves	542	401	291	333	252	1,819	14.2	6.5
Grayson	365	291	393	387	377	1,813	19.6	17.1
Green	391	44	52	34	37	558	14.1	19.9
Greenup	36	120	98	82	125	461	3.5	5.0
Hancock	152	98	80	68	181	579	17.7	15.2
Hardin	72	1,992	1,808	1,878	1,964	7,714	20.5	9.9
Harlan	2,089	196	203	217	169	2,874	32.1	44.2
Harrison	194	122	132	118	73	639	9.8	4.8
Hart	129	98	139	129	172	667	10.9	4.0
Henderson	121	1,261	1,181	1,450	801	4,814	30.1	18.4
Henry	1,512	752	854	637	431	4,186	71.9	32.4
Hickman	711	37	40	23	18	829	53.0	34.5
Hopkins	74	782	711	722	604	2,893	18.1	7.8
Jackson	1,153	12	47	88	35	1,335	29.6	23.8
Jefferson	14	4,361	4,047	3,546	4,454	16,422	6.3	3.0
Jessamine	5,869	642	686	808	929	8,934	49.7	20.5
Johnson	516	111	104	55	105	891	11.5	12.5
Kenton	96	1,476	1,194	1,074	1,595	5,435	9.7	3.4
Knott	1,438	50	12	5	46	1,551	31.8	55.4
Knox	59	220	185	221	285	970	9.4	4.9
Larue	239	147	276	270	379	1,311	25.1	13.4
Laurel	73	747	881	711	765	3,177	15.3	8.8
Lawrence	607	98	112	151	270	1,238	23.3	39.9

TABLE 35. SUMMARY OF SPEEDING CONVICTIONS BY COUNTY (2014 - 2018) (continued)

COUNTY	2014	2015	2016	2017	2018	TOTAL SPEEDING CONVICTIONS (FIVE YEARS)	ANNUAL AVERAGE SPEEDING CONVICTIONS PER 1,000 LICENSED DRIVERS	SPEEDING CONVICTIONS PER SPEED-RELATED CRASH
Lee	57	14	12	13	13	109	5.0	7.3
Leslie	16	35	38	18	77	184	5.1	16.7
Letcher	18	146	62	59	91	376	5.0	5.2
Lewis	67	76	63	60	47	313	6.7	9.2
Lincoln	78	108	106	187	215	694	8.2	10.2
Livingston	146	165	202	196	83	792	22.5	13.4
Logan	161	366	321	261	233	1,342	14.0	10.9
Lyon	370	283	278	258	271	1,460	51.1	16.2
McCracken	252	623	506	450	362	2,193	9.1	3.4
McCreary	791	120	178	159	105	1,353	26.7	23.7
McLean	40	76	109	73	123	421	12.3	7.0
Madison	61	860	583	1,046	1,664	4,214	14.1	4.2
Magoffin	1,234	14	12	7	14	1,281	30.1	29.8
Marion	20	83	81	47	82	313	4.8	5.5
Marshall	71	414	772	461	501	2,219	18.5	9.8
Martin	671	10	15	12	9	717	21.1	51.2
Mason	1	591	440	402	227	1,661	27.7	9.4
Meade	459	440	214	233	106	1,452	14.5	15.1
Menifee	347	8	9	4	9	377	16.3	53.9
Mercer	13	361	255	309	219	1,157	14.0	9.5
Metcalfe	392	114	141	134	109	890	24.4	17.1
Monroe	112	13	18	30	19	192	5.1	9.1
Montgomery	20	174	130	41	78	443	4.6	2.8
Morgan	137	267	322	105	174	1,005	24.7	18.6
Muhlenberg	340	499	260	348	253	1,700	15.4	10.6
Nelson	369	720	804	591	523	3,007	17.7	14.0
Nicholas	571	24	46	68	88	797	31.7	19.9
Ohio	44	554	420	446	498	1,962	23.4	11.9
Oldham	937	675	876	921	596	4,005	17.2	12.9
Owen	527	197	164	72	107	1,067	27.1	17.5
Owsley	88	1	3	3	3	98	6.5	6.5
Pendleton	0	98	106	83	132	419	8.0	5.1
Perry	113	67	45	67	84	376	4.1	4.9
Pike	96	121	101	123	136	577	2.9	1.6
Powell	240	77	72	83	168	640	14.5	17.8
Pulaski	117	1,091	1,063	813	942	4,026	17.7	8.9
Robertson	1,183	4	1	2	3	1,193	148.0	108.5
Rockcastle	2	282	317	257	301	1,159	20.3	6.7
Rowan	282	359	244	159	171	1,215	16.0	6.2
Russell	206	65	112	83	70	536	8.5	14.1
Scott	83	488	515	654	351	2,091	11.0	5.1
Shelby	811	886	848	573	555	3,673	23.1	11.4
Simpson	1,257	259	151	105	248	2,020	30.1	7.9
Spencer	145	149	363	454	328	1,439	19.8	16.5
Taylor	122	79	69	102	92	464	5.2	3.2
Todd	133	144	199	93	123	692	17.9	9.1
Trigg	178	263	215	221	177	1,054	20.8	8.7
Trimble	288	56	92	45	36	517	16.3	9.4
Union	57	134	62	129	134	516	10.3	5.1
Warren	138	1,572	1,556	1,342	1,219	5,827	14.3	5.5
Washington	1,478	89	50	55	42	1,714	40.5	21.4
Wayne	52	55	103	136	145	491	7.4	5.0
Webster	19	139	151	58	39	406	8.9	7.7
Whitley	56	120	290	262	158	886	7.6	2.9
Wolfe	105	376	310	388	398	1,577	66.6	32.9
Woodford	344	883	698	1,184	932	4,041	41.8	13.2
TOTAL*	48,578	47,605	47,688	46,193	47,132	237,196	15.7	7.3

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

TABLE 36. SPEEDING CONVICTION RATES IN DECREASING ORDER (BY COUNTY POPULATION CATEGORIES) (2014 - 2018)

POPULATION CATEGORY	COUNTY	ANNUAL AVERAGE SPEEDING CONVICTIONS PER 1,000 LICENSED DRIVERS	COUNTY	SPEEDING CONVICTIONS PER SPEED-RELATED CRASH
UNDER 10,000	Robertson	148.0	Robertson	108.5
	Gallatin	78.4	Fulton	94.6
	Wolfe	66.6	Menifee	53.9
	Fulton	57.4	Gallatin	38.4
	Hickman	53.0	Cumberland	36.8
	Lyon	51.1	Hickman	34.5
	Bracken	34.4	Wolfe	32.9
	Nicholas	31.7	Nicholas	19.9
	Metcalfe	24.4	Metcalfe	17.1
	Livingston	22.5	Lyon	16.2
	Cumberland	20.1	Hancock	15.2
	Hancock	17.7	Livingston	13.4
	Trimble	16.3	Bracken	10.6
	Menifee	16.3	Crittenden	9.4
	Crittenden	16.2	Trimble	9.4
	McLean	12.3	Carlisle	7.7
	Carlisle	12.0	Lee	7.3
	Ballard	9.3	McLean	7.0
	Owsley	6.5	Owsley	6.5
	Lee	5.0	Ballard	6.5
	Elliott	4.3	Elliott	4.9
10,000-14,999	Washington	40.5	Martin	51.2
	Caldwell	31.2	Magoffin	29.8
	Magoffin	30.1	Jackson	23.8
	Jackson	29.6	Fleming	22.5
	Carroll	27.9	Washington	21.4
	Owen	27.1	Bath	20.6
	Larue	25.1	Green	19.9
	Morgan	24.7	Morgan	18.6
	Martin	21.1	Powell	17.8
	Trigg	20.8	Owen	17.5
	Todd	17.9	Leslie	16.7
	Fleming	16.2	Larue	13.4
	Powell	14.5	Caldwell	11.0
	Green	14.1	Carroll	9.4
	Bath	10.7	Lewis	9.2
	Breathitt	9.6	Monroe	9.1
	Butler	9.3	Todd	9.1
	Webster	8.9	Estill	9.0
	Pendleton	8.0	Trigg	8.7
	Edmonson	7.3	Clinton	7.8
	Lewis	6.7	Webster	7.7
	Monroe	5.1	Breathitt	7.3
	Estill	5.1	Pendleton	5.1
	Leslie	5.1	Edmonson	3.8
	Clinton	4.8	Butler	3.2
15,000 - 24,999	Henry	71.9	Knott	55.4
	Woodford	41.8	Lawrence	39.9
	Anderson	32.6	Henry	32.4
	Knott	31.8	McCreary	23.7
	Simpson	30.1	Adair	23.1
	Bourbon	28.9	Anderson	22.8
	Mason	27.7	Casey	19.6
	McCreary	26.7	Grayson	17.1
	Grant	25.0	Spencer	16.5
	Ohio	23.4	Russell	14.1
	Lawrence	23.3	Clay	13.6
	Rockcastle	20.3	Woodford	13.2
	Garrard	20.0	Johnson	12.5

TABLE 36. SPEEDING CONVICTION RATES IN DECREASING ORDER (BY COUNTY POPULATION CATEGORIES) (2014 - 2018) (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)	Spencer	19.8	Ohio	11.9
	Grayson	19.6	Garrard	11.0
	Clay	19.5	Lincoln	10.2
	Adair	18.2	Bourbon	10.0
	Rowan	16.0	Breckinridge	9.8
	Mercer	14.0	Mercer	9.5
	Johnson	11.5	Mason	9.4
	Hart	10.9	Simpson	7.9
	Union	10.3	Grant	7.1
	Harrison	9.8	Allen	6.9
	Russell	8.5	Rockcastle	6.7
	Lincoln	8.2	Rowan	6.2
	Breckinridge	7.8	Marion	5.5
	Allen	7.4	Letcher	5.2
	Wayne	7.4	Union	5.1
	Casey	5.5	Wayne	5.0
	Taylor	5.2	Harrison	4.8
	Letcher	5.0	Hart	4.0
	Marion	4.8	Taylor	3.2
25,000 - 49,999	Jessamine	49.7	Harlan	44.2
	Harlan	32.1	Jessamine	20.5
	Bell	31.6	Boyd	20.1
	Boyd	31.0	Henderson	18.4
	Henderson	30.1	Bell	18.1
	Franklin	29.6	Meade	15.1
	Shelby	23.1	Nelson	14.0
	Marshall	18.5	Franklin	13.9
	Hopkins	18.1	Shelby	11.4
	Nelson	17.7	Logan	10.9
	Carter	17.3	Muhlenberg	10.6
	Muhlenberg	15.4	Marshall	9.8
	Laurel	15.3	Laurel	8.8
	Meade	14.5	Carter	8.4
	Graves	14.2	Barren	8.4
	Logan	14.0	Hopkins	7.8
	Barren	13.3	Graves	6.5
	Scott	11.0	Calloway	6.3
	Knox	9.4	Floyd	6.1
	Calloway	8.5	Scott	5.1
	Floyd	7.9	Greenup	5.0
	Whitley	7.6	Knox	4.9
	Clark	5.6	Perry	4.9
	Boyle	4.8	Clark	2.9
	Montgomery	4.6	Whitley	2.9
	Perry	4.1	Montgomery	2.8
	Greenup	3.5	Boyle	2.1
50,000 - OVER	Fayette	21.7	Oldham	12.9
	Hardin	20.5	Daviess	11.5
	Daviess	20.4	Bullitt	10.4
	Campbell	19.5	Hardin	9.9
	Pulaski	17.7	Campbell	9.0
	Christian	17.3	Pulaski	8.9
	Oldham	17.2	Christian	6.7
	Warren	14.3	Warren	5.5
	Madison	14.1	Fayette	4.3
	Boone	13.4	Boone	4.3
	Bullitt	10.8	Madison	4.2
	Kenton	9.7	McCracken	3.4
	McCracken	9.1	Kenton	3.4
	Jefferson	6.3	Jefferson	3.0
	Pike	2.9	Pike	1.6

TABLE 37. MOVING SPEED DATA FOR VARIOUS HIGHWAY TYPES (CARS)

HIGHWAY TYPE AND SPEED LIMIT	85th PERCENTILE SPEED (MPH) BEFORE	AFTER
Rural		
Interstate		
65 mph before / 70 mph After	74.6	75.9
Parkway		
Four Lane		
65 mph before / 70 mph After	73.5	75.5
Parkway		
Two Lane		
55 mph	67.5	67.7
Four Lane (US Routes)		
Non-Interstate or Parkway		
55 mph	63.9	65.3
Four Lane (KY Routes)		
Non-Interstate or Parkway		
55 mph	65.7	65.6
Two Lane		
Full Width Shoulder		
55 mph	65.2	65.7

TABLE 38. MOVING SPEED DATA FOR VARIOUS HIGHWAY TYPES (TRUCKS)

HIGHWAY TYPE AND SPEED LIMIT	85th PERCENTILE SPEED (MPH) BEFORE	AFTER
Rural Interstate 65 mph before / 70 mph After	69.8	70.4
Parkway Four Lane 65 mph before / 70 mph After	69.5	70.7
Parkway Two Lane 55 mph	64.4	64.2
Four Lane (US Routes) Non-Interstate or Parkway 55 mph	62.6	63.1
Four Lane (KY Routes) Non-Interstate or Parkway 55 mph	62.7	61.7
Two Lane Full Width Shoulder 55 mph	62.4	61.8

TABLE 39. CRASH TREND ANALYSIS (2014 - 2018)

Crash Statistic	Number in Given Year 2014	2015	2016	2017	4-Year Average 2014 - 2017	2018	2018 Percent Change*
Total Crashes	127,326	136,338	140,547	136,979	135,298	134,285	-0.7
Fatal Crashes	612	694	763	721	698	664	-4.9
Fatalities	672	761	834	782	762	724	-5.0
Injury Crashes	22,958	23,803	25,004	23,961	23,932	22,846	-4.5
Injuries	34,221	35,542	37,347	35,999	35,777	33,914	-5.2
Fatal and Injury Crashes	23,570	24,497	25,767	24,682	24,629	23,510	-4.5
Licensed Drivers (Millions)	3.19	3.20	3.20	3.22	3.20	3.29	2.7
Registered Vehicles (Millions)	3.83	3.86	3.89	3.92	3.88	4.01	3.4
Total Vehicle Miles (Billions)	47.972	48.761	49.196	48.085	48.503	49.547	2.2
Total Crash/100 MVM	265	280	286	285	279	271	-2.9
Fatal Crash/100 MVM	1.28	1.42	1.55	1.50	1.44	1.34	-6.9
Fatalities/100 MVM	1.40	1.56	1.70	1.63	1.57	1.46	-6.9
Injuries/100 MVM	71	73	76	75	74	68	-7.5
Speed Related Crashes	7,004	6,841	6,821	6,227	6,723	6,377	-5.1
Speed Related Injury Crashes	1,846	1,878	1,979	1,719	1,856	1,701	-8.4
Speed Related Fatal Crashes	108	131	113	122	119	100	-16.0
Speed Convictions	48,578	47,605	47,688	46,193	47,516	47,132	-0.8
Alcohol Related Crashes	4,295	4,217	4,192	3,901	4,151	3,580	-13.8
Alcohol Related Injury Crashes	1,432	1,418	1,363	1,263	1,369	1,137	-16.9
Alcohol Related Fatal Crashes	143	162	160	137	151	113	-25.2
Alcohol Related Fatalities	156	175	171	154	164	124	-24.4
DUI Filings	27,472	26,008	25,048	24,148	25,669	22,432	-12.6
DUI Convictions	16,208	14,443	13,642	12,797	14,273	11,962	-16.2
DUI Conviction Rate (Percent)**	85.7	83.7	80.8	78.8	82.2	79.1	-3.8
Number DUI Filings/Alcohol Related Fatality	176	149	146	157	157	181	15.2
Drug Related Crashes	1,558	1,838	1,771	1,844	1,753	1,488	-15.1
Drug Related Injury Crashes	571	678	698	750	674	976	44.8
Drug Related Fatal Crashes	191	233	266	239	232	251	8.2
Pedestrian Related Crashes	1,053	1,096	1,094	1,099	1,086	1,012	-6.8
Pedestrian Related Injury Crashes	841	857	818	810	832	759	-8.8
Pedestrian Related Fatal Crashes	58	68	84	85	74	77	4.1
Bicycle/Motor Vehicle Related Crashes	462	405	410	410	422	342	-19.0
Bicycle Related Injury Crashes	312	276	255	270	278	233	-16.2
Bicycle Related Fatal Crashes	3	7	9	7	7	10	42.9
Motorcycle Related Crashes	1,658	1,727	1,785	1,624	1,699	1,464	-13.8
Motorcycle Related Injury Crashes	1,269	1,272	1,377	1,146	1,266	1,106	-12.6
Motorcycle Related Fatal Crashes	74	86	105	86	88	84	-4.5
School Bus Crashes	564	852	750	570	684	461	-32.6
School Bus Injury Crashes	107	103	85	60	89	50	-43.8
School Bus Fatal Crashes	3	3	3	0	2	1	-50.0
Truck Crashes	8,664	9,196	9,380	9,137	9,094	9,898	8.8
Truck Injury Crashes	1,261	1,396	1,352	1,323	1,333	1,411	5.9
Truck Fatal Crashes	67	90	93	75	81	94	16.0
Train Crashes	55	47	42	41	46	39	-15.2
Train Injury Crashes	13	17	11	14	14	8	-42.9
Train Fatal Crashes	5	3	2	3	3	2	-33.3

* Percent change from 2014-2017 average to 2018.

** Conviction rate excludes pending cases.

TABLE 40. 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	7	0.8	5	0.5	10	1.1	2	0.2	111	11.9
Allen	14	1.4	1	0.1	33	3.3	3	0.3	209	20.9
Anderson	9	0.8	2	0.2	34	3.2	13	1.2	170	15.9
Ballard	4	1.0	1	0.2	15	3.6	2	0.5	168	40.7
Barren	27	1.3	4	0.2	87	4.1	10	0.5	563	26.7
Bath	1	0.2	1	0.2	16	2.8	11	1.9	91	15.7
Bell	28	2.0	20	1.4	48	3.3	29	2.0	209	14.6
Boone	146	2.5	41	0.7	309	5.2	313	5.3	2859	48.1
Bourbon	18	1.8	4	0.4	56	5.6	14	1.4	224	22.4
Boyd	61	2.5	29	1.2	109	4.4	27	1.1	454	18.3
Boyle	26	1.8	14	1.0	52	3.7	18	1.3	258	18.1
Bracken	1	0.2	1	0.2	20	4.7	6	1.4	99	23.3
Breathitt	14	2.0	1	0.1	22	3.2	9	1.3	51	7.3
Breckinridge	5	0.5	2	0.2	24	2.4	5	0.5	106	10.6
Bullitt	66	1.8	16	0.4	168	4.5	50	1.3	1255	33.8
Butler	3	0.5	0	0.0	23	3.6	3	0.5	128	20.2
Caldwell	15	2.3	6	0.9	36	5.5	5	0.8	199	30.7
Calloway	30	1.6	25	1.3	72	3.9	15	0.8	310	16.7
Campbell	162	3.6	59	1.3	167	3.7	45	1.0	851	18.8
Carlisle	0	0.0	2	0.8	11	4.3	1	0.4	47	18.4
Carroll	8	1.5	2	0.4	18	3.3	4	0.7	387	71.6
Carter	14	1.0	1	0.1	38	2.7	5	0.4	257	18.5
Casey	3	0.4	0	0.0	12	1.5	1	0.1	87	10.9
Christian	59	1.6	31	0.8	168	4.5	37	1.0	791	21.4
Clark	39	2.2	9	0.5	79	4.4	56	3.1	400	22.5
Clay	19	1.7	3	0.3	42	3.9	18	1.7	100	9.2
Clinton	1	0.2	0	0.0	12	2.3	0	0.0	64	12.5
Crittenden	4	0.9	0	0.0	32	6.9	1	0.2	91	19.5
Cumberland	4	1.2	1	0.3	17	5.0	1	0.3	46	13.4
Daviess	119	2.5	112	2.3	228	4.7	105	2.2	977	20.2
Edmonson	1	0.2	0	0.0	13	2.1	6	1.0	80	13.2
Elliott	1	0.3	0	0.0	9	2.3	0	0.0	18	4.6
Estill	8	1.1	2	0.3	13	1.8	4	0.5	30	4.1
Fayette	775	5.2	352	2.4	572	3.9	206	1.4	3730	25.2
Fleming	7	1.0	0	0.0	14	2.0	8	1.1	90	12.5
Floyd	37	1.9	3	0.2	52	2.6	46	2.3	224	11.4
Franklin	50	2.0	12	0.5	81	3.3	33	1.3	496	20.1
Fulton	2	0.6	1	0.3	7	2.1	1	0.3	66	19.4
Gallatin	4	0.9	2	0.5	29	6.8	5	1.2	393	91.5
Garrard	12	1.4	5	0.6	21	2.5	8	0.9	136	16.1
Grant	16	1.3	1	0.1	67	5.4	13	1.1	371	30.1
Graves	30	1.6	10	0.5	76	4.1	12	0.6	391	21.1
Grayson	16	1.2	1	0.1	60	4.7	8	0.6	281	21.8
Green	7	1.2	1	0.2	10	1.8	7	1.2	81	14.4
Greenup	13	0.7	3	0.2	37	2.0	13	0.7	160	8.7
Hancock	4	0.9	1	0.2	13	3.0	3	0.7	99	23.1
Hardin	90	1.7	29	0.5	272	5.2	74	1.4	1413	26.8
Harlan	26	1.8	5	0.3	44	3.0	16	1.1	144	9.8
Harrison	15	1.6	5	0.5	43	4.6	9	1.0	130	13.8
Hart	7	0.8	1	0.1	26	2.9	3	0.3	628	69.0
Henderson	55	2.4	27	1.2	105	4.5	27	1.2	598	25.9
Henry	8	1.0	1	0.1	26	3.4	4	0.5	434	56.3
Hickman	1	0.4	0	0.0	14	5.7	0	0.0	42	17.1
Hopkins	35	1.5	14	0.6	88	3.8	14	0.6	479	20.4
Jackson	7	1.0	0	0.0	19	2.8	0	0.0	55	8.2
Jefferson	2081	5.6	692	1.9	1522	4.1	1239	3.3	10249	27.7
Jessamine	41	1.7	15	0.6	80	3.3	47	1.9	470	19.3
Johnson	26	2.2	5	0.4	26	2.2	7	0.6	106	9.1
Kenton	296	3.7	100	1.3	269	3.4	142	1.8	2616	32.8
Knott	4	0.5	0	0.0	27	3.3	11	1.3	77	9.4

TABLE 40. 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	21	1.3	10	0.6	46	2.9	17	1.1	205	12.9
Larue	5	0.7	1	0.1	19	2.7	3	0.4	176	24.8
Laurel	36	1.2	13	0.4	123	4.2	28	1.0	805	27.4
Lawrence	5	0.6	1	0.1	30	3.8	6	0.8	89	11.2
Lee	3	0.8	0	0.0	3	0.8	7	1.8	23	5.8
Leslie	3	0.5	0	0.0	4	0.7	1	0.2	23	4.1
Letcher	16	1.3	0	0.0	39	3.2	11	0.9	138	11.3
Lewis	3	0.4	0	0.0	9	1.3	11	1.6	81	11.7
Lincoln	14	1.1	1	0.1	34	2.7	8	0.6	124	10.0
Livingston	5	1.1	2	0.4	27	5.7	4	0.8	91	19.1
Logan	10	0.7	13	1.0	39	2.9	8	0.6	277	20.6
Lyon	3	0.7	1	0.2	31	7.5	2	0.5	242	58.2
McCracken	88	2.7	43	1.3	207	6.3	39	1.2	830	25.3
McCreary	11	1.2	1	0.1	19	2.1	6	0.7	66	7.2
McLean	6	1.3	1	0.2	15	3.1	7	1.5	150	31.5
Madison	89	2.1	35	0.8	176	4.2	54	1.3	1053	25.4
Magoffin	4	0.6	0	0.0	12	1.8	7	1.1	51	7.7
Marion	17	1.7	3	0.3	48	4.8	6	0.6	166	16.8
Marshall	11	0.7	5	0.3	72	4.6	7	0.4	448	28.5
Martin	5	0.8	0	0.0	6	0.9	6	0.9	44	6.8
Mason	22	2.5	4	0.5	25	2.9	9	1.0	207	23.7
Meade	5	0.3	1	0.1	43	3.0	3	0.2	118	8.3
Menifee	0	0.0	0	0.0	12	3.8	0	0.0	22	7.0
Mercer	15	1.4	1	0.1	27	2.5	13	1.2	150	14.1
Metcalfe	3	0.6	2	0.4	22	4.4	3	0.6	134	26.5
Monroe	1	0.2	1	0.2	7	1.3	2	0.4	52	9.5
Montgomery	21	1.6	2	0.2	39	2.9	40	3.0	301	22.7
Morgan	2	0.3	0	0.0	11	1.6	9	1.3	50	7.2
Muhlenberg	15	1.0	3	0.2	69	4.4	14	0.9	341	21.7
Nelson	20	0.9	15	0.7	78	3.6	15	0.7	442	20.4
Nicholas	2	0.6	0	0.0	10	2.8	2	0.6	54	15.1
Ohio	14	1.2	3	0.3	51	4.3	6	0.5	313	26.3
Oldham	30	1.0	19	0.6	62	2.1	49	1.6	714	23.7
Owen	3	0.6	0	0.0	22	4.1	11	2.0	76	14.0
Owsley	3	1.3	0	0.0	10	4.2	2	0.8	21	8.8
Pendleton	8	1.1	2	0.3	43	5.8	6	0.8	110	14.8
Perry	20	1.4	1	0.1	55	3.8	16	1.1	223	15.5
Pike	51	1.6	6	0.2	107	3.3	27	0.8	463	14.2
Powell	6	1.0	1	0.2	41	6.5	5	0.8	98	15.5
Pulaski	37	1.2	11	0.3	120	3.8	35	1.1	543	17.2
Robertson	0	0.0	0	0.0	4	3.5	0	0.0	5	4.4
Rockcastle	11	1.3	2	0.2	48	5.6	4	0.5	570	66.8
Rowan	23	2.0	7	0.6	63	5.4	12	1.0	269	23.1
Russell	6	0.7	0	0.0	27	3.1	8	0.9	141	16.1
Scott	62	2.6	12	0.5	105	4.5	34	1.4	843	35.7
Shelby	30	1.4	12	0.6	90	4.3	33	1.6	617	29.3
Simpson	12	1.4	2	0.2	39	4.5	12	1.4	497	57.4
Spencer	8	0.9	0	0.0	34	4.0	8	0.9	92	10.8
Taylor	22	1.8	6	0.5	52	4.2	10	0.8	188	15.3
Todd	2	0.3	2	0.3	26	4.2	1	0.2	119	19.1
Trigg	7	1.0	2	0.3	44	6.1	0	0.0	186	25.9
Trimble	6	1.4	1	0.2	25	5.7	3	0.7	73	16.6
Union	4	0.5	4	0.5	26	3.5	8	1.1	112	14.9
Warren	133	2.3	86	1.5	262	4.6	71	1.2	1400	24.6
Washington	5	0.9	2	0.3	18	3.1	9	1.5	159	27.1
Wayne	9	0.9	5	0.5	19	1.8	9	0.9	123	11.8
Webster	2	0.3	1	0.1	20	2.9	8	1.2	145	21.3
Whitley	36	2.0	5	0.3	106	5.9	28	1.6	440	24.7
Wolfe	7	1.9	2	0.5	14	3.8	2	0.5	52	14.1
Woodford	26	2.1	11	0.9	57	4.6	23	1.8	421	33.8

* Five-Year (2014-2018) Total.

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

TABLE 41. PEDESTRIAN CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (2014-2018)(ALL ROADS)

COUNTY	NUMBER OF CRASHES	ANNUAL CRASH RATE (CRASHES PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Wolfe	7	1.9
Trimble	6	1.4
McLean	6	1.3
Owsley	3	1.3
Cumberland	4	1.2
Livingston	5	1.1
Ballard	4	1.0
Crittenden	4	0.9
Hancock	4	0.9
Gallatin	4	0.9
Lee	3	0.8
Lyon	3	0.7
Fulton	2	0.6
Nicholas	2	0.6
Hickman	1	0.4
Elliott	1	0.3
Bracken	1	0.2
Menifee	0	0.0
Carlisle	0	0.0
Robertson	0	0.0
POPULATION CATEGORY 10,000-14,999		
Caldwell	15	2.3
Breathitt	14	2.0
Carroll	8	1.5
Green	7	1.2
Pendleton	8	1.1
Estill	8	1.1
Fleming	7	1.0
Trigg	7	1.0
Powell	6	1.0
Jackson	7	1.0
Washington	5	0.9
Martin	5	0.8
Larue	5	0.7
Magoffin	4	0.6
Metcalfe	3	0.6
Owen	3	0.6
Butler	3	0.5
Leslie	3	0.5
Lewis	3	0.4
Todd	2	0.3
Webster	2	0.3
Morgan	2	0.3
Monroe	1	0.2
Edmonson	1	0.2
Clinton	1	0.2
Bath	1	0.2
POPULATION CATEGORY 15,000-24,999		
Mason	22	2.5
Johnson	26	2.2
Woodford	26	2.1
Rowan	23	2.0
Bourbon	18	1.8
Taylor	22	1.8
Marion	17	1.7
Clay	19	1.7
Harrison	15	1.6
Simpson	12	1.4
Garrard	12	1.4
Mercer	15	1.4
Allen	14	1.4
Letcher	16	1.3
Rockcastle	11	1.3
Grant	16	1.3
Ohio	14	1.2
McCreary	11	1.2
Lincoln	14	1.1
Henry	8	1.0
Wayne	9	0.9
Spencer	8	0.9
Hart	7	0.8
Adair	7	0.8
Anderson	9	0.8
Russell	6	0.7
Lawrence	5	0.6
Breckinridge	5	0.5
Knott	4	0.5
Union	4	0.5
Casey	3	0.4
POPULATION CATEGORY 25,000-50,000		
Scott	62	2.6
Boyd	61	2.5
Henderson	55	2.4
Clark	39	2.2
Franklin	50	2.0
Whitley	36	2.0
Bell	28	2.0
Floyd	37	1.9
Boyle	26	1.8
Harlan	26	1.8
Jessamine	41	1.7
Graves	30	1.6
Montgomery	21	1.6
Calloway	30	1.6
Hopkins	35	1.5
Shelby	30	1.4
Perry	20	1.4
Knox	21	1.3
Barren	27	1.3
Grayson	16	1.2
Muhlenberg	15	1.0
Carter	14	1.0
Nelson	20	0.9
Marshall	11	0.7
Logan	10	0.7
Greenup	13	0.7
Meade	5	0.3
POPULATION CATEGORY OVER 50,000		
Jefferson	2,081	5.6
Fayette	775	5.2
Kenton	296	3.7
Campbell	162	3.6
McCracken	88	2.7
Daviess	119	2.5
Boone	146	2.5
Warren	133	2.3
Madison	89	2.1
Bullitt	66	1.8
Hardin	90	1.7
Christian	59	1.6
Pike	51	1.6
Pulaski	37	1.2
Laurel	36	1.2
Oldham	30	1.0

TABLE 42. PEDESTRIAN CRASH RATES BY CITY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)(2014-2018)

CITY	NUMBER OF CRASHES (2014-2018)	ANNUAL CRASH RATE (CRASHES PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Louisville	1,483	5.0
Lexington	638	4.3
POPULATION CATEGORY 20,000-60000		
Covington	130	6.4
Florence	71	4.7
Ashland	41	3.8
Paducah	45	3.6
Bowling Green	94	3.2
Owensboro	86	3.0
Henderson	41	2.9
Frankfort	33	2.6
Georgetown	35	2.4
Richmond	38	2.4
Radcliff	26	2.4
Nicholasville	29	2.1
Elizabethtown	29	2.0
Hopkinsville	31	2.0
Jeffersontown	26	2.0
Independence	13	1.1
POPULATION CATEGORY 10,000-19,999		
Shively	93	12.2
Newport	68	8.9
Shepherdsville	26	4.6
Somerset	21	3.8
Mayfield	16	3.2
Erlanger	26	2.9
Winchester	26	2.8
Danville	20	2.5
Murray	19	2.1
Shelbyville	15	2.1
Glasgow	14	2.0
Berea	13	1.9
Madisonville	19	1.9
Bardstown	10	1.7
Lawrenceburg	8	1.5
Fort Thomas	7	0.9
POPULATION CATEGORY 5,000-9,999		
Bellevue	15	5.0
Dayton	13	4.9
Morehead	15	4.4
Pikeville	14	4.1
Lebanon	11	4.0
Maysville	17	3.8
Princeton	12	3.8
Campbellsville	17	3.7
Versailles	15	3.5
Williamsburg	9	3.4
Cynthiana	11	3.4
Elsmere	14	3.3
Highland Heights	11	3.2
Fort Wright	9	3.1
Cold Spring	8	2.7
Corbin	10	2.7
La Grange	11	2.7
London	10	2.5
Harrodsburg	10	2.4
Leitchfield	8	2.4
Fort Mitchell	10	2.4
Paris	10	2.3
Franklin	9	2.1
Mount Sterling	7	2.0
Central City	6	2.0
Russellville	7	2.0
Monticello	6	1.9
Edgewood	7	1.6
Flatwoods	5	1.3
Mount Washington	3	0.7
Alexandria	2	0.5
Villa Hills	1	0.3
Taylor Mill	1	0.3
POPULATION CATEGORY 2,500-4,999		
Prestonsburg	11	6.8
Paintsville	11	6.4
Hazard	13	5.8
Barbourville	6	3.8
Ludlow	8	3.6
Lancaster	6	3.5
Grayson	7	3.3
Southgate	6	3.2
Scottsville	6	2.8
Springfield	3	2.4
Flemingsburg	3	2.3
Stanford	4	2.3
Lakeside Park	3	2.2
Dawson Springs	3	2.2
Hodgenville	3	1.9
Benton	4	1.8
Stanton	2	1.5
Marion	2	1.3
Vine Grove	3	1.3
Russell	2	1.2
Wilmore	2	1.1
Williamstown	2	1.0
Carrollton	2	1.0
Columbia	2	0.9
Calvert City	1	0.8
Hartford	1	0.7
Irvine	1	0.7

TABLE 43. BICYCLE CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (2014-2018)

COUNTY	NUMBER OF CRASHES	ANNUAL CRASH RATE (CRASHES PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Carlisle	2	0.8
Gallatin	2	0.5
Wolfe	2	0.5
Livingston	2	0.4
Cumberland	1	0.3
Fulton	1	0.3
Bracken	1	0.2
Trimble	1	0.2
Ballard	1	0.2
Hancock	1	0.2
McLean	1	0.2
Lyon	1	0.2
Elliott	0	0.0
Nicholas	0	0.0
Crittenden	0	0.0
Menifee	0	0.0
Lee	0	0.0
Hickman	0	0.0
Owsley	0	0.0
Robertson	0	0.0
POPULATION CATEGORY 10,000-14,999		
Caldwell	6	0.9
Metcalfe	2	0.4
Carroll	2	0.4
Estill	2	0.3
Trigg	2	0.3
Pendleton	2	0.3
Todd	2	0.3
Washington	2	0.3
Monroe	1	0.2
Green	1	0.2
Bath	1	0.2
Powell	1	0.2
Webster	1	0.1
Larue	1	0.1
Breathitt	1	0.1
Butler	0	0.0
Edmonson	0	0.0
Morgan	0	0.0
Magoffin	0	0.0
Leslie	0	0.0
Jackson	0	0.0
Lewis	0	0.0
Owen	0	0.0
Fleming	0	0.0
Clinton	0	0.0
Martin	0	0.0
POPULATION CATEGORY 15,000-24,999		
Woodford	11	0.9
Garrard	5	0.6
Rowan	7	0.6
Union	4	0.5
Taylor	6	0.5
Adair	5	0.5
Mason	4	0.5
Wayne	5	0.5
Harrison	5	0.5
Johnson	5	0.4
Bourbon	4	0.4
Ohio	3	0.3
Clay	3	0.3
Marion	3	0.3
Breckinridge	2	0.2
Simpson	2	0.2
Anderson	2	0.2
Rockcastle	2	0.2
Mercer	1	0.1
McCreary	1	0.1
Hart	1	0.1
Allen	1	0.1
Grant	1	0.1
Lincoln	1	0.1
Henry	1	0.1
Lawrence	1	0.1
Spencer	0	0.0
Russell	0	0.0
Casey	0	0.0
Knott	0	0.0
Letcher	0	0.0
POPULATION CATEGORY 25,000-50,000		
Bell	20	1.4
Calloway	25	1.3
Boyd	29	1.2
Henderson	27	1.2
Logan	13	1.0
Boyle	14	1.0
Nelson	15	0.7
Hopkins	14	0.6
Shelby	12	0.6
Jessamine	15	0.6
Knox	10	0.6
Scott	12	0.5
Graves	10	0.5
Franklin	12	0.5
Clark	9	0.5
Whitley	5	0.3
Marshall	5	0.3
Harlan	5	0.3
Muhlenberg	3	0.2
Greenup	3	0.2
Floyd	3	0.2
Barren	4	0.2
Montgomery	2	0.2
Perry	1	0.1
Meade	1	0.1
Carter	1	0.1
Grayson	1	0.1
POPULATION CATEGORY OVER 50,000		
Fayette	352	2.4
Daviess	112	2.3
Jefferson	692	1.9
Warren	86	1.5
Kenton	100	1.3
Campbell	59	1.3
McCracken	43	1.3
Christian	31	0.8
Madison	35	0.8
Boone	41	0.7
Oldham	19	0.6
Hardin	29	0.5
Bullitt	16	0.4
Laurel	13	0.4
Pulaski	11	0.3
Pike	6	0.2

TABLE 44. BICYCLE CRASH RATES BY CITY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)(2014-2018)

CITY	NUMBER OF CRASHES (2014-2018)	ANNUAL CRASH RATE (CRASHES PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Lexington	288	1.9
Louisville	532	1.8
POPULATION CATEGORY 20,000-60000		
Owensboro	81	2.8
Covington	53	2.6
Paducah	31	2.5
Bowling Green	66	2.3
Ashland	21	1.9
Henderson	23	1.6
Hopkinsville	22	1.4
Richmond	22	1.4
Florence	15	1.0
Elizabethtown	11	0.8
Nicholasville	10	0.7
Frankfort	9	0.7
Radcliff	8	0.7
Jeffersontown	9	0.7
Georgetown	9	0.6
Independence	6	0.5
POPULATION CATEGORY 10,000-19,999		
Newport	24	3.1
Shively	18	2.4
Bardstown	12	2.1
Murray	18	2.0
Mayfield	7	1.4
Danville	11	1.4
Shelbyville	9	1.3
Shepherdsville	7	1.2
Madisonville	11	1.1
Erlanger	8	0.9
Somerset	4	0.7
Winchester	6	0.7
Berea	4	0.6
Glasgow	2	0.3
Lawrenceburg	1	0.2
Fort Thomas	2	0.2
POPULATION CATEGORY 5,000-9,999		
Alexandria	8	1.9
Monticello	5	1.6
London	6	1.5
Princeton	4	1.3
Morehead	4	1.2
La Grange	5	1.2
Russellville	4	1.1
Versailles	4	0.9
Pikeville	3	0.9
Highland Heights	3	0.9
Williamsburg	2	0.8
Central City	2	0.7
Bellevue	2	0.7
Elsmere	3	0.7
Paris	3	0.7
Lebanon	2	0.7
Cynthiana	2	0.6
Franklin	2	0.5
Edgewood	2	0.5
Corbin	2	0.5
Campbellsville	2	0.4
Dayton	1	0.4
Maysville	2	0.4
Flatwoods	1	0.3
Villa Hills	1	0.3
Fort Wright	1	0.3
Taylor Mill	1	0.3
Fort Mitchell	1	0.2
POPULATION CATEGORY 2,500-4,999		
Paintsville	4	2.3
Ludlow	5	2.3
Columbia	4	1.8
Springfield	2	1.6
Dawson Springs	2	1.4
Barbourville	2	1.3
Beaver Dam	2	1.2
Prestonsburg	2	1.2
Lancaster	2	1.2
Morganfield	2	1.2
Southgate	2	1.1
Carrollton	2	1.0
Benton	2	0.9
Vine Grove	2	0.9
Stanton	1	0.7
Scottsville	1	0.5

TABLE 45. MOTORCYCLE CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (2014-2018)

COUNTY	NUMBER OF CRASHES	ANNUAL CRASH RATE (CRASHES PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Lyon	31	7.5
Crittenden	32	6.9
Gallatin	29	6.8
Livingston	27	5.7
Trimble	25	5.7
Hickman	14	5.7
Cumberland	17	5.0
Bracken	20	4.7
Carlisle	11	4.3
Owsley	10	4.2
Wolfe	14	3.8
Menifee	12	3.8
Ballard	15	3.6
Robertson	4	3.5
McLean	15	3.1
Hancock	13	3.0
Nicholas	10	2.8
Elliott	9	2.3
Fulton	7	2.1
Lee	3	0.8
POPULATION CATEGORY 10,000-14,999		
Powell	41	6.5
Trigg	44	6.1
Pendleton	43	5.8
Caldwell	36	5.5
Metcalfe	22	4.4
Todd	26	4.2
Owen	22	4.1
Butler	23	3.6
Carroll	18	3.3
Breathitt	22	3.2
Washington	18	3.1
Webster	20	2.9
Jackson	19	2.8
Bath	16	2.8
Larue	19	2.7
Clinton	12	2.3
Edmonson	13	2.1
Fleming	14	2.0
Estill	13	1.8
Magoffin	12	1.8
Green	10	1.8
Morgan	11	1.6
Monroe	7	1.3
Lewis	9	1.3
Martin	6	0.9
Leslie	4	0.7
POPULATION CATEGORY 15,000-24,999		
Rockcastle	48	5.6
Bourbon	56	5.6
Grant	67	5.4
Rowan	63	5.4
Marion	48	4.8
Woodford	57	4.6
Harrison	43	4.6
Simpson	39	4.5
Ohio	51	4.3
Taylor	52	4.2
Spencer	34	4.0
Clay	42	3.9
Lawrence	30	3.8
Union	26	3.5
Henry	26	3.4
Allen	33	3.3
Knott	27	3.3
Anderson	34	3.2
Letcher	39	3.2
Russell	27	3.1
Hart	26	2.9
Mason	25	2.9
Lincoln	34	2.7
Mercer	27	2.5
Garrard	21	2.5
Breckinridge	24	2.4
Johnson	26	2.2
McCreary	19	2.1
Wayne	19	1.8
Casey	12	1.5
Adair	10	1.1
POPULATION CATEGORY 25,000-50,000		
Whitley	106	5.9
Grayson	60	4.7
Marshall	72	4.6
Scott	105	4.5
Henderson	105	4.5
Clark	79	4.4
Boyd	109	4.4
Muhlenberg	69	4.4
Shelby	90	4.3
Barren	87	4.1
Graves	76	4.1
Calloway	72	3.9
Hopkins	88	3.8
Perry	55	3.8
Boyle	52	3.7
Nelson	78	3.6
Jessamine	80	3.3
Franklin	81	3.3
Bell	48	3.3
Harlan	44	3.0
Meade	43	3.0
Knox	46	2.9
Montgomery	39	2.9
Logan	39	2.9
Carter	38	2.7
Floyd	52	2.6
Greenup	37	2.0
POPULATION CATEGORY OVER 50,000		
McCracken	207	6.3
Boone	309	5.2
Hardin	272	5.2
Daviess	228	4.7
Warren	262	4.6
Christian	168	4.5
Bullitt	168	4.5
Laurel	123	4.2
Madison	176	4.2
Jefferson	1,522	4.1
Fayette	572	3.9
Pulaski	120	3.8
Campbell	167	3.7
Kenton	269	3.4
Pike	107	3.3
Oldham	62	2.1

TABLE 46. MOTORCYCLE CRASH RATES BY CITY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)(2014-2018)

CITY	NUMBER OF CRASHES (2014-2018)	ANNUAL CRASH RATE (CRASHES PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Louisville	1,129	3.8
Lexington	474	3.2
POPULATION CATEGORY 20,000-60000		
Paducah	84	6.7
Florence	87	5.8
Radcliff	56	5.2
Elizabethtown	72	5.0
Bowling Green	131	4.5
Owensboro	123	4.3
Ashland	46	4.2
Hopkinsville	65	4.1
Henderson	58	4.0
Richmond	63	4.0
Frankfort	40	3.1
Covington	60	3.0
Georgetown	43	3.0
Nicholasville	39	2.8
Independence	28	2.3
Jeffersontown	25	1.9
POPULATION CATEGORY 10,000-19,999		
Shively	60	7.9
Shepherdsville	41	7.3
Somerset	38	6.8
Newport	34	4.5
Bardstown	26	4.4
Berea	26	3.8
Erlanger	33	3.7
Glasgow	23	3.3
Winchester	27	2.9
Madisonville	28	2.9
Shelbyville	20	2.8
Danville	23	2.8
Murray	23	2.6
Mayfield	12	2.4
Lawrenceburg	11	2.1
Fort Thomas	9	1.1
POPULATION CATEGORY 5,000-9,999		
London	29	7.3
Pikeville	25	7.2
Fort Wright	19	6.6
Morehead	22	6.4
Corbin	19	5.2
Campbellsville	23	5.1
Leitchfield	17	5.1
Mount Sterling	15	4.4
Cold Spring	13	4.4
Lebanon	12	4.3
Princeton	13	4.1
Central City	12	4.0
Franklin	16	3.8
Mount Washington	16	3.5
Williamsburg	9	3.4
Alexandria	14	3.3
Paris	14	3.3
Versailles	13	3.0
Cynthiana	9	2.8
Fort Mitchell	11	2.7
Monticello	8	2.6
La Grange	10	2.5
Bellevue	7	2.4
Taylor Mill	8	2.4
Maysville	11	2.4
Highland Heights	8	2.3
Russellville	8	2.3
Harrodsburg	9	2.2
Dayton	3	1.1
Elsmere	4	0.9
Edgewood	4	0.9
Villa Hills	3	0.8
Flatwoods	3	0.8
POPULATION CATEGORY 2,500-4,999		
Hazard	28	12.6
Prestonsburg	11	6.8
Scottsville	13	6.2
Hartford	8	6.0
Calvert City	7	5.5
Stanton	7	5.1
Barbourville	8	5.1
Greenville	9	4.2
Southgate	8	4.2
Benton	9	4.1
Williamstown	8	4.1
Springfield	5	4.0
Paintsville	7	4.0
Flemingsburg	5	3.8
Russell	6	3.6
Beaver Dam	6	3.5
Stanford	6	3.4
Marion	5	3.3
Lancaster	5	2.9
Grayson	5	2.9
Lakeside Park	3	2.2
Dawson Springs	3	2.2
Irvine	3	2.2
Hodgenville	3	1.9
Carrollton	3	1.5
Ludlow	3	1.4
Providence	2	1.3
Park Hills	2	1.3
Columbia	3	1.3
Vine Grove	3	1.3
Morganfield	2	1.2

TABLE 47. SCHOOL BUS CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (2014-2018)

COUNTY	NUMBER OF CRASHES	ANNUAL CRASH RATE (CRASHES PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Lee	7	1.8
McLean	7	1.5
Bracken	6	1.4
Gallatin	5	1.2
Livingston	4	0.8
Owsley	2	0.8
Hancock	3	0.7
Trimble	3	0.7
Nicholas	2	0.6
Lyon	2	0.5
Ballard	2	0.5
Wolfe	2	0.5
Carlisle	1	0.4
Cumberland	1	0.3
Fulton	1	0.3
Crittenden	1	0.2
Menifee	0	0.0
Hickman	0	0.0
Elliott	0	0.0
Robertson	0	0.0
POPULATION CATEGORY 10,000-14,999		
Owen	11	2.0
Bath	11	1.9
Lewis	11	1.6
Washington	9	1.5
Morgan	9	1.3
Breathitt	9	1.3
Green	7	1.2
Webster	8	1.2
Magoffin	7	1.1
Fleming	8	1.1
Edmonson	6	1.0
Martin	6	0.9
Caldwell	5	0.8
Powell	5	0.8
Pendleton	6	0.8
Carroll	4	0.7
Metcalfe	3	0.6
Butler	3	0.5
Estill	4	0.5
Larue	3	0.4
Monroe	2	0.4
Todd	1	0.2
Leslie	1	0.2
Trigg	0	0.0
Jackson	0	0.0
Clinton	0	0.0
POPULATION CATEGORY 15,000-24,999		
Woodford	23	1.8
Clay	18	1.7
Simpson	12	1.4
Bourbon	14	1.4
Knott	11	1.3
Mercer	13	1.2
Anderson	13	1.2
Grant	13	1.1
Union	8	1.1
Rowan	12	1.0
Mason	9	1.0
Harrison	9	1.0
Wayne	9	0.9
Garrard	8	0.9
Spencer	8	0.9
Letcher	11	0.9
Russell	8	0.9
Taylor	10	0.8
Lawrence	6	0.8
McCreary	6	0.7
Johnson	7	0.6
Marion	6	0.6
Lincoln	8	0.6
Ohio	6	0.5
Rockcastle	4	0.5
Breckinridge	5	0.5
Henry	4	0.5
Allen	3	0.3
Hart	3	0.3
Adair	2	0.2
Casey	1	0.1
POPULATION CATEGORY 25,000-50,000		
Clark	56	3.1
Montgomery	40	3.0
Floyd	46	2.3
Bell	29	2.0
Jessamine	47	1.9
Shelby	33	1.6
Whitley	28	1.6
Scott	34	1.4
Franklin	33	1.3
Boyle	18	1.3
Henderson	27	1.2
Boyd	27	1.1
Perry	16	1.1
Knox	17	1.1
Harlan	16	1.1
Muhlenberg	14	0.9
Calloway	15	0.8
Greenup	13	0.7
Nelson	15	0.7
Graves	12	0.6
Grayson	8	0.6
Logan	8	0.6
Hopkins	14	0.6
Barren	10	0.5
Carter	5	0.4
Marshall	7	0.4
Meade	3	0.2
POPULATION CATEGORY OVER 50,000		
Boone	313	5.3
Jefferson	1,239	3.3
Daviess	105	2.2
Kenton	142	1.8
Oldham	49	1.6
Hardin	74	1.4
Fayette	206	1.4
Madison	54	1.3
Bullitt	50	1.3
Warren	71	1.2
McCracken	39	1.2
Pulaski	35	1.1
Christian	37	1.0
Campbell	45	1.0
Laurel	28	1.0
Pike	27	0.8

TABLE 48. SCHOOL BUS CRASH RATES BY CITY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)(2014-2018)

CITY	NUMBER OF CRASHES (2014-2018)	ANNUAL CRASH RATE (CRASHES PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Louisville	936	3.1
Lexington	172	1.2
POPULATION CATEGORY 20,000-60000		
Florence	65	4.3
Independence	30	2.4
Owensboro	58	2.0
Nicholasville	28	2.0
Jeffersontown	27	2.0
Paducah	22	1.8
Richmond	29	1.8
Frankfort	22	1.7
Radcliff	17	1.6
Georgetown	22	1.5
Covington	29	1.4
Henderson	20	1.4
Elizabethtown	18	1.3
Hopkinsville	19	1.2
Bowling Green	30	1.0
Ashland	6	0.6
POPULATION CATEGORY 10,000-19,999		
Shively	42	5.5
Somerset	20	3.6
Winchester	28	3.0
Shelbyville	14	2.0
Shepherdsville	10	1.8
Bardstown	9	1.5
Danville	11	1.4
Erlanger	12	1.3
Murray	11	1.2
Lawrenceburg	6	1.1
Newport	6	0.8
Glasgow	5	0.7
Berea	5	0.7
Fort Thomas	5	0.6
Madisonville	4	0.4
Mayfield	2	0.4
POPULATION CATEGORY 5,000-9,999		
Versailles	14	3.3
Alexandria	12	2.8
Mount Sterling	9	2.6
Corbin	9	2.5
Edgewood	10	2.3
London	9	2.3
Harrodsburg	9	2.2
Villa Hills	8	2.1
Pikeville	7	2.0
Franklin	8	1.9
Paris	8	1.9
Cynthiana	6	1.9
Maysville	8	1.8
Fort Wright	5	1.7
Williamsburg	4	1.5
Monticello	4	1.3
Campbellsville	5	1.1
Central City	3	1.0
La Grange	4	1.0
Taylor Mill	3	0.9
Morehead	3	0.9
Mount Washington	4	0.9
Dayton	2	0.7
Lebanon	2	0.7
Leitchfield	2	0.6
Princeton	2	0.6
Highland Heights	2	0.6
Russellville	2	0.6
Elsmere	2	0.5
Flatwoods	2	0.5
Fort Mitchell	1	0.2
POPULATION CATEGORY 2,500-4,999		
Prestonsburg	13	8.0
Flemingsburg	4	3.0
Vine Grove	6	2.7
Springfield	3	2.4
Stanton	3	2.2
Hazard	5	2.2
Lakeside Park	3	2.2
Carrollton	3	1.5
Hartford	2	1.5
Dawson Springs	2	1.4
Providence	2	1.3
Barbourville	2	1.3
Paintsville	2	1.2
Lancaster	2	1.2
Russell	2	1.2
Morganfield	2	1.2
Beaver Dam	2	1.2
Williamstown	2	1.0
Greenville	2	0.9
Park Hills	*1*	0.9
Stanford	1	0.6
Wilmore	1	0.5
Scottsville	1	0.5
Grayson	1	0.5

TABLE 49. TRUCK CRASH RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (2014-2018)

COUNTY	NUMBER OF CRASHES	ANNUAL CRASH RATE (CRASHES PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Gallatin	393	91.5
Lyon	242	58.2
Ballard	168	40.7
McLean	150	31.5
Bracken	99	23.3
Hancock	99	23.1
Crittenden	91	19.5
Fulton	66	19.4
Livingston	91	19.1
Carlisle	47	18.4
Hickman	42	17.1
Trimble	73	16.6
Nicholas	54	15.1
Wolfe	52	14.1
Cumberland	46	13.4
Owsley	21	8.8
Menifee	22	7.0
Lee	23	5.8
Elliott	18	4.6
Robertson	5	4.4
POPULATION CATEGORY 10,000-14,999		
Carroll	387	71.6
Caldwell	199	30.7
Washington	159	27.1
Metcalfe	134	26.5
Trigg	186	25.9
Larue	176	24.8
Webster	145	21.3
Butler	128	20.2
Todd	119	19.1
Bath	91	15.7
Powell	98	15.5
Pendleton	110	14.8
Green	81	14.4
Owen	76	14.0
Edmonson	80	13.2
Fleming	90	12.5
Clinton	64	12.5
Lewis	81	11.7
Monroe	52	9.5
Jackson	55	8.2
Magoffin	51	7.7
Breathitt	51	7.3
Morgan	50	7.2
Martin	44	6.8
Leslie	23	4.1
Estill	30	4.1
POPULATION CATEGORY 15,000-24,999		
Hart	628	69.0
Rockcastle	570	66.8
Simpson	497	57.4
Henry	434	56.3
Woodford	421	33.8
Grant	371	30.1
Ohio	313	26.3
Mason	207	23.7
Rowan	269	23.1
Bourbon	224	22.4
Allen	209	20.9
Marion	166	16.8
Russell	141	16.1
Garrard	136	16.1
Anderson	170	15.9
Taylor	188	15.3
Union	112	14.9
Mercer	150	14.1
Harrison	130	13.8
Adair	111	11.9
Wayne	123	11.8
Letcher	138	11.3
Lawrence	89	11.2
Casey	87	10.9
Spencer	92	10.8
Breckinridge	106	10.6
Lincoln	124	10.0
Knott	77	9.4
Clay	100	9.2
Johnson	106	9.1
McCreary	66	7.2
POPULATION CATEGORY 25,000-50,000		
Scott	843	35.7
Shelby	617	29.3
Marshall	448	28.5
Barren	563	26.7
Henderson	598	25.9
Whitley	440	24.7
Montgomery	301	22.7
Clark	400	22.5
Grayson	281	21.8
Muhlenberg	341	21.7
Graves	391	21.1
Logan	277	20.6
Nelson	442	20.4
Hopkins	479	20.4
Franklin	496	20.1
Jessamine	470	19.3
Carter	257	18.5
Boyd	454	18.3
Boyle	258	18.1
Calloway	310	16.7
Perry	223	15.5
Bell	209	14.6
Knox	205	12.9
Floyd	224	11.4
Harlan	144	9.8
Greenup	160	8.7
Meade	118	8.3
POPULATION CATEGORY OVER 50,000		
Boone	2,859	48.1
Bullitt	1,255	33.8
Kenton	2,616	32.8
Jefferson	10,249	27.7
Laurel	805	27.4
Hardin	1,413	26.8
Madison	1,053	25.4
McCracken	830	25.3
Fayette	3,730	25.2
Warren	1,400	24.6
Oldham	714	23.7
Christian	791	21.4
Daviess	977	20.2
Campbell	851	18.8
Pulaski	543	17.2
Pike	463	14.2

TABLE 50. MOTOR VEHICLE-TRAIN CRASH RATES BY COUNTY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES) (2014 - 2018)

COUNTY	NUMBER OF CRASHES	ANNUAL CRASH RATE (CRASHES PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Carlisle	1	0.39
Bracken	1	0.24
Hancock	1	0.23
Metcalfe	0	0.00
Marion	0	0.00
Livingston	0	0.00
Crittenden	0	0.00
Trimble	0	0.00
Gallatin	0	0.00
Lyon	0	0.00
Ballard	0	0.00
Lee	0	0.00
Elliott	0	0.00
Wolfe	0	0.00
Nicholas	0	0.00
Cumberland	0	0.00
Fulton	0	0.00
Menifee	0	0.00
Hickman	0	0.00
Owsley	0	0.00
Robertson	0	0.00
POPULATION CATEGORY 10,000 - 14,999		
Webster	5	0.73
Lewis	4	0.58
Carroll	1	0.18
Breathitt	1	0.14
Pendleton	0	0.00
Estill	0	0.00
Fleming	0	0.00
Trigg	0	0.00
Larue	0	0.00
Morgan	0	0.00
Jackson	0	0.00
Martin	0	0.00
Caldwell	0	0.00
McCreary	0	0.00
Butler	0	0.00
Powell	0	0.00
Todd	0	0.00
Edmonson	0	0.00
Washington	0	0.00
Bath	0	0.00
Leslie	0	0.00
Green	0	0.00
Monroe	0	0.00
Owen	0	0.00
Clinton	0	0.00
POPULATION CATEGORY 15,000 - 24,999		
Mercer	14	1.31
Magoffin	6	0.66
Grant	7	0.57
Hart	4	0.44
Grayson	5	0.39
Rockcastle	3	0.35
McLean	3	0.34
Lincoln	4	0.32
Henry	2	0.26
Ohio	3	0.25
Knott	2	0.24
Simpson	2	0.23
Letcher	2	0.16
Lawrence	1	0.13
POPULATION CATEGORY 15,000-24,999 (cont.)		
Anderson	1	0.09
Woodford	1	0.08
Taylor	0	0.00
Johnson	0	0.00
Rowan	0	0.00
Clay	0	0.00
Wayne	0	0.00
Breckinridge	0	0.00
Bourbon	0	0.00
Allen	0	0.00
Mason	0	0.00
Harrison	0	0.00
Adair	0	0.00
Russell	0	0.00
Spencer	0	0.00
Garrard	0	0.00
Casey	0	0.00
Union	0	0.00
POPULATION CATEGORY 25,000-49,999		
Hopkins	9	0.38
Shelby	6	0.29
Clark	3	0.17
Floyd	3	0.15
Barren	3	0.14
Bell	2	0.14
Henderson	3	0.13
Muhlenberg	2	0.13
Knox	1	0.06
Greenup	1	0.05
Laurel	1	0.03
Boyd	0	0.00
Franklin	0	0.00
Jessamine	0	0.00
Scott	0	0.00
Nelson	0	0.00
Calloway	0	0.00
Graves	0	0.00
Whitley	0	0.00
McCracken	0	0.00
Harlan	0	0.00
Perry	0	0.00
Meade	0	0.00
Boyle	0	0.00
Carter	0	0.00
Logan	0	0.00
Montgomery	0	0.00
POPULATION CATEGORY 50,000 - OVER		
Oldham	13	0.43
Christian	10	0.27
Daviess	11	0.23
Warren	12	0.21
Pulaski	6	0.19
Pike	6	0.18
Hardin	8	0.15
Kenton	11	0.14
Jefferson	45	0.12
Campbell	3	0.07
Boone	3	0.05
Marshall	2	0.05
Fayette	4	0.03
Bullitt	1	0.03
Madison	0	0.00

TABLE 51. CRASHES INVOLVING VEHICLE DEFECT BEFORE AND AFTER REPEAL OF VEHICLE INSPECTION LAW

TIME PERIOD	NUMBER OF CRASHES INVOLVING VEHICLE DEFECTS	PERCENT OF ALL CRASHES INVOLVING VEHICLE DEFECTS
October 1976 - May 1978 (20 Months Before Repeal of Law)	14,440	5.86
June 1978 - December 1979 (19 Months After Repeal of Law)	16,527	7.09
1980-1984	46,397	7.43
1985-1989	46,552	6.64
1990-1994	40,393	6.09
1995-1999	33,655	5.27
2000	7,834	4.98
2001	7,325	4.79
2002	7,338	4.77
2003	6,882	4.47
2004	6,811	4.33
2005	7,050	4.61
2006	6,656	4.36
2007	6,671	4.37
2008	6,106	4.21
2009	6,269	4.24
2010	6,246	4.15
2011	7,886	5.25
2012	8,030	6.43
2013	7,623	6.18
2014	7,831	5.18
2015	8,450	5.24
2016	8,334	5.04
2017	8,213	6.00
2018	7,694	5.73

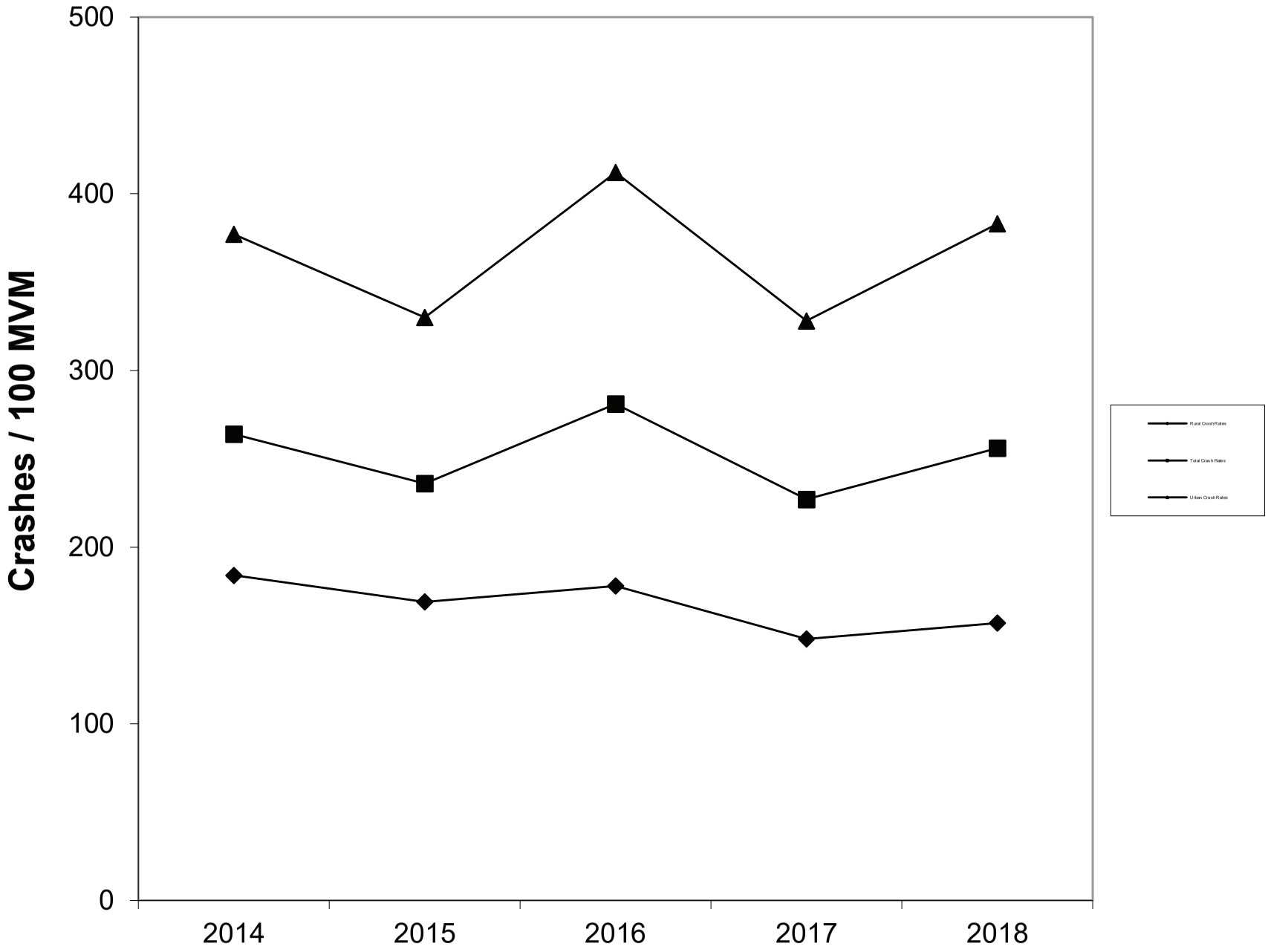

Figure 1. Trends in Crash Rates (Identified Roads)

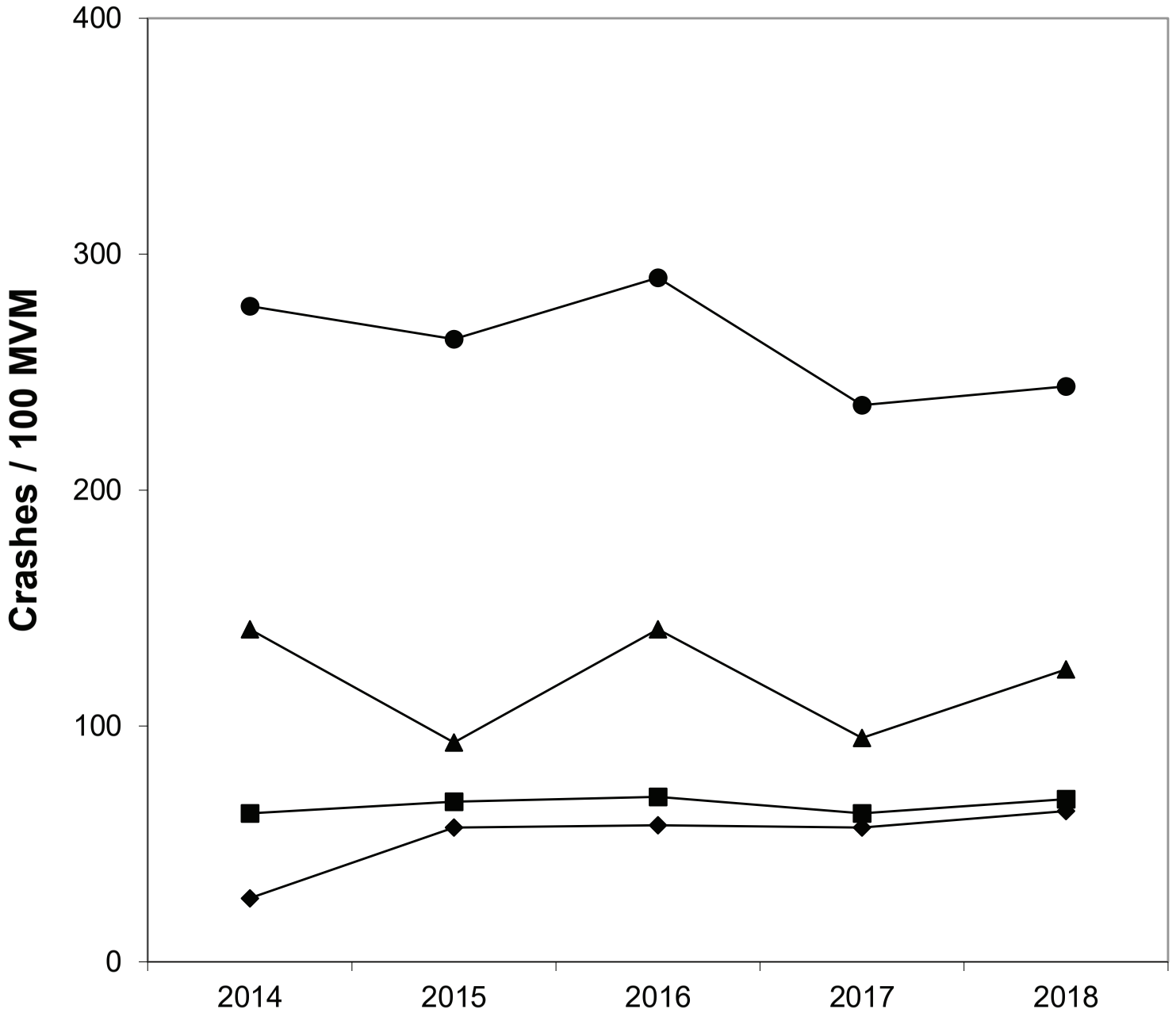

Figure 2. Trends in Rural Crash Rates (Identified Roads)

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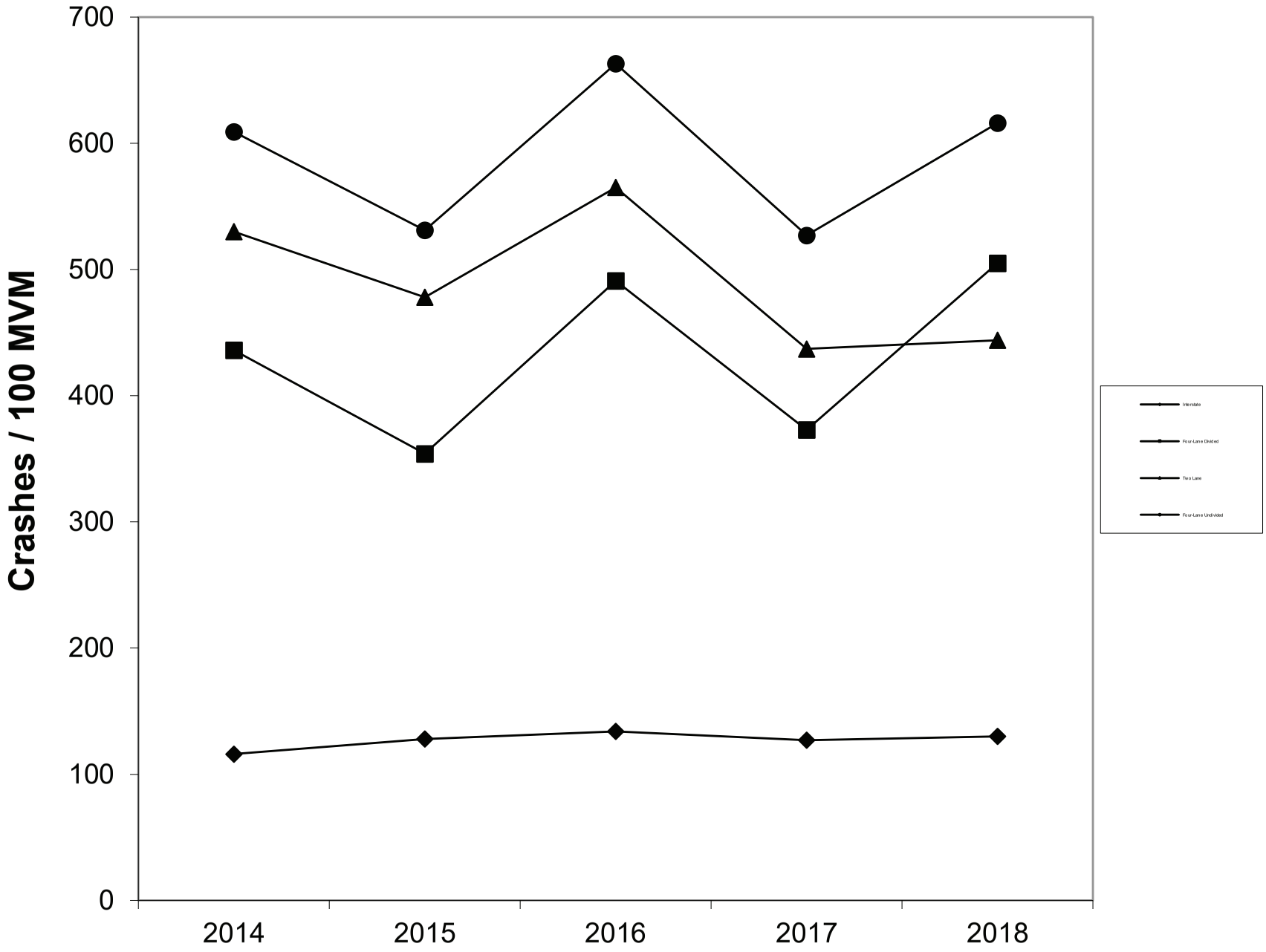

Figure 3. Trends in Urban Crash Rates (Identified Roads)

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 minor arterials followed by urban principal arterials (non-interstate or freeway). The lowest overall rates are for rural principal arterials (interstate) followed by other rural principal arterials and urban principal arterials (interstate and other freeway). Injury crash rates for the various categories are ordered similar to overall crash rates. However, the ordering for the fatal crash rates is very different. The highest fatal crash rates are for rural collectors and rural local roadways. Urban principal arterials (interstate and other freeway) have the lowest fatal crash rate with several other urban classifications, as well as rural interstates.

Statewide crash rates by administrative classification are listed in Table A-2. The rate for the primary system is lowest and the rate for the unclassified system is the highest. Rates for the secondary and rural secondary systems are between those two levels.

The benefits of providing a median and increasing the median width are shown in Table A-3. 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 more when comparing a highway that is divided with a median width of more than 30 feet to a highway having a median width of less than 30 feet.

The effect of access control is described in Table A-4. 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-5. Each county was given a terrain classification as flat, rolling, or mountainous since a classification was not available for each road segment. Considering the entire system, the rates are similar for all terrain classifications within each federal-aid system.

Rates by rural-urban designation are shown in Table A-6. The lowest rate is for rural areas

The relationship between crash rate and traffic volume (average annual daily traffic) for various federal-aid highway classifications is illustrated in Table A-7. The rate for the federal-aid primary and federal-aid urban generally increased with increasing volume. There was no specific trend in rates on federal-aid secondary and non-federal aid roads with volume.

The percentage of crashes occurring during wet, snow, or icy pavement conditions or during darkness by rural or urban highway type classification is given in Table A-8. The overall percentage of crashes occurring during wet pavement conditions is 22 percent on rural roadways and 16 percent on urban roadways.

There are large variations in the percentage of crashes occurring on the various highway types during snow or icy conditions. This five-year statewide percentage would change depending on the amount of snowfall any given year. The percentage on rural roads (5.1 percent) is substantially higher than that on urban roads (2.7 percent).

The highest percentages of ice or snow crashes are on interstates and parkways with the highest being 9.3 percent on rural interstate.

There are also large variations in the percentage of crashes occurring during darkness. The overall percentage is higher on rural roads (31 percent) than urban roads (23 percent). The highest percentage is on rural parkways, followed by rural interstates.

TABLE A-1. STATEWIDE CRASH RATES BY FUNCTIONAL CLASSIFICATION (2014 - 2018)

LOCATION	FUNCTIONAL CLASSIFICATION	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM) ALL	INJURY	FATAL
Rural	Principal Arterial, Interstate	635	33,920	59	10	0.5
	Principal Arterial, Other Freeway	1,693	8,220	106	21	1.3
	Minor Arterial	2,330	4,043	213	42	2.1
	Major Collector	5,798	1,820	295	62	3.3
	Minor Collector	9,285	617	315	71	3.2
	Local System	4,775	320	296	65	3.2
Urban	Principal Arterial, Interstate	216	75,689	127	20	0.4
	Principal Arterial, Other Freeway	72	31,538	156	24	0.7
	Other Principal Arterial	629	19,410	501	81	1.5
	Minor Arterial	1,299	10,689	527	83	1.3
	Collector	1,072	4,366	465	67	1.2
	Local System	200	1,285	546	71	2.4

TABLE A-2. STATEWIDE CRASH RATES BY ADMINISTRATIVE CLASSIFICATION (2014 - 2018)

ADMINISTRATIVE CLASSIFICATION	TOTAL CRASHES	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM)
Primary	*	*	*	*
Secondary	*	*	*	*
Rural Secondary	*	*	*	*
Unclassified	*	*	*	*

* Data not collected

TABLE A-3. STATEWIDE CRASH RATES BY MEDIAN TYPE
(RURAL ROADS WITH FOUR OR MORE LANES (2014 - 2018))

MEDIAN TYPE	TOTAL CRASHES	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM)
Undivided	17,867	893	14,007	78
Divided, Median Less Than 30 Feet, No Barrier	348	25	10,113	77
Divided, Median Greater Than 30 Feet, No Barrier	23,951	789	24,838	67

TABLE A-4. STATEWIDE CRASH RATES BY ACCESS CONTROL (2014 - 2018)

ACCESS CONTROL	TOTAL CRASHES	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM)
Full Control	73,628	1,395	32,269	90
Partial Control	49,508	1,064	10,226	249
No Control	396,735	25,741	2,208	382

TABLE A-5. STATEWIDE CRASH RATES FOR RURAL HIGHWAYS BY FEDERAL-AID SYSTEM AND TERRAIN (2014 - 2018)

FEDERAL-AID SYSTEM	CRASH RATES BY TERRAIN CLASSIFICATION (CRASHES/100MVM)		
	FLAT	ROLLING	MOUNTAINOUS
Interstate	103	67	71
Federal-Aid Primary	150	144	127
Federal-Aid Secondary	255	292	242
Non Federal-Aid	257	346	263
All	214	181	166

TABLE A-6. STATEWIDE CRASH RATES BY RURAL-URBAN DESIGNATION (2014 - 2018)

AREA TYPE	TOTAL CRASHES	AVERAGE TOTAL MILEAGE	AVERAGE AADT	CRASH RATES (CRASHES PER 100 MVM)
Rural	188,170	24,705	2,555	163
Small Urban Area	332,298	3,520	14,122	366
Urbanized Area	*	*	*	*

* Data not collected

TABLE A-7. RELATIONSHIP BETWEEN CRASH RATE AND TRAFFIC VOLUME (2014 - 2018)

VOLUME RANGE (AADT)	CRASH RATES (CRASHES PER 100 MVM) FEDERAL-AID PRIMARY	FEDERAL-AID URBAN	FEDERAL-AID SECONDARY	NON-FEDERAL AID
0-999	385	1,180	321	326
1,000-2,499	289	590	299	492
2,500-4,999	182	523	279	303
5,000-9,999	186	552	279	342
10,000-19,999	190	557	334	453
20,000-29,999	379	587	345	807
30,000-39,999	480	650	**	**
40,000 or more	242	568	293	319

** No data in this volume range.

TABLE A-8. PERCENTAGE OF CRASHES OCCURING DURING WET OR SNOW OR ICE PAVEMENT CONDITIONS OR DURING DARKNESS BY RURAL AND URBAN HIGHWAY TYPE CLASSIFICATION

LOCATION	HIGHWAY TYPE	PERCENT OF ALL CRASHES WET	SNOW OR ICE	DARKNESS
Rural	One-Lane	20	3.2	11
	Two-Lane	22	4.8	30
	Three-Lane	18	2.3	34
	Four-Lane Divided (Non-Interstate or Parkway)	18	4.1	31
	Four-Lane Undivid	18	6.0	30
	Interstate	28	9.2	36
	Parkway	21	9.8	43
	All Rural	22	5.4	31
Urban	Two-Lane	16	3.1	23
	Three-Lane	14	2.4	23
	Four-Lane Divided (Non-Interstate or Parkway)	14	2.0	22
	Four-Lane Undivid	17	2.0	22
	Interstate	16	4.7	29
	Parkway	19	5.8	33
	All Urban	15	2.8	23

APPENDIX B

CRASH DATA FOR THREE-YEAR PERIOD (2015-2017)

TABLE B-1. STATEWIDE RURAL CRASH RATES BY HIGHWAY TYPE CLASSIFICATION (2016-2018)

HIGHWAY TYPE	TOTAL MILEAGE*	AADT	CRASHES RATES (CRASHES PER 100 MVM) ALL	INJURY	FATAL
One-Lane	15	700	836	87	0.0
Two-Lane	22,948	1,320	257	54	2.7
Three-Lane	31	6,700	283	45	1.8
Four-Lane Divided (Non-Interstate or Parkway)	624	9,630	120	24	1.3
Four-Lane Undivided	17	14,210	156	29	0.8
Interstate	651	34,090	60	10	0.5
Parkway	480	10,150	67	13	1.0
All	24,765	2,580	161	33	1.7

* Average for the three years.

TABLE B-2. STATEWIDE URBAN CRASH RATES BY HIGHWAY TYPE CLASSIFICATION (2016-2018)

HIGHWAY TYPE	TOTAL MILEAGE*	AADT	CRASHES RATES (CRASHES PER 100 MVM) ALL	INJURY	FATAL
Two-Lane	2,149	5,800	482	75	1.4
Three-Lane	47	10,220	742	99	1.1
Four-Lane Divided (Non-Interstate or Parkway)	816	18,470	456	73	1.5
Four-Lane Undivided	147	21,200	601	92	1.6
Interstate	214	77,000	131	20	0.5
Parkway	29	14,340	134	25	1.1
All **	3,465	14,400	375	58	1.1

* 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 (2016-2018)

RURAL OR URBAN	HIGHWAY TYPE	NUMBER OF CRASHES	NUMBER OF SPOTS*	MILLION VEHICLES PER YEAR	CRASHES PER MILLION VEHICLES PER SPOT
Rural	One-Lane	96	50	0.26	2.51
	Two-Lane	85,481	76,492	0.48	0.77
	Three-Lane	644	103	2.45	0.85
	Four-Lane Divided (Non-Interstate or Parkway)	7,886	2,080	3.52	0.36
	Four-Lane Undivided	404	56	5.19	0.47
	Interstate	14,536	2,171	12.44	0.18
	Parkway	3,595	1,600	3.70	0.20
	All Rural	112,642	82,551	0.94	0.48
Urban	Two-Lane	65,790	7,163	2.12	1.45
	Three-Lane	3,903	157	3.73	2.23
	Four-Lane Divided	75,318	2,721	6.74	1.37
	Four-Lane Undivided	20,555	491	7.74	1.80
	Interstate	23,564	714	28.11	0.39
	Parkway	601	95	5.23	0.40
	All Urban**	204,719	11,550	5.26	1.12

* 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 (2016-2018)

RURAL OR URBAN	HIGHWAY TYPE	CRASHES PER SPOT*		CRASHES PER ONE MILE SECTION	
		AVERAGE	CRITICAL NUMBER	AVERAGE	CRITICAL NUMBER
Rural	One-Lane	1.92	6	6.40	13
	Two-Lane	1.12	4	3.73	9
	Three-Lane	6.23	13	20.77	33
	Four-Lane Divided (Non-Interstate or Parkway)	3.79	9	12.64	22
	Four-Lane Undivided	7.27	15	24.24	37
	Interstate	6.70	14	22.32	35
	Parkway	2.25	7	7.49	15
	All Rural	1.36	5	4.55	11
Urban	Two-Lane	9.18	17	30.62	45
	Three-Lane	24.91	38	83.04	107
	Four-Lane Divided	27.68	42	92.27	118
	Four-Lane Undivided	41.88	59	139.59	171
	Interstate	33.02	48	110.06	138
	Parkway	6.32	13	21.07	33
	All Urban**	17.72	29	59.08	79

* 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 (2016-2018)

RURAL OR URBAN	HIGHWAY TYPE	NUMBER OF CRASHES	NUMBER OF SPOTS*	MILLION VEHICLES PER YEAR	CRASHES PER MILLION VEHICLES PER SPOT
Rural	One-Lane	96	150	0.26	0.84
	Two-Lane	85,481	229,477	0.48	0.26
	Three-Lane	644	310	2.45	0.28
	Four-Lane Divided (Non-Interstate or Parkway)	7,886	6,240	3.52	0.12
	Four-Lane Undivided	404	167	5.19	0.16
	Interstate	14,536	6,513	12.44	0.06
	Parkway	3,595	4,800	3.70	0.07
	All Rural	112,642	247,653	0.94	0.16
Urban	Two-Lane	65,790	21,489	2.12	0.48
	Three-Lane	3,903	470	3.73	0.74
	Four-Lane Divided	75,318	8,163	6.74	0.46
	Four-Lane Undivided	20,555	1,473	7.74	0.60
	Interstate	23,564	2,141	28.11	0.13
	Parkway	601	285	5.23	0.13
	All Urban**	204,719	34,651	5.26	0.37

* 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 (2016-2018)

RURAL OR URBAN	HIGHWAY TYPE	CRASHES PER SPOT*		CRASHES PER ONE MILE SECTION	
		AVERAGE	CRITICAL NUMBER	AVERAGE	CRITICAL NUMBER
Rural	One-Lane	0.64	3	6.40	13
	Two-Lane	0.37	2	3.73	9
	Three-Lane	2.08	6	20.77	33
	Four-Lane Divided (Non-Interstate or Parkway)	1.26	5	12.64	22
	Four-Lane Undivided	2.42	7	24.24	37
	Interstate	2.23	7	22.32	35
	Parkway	0.75	3	7.49	15
	All Rural	0.45	3	4.55	11
Urban	Two-Lane	3.06	8	30.62	45
	Three-Lane	8.30	16	83.04	107
	Four-Lane Divided	9.23	18	92.27	118
	Four-Lane Undivided	13.96	24	139.59	171
	Interstate	11.01	20	110.06	138
	Parkway	2.11	6	21.07	33
	All Urban**	5.91	13	59.08	79

* 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)(2016-2018)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE		
AADT	ONE-LANE	TWO-LANE	THREE-LANE
100	12.54	8.80	8.97
500	4.94	2.95	3.04
1,000	3.55	1.97	2.04
2,500	2.45	1.24	1.29
5,000	1.94	0.91	0.95
7,500	1.72	0.78	0.82
10,000	1.60	0.70	0.74
15,000	1.45	0.61	0.65
20,000	1.37	0.56	0.59

TABLE B-8. CRITICAL CRASH RATES FOR 0.1 MILE "SPOTS" ON RURAL FOUR-LANE HIGHWAYS, INTERSTATES, AND PARKWAYS (THREE-YEAR PERIOD)(2016-2018)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE			
AADT	FOUR-LANE DIVIDED (NON-INTERSTATE AND PARKWAY)	FOUR-LANE UNDIVIDED	INTERSTATE	PARKWAY
500	2.24	2.47	1.83	1.90
1,000	1.43	1.60	1.12	1.18
2,500	0.84	0.97	0.62	0.66
5,000	0.59	0.69	0.42	0.45
10,000	0.44	0.52	0.30	0.32
15,000	0.37	0.44	0.25	0.27
20,000	0.33	0.40	0.22	0.24
30,000	0.29	0.35	0.19	0.20
40,000	0.27	0.33	0.17	0.18
50,000	0.25	0.31	0.15	0.17

TABLE B-9. CRITICAL CRASH RATES FOR 0.1 MILE "SPOTS" ON URBAN TWO-LANE AND THREE-LANE HIGHWAYS (THREE-YEAR PERIOD)(2016-2018)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE	
AADT	TWO-LANE	THREE-LANE
500	3.81	4.65
1,000	2.64	3.31
2,500	1.74	2.26
5,000	1.33	1.78
7,500	1.16	1.57
10,000	1.06	1.46
15,000	0.95	1.32
20,000	0.88	1.24
30,000	0.81	1.14
40,000	0.76	1.09

TABLE B-10. CRITICAL CRASH RATES FOR 0.1 MILE "SPOTS" ON URBAN FOUR-LANE HIGHWAYS, INTERSTATES, AND PARKWAYS (THREE-YEAR PERIOD)(2016-2018)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE			
AADT	FOUR-LANE DIVIDED (NON-INTERSTATE AND PARKWAY)	FOUR-LANE UNDIVIDED	INTERSTATE	PARKWAY
1,000	2.59	2.96	1.47	1.47
5,000	1.30	1.54	0.62	0.62
10,000	1.03	1.25	0.46	0.46
15,000	0.92	1.12	0.39	0.39
20,000	0.86	1.05	0.35	0.35
30,000	0.78	0.96	0.31	0.31
40,000	0.74	0.91	0.28	0.28
50,000	0.71	0.88	0.26	0.26
60,000	0.68	0.85	0.25	0.25
70,000	0.67	0.83	0.24	0.24
80,000	0.65	0.82	0.23	0.23
90,000	0.64	0.81	0.23	0.23
100,000	0.63	0.80	0.22	0.22

APPENDIX C

CRITICAL "NUMBERS OF CRASHES" TABLES

TABLE C-1. CRITICAL NUMBERS OF CRASH RATES ON RURAL HIGHWAYS BY HIGHWAY TYPE AND SECTION LENGTH (2014-2018)

	CRITICAL NUMBERS OF CRASHES FOR THE GIVEN SECTION LENGTH (MILES)						
HIGHWAY TYPE	0.4	1	2	5	10	15	20
One-Lane	7	13	22	46	84	120	155
Two-Lane	7	13	22	47	84	120	156
Three-Lane	23	49	88	201	382	560	736
Four-Lane Divided (Non-Interstate and Parkway)	16	33	58	130	244	356	466
Four-Lane Undivided	24	50	91	206	392	575	756
Interstate	25	52	95	217	413	606	797
Parkway	11	22	38	82	152	220	287

TABLE C-2. CRITICAL NUMBERS OF CRASH RATES ON URBAN HIGHWAYS BY HIGHWAY TYPE AND SECTION LENGTH (2014-2018)

	CRITICAL NUMBERS OF CRASHES FOR THE GIVEN SECTION LENGTH (MILES)					
HIGHWAY TYPE	0.4	1	2	5	8	10
Two-Lane	33	70	129	299	464	573
Three-Lane (Non-Interstate and Parkway)	71	159	301	713	1,119	1,388
Four-Lane Divided	78	176	333	792	1,244	1,543
Four-Lane Undivided	116	266	509	1,222	1,926	2,393
Interstate	92	210	400	955	1,502	1,864
Parkway	23	47	85	194	299	368

APPENDIX D

CRITICAL CRASH RATE TABLES FOR HIGHWAY SECTIONS

TABLE D-1. CRITICAL CRASH RATES FOR RURAL ONE-LANE SECTIONS (FIVE-YEAR PERIOD)(2014-2018)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
100	3,301	2,404	1,825	1,352	1,127
200	2,404	1,825	1,445	1,127	974
300	2,036	1,584	1,284	1,031	908
400	1,825	1,445	1,190	974	869
500	1,686	1,352	1,127	936	842
700	1,507	1,232	1,046	886	808
1,000	1,352	1,127	974	842	777
1,500	1,210	1,031	908	801	748
2,000	1,127	974	869	777	732
2,500	1,072	936	842	761	720
3,000	1,031	908	823	748	712

TABLE D-2. CRITICAL CRASH RATES FOR RURAL TWO-LANE SECTIONS (FIVE-YEAR PERIOD)(2014-2018)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)					
AADT	0.5	1	2	5	10	20
100	2,192	1,513	1,090	754	599	495
300	1,243	918	707	533	450	393
500	990	754	599	469	406	363
1,000	754	599	495	406	363	333
1,500	656	533	450	379	344	320
2,000	599	495	424	363	333	312
3,000	533	450	393	344	320	303
4,000	495	424	375	333	312	297
5,000	469	406	363	325	307	294
7,000	435	383	347	315	300	289
8,000	424	375	341	312	297	287
9,000	414	368	337	309	295	286
10,000	406	363	333	307	294	284

TABLE D-3. CRITICAL CRASH RATES FOR RURAL THREE-LANE SECTIONS (FIVE-YEAR PERIOD)(2014-2018)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	3	5
100	2,255	1,563	1,131	954	786
300	1,287	954	738	647	559
500	1,028	786	627	559	493
1,000	786	627	519	473	428
1,500	685	559	473	437	400
2,000	627	519	446	415	384
3,000	559	473	415	389	364
4,000	519	446	396	374	353
5,000	493	428	384	364	345
6,000	473	415	374	357	339
7,000	458	405	367	351	335
8,000	446	396	362	346	331
9,000	437	389	357	342	328
10,000	428	384	353	339	326

TABLE D-4. CRITICAL CRASH RATES FOR RURAL FOUR-LANE DIVIDED SECTIONS (NON-INTERSTATE AND PARKWAY) (FIVE-YEAR PERIOD)(2014-2018)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
500	643	467	354	261	217
1,000	467	354	279	217	187
2,500	326	261	217	180	161
5,000	261	217	187	161	149
7,500	233	198	174	153	143
10,000	217	187	166	149	140
15,000	198	174	157	143	136
20,000	187	166	152	140	133
30,000	174	157	146	136	131
40,000	166	152	142	133	129
50,000	161	149	140	132	128

TABLE D-5. CRITICAL CRASH RATES FOR RURAL FOUR-LANE UNDIVIDED SECTIONS (FIVE-YEAR PERIOD)(2014-2018)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
500	687	503	384	286	239
1,000	503	384	305	239	208
2,500	355	286	239	200	180
5,000	286	239	208	180	167
7,500	257	219	194	172	161
10,000	239	208	186	167	157
20,000	208	186	171	157	151
30,000	194	176	164	153	148
40,000	186	171	160	151	146
50,000	180	167	157	149	145

TABLE D-6. CRITICAL CRASH RATES FOR RURAL INTERSTATE SECTIONS (FIVE-YEAR PERIOD)(2014-2018)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)					
AADT	0.5	1	2	5	10	20
500	461	320	232	162	130	108
1,000	320	232	176	130	108	93
2,500	211	162	130	102	89	80
5,000	162	130	108	89	80	74
7,500	141	116	98	83	76	71
10,000	130	108	93	80	74	69
20,000	108	93	83	74	69	66
30,000	98	86	78	71	67	65
40,000	93	83	75	69	66	64
50,000	89	80	74	68	65	63

TABLE D-7. CRITICAL CRASH RATES FOR RURAL PARKWAY SECTIONS (FIVE-YEAR PERIOD)(2014-2018)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)					
AADT	0.5	1	2	5	10	20
400	551	380	274	190	151	125
700	407	291	217	157	129	110
1,000	341	249	190	141	118	102
1,500	282	211	165	127	108	96
2,000	249	190	151	118	102	92
3,000	211	165	134	108	96	87
4,000	190	151	125	102	92	84
5,000	176	141	118	99	89	82
7,000	157	129	110	93	85	80
10,000	141	118	102	89	82	77
20,000	118	102	92	82	77	74
40,000	102	92	84	77	74	72

TABLE D-8. CRITICAL CRASH RATES FOR URBAN TWO-LANE SECTIONS (FIVE-YEAR PERIOD)(2014-2018)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
500	1,446	1,143	941	769	685
1,000	1,143	941	803	685	627
2,500	891	769	685	613	577
5,000	769	685	627	577	551
7,500	716	649	602	561	540
10,000	685	627	587	551	534
15,000	649	602	569	540	526
20,000	627	587	558	534	521
30,000	602	569	546	526	515
40,000	587	558	539	521	512
50,000	577	551	534	518	510

TABLE D-9. CRITICAL CRASH RATES FOR URBAN THREE-LANE SECTIONS (FIVE-YEAR PERIOD)(2014-2018)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
500	1,804	1,455	1,220	1,019	921
1,000	1,455	1,220	1,060	921	853
2,500	1,162	1,019	921	835	793
5,000	1,019	921	853	793	763
7,500	958	878	823	774	750
10,000	921	853	805	763	742
15,000	878	823	784	750	732
20,000	853	805	771	742	727
30,000	823	784	756	732	720
40,000	805	771	748	727	716
50,000	793	763	742	723	714

TABLE D-10. CRITICAL CRASH RATES FOR URBAN FOUR-LANE DIVIDED SECTIONS (NON-INTERSTATE AND PARKWAY) (FIVE-YEAR PERIOD)(2014-2018)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
1,000	1,047	856	726	615	560
2,500	808	693	615	546	512
5,000	693	615	560	512	488
10,000	615	560	522	488	472
15,000	580	536	505	478	464
20,000	560	522	495	472	460
25,000	546	512	488	468	457
30,000	536	505	483	464	455
40,000	522	495	477	460	452
50,000	512	488	472	457	450
60,000	505	483	468	455	448

TABLE D-11. CRITICAL CRASH RATES FOR URBAN FOUR-LANE UNDIVIDED SECTIONS (FIVE-YEAR PERIOD)(2014-2018)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
1,000	1,298	1,079	930	801	738
2,500	1,025	893	801	722	683
5,000	893	801	738	683	655
10,000	801	738	694	655	636
15,000	762	710	674	643	627
20,000	738	694	663	636	622
25,000	722	683	655	631	618
30,000	710	674	649	627	616
40,000	694	663	641	622	612
50,000	683	655	636	618	610
60,000	674	649	631	616	608

TABLE D-12. CRITICAL CRASH RATES FOR URBAN INTERSTATE SECTIONS (FIVE-YEAR PERIOD)(2014-2018)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
1,000	486	370	293	229	198
5,000	274	229	198	171	158
10,000	229	198	177	158	149
20,000	198	177	162	149	143
30,000	185	168	156	145	140
40,000	177	162	152	143	138
50,000	171	158	149	141	137
60,000	168	156	147	140	136
70,000	164	153	146	139	136
80,000	162	152	145	138	135
90,000	160	150	144	138	135
100,000	158	149	143	137	134

TABLE D-13. CRITICAL CRASH RATES FOR URBAN PARKWAY SECTIONS (FIVE-YEAR PERIOD)(2014-2018)

	CRITICAL CRASH RATE (C/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)					
AADT	0.5	1	2	5	10	20
500	647	470	356	263	218	188
1,000	470	356	281	218	188	168
2,500	328	263	218	181	163	150
5,000	263	218	188	163	150	141
7,500	235	200	175	154	144	137
10,000	218	188	168	150	141	135
15,000	200	175	159	144	137	132
20,000	188	168	153	141	135	130
30,000	175	159	147	137	132	128
40,000	168	153	143	135	130	127
90,000	151	142	135	130	127	125
50,000	163	150	141	133	129	126

APPENDIX E

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

TABLE E-1. CRITICAL CRASH RATES FOR "SPOTS" ON RURAL ONE-LANE, TWO-LANE AND THREE-LANE HIGHWAYS (FIVE-YEAR PERIOD)(2014-2018)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE		
AADT	ONE-LANE	TWO-LANE	THREE-LANE
100	12.86	8.89	9.11
500	6.11	3.73	3.86
1,000	4.75	2.76	2.86
2,500	3.63	1.97	2.05
5,000	3.09	1.60	1.68
7,500	2.86	1.45	1.51
10,000	2.72	1.35	1.42
15,000	2.56	1.25	1.31
20,000	2.47	1.18	1.24

TABLE E-2. CRITICAL CRASH RATES FOR "SPOTS" ON RURAL FOUR-LANE HIGHWAYS, INTERSTATES, AND PARKWAYS (FIVE-YEAR PERIOD)(2014-2018)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE			
AADT	FOUR-LANE DIVIDED (NON-INTERSTATE AND PARKWAY)	FOUR-LANE UNDIVIDED	INTERSTATE	PARKWAY
500	2.53	2.65	1.87	1.95
1,000	1.78	1.88	1.26	1.33
2,500	1.19	1.27	0.80	0.85
5,000	0.93	0.99	0.60	0.64
10,000	0.75	0.81	0.46	0.50
15,000	0.67	0.73	0.41	0.44
20,000	0.63	0.68	0.37	0.40
30,000	0.58	0.63	0.34	0.36
40,000	0.55	0.60	0.31	0.34
50,000	0.53	0.58	0.30	0.33

TABLE E-3. CRITICAL CRASH RATES FOR "SPOTS" ON URBAN TWO-LANE AND THREE-LANE HIGHWAYS (FIVE-YEAR PERIOD)(2014-2018)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE	
AADT	TWO-LANE	THREE-LANE
500	5.29	6.50
1,000	4.06	5.09
2,500	3.04	3.91
5,000	2.56	3.35
7,500	2.35	3.11
10,000	2.23	2.96
15,000	2.09	2.80
20,000	2.00	2.70
30,000	1.90	2.58
40,000	1.84	2.51

TABLE E-4. CRITICAL CRASH RATES FOR "SPOTS" ON URBAN FOUR-LANE HIGHWAYS, INTERSTATES, AND PARKWAYS (FIVE-YEAR PERIOD)(2014-2018)

	CRITICAL CRASH RATE (C/MV) BY HIGHWAY TYPE			
AADT	FOUR-LANE DIVIDED (NON-INTERSTATE AND PARKWAY)	FOUR-LANE UNDIVIDED	INTERSTATE	PARKWAY
1,000	3.75	4.58	1.83	1.78
5,000	2.33	2.96	0.96	0.93
10,000	2.01	2.60	0.78	0.75
15,000	1.88	2.44	0.70	0.67
20,000	1.80	2.35	0.66	0.63
30,000	1.71	2.24	0.60	0.58
40,000	1.65	2.18	0.57	0.55
50,000	1.61	2.13	0.55	0.53
60,000	1.59	2.10	0.54	0.51
70,000	1.56	2.08	0.52	0.50
80,000	1.55	2.06	0.51	0.49
90,000	1.53	2.04	0.51	0.48
100,000	1.52	2.03	0.50	0.48

APPENDIX F

TOTAL CRASH RATES FOR CITIES INCLUDED IN 2000 CENSUS

TABLE F-1. CRASHES AND CRASH RATES FOR ALL CITIES LISTED IN THE 2010 CENSUS (2014-2018)

CITY	POPULATION	NUMBER OF CRASHES	ANNUAL CRASHES PER 1000 POPULATION	CITY	POPULATION	NUMBER OF CRASHES	CRASHES PER 1000 POPULATION
Adairville	852	34	8	California	130	*	*
Albany	2,033	223	22	Calvert City	2,566	449	35
Alexandria	8,477	1,118	26	Camargo	1,081	98	18
Allen	193	92	95	Cambridge	175	*	*
Anchorage	2,348	106	9	Campbellsburg	813	111	27
Annville	470	*	*	Campbellsville	9,108	1,922	42
Arlington	324	22	14	Campton	441	133	60
Ashland	21,684	3,555	33	Caneyville	608	58	19
Auburn	1,340	133	20	Carlisle	2,010	177	18
Audubon Park	1,473	14	2	Carrollton	3,938	490	25
Augusta	1,190	97	16	Carrsville	50	*	*
Bancroft	494	3	1	Catlettsburg	1,856	586	63
Barbourmeade	1,218	15	3	Cave City	2,240	413	37
Barbourville	3,165	590	37	Centertown	423	16	8
Bardstown	11,700	2,596	44	Central City	5,978	816	27
Bardwell	723	18	5	Clarkson	875	106	24
Barlow	675	31	9	Clay	1,181	27	5
Beattyville	1,307	133	20	Clay City	1,077	*	*
Beaver Dam	3,409	485	29	Clinton	1,388	*	*
Bedford	599	126	42	Cloverport	1,152	39	7
Beechwood Village	1,324	35	5	Cold Spring	5,912	1,037	35
Bellefonte	888	49	11	Coldstream	862	*	*
Bellemeade	865	*	*	Columbia	4,452	555	25
Bellevue	5,955	673	23	Columbus	170	*	*
Bellewood	321	2	1	Concord	35	2	11
Benham	500	3	1	Corbin	7,304	1,573	43
Benton	4,349	754	35	Corinth	232	111	96
Berea	13,561	1,968	29	Corydon	720	47	13
Berry	264	4	3	Covington	40,640	7,293	36
Blaine	47	7	30	Crab Orchard	841	35	8
Blandville	95	*	*	Creekside	323	*	*
Bloomfield	838	52	12	Crescent Springs	3,801	923	49
Blue Ridge Manor	767	153	40	Crestview	475	8	3
Bonnieville	255	95	75	Crestview Hills	3,148	1,555	99
Booneville	81	64	158	Crestwood	4,531	803	35
Bowling Green	58,067	13,844	48	Crittenden	3,815	339	18
Bradfordsville	294	8	5	Crofton	749	59	16
Brandenburg	2,643	586	44	Crossgate	225	*	*
Bremen	197	73	74	Cumberland	2,237	138	12
Briarwood	435	4	2	Cynthiana	6,402	910	28
Brodhead	1,211	64	11	Danville	16,218	2,614	32
Broeck Point	325	*	*	Dawson Springs	2,764	198	14
Bromley	763	33	9	Dayton	5,338	365	14
Brooksville	642	54	17	Dixon	786	85	22
Brownsboro Farm	648	*	*	Douglass Hills	5,549	*	*
Brownsville	836	166	40	Dover	252	19	15
Burgin	965	33	7	Drakesboro	515	83	32
Burkesville	1,521	125	16	Druid Hills	308	*	*
Burnside	611	403	132	Dry Ridge	2,191	689	63
Butler	612	43	14	Earlington	1,413	137	19
Cadiz	2,558	441	35	Eddyville	2,554	346	27
Calhoun	763	82	22	Edgewood	8,575	755	18

* Data Not Available

TABLE F-1. CRASHES AND CRASH RATES FOR ALL CITIES LISTED IN THE 2010 CENSUS (2014-2018)(continued)

CITY	POPULATION	NUMBER OF CRASHES	ANNUAL CRASHES PER 1000 POPULATION	CITY	POPULATION	NUMBER OF CRASHES	CRASHES PER 1000 POPULATION
Edmonton	1,595	270	34	Hardin	615	82	27
Ekron	135	77	114	Hardinsburg	2,343	199	17
Elizabethtown	28,531	5,417	38	Harlan	1,745	568	65
Elkhorn City	982	118	24	Harrodsburg	8,340	1,032	25
Elkton	2,062	145	14	Hartford	2,672	277	21
Elsmere	8,451	537	13	Hawesville	945	122	26
Eminence	2,498	138	11	Hazard	4,456	1,704	77
Erlanger	18,082	3,499	39	Hazel	410	35	17
Eubank	319	50	31	Hebron Estates	930	*	*
Evarts	962	81	17	Henderson	28,757	4,572	32
Ewing	264	38	29	Hickman	2,395	25	2
Fairfield	113	7	12	Hickory Hill	114	*	*
Fairview	286	15	11	Highland Heights	6,923	1,061	31
Falmouth	2,169	207	19	Hills And Dales	154	*	*
Ferguson	924	119	26	Hillview	6,119	*	*
Fincastle	838	*	*	Hindman	777	237	61
Flatwoods	7,423	421	11	Hiseville	240	12	10
Fleming-neon	759	*	*	Hodgenville	3,206	357	22
Flemingsburg	2,658	413	31	Hollow Creek	991	*	*
Florence	29,951	9,042	60	Hollyvilla	537	*	*
Fordsville	524	66	25	Hopkinsville	31,577	4,308	27
Forest Hills	444	121	55	Horse Cave	2,311	78	7
Fort Mitchell	8,207	1,346	33	Houston Acres	507	1	0
Fort Thomas	16,325	1,250	15	Hunters Hollow	286	*	*
Fort Wright	5,723	2,255	79	Hurstbourne	4,420	*	*
Foster	65	*	*	Hurstbourne Acres	1,811	*	*
Fountain Run	217	11	10	Hustonville	405	25	12
Fox Chase	528	*	*	Hyden	365	37	20
Frankfort	25,527	4,263	33	Independence	24,757	1,797	15
Franklin	8,408	1,498	36	Indian Hills	2,868	185	13
Fredonia	401	47	23	Indian Hills Ch. Sec.	1,005	*	*
Frenchburg	486	99	41	Inez	717	119	33
Fulton	2,445	241	20	Irvine	2,715	122	9
Gamaliel	376	13	7	Irvington	1,181	65	11
Georgetown	29,098	3,972	27	Island	458	44	19
Germantown	154	17	22	Jackson	2,231	530	48
Ghent	323	50	31	Jamestown	1,794	127	14
Glasgow	14,028	2,697	39	Jeffersontown	26,595	4,209	32
Glencoe	360	51	28	Jeffersonville	1,506	296	39
Glenview	653	*	*	Jenkins	2,203	*	*
Glenview Hills	353	*	*	Junction City	2,241	95	9
Glenview Manor	191	*	*	Kenton Vale	110	*	*
Goose Creek	294	*	*	Kevil	376	65	35
Grand Rivers	382	54	28	Kingsley	381	3	2
Gratz	78	6	15	Kuttawa	649	146	45
Grayson	4,217	702	33	La Grange	8,082	1,088	27
Green Spring	768	*	*	Lafayette	165	3	4
Greensburg	2,163	241	22	Lakeside Park	2,668	246	18
Greenup	1,188	216	36	Lakeview Heights	252	*	*
Greenville	4,312	686	32	Lancaster	3,442	439	26
Guthrie	1,419	77	11	Langdon Place	874	*	*
Hanson	742	91	25	Lawrenceburg	10,505	934	18

* Data Not Available

TABLE F-1. CRASHES AND CRASH RATES FOR ALL CITIES LISTED IN THE 2010 CENSUS (2014-2018)(continued)

CITY	POPULATION	NUMBER OF CRASHES	ANNUAL CRASHES PER 1000 POPULATION	CITY	POPULATION	NUMBER OF CRASHES	CRASHES PER 1000 POPULATION
Lebanon	5,539	936	34	Murray Hill	619	*	*
Lebanon Junction	1,813	174	19	Nebo	236	20	17
Leitchfield	6,699	1,149	34	New Castle	912	63	14
Lewisburg	810	52	13	New Haven	855	37	9
Lewisport	1,670	62	7	Newport	15,273	3,856	51
Lexington	295,803	55,040	37	Nicholasville	28,015	4,161	30
Liberty	2,168	185	17	Norbourne Estates	441	1	1
Lincolnshire	148	*	*	Northfield	1,020	453	89
Livermore	1,365	345	51	Nortonville	1,204	116	19
Livingston	226	87	77	Norwood	372	*	*
London	7,993	3,035	76	Oak Grove	7,489	1,122	30
Loretto	713	68	19	Oakland	225	27	24
Louisa	2,467	394	32	Old Brownboro Place	348	*	*
Louisville	597,337	109,001	37	Olive Hill	1,599	137	17
Loyall	1,461	43	6	Orcharh Grass Hills	1,058	*	*
Ludlow	4,407	334	15	Owensboro	57,265	11,265	39
Lynch	747	11	3	Owenton	1,327	161	24
Lyndon	11,002	860	16	Owingsville	1,530	291	38
Lynnview	914	14	3	Paducah	25,024	6,412	51
Mackville	222	7	6	Paintsville	3,459	889	51
Madisonville	19,591	3,006	31	Paris	8,553	1,378	32
Manchester	1,255	350	56	Park City	537	79	29
Manor Creek	179	*	*	Park Hills	2,970	120	8
Marion	3,039	246	16	Park Lake	263	*	*
Martin	634	217	69	Parkway Village	650	*	*
Maryhill Estates	177	*	*	Pembroke	869	57	13
Mayfield	10,024	1,559	31	Perryville	751	32	9
Maysville	9,011	1,558	35	Pewee Valley	1,456	240	33
Mchenry	388	27	14	Phelps	893	98	22
Mckee	800	125	31	Pikeville	6,903	2,345	68
Mcroberts	784	11	3	Pineville	1,732	379	44
Meadowbrook Farm	163	*	*	Pioneer Village	1,130	*	*
Melbourne	401	27	14	Pippa Passes	533	38	14
Mentor	193	5	5	Plantation	832	40	10
Middletown	7,218	2,057	57	Pleasureville	834	29	7
Midway	1,641	189	23	Plum Springs	453	*	*
Millersburg	792	65	16	Poplar Hills	377	*	*
Milton	574	116	40	Powderly	745	122	33
Monterey	138	2,373	3,439	Prestonsburg	3,255	1,308	80
Monticello	6,188	1,029	33	Prestonville	161	28	35
Moorland	431	124	58	Princeton	6,329	864	27
Morehead	6,845	2,210	65	Prospect	2,788	*	*
Morganfield	3,285	363	22	Providence	3,193	149	9
Morgantown	2,394	342	29	Raceland	2,424	117	10
Mortons Gap	863	92	21	Radcliff	21,688	2,414	22
Mount Olivet	299	30	20	Ravenna	605	21	7
Mount Sterling	6,895	1,456	42	Raywick	157	*	*
Mount Vernon	2,477	600	48	Richlawn	435	*	*
Mount Washington	9,117	1,333	29	Richmond	31,364	5,795	37
Muldraugh	947	173	37	River Bluff	452	*	*
Munfordville	1,615	368	46	Riverwood	446	737	331
Murray	17,741	2,727	31	Rochester	152	4	5

* Data Not Available

TABLE F-1. CRASHES AND CRASH RATES FOR ALL CITIES LISTED IN THE 2010 CENSUS (2014-2018)(continued)

CITY	POPULATION	NUMBER OF CRASHES	ANNUAL CRASHES PER 1000 POPULATION
Rockport	266	26	20
Rolling Fields	646	*	*
Rolling Hills	959	131	27
Russell	3,380	712	42
Russell Springs	2,441	681	56
Russellville	6,960	1,027	30
Ryland Heights	279	*	*
Sacramento	468	46	20
Sadieville	303	42	28
Salem	752	28	7
Salt Lick	303	51	34
Salyersville	1,883	289	31
Sanders	238	7	6
Sandy Hook	675	61	18
Sardis	103	9	18
Science Hill	693	107	31
Scottsville	4,226	679	32
Sebree	1,603	85	11
Seneca Gardens	696	3	1
Sharpsburg	323	25	16
Shelbyville	14,045	2,158	31
Shepherdsville	11,222	3,254	58
Shively	15,264	4,067	53
Silver Grove	1,102	87	16
Simpsonville	2,484	355	29
Slaughters	216	10	9
Smithfield	106	61	115
Smithland	301	65	43
Smiths Grove	714	107	30
Somerset	11,196	3,944	71
Sonora	513	115	45
South Carrollton	184	45	49
South Shore	1,122	*	*
Southgate	3,803	643	34
Sparta	231	46	40
Spring Mill	342	*	*
Spring Valley	400	*	*
Springfield	2,519	359	29
Stamping Ground	643	36	11
Stanford	3,487	547	31
Stanton	2,733	342	25
Strathmoor Manor	337	*	*
Sturgis	1,898	83	9
Sycamore	70	*	*
Taylor Mill	6,604	890	27
Taylorsville	763	225	59
Ten Broeck	128	*	*
Thornhill	146	*	*
Tompkinsville	2,402	136	11
Trenton	384	17	9
Union	5,379	628	23
Uniontown	1,002	63	13
Upton	683	45	13
Vanceburg	1,518	102	13
Versailles	8,568	1,355	32
Vicco	334	69	41
Villa Hills	7,489	204	5
Vine Grove	4,520	347	15
Wallins Creek	156	*	*
Walton	3,635	808	45
Warfield	269	34	25
Warsaw	1,615	143	18
Water Valley	279	16	12
Waterson Park	1,542	*	*
Waverly	308	24	16
Wayland	426	29	14
Wellington	565	12	4
West Buechel	1,230	*	*
West Liberty	3,435	162	9
West Point	797	150	38
Westwood	4,746	*	*
Wheatcroft	160	15	19
Wheelwright	780	21	5
White Plains	884	33	8
Whitesburg	2,139	342	32
Whitesville	552	90	33
Whitley City	1,170	224	38
Wickliffe	688	95	28
Wilder	3,035	967	64
Wildwood	261	4	3
Williamsburg	5,245	779	30
Williamstown	3,925	523	27
Willisburg	282	145	103
Wilmore	3,686	264	14
Winchester	18,368	2,915	32
Winding Falls	657	*	*
Windy Hills	2,385	12	1
Wingo	632	74	23
Woodburg	117	*	*
Woodburn	355	36	20
Woodland Hills	696	7	2
Woodlawn	229	4	4
Woodlawn Park	942	81	17
Worthington	1,609	33	4
Worthington Hills	973	*	*
Worthville	185	11	12
Wurtland	995	104	21

* Data Not Available