Epidemiology of Motor Vehicle Crashes in Kentucky, 2015

Occupants & At-Fault Drivers

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Kentucky Injury Prevention and Research Center
Kentucky Injury Prevention and Research Center (KIPRC): Bona fide agent of Kentucky Department for Public Health (KDPH) in violence and injury prevention

KIPRC has been in partnership with KDPH since 1994

Maps

- Crashes
  - Based on Kentucky county drivers

- Hospitalization rate
  - Numerators based on Kentucky county residents in Kentucky acute care facilities
  - Denominators based on Census 2015 Kentucky county populations
MOTOR VEHICLE OCCUPANT COLLISIONS
Kentucky Motor Vehicle Occupant Crash-related Injury Rate, 2015

Rate per 100,000*

- unstable
- 30 - 214
- 215 - 278
- 279 - 351
- 352 - 477

*Rate is based on the number of occupants (drivers and passengers) who sustained fatal and nonfatal injuries in a motor vehicle collision per 100,000 residents. Rates based on counts less than 20 may be unstable.

Data Sources: Collision Report and Analysis for Safer Highways (CRASH) file [2015], Kentucky State Police, Frankfort, KY; Annual County Estimates of the Resident Population [2015]: April 1, 2010-July 1, 2015, released Mar 2016, US Census Bureau, Population Division. Data are provisional and subject to change.
Kentucky Motor Vehicle Occupant Injury-related Hospital Visit Rate, 2015

*Rate is based on the number of motor vehicle occupants who visited the hospital (inpatient and outpatient) at an acute care facility due to motor vehicle injuries per 100,000 residents.

Data Sources: Kentucky Inpatient and Outpatient Hospitalization Claim Files [2015], Cabinet for Health and Family Services, Office of Health Policy; Annual County Estimates of the Resident Population [2015], April 1, 2010-July 1, 2015, released March 2016, US Census Bureau, Population Division. Data are provisional and subject to change.
Kentucky Motor Vehicle Occupant Crash Injury Risk Index, 2015

Motor Vehicle Collision Index

- 1st Quartile
- 2nd Quartile
- 3rd Quartile
- 4th Quartile

Index Score is calculated by averaging county ranks in the 1) motor vehicle collision occupant injury (fatal and nonfatal) rates; and, 2) motor vehicle motor vehicle occupant hospital visit rates.


Legend
- Interstate
- Parkway
- US Roadway
- Cold Spot - 99% Confidence
- Cold Spot - 95% Confidence
- Cold Spot - 90% Confidence
- Not Significant
- Hot Spot - 90% Confidence
- Hot Spot - 95% Confidence
- Hot Spot - 99% Confidence

Index Score is calculated by averaging county ranks in the 1) motor vehicle collision occupant injury (fatal and nonfatal) rates; and, 2) motor vehicle motor vehicle occupant hospital visit rates.

Data Sources: Collision Report and Analysis for Safer Highways (CRASH) file, Kentucky State Police [2015]; Kentucky Inpatient and Outpatient Hospitalization Claims Files [2015], Cabinet for Health and Family Services, Office of Health Policy; Annual County Estimates of the Resident Population [2015]; April 1, 2010-July 1, 2015, released Mar 2016, US Census Bureau, Population Division. Data are provisional and subject to change.
AT-FAULT DRIVER FACTORS
Kentucky Motor Vehicle Driver At-Fault Crash Rate, 2015

*Rate is based on the number of at-fault drivers involved in a motor vehicle collision per 100,000 drivers currently registered in the Kentucky Division of Driver Licensing System.

Data Sources: Collision Report and Analysis for Safer Highways (CRASH) file [2015], Kentucky State Police, Frankfort, KY; Kentucky Division of Driver Licensing System (KOLIS) [2017], Kentucky Department of Transportation, Frankfort, KY. Data are provisional and subject to change.
Kentucky Motor Vehicle Distracted Driver At-Fault Crashes, 2015

**No. of Collisions**
- 19 - 113
- 114 - 212
- 213 - 422
- 423 - 11434

*Count is based on the number of at-fault drivers involved in a motor vehicle collision where distracted and/or inattentive driving were a contributing factor.

Data Source: Collision Report and Analysis for Safer Highways (CRASH) file [2015]. Kentucky State Police, Frankfort, KY. Data are provisional and subject to change.
Kentucky Motor Vehicle Unrestrained Driver At-Fault Crashes, 2015

No. of Collisions*
- suppressed
- 5 - 43
- 44 - 88
- 89 - 170
- 171 - 3563

*Count is based on the number of at-fault drivers involved in a motor vehicle collision who did not wear a seatbelt. Suppressed counts are those less than five.

Data Source: Collision Report and Analysis for Safer Highways (CRASH) file [2015], Kentucky State Police, Frankfort, KY. Data are provisional and subject to change.
Kentucky Motor Vehicle Impaired Driver
At-Fault Crashes, 2015

No. of Collisions*
- suppressed
- 5 - 12
- 13 - 22
- 23 - 44
- 45 - 905

*Count is the based on the number of at-fault drivers involved in a collision where alcohol and/or drugs were a contributing factor. Suppressed counts are those less than five.

Data Source: Collision Report and Analysis for Safer Highways (CRASH) file [2015], Kentucky State Police, Frankfort, KY. Data are provisional and subject to change.
Kentucky Motor Vehicle Injury-related Hospital Visit Rate, 2015

*Rate is based on the number of motor vehicle occupants who visited the hospital (inpatient and outpatient) at an acute care facility due to motor vehicle injuries per 100,000 residents.

Data Sources: Kentucky Inpatient and Outpatient Hospitalization Claim Files [2015], Cabinet for Health and Family Services, Office of Health Policy; Annual County Estimates of the Resident Population [2015], April 1, 2010-July 1, 2015, released March 2016, US Census Bureau, Population Division. Data are provisional and subject to change.
Kentucky Motor Vehicle At-Fault Crash Injury Risk Index, 2015

Motor Vehicle Collision Index

- 1st Quartile
- 2nd Quartile
- 3rd Quartile
- 4th Quartile

Index Score is calculated by averaging county ranks in the 1) at-fault driver motor vehicle collision rates; 2) at-fault distracted driving motor vehicle collisions; 3) at-fault unrestrained driving motor vehicle collisions; 4) at-fault impaired driving motor vehicle collisions; and, 5) motor vehicle occupant hospital visit rates.

Kentucky Motor At-Fault Crash Injury Risk Index: Hot and Cold Spots, 2015

Legend
- Interstate
- Parkway
- US Roadway
- Cold Spot - 99% Confidence
- Cold Spot - 95% Confidence
- Cold Spot - 90% Confidence
- Not Significant
- Hot Spot - 90% Confidence
- Hot Spot - 95% Confidence
- Hot Spot - 99% Confidence

Index Score is calculated by averaging county ranks in the 1) at-fault driver motor vehicle collision rates; 2) at-fault distracted driving motor vehicle collisions; 3) at-fault unrestrained driving motor vehicle collisions; 4) at-fault impaired driving motor vehicle collisions; and, 5) motor vehicle occupant hospital visit rates.


**Legend**
- Interstate
- Parkway
- US Roadway
- Cold Spot - 99% Confidence
- Cold Spot - 95% Confidence
- Cold Spot - 90% Confidence
- Net Significant
- Hot Spot - 90% Confidence
- Hot Spot - 95% Confidence
- Hot Spot - 99% Confidence

**Index Score** is calculated by averaging county ranks in the:
1) Motor vehicle collision occupant injury (fatal and nonfatal) rates; and,
2) Motor vehicle motor vehicle occupant hospital visit rates.

**Data Sources:**

**Legend**
- Interstate
- Parkway
- US Roadway
- Cold Spot - 99% Confidence
- Cold Spot - 95% Confidence
- Cold Spot - 90% Confidence
- Net Significant
- Hot Spot - 90% Confidence
- Hot Spot - 95% Confidence
- Hot Spot - 99% Confidence

**Index Score** is calculated by averaging county ranks in the:
1) At-fault driver motor vehicle collision rates; 2) At-fault distracted driving motor vehicle collisions; 3) At-fault impaired driving motor vehicle collisions; and, 5) Motor vehicle occupant hospital visit rates.

**Data Sources:**