

Bureau of Highway Safety Fatality Analysis 2019-2023

June 30, 2025

Prepared for the Bureau of Highway Safety

Survey Research Center
Cutler Institute for Health & Social Policy
University of Southern Maine



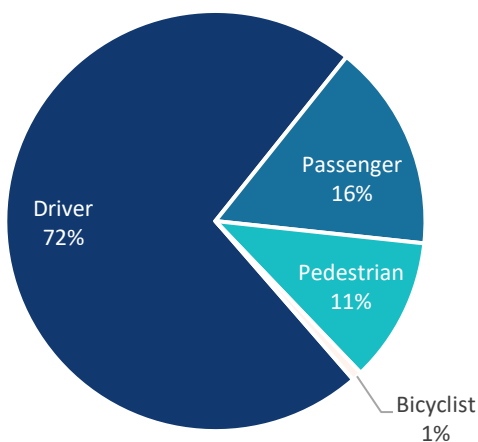
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Fatalities

This report summarizes the findings from an analysis of highway fatalities from 2019 to 2023. The dataset used for analysis contained a total of 1568 records, each representing an individual involved in a fatal crash. In total, there were 726 fatal crashes during this 5-year time span and 789 fatalities. On average, there were 158 fatalities per year, ranging from a low of 135 in 2023 to a high of 182 in 2022.

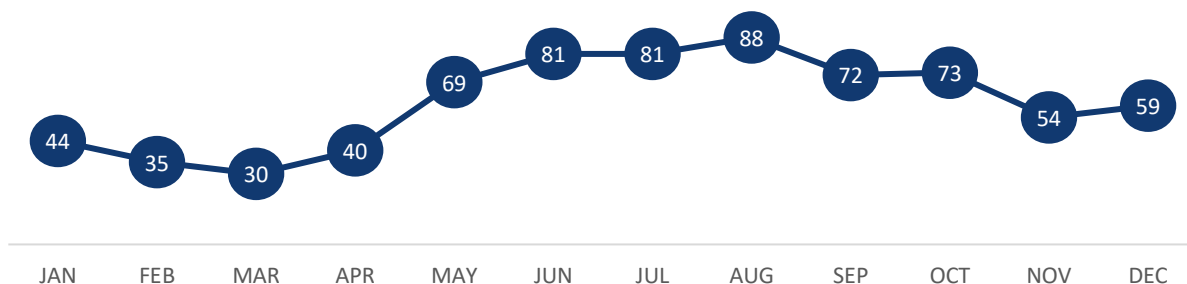
Fatalities by Person Type



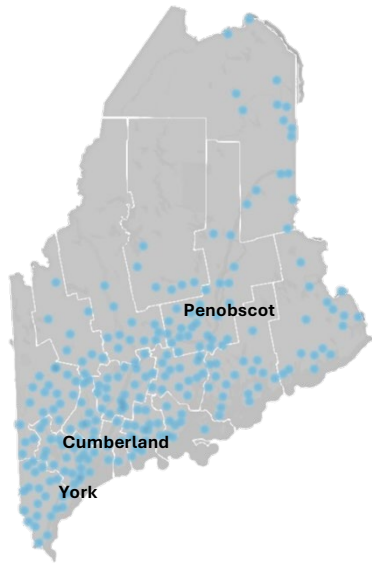
A total of 789 drivers, passengers, bicyclists, and pedestrians lost their lives as a result of highway crashes from 2019 to 2023. The majority of these fatalities (72%) were driver fatalities, 16% were passenger fatalities, 11% were pedestrian fatalities, and the remaining 1% were bicyclist fatalities.

Fatal Crashes by Month

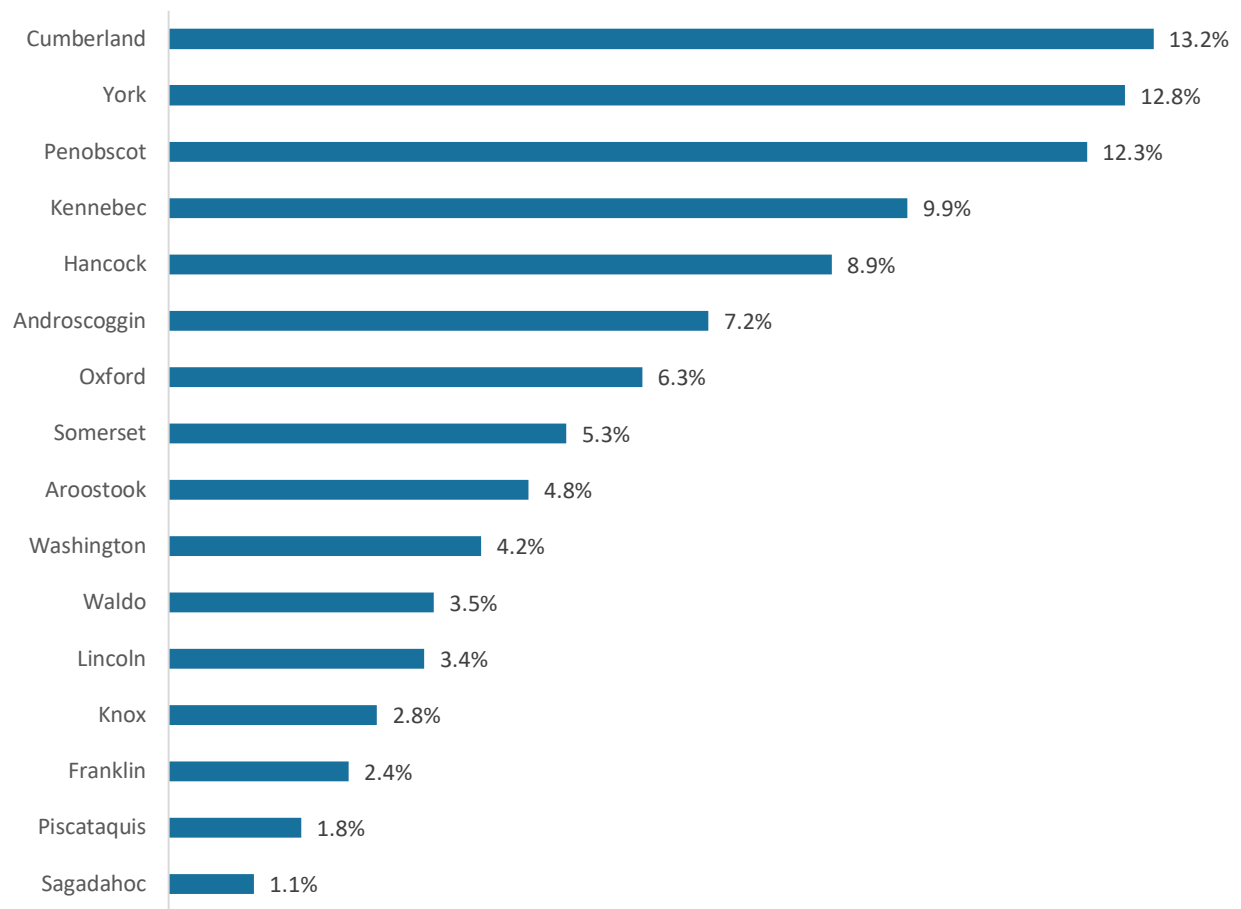
While Maine's roads are most dangerous during the winter months, a higher number of fatal crashes occur during the summer months. This may reflect a reduction in the number of miles driven during winter months and/or increased care taken by drivers when navigating during inclement weather. June through August make up one-quarter (25%) of the calendar year, but those months accounted for 34% of fatal crashes.



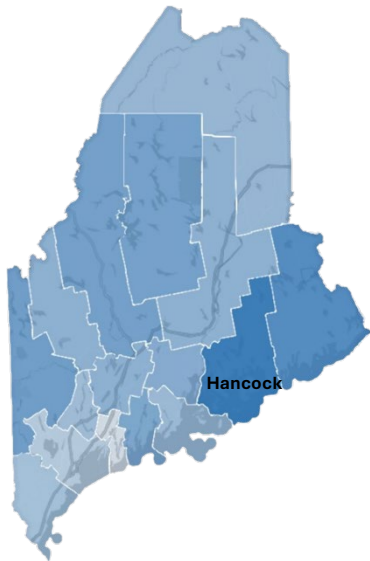
Fatalities by County



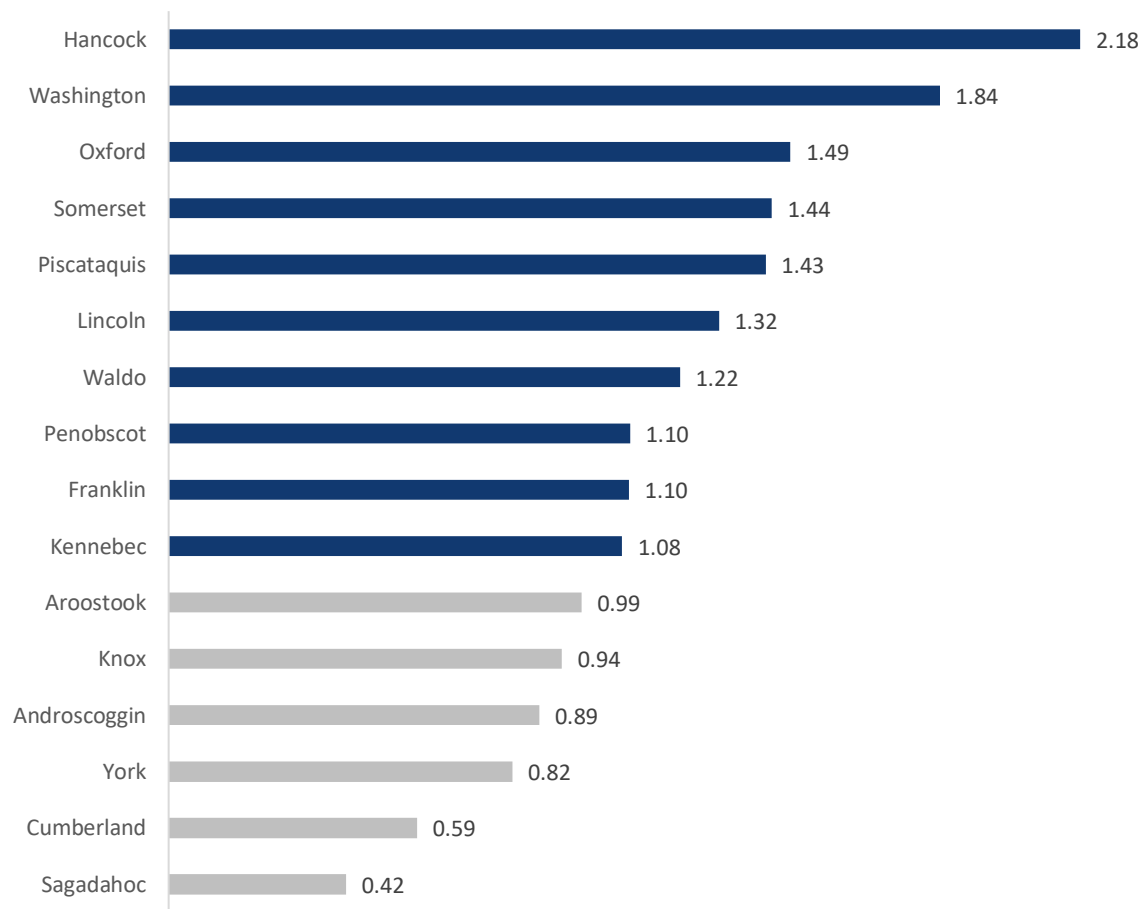
Approximately 13.2% of the 789 fatalities that occurred between 2019 and 2023 occurred in Cumberland County, followed by 12.8% in York County, and 12.3% in Penobscot County.



Fatalities by County, Relative Rate



Often, the highest rates of a given event are observed in the most populous counties. To identify disproportionate fatality rates, relative rates were computed by dividing the fatality rate of each county by its population rate. Hancock County, which held 4.07% of the population according to the last 5-year American Community Survey, had 8.87% of the fatalities between 2019 and 2023, resulting in a relative rate of 2.18. This rate is disproportionately high, as are the rates of all counties displayed in blue below.

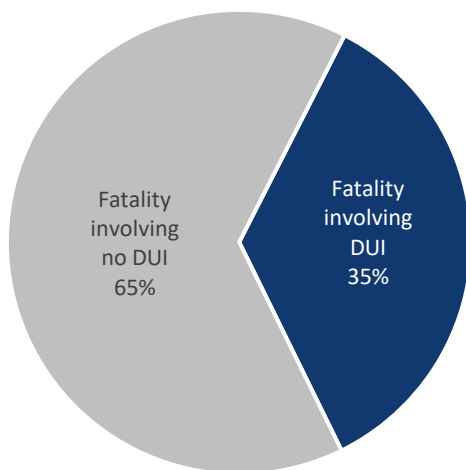


Impaired Driving

Summary

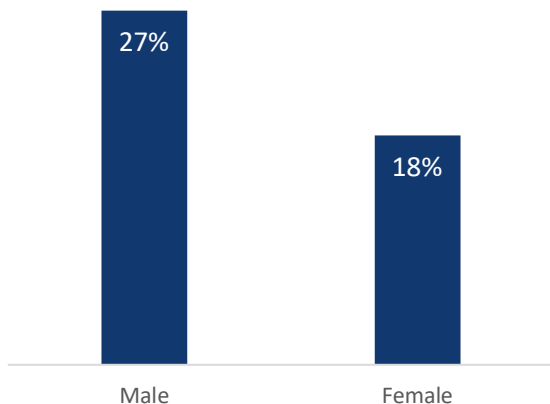
- ◆ There were 256 impaired-driving-related fatal crashes involving 259 impaired drivers between 2019 and 2023.
- ◆ There were 278 impaired-driving-related fatalities during this period.
- ◆ Thirty-five percent (35%) of all fatalities between 2019 and 2023 involved an impaired driver.
- ◆ Twenty-five percent (25%) of all drivers involved in fatal crashes between 2019 and 2023 were impaired.

Impaired-Driving-Related Fatalities



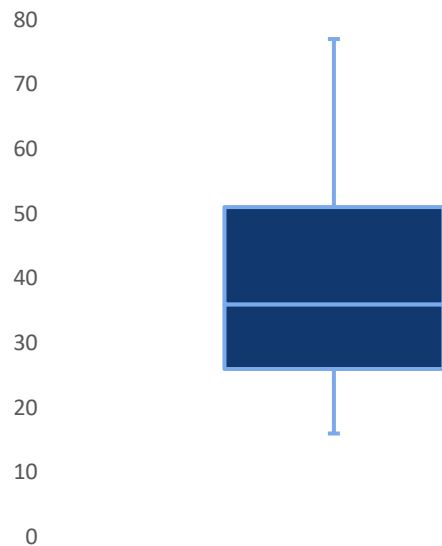
Approximately one-third (35%) of all fatalities involved an impaired driver. This proportion ranged from a low of 25% in 2021 to a high of 46% in 2022.

Impaired Driving and Sex



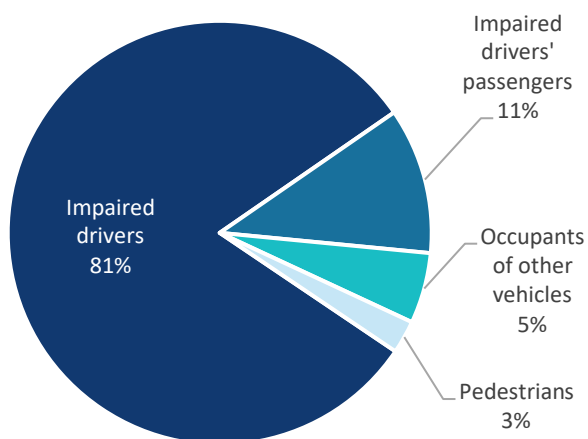
While 25% of all drivers involved in fatal crashes were operating under the influence, a higher proportion of male drivers involved in fatal crashes were operating under the influence (27%) compared to female drivers (18%).

Age of Impaired Drivers



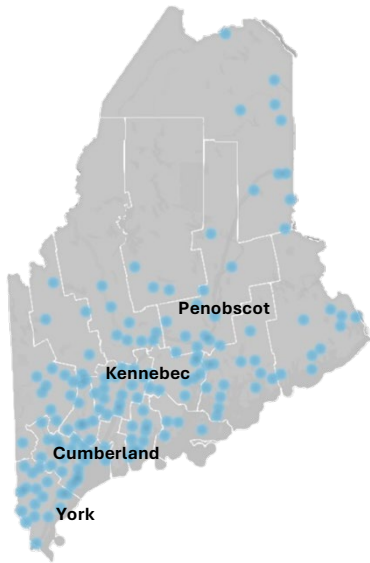
The median age of drivers operating under the influence in fatal crashes was 36, meaning half of the impaired drivers were younger than 36 and half were older. One-quarter of all drivers operating under the influence were between the ages of 16 and 26, and one-quarter were between the ages of 26 and 36. These are dense distributions compared to the remaining two quartiles, which together span the ages of 36 and 77; as such, the bottom two age quartiles might make good targets for public safety messages.

Impaired-Driving Fatalities by Person Type

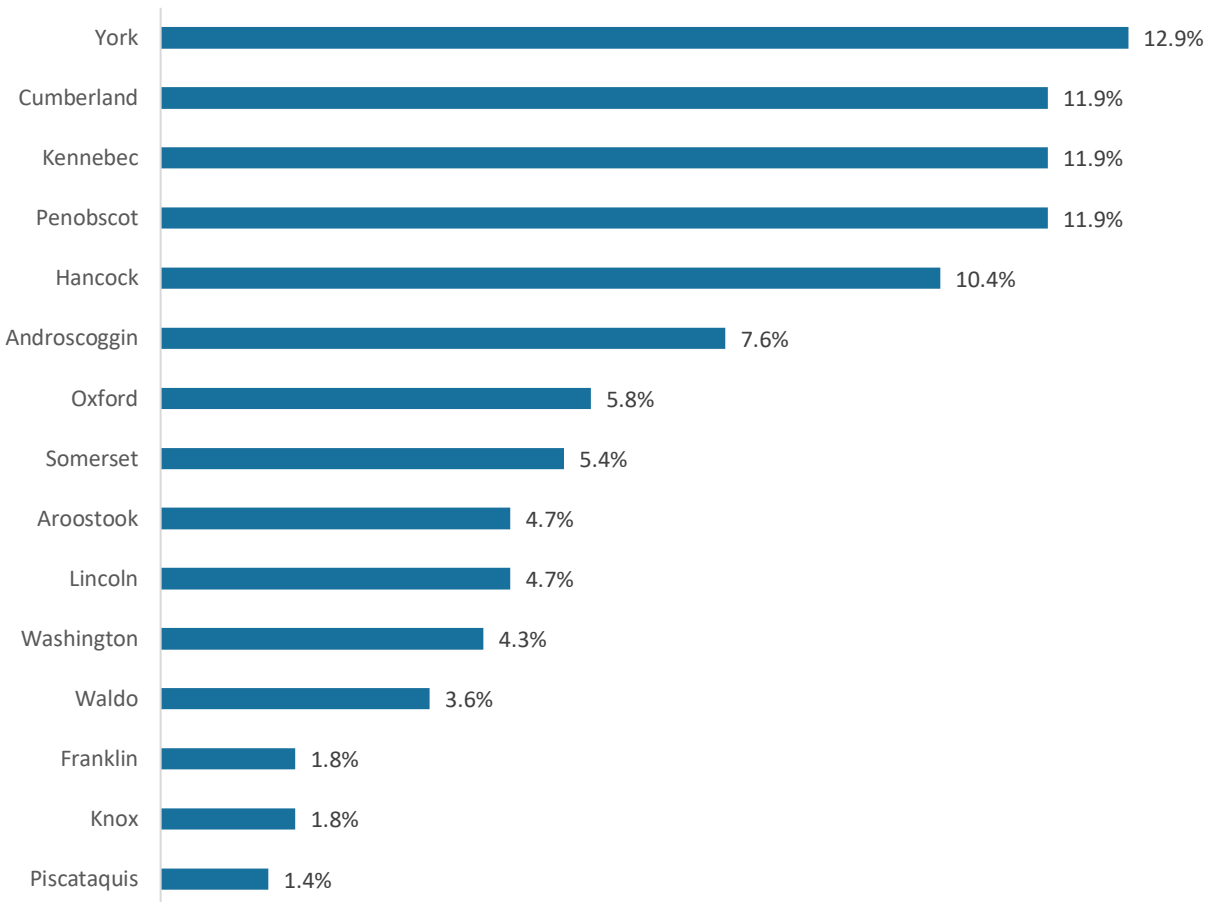


Crashes involving impaired driving resulted in 278 fatalities between 2019 and 2023. The majority of these fatalities (82%) involved the loss of life for the impaired driver. An additional 11% of fatalities involved the impaired drivers' passengers. This suggests that 92% of the risk associated with impaired driving is borne by impaired drivers and their passengers. An additional 8% of fatalities involved occupants of other vehicles and pedestrians.

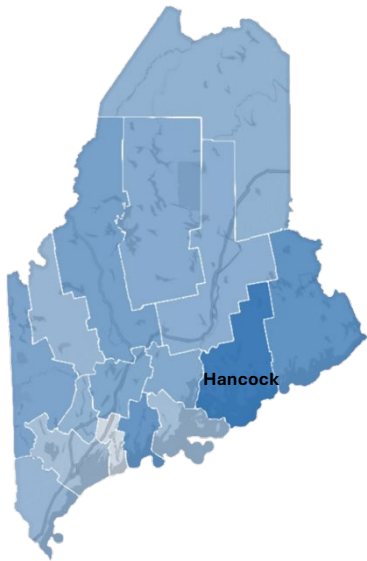
Impaired-Driving Fatalities by County



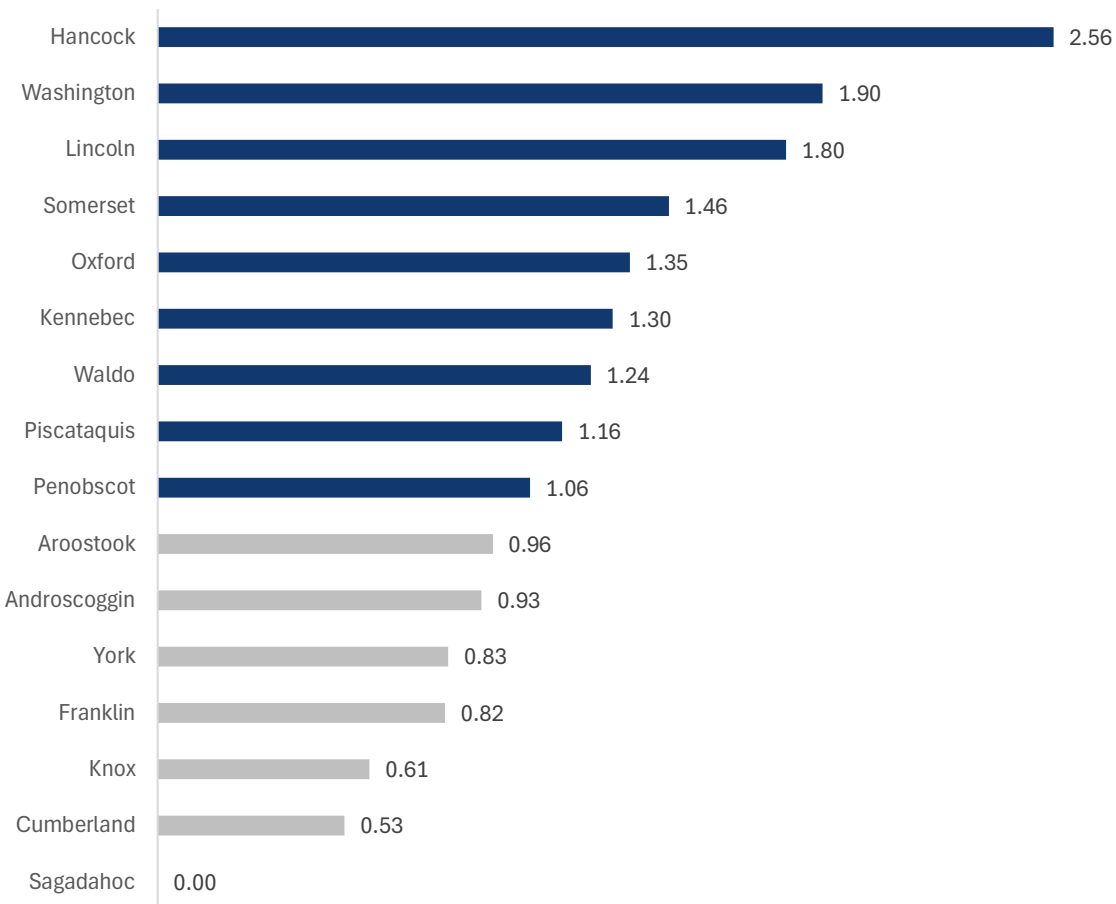
Approximately 12.9% of the 278 impaired-driving-related fatalities that occurred between 2019 and 2023 occurred in York County, followed by 11.9% each in Cumberland, Kennebec, and Penobscot Counties.



Impaired-Driving Fatalities by County, Relative Rate



Often, the highest rates of a given event are observed in the most populous counties. To identify disproportionate driver impaired fatality rates, relative rates were computed by dividing the driver-impaired fatality rate of each county by its population rate. Hancock County, which held 4.07% of the population according to the last 5-year American Community Survey, had 10.43% of the driver-impaired fatalities between 2019 and 2023, resulting in a relative rate of 2.56. This rate is disproportionately high, as are the rates of all counties displayed in blue below.

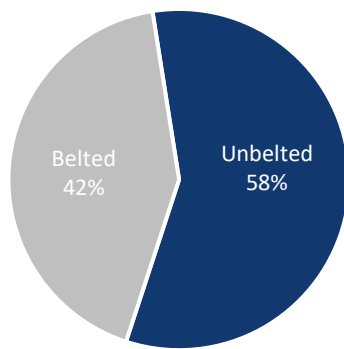


Occupant Protection

Summary

- ◆ Fifty-eight percent (58%) of the occupant fatalities from 2019 to 2022 who were required to be belted were not.
- ◆ Sixty-three percent (63%) of all those involved in fatal crashes (both fatalities and survivors) between 2019 and 2023 who were required to wear seat belts were wearing them while 37% were not.
- ◆ The proportion of occupants involved in fatal crashes who were wearing seat belts varied between a low of 53% in 2023 and a high of 71% in 2022.
- ◆ Sixty-one percent (61%) of males involved in fatal crashes between 2019 and 2023 were wearing seat belts while 69% of females were.

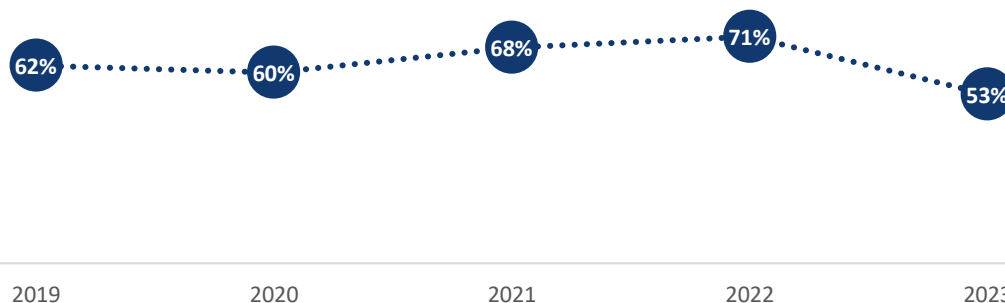
Unbelted Occupant Fatalities



Fifty-eight percent (58%) of the occupant fatalities who were required to be belted were not.

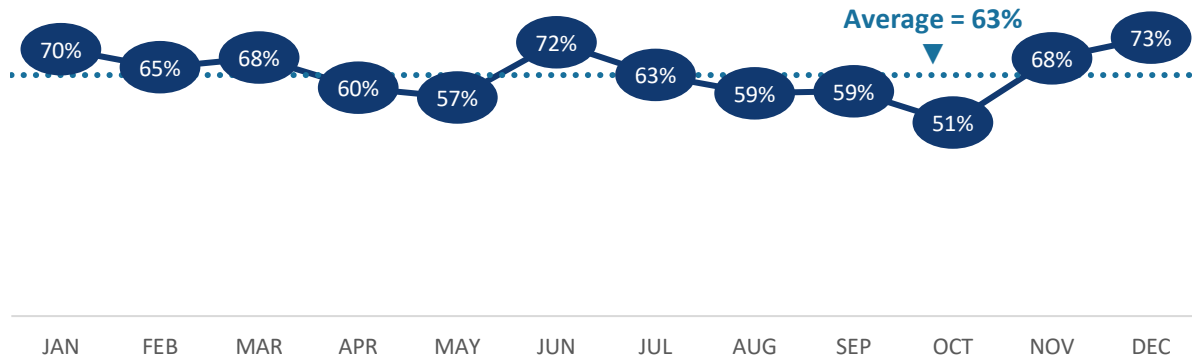
Seat Belt Use by Year

While 63% of occupants involved in fatal crashes (fatalities and survivors) between 2019 and 2023 who were required to wear seat belts were wearing them, that rate varied from one year to another. The lowest rate occurred in 2023, at 53%, while the highest occurred in 2022, at 71%.

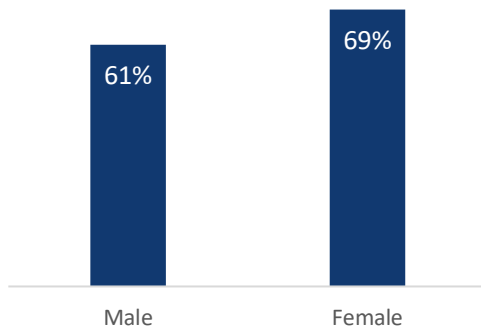


Seat Belt Use by Month

Seat belt use in fatal crashes varied slightly depending on time of year, ranging from a low of 51% in October to a high of 73% in December.

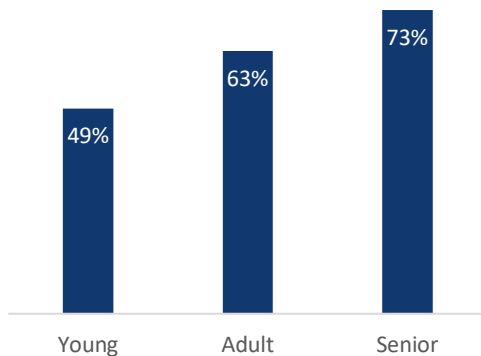


Seat Belt Use and Sex



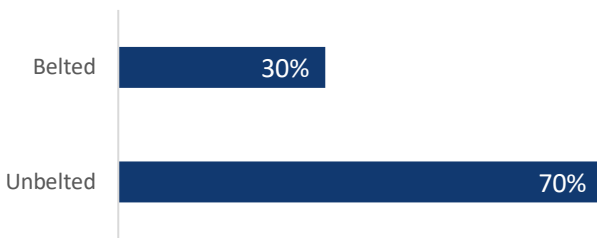
Seat belt use rate also varied depending upon occupant sex. Approximately 61% of males involved in fatal crashes were wearing seat belts compared to 69% of females involved in fatal crashes.

Seat Belt Use and Age

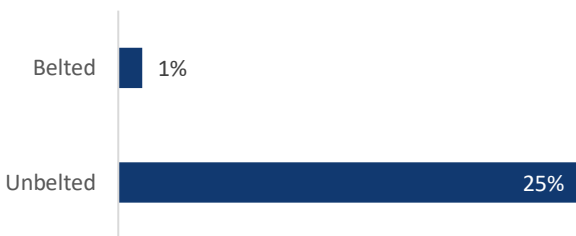


There were likewise differences in seat belt use by age. Approximately 49% of young occupants (those 12 to 20 years of age) involved in fatal crashes were wearing seat belts, compared to 63% of adults aged 21 to 64, and 73% of seniors, aged 65 and older.

Impact of Seat Belt Use on Fatalities

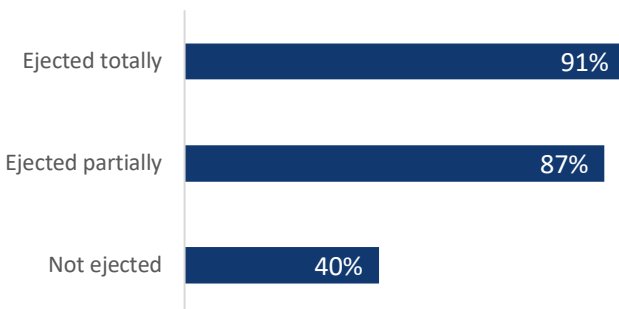


Approximately 45% of all people involved in fatal crashes between 2019 and 2023 who were required to wear seat belts died, but unbelted occupants died at more than double the rate (70%) of belted occupants (30%). Seat belt use may partially determine who does and does not die in a fatal crash.



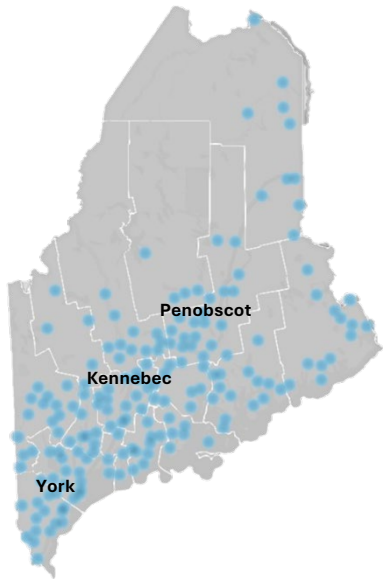
Seat belt use saves lives in part by preventing occupants from being ejected during fatal crashes.

Approximately 1% of those who were belted were partially or fully ejected from their vehicles, while 25% of those who were not belted were ejected.

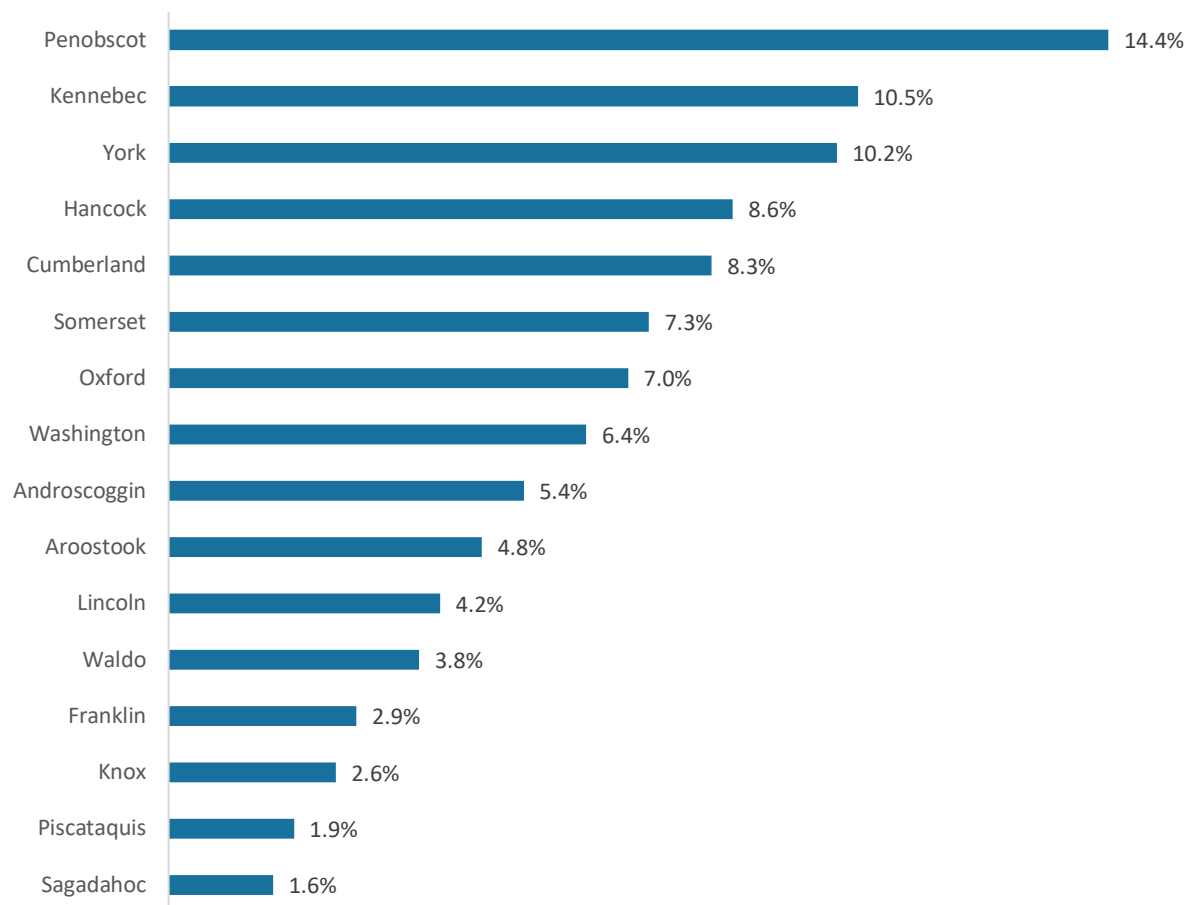


Ejection, in turn, results in a much higher probability of death. While 40% of those who were not ejected nevertheless died, the rates were much higher for those who were partially or totally ejected, at 87% and 91%, respectively.

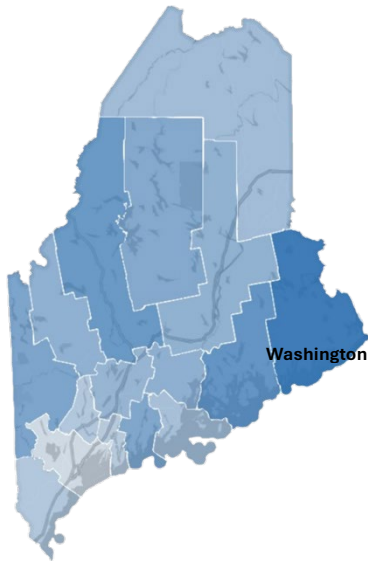
Unbelted Occupant Fatalities by County



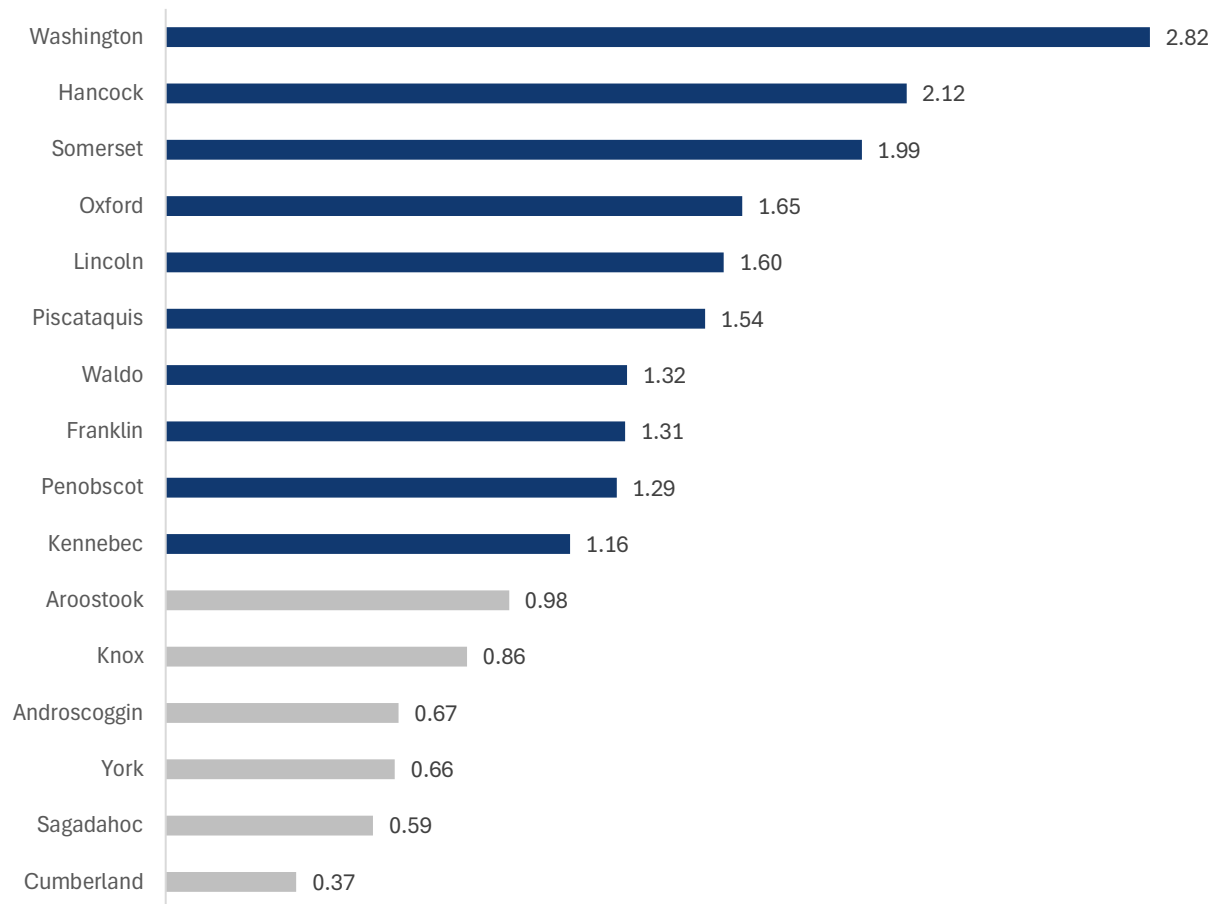
Approximately 14.4% of the 313 unbelted occupant fatalities that occurred between 2019 and 2023 occurred in Penobscot County, with another 10.5% in Kennebec County, and 10.2% in York County.



Unbelted Occupant Fatalities by County, Relative Rate



Often, the highest rates of a given event are observed in the most populous counties. To identify disproportionate unbelted fatality rates, relative rates were computed by dividing the unbelted fatality rate of each county by its population rate. Washington County, which held 2.27 % of the population according to the last 5-year American Community Survey, had 6.39% of the unbelted fatalities between 2019 and 2023, resulting in a relative rate of 2.82. This rate is disproportionately high, as are the rates of all counties displayed in blue below.

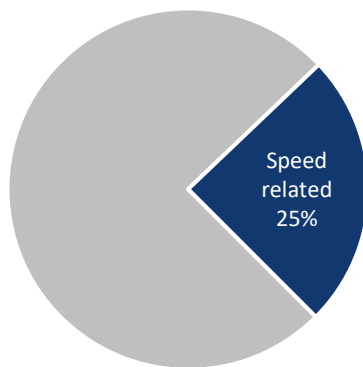


Speeding

Summary

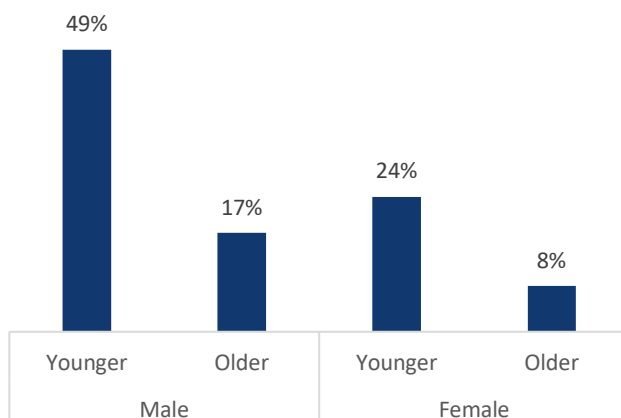
- ◆ There were 174 speed-related fatal crashes between 2019 and 2023.
- ◆ There were 193 speed-related fatalities between 2019 and 2023, including 149 driver fatalities, 39 passenger fatalities, and 5 pedestrian fatalities.
- ◆ Twenty-five percent (25%) of all highway fatalities between 2019 and 2023 were speed related.

Speeding Fatalities



There were 193 speed-related fatalities between 2019 and 2023. These fatalities made up approximately 25% of all highway fatalities.

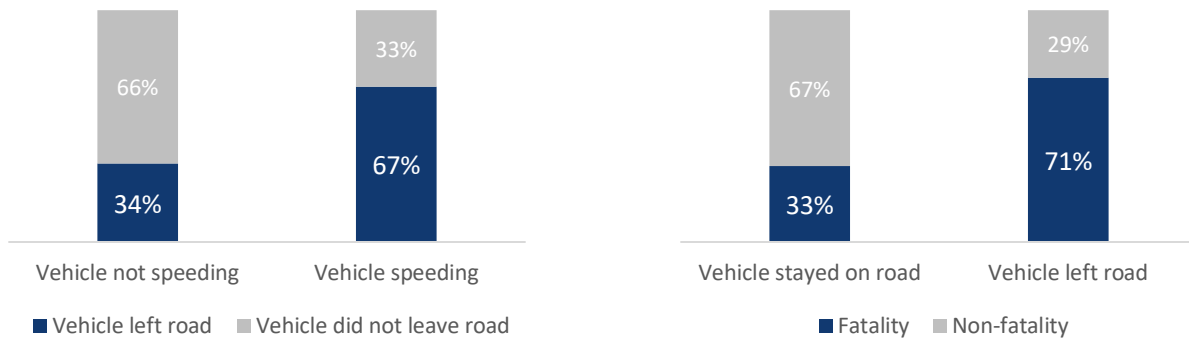
Speeding by Sex and Age



While 17% of all drivers involved in fatal crashes were speeding, a much higher proportion of young male drivers (aged 16 to 20) involved in fatal crashes were speeding (49%) compared to older male drivers (17%), young female drivers (24%), and older female drivers (8%).

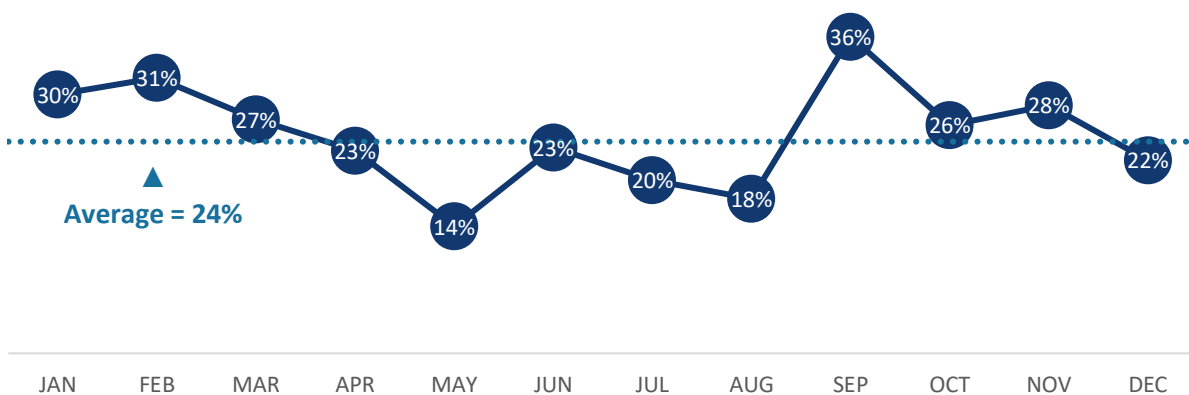
Speeding Fatalities and Leaving the Road

Approximately 67% of speeding vehicles left the road, while approximately 34% of non-speeding vehicles did so. This is an important distinction because a higher proportion of people involved in fatal crashes in which the vehicle leaves the road do not survive the crash. Thirty-three percent (33%) of occupants involved in fatal crashes in which the vehicle stayed on the road did not survive the crash, compared to 71% of occupants in fatal crashes in which the vehicle left the road.

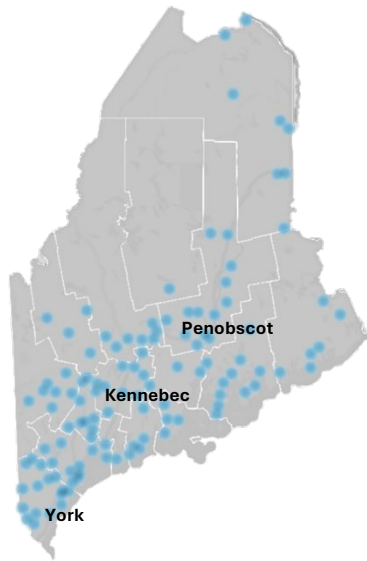


Speeding Fatalities by Month

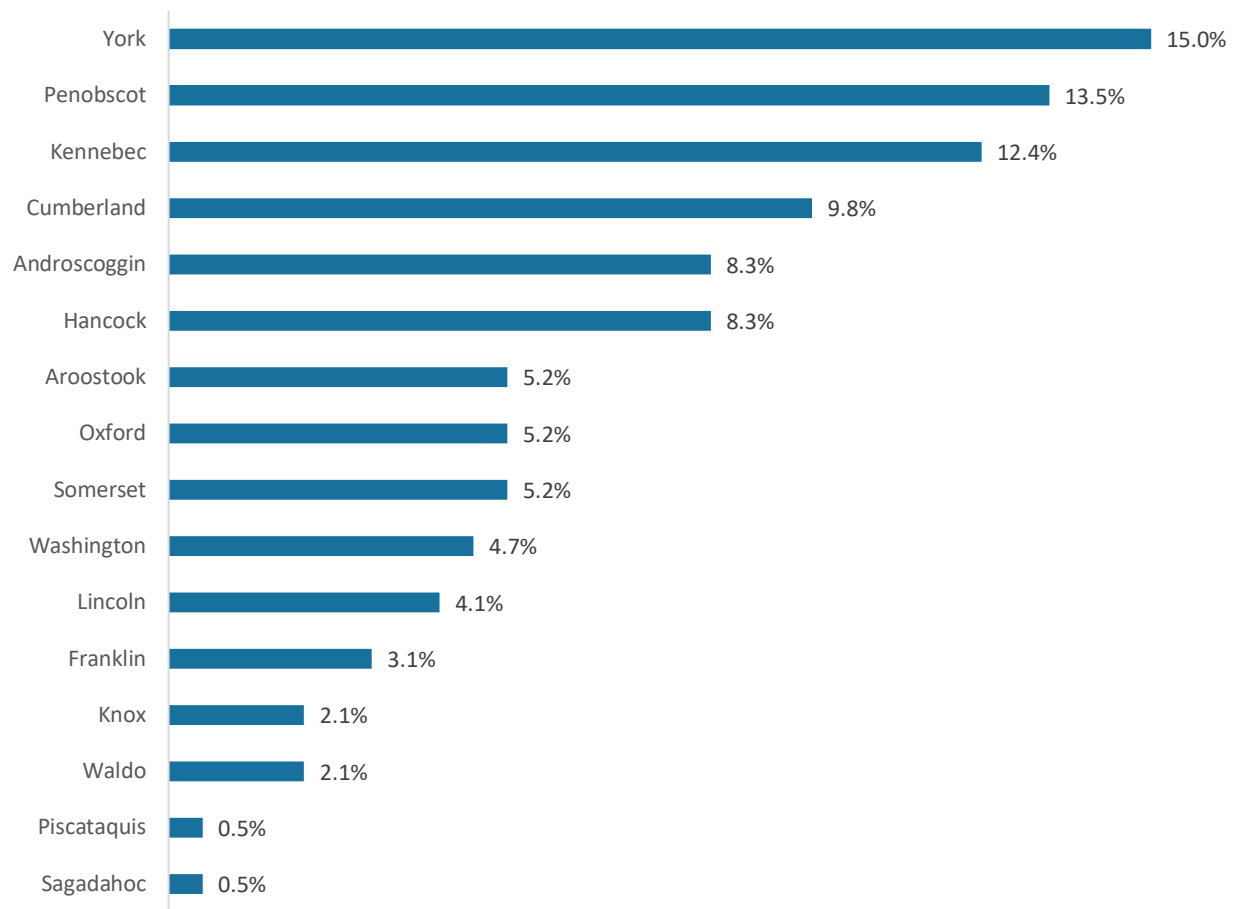
Overall, 24% of fatal crashes were speed related, but this proportion varied depending on month. Rates ranged from a low of 14% in May to a high of 36% in September.



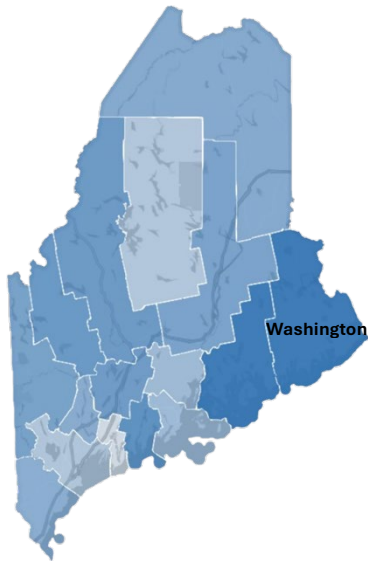
Speeding Fatalities by County



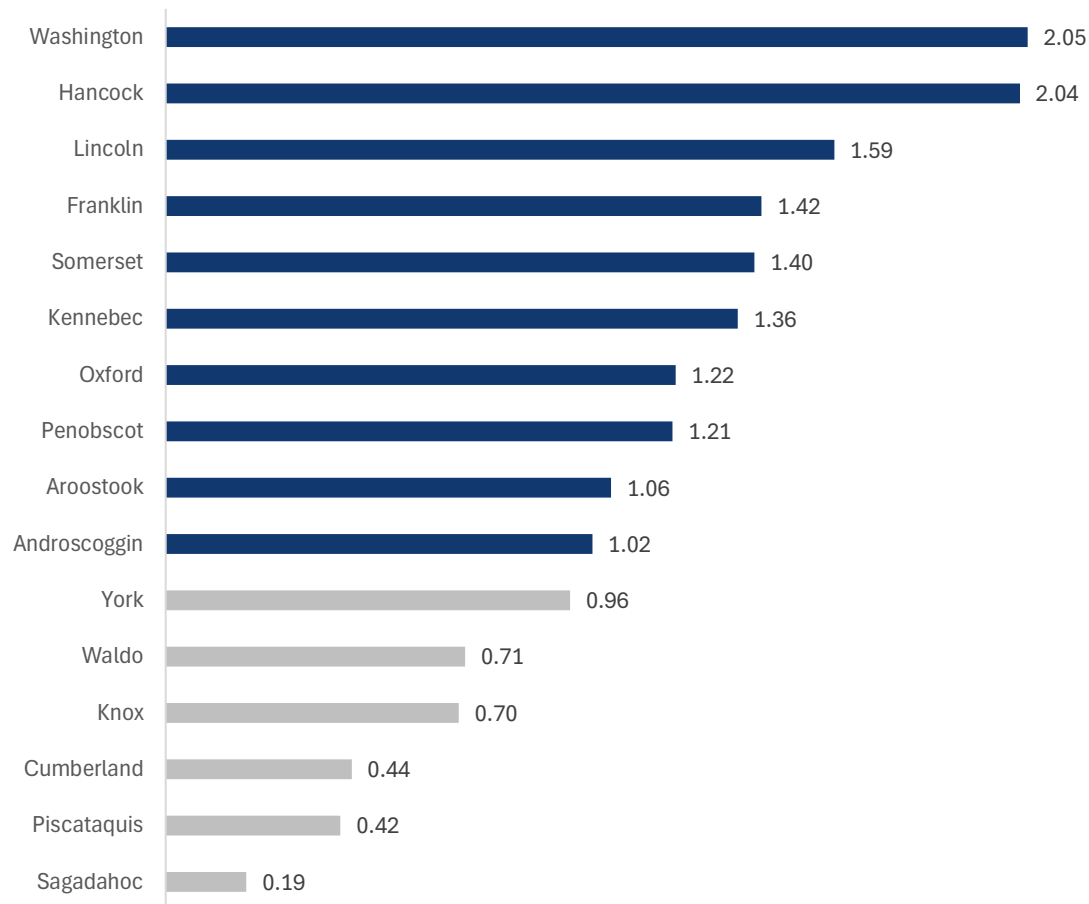
Approximately 15.0% of the 193 speed-related fatalities that occurred between 2019 and 2023 occurred in York County, followed by 13.5% in Penobscot County, and 12.4% in Kennebec County.



Speeding Fatalities by County, Relative Rate



Often, the highest rates of a given event are observed in the most populous counties. To identify disproportionate speed-related fatality rates, relative rates were computed by dividing the speed-related fatality rate of each county by its population rate. Washington County, which held 2.27% of the population according to the last 5-year American Community Survey, had 4.66% of the speed-related fatalities between 2019 and 2023, resulting in a relative rate of 2.05. This rate is disproportionately high, as are the rates of all counties displayed in blue below.

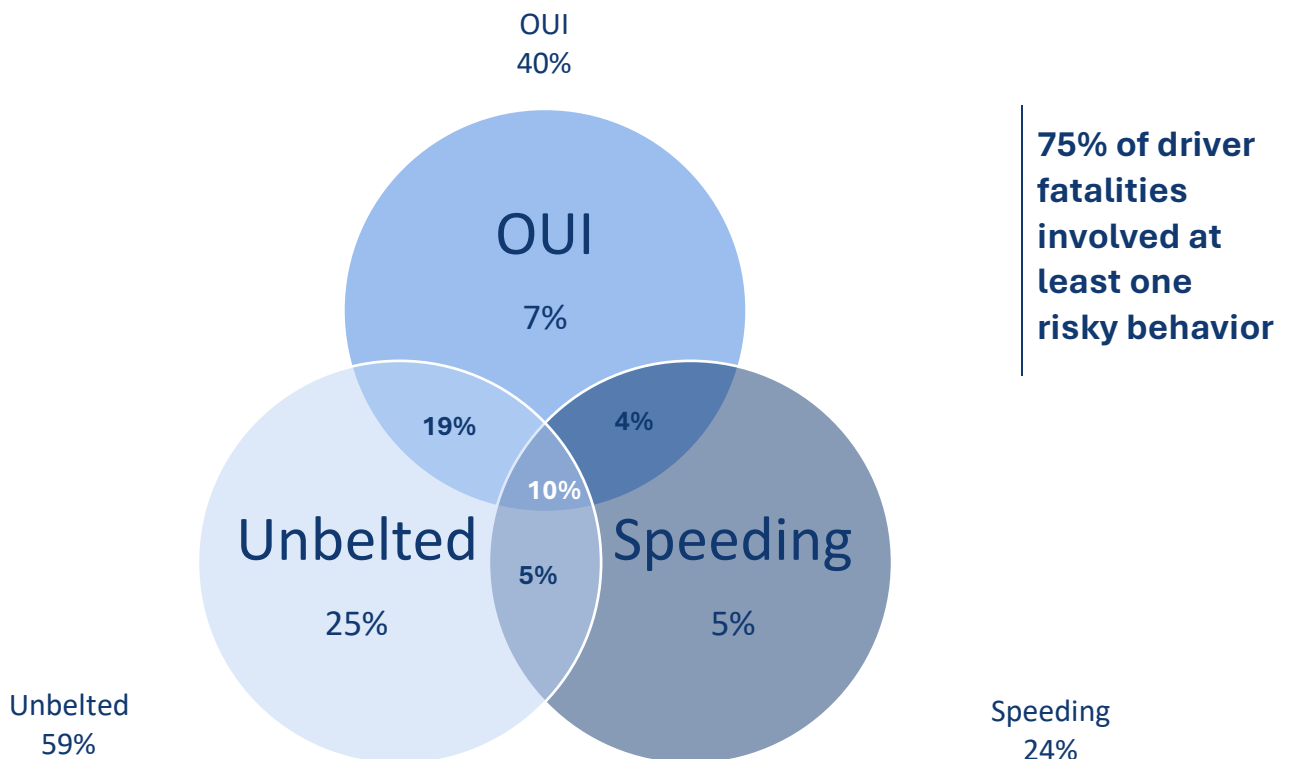


Co-Occurring Behaviors

While driving under the influence, speeding, and failure to wear a seat belt are all risky behaviors in themselves, these behaviors often occur together. The following analysis focuses on driver fatalities and identifies the proportion of driver fatalities associated with any or all of these risky behaviors.

(Note: This analysis excludes drivers of vehicles with no seat belts, such as motorcycles, ATVs, etc.)

- ◆ 7% of drivers were “only” under the influence
- ◆ 5% of drivers were “only” speeding
- ◆ 25% of drivers were “only” unbelted
- ◆ 4% of drivers were under the influence and speeding
- ◆ 5% of drivers were unbelted and speeding
- ◆ 19% of drivers were unbelted and under the influence
- ◆ 10% of drivers were under the influence, unbelted, and speeding
- ◆ 75% of drivers were engaged in at least one of these risky behaviors

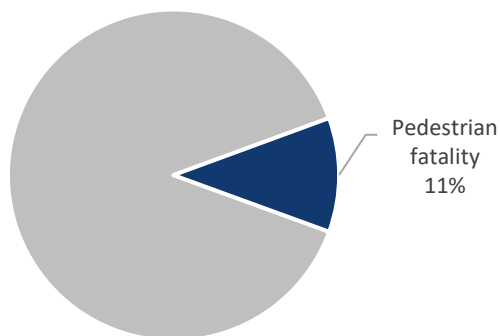


Pedestrians

Summary

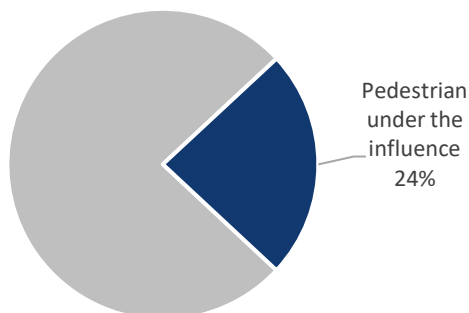
- ◆ There were 84 fatal pedestrian crashes between 2019 and 2023 resulting in 88 pedestrian deaths.
- ◆ Twenty-four percent (24%) of the pedestrians who died in crashes were under the influence.
- ◆ Approximately 11% of all highway fatalities between 2019 and 2023 were pedestrian fatalities.

Pedestrian Fatalities



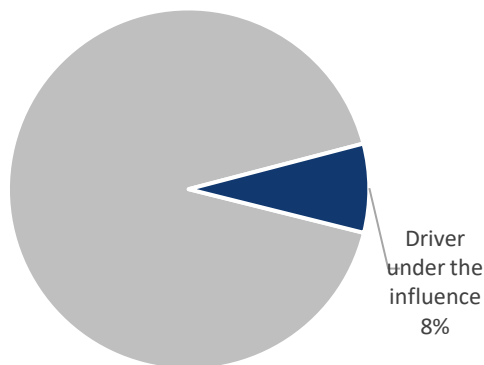
Approximately 11% of highway fatalities were pedestrian fatalities.

Pedestrians Under the Influence



A little under a quarter (24%) of the pedestrians who died as a result of highway crashes were under the influence at the time of the crash.

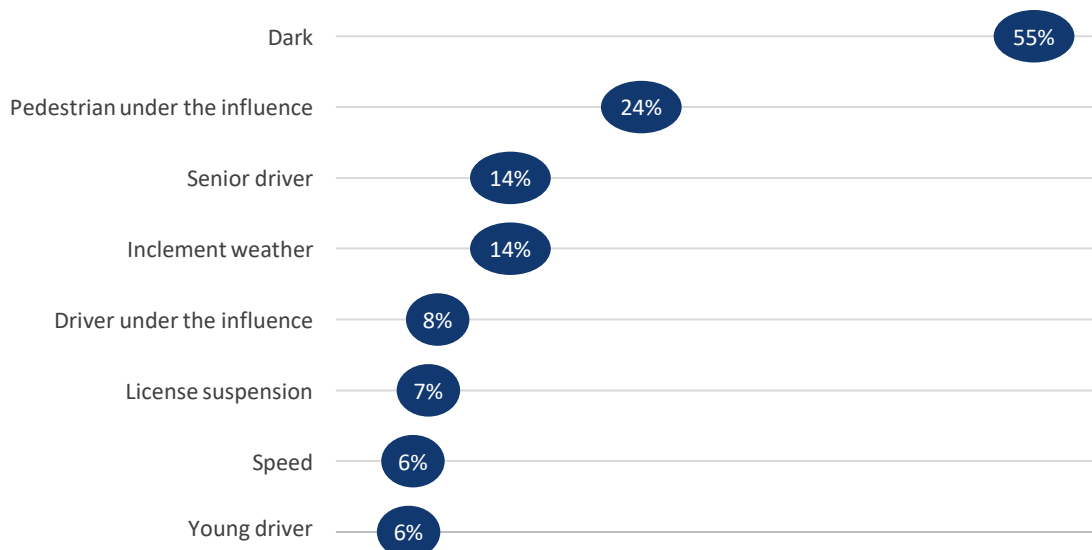
Pedestrian Fatalities and Drivers Under the Influence



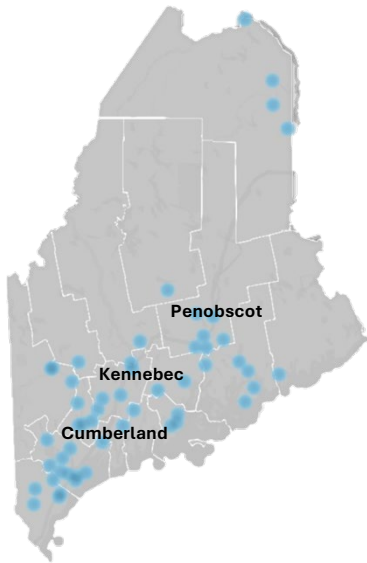
A smaller proportion (8%) of pedestrian fatalities involved a driver who was under the influence at the time of the crash.

Pedestrian Fatalities and Other Factors

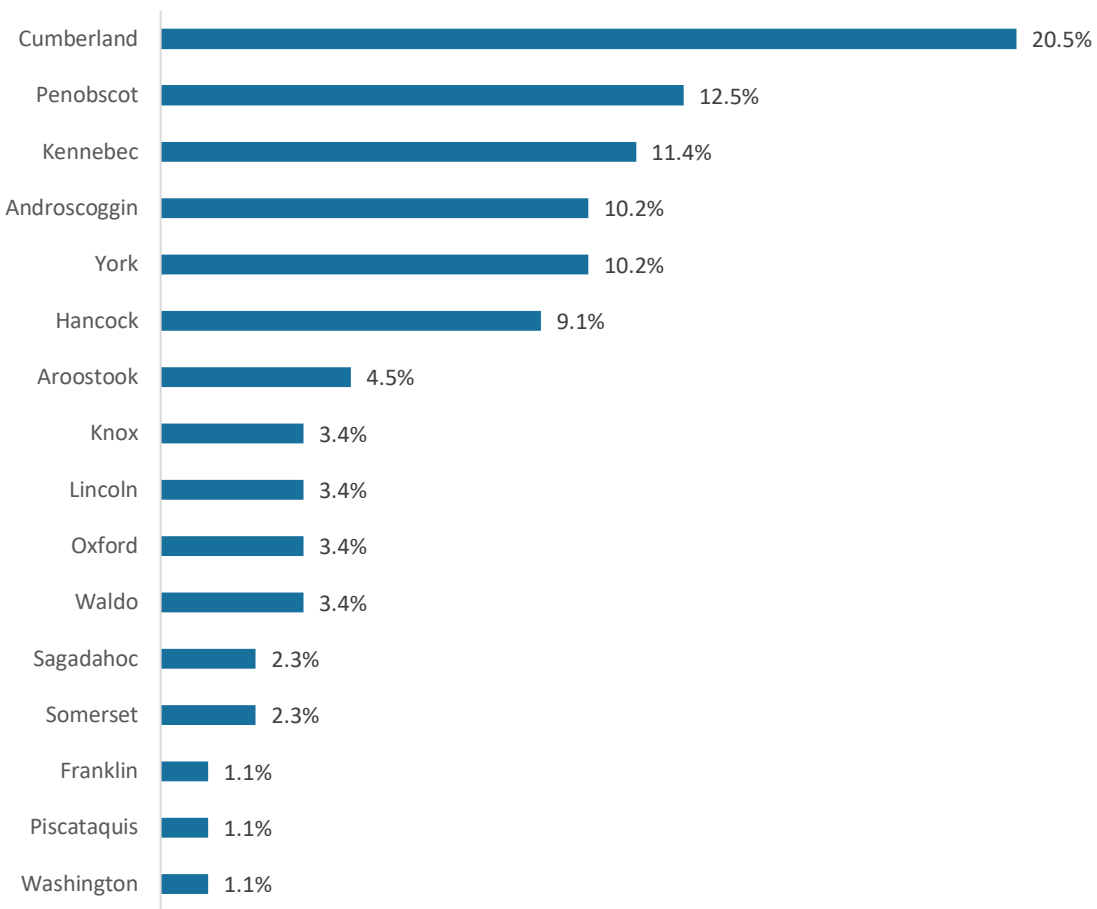
A number of factors contribute to pedestrian fatalities. The following chart summarizes the percentage of fatalities associated with some of these known factors. The factor most frequently associated with pedestrian fatalities was *after dark*, at 55%, followed at a distance by *pedestrian under the influence*, *senior driver*, and *inclement weather*, at 24%, 14% and 14%, respectively. Note that some pedestrian fatalities were associated with multiple factors. Only 24% of pedestrian fatalities were not associated with any of the factors presented below.



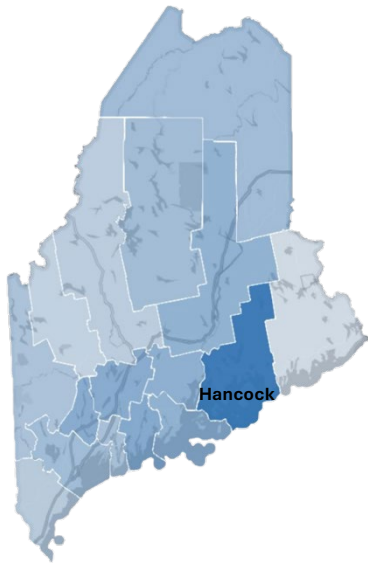
Pedestrian Fatalities by County



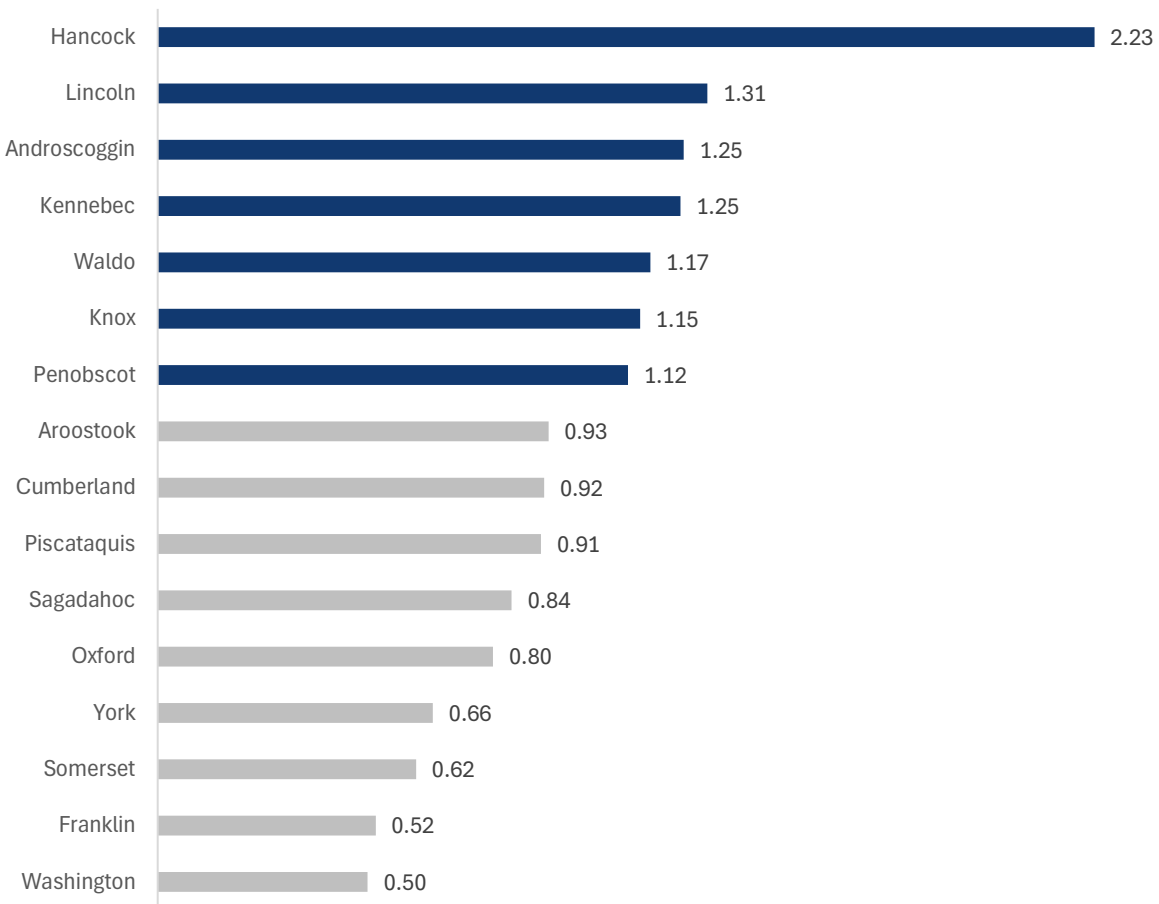
Approximately 20.5% of the 88 pedestrian fatalities that occurred between 2019 and 2023 occurred in Cumberland County, followed by 12.5% in Penobscot County, and 11.4% in Kennebec County.



Pedestrian Fatalities by County, Relative Rate



Often, the highest rates of a given event are observed in the most populous counties. To identify disproportionate pedestrian fatality rates, relative rates were computed by dividing the pedestrian fatality rate of each county by its population rate. Hancock County, which held 4.07% of the population according to the last 5-year American Community Survey, had 9.09% of the pedestrian fatalities between 2019 and 2023, resulting in a relative rate of 2.23. This rate is disproportionately high, as are the rates of all counties displayed in blue below.

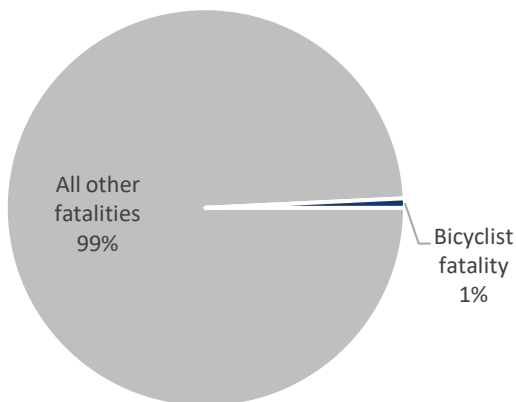


Bicyclists

Summary

- ◆ There were 6 fatal bicycle crashes between 2019 and 2023, which took the lives of 6 bicyclists.

Bicyclist Fatalities



Bicyclists make up a very small proportion, 1%, of all highway fatalities. On average, there were 1.2 bicyclist fatalities per year.

Bicyclist Fatalities and Other Factors

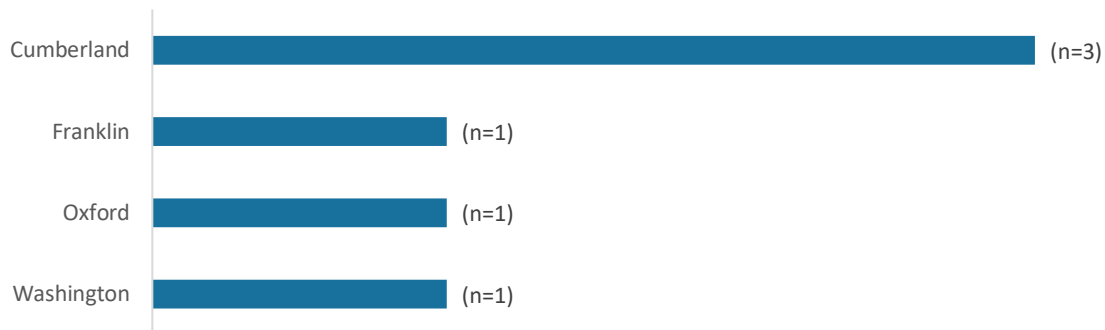
A number of factors may contribute to bicyclist fatalities, including the age of those involved, impairment, driving conditions, speed, and license suspension. Of the six bicyclist fatalities observed in 2023:

- ◆ 1 fatality involved a young (< age 21) vehicle driver;
- ◆ 1 fatality involved a young (< age 21) vehicle driver, inclement weather, and occurred after dark;
- ◆ 4 fatalities involved no factors.

Bicyclist Fatalities by County



A total of 6 bicyclist fatalities occurred in 4 of Maine's 16 counties from 2019 to 2023. These counties were Cumberland, Franklin, Oxford, and Washington. *(Note: It is best practice to avoid calculating rates from samples smaller than 30.)*

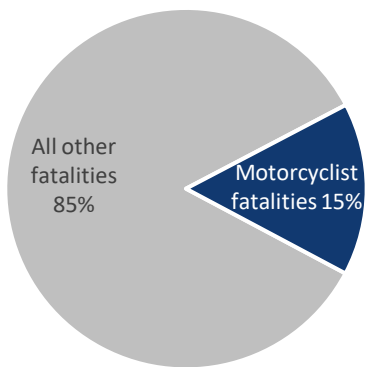


Motorcyclists

Summary

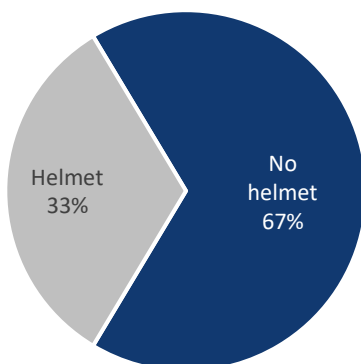
- ◆ There were 118 fatal motorcycle crashes between 2019 and 2023 involving 132 motorcyclists (121 drivers and 11 passengers).
- ◆ One hundred twenty-two (122) motorcyclists died in these crashes (114 drivers and 8 passengers).

Motorcyclist Fatalities



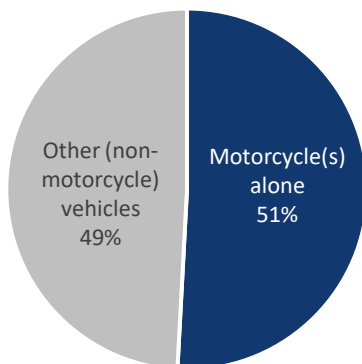
Motorcycle fatalities made up 15% of all the fatalities between 2019 and 2023.

Helmet Use



Approximately two-thirds (67%) of motorcycle fatalities were unhelmeted, meaning the rider failed to use a (DOT-compliant) helmet.

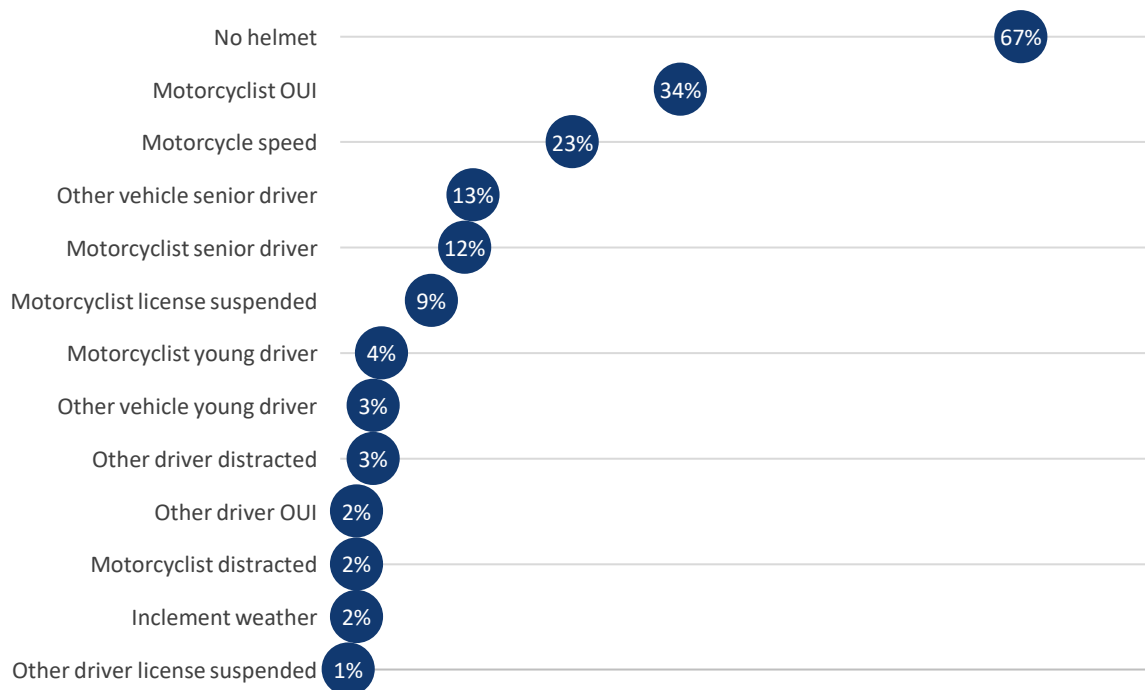
Other Vehicle Involvement



In approximately 51% of all fatal motorcycle incidents, only motorcycles were involved—no other vehicles.

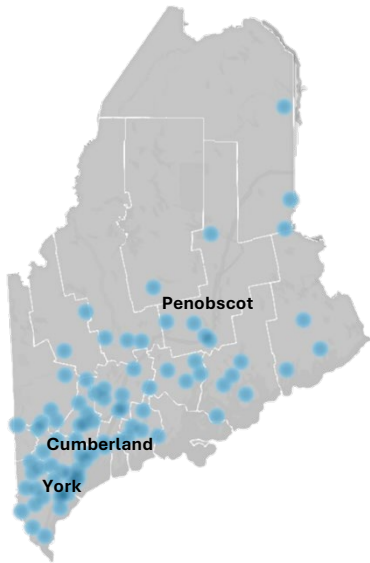
Motorcycle Fatalities and Other Factors

A number of factors may contribute to motorcycle fatalities. The following graph summarizes the percentage of fatalities associated with each factor. The factor most frequently associated with motorcyclist fatalities was *no helmet*, at 67%, followed by *motorcyclist OUI*, at 34%. Only 7% of motorcyclist fatalities were not associated with any of the factors below.

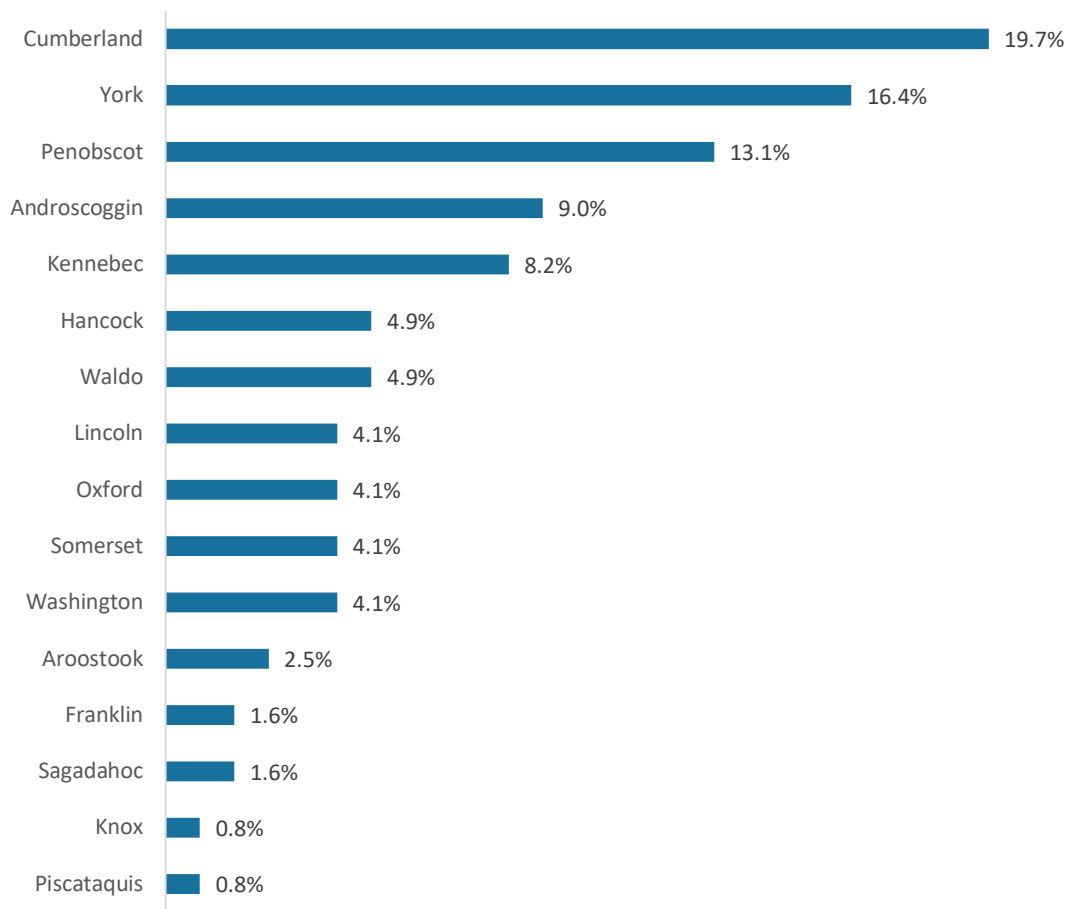


Note: No motorcyclist fatalities were associated with *other vehicle speed*.

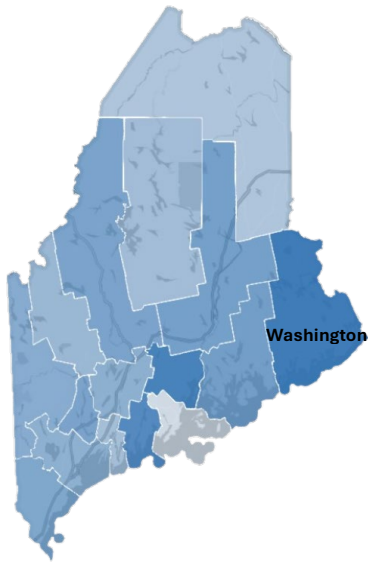
Motorcyclist Fatalities by County



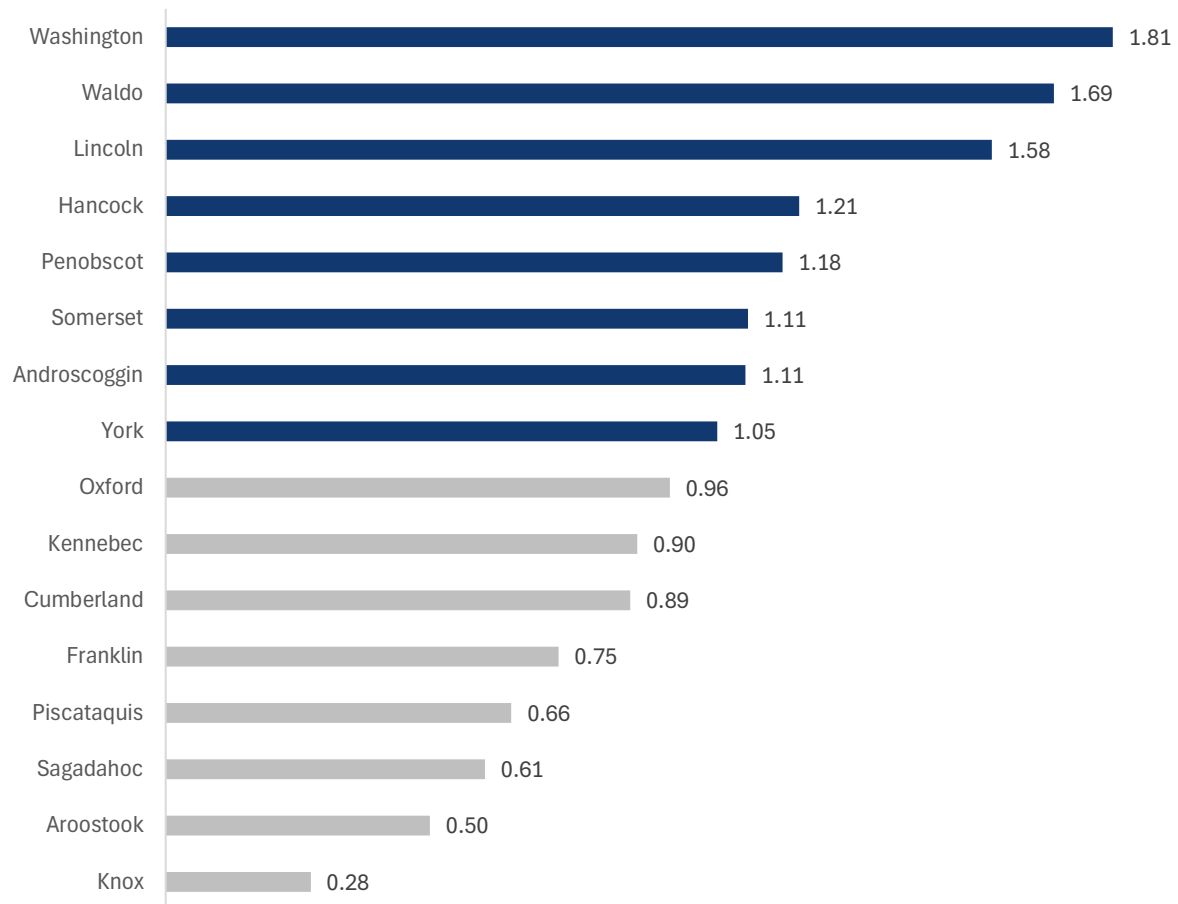
Approximately 19.7% of the 122 motorcyclist fatalities that occurred between 2019 and 2023 occurred in Cumberland County, followed by 16.4% in York County, and 13.1% in Penobscot County.



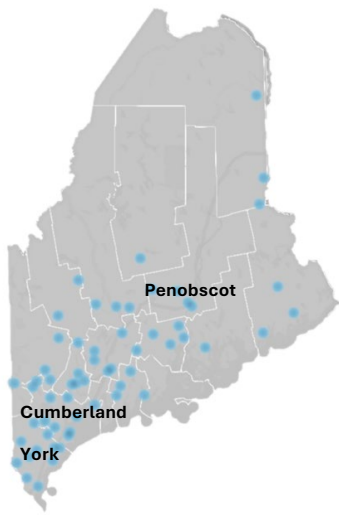
Motorcyclist Fatalities by County, Relative Rate



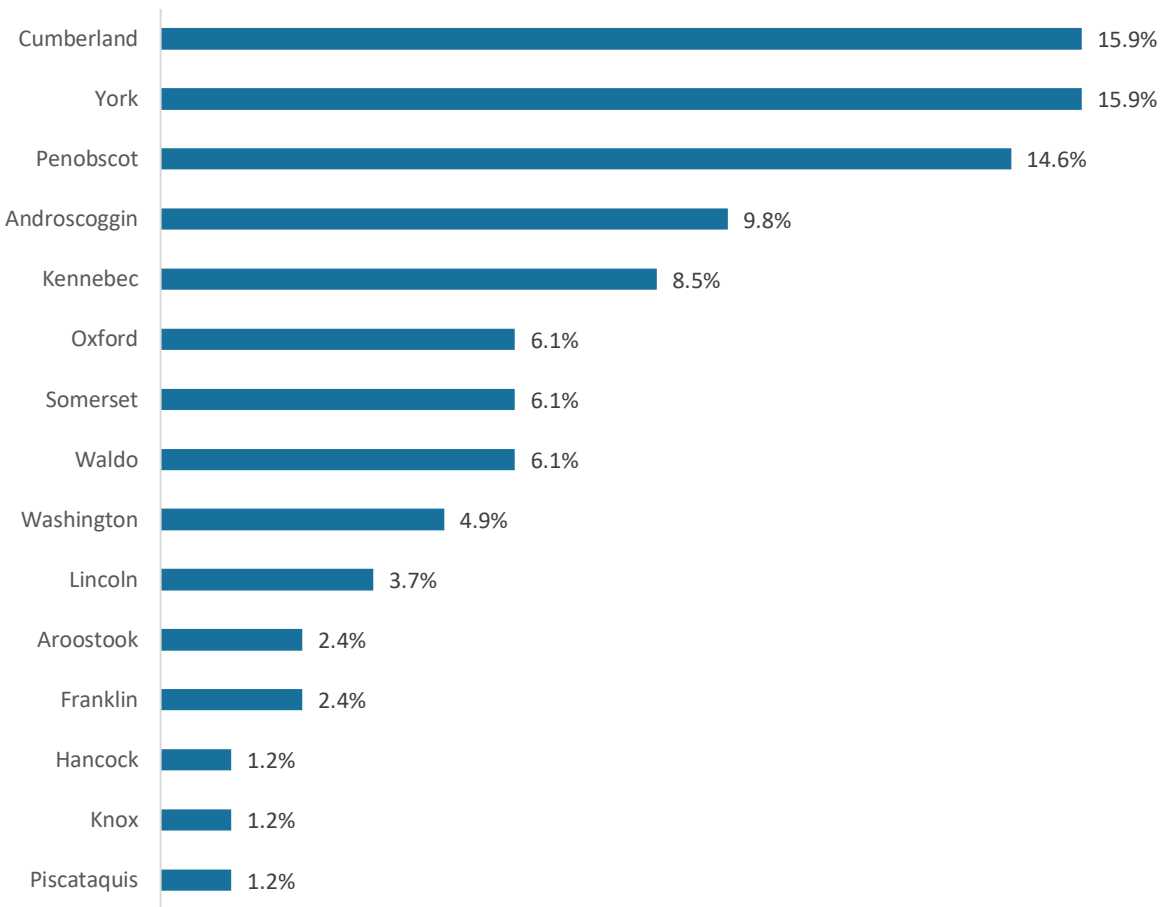
Often, the highest rates of a given event are observed in the most populous counties. To identify disproportionate motorcyclist fatality rates, relative rates were computed by dividing the fatality rate of each county by its population rate. Washington County, which held 2.27% of the population according to the last 5-year American Community Survey, had 4.10% of the motorcyclist fatalities between 2019 and 2023, resulting in a relative rate of 1.81. This rate is disproportionately high, as are the rates of all counties displayed in blue below.



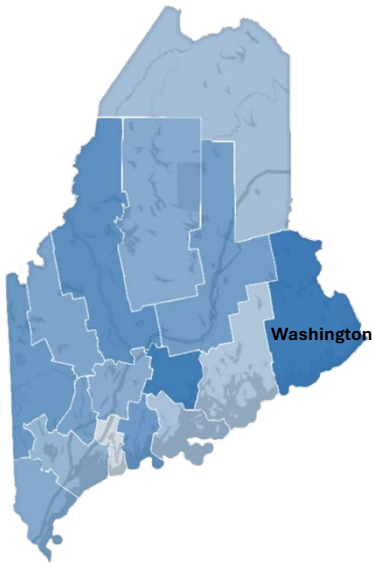
Unhelmeted Motorcyclist Fatalities by County



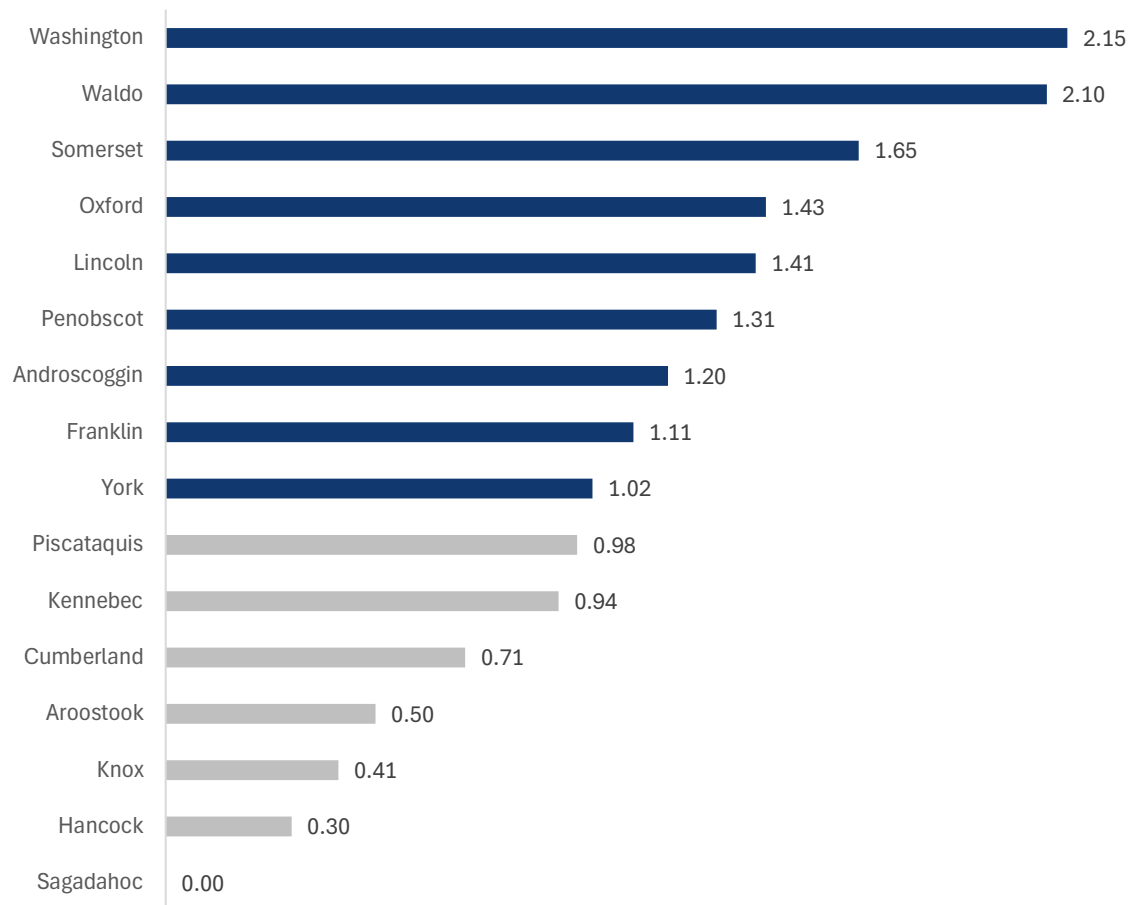
Almost a third of the 82 unhelmeted motorcyclist fatalities that occurred between 2019 and 2023 occurred in Cumberland and York Counties (15.9% each), followed by 14.6% in Penobscot County.



Unhelmeted Motorcyclist Fatalities by County, Relative Rate



Often, the highest rates of a given event are observed in the most populous counties. To identify disproportionate unhelmeted motorcyclist fatality rates, relative rates were computed by dividing the unhelmeted motorcyclist fatality rate of each county by its population rate. Washington County, which held 2.27% of the population according to the last 5-year American Community Survey, had 4.88% of the unhelmeted motorcyclist fatalities between 2019 and 2023, resulting in a relative rate of 2.15. This rate is disproportionately high, as are the rates of all counties displayed in blue below.

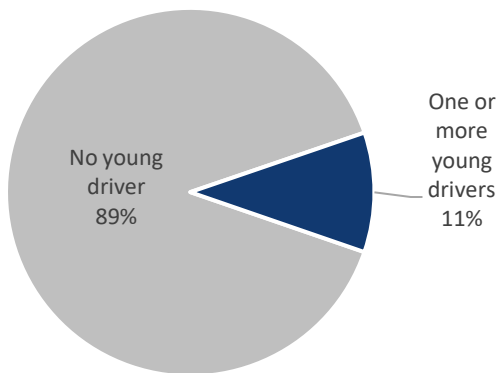


Young Drivers

Summary

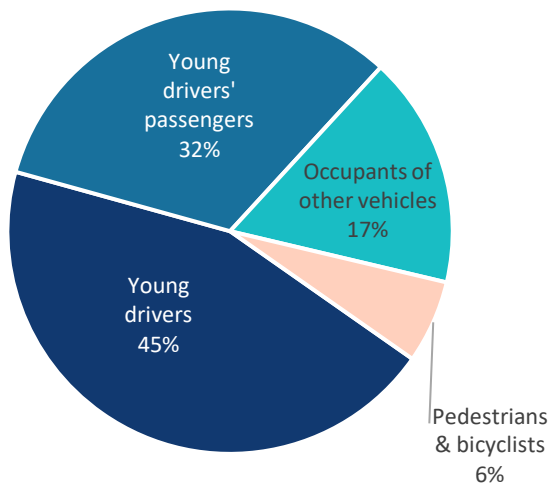
- ◆ Young drivers (ages 16 to 20) were involved in 70 of the 726 fatal crashes (10%).
- ◆ Eighty-three (83) of the 789 fatalities involved a young driver (11%).
- ◆ Seven percent (7%) of drivers involved in fatal crashes between 2019 and 2023 were young drivers.

Young-Driver-Related Fatalities



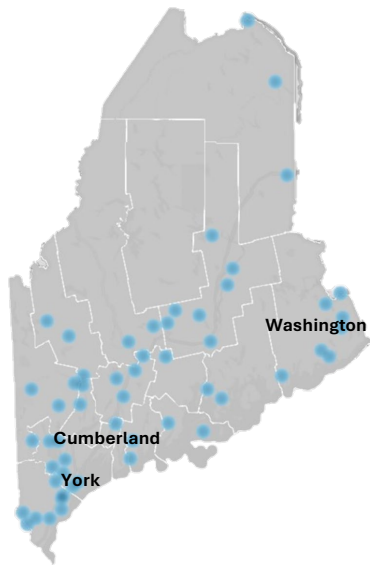
A total of 83 fatalities were associated with young drivers (ages 16 to 20) between 2019 and 2023. These fatalities accounted for 11% of all highway fatalities.

Young-Driver-Related Fatalities by Person Type

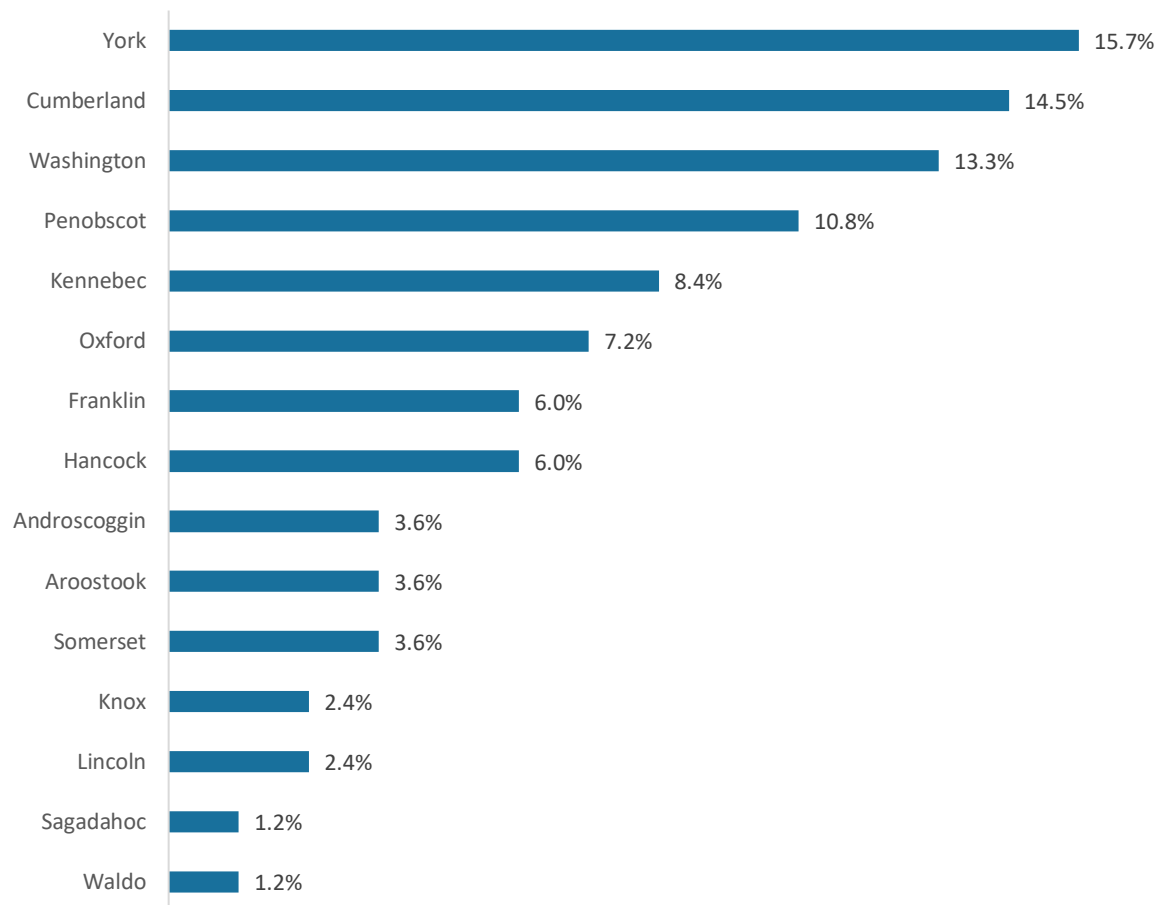


Many of the fatalities associated with young drivers (45%) involved loss of life for the young driver. An additional 32% of fatalities were the young drivers' passengers. This suggests that 77% of the risk associated with young drivers is borne by young drivers and their passengers. An additional 23% of fatalities were occupants of other vehicles, pedestrians, and bicyclists.

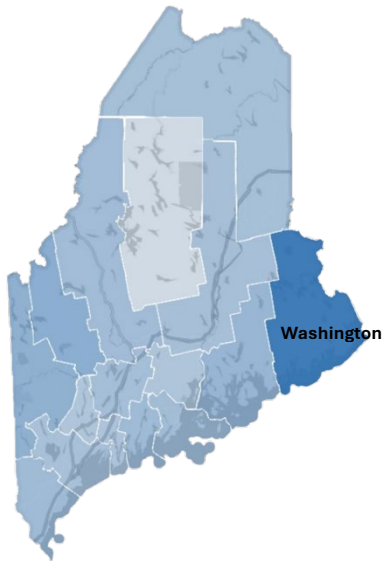
Young-Driver-Related Fatalities by County



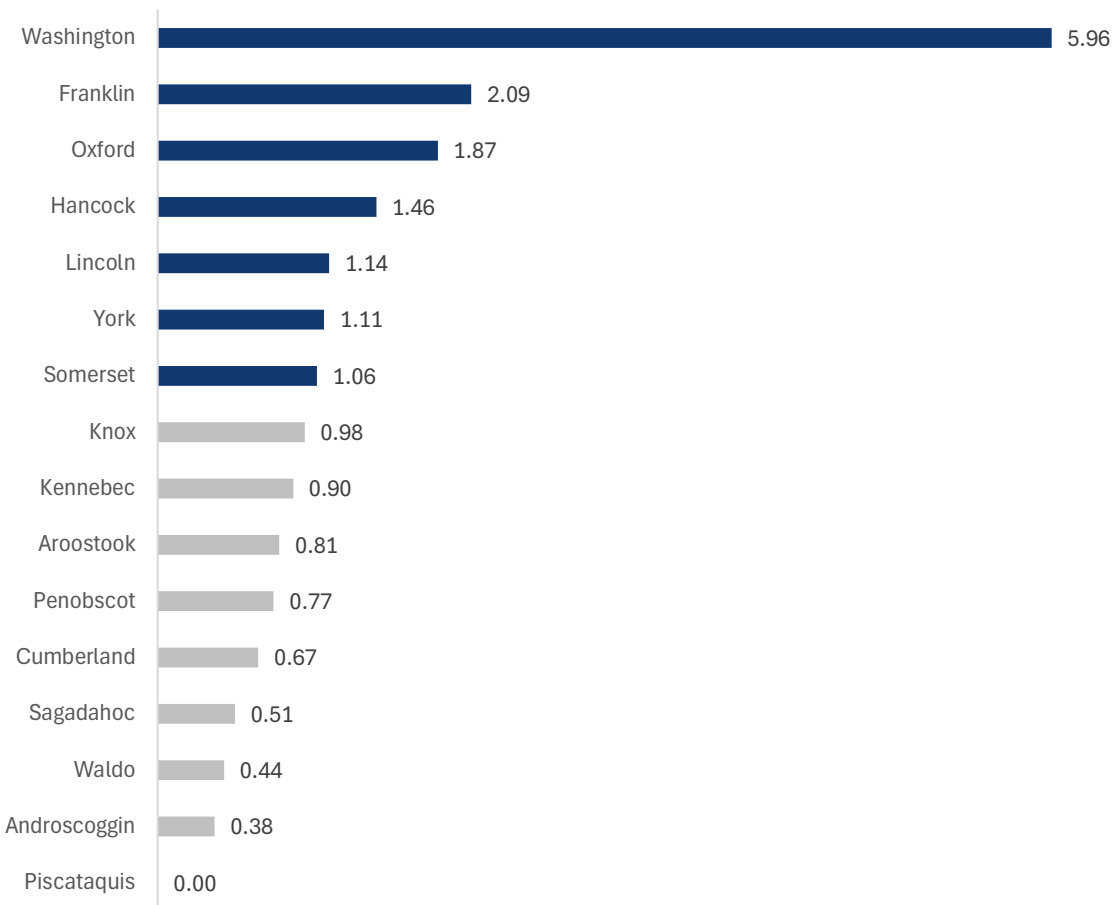
Approximately 15.7% of the 83 young-driver-related fatalities that occurred between 2019 and 2023 occurred in York County, with another 14.5% occurring in Cumberland County, and 13.3% occurring in Washington County.



Young-Driver-Related Fatalities by County, Relative Rate



Often, the highest rates of a given event are observed in the most populous counties. To identify disproportionate young-driver-related fatality rates, relative rates were computed by dividing the young driver-related fatality rate of each county by its population rate. Washington County, which held 2.22% of the youth population (aged 16 to 20) according to the last 5-year American Community Survey, had 13.25% of the young-driver-related fatalities between 2019 and 2023, resulting in a relative rate of 5.96. This rate is disproportionately high, as are the rates of all counties displayed in blue below.

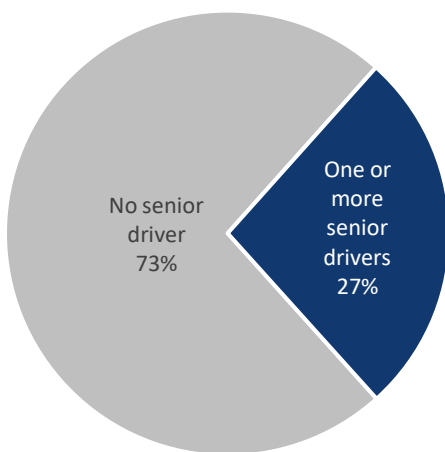


Senior Drivers

Summary

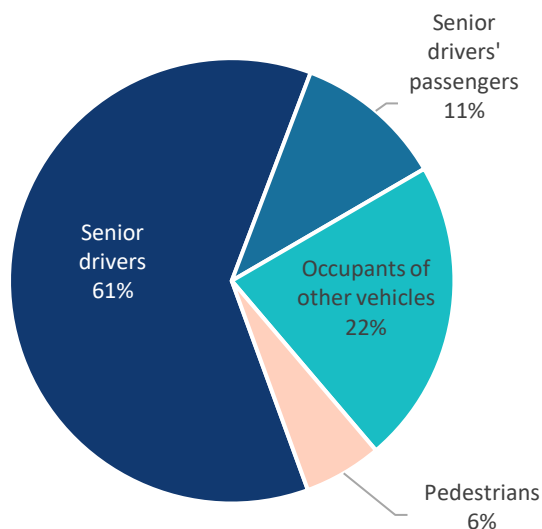
- ◆ One or more senior drivers were involved in 194 of the 726 fatal crashes (27%) that occurred between 2019 and 2023.
- ◆ Of the 789 fatalities that occurred, 212 (27%) involved at least one senior driver.

Senior-Driver-Related Fatalities



A total of 212 fatalities were associated with senior drivers (ages 65 and older) between 2019 and 2023. These fatalities accounted for 27% of all highway fatalities.

Senior-Driver-Related Fatalities by Person Type



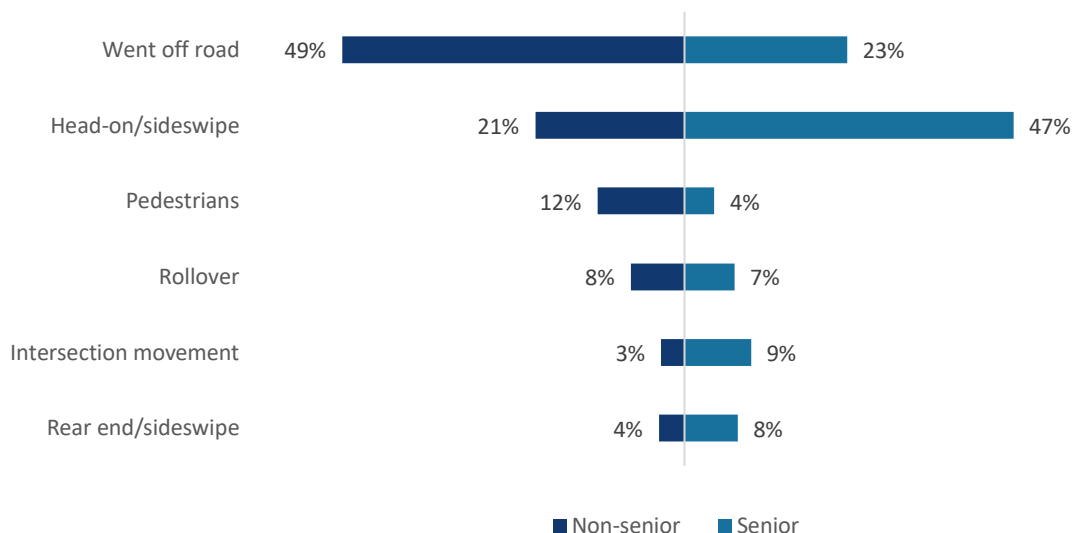
Many of the fatalities associated with senior drivers, 61%, involved loss of life for the senior driver. An additional 11% of fatalities were the senior drivers' passengers. This suggests that 72% of the risk associated with senior drivers is borne by senior drivers and their passengers. An additional 28% of fatalities were occupants of other vehicles or pedestrians.

Type of Crash

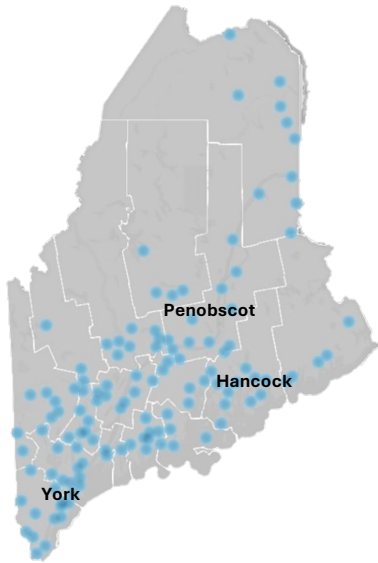
The majority (97%) of **all** fatalities between 2019 and 2023 were related to one of the following crash types:

- ◆ Went off road (42%)
- ◆ Head-on/sideswipe (28%)
- ◆ Pedestrians (10%)
- ◆ Rollover (7%)
- ◆ Intersection movement (5%)
- ◆ Rear-end/sideswipe (5%)

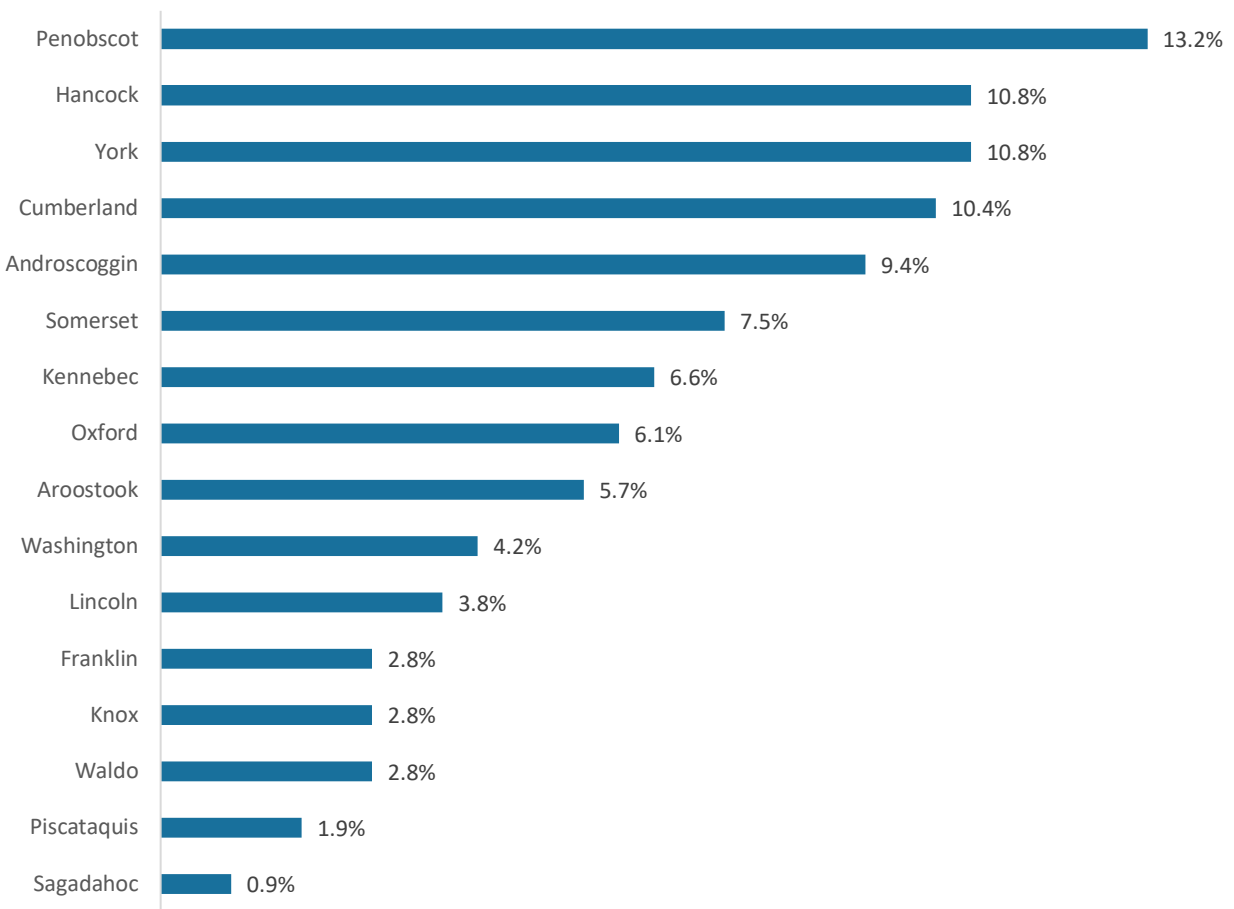
While these six categories were likewise the top six categories for fatalities involving a senior driver, there were nevertheless differences between senior drivers and the remainder of the driving population in the distribution among these categories. *Went off the road* accounted for the plurality of fatalities involving no senior driver; approximately 49% of fatalities from incidents involving no senior driver fell into this category. *Head-on/sideswipe* crashes accounted for an additional 21% of fatalities involving no senior driver. For fatalities involving senior drivers, the order of these categories was flipped; approximately 47% of fatalities involving senior drivers were associated with *head-on/sideswipe* crashes, while 23% were associated with *went off the road*.



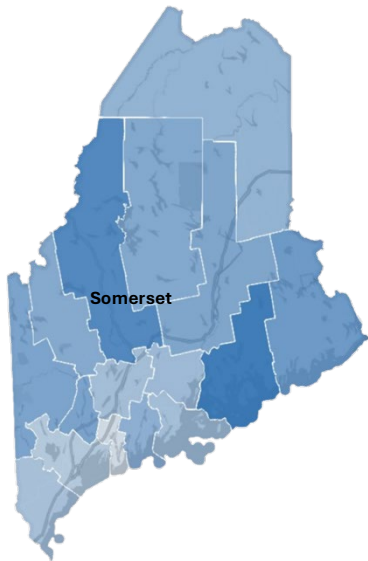
Senior-Driver-Related Fatalities by County



Approximately 13.2% of the 212 senior-driver-related fatalities that occurred between 2019 and 2023 occurred in Penobscot County, followed by 10.8% each in Hancock and York Counties.



Senior-Driver-Related Fatalities by County, Relative Rate



Often, the highest rates of a given event are observed in the most populous counties. To identify disproportionate senior-driver-related fatality rates, relative rates were computed by dividing the senior-driver-related fatality rate of each county by its population rate. Somerset County, which held 4.84% of the senior population (aged 65 and older) according to the last 5-year American Community Survey, had 10.85% of the senior-driver-related fatalities between 2019 and 2023, resulting in a relative rate of 2.24. This rate is disproportionately high, as are the rates of all counties displayed in blue below.

