

Iowa CODES

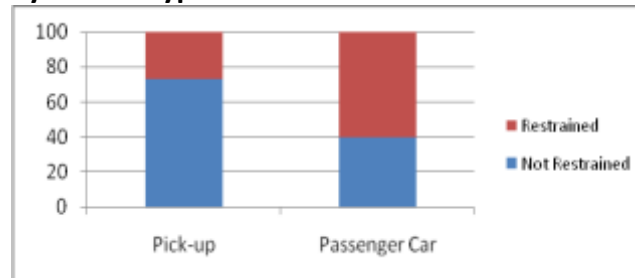
Pick-up Truck Crash Injury Facts in Iowa – 2006-2010 Pick-up Truck vs. Passenger Car by Injury Severity and Restrain Usage

After passenger cars, pick-up trucks are the second most popular personal vehicles in Iowa. Each year about 15,000 pick-up truck occupants are involved in crashes in Iowa, accounting for 20 percent of the total personal passenger vehicles involved in crashes.

Fatalities

- 320 pick-up truck occupants were killed in Iowa during the five years (2006-2010). These occupants had the lowest seat-belt restraint use compared with other passenger vehicle occupants.
 - 8.7% of pick-up truck occupant fatalities were unrestrained vs. 6.8% of passenger car occupants who were unrestrained.
 - 79% of pick-up fatalities were in rural areas, though only 39% of pick-up crashes occurred in rural areas.
 - 77.5% of pick-up truck fatalities were male; there is no gender difference in restraint use.
 - The median age for fatalities rose steadily from 40 in 2006 to 49.5 years old in 2010.

Restraint use by vehicle type for motor vehicle crash fatalities in Iowa, 2010



- Unrestrained pick-up truck occupants were 61.3 times more likely to be killed than restrained occupants; 14.1 times more likely to suffer severe and 5.1 times more likely to suffer non-severe injuries than restrained ones. When pick-up truck occupants were restrained, 82.5% of them did not have injury. By contrast, only 25.9% of them did not have injury when they were not restrained.

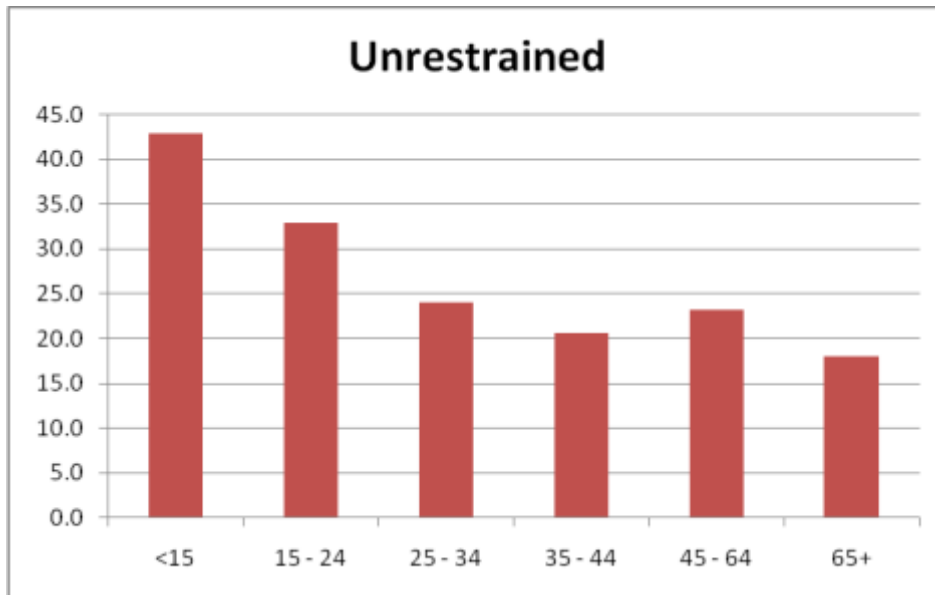
Injury Severity by Restraint Usage, 2010

Vehicle Type	Restraint Use	Fatal	Severe Injury	Non-Incapacitating	Possible	No Injury
Pick-up Truck	No	8.7%	16.7%	29.4%	19.2%	25.9%
	Yes	0.1%	1.2%	5.8%	10.4%	82.5%
	Ratio (No/Yes)	61.3	14.1	5.1	1.8	0.3
Passenger Car	No	6.8%	12.3%	25.1%	22.7%	33.2%
	Yes	0.3%	1.4%	6.8%	14.6%	76.9%
	Ratio (No/Yes)	25.6	8.7	3.7	1.6	0.4

Emergency Room (ER) Visits

- In 2010, 14,464 pickup truck occupants were involved in crashes. Of those occupants, 57 were killed and 2,303 were injured. Of those crash records, 455 pick-up truck occupants were linked to Emergency Room (ER) records, accounting for 14 percent of the total personal passenger vehicle links.
- 39% of the pick-up truck occupant ER links were aged 15-34. This age group had unrestrained rates of 33% and 24% for the age group 15-24 and 25-34, respectively. Children under age 15, only 2% of the ER links, had the highest unrestrained rate: 43%. In total, 25% of pick-up truck occupants who visited ER were unrestrained.

Non Belt Use by Pick-up Truck Occupants Treated at ED by Age, 2010



- In 2010, the average ER patient charge for unrestrained pick-up truck occupants was \$1,410 vs. \$1,541 for restrained pick-up truck occupants. In total, the average ER charge was \$1,482, slightly higher than the passenger car occupant ER patients; however, this difference was not significant. 2.6% of the ER patients were admitted to hospitals.

Hospitalizations

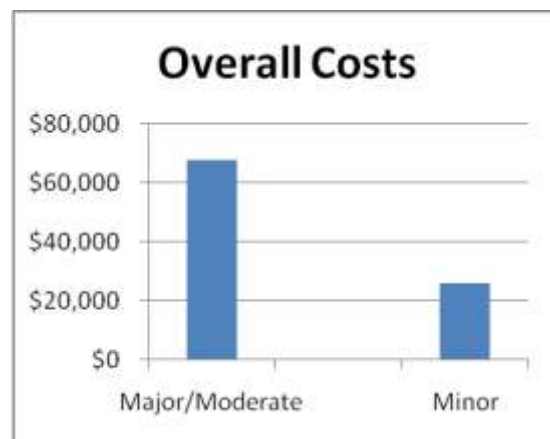
- Of the hospitalized pickup truck occupants, 41.7% were unrestrained. The unrestrained pickup truck occupants had a \$14,326 extra hospital charge (\$61,018) than the restrained ones (\$46,692). In contrast, unrestrained passenger car occupants had only a \$2,432 higher average hospital charge than restrained occupants (\$53,175).
- The average inpatient charge for pick-up occupants was \$54,693, slightly higher than that for the hospitalized passenger car occupants (\$49,197).

2010 Hospital Inpatient Links

Vehicle Type	Restraint Use	% of Restraint Not Used	Average Charges
Pick-up truck	No (n=35)	41.7%	\$61,018
	Yes (n=49)		\$46,692
	Total (n=84)		\$54,693
Passenger car	No (n=64)	20.4%	\$53,175
	Yes (n=250)		\$50,744
	Total (n=314)		\$49,197

- There was a significant difference in average hospital charges by injury severity: those who were more seriously to critically injured had an average charge of approximately \$67,537, 2.6 times higher than those who only sustained minor injuries (average \$25,886). The cost of major and moderate injuries had to be combined since there were only two linked records for major pickup truck injuries in 2010.

Average Inpatient Hospital Charges by Injury Severity -- 2010 linked pick-up truck occupants



- Of the unrestrained pick-up truck occupants, 2.9% sustained severe to critical injuries), 1.4 times higher than the restrained occupants (2.0%).

Pick-up Truck Injury Status by Restraint Use

Restraint Use	Serious	Moderate	Minor
No %	2.9%	62.9%	34.3%
Yes %	2.0%	61.2%	36.7%
Ratio (No/Yes)	1.4	1.0	0.9

- Of the total hospitalized pick-up truck occupants, 70% were discharged to home, 4% to long-term care, 12% to rehabilitation facilities and 2% died at the hospital.
- Although Iowa law requires all occupants of passenger vehicles, including pick-up trucks, to buckle up, the safety belt use is still lower among pick-up truck occupants. Iowa CODES data have shown again that safety belt use reduces fatality and severe injuries. We have to impress the public repeatedly with these facts.
- “To avoid death or injury in a crash all occupants should be belted and to increase restraint use among those who have not yet been affected by educational messages and enforcement.” (Iowa Comprehensive Highway Safety Plan, 2006).

*The Iowa Crash Outcome Data Evaluation System (CODES) represents a collaborative effort among the Iowa Department of Public Health, Iowa Department of Transportation and Iowa Governor’s Traffic Safety Bureau.
 For more information please call (515) 281-7132.*