

Emergency Vehicles:

Does driving in emergency mode increase crashes?

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We analyzed 2005 - 2013 data in the Iowa Crash Database to see if driving in emergency mode - with lights and sirens - is related to crash risk.

In Iowa, police vehicles were involved in 2,406 crashes, about 267 per year.

Ambulance & fire vehicles were involved 528 crashes, about 59 per year.

Percentage of crashes involving emergency vehicles in Iowa

82%: 2,406 crashes

Police vehicles were at fault in 53% of their crashes (1,275 crashes).



Ambulance & fire vehicles were at fault in 56% of their crashes (297 crashes).

18%: 528 crashes



■ Police ■ Fire/Ambulance

Police vehicles are 1.3 times more likely to crash in emergency mode.

Ambulance and fire vehicles were not more likely to crash in emergency mode.

Top causes of crashes where police vehicles were at fault:

- 1) Losing control
- 2) Failing to yield right-of-way
- 3) Driving too fast for conditions

Police vehicles

Risk factors for crashes:

Age (under 30/ over 50)



Ice/snowy roads



Unpaved roads



Ambulance/fire vehicles

Risk factors for crashes:

Age (under 30)



Ice/snowy roads



Urban locations



Weekends



This study was funded by the Iowa Governor's Traffic Safety Bureau.

Reference: Missikpode C, Peek-asa C, Young T, Hamann C. Does crash risk increase when emergency vehicles are driving with lights and sirens?. Accid Anal Prev. 2018;113:257-262.