

Reducing Alcohol-impaired Driving: Lower BAC Laws for Young or Inexperienced Drivers

Summary Evidence Tables

Author and year Study period Design suitability (design) Quality of execution Evaluation setting	Study description and other information	Effect measure	Reported effect	Follow-up time
Blomberg 1992 ¹ 1985-1990 Moderate (time series) Fair Maryland	.02 BAC law for drivers < 21 years Law implemented Jan 1, 1989 Comparison: pre-law period	Percent change in crashes involving drivers < 21 years who had been drinking according to the police report	- 11%, "significant"	2 years
Haque 1989 ² 1/78-12/85 Greatest (time series with concurrent comparison) Fair Victoria, Australia	Zero BAC law for learners, first-year probationary, and disqualified or unlicensed drivers Law implemented May 22, 1984 Comparisons: pre-law period and injury crashes occurring during "nonalcohol times" among target group and standard license holders	Percent change in crashes resulting in a death or hospitalized injury for target drivers during "alcohol times"	- 3.8%, p = .21	19 months
Hingson 1994 ³ 1975-1992 Greatest (before/after with concurrent comparison) Fair AZ, CA, GA, ME, MD, NC, NM, OH, OR, RI, VT, WI	Lower BAC laws implemented for young drivers in 12 states; ages of target group and legal BAC limit varied by state; BAC range: 0.02% – 0.06% Laws implemented between 1975 and 1990 Comparisons: pre-law period and crashes among drivers of the same ages from 12 comparison states (AL, CO, CT, IN, MA, MN, NH, PA, TX, UT, VA, WA)	Percent change in proportion of all fatal crashes among teen drivers that were single-vehicle nighttime fatal crashes	-17%, p < .001	1-8 years
Maisey 1984 ⁴ 12/81-12/83 Greatest (before/after with concurrent comparison) Fair Western Australia	.02 BAC law for first year drivers Law implemented Dec 1982 Comparisons: pre-law period, daytime fatal or nonfatal injury crashes among drivers < 18 years, and fatal or nonfatal injury crashes among drivers ≥ 18 years	Percent change in nighttime fatal or nonfatal injury crashes among drivers < 18 years	-17%, p < .1	1 year

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Voas 1998 ⁵ 1/88-12/96 Greatest (time series with concurrent comparison) Fair California	.01 BAC law for drivers < 21 years Law implemented Jan 1994 Comparisons: pre-law period and proportion of all fatal crashes that were alcohol-related among drivers of the same ages from 4 comparison states (CO, NV, TX, WY)	Percent change in proportion of all fatal crash-involved drivers < 21 years with BACs > 0.00%	-9.3%, p = .377	3 years
Voas 1999 ⁶ 1982-1997 Greatest (time series with concurrent comparison) Fair 50 U.S. States and D.C.	.02 or lower BAC laws for drivers < 21 years Laws implemented during 1982-1997 Comparisons: pre-law period and ratio of alcohol-related fatal crashes to non-alcohol-related fatal crashes in states without .02 BAC laws	Percentage change in the ratio of fatal crashes involving drivers < 21 years with BACs \geq 0.00% vs. BACs = 0.00%	-24.4%, p < .001	< 1-15 years

BAC – Blood alcohol concentration¹

References

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