

Traffic Safety Facts

Research Note

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Total and Alcohol-Related Fatality Rates by State, 2003-2004

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Summary

Fatality rates from traffic crashes related to alcohol declined in 33 States and the District of Columbia in 2004. Using the standard measurement of 100 million vehicle miles traveled (VMT), the alcohol-related fatality rate for the United States declined to 0.56 in 2004 from 0.59 fatalities per 100 million VMT in 2003. The fatality rate remained flat or increased in 17 States and Puerto Rico during the same period.

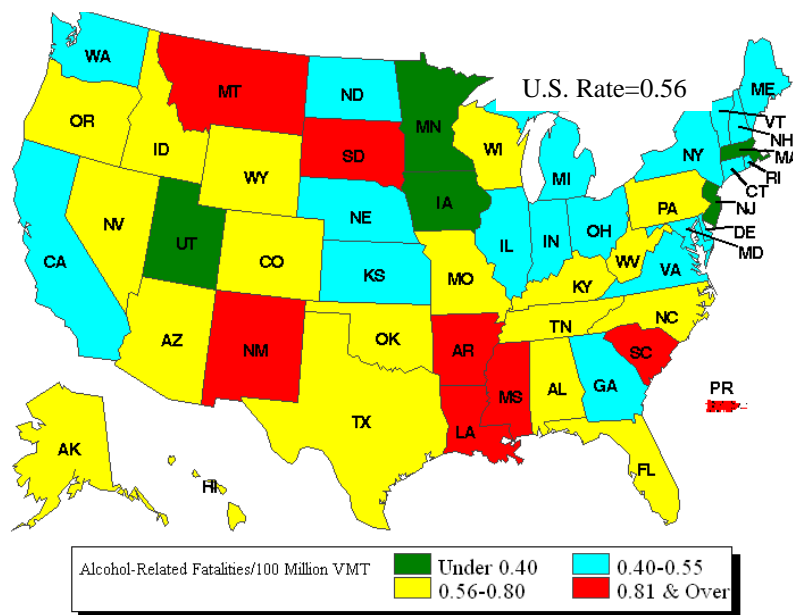
In crashes involving at least one driver or motorcycle operator who had a blood alcohol concentration (BAC) of .08 grams per deciliter or above, the fatality rate declined in 32 States and the District of Columbia, and remained flat or increased in 18 States and Puerto Rico. The corresponding rate for the United States declined from 0.45 to 0.43 fatalities per 100 million VMT.

Results

The note uses the 2003 Final and 2004 Annual Report File (ARF) of NHTSA's Fatality Analysis Reporting System (FARS) as well as the VMT data released by the FHWA to compute the rate of alcohol-related fatalities. Estimates of alcohol involvement are generated using BAC values reported to FARS and imputed BAC values when they are not reported. Fatalities are alcohol-related if they occur in crashes involving at least one driver, motorcycle operator, pedestrian, or pedalcyclist with a BAC of .01 g/dL or above. Also, since most impaired driving laws target drivers and motorcycle operators, fatalities that occur in crashes that involve at least one driver or motorcycle operator with a BAC of .08 or above are also presented.

Figure 1 maps the rate of alcohol-related fatalities per 100 million VMT for each State in 2004. The States are color-coded as to whether their rates are at or above (yellow, red) the national rate of 0.56 or below (blue, green).

Figure 1: Alcohol-Related Fatalities per 100 Million VMT by State, 2004

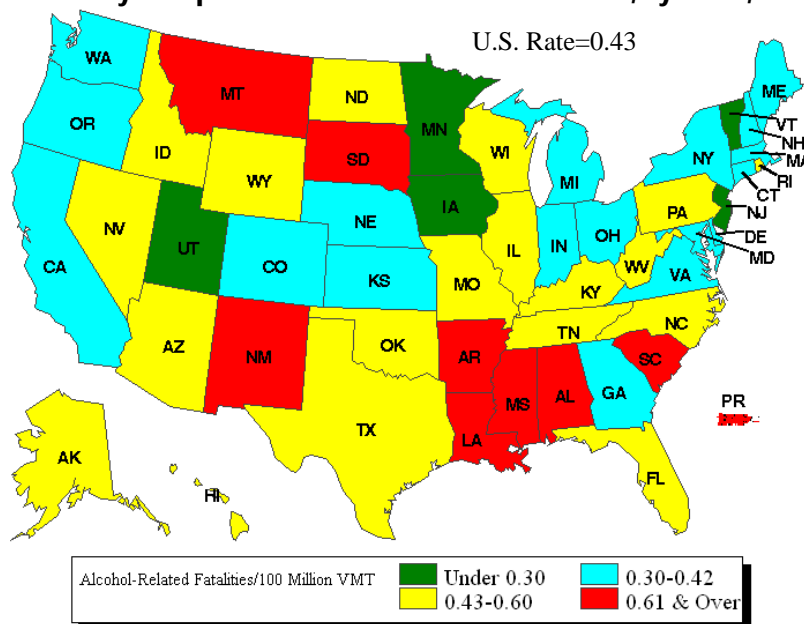


Source: National Center for Statistics and Analysis, 2004 FARS Annual Report File

Figure 2 maps the rate of fatalities in crashes that involved at least one driver or motorcycle operator with a BAC of .08 or above. The States are color-coded as to

whether their rates are at or above (yellow, red) the national rate of 0.43 or below (blue, green).

Figure 2: Fatalities per 100 Million VMT in Crashes Involving at Least One Driver or Motorcycle Operator with a BAC of .08 or Above, by State, 2004



Source: National Center for Statistics and Analysis, 2004 FARS Annual Report File

As shown in the Table 1, in the 33 States and the District of Columbia that showed a decrease in their alcohol-related fatality rates, there were 837 fewer alcohol-related fatalities in 2004. This however, was offset by an increase of 426 fatalities for the 17 States that showed an increase in their alcohol-related fatality rates in 2004. In

crashes involving at least one driver or motorcycle operator with a BAC of .08 or above, the 32 States and the District of Columbia had 632 fewer fatalities which were offset by an increase of 409 fatalities in States where the rate was flat or higher in 2004 as compared to 2003.

Table 1: Fatalities and Fatality Rates by Categories of Increasing and Decreasing Rates in 2004 as Compared to 2003

| 2004 Rates as compared to 2003 Rates | Alcohol-Related Fatalities | | Fatalities in Crashes Involving at Least One Driver/Motorcycle Operator with BAC=.08+ | |
|--------------------------------------|----------------------------|----------------------|---|----------------------|
| | Number of States | Change in Fatalities | Number of States | Change in Fatalities |
| States with Higher/Flat Rates | 17 | +426 | 18 | +409 |
| States with Lower Rates | 33 + D.C. | -837 | 32+ D.C. | -632 |
| U.S. | - | -411 | - | -222 |

Components may not add to U.S. totals due to independent rounding.

Table 2 (overleaf) depicts the number and rate of fatalities per 100 million VMT in all crashes, alcohol-related crashes and crashes that involved

at least one driver or motorcycle operator who had a BAC of .08 or above.

Table 2: Total, Alcohol-Related Fatalities, Fatalities in Crashes Involving at Least One Driver/Motorcycle Operator with a BAC of .08 or Above and the Corresponding Fatality Rates per 100 Million VMT, 2003-2004

| State | 2003 | | | | | | 2004 | | | | | |
|----------------|--------|------|-----------------|------|---|------|--------|------|-----------------|------|---|------|
| | Total | | Alcohol-Related | | In Crashes Involving at least one Driver /MC Operator with BAC=.08+ | | Total | | Alcohol-Related | | In Crashes Involving at least one Driver /MC Operator with BAC=.08+ | |
| | Number | Rate | Number | Rate | Number | Rate | Number | Rate | Number | Rate | Number | Rate |
| Alabama | 1,004 | 1.71 | 414 | 0.71 | 341 | 0.58 | 1,154 | 1.95 | 442 | 0.75 | 367 | 0.62 |
| Alaska | 98 | 1.98 | 37 | 0.75 | 29 | 0.59 | 101 | 2.02 | 31 | 0.62 | 28 | 0.56 |
| Arizona | 1,118 | 2.07 | 471 | 0.87 | 342 | 0.63 | 1,150 | 2.01 | 435 | 0.76 | 322 | 0.56 |
| Arkansas | 640 | 2.09 | 252 | 0.82 | 190 | 0.62 | 704 | 2.22 | 276 | 0.87 | 219 | 0.69 |
| California | 4,224 | 1.31 | 1,629 | 0.50 | 1,149 | 0.36 | 4,120 | 1.25 | 1,643 | 0.50 | 1,154 | 0.35 |
| Colorado | 642 | 1.48 | 252 | 0.58 | 203 | 0.47 | 665 | 1.45 | 259 | 0.56 | 194 | 0.42 |
| Connecticut | 298 | 0.95 | 137 | 0.44 | 115 | 0.37 | 291 | 0.92 | 127 | 0.40 | 106 | 0.34 |
| Delaware | 142 | 1.57 | 61 | 0.67 | 46 | 0.51 | 134 | 1.44 | 51 | 0.55 | 39 | 0.42 |
| Dist of | 67 | 1.87 | 35 | 0.98 | 25 | 0.70 | 43 | 1.15 | 18 | 0.48 | 11 | 0.29 |
| Florida | 3,169 | 1.71 | 1,287 | 0.69 | 907 | 0.49 | 3,244 | 1.65 | 1,222 | 0.62 | 865 | 0.44 |
| Georgia | 1,603 | 1.47 | 483 | 0.44 | 355 | 0.32 | 1,634 | 1.45 | 525 | 0.47 | 392 | 0.35 |
| Hawaii | 133 | 1.43 | 71 | 0.76 | 48 | 0.52 | 142 | 1.46 | 65 | 0.67 | 46 | 0.47 |
| Idaho | 293 | 2.05 | 106 | 0.74 | 83 | 0.58 | 260 | 1.77 | 93 | 0.63 | 76 | 0.52 |
| Illinois | 1,454 | 1.36 | 637 | 0.60 | 489 | 0.46 | 1,356 | 1.24 | 604 | 0.55 | 467 | 0.43 |
| Indiana | 833 | 1.15 | 261 | 0.36 | 204 | 0.28 | 947 | 1.30 | 299 | 0.41 | 236 | 0.32 |
| Iowa | 443 | 1.42 | 145 | 0.47 | 114 | 0.37 | 390 | 1.24 | 110 | 0.35 | 86 | 0.27 |
| Kansas | 469 | 1.64 | 199 | 0.69 | 166 | 0.58 | 461 | 1.58 | 148 | 0.51 | 118 | 0.40 |
| Kentucky | 928 | 1.99 | 277 | 0.59 | 223 | 0.48 | 964 | 2.04 | 308 | 0.65 | 256 | 0.54 |
| Louisiana | 940 | 2.13 | 410 | 0.93 | 336 | 0.76 | 904 | 2.03 | 414 | 0.93 | 312 | 0.70 |
| Maine | 207 | 1.39 | 75 | 0.50 | 65 | 0.44 | 194 | 1.30 | 70 | 0.47 | 58 | 0.39 |
| Maryland | 650 | 1.19 | 287 | 0.52 | 187 | 0.34 | 643 | 1.16 | 286 | 0.52 | 209 | 0.38 |
| Massachusetts | 462 | 0.86 | 215 | 0.40 | 156 | 0.29 | 476 | 0.87 | 203 | 0.37 | 164 | 0.30 |
| Michigan | 1,283 | 1.27 | 485 | 0.48 | 340 | 0.34 | 1,159 | 1.12 | 430 | 0.42 | 329 | 0.32 |
| Minnesota | 655 | 1.18 | 266 | 0.48 | 212 | 0.38 | 567 | 1.00 | 184 | 0.33 | 160 | 0.28 |
| Mississinni | 872 | 2.33 | 321 | 0.86 | 278 | 0.74 | 900 | 2.28 | 341 | 0.86 | 302 | 0.77 |
| Missouri | 1,232 | 1.81 | 493 | 0.72 | 394 | 0.58 | 1,130 | 1.64 | 449 | 0.65 | 359 | 0.52 |
| Montana | 262 | 2.41 | 127 | 1.17 | 103 | 0.95 | 229 | 2.04 | 106 | 0.95 | 97 | 0.87 |
| Nebraska | 293 | 1.54 | 121 | 0.64 | 95 | 0.50 | 254 | 1.32 | 92 | 0.48 | 75 | 0.39 |
| Nevada | 368 | 1.91 | 180 | 0.93 | 121 | 0.63 | 395 | 2.04 | 152 | 0.79 | 107 | 0.55 |
| New Hampshire | 127 | 0.96 | 51 | 0.39 | 36 | 0.27 | 171 | 1.29 | 59 | 0.45 | 50 | 0.38 |
| New Jersey | 733 | 1.05 | 279 | 0.40 | 195 | 0.28 | 731 | 1.00 | 270 | 0.37 | 191 | 0.26 |
| New Mexico | 439 | 1.92 | 206 | 0.90 | 144 | 0.63 | 521 | 2.18 | 211 | 0.88 | 153 | 0.64 |
| New York | 1,493 | 1.11 | 540 | 0.40 | 395 | 0.29 | 1,493 | 1.08 | 587 | 0.43 | 419 | 0.30 |
| North Carolina | 1,553 | 1.66 | 528 | 0.56 | 403 | 0.43 | 1,557 | 1.62 | 553 | 0.58 | 425 | 0.44 |
| North Dakota | 105 | 1.41 | 53 | 0.71 | 46 | 0.62 | 100 | 1.32 | 39 | 0.51 | 34 | 0.45 |
| Ohio | 1,274 | 1.17 | 466 | 0.43 | 370 | 0.34 | 1,286 | 1.15 | 492 | 0.44 | 391 | 0.35 |
| Oklahoma | 671 | 1.47 | 260 | 0.57 | 212 | 0.46 | 774 | 1.67 | 278 | 0.60 | 223 | 0.48 |
| Oregon | 512 | 1.46 | 207 | 0.59 | 158 | 0.45 | 456 | 1.28 | 199 | 0.56 | 145 | 0.41 |
| Pennsylvania | 1,577 | 1.48 | 621 | 0.58 | 496 | 0.47 | 1,490 | 1.38 | 614 | 0.57 | 512 | 0.47 |
| Rhode Island | 104 | 1.24 | 59 | 0.71 | 50 | 0.60 | 83 | 0.98 | 42 | 0.50 | 37 | 0.44 |
| South Carolina | 969 | 2.01 | 490 | 1.02 | 389 | 0.81 | 1,046 | 2.11 | 464 | 0.94 | 369 | 0.74 |
| South Dakota | 203 | 2.38 | 97 | 1.14 | 82 | 0.96 | 197 | 2.24 | 86 | 0.98 | 74 | 0.84 |
| Tennessee | 1,193 | 1.73 | 443 | 0.64 | 370 | 0.54 | 1,288 | 1.82 | 519 | 0.73 | 420 | 0.59 |
| Texas | 3,821 | 1.71 | 1,771 | 0.79 | 1,405 | 0.63 | 3,583 | 1.55 | 1,642 | 0.71 | 1,264 | 0.55 |
| Utah | 309 | 1.29 | 47 | 0.20 | 36 | 0.15 | 296 | 1.20 | 72 | 0.29 | 65 | 0.26 |
| Vermont | 69 | 0.83 | 29 | 0.35 | 21 | 0.25 | 98 | 1.25 | 32 | 0.41 | 19 | 0.24 |
| Virginia | 943 | 1.23 | 367 | 0.48 | 281 | 0.37 | 925 | 1.17 | 359 | 0.46 | 279 | 0.35 |
| Washington | 600 | 1.09 | 261 | 0.47 | 203 | 0.37 | 563 | 1.01 | 246 | 0.44 | 203 | 0.36 |
| West Virginia | 394 | 1.96 | 148 | 0.74 | 118 | 0.59 | 411 | 2.02 | 136 | 0.67 | 103 | 0.51 |
| Wisconsin | 848 | 1.42 | 388 | 0.65 | 324 | 0.54 | 792 | 1.31 | 358 | 0.59 | 296 | 0.49 |
| Wyoming | 165 | 1.79 | 63 | 0.68 | 46 | 0.50 | 164 | 1.77 | 59 | 0.64 | 51 | 0.55 |
| U.S. | 42,884 | 1.48 | 17,105 | 0.59 | 13,096 | 0.45 | 42,636 | 1.44 | 16,694 | 0.56 | 12,874 | 0.43 |
| Puerto Rico | 495 | 2.65 | 235 | 1.26 | 157 | 0.84 | 494 | 2.53 | 248 | 1.27 | 173 | 0.89 |

Source: NHTSA's NCSA FARS 2003 (Final), 2004 (ARF) Files, FHWA

Conclusions

The alcohol-related fatality rate has been steadily declining since reaching a near-time high of 0.63 in 2000. In 2004, the alcohol-related fatality rate declined to 0.56 fatalities per 100 million VMT from 0.59 fatalities per 100 million VMT in 2003. Impaired driving laws have been enacted in all 50 States and the District of Columbia that make it illegal for a driver or a motorcycle operator with a BAC of .08 or above to drive a vehicle. The fatality rate in crashes that involved at least one driver or motorcycle operator with a BAC of .08 or above also declined from 0.45 fatalities per 100 million VMT in 2003 to 0.43 fatalities per 100 million VMT in 2004.

In 2004, South Dakota had the highest alcohol-related fatality rate of 0.98 in the Nation while Utah had the lowest rate of 0.29 in the Nation. In 2003, Montana had the highest rate of alcohol-related fatalities in the Nation at 1.17 while Utah had the lowest rate at 0.20. In crashes involving at least one driver or motorcycle operator with a BAC of .08 or above, Montana had the highest fatality rate of 0.87 in 2004 while Vermont had the lowest fatality rate of 0.24. Correspondingly, in 2003, South Dakota had the highest rate of 0.96 while Utah had the lowest rate of 0.15.