

# BLOOD ALCOHOL LEVELS FOR FATALLY INJURED DRIVERS





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**NOTES**

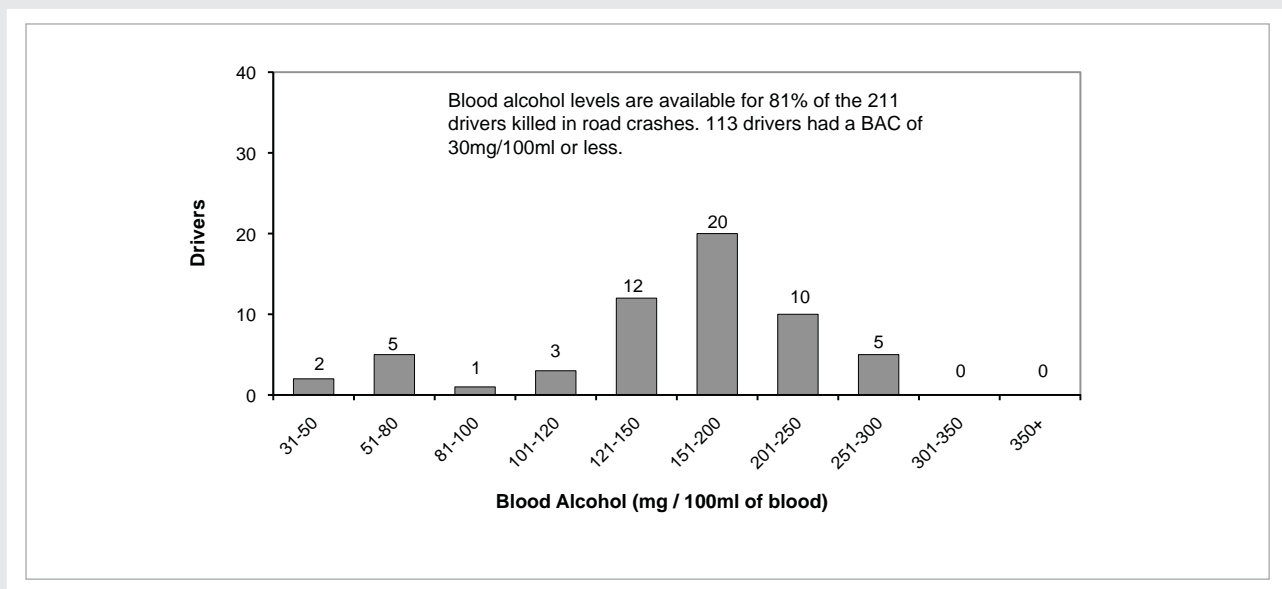
1. The data in this section is derived by matching Ministry of Transport's Traffic Crash Reports with blood alcohol measurements taken as part of post mortem examinations for dead drivers.
2. In cases where the driver dies at some time after the crash, the blood alcohol level measured in a post mortem examination may be different to that present at the time of the crash.

**SUMMARY**

1. Of the 211 drivers/riders who were killed in road crashes in 2008, 171 (81 percent) were given a blood test to detect the presence of alcohol.
2. Fifty-three drivers had a blood alcohol level above the legal limit. That is, 31 percent of those tested and at least 25 percent of the total number killed were above the legal limit.

3. A number of those not tested may also have had a blood alcohol level above the legal limit, so the percentage of killed drivers who were above the legal limit is likely to be higher than 25 percent. An estimate of the number of untested drivers who may have been above the legal limit can be made by assuming that the alcohol involvement rate for untested drivers with 'alcohol suspected' is the same as that for the tested drivers with 'alcohol suspected' and similarly for drivers with 'alcohol not suspected'. For 2008 this estimate gives a further six drivers likely to be above the legal limit. Hence, based on the above assumptions, and the presently available data, a likely estimate is that about 28 percent of all the drivers killed were above the legal blood alcohol limit.

**FIGURE 1: BLOOD ALCOHOL LEVELS OF FATALLY INJURED DRIVERS YEAR ENDED 31 DECEMBER 2008**

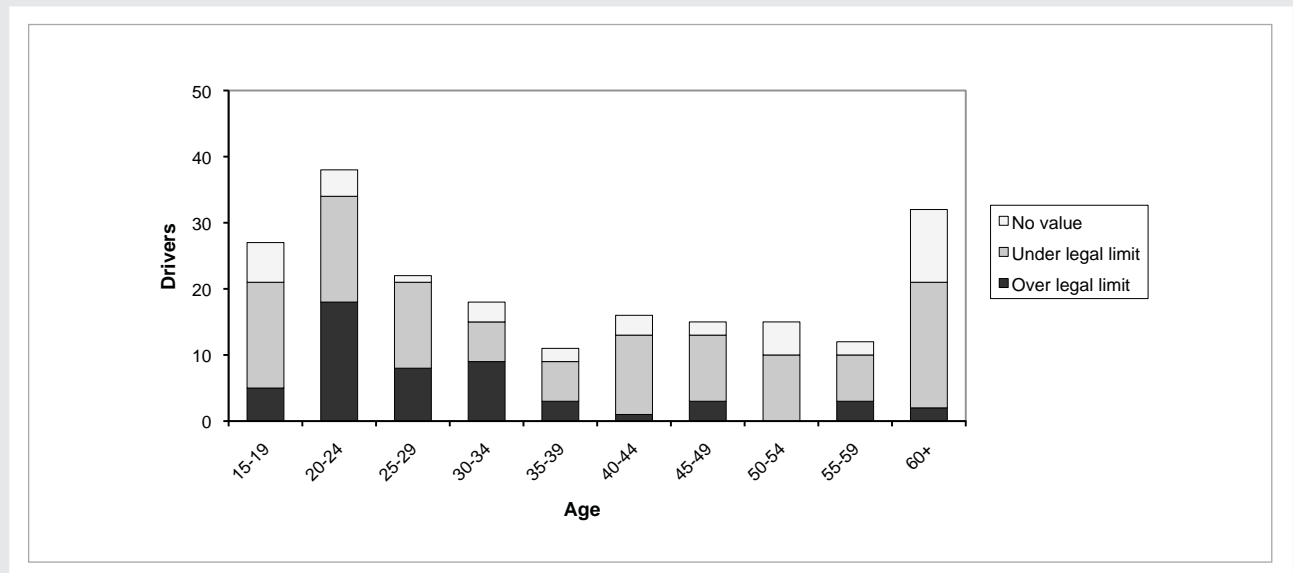


**TABLE 1: BLOOD ALCOHOL LEVELS OF FATALLY INJURED DRIVERS BY AGE GROUP**  
YEAR ENDING 31 DECEMBER 2008

Age group	Blood alcohol levels (1)												Total
	No value (2)	0 to 30	31 to 50	51 to 80	81 to 100	101 to 120	121 to 150	151 to 200	201 to 250	251 to 300	301 to 350	Over 350	
15 to 19	6	16	-	2	-	1	1	-	1	-	-	-	27
20 to 24	4	14	-	2	1	2	5	8	2	-	-	-	38
25 to 29	1	13	-	-	-	-	2	5	1	-	-	-	22
30 to 34	3	6	-	-	-	-	1	3	2	3	-	-	18
35 to 39	2	6	-	-	-	-	-	1	1	1	-	-	11
40 to 44	3	12	-	-	-	-	-	1	-	-	-	-	16
45 to 49	2	9	1	-	-	-	1	-	2	-	-	-	15
50 to 54	5	9	1	-	-	-	-	-	-	-	-	-	15
55 to 59	2	6	-	1	-	-	2	1	-	-	-	-	12
60 and over	11	19	-	-	-	-	-	1	-	1	-	-	32
Unknown age	1	3	-	-	-	-	-	-	1	-	-	-	5
<b>Total</b>	<b>40</b>	<b>113</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>3</b>	<b>12</b>	<b>20</b>	<b>10</b>	<b>5</b>	<b>-</b>	<b>-</b>	<b>211</b>

NOTE: (1) In milligrams of alcohol per 100 millilitres of blood.

**FIGURE 2: BLOOD ALCOHOL LEVELS OF FATALLY INJURED DRIVERS BY AGE GROUP**

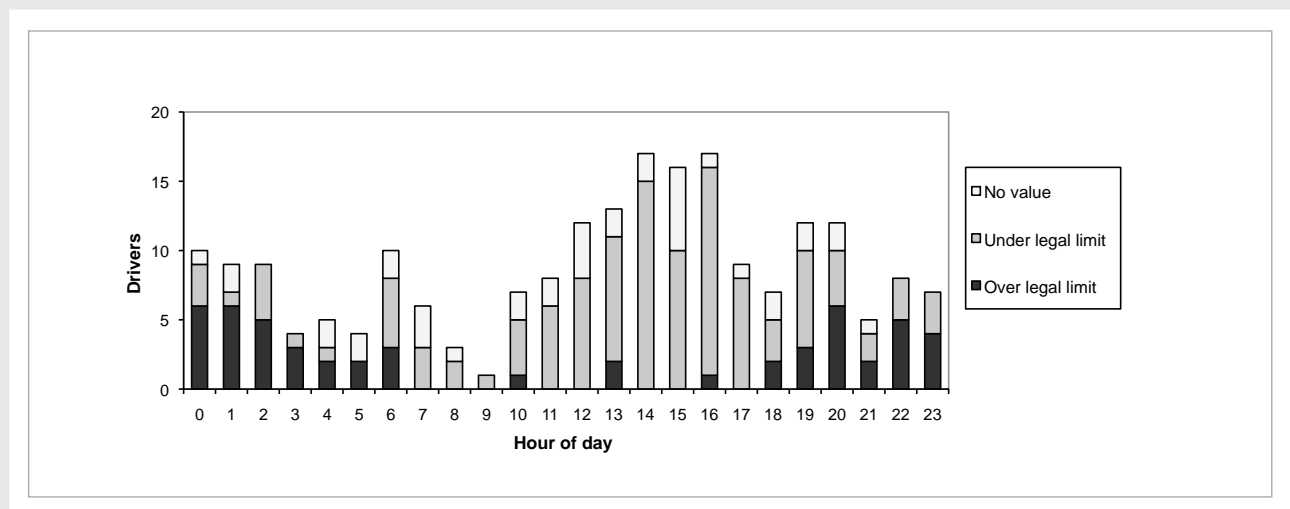


**TABLE 2: BLOOD ALCOHOL LEVELS OF FATALLY INJURED DRIVERS BY TIME OF DAY**  
YEAR ENDED 31 DECEMBER 2008

Time of day	Blood alcohol levels (1)												Total
	No value	0 to 30	31 to 50	51 to 80	81 to 100	101 to 120	121 to 150	151 to 200	201 to 250	251 to 300	301 to 350	Over 350	
Midnight to 12.59am	1	1	1	1	-	-	1	4	1	-	-	-	10
1am to 1.59am	2	1	-	-	-	-	-	2	3	1	-	-	9
2am to 2.59am	-	4	-	-	-	-	1	2	2	-	-	-	9
3am to 3.59am	-	1	-	-	-	1	1	1	-	-	-	-	4
4am to 4.59am	2	1	-	-	-	-	-	-	2	-	-	-	5
5am to 5.59am	2	-	-	-	-	-	-	2	-	-	-	-	4
6am to 6.59am	2	5	-	1	-	-	1	1	-	-	-	-	10
7am to 7.59am	3	3	-	-	-	-	-	-	-	-	-	-	6
8am to 8.59am	1	2	-	-	-	-	-	-	-	-	-	-	3
9am to 9.59am	-	1	-	-	-	-	-	-	-	-	-	-	1
10am to 10.59am	2	4	-	-	-	1	-	-	-	-	-	-	7
11am to 11.59am	2	6	-	-	-	-	-	-	-	-	-	-	8
noon to 12.59pm	4	8	-	-	-	-	-	-	-	-	-	-	12
1pm to 1.59pm	2	9	-	-	-	-	-	-	-	2	-	-	13
2pm to 2.59pm	2	14	1	-	-	-	-	-	-	-	-	-	17
3pm to 3.59pm	6	9	-	1	-	-	-	-	-	-	-	-	16
4pm to 4.59pm	1	15	-	-	-	-	-	1	-	-	-	-	17
5pm to 5.59pm	1	8	-	-	-	-	-	-	-	-	-	-	9
6pm to 6.59pm	2	3	-	-	-	-	1	1	-	-	-	-	7
7pm to 7.59pm	2	7	-	-	-	1	1	1	-	-	-	-	12
8pm to 8.59pm	2	3	-	2	1	-	3	1	-	-	-	-	12
9pm to 9.59pm	1	2	-	-	-	-	1	1	-	-	-	-	5
10pm to 10.59pm	-	3	-	-	-	-	-	2	2	1	-	-	8
11pm to 11.59pm	-	3	-	-	-	-	2	1	-	1	-	-	7
<b>Total</b>	<b>40</b>	<b>113</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>3</b>	<b>12</b>	<b>20</b>	<b>10</b>	<b>5</b>	<b>-</b>	<b>-</b>	<b>211</b>

NOTE: (1) In milligrams of alcohol per 100 millilitres of blood.

**FIGURE 3: BLOOD ALCOHOL LEVELS OF FATALLY INJURED DRIVERS BY HOUR OF DAY**

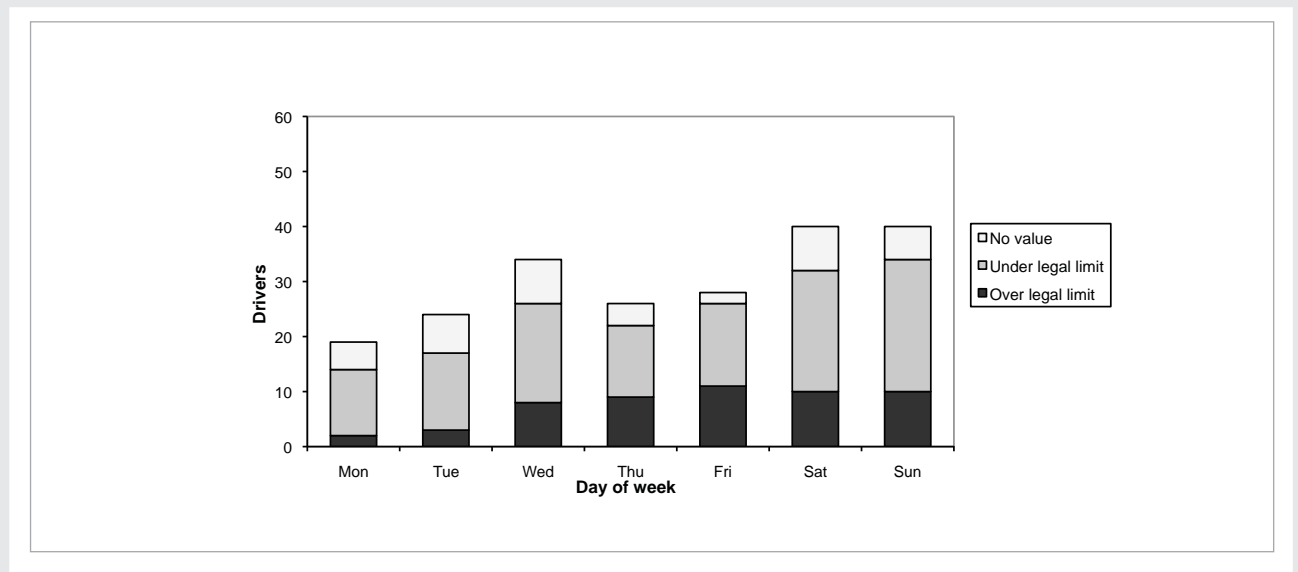


**TABLE 3: BLOOD ALCOHOL LEVELS OF FATALLY INJURED DRIVERS BY DAY OF WEEK**  
YEAR ENDING 31 DECEMBER 2008

Day of week	Blood alcohol test levels (1)												Total
	No value (2)	0 to 30	31 to 50	51 to 80	81 to 100	101 to 120	121 to 150	151 to 200	201 to 250	251 to 300	301 to 350	Over 350	
Monday	5	12	-	1	-	1	-	-	-	-	-	-	19
Tuesday	7	13	1	-	-	-	2	1	-	-	-	-	24
Wednesday	8	17	-	1	-	-	-	3	4	1	-	-	34
Thursday	4	12	-	1	1	1	1	4	1	1	-	-	26
Friday	2	15	-	-	-	1	3	6	1	-	-	-	28
Saturday	8	20	1	2	-	-	3	2	2	2	-	-	40
Sunday	6	24	-	-	-	-	3	4	2	1	-	-	40
<b>Total</b>	<b>40</b>	<b>113</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>3</b>	<b>12</b>	<b>20</b>	<b>10</b>	<b>5</b>	<b>-</b>	<b>-</b>	<b>211</b>

NOTE: (1) In milligrams of alcohol per 100 millilitres of blood.

**FIGURE 4: BLOOD ALCOHOL LEVELS OF FATALLY INJURED DRIVERS BY DAY OF WEEK**

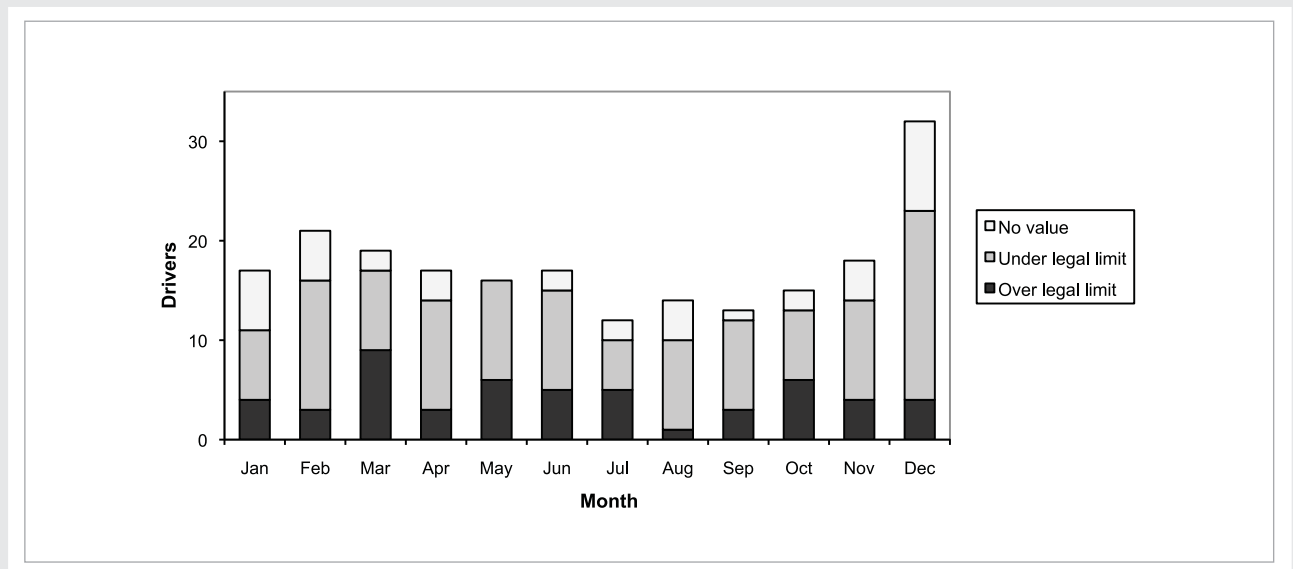


**TABLE 4: BLOOD ALCOHOL LEVELS OF FATALLY INJURED DRIVERS BY MONTH**  
YEAR ENDING 31 DECEMBER 2008

Month	Blood Alcohol levels (1)												Total
	No value	0 to 30	31 to 50	51 to 80	81 to 100	101 to 120	121 to 150	151 to 200	201 to 250	251 to 300	301 to 350	Over 350	
January	6	6	-	1	-	-	1	2	1	-	-	-	17
February	5	13	-	-	1	-	-	2	-	-	-	-	21
March	2	8	-	-	-	1	3	3	2	-	-	-	19
April	3	11	-	-	-	-	1	1	1	-	-	-	17
May	-	10	-	-	-	-	-	3	3	-	-	-	16
June	2	9	-	1	-	-	3	1	1	-	-	-	17
July	2	5	-	-	-	-	2	3	-	-	-	-	12
August	4	8	-	1	-	1	-	-	-	-	-	-	14
September	1	9	-	-	-	-	1	2	-	-	-	-	13
October	2	7	-	1	-	-	1	-	2	2	-	-	15
November	4	10	-	1	-	-	-	2	-	1	-	-	18
December	9	17	2	-	-	1	-	1	-	2	-	-	32
<b>Total</b>	<b>40</b>	<b>113</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>3</b>	<b>12</b>	<b>20</b>	<b>10</b>	<b>5</b>	<b>-</b>	<b>-</b>	<b>211</b>

NOTE: (1) In milligrams of alcohol per 100 millilitres of blood.

**FIGURE 5: BLOOD ALCOHOL LEVELS OF FATALLY INJURED DRIVERS BY MONTH**

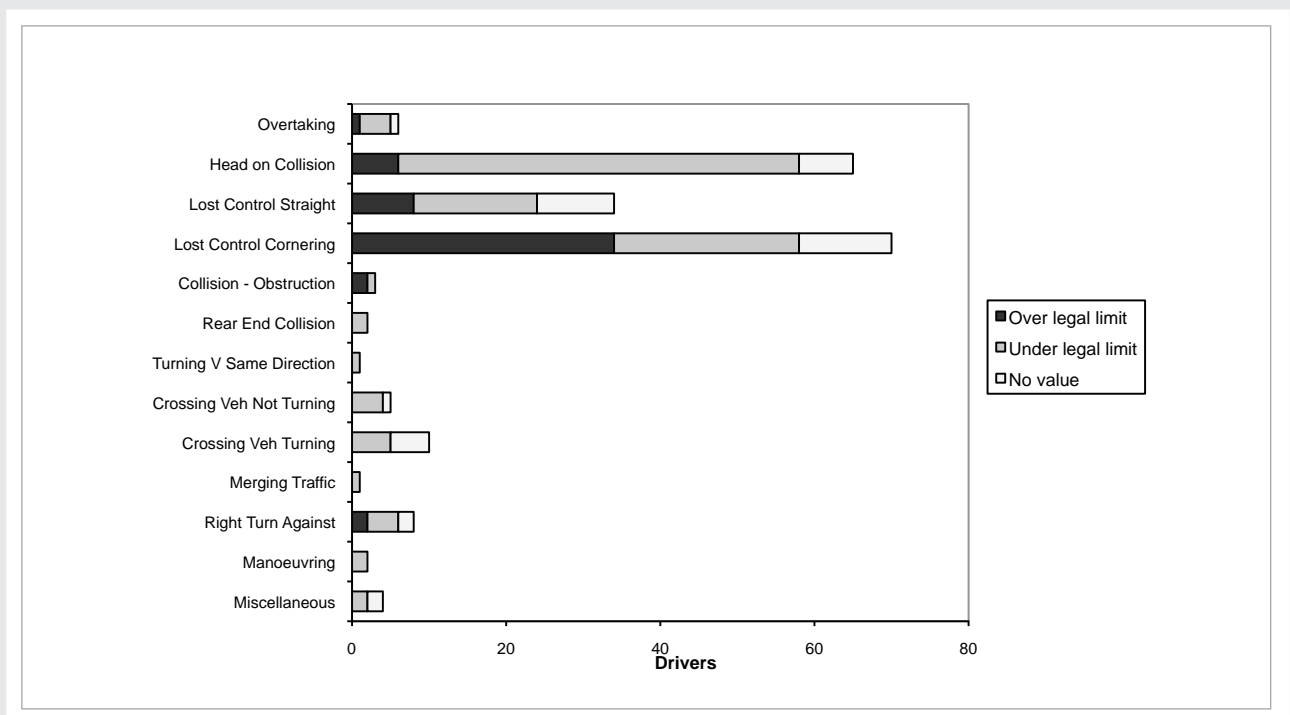


**TABLE 5: BLOOD ALCOHOL LEVELS OF FATALLY INJURED DRIVERS BY TYPE OF CRASH**  
YEAR ENDING 31 DECEMBER 2008

Crash type	Blood Alcohol levels (1)												Total	
	No value	0 to 30	31 to 50	51 to 80	81 to 100	101 to 120	121 to 150	151 to 200	201 to 250	251 to 300	301 to 350	Over 350		
Overtaking	1	4	-	-	-	-	-	-	-	-	1	-	-	6
Head on collision	7	51	-	1	1	-	3	-	1	1	-	-	-	65
Lost control straight	10	15	-	1	-	1	3	1	2	1	-	-	-	34
Lost control cornering	12	21	2	2	-	2	5	17	7	2	-	-	-	70
Collision - obstruction	-	1	-	-	-	-	1	1	-	-	-	-	-	3
Rear end collision	-	2	-	-	-	-	-	-	-	-	-	-	-	2
Turning V Same Direction	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Crossing Vehicle Not Turning	1	4	-	-	-	-	-	-	-	-	-	-	-	5
Crossing Vehicle Turning	5	5	-	-	-	-	-	-	-	-	-	-	-	10
Merging Traffic	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Right Turn Against	2	4	-	1	-	-	-	1	-	-	-	-	-	8
Manoeuvring	-	2	-	-	-	-	-	-	-	-	-	-	-	2
Miscellaneous	2	2	-	-	-	-	-	-	-	-	-	-	-	4
<b>Total</b>	<b>40</b>	<b>113</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>3</b>	<b>12</b>	<b>20</b>	<b>10</b>	<b>5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>221</b>

NOTE: (1) In milligrams of alcohol per 100 millilitres of blood.

**FIGURE 6: BLOOD ALCOHOL LEVELS OF FATALLY INJURED DRIVERS BY CRASH TYPE**



**TABLE 6: BLOOD ALCOHOL LEVELS OF FATALLY INJURED DRIVERS BY TYPE OF VEHICLE**  
YEAR ENDING 31 DECEMBER 2008

Vehicle type	Blood Alcohol levels (1)												Total
	No value	0 to 30	31 to 50	51 to 80	81 to 100	101 to 120	121 to 150	151 to 200	201 to 250	251 to 300	301 to 350	Over 350	
Car	25	66	-	3	1	1	8	13	9	2	-	-	128
Motorcycle	7	29	2	1	-	1	2	5	-	1	-	-	48
Van (2)	6	14	-	1	-	1	2	2	1	2	-	-	29
Truck	1	4	-	-	-	-	-	-	-	-	-	-	5
Other	1	-	-	-	-	-	-	-	-	-	-	-	1
	40	113	2	5	1	3	12	20	10	5	-	-	211

NOTE: 1. In milligrams of alcohol per 100 millilitres of blood. 2. SUVs are included as vans.

**FIGURE 7: BLOOD ALCOHOL LEVELS OF FATALLY INJURED DRIVERS BY VEHICLE TYPE**

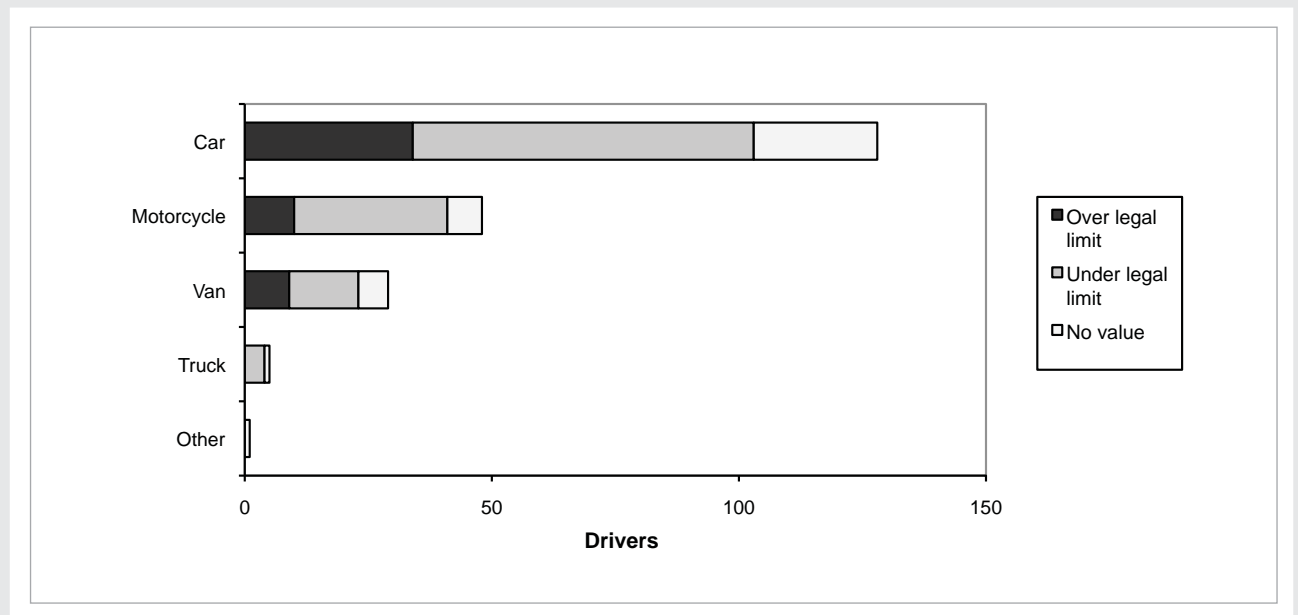


TABLE 7: BLOOD ALCOHOL FOR FATALLY INJURED DRIVERS - HISTORICAL

Year	Number of killed drivers (A)	Number tested (B)	Percent tested	Number over legal limit (C)	Percent of drivers over legal limit (C/A)	Percentage of those tested over the limit (C/B)	Adjusted for non-testing#	
							Best estimate of number over the limit	Best estimate of percent over the limit
1987	438	325	74%	151	35%	47%	185	42%
1988	395	282	71%	122	31%	43%	156	40%
1989	413	292	71%	135	31%	44%	162	39%
1990	374	277	74%	137	37%	50%	172	46%
1991	342	240	70%	108	32%	45%	138	40%
1992	361	240	67%	98	27%	41%	129	36%
1993	333	233	70%	88	26%	38%	106	32%
1994	333	252	76%	105	32%	42%	127	38%
1995	314	237	76%	78	25%	33%	93	30%
1996	283	201	71%	66	23%	33%	84	30%
1997	304	218	72%	46	15%	21%	63	21%
1998	271	183	68%	56	21%	31%	74	27%
1999	293	215	73%	50	17%	23%	61	21%
2000	273	179	66%	55	20%	31%	58	21%
2001	267	204	76%	44	17%	22%	55	21%
2002	246	198	81%	52	21%	26%	60	24%
2003	262	191	73%	59	23%	31%	70	27%
2004	255	197	77%	57	22%	29%	69	27%
2005	237	171	72%	45	19%	26%	58	25%
2006	225	174	77%	46	20%	26%	54	24%
2007	241	196	81%	56	23%	29%	65	27%
2008	211	171	81%	53	25%	31%	59	28%

NOTE: # This gives the best estimate of the number and percentage of all killed drivers likely to have a blood alcohol level over the legal limit after adjusting for the 20% or so of drivers that are not tested. See Note 3 in the summary for more detail.

FIGURE 8: NUMBER OF DRIVERS, NUMBER TESTED FOR ALCOHOL AND PERCENT TESTED FOR ALCOHOL

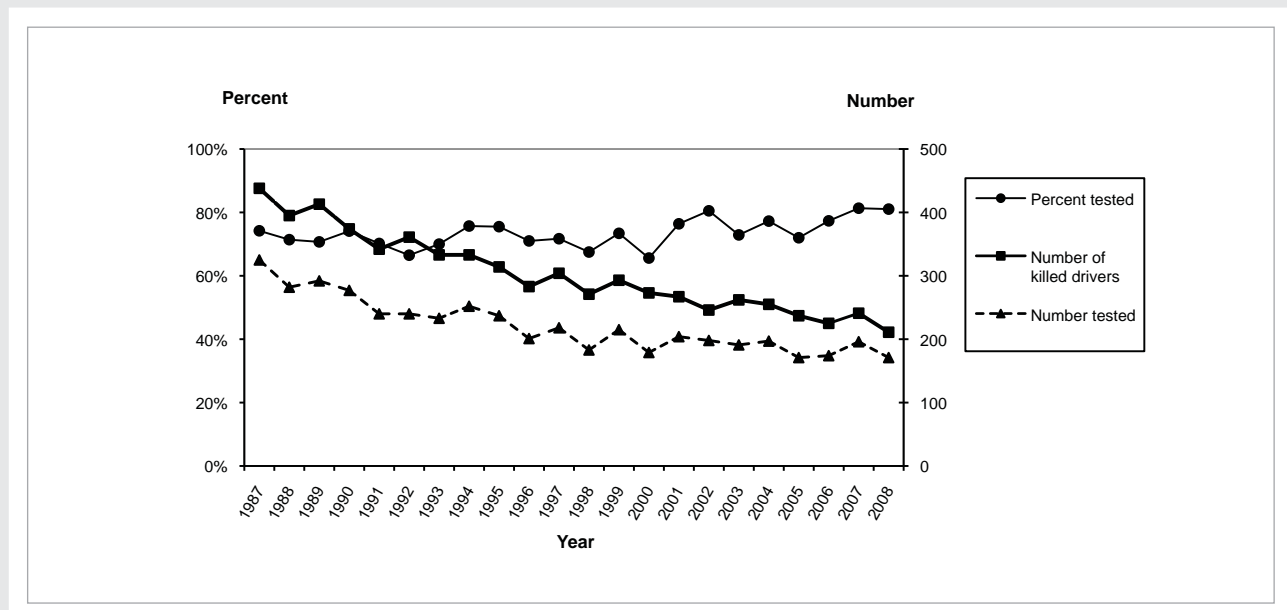


FIGURE 9: NUMBER OF DEAD DRIVERS WHO HAD A BLOOD ALCOHOL LEVEL ABOVE THE LEGAL LIMIT

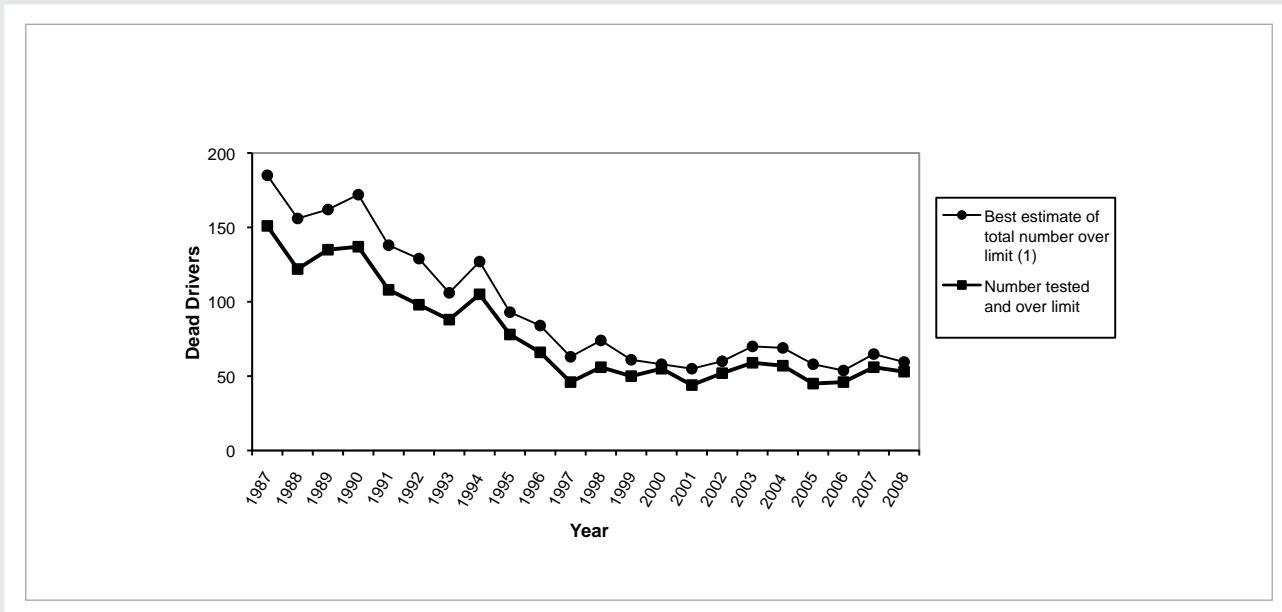
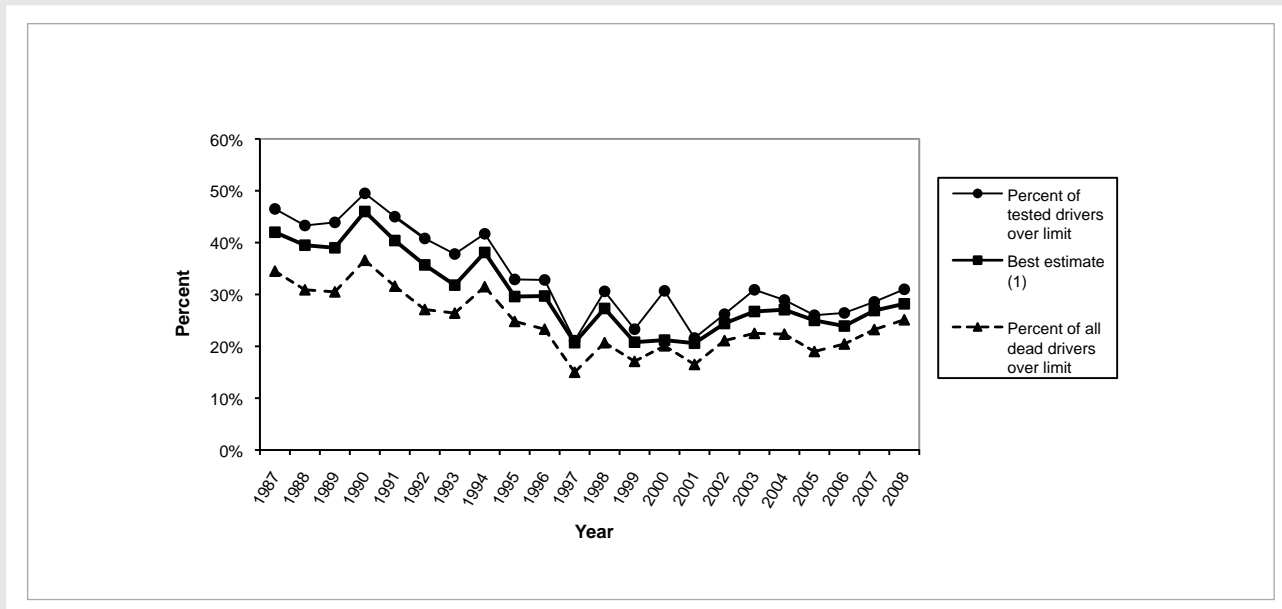


FIGURE 10: PERCENT OF DEAD DRIVERS WHO HAD A BLOOD ALCOHOL LEVEL ABOVE THE LEGAL LIMIT



NOTE: 1. After adjusting for those drivers who were not tested but may have been over the limit. See Note 3 in the summary for more detail.