

Maryland Traffic Safety Facts 2002

REGIONS



Maryland Department of Transportation
State Highway Administration
Office of Traffic and Safety



Driving Safely in Maryland

“Fatal and total accidents occurred most frequently in the Baltimore Metropolitan area.”

“The Southern Maryland region had the highest fatality rate per VMT among all the regions.”

Summary

- ❑ Fatal and total accidents occurred most frequently in the Baltimore Metropolitan area (The Central Maryland region), which includes five counties and Baltimore City.
- ❑ 1.0% of traffic accidents that occurred in the Eastern Shore region resulted in a fatality, which is higher than statewide average of 0.6%. Fatal accidents accounted for 0.9% of the traffic accidents that occurred in the Southern Maryland Region.
- ❑ Fatalities and injuries were highest in the Baltimore Metro area. The Southern Maryland region had the highest fatality rate per VMT among all the regions.
- ❑ In most regions, total accidents occurred most frequently on MD routes. In the Baltimore Metro area, the route type that had the most accidents was Baltimore City routes (33.2%).
- ❑ Fatal and total alcohol-related accidents were highest in the Baltimore Metropolitan area.
- ❑ Total pedestrian accidents were highest in the Baltimore Metro area (60.9%), while pedestrian fatalities were highest in the DC Metro area (41.6%).
- ❑ Total and fatal large truck accidents were highest in the Baltimore Metro area (51.0% and 47.0%, respectively). The Eastern Shore region had the highest large truck fatal accident rates.
- ❑ Total and fatal motorcycle accidents were highest in the Baltimore Metropolitan area. The Southern Maryland region had the highest motorcycle fatal accident rates.

Accidents by Severity & Trends

- ❑ In 2002, fatal and total accidents occurred most frequently in the Baltimore Metropolitan area, which includes five counties and Baltimore City.
- ❑ 1.0% of traffic accidents that occurred in the Eastern Shore region resulted in a fatality, which is higher than statewide average of 0.6%. Fatal accidents accounted for 0.9% of the traffic accidents that occurred in the Southern Maryland region.

“1.0% of traffic accidents that occurred in the Eastern Shore region resulted in a fatality, which is higher than statewide average of 0.6%.”

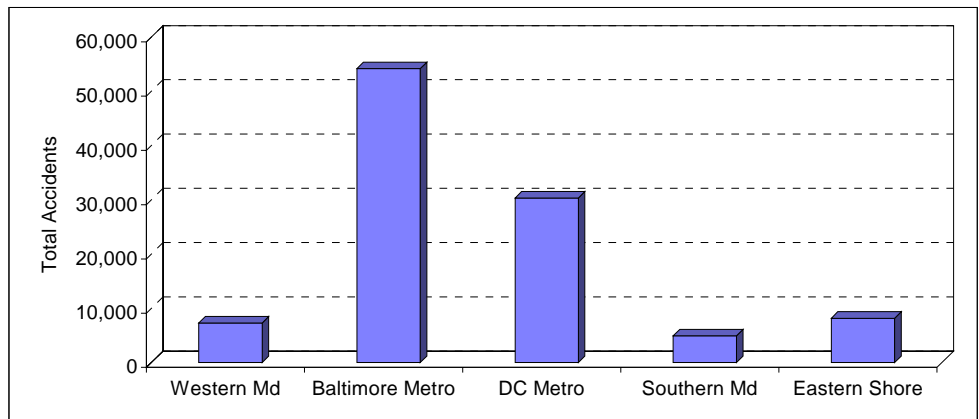
Table 1 Accident Severity by Region, 2002

Region	Fatal Accidents		Injury Accidents		PDO Accidents		Total	
	Number	%	Number	%	Number	%	Number	%
Western MD	48	0.7	2,995	41.1	4,249	58.3	7,292	100.0
Baltimore Metro	241	0.4	17,817	32.9	36,088	66.6	54,146	100.0
DC Metro	189	0.6	12,332	40.7	17,795	58.7	30,316	100.0
Southern MD	46	0.9	2,223	45.2	2,652	53.9	4,921	100.0
Eastern Shore	82	1.0	3,508	42.9	4,578	56.0	8,168	100.0
Total	606	0.6	38,875	37.1	65,362	62.3	104,843	100.0

Figure 1 Fatal Accidents by Region, 2002



Figure 2 Total Accidents by Region, 2002



“Fatal and total accidents occurred most frequently in the Baltimore Metropolitan area.”

“From 1994 to 2002, fatal accidents in the Western Maryland region decreased by 26.2%, while total accidents increased by 5.4%.”

- For nine years, from 1994 to 2002, fatal accidents in the Western Maryland region decreased by 26.2%, while total accidents increased by 5.4%.
- In the DC Metropolitan area, there had been decreasing trends for fatal and total accidents from 1994 to 1999, but increasing trends from 1999 to 2002.
- In the Baltimore Metro area, fatal accidents had been holding almost steady, but total accidents had increasing trends from 1999 to 2002.

Table 2 Fatal Accident Trends by Region, 1994-2002

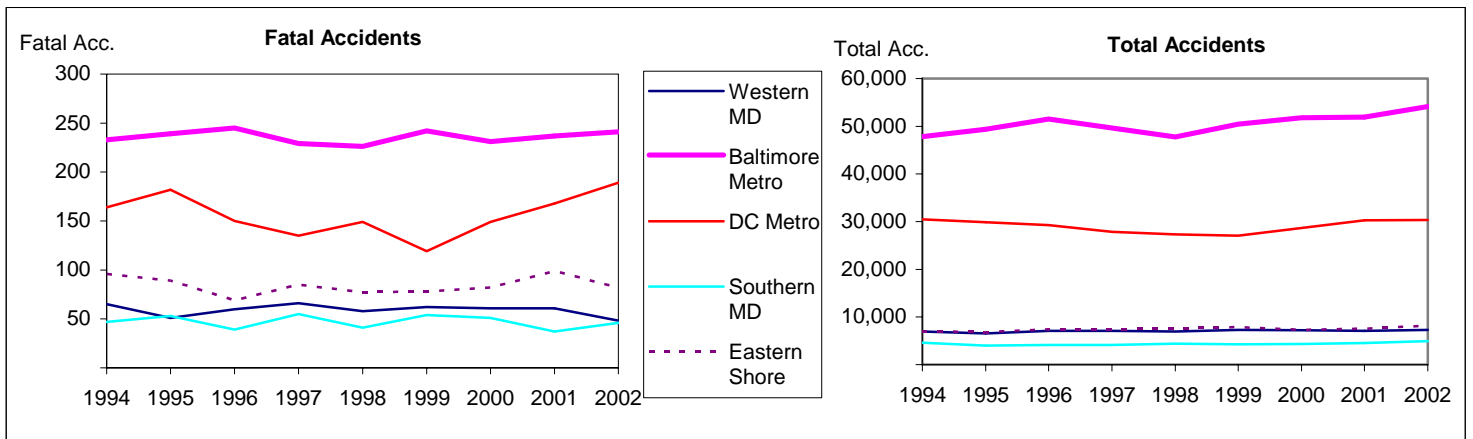
Region	1994	1995	1996	1997	1998	1999	2000	2001	2002	Increase (%)
Western MD	65	51	60	66	58	62	61	61	48	-26.2
Baltimore Metro	233	239	245	229	226	242	231	237	241	3.4
DC Metro	164	182	150	135	149	119	149	168	189	15.2
Southern MD	47	53	39	55	41	54	51	37	46	-2.1
Eastern Shore	96	89	69	85	77	78	82	99	82	-14.6
Total	605	614	563	570	551	555	574	602	606	0.2

“In the Baltimore Metro area, fatal accidents had been holding almost steady, but total accidents had increasing trends from 1999 to 2002.”

Table 3 Total Accident Trends by Region, 1994-2002

Region	1994	1995	1996	1997	1998	1999	2000	2001	2002	Increase (%)
Western MD	6,918	6,556	7,098	7,084	6,981	7,273	7,246	7,098	7,291	5.4
Baltimore Metro	47,835	49,397	51,497	49,620	47,790	50,473	51,755	51,922	54,146	13.2
DC Metro	30,479	29,892	29,242	27,832	27,330	27,045	28,688	30,285	30,315	-0.5
Southern MD	4,626	3,981	4,127	4,146	4,393	4,304	4,310	4,554	4,921	6.4
Eastern Shore	6,994	6,828	7,384	7,438	7,545	7,914	7,303	7,552	8,170	16.8
Total	96,852	96,654	99,348	96,120	94,039	97,009	99,302	101,411	104,843	8.3

Figure 3 Fatal and Total Accidents by Region, 1994-2002

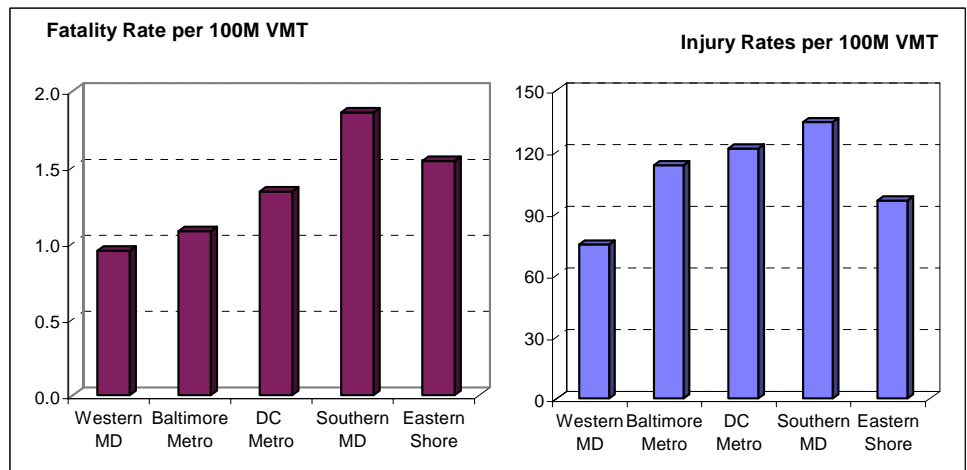


Fatalities and Injuries

“Fatalities were highest in the Baltimore Metro area (259). The Southern MD region had the highest fatality rate per VMT among all the regions.”

- Fatalities were highest in the Baltimore Metro area (259). The next most fatalities were in the DC Metro area at 208. The Southern Maryland region had the highest fatality rate per VMT among all the regions. Fatality rates per population, licensed driver and registered vehicle were highest in the Eastern Shore region.
- Injuries were also highest in the Baltimore Metro area (27,120). The Southern Maryland region had the highest injury rate per VMT. Injury rates per population and per licensed driver were highest in the Eastern Shore region. The DC Metro area had the highest injury rate per registered vehicle.

Figure 4 Fatality and Injury Rates per 100M VMT by Region, 2002



“Injuries were also highest in the Baltimore Metro area (27,120). The Southern MD region had the highest injury rate per VMT.”

Table 4 Fatalities, Injuries, Fatality Rates and Injury Rates by Region, 2002

Region	Fatalities /Injuries	VMT (millions)	Population	Licensed Drivers	Registered Vehicles	Fatality / Injury Rates per				
						100 M VMT	10 K population	10K Licen. Drivers	10K Regist. Vehicles	
Fatalities	Western MD	57	6,010	444,939	308,001	417,497	0.95	1.28	1.85	1.37
	Baltimore Metro	259	23,900	2,552,366	1,684,954	1,999,378	1.08	1.01	1.54	1.30
	DC Metro	208	15,485	1,720,629	1,199,352	1,292,442	1.34	1.21	1.73	1.61
	Southern MD	49	2,639	294,760	202,300	283,691	1.86	1.66	2.42	1.73
	Eastern Shore	88	5,726	405,654	289,651	400,908	1.54	2.17	3.04	2.20
	Total	661	53,760	5,418,348	3,684,258	4,393,916	1.23	1.22	1.79	1.50
Injuries	Western MD	4,502	6,010	444,939	308,001	417,497	74.91	101.18	146.17	107.83
	Baltimore Metro	27,120	23,900	2,552,366	1,684,954	1,999,378	113.47	106.25	160.95	135.64
	DC Metro	18,831	15,485	1,720,629	1,199,352	1,292,442	121.61	109.44	157.01	145.70
	Southern MD	3,548	2,639	294,760	202,300	283,691	134.44	120.37	175.38	125.07
	Eastern Shore	5,516	5,726	405,654	289,651	400,908	96.33	135.98	190.44	137.59
	Total	59,517	53,760	5,418,348	3,684,258	4,393,916	110.71	109.84	161.54	135.45

Accident Types

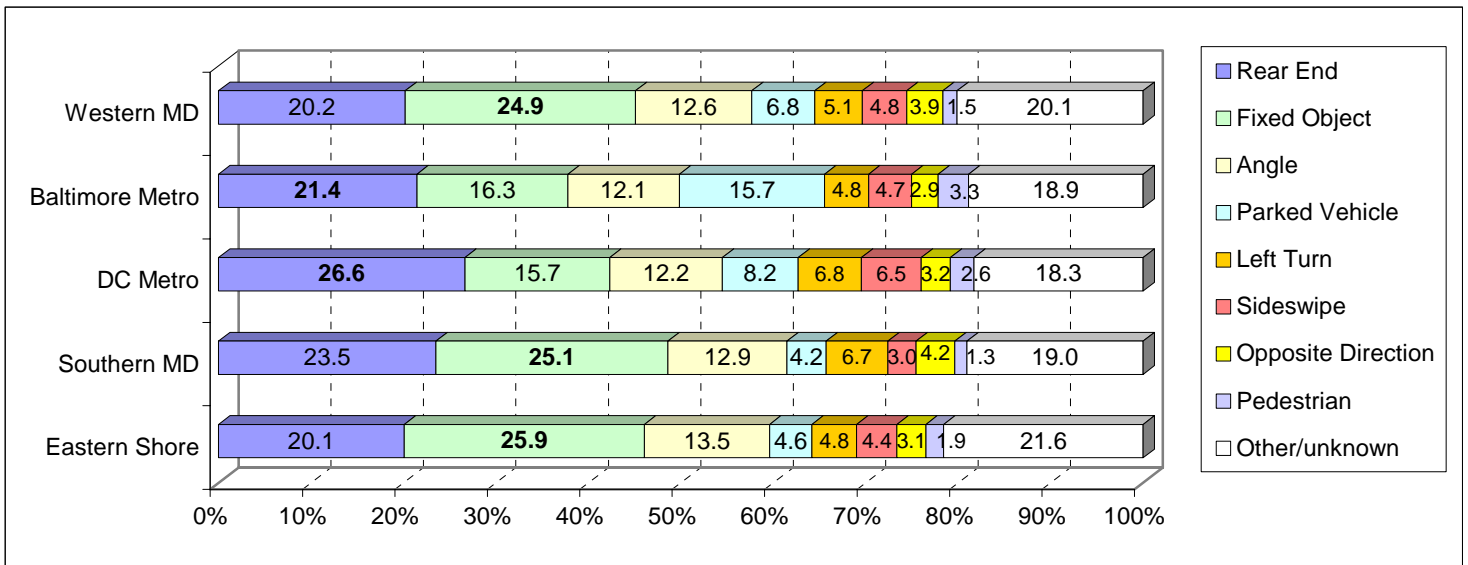
“In the Baltimore and DC Metro areas, rear end collisions accounted for the highest percentage among collision types.

- In the Baltimore and the DC Metro areas, rear end collisions accounted for the highest percentage among collision types. Rear end collisions accounted for 26.6% of total accidents that occurred in the DC Metropolitan area.
- For the Western MD, the Southern MD and the Eastern Shore regions, the most frequent accident type was “Fixed-Objects”. Fixed-object collisions accounted for 25.9% of total accidents that occurred in the Eastern Shore region.

Table 5 Total Accidents by Accident Type and Region, 2002

Accident Types	Western MD	Baltimore Metro	DC Metro	Southern MD	Eastern Shore	Total	Percent
Rear End	1,472	11,614	8,077	1,157	1,642	23,962	22.9
Fixed Object	1,816	8,851	4,747	1,235	2,120	18,769	17.9
Angle	918	6,539	3,701	634	1,107	12,899	12.3
Parked Vehicle	497	8,492	2,484	209	374	12,056	11.5
Left Turn	374	2,577	2,070	329	395	5,745	5.5
Sideswipe	350	2,522	1,962	149	358	5,341	5.1
Opposite Direction	285	1,558	958	206	255	3,262	3.1
Pedestrian	113	1,766	774	65	157	2,875	2.7
Run Off Road	314	566	175	202	447	1,704	1.6
U-Turn	128	675	412	56	149	1,420	1.4
Animal	280	418	224	171	269	1,362	1.3
Other Object	80	588	278	46	96	1,088	1.0
Overturned	132	379	206	69	136	922	0.9
Backing	38	408	316	46	59	867	0.8
Pedal-cycle	57	476	188	33	98	852	0.8
Other/unknown	437	6,717	3,743	314	508	11,719	11.2
Total	7,291	54,146	30,315	4,921	8,170	104,843	100.0

Figure 5 Total Accidents by Accident Type and Region, 2002



Route Types

“In most regions, total accidents occurred most frequently on MD routes.”

- In most regions, total accidents occurred most frequently on MD routes. In the Baltimore Metro area, the route type that had the most accidents was Baltimore City routes (33.2%).
- MD routes accounted for more than 50% of all the accidents that occurred in the Southern Maryland (51.8%) region.

Figure 6 Total Accidents by Route Type and Region, 2002

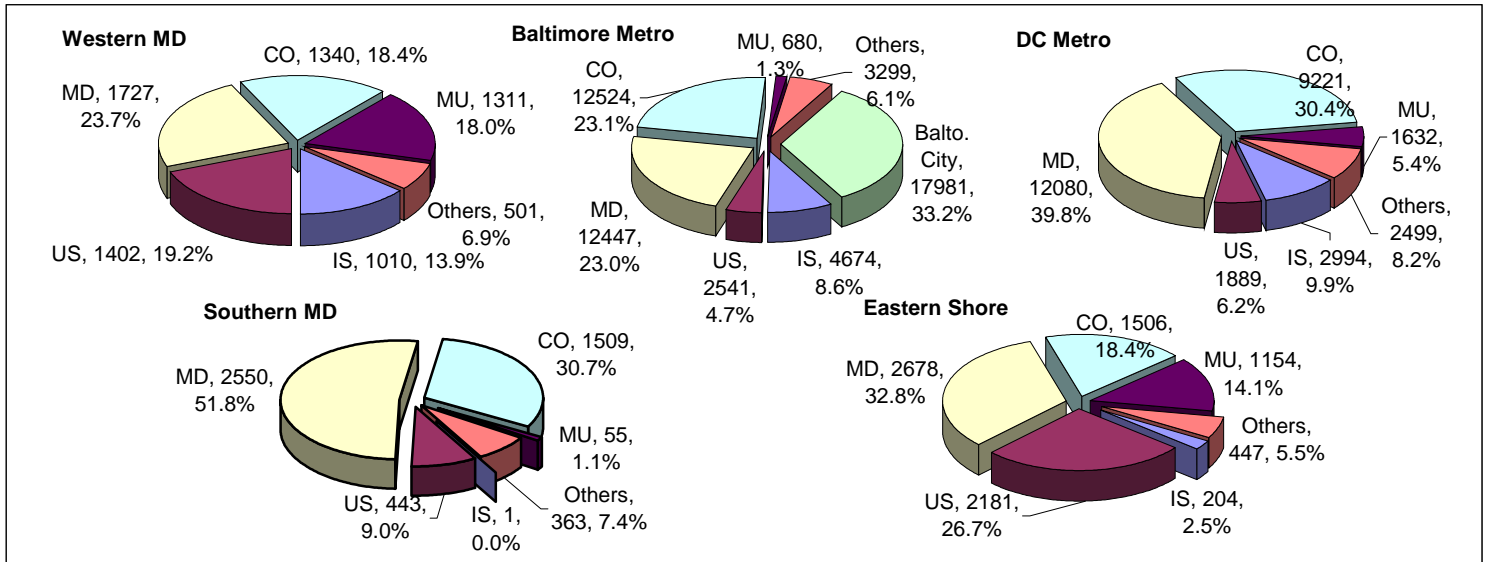


Table 6 Total Accidents by Route Type and Region, 2002

Route Type	Western MD		Baltimore Metro		DC Metro		Southern MD		Eastern Shore		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
IS	1,010	13.9	4,674	8.6	2,994	9.9	1	0.0	204	2.5	8,883	8.5
US	1,402	19.2	2,541	4.7	1,889	6.2	443	9.0	2,181	26.7	8,456	8.1
MD	1,727	23.7	12,447	23.0	12,080	39.8	2,550	51.8	2,678	32.8	31,482	30.0
CO	1,340	18.4	12,524	23.1	9,221	30.4	1,509	30.7	1,506	18.4	26,100	24.9
MU	1,311	18.0	680	1.3	1,632	5.4	55	1.1	1,154	14.1	4,832	4.6
GV	-	0.0	11	0.0	83	0.3	-	0.0	-	0.0	94	0.1
SR	1	0.0	34	0.1	94	0.3	-	0.0	3	0.0	132	0.1
OP	73	1.0	199	0.4	163	0.5	68	1.4	22	0.3	525	0.5
Balt. City	-	0.0	17,981	33.2	-	0.0	-	0.0	-	0.0	17,981	17.2
Parking Lots	255	3.5	2,008	3.7	1,498	4.9	218	4.4	320	3.9	4,299	4.1
Unknown	172	2.4	1,047	1.9	661	2.2	77	1.6	102	1.2	2,059	2.0
Total Accidents	7,291	100.0	54,146	100.0	30,315	100.0	4,921	100.0	8,170	100.0	104,843	100.0

Temporal Patterns

- ❑ In most regions, total accidents were most frequent in October (9.5%~9.9%). The Eastern Shore region had the most accidents in June (10.1%).
- ❑ In all the regions, total accidents were most frequent on Fridays. The days of week on which the second most accidents occurred were Thursdays (Baltimore Metro, DC Metro and Southern MD) or Saturdays (Western MD and Eastern Shore).
- ❑ Total accidents were concentrated between 2:00PM and 6:00PM in all of the regions.

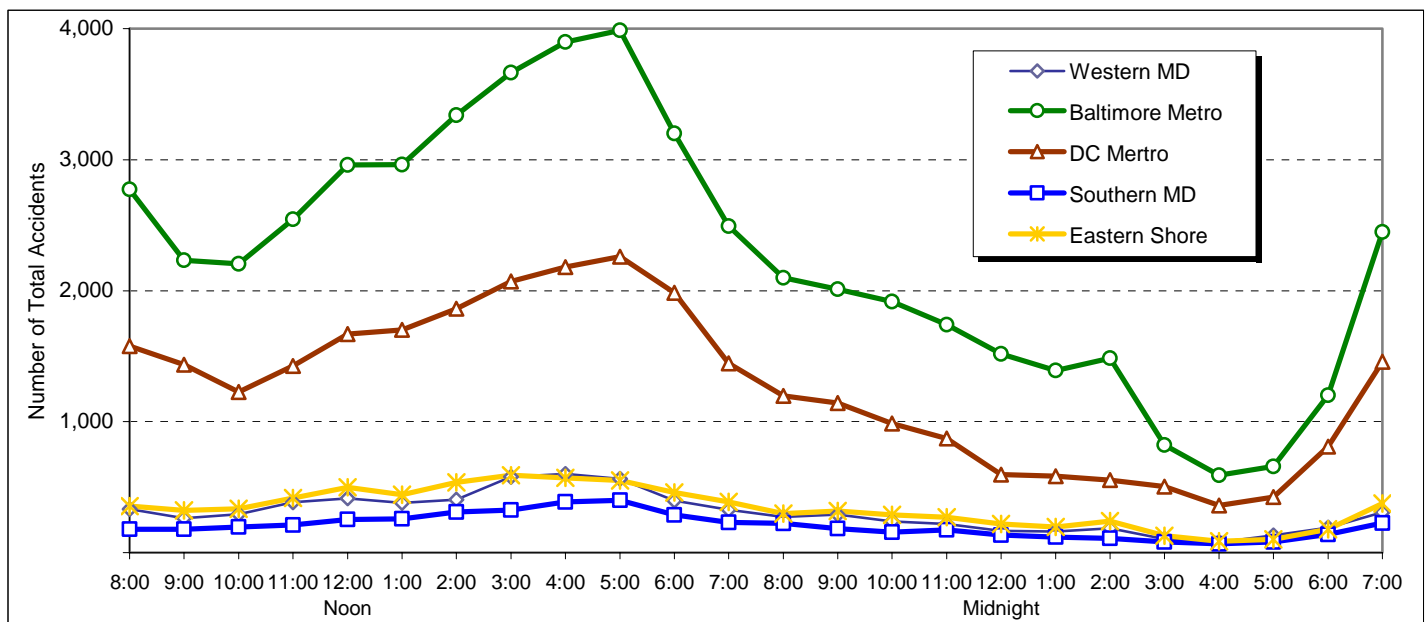
“In all the regions, total accidents were most frequent on Fridays.”

“Total accidents were concentrated between 2:00PM and 6:00PM in all of the Regions.”

Table 7 Total Accidents by Day of Week and Region, 1994-2002

Region	Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Total
Western MD	924	980	991	992	1,057	1,277	1,070	7,291
Percent	12.7	13.4	13.6	13.6	14.5	17.5	14.7	100.0
Baltimore Metro	6,476	7,085	7,784	7,901	8,186	8,998	7,716	54,146
Percent	12.0	13.1	14.4	14.6	15.1	16.6	14.3	100.0
DC Metro	3,690	4,014	4,305	4,385	4,550	4,884	4,487	30,315
Percent	12.2	13.2	14.2	14.5	15.0	16.1	14.8	100.0
Southern MD	617	602	636	692	794	814	766	4,921
Percent	12.5	12.2	12.9	14.1	16.1	16.5	15.6	100.0
Eastern Shore	1,036	1,031	1,029	1,084	1,234	1,413	1,343	8,170
Percent	12.7	12.6	12.6	13.3	15.1	17.3	16.4	100.0
Total	12,743	13,712	14,745	15,054	15,821	17,386	15,382	104,843
Percent	12.2	13.1	14.1	14.4	15.1	16.6	14.7	100.0

Figure 7 Total Accidents by Time of Day and Region, 2002



Alcohol-Related Accidents

- ❑ Fatal and total alcohol-related accidents were highest in the Baltimore Metropolitan area. Alcohol or drugs accounted for 12.5% of the total accidents that occurred in the Eastern Shore region.
- ❑ The Eastern Shore had the highest percentage of alcohol-impaired drivers (6.4%) involved in accidents. The Southern and the Western Maryland region also had relatively higher percentages of alcohol-impaired drivers involved in accidents than other regions (6.1% and 5.4%, respectively).

“Fatal and total alcohol-related accidents were highest in the Baltimore Metropolitan area.”

“The Eastern Shore region had the highest percentage of alcohol-impaired drivers (6.4%) involved in accidents.”

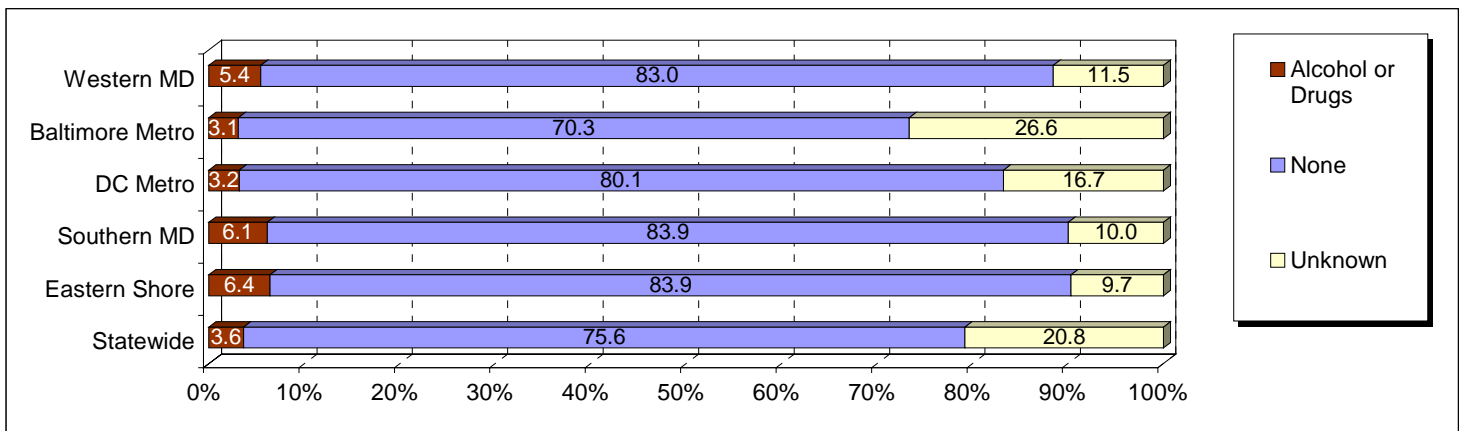
Table 8 Alcohol-Related Accidents, Fatal Accidents and Fatalities by Region, 2002

Region	Alcohol-Related Total Accidents		Alcohol-Related Fatal Accidents		Alcohol-Related Fatalities	
	Number	Percent	Number	Percent	Number	Percent
Western MD	768	8.5	21	11.6	24	12.3
Baltimore Metro	4,303	47.5	68	37.6	76	39.0
DC Metro	2,378	26.3	45	24.9	46	23.6
Southern MD	592	6.5	15	8.3	16	8.2
Eastern Shore	1,015	11.2	32	17.6	33	16.9
Total	9,056	100.0	181	100.0	195	100.0

Table 9 Total Accidents by Alcohol Condition and Region, 2002

Accident Condition	Western MD		Baltimore Metro		DC Metro		Southern MD		Eastern Shore		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Alcohol	696	9.5	3,448	6.4	1,944	6.4	534	10.9	904	11.1	7,526	7.2
Drugs	56	0.8	727	1.3	359	1.2	47	1.0	78	1.0	1,267	1.2
Both	16	0.2	128	0.2	75	0.2	11	0.2	33	0.4	263	0.3
No	6,523	89.5	49,843	92.1	27,937	92.2	4,329	87.9	7,155	87.5	95,787	91.3
Total	7,291	100.0	54,146	100.0	30,315	100.0	4,921	100.0	8,170	100.0	104,843	100.0

Figure 8 Alcohol-Impaired Driver Percentages by Region, 2002



Safety Equipment Used and Driver Ages

“The percentage of drivers who did not use any safety equipment was highest in the Western Maryland region (3.6%).”

- The percentage of drivers who did not use any safety equipment was highest in the Western Maryland region (3.6%), compared to statewide overall percentage (2.7%) of drivers who did not use any safety equipment.
- In the Baltimore Metro and the DC Metro areas, the driver age group of 20-24 years had the most drivers involved in total accidents. For the Western, the Southern and the Eastern Shore regions, the driver age group of 16-19 years had the most drivers involved in total accidents.

Table 10 Drivers Involved in Accidents by Safety Equipment Used and Region, 2002

Safety Equipments	Western MD		Baltimore Metro		DC Metro		Southern MD		Eastern Shore		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Lap Belts Only	88	0.7	830	0.8	468	0.8	44	0.5	115	0.8	1,545	0.8
Harness Only	151	1.2	890	0.9	507	0.9	65	0.8	197	1.4	1,810	0.9
Belt & Harness	8,701	69.8	56,034	54.8	38,431	65.1	5,825	68.2	9,812	71.8	118,803	60.6
Air Bag	51	0.4	198	0.2	124	0.2	29	0.3	63	0.5	465	0.2
Air Bag & Belts	1,141	9.2	7,521	7.4	6,073	10.3	1,328	15.6	1,180	8.6	17,243	8.8
Motorcycle Helmet	67	0.5	184	0.2	91	0.2	53	0.6	42	0.3	437	0.2
Eye Protection	2	0.0	6	0.0	5	0.0		0.0	2	0.0	15	0.0
Helmet/Eye Protect.	49	0.4	206	0.2	150	0.3	56	0.7	38	0.3	499	0.3
None	445	3.6	2,756	2.7	1,325	2.2	208	2.4	468	3.4	5,202	2.7
Not Stated	157	1.3	3,334	3.3	951	1.6	56	0.7	196	1.4	4,694	2.4
Others/Unknown	1,613	12.9	30,281	29.6	10,897	18.5	876	10.3	1,546	11.3	45,213	23.1
Total Drivers	12,465	100.0	102,240	100.0	59,022	100.0	8,540	100.0	13,659	100.0	195,926	100.0

Table 11 Drivers Involved in Accidents by Ages and Region, 2002

Ages	Western MD		Baltimore Metro		DC Metro		Southern MD		Eastern Shore		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
15 & Under	26	0	227	0	135	0	29	0	32	0	451	0.2
16 - 19	1,783	14	9,478	9	4,488	8	1,414	17	2,058	15	19,310	9.8
20 - 24	1,639	13	11,472	11	7,131	12	1,184	14	1,847	14	23,363	11.9
25 - 29	1,077	9	8,975	9	6,190	10	697	8	1,095	8	18,096	9.2
30 - 34	1,108	9	8,754	9	6,225	11	731	9	1,203	9	18,085	9.2
35 - 39	1,226	10	8,945	9	6,116	10	876	10	1,236	9	18,467	9.4
40 - 44	1,086	9	8,347	8	5,654	10	847	10	1,176	9	17,172	8.7
45 - 49	907	7	6,939	7	4,563	8	608	7	1,040	8	14,110	7.2
50 - 54	763	6	5,565	5	3,604	6	472	6	820	6	11,266	5.7
55 - 59	573	5	3,971	4	2,563	4	375	4	626	5	8,140	4.1
60 - 64	398	3	2,679	3	1,661	3	256	3	453	3	5,469	2.8
65 - 69	282	2	1,833	2	1,102	2	151	2	366	3	3,750	1.9
70 - 79	439	4	2,654	3	1,350	2	206	2	562	4	5,235	2.7
80 +	194	2	1,149	1	578	1	81	1	242	2	2,257	1.1
Unknown	964	8	21,252	21	7,662	13	613	7	903	7	31,457	16.0
Total	12,465	100	102,240	100	59,022	100	8,540	100	13,659	100	196,626	100.0

Pedestrian

- Total pedestrian accidents were highest in the Baltimore Metro area (60.9%), while pedestrian fatalities were highest in the DC Metro area (41.6%).
- The DC Metro area had the highest pedestrian fatality rates per 100 millions VMT and per 10,000 population.

“Total pedestrian accidents were highest in the Baltimore Metro area (60.9%), while pedestrian fatalities were highest in the DC Metro area (41.6%).”

Table 12 Pedestrian Accidents, Fatalities, and Fatality Rates by Region, 2002

Region	Total Pedestrian Accidents		Pedestrian Fatalities		Fatality Rates (per 100 MVMT)	Fatality Rates (per 10K Pop.)
	Number	Percent	Number	Percent		
Western MD	110	3.7	3	3.0	0.05	0.07
Baltimore Metro	1,795	60.9	39	38.6	0.16	0.15
DC Metro	816	27.7	42	41.6	0.271	0.244
Southern MD	63	2.1	7	6.9	0.265	0.237
Eastern Shore	162	5.4	10	9.9	0.17	0.25
Total	2,946	100.0	101	100.0	0.19	0.19

Large Trucks

- Total and fatal large truck accidents were highest in the Baltimore Metro area (51.0% and 47.0%, respectively).
- The Eastern Shore region had the highest large truck fatal accident rates (0.16 per 100 million VMT and 0.22 per 10,000 population).

“The highest large truck fatal accident rates were 0.16 per 100 million VMT and 0.22 per 10,000 population in the Eastern Shore region.”

Table 13 Total and Fatal Large-Truck Accidents and Fatal Large-Truck Accident Rates by Region, 2002

Region	Total Accidents		Fatal Accidents		Fatal Acc. Rates (per 100 MVMT)	Fatal Acc. Rates (per 10K Pop.)
	Number	Percent	Number	Percent		
Western MD	563	8.2	6	9.0	0.10	0.13
Baltimore Metro	3,493	51.0	31	47.0	0.13	0.12
DC Metro	1,984	29.0	19	28.8	0.12	0.11
Southern MD	184	2.7	1	1.5	0.04	0.03
Eastern Shore	625	9.1	9	13.5	0.16	0.22
Total	6,849	100	66	100	0.12	0.12

Motorcycle

- Total and fatal motorcycle accidents were highest in the Baltimore Metropolitan area.
- The Southern Maryland region had the highest motorcycle fatal accident rates (42.1 per 100 million motorcycle miles of travel and 0.27 per 10,000 population).

“The Southern Maryland region had the highest motorcycle fatal accident rates (42.1 per 100 million motorcycle miles of travel and 0.27 per 10,000 population).”

Table 14 Total and Fatal Motorcycle Accidents by Region, 2002

Region	Total Accidents		Fatal Accidents		Fatal Acc. Rates (per 100 MVMT *)	Fatal Acc. Rates (per 10K Pop.)
	Number	Percent	Number	Percent		
Western MD	133	10.6	5	9.5	11.9	0.11
Baltimore Metro	550	43.7	28	53.7	16.7	0.11
DC Metro	350	27.8	8	15.4	7.3	0.05
Southern MD	121	9.6	8	15.4	42.1	0.27
Eastern Shore	104	8.3	3	5.7	7.7	0.07
Total	1,258	100	52	100.0	13.8	0.10

* Based on Motorcycle only VMT

Maryland Department of Transportation
State Highway Administration
Office of Traffic and Safety
Traffic Safety Analysis Division
7491 Connelley Drive
Hanover, Maryland 21076

*Driving Safely
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