

Maryland Traffic Safety Facts 2003

Major Cities and Municipalities



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



Driving Safely in Maryland

“Fatal and total accidents occurred most frequently in Baltimore City.”

“The city of Baltimore had the highest fatality rate per VMT among all the cities.”

Summary

There are at least four cities in Maryland as well as the Washington suburbs which are linked by the I-70, I-95, I-97, I-270 interstate highway system creating a diamond of cities and corridors between them for smart growth opportunities. This factsheet concerns Annapolis, Baltimore, and Frederick municipalities and their traffic safety.

- ❑ Fatal and total accidents occurred most frequently in the Baltimore City.
- ❑ Fatalities and injuries were highest in the Baltimore City. Frederick had the highest fatality rate per VMT among these cities at 1.00 / MVMT.
- ❑ In Baltimore City, the route type that had the most accidents was Baltimore City routes (93.9%). In Frederick and Annapolis Municipal routes had the most accidents.
- ❑ Fatal and total alcohol-related accidents were highest in the Baltimore City area.
- ❑ Total pedestrian accidents were highest in the Baltimore City area (92.8%).
- ❑ The municipality of over 20,000 with the highest fatality rate per population was Rockville at 0.84.
- ❑ The municipality of over 20,000 with the highest fatality rate per VMT was Frederick at 1.00.

Accidents by Severity & Trends

- In 2003, fatal and total accidents occurred most frequently in the Baltimore City.
- 0.2% of traffic accidents that occurred in Baltimore City resulted in a fatality, which is lower than statewide average of 0.6%.

Table 1 Accident Severity by Major City, 2003

Region	Fatal Accidents		Injury Accidents		PDO Accidents		Total	
	Number	%	Number	%	Number	%	Number	%
Annapolis	0	0.0	246	29.4	588	70.5	834	100.0
Baltimore	34	0.2	5,424	27.5	14,202	72.2	19,660	100.0
Frederick	3	0.4	325	43.5	418	56.0	746	100.0
Total	37	0.2	5,995	28.2	15,208	71.6	21,240	100.0

“0.2% of traffic accidents that occurred in Baltimore City resulted in a fatality, which is higher than statewide average of 0.6%.”

Figure 1 Fatal Accidents by Major City, 2003

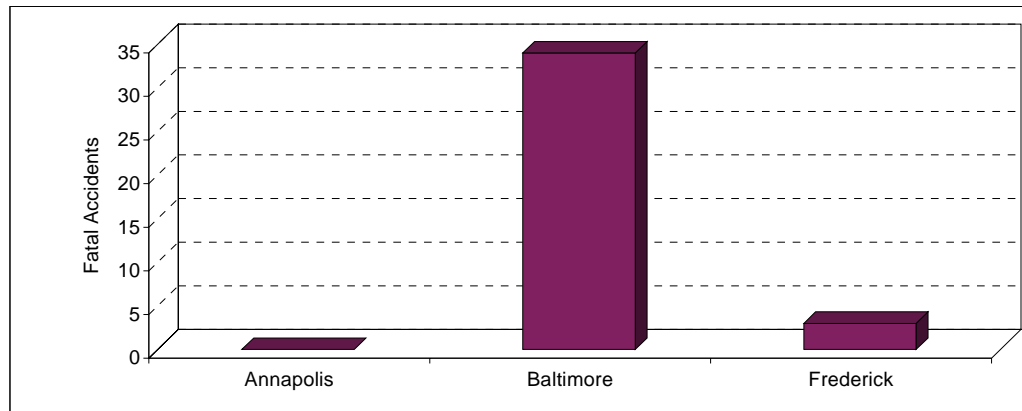
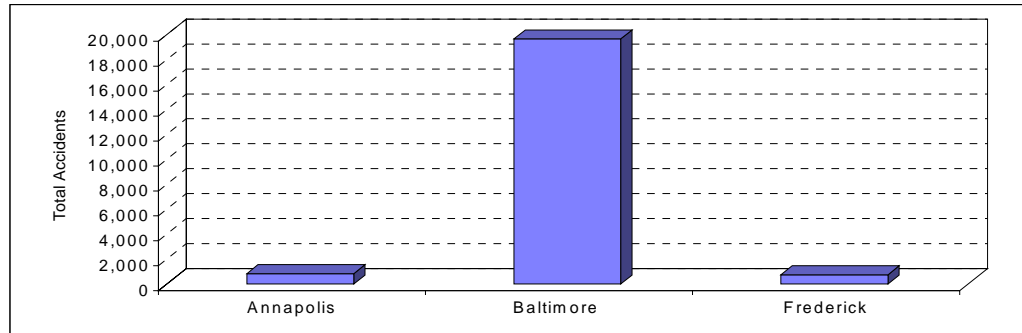


Figure 2 Total Accidents by Major City, 2003



“Fatal and total accidents occurred most frequently in the city of Baltimore.”

- For ten years, from 1994 to 2003, fatal accidents in Baltimore City decreased by 47.6%, while total accidents increased by 1.4%.

Table 2 Fatal Accident Trends by Major City, 1994-2003

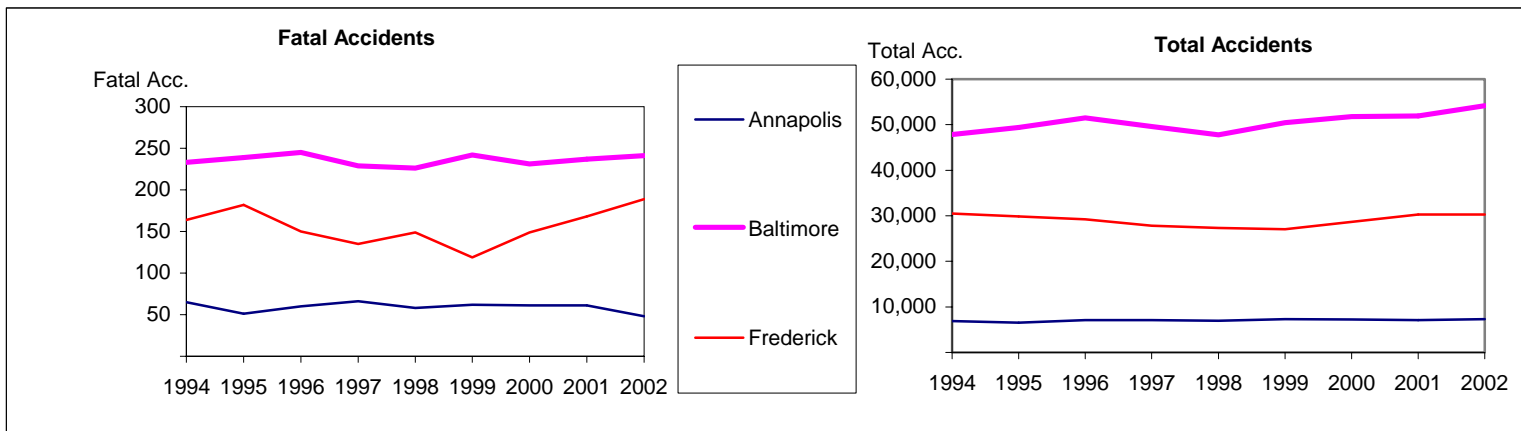
City	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Increase (%)
Annapolis	0	0	0	2	0	1	0	0	0	0	0.0
Baltimore	65	48	46	48	44	47	43	51	39	34	-47.6
Frederick	3	2	0	1	0	3	1	2	1	3	0.0
Total	68	50	46	49	44	51	44	53	40	37	-46.2

Table 3 Total Accident Trends by Major City, 1994-2003

City	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Increase (%)
Annapolis	0	648	679	667	660	742	622	523	793	834	28.7
Baltimore	19,392	20,777	21,189	19,808	18,044	19,901	21,084	19,570	19,041	19,660	1.4
Frederick	806	702	822	832	836	908	795	538	781	746	-7.4
Total	20,198	22,127	22,690	21,307	19,540	21,551	22,501	20,631	20,615	21,240	5.2

“From 1994 to 2003, fatal accidents in the city of Baltimore decreased by 47.6%, while total accidents increased by 1.4%.”

Figure 3 Fatal and Total Accidents by City, 1994-2003

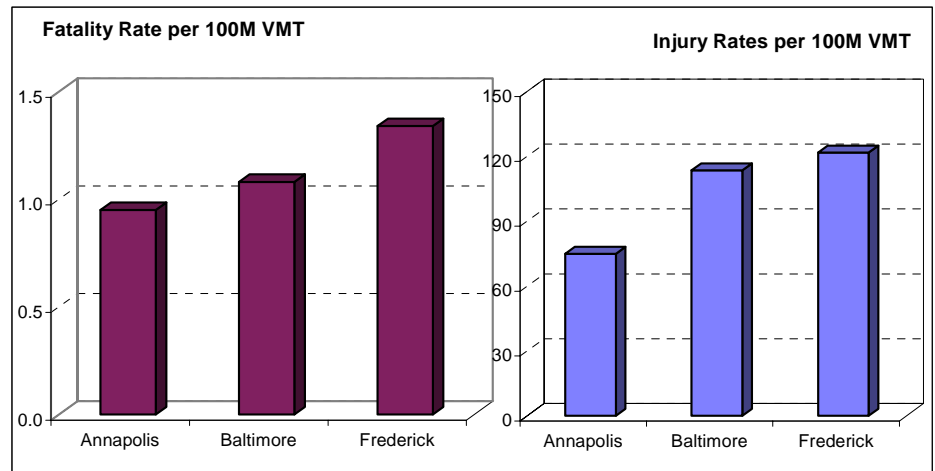


Fatalities and Injuries

“Fatalities were highest in the City of Baltimore (259). Baltimore had the highest fatality rate per VMT among all the major cities.”

- ❑ Fatalities were highest in Baltimore City (34).
- ❑ Injuries were also highest in the Baltimore City (8,205).
- ❑ Frederick had the highest fatality rate per 10,000 population at 1.18.
- ❑ Baltimore City had the highest injury rates in all categories.

Figure 4 Fatality and Injury Rates per 100M VMT by Major City, 2003



“Injuries were also highest in the City of Baltimore (8,205). Baltimore City had the highest injury rate per VMT, 10K Population, 10K Licensed Drivers, and 10K Registered Vehicles.”

Table 4 Fatalities, Injuries, Fatality Rates and Injury Rates by Major City, 2003

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	Annapolis	0	302	35,838	17,130	15,589	0.0	0.0	0.0	0.0
	Baltimore	34	3,620	628,670	306,474	273,643	0.99	0.57	1.17	1.31
	Frederick	3	300	52,767	25,222	22,953	1.00	0.06	1.18	1.30
	Total	37	4,222	717,275	348,826	312,185	0.88	0.52	1.06	1.18
Injuries	Annapolis	363	302	35,838	17,130	15,589	120.2	101.3	211.9	232.8
	Baltimore	8,205	3,620	628,670	306,474	273,643	226.7	130.5	267.5	299.8
	Frederick	461	300	52,767	25,222	22,953	153.7	87.3	182.7	200.8
	Total	9,029	4,222	717,275	348,826	312,185	213.9	125.9	258.8	289.2

Accident Types

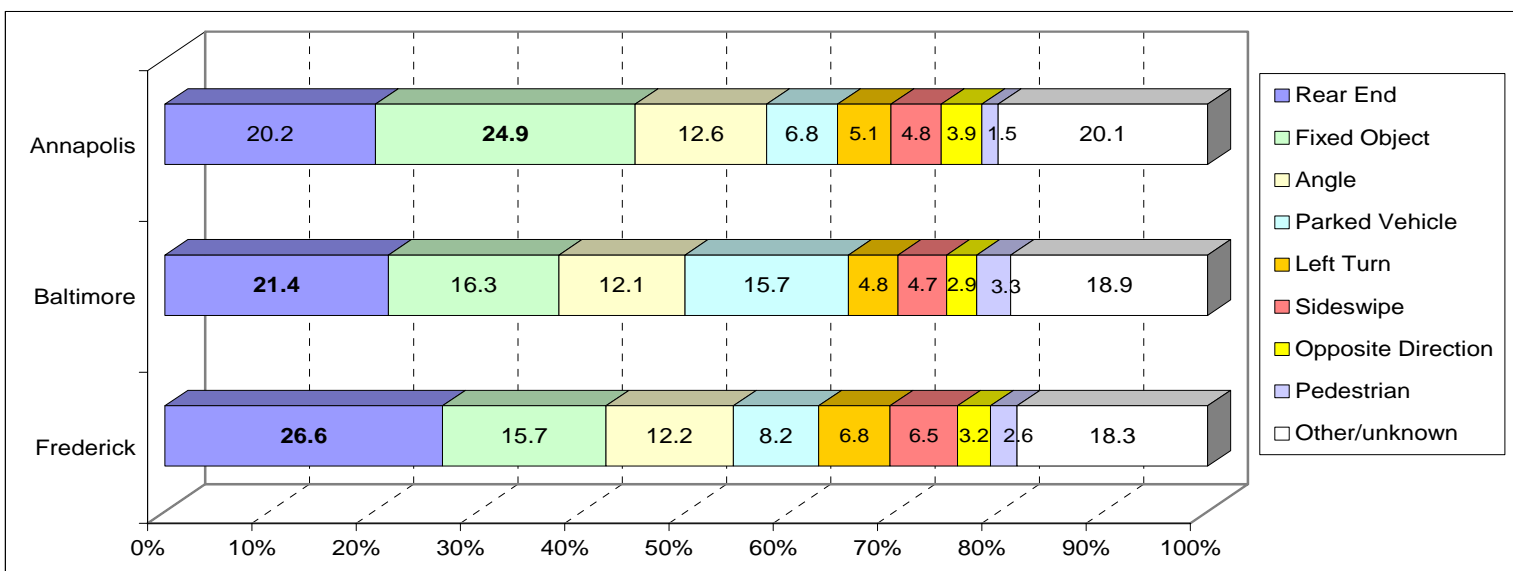
- ❑ In Baltimore City, parked vehicle collisions accounted for the highest percentage among collision types.
- ❑ In Annapolis and Frederick, rear-end collisions accounted for the highest number of accidents.

“In Baltimore City, parked vehicle collisions accounted for the highest percentage among collision types.

Table 5 Total Accidents by Accident Type and Major City, 2003

Accident Types	Annapolis	Baltimore	Frederick	Total	Percent
Rear End	168	2,409	221	2,798	13.1
Fixed Object	128	1,507	111	1,746	8.2
Angle	110	2,467	114	2,691	12.7
Parked Vehicle	168	5,815	78	6,061	28.5
Left Turn	40	492	34	566	2.7
Sideswipe	33	786	45	864	4.1
Opposite Direction	22	410	9	441	2.1
Pedestrian	29	982	26	1,037	4.8
Run Off Road	1	14	7	22	0.1
U-Turn	20	183	27	230	1.1
Animal	0	14	2	16	.07
Other Object	5	165	8	178	0.8
Overtaken	1	40	4	45	0.2
Backing	5	136	5	146	0.7
Pedal-cycle	21	191	6	218	1.0
Other/unknown	80	3,941	46	4,067	19.1
Total	834	19,660	746	21,240	100.0

Figure 5 Total Accidents by Accident Type and Major City, 2003



Route Types

- In Baltimore City, the route type that had the most accidents was Baltimore City routes (93.9%).
- MU routes accounted for more than 45% of all the accidents that occurred in Annapolis and Frederick.

“In most major cities, total accidents occurred most frequently on MU routes.”

Figure 6 Total Accidents by Route Type and Major City, 2003

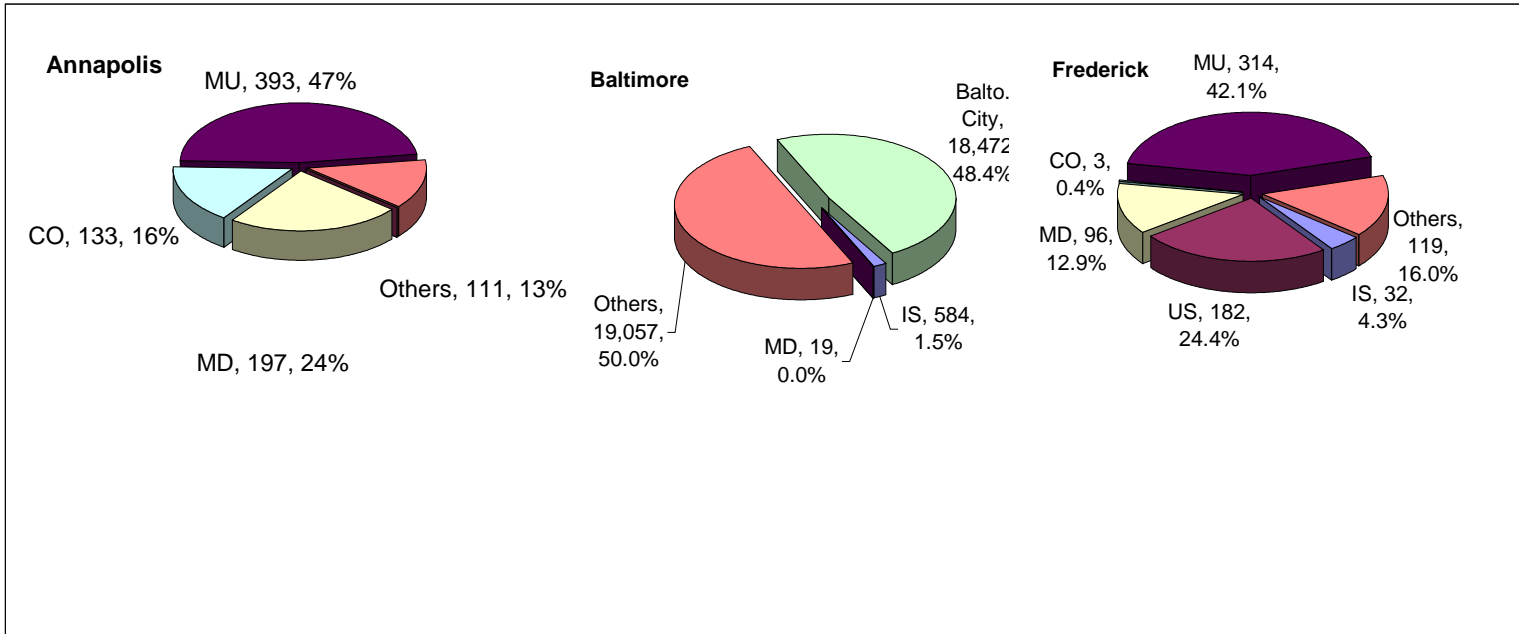


Table 6 Total Accidents by Route Type and Major City, 2003

Route Type	Annapolis		Baltimore		Frederick		Total	
	Number	%	Number	%	Number	%	Number	%
IS	0	0.0	584	2.9	32	4.2	616	2.9
US	0	0.0	0	0.0	182	24.3	182	0.9
MD	197	23.6	19	.09	96	12.8	312	1.5
CO	133	15.9	0	0.0	3	0.4	136	0.6
MU	393	47.1	0	0.0	314	42.0	707	3.3
GV	0	0.0	0	0.0	0	0.0	0	0.0
SR	0	0.0	0	0.0	1	0.1	1	.004
OP	18	2.2	0	0.0	26	3.5	44	0.2
Balt. City	0	0.0	18,472	93.9	0	0.0	18,472	86.9
Parking Lots	75	8.9	476	2.4	68	9.1	619	2.9
Unknown	18	2.2	109	0.55	24	3.2	151	0.7
Total Accidents	834	100.0	19,660	100.0	746	100.0	21,240	100.0

Temporal Patterns

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

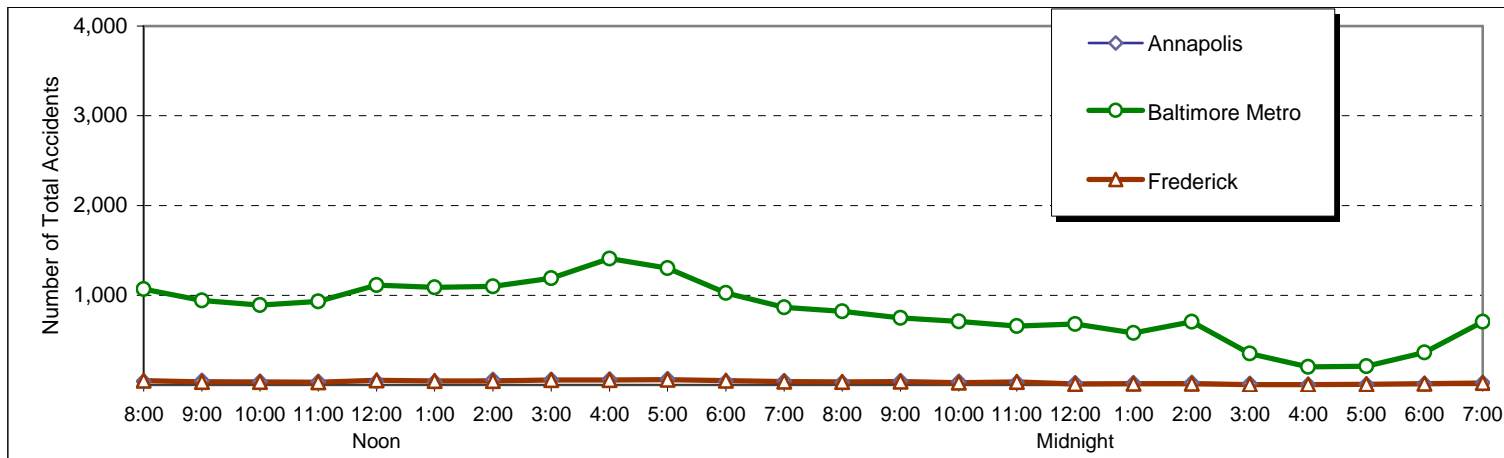
- ❑ In all major cities total accidents were most frequent on Fridays.
- ❑ The second most frequent day of the week for accidents was Wednesdays.
- ❑ Total accidents were concentrated between 2:00PM and 6:00PM in all of the cities.

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

Table 7 Total Accidents by Day of Week and Major City, 1994-2003

Region	Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Total
Annapolis	103	104	116	128	128	149	106	834
Percent	12.3	12.4	13.9	15.3	15.3	17.8	12.7	100.0
Baltimore	2,505	2,751	2,647	2,918	2,743	3,147	2,949	19,660
Percent	12.7	13.9	13.4	14.8	13.9	16.0	15.0	100.0
Frederick	70	93	107	111	101	162	102	746
Percent	9.3	12.4	14.3	14.8	13.5	21.7	13.6	100.0
Total	2,678	2,948	2,870	3,157	2,972	3,458	3,157	21,240
Percent	12.6	13.8	13.5	14.8	13.9	16.3	14.8	100.0

Figure 7 Total Accidents by Time of Day and Major City, 2003



“Frederick had the highest percentage of alcohol or drug impaired drivers (12.5%) involved in accidents.”

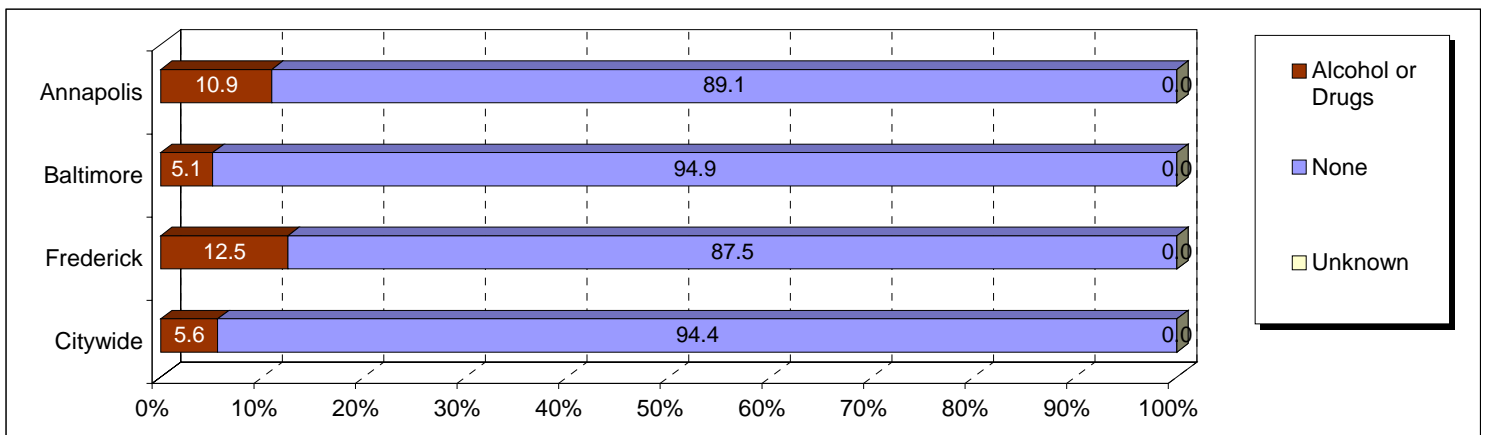
Alcohol-Related Accidents

- Total alcohol-related accidents were highest in Frederick. Alcohol or drugs accounted for 12.3% of the total accidents that occurred in Frederick.
- Frederick had the highest percentage of alcohol or drug impaired drivers (12.5%).

Table 8 Total Accidents by Alcohol Condition and Major City, 2003

Accident Condition	Annapolis		Baltimore		Frederick		Total	
	Number	%	Number	%	Number	%	Number	%
Alcohol	71	9.2	648	1.7	82	10.9	801	2.0
Drugs	8	1.0	316	0.8	11	1.4	335	0.8
Both	3	0.4	25	.06	3	0.4	30	.07
No	686	89.3	37,734	97.4	650	87.1	39,070	97.1
Total	768	100.0	38,723	100.0	746	100.0	40,236	100.0

Figure 8 Alcohol-Impaired Driver Percentages by Major City, 2003



Safety Equipment Used and Driver Ages

“The percentage of drivers who did not use any safety equipment was highest in Annapolis at 6.6%.”

- The percentage of drivers who did not use any safety equipment was highest in Annapolis at 6.6%.
- In Baltimore and Annapolis, the driver age group of 20-24 years had the most drivers involved in total accidents. In Frederick, the driver age group of 16-19 years had the most drivers involved in total accidents.

Table 9 Drivers Involved in Accidents by Safety Equipment Used and Major City, 2003

Safety Equipments	Annapolis		Baltimore		Frederick		Total	
	Number	%	Number	%	Number	%	Number	%
Lap Belts Only	14	2.4	418	1.0	11	0.8	443	1.1
Harness Only	6	1.0	395	1.0	19	1.3	420	1.0
Belt & Harness	473	82.2	13,047	33.6	1,181	81.2	14,701	35.9
Air Bag	2	0.3	25	.06	0	0.0	27	.06
Air Bag & Belts	37	6.4	1,331	3.4	55	3.8	1,423	3.5
Motorcycle Helmet	2	0.3	28	.07	4	0.2	34	.09
Eye Protection	0	0.0	5	.01	0	0.0	5	.01
Helmet/Eye Protect.	1	0.1	31	.08	5	0.3	37	.09
None	38	6.6	839	2.1	36	2.4	913	2.2
Not Stated	15	2.6	2,016	5.2	9	0.6	2,040	4.9
Others/Unknown	131	22.7	20,588	53.2	133	9.2	20,852	50.9
Total Drivers	575	100.0	38,723	100.0	1,453	100.0	40,895	100.0

Table 10 Drivers Involved in Accidents by Ages and Major City, 2003

Ages	Annapolis		Baltimore		Frederick		Total	
	Number	%	Number	%	Number	%	Number	%
15 & Under	8	0.5	96	0.2	1	.06	105	0.3
16 - 19	72	4.6	1,273	3.3	191	13.1	1,536	3.7
20 - 24	208	13.2	3,319	8.6	185	12.7	3,712	8.9
25 - 29	146	9.2	3,146	8.1	146	10.0	3,438	8.2
30 - 34	135	8.5	2,865	7.4	148	10.2	3,148	7.5
35 - 39	123	7.8	2,656	6.9	146	10.0	2,925	7.0
40 - 44	149	9.4	2,577	6.7	139	9.6	2,865	6.9
45 - 49	122	7.7	2,225	5.7	110	7.6	2,457	5.9
50 - 54	76	4.8	1,693	4.4	80	5.5	1,849	4.4
55 - 59	66	4.2	1,200	3.1	67	4.6	1,333	3.2
60 - 64	52	3.3	798	2.1	33	2.3	883	2.1
65 - 69	19	1.2	551	1.7	37	2.5	607	1.5
70 - 79	39	2.4	655	1.7	41	2.8	735	1.8
80 +	14	0.9	286	0.7	25	1.7	325	0.8
Unknown	335	21.2	15,373	39.6	104	7.1	15,812	37.8
Total	1,580	100.0	38,723	100.0	1,453	100.0	41,750	100.0

Pedestrians

- Total pedestrian accidents were highest in Baltimore City (92.8%).
- The Baltimore City area had the highest pedestrian fatality rates per 100 millions VMT and per 10,000 population.

“Total pedestrian accidents were highest in Baltimore City (92.8%).”

Table 11 Pedestrian Accidents, Fatalities, and Fatality Rates by Major City, 2003

Region	Total Pedestrian Accidents		Pedestrian Fatalities		Fatality Rates (per 100 MVMT)	Fatality Rates (per 10K Pop.)
	Number	Percent	Number	Percent		
Annapolis	46	4.0	0	0.0	0.0	0.0
Baltimore	1,062	92.8	15	93.7	0.41	0.23
Frederick	36	3.1	1	6.3	0.33	0.18
Total	1144	100.0	16	100.0	0.37	0.22

Table 12 Major City Rates, 2003

City	Total Fatalities	Population	Estimated	Fatality Rate 10,000 Pop	Fatality Rate VMT
	Number		VMT		
Annapolis	0	35,838	302	0.0	0.0
Baltimore	34	628,670	3,620	0.54	0.93
Bowie	3	50,269	763	0.59	0.39
College Park	2	24,657	241	0.81	0.82
Cumberland	1	21,518	166	0.46	0.60
Frederick	3	52,767	300	0.57	1.00
Gaithersburg	0	52,613	318	0.0	0.0
Greenbelt	1	21,456	129	0.47	0.78
Hagerstown	1	36,687	288	0.27	0.35
Rockville	4	47,388	481	0.84	0.83
Total	49	971,863	6,608	0.50	0.74

Note: only incorporated cities with over 20,000 population included

**Maryland Department of
Transportation**

State Highway

Administration

Office of Traffic and Safety

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