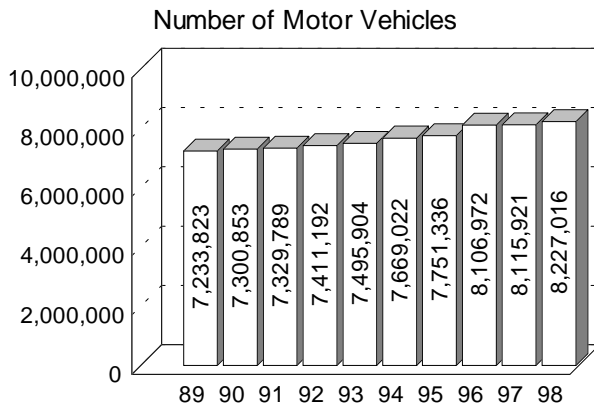


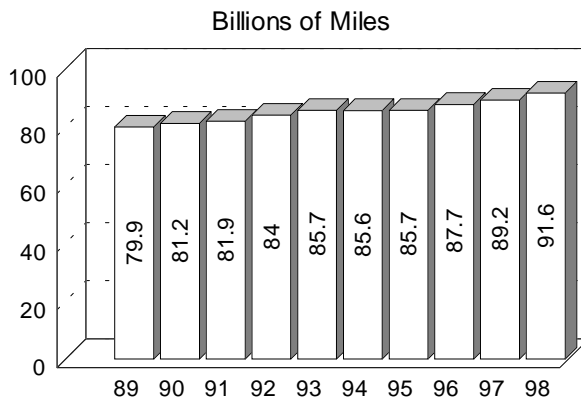
10 YEAR

VEHICLE REGISTRATIONS



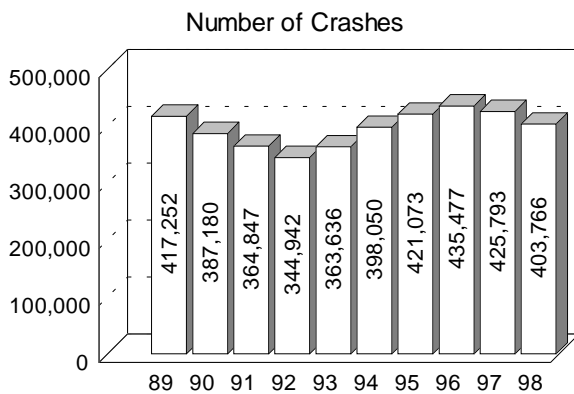
Vehicle Registrations have been increasing steadily since 1988, reaching 8,227,016 in 1998.

VEHICLES MILES TRAVELED



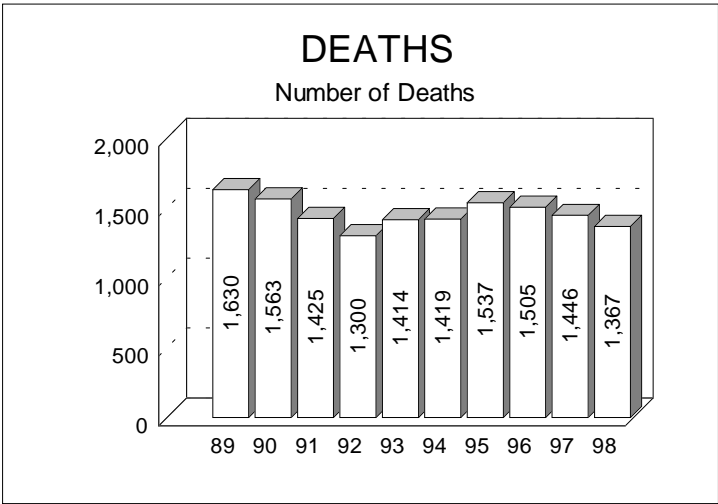
Vehicle miles of travel have increased 14.6 percent since 1989, reaching 91.6 billion miles in 1998.

CRASHES

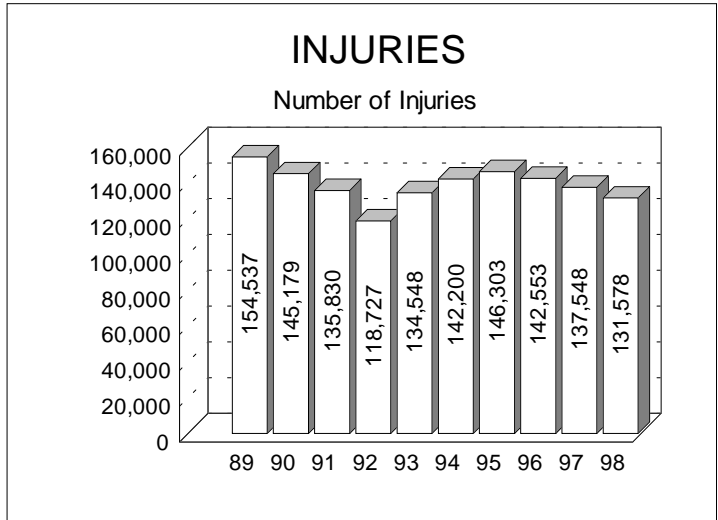


There were 403,766 total crashes statewide in 1998, a 5.2 percent decrease from 1997.

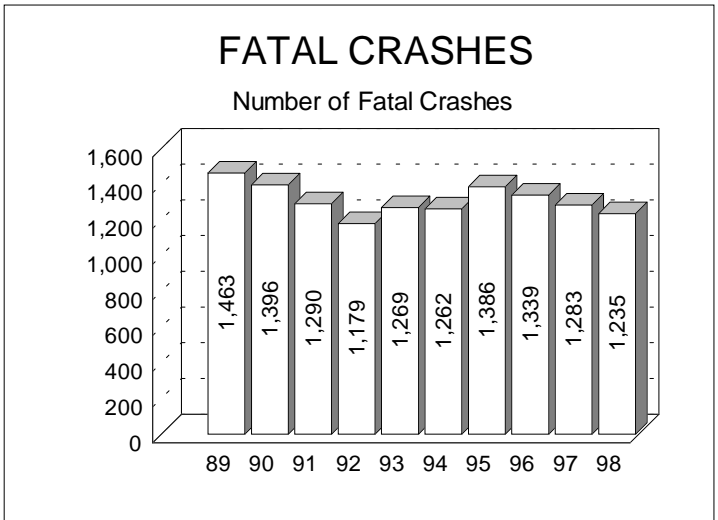
10 YEAR TRENDS (continued)



Number of deaths has remained below the high of 1,630 in 1989. In 1998, 1,367 people died in motor vehicle crashes, a decline of 5.5 percent from 1997.

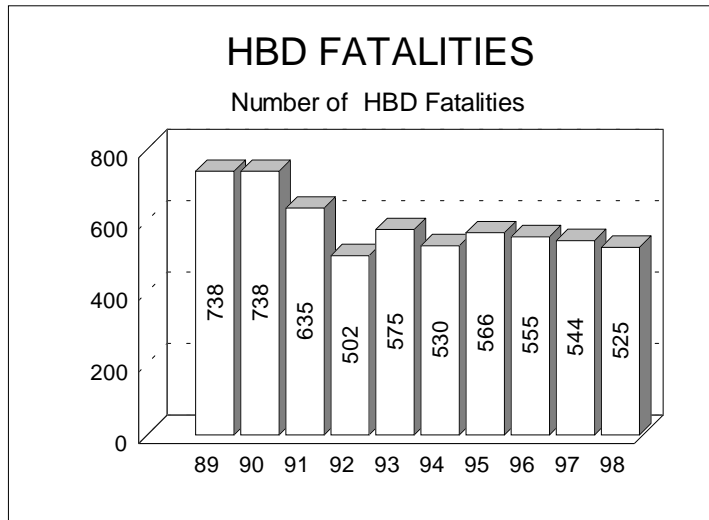


131,578 people received nonfatal injuries in Michigan motor vehicle crashes in 1998, down 14.9 percent from the high of 154,537 in 1989.

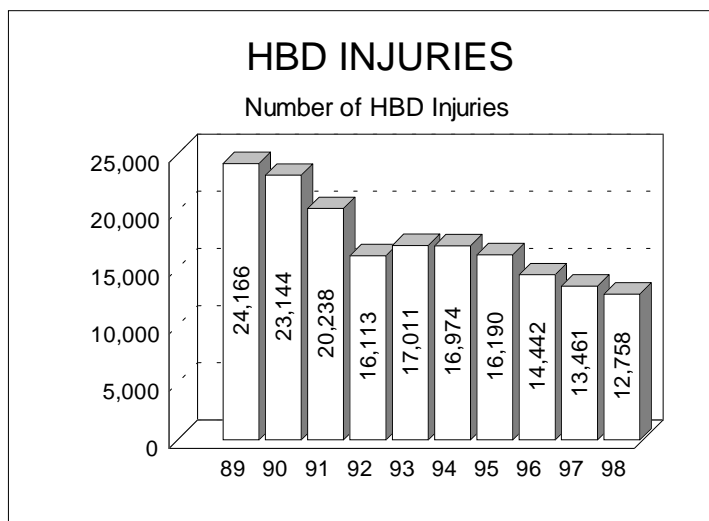


After reaching a peak in 1989, fatal crashes had declined until 1992. In 1998, there were 1,235 fatal crashes, down 3.7 percent from 1997.

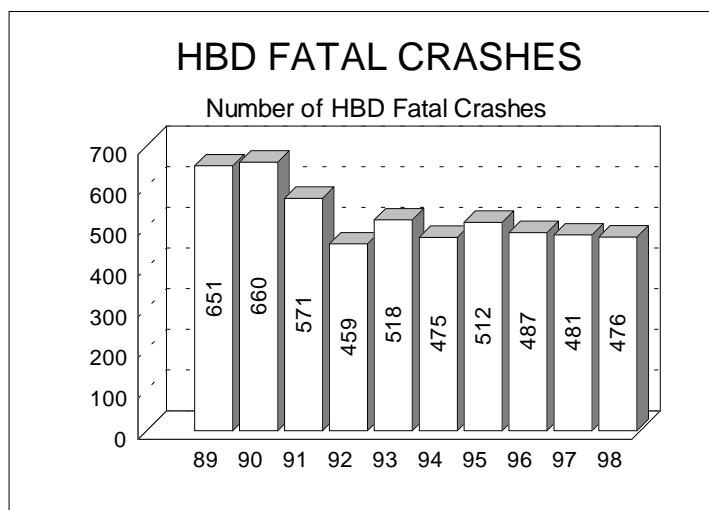
10 YEAR



Deaths in alcohol related crashes have decreased over the last ten years. There were 525 HBD fatalities in 1998, down 28.9 percent from 1989.



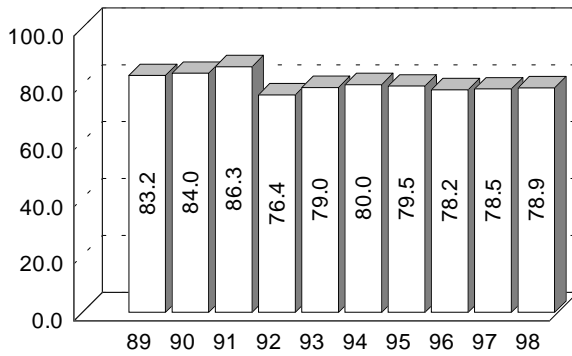
Mirroring the trend in deaths, HBD injuries have decreased over the last ten years. There were 12,758 injuries in 1998, down 47.2 percent from 1989.



Alcohol involvement in fatal crashes has decreased 26.9 percent since 1989. In 1998, there were 476 HBD fatal crashes, down 1.0 percent from 1997.

RESTRAINT USAGE

Annual Average Percentage of Occupants



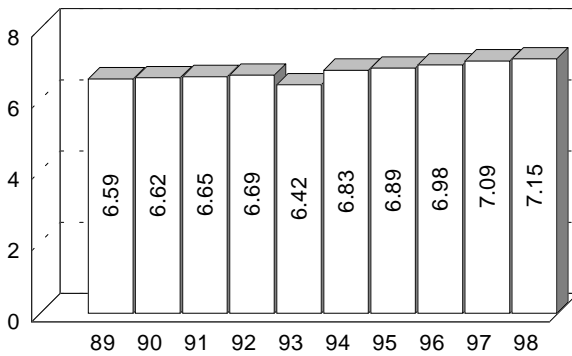
10 YEAR TRENDS (continued)

The percentage of motor vehicle occupants using restraints as reported by police in traffic crashes increased dramatically following implementation of Michigan's safety belt use law in July 1985. The ten-year average percentage is 80.4.

Note: Please see additional restraint usage information on page 148.

DRIVERS IN MICHIGAN

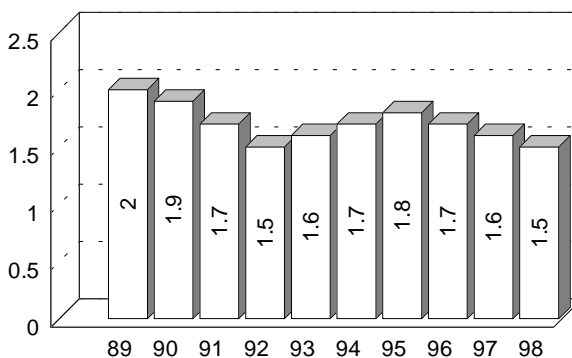
Drivers of Record in Millions



The number of Drivers of Record in Michigan has increased 8.5 percent in the last decade.

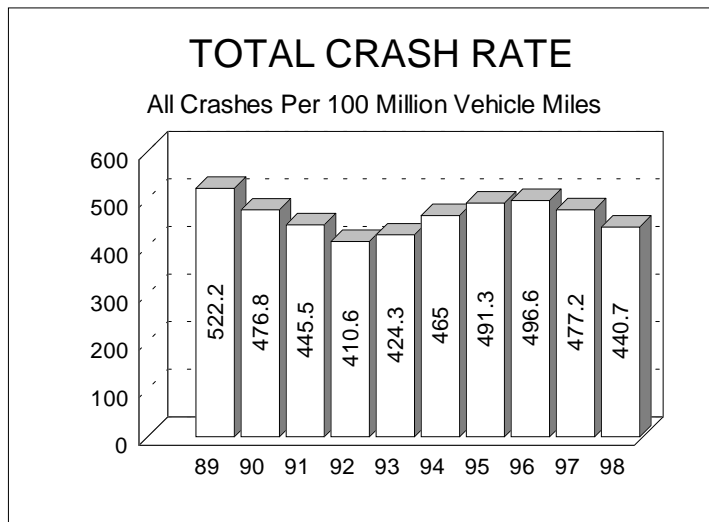
MILEAGE DEATH RATE

Deaths Per 100 Million Vehicle Miles

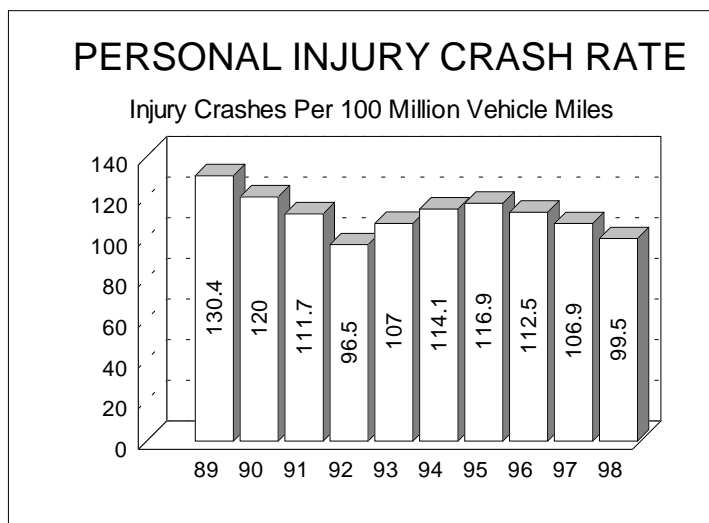


The 1.5 death rate in 1998 is a 25 percent decrease from 1989.

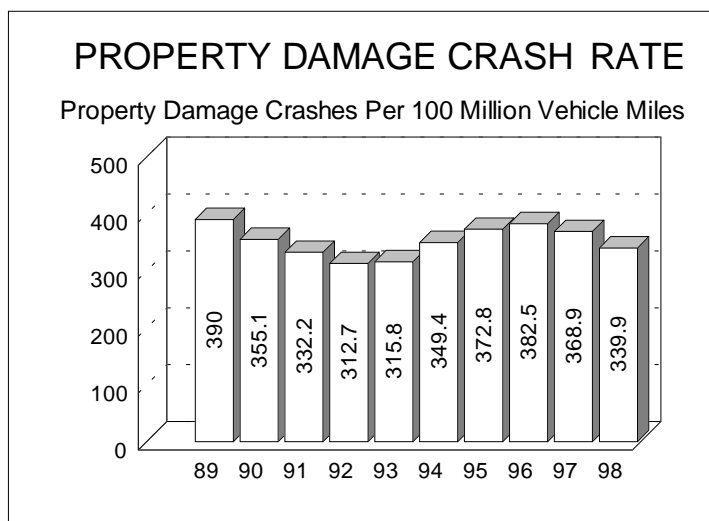
10 YEAR



The 440.7 total crash rate in 1998 is a 7.6 percent decrease from 1997, and a 15.6 percent decrease from 1989.



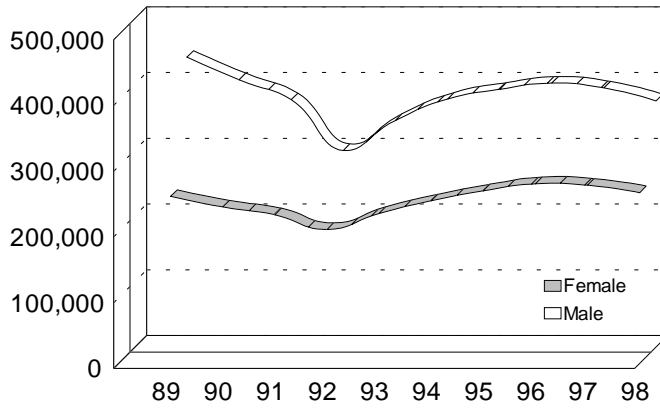
The 99.5 personal injury crash rate in 1998 is a 6.9 percent decrease from 1997, and a 23.7 percent decrease from 1989.



The 339.9 property damage crash rate in 1998 is a 7.9 percent decrease from 1997, and a 12.8 percent decrease from 1989.

MALE vs. FEMALE DRIVERS

Number in All Crashes

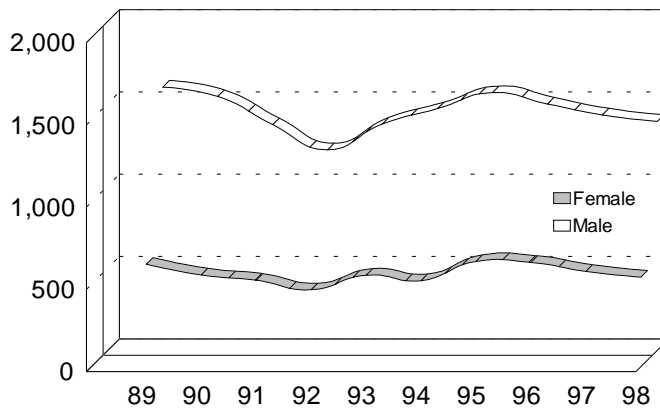


10 YEAR TRENDS (continued)



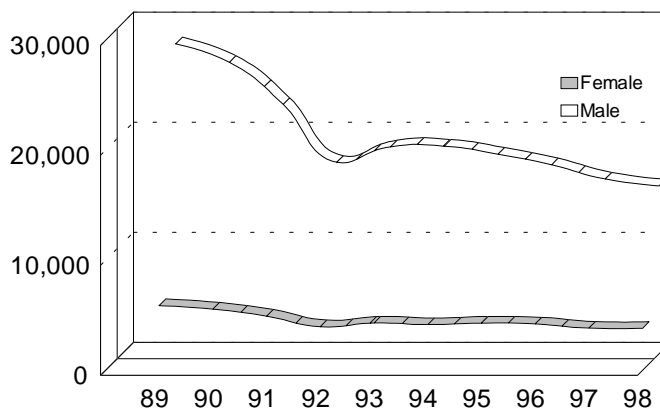
MALE vs. FEMALE DRIVERS

Number in Fatal Crashes



MALE vs. FEMALE DRINKING DRIVERS

Number in All Crashes



10 YEAR

DRIVERS IN ALL CRASHES		
	Male	Female
1989	440,885	254,185
1990	406,500	238,045
1991	376,157	226,136
1992	299,006	203,795
1993	344,859	228,287
1994	377,212	247,333
1995	392,103	262,577
1996	401,350	273,361
1997	394,044	271,131
1998	374,505	259,843

The crash data collection form (UD-10) was changed in 1992. Prior to 1992, drivers whose gender was not identified were coded as male. 9.5% of all drivers were coded as unknown gender in 1998.

DRIVERS IN FATAL CRASHES		
	Male	Female
1989	1,600	624
1990	1,542	558
1991	1,371	526
1992	1,219	468
1993	1,376	557
1994	1,468	524
1995	1,566	640
1996	1,497	634
1997	1,430	580
1998	1,391	545

Male drivers make up 70-75 percent of all drivers in fatal crashes.

Female driver involvement in fatal crashes generally follows overall fatal crash trends.

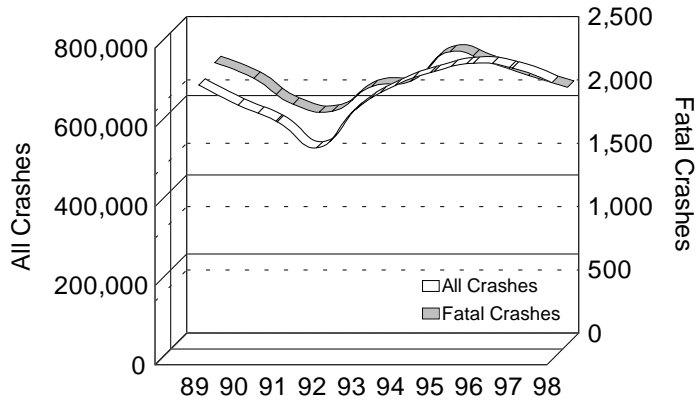
DRINKING DRIVERS IN ALL CRASHES		
	Male	Female
1989	28,185	5,889
1990	26,498	5,568
1991	22,679	4,930
1992	17,414	3,976
1993	18,831	4,308
1994	18,889	4,163
1995	18,153	4,300
1996	17,186	4,225
1997	15,901	3,842
1998	15,280	3,833

Males drivers have always accounted for the majority of all drinking drivers. The number of male drinking drivers decreased 45.8 percent from 1989 to an all time low of 15,280 in 1998.

The number of female drinking drivers decreased to the lowest number of the ten year period, 3,833 in 1998.

ALL DRIVERS

Number in All and Fatal Crashes

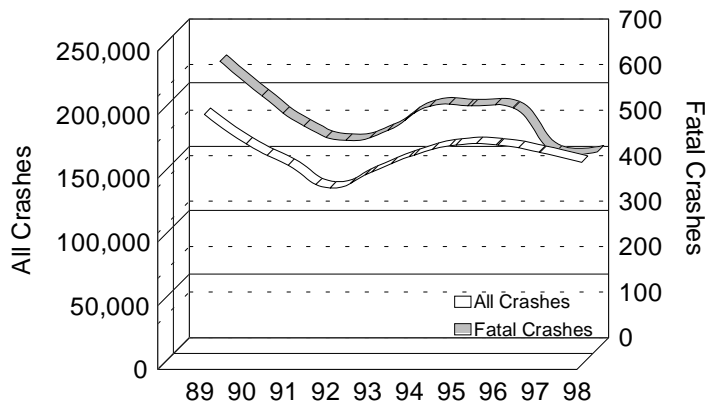


10 YEAR TRENDS (continued)



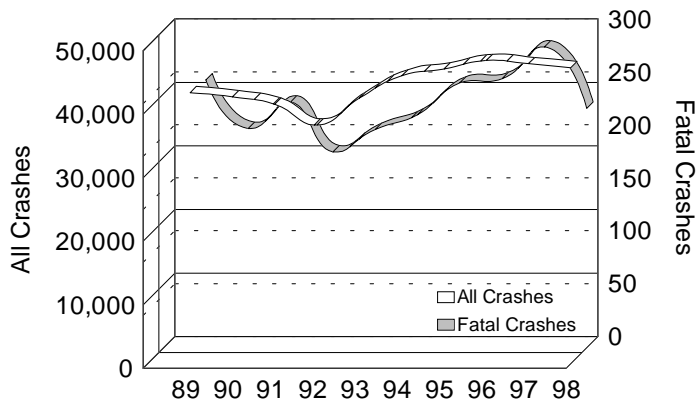
TEEN/YOUNG ADULT DRIVERS

Age 16-24: Number in All and Fatal Crashes



ELDERLY DRIVERS

Age 65-98: Number in All and Fatal Crashes



10 YEAR

ALL DRIVERS		
	All Crashes	Fatal Crashes
1989	695,070	2,224
1990	644,545	2,100
1991	602,293	1,897
1992	536,279	1,841
1993	633,930	2,035
1994	693,575	2,078
1995	729,050	2,311
1996	750,103	2,226
1997	737,939	2,124
1998	701,056	2,029

Driver involvement in all crashes increased 0.9 percent over the ten year period.

Driver involvement in fatal crashes decreased 8.8 percent over the ten year period.

TEEN/YOUNG ADULT DRIVERS		
	All Crashes	Fatal Crashes
1989	196,547	632
1990	173,316	556
1991	156,548	490
1992	138,781	458
1993	151,284	480
1994	164,421	533
1995	172,373	534
1996	172,442	529
1997	166,693	432
1998	158,887	433

Teen/Young Adult Drivers (age 16-24) represent 15.6 percent of the licensed drivers in 1998.

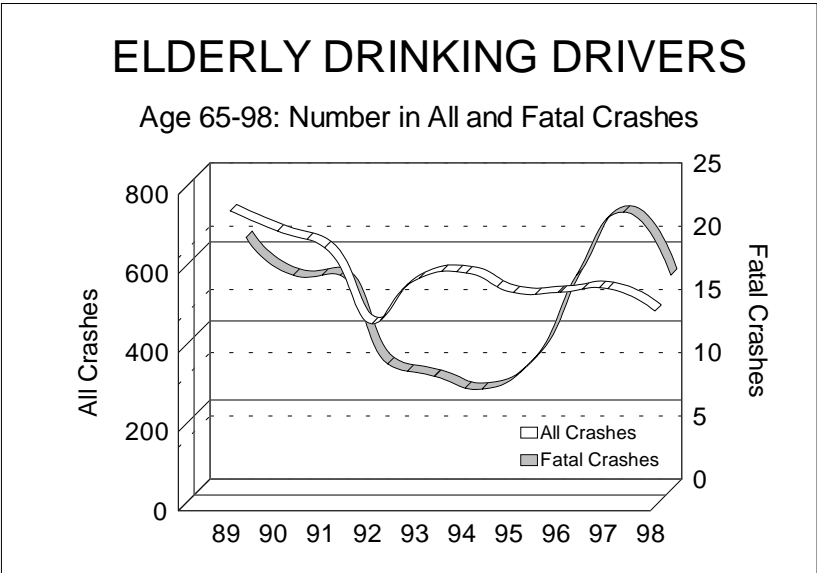
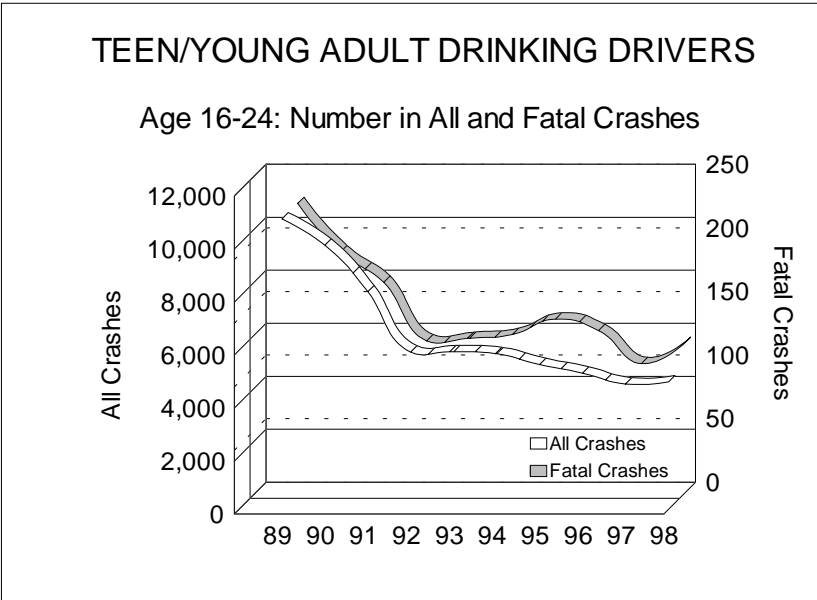
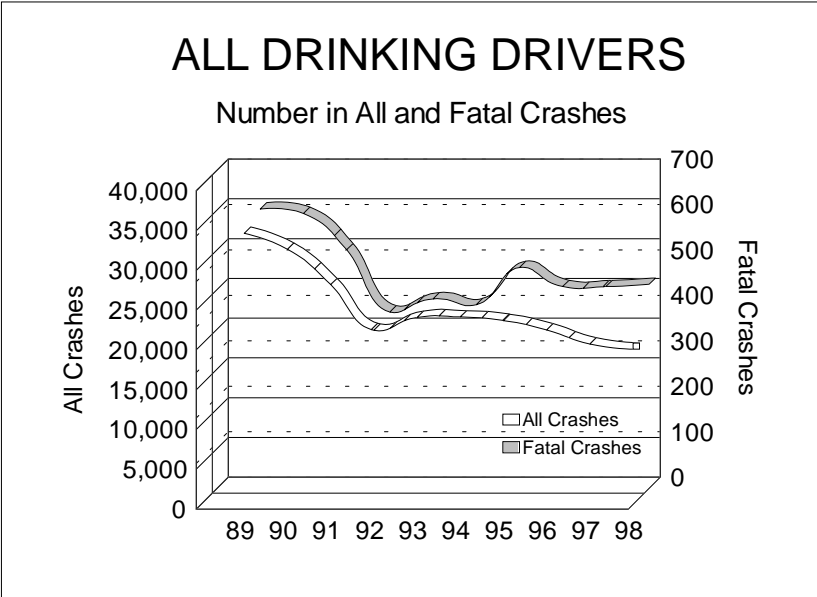
The number of Teen/Young Adult drivers in all crashes has decreased by 19.2 percent since 1989. Their involvement in fatal crashes decreased 31.5 percent during the same time period.

ELDERLY DRIVERS		
	All Crashes	Fatal Crashes
1989	42,636	253
1990	41,992	207
1991	40,795	232
1992	37,539	185
1993	41,753	206
1994	45,280	220
1995	46,371	250
1996	47,695	254
1997	47,190	284
1998	46,582	226

Elderly Drivers (age 65-98) represent 13.3 percent of the licensed drivers in 1998.

The number of drivers age 65 and older in all crashes has increased 9.3 percent since 1989. Their involvement in fatal crashes decreased 10.7 percent during the same time period.

10 YEAR TRENDS (continued)



10 YEAR

DRINKING DRIVERS		
	All Crashes	Fatal Crashes
1989	34,074	615
1990	32,066	605
1991	27,609	525
1992	21,879	388
1993	23,500	417
1994	23,546	404
1995	23,097	486
1996	21,919	444
1997	20,139	444
1998	19,483	449

Drinking driver involvement in all crashes decreased 42.8 percent over the ten year period.

Drinking driver involvement in fatal crashes decreased 27 percent over the ten year period.

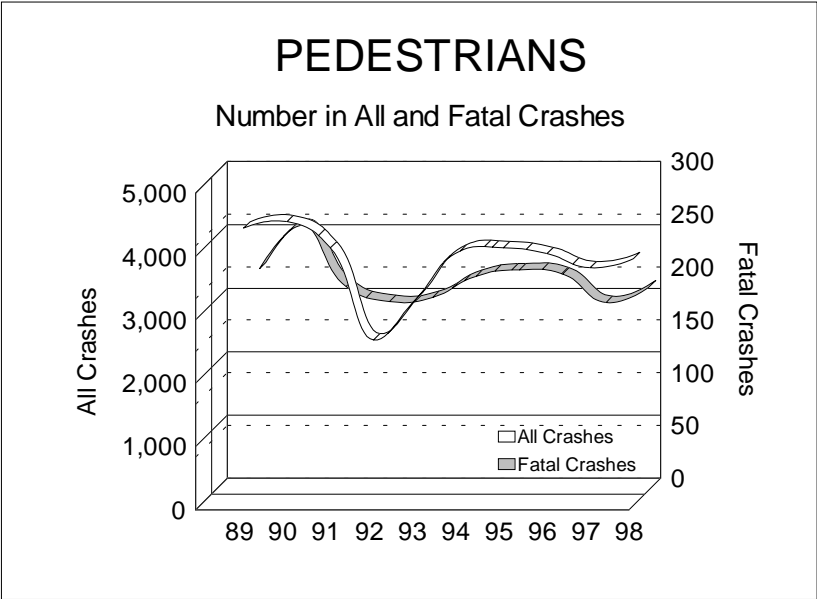
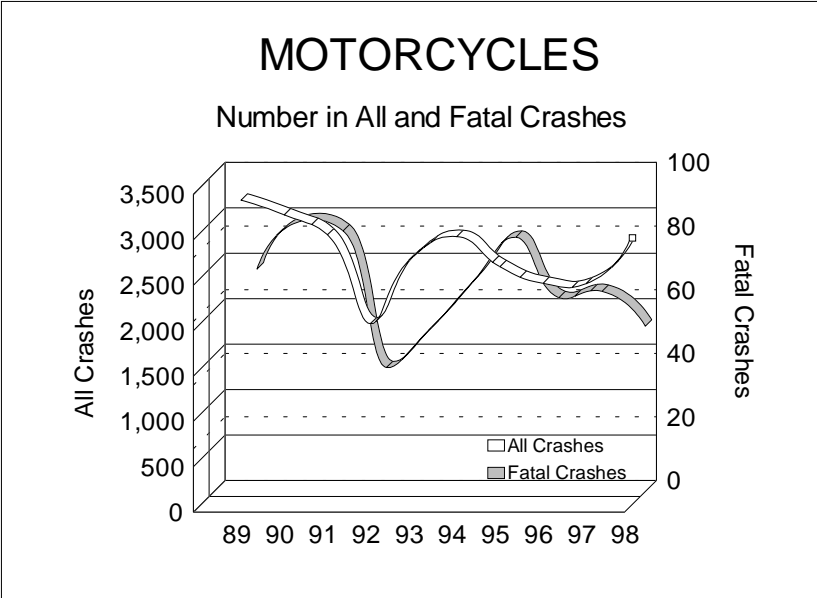
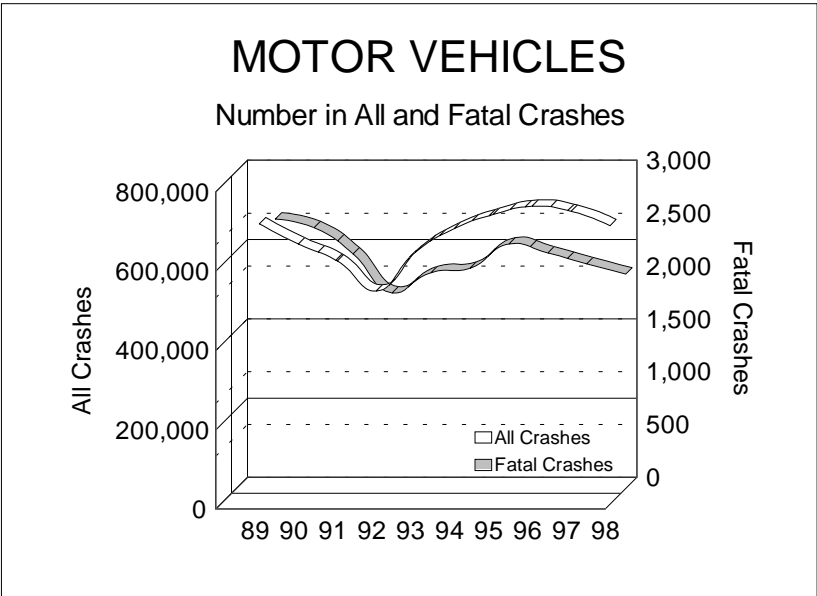
TEEN/YOUNG ADULT DRINKING DRIVERS		
	All Crashes	Fatal Crashes
1989	10,957	228
1990	9,965	190
1991	8,210	166
1992	5,934	120
1993	5,947	122
1994	5,868	125
1995	5,461	137
1996	5,142	128
1997	4,731	102
1998	4,812	118

The number of Teen/Young Adult drinking drivers in all crashes has decreased by 56.1 percent since 1989. Their involvement in fatal crashes decreased 48.2 percent during the same time period.

ELDERLY DRINKING DRIVERS		
	All Crashes	Fatal Crashes
1989	747	20
1990	696	17
1991	654	17
1992	461	10
1993	576	9
1994	590	8
1995	540	10
1996	541	17
1997	550	22
1998	493	17

The number of elderly drinking drivers (age 65-98) in all crashes has decreased 34 percent since 1989. Their involvement in fatal crashes has fluctuated over the same time period with a low of 8 in 1994.

10 YEAR TRENDS (continued)



10 YEAR

MOTOR VEHICLES		
	All Crashes	Fatal Crashes
1989	707,718	2,550
1990	656,750	2,467
1991	613,936	2,220
1992	538,025	1,851
1993	635,711	2,042
1994	695,423	2,084
1995	730,952	2,313
1996	751,804	2,229
1997	739,538	2,126
1998	702,680	2,029

There has been a 20.4 percent decline in the number of motor vehicles involved in fatal crashes from 2,550 in 1989 to 2,029 in 1998.

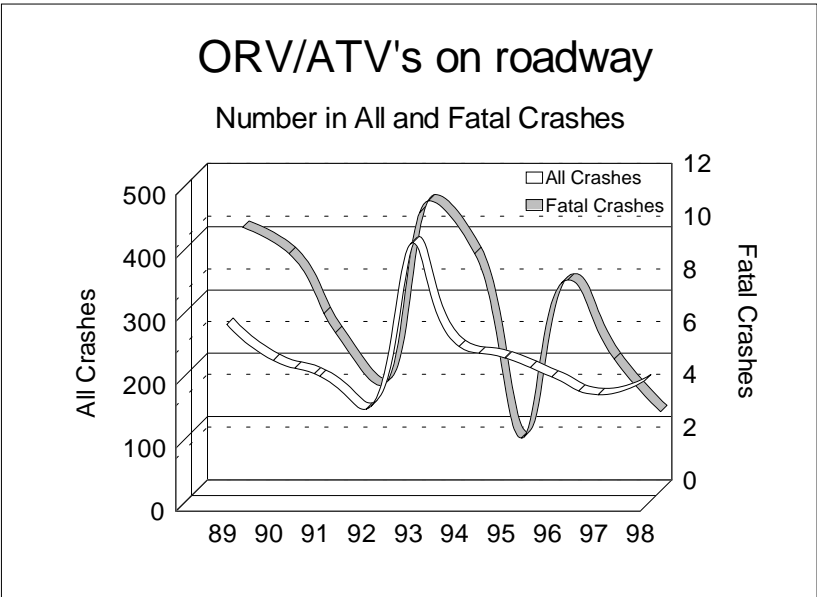
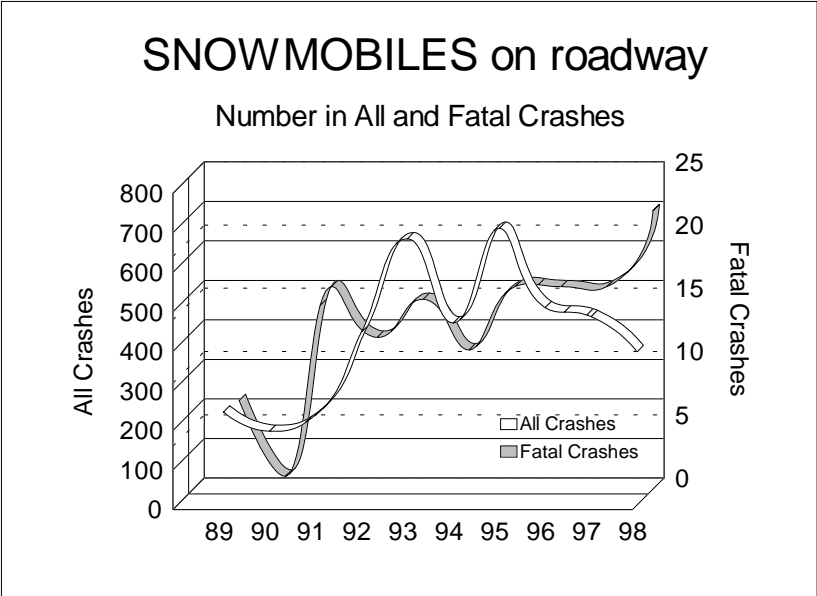
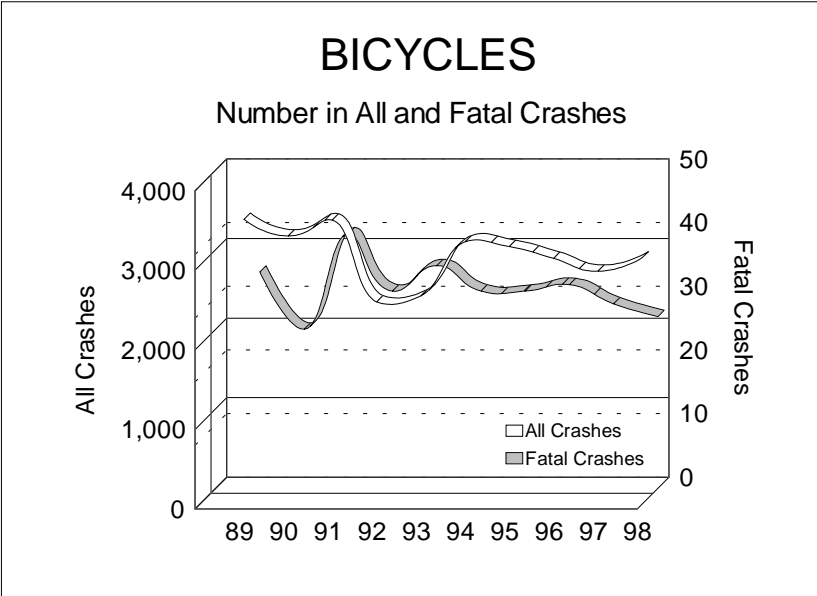
MOTORCYCLES		
	All Crashes	Fatal Crashes
1989	3,383	70
1990	3,222	85
1991	3,001	82
1992	2,022	39
1993	2,768	51
1994	2,982	66
1995	2,651	80
1996	2,468	61
1997	2,465	63
1998	2,931	52

The number of motorcycles involved in fatal crashes decreased by 25.7 percent between 1989 and 1998.

PEDESTRIANS		
	All Crashes	Fatal Crashes
1989	4,374	209
1990	4,476	250
1991	4,061	192
1992	2,609	178
1993	3,275	182
1994	4,014	202
1995	4,064	208
1996	3,971	204
1997	3,749	177
1998	3,891	192

There were 192 pedestrians involved in fatal crashes in 1998, up 8.5 percent from the ten year low of 177 in 1997.

10 YEAR TRENDS (continued)



10 YEAR

BICYCLES		
	All Crashes	Fatal Crashes
1989	3,582	34
1990	3,372	25
1991	3,573	40
1992	2,544	31
1993	2,620	35
1994	3,298	31
1995	3,239	31
1996	3,091	32
1997	2,929	29
1998	3,097	27

Bicycles involved in fatal crashes decreased 20.6 percent over the ten year period.

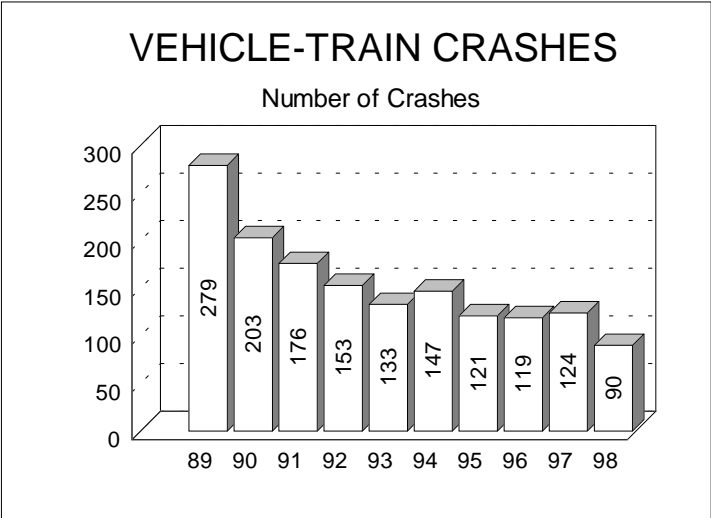
SNOWMOBILES on Michigan roadways		
	All Crashes	Fatal Crashes
1989	235	7
1990	186	1
1991	227	16
1992	437	12
1993	673	15
1994	460	11
1995	700	16
1996	499	16
1997	476	16
1998	387	22

The number of snowmobiles involved in fatal crashes on Michigan public roadways has increased 214.3 percent since 1989.

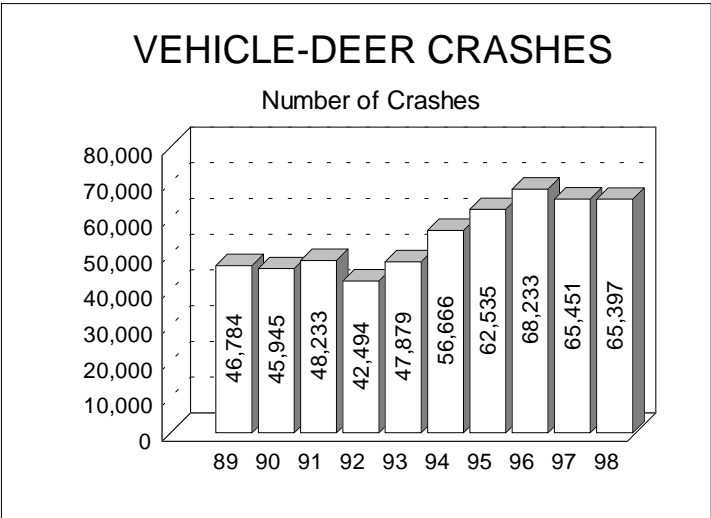
ORV/ATV's on Michigan roadways		
	All Crashes	Fatal Crashes
1989	288	10
1990	231	9
1991	206	6
1992	154	4
1993	417	11
1994	253	9
1995	235	2
1996	205	8
1997	177	5
1998	199	3

ORV/ATV's on Michigan public roadways involved in fatal crashes have fluctuated between a high of 11 in 1993 to a low of 2 in 1995.

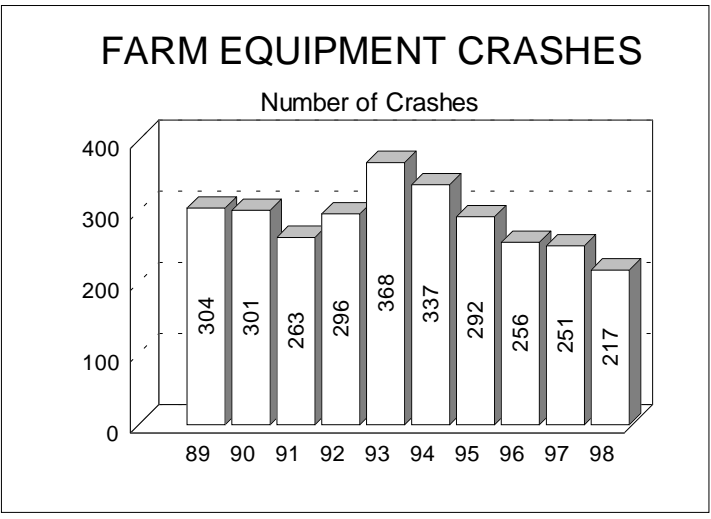
10 YEAR TRENDS (continued)



90 vehicle-train crashes occurred in 1998, a 27.4 percent decrease from 1997.

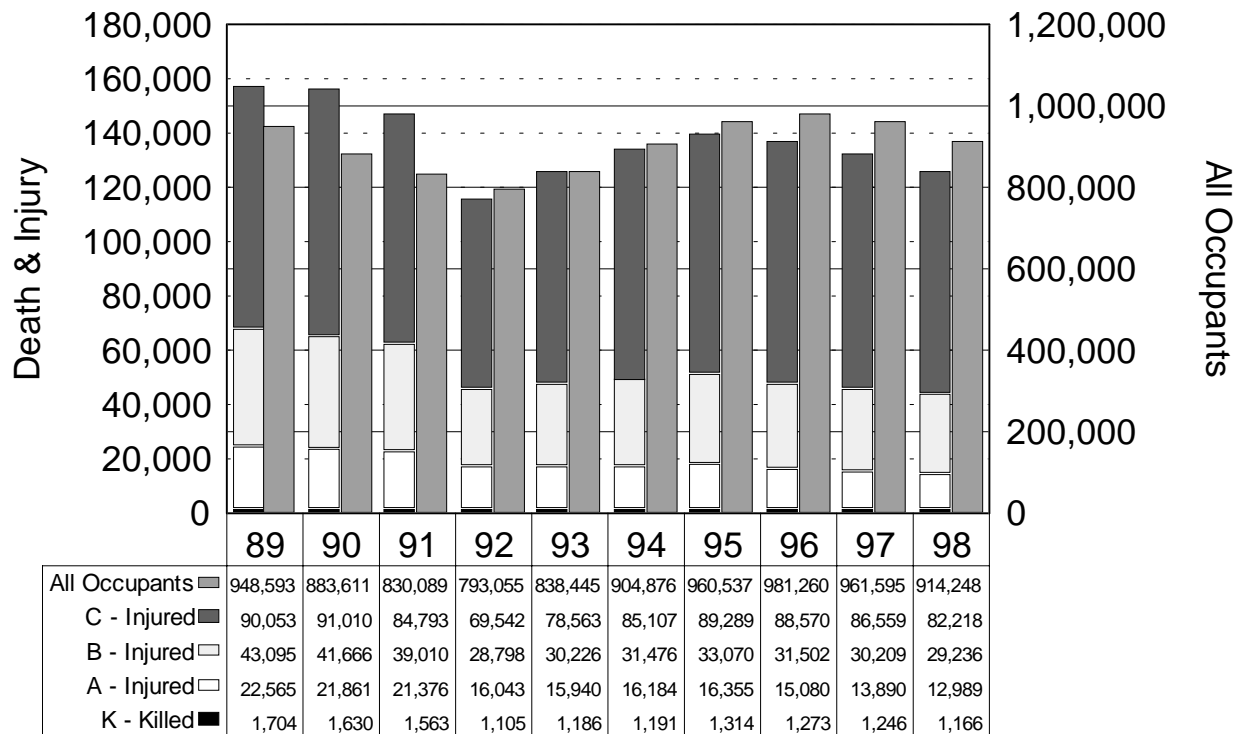


There has been a 39.8 percent rise from 46,784 vehicle-deer crashes in 1989 to 65,397 in 1998.



In 1998, there were 217 farm equipment crashes, down 41 percent from the 1993 high of 368.

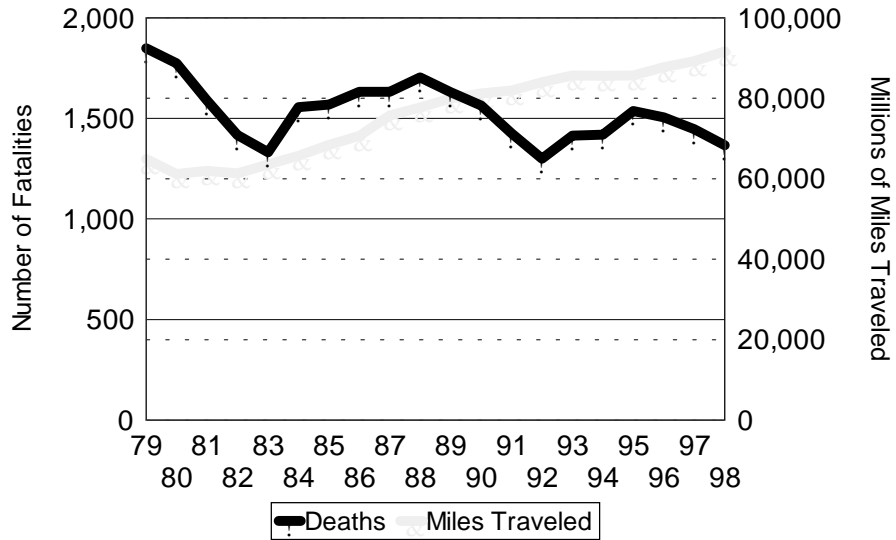
DEATH AND INJURY PER CRASH INVOLVED OCCUPANT



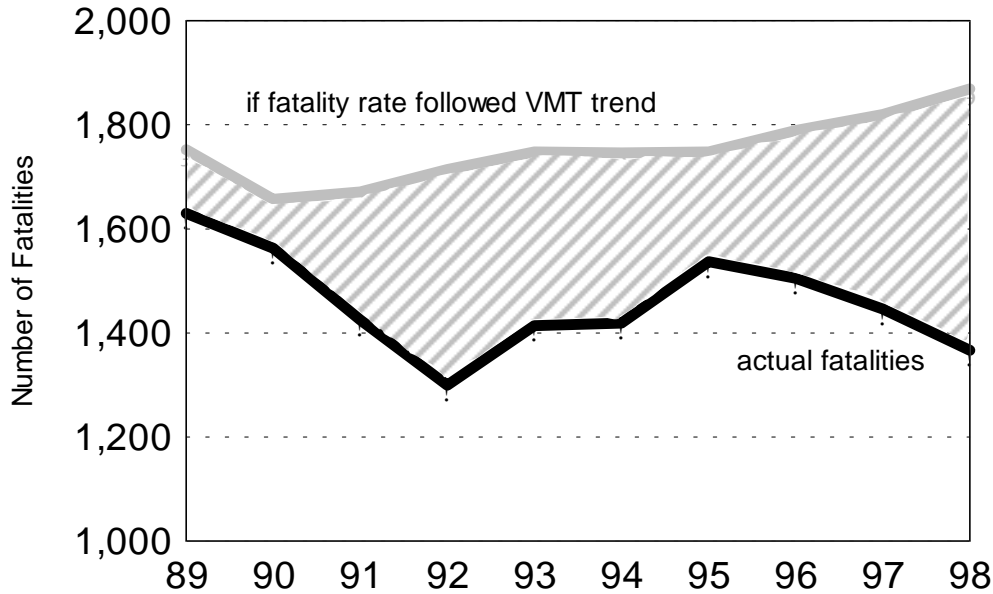
The proportion of death and injury to crash involved occupants has decreased over the last ten years. In 1998, 1,166 occupants of motor vehicles were fatally injured, 12,989 suffered an A (incapacitating) injury, 29,236 sustained a B (nonincapacitating) injury, and 82,218 sustained a C (possible) injury.

10 YEAR

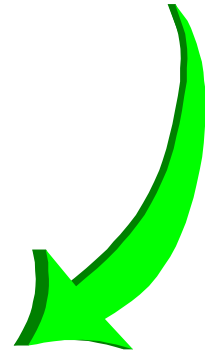
FATALITIES AND VMT TRENDS



10 Year Highlight



In the decade prior to 1989, the number of fatalities had been steadily increasing, following the VMT trend. A dramatic reversal in the fatality rate began in 1989. A projection of losses that would have been incurred if the fatality rate had continued to follow the VMT trend is provided above.

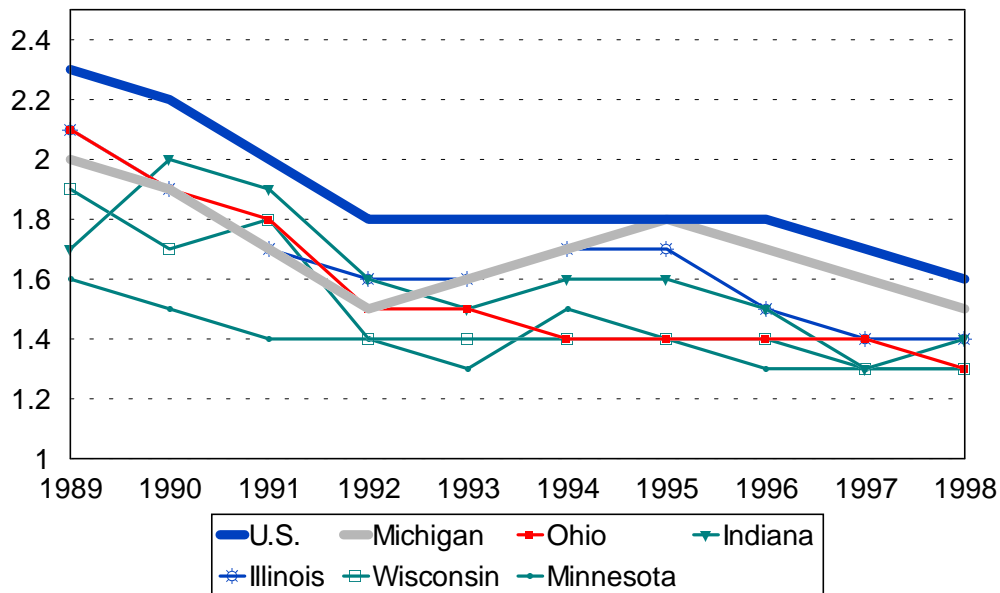




10 YEAR

MILEAGE DEATH RATES 1989 - 1998

Comparison - Michigan to U.S. and Surrounding States



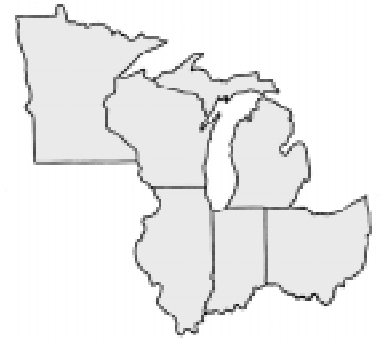
The chart above compares the Michigan mileage death rates (motor vehicle traffic deaths per 100,000,000 vehicle miles) to those of its neighboring states and the overall U.S. rates for a ten year period.

From 1989 to 1992, Michigan placed consistently in the middle of the pack, mirroring the U.S. trend towards a reduced fatality rate. Over the last five years, the Michigan mileage death rate has risen and fallen, never exceeding the U.S. rate.

	U.S.	Michigan	Ohio	Indiana	Illinois	Wisconsin	Minnesota
1989	2.3	2.0	2.1	1.7	2.1	1.9	1.6
1990	2.2	1.9	1.9	2.0	1.9	1.7	1.5
1991	2.0	1.7	1.8	1.9	1.7	1.8	1.4
1992	1.8	1.5	1.5	1.6	1.6	1.4	1.4
1993	1.8	1.6	1.5	1.5	1.6	1.4	1.3
1994	1.8	1.7	1.4	1.6	1.7	1.4	1.5
1995	1.8	1.8	1.4	1.6	1.7	1.4	1.4
1996	1.8	1.7	1.4	1.5	1.5	1.4	1.3
1997	1.7	1.6	1.4	1.3	1.4	1.3	1.3
1998	1.6	1.5	1.3	1.4	1.4	1.3	1.3

U.S. data for this table and tables on the following page were provided by the National Safety Council [3]. State data for this table and tables on the following page were provided by Ohio [4], Indiana [5], Illinois [6], Wisconsin [7], and Minnesota [8].

10 YEAR



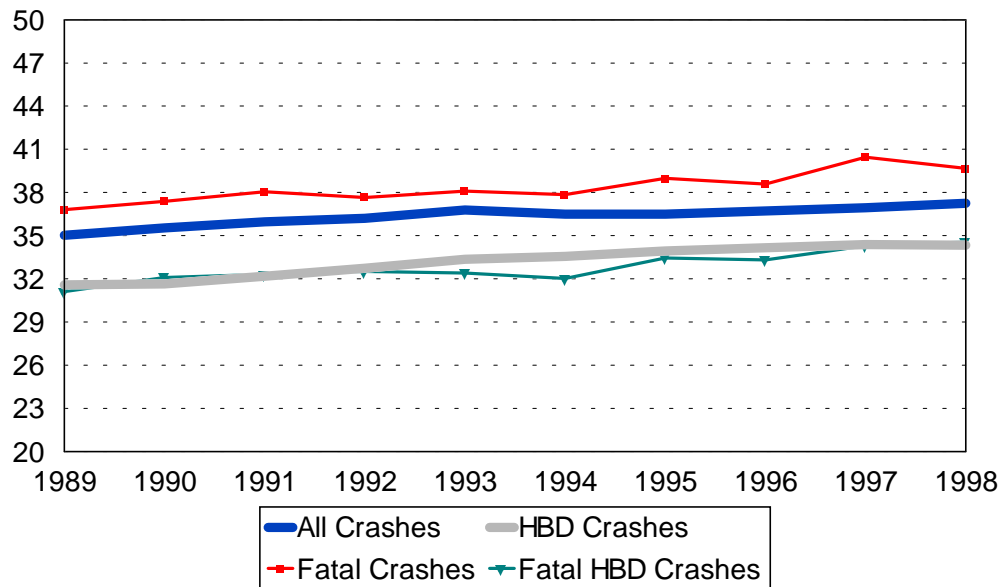
MICHIGAN AND SURROUNDING STATES COMPARISON OF FATALITIES AND VMT

Year	U.S. Persons Killed	Michigan Persons Killed	Ohio Persons Killed	Indiana Persons Killed	Illinois Persons Killed	Wisconsin Persons Killed	Minnesota Persons Killed
1989	47,575	1,630	1,772	971	1,748	817	605
1990	46,814	1,563	1,637	1,049	1,589	763	568
1991	43,536	1,425	1,635	1,022	1,448	795	531
1992	40,982	1,300	1,440	901	1,384	645	581
1993	41,893	1,414	1,484	901	1,392	703	538
1994	42,700	1,419	1,368	974	1,554	706	644
1995	43,900	1,537	1,357	960	1,586	739	597
1996	43,300	1,505	1,395	982	1,477	759	576
1997	43,200	1,446	1,439	936	1,393	721	600
1998	41,200	1,367	1,423	978	1,393	709	650

Year	U.S. VMT	Michigan VMT	Ohio VMT	Indiana VMT	Illinois VMT	Wisconsin VMT	Minnesota VMT
1989	2,107	79.9	84.1	56.2	81.6	43.1	37.6
1990	2,148	81.2	88.2	53.7	83.6	44.3	38.8
1991	2,172	81.9	93.0	54.3	85.7	45.5	39.3
1992	2,240	84.0	95.2	57.1	87.9	47.5	41.3
1993	2,289	85.7	97.5	60.5	89.8	48.8	42.3
1994	2,347	85.6	99.0	62.1	92.1	50.3	43.4
1995	2,405	85.7	99.7	62.0	94.3	51.4	44.1
1996	2,467	87.7	102.8	66.0	96.9	52.6	45.2
1997	2,531	89.2	104.8	70.4	98.7	53.7	46.9
1998	2,618	91.6	106.0	70.7	100.9	56.0	48.5

VMT described in billions of miles

AVERAGE AGE OF DRIVERS IN CRASHES 1989 - 1998



Reflecting the demographic trend of increasing age in the general population, the average age of crash-involved drivers has also increased. An aging driving population has implications for law enforcement prioritizing, highway design, traffic signing considerations, and Emergency Medical System procedures.