

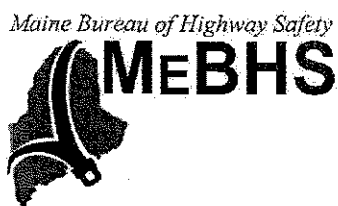
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Report Submitted: December 16, 2009

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Introduction

The Maine Bureau of Highway Safety (BHS) is a Bureau within the Department of Public Safety. BHS currently consists of five full-time employees all dedicated to ensuring safe motor transportation for everyone traveling on Maine roads and highways.

BHS provides leadership and financial resources that develop, promote and coordinate programs designed to influence public and private policy, make systemic changes and heighten public awareness of highway safety issues. Through the administration of federal funding from the National Highway Traffic Safety Administration, the Federal Highway Administration and State Highway funds, BHS impacted each of the major identified program areas in FY 2009:

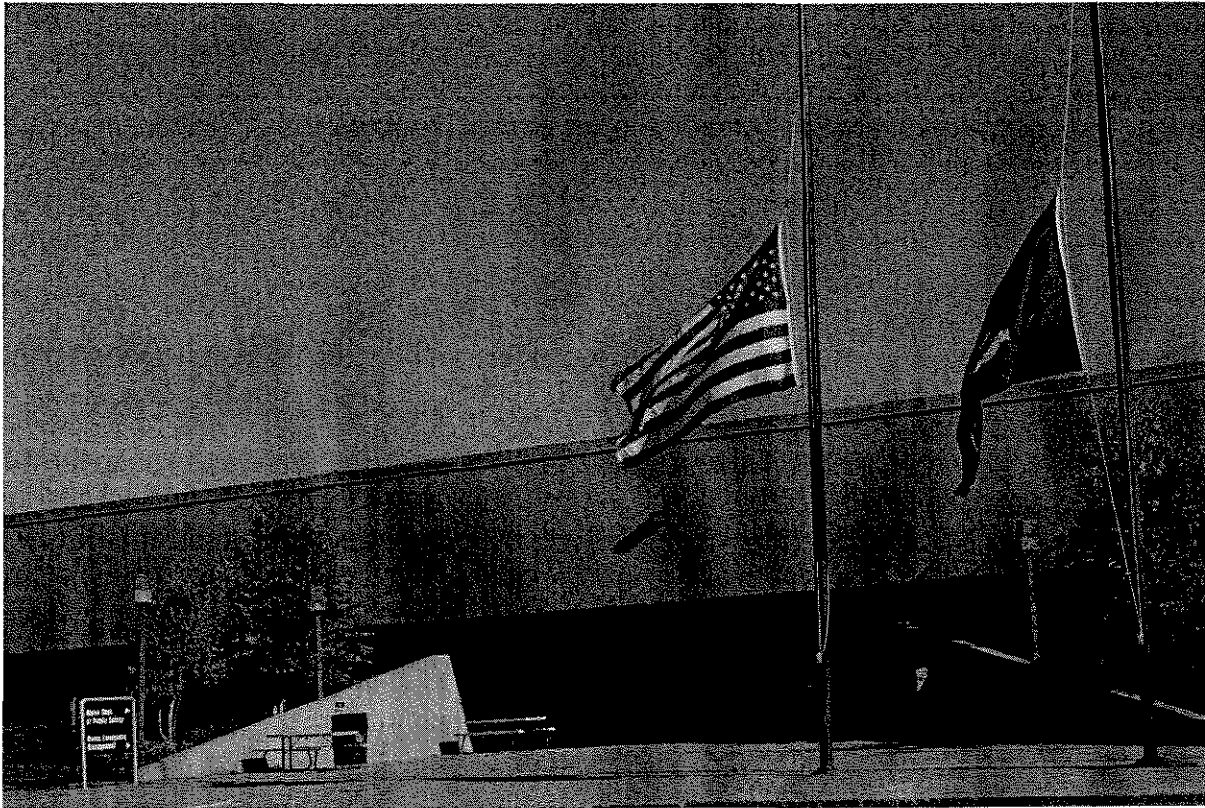
- Impaired Driving
- Occupant Protection
- Child Passenger Safety
- Traffic Records
- Police Traffic Services

We believe that through committed partnerships with others interested in highway safety, through a data driven approach to program planning, through public information and education, and with coordinated enforcement activities, we can achieve our goal to reduce fatalities and injuries.

This Annual Report reflects our efforts to impact traffic safety in areas including occupant protection, impaired driving, child passenger safety, motorcycles, public education and information, and traffic records for Federal Fiscal Year 2009 (October 1, 2008 – September 30, 2009).

The cover of this year's Annual Report demonstrates our continual interest in measuring our performance.

- 12: the number of pedestrians killed in Maine in 2008
- 1.08 is Maine's fatality rate for 2008
- 90% of crashes are considered to be preventable
- >2,400,000: number of people injured in crashes in the USA
- >40,000: number of people killed each year in crashes in the USA
- 5997: number of seatbelt citations in Maine 2008
- 862: number of serious injuries Maine 2008
- 294,000: number of serious injuries from crashes in the USA
- 1 is the number that is too many
- 42: number of alcohol related crash deaths in Maine in 2008
- 3 second rule is about the minimum safe following distance
- 115: number of deaths from crashes per day in the USA
- 83% seatbelt usage rate in Maine
- 155: number of fatalities from crashes Maine 2008
- 31,330 crashes in Maine in 2008
- 45: number of unrestrained motor vehicle occupant fatalities in Maine



Governor:

John E. Baldacci

Governor's Highway Safety
Representative:

Anne H. Jordan, Commissioner

Director, Highway Safety Office:

Lauren V. Stewart

Contract and Grant Specialist:

Carl Hallman

Highway Safety Coordinators:

Johnny Male
Michelle Ward

Administrative Assistant:

Laura Nichols

Accounting Technician:

Tina Madore, SESC

Planning and Administration

The Bureau of Highway Safety, established in accordance with the Highway Safety Act of 1966, is the focal point for highway safety in Maine and is the only agency in Maine with the sole responsibility to promote safer roadways. BHS provides leadership and financial resources that develop, promote, and coordinate programs designed to influence public and private policy, make systemic changes and heighten public awareness of highway safety. The highway safety problems outlined in the Annual Highway Safety Plan were identified by analyzing available data that includes traffic crashes, traffic citation information, OUI arrests, FARS, surveys and other input from state, county and local agencies interested in addressing highway safety issues. The analysis helps identify when, where, why, and to whom specific safety problems occur.

The BHS annually solicits input from state, county and municipal police, state agencies, and other eligible potential grantees having a direct interest in promoting safer highways. This solicitation asks agencies to list their five most serious highway safety problems and to suggest potential solutions that BHS could consider for funding. BHS staff also attends meetings of the Maine Transportation Safety Coalition, the Maine Chiefs of Police Association, Maine Sheriffs Association, EMS coordinators and others to further gather input of needs and potential solutions and to explain federal guidelines, BHS policy and the application process. In addition to the solicitation, BHS considers information developed by staff members through contacts with grantees, potential grantees and other highway safety professionals.

The overall goal of the Bureau of Highway Safety is to reduce the rate of motor vehicle crashes in Maine that result in death, injuries, and property damage.

Federal Fiscal Year 2009 Initiatives

Maine Chiefs Challenge 2009
Click It or Ticket/Buckle Up. No Excuses!
Child Passenger Safety Instructor Training
Child Passenger Safety Inspection Stations & Distribution Sites
MTSC Status of Transportation Safety In Maine
Save A Brain – Wear A Helmet
Drunk Driving. Over the Limit. Under Arrest.
Speed Enforcement
OAS Enforcement
Drug Recognition Expert Training
Crash Reconstruction Training
Police Radar and Laser Purchase
Think About It Campaign
The Convincer Program
Share the Road with Bicycles
Maine Crash Reporting System
Partnership Newsletter
Maine Implied Consent Program
Maine Driving Dynamics
Traffic Records Coordinating Committee
Statewide Observational Survey
BMV Surveys
Child Passenger Safety Week
Teen Driver Safety Week
SAFETEA-LU Administration
Teen Driver Focus Group
Traffic Records Plan
Bureau of Highway Safety Website Updates
WCSH6 Alive and Well Expo
Highway Safety Media Campaign
Holiday Enforcement Campaign
Police Laptop Purchase

Maine's Traffic Safety Report Card

The total number of crashes was reduced from 33,077 in 2007 to 31,330 in 2008, a 5.3% reduction.

In 2008, traffic fatalities decreased from 183 in 2007 to 155 in 2008, a 15.3% reduction.

Number of serious injuries reduced from 978 in 2007 to 862 in 2008.

Maine's 2008 Mileage Fatality Rate of 1.08 (traffic fatalities per 100 million vehicle miles traveled) is the lowest rate in the last 10 years.

Unrestrained vehicle occupant fatalities decreased from 76 in 2007 to 45 in 2008.

Alcohol related fatalities dropped from 61 in 2007 to 42 in 2008.

Speeding related fatalities decreased from 86 in 2007 to 53 in 2008.

Motorcycle fatalities reduced from 23 in 2007 to 18 in 2008.

Number of unhelmeted motorcyclist fatalities decreased from 15 in 2007 to 14 in 2008.

Drivers age 20 or younger involved in fatal crashes dropped from 25 in 2007 to 19 in 2008.

The number of pedestrian fatalities increased from 10 in 2007 to 12 in 2008.

Maine's 2008 seat belt usage rate is 83%, up from 79.8% in 2007.



Motor Vehicle Crash Data

U.S. Fatality Rate:

2005: 1.47 fatalities per 100 million VMT
 2006: 1.41 fatalities per 100 million VMT
 2007: 1.37 fatalities per 100 million VMT
 2008: 1.27 fatalities per 100 million VMT

Maine Fatality Rate:

2005: 1.13 fatalities per 100 million VMT
 2006: 1.25 fatalities per 100 million VMT
 2007: 1.22 fatalities per 100 million VMT
 2008: 1.08 fatalities per 100 million VMT

Fatalities by County (2008):

York	26
Cumberland	21
Kennebec	18
Penobscot	17
Lincoln	13
Androscoggin	8
Hancock	8
Aroostook	7
Oxford	7
Somerset	7
Waldo	7
Washington	6
Franklin	5
Knox	3
Piscataquis	1
Sagadahoc	1

New England Region Motor Vehicle Crash Fatalities 2008:

Maine	155
New Hampshire	139
Vermont	73
Massachusetts	363
Connecticut	264
Rhode Island	65

In 2008, more than 41,000 people were killed in the U.S. in motor vehicle crashes. In Maine, motor vehicle crashes killed 155 people. Maine had over 31,000 total reportable crashes in 2008.

**MAINE MOTOR VEHICLE CRASH DATA
FROM 1978-2008**

<u>YEAR</u>	<u>TOTAL CRASHES</u>	<u>FATAL CRASHES</u>	<u>ALCOHOL INVOLVEMENT</u>	<u>SPEED INVOLVEMENT</u>	<u>NUMBER OF PEOPLE KILLED</u>
1978	32,719	212	147 (60%)		245
1979	29,577	203	140 (58.6%)		239
1980	27,910	234	157 (60.2%)		261
1981	26,698	186	127 (60.2%)		211
1982	30,522	151	84 (50.6%)		166
1983	31,375	198	127 (56.7%)		224
1984	34,544	211	125 (53.9%)		232
1985	36,799	189	110 (53.4%)		206
1986	40,378	190	108 (50.5%)		214
1987	43,201	212	114 (49.1%)		232
1988	40,764	231	89 (34.8%)		256
1989	43,498	175	61 (32.1%)		190
1990	37,468	196	81 (38%)		213
1991	35,046	181	73 (35.6%)		205
1992	35,548	189	85 (39.7%)		214
1993	37,819	168	74 (40%)		185
1994	37,561	167	65 (34.4%)	74 (39%)	189
1995	38,512	171	51 (27.1%)	71 (37%)	188
1996	39,760	156	55 (32.5%)	76 (45%)	169
1997	42,510	172	63 (32.8%)	71 (37%)	192
1998	40,877	176	50 (26%)	79 (41%)	192
1999	39,024	168	51 (28.2%)	79 (43%)	181
2000	37,251	159	46 (27.2%)	74 (43%)	169
2001	37,580	170	49 (25.5%)	73 (38%)	192
2002	36,979	186	42 (19.4%)	83 (38.42%)	216
2003	35,652	186	57 (27.53%)	79 (38.16%)	207
2004	35,226	178	60 (30.92%)	90 (46%)	194
2005	34,196	151	55 (32.5%)	86 (50%)	169
2006	36,403	168	64 (34.0%)	61 (32%)	188
2007	33,077	170	71 (38.7%)	85 (46%)	183
2008	31,330	144	39 (27%)	49 (34%)	155

Source: FARS Data and MDOT

Maine Crash Data Summary

Crash Data / Trends

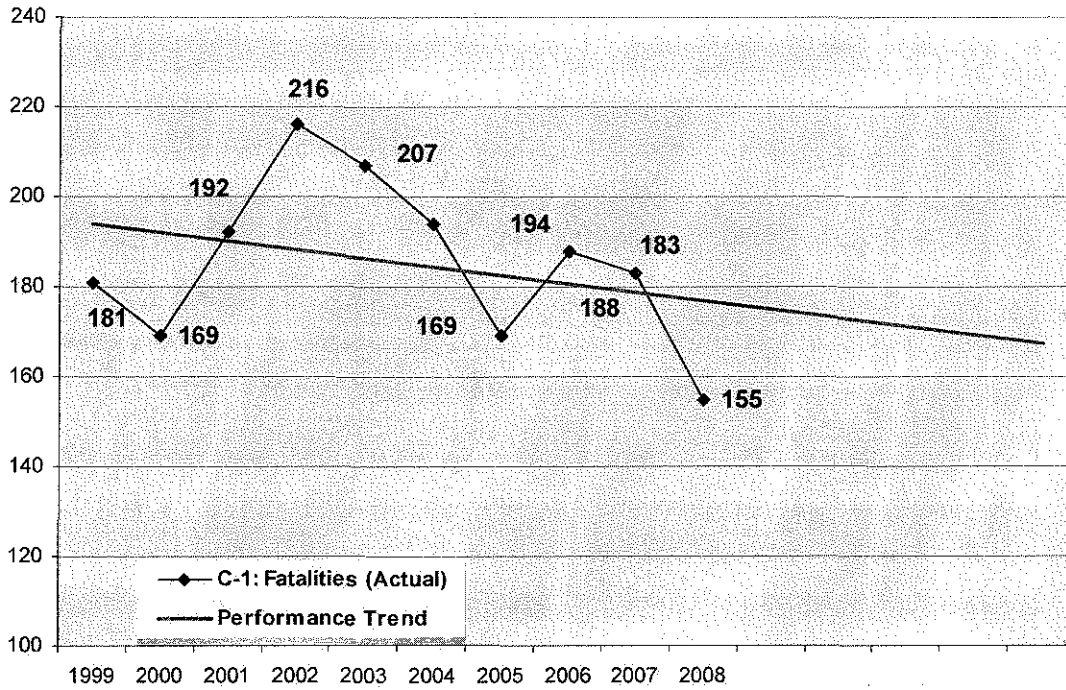
	5 Year Averages					Progress Report Data 2004-2008				
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
C-1: Fatalities (Actual)	181	169	192	216	207	194	169	188	183	155
C-2: # of Serious Injuries	1,298	1,271	1,222	1,237	1,091	1,119	1,030	996	978	862
C-3a: Fatality Rate /100 million VMT	1.3	1.2	1.3	1.5	1.4	1.3	1.1	1.2	1.22	1.08
C-3b: Rural Mileage Death Rate (FARS)						1.56	1.50	1.49	1.51	1.08
C-3c: Urban Mileage Death Rate (FARS)						0.53	0.19	0.59	0.45	0.64
C-4: # of Unrestrained Passenger Vehicle Occupant Fatalities	86	77	87	91	98	87	77	65	76	45
C-5: # of Fatalities Involving Driver or Motorcycle Operator w/ ≥ .08 BAC	45	36	54	40	56	50	47	46	61	42
C-6: # of Speeding-Related Fatalities	79	74	73	83	79	90	86	61	86	53
C-7: # of Motorcyclist Fatalities	16	18	14	13	20	22	15	23	23	18
C-8: # of Unhelmeted Motorcyclist Fatalities	12	15	5	8	12	11	9	17	15	14
C-9: # of Drivers Age 20 or Younger Involved in Fatal Crashes	16	17	17	21	13	21	16	23	25	19
C-10: # of Pedestrian Fatalities	11	15	12	14	13	10	9	10	10	12
B-1: % Observed Belt Use for Passenger Vehicles - Front Seat Outboard Occupants	59.0%	59.0%	59.0%	59.2%	59.2%	72.3%	75.8%	77.2%	79.8%	83.0%
A-1: # of Seat Belt Citations Issued During Grant-Funded Enforcement Activities	0	0	0	245	0	2166	2568	1725	1566	5997
A-2: # of Impaired Driving Arrests Made During Grant-Funded Enforcement Activities	0	345	269	272	321	275	330	301	359	506
A-3: # of Speeding Citations Issued During Grant-Funded Enforcement Activities	0	0	0	0	0	0	0	3312	2947	3963

Performance Goals and Trends

Goal: C-1: Fatalities (Actual)
Baseline

Reduce 5 year average by 5% by December 2013
5 year average of 178.8 to 168.9

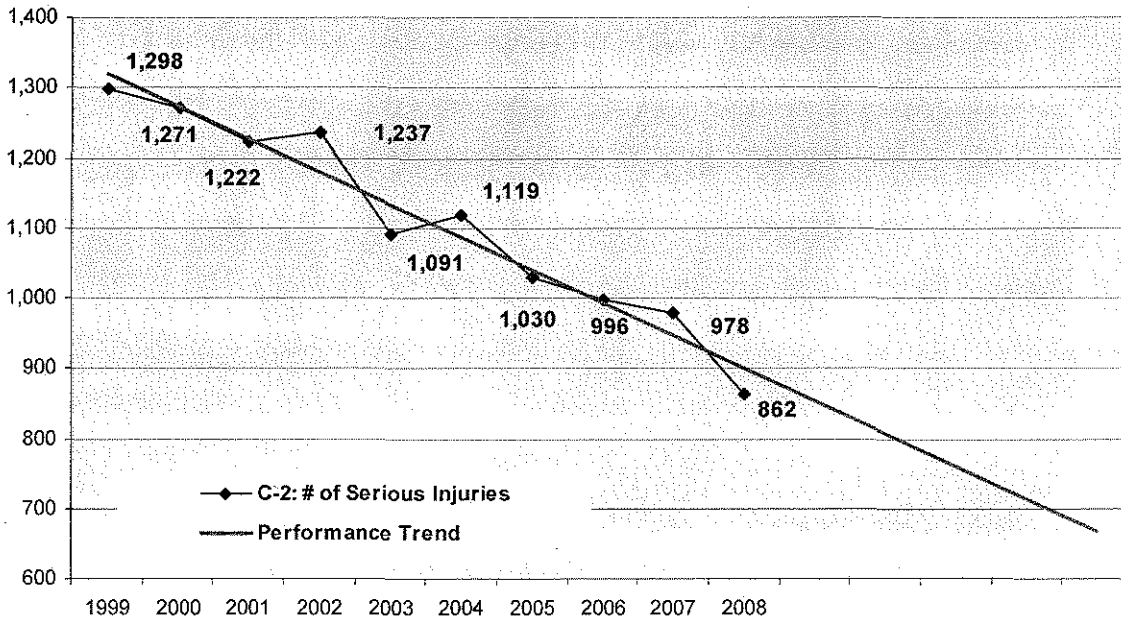
Fatality Trends



Goal: C-2: # Serious Injuries
Baseline

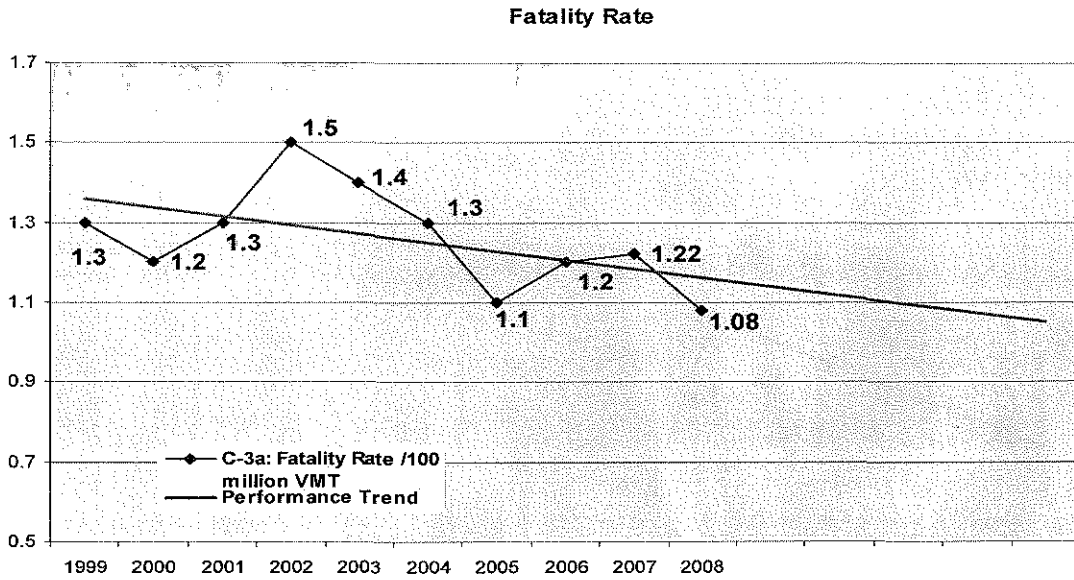
Reduce 5 year average by 5% by December 2013
5 year average of 997 to 947

Injury Trends



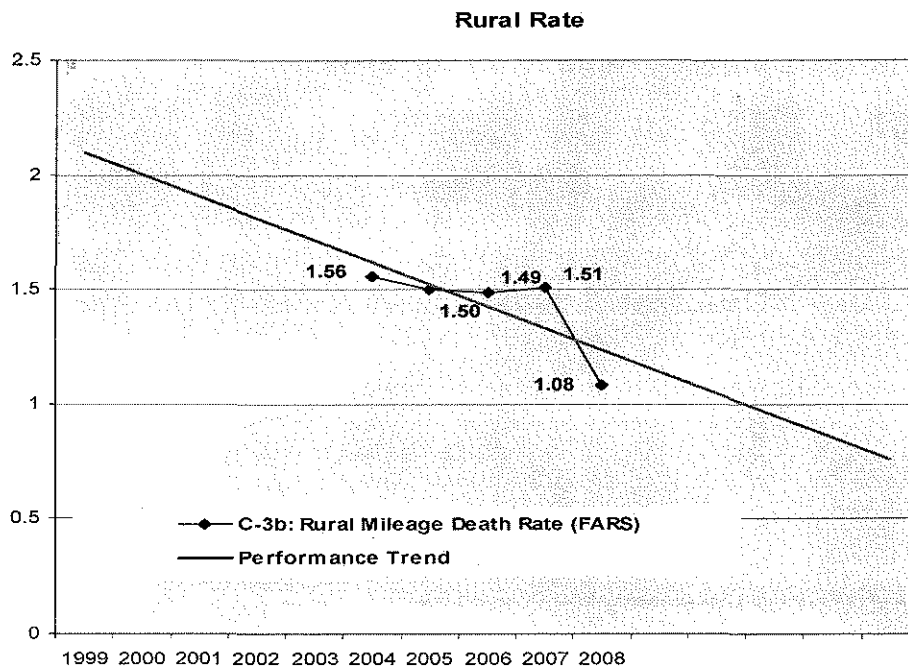
Goal: C-3a: Fatality Rate
Baseline

Reduce 5 year average by 5% by December 2013
5 year average of 1.18 to 1.12



Goal: C-3b Rural Mileage Death Rate
Baseline

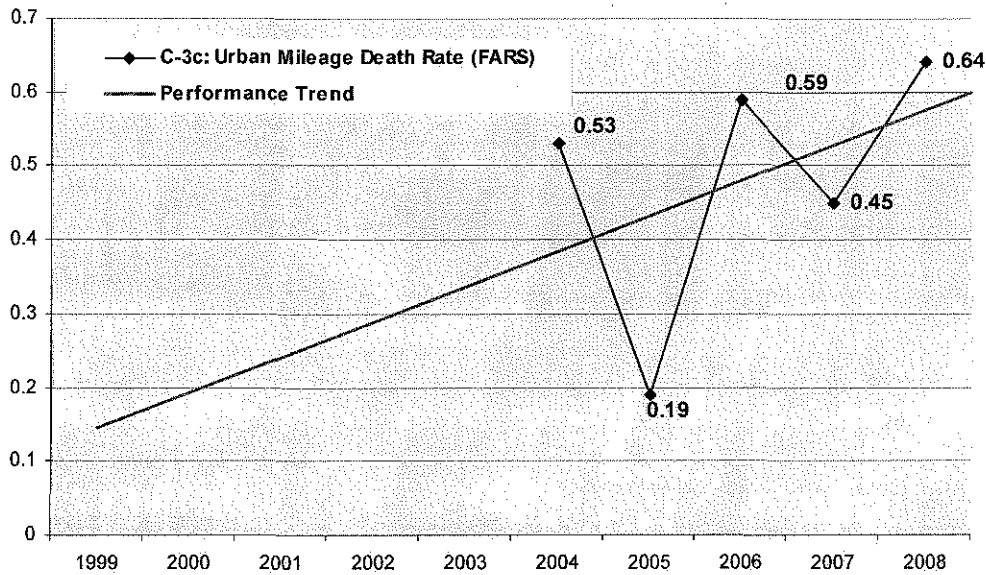
Reduce by 5% from
5 year average of 1.46 to 1.39 by December 31, 2013



Goal: C-3c Urban Mileage Death Rate
Baseline

Reduce by 5% from
5 year average of .48 to .46 by December 31, 2013

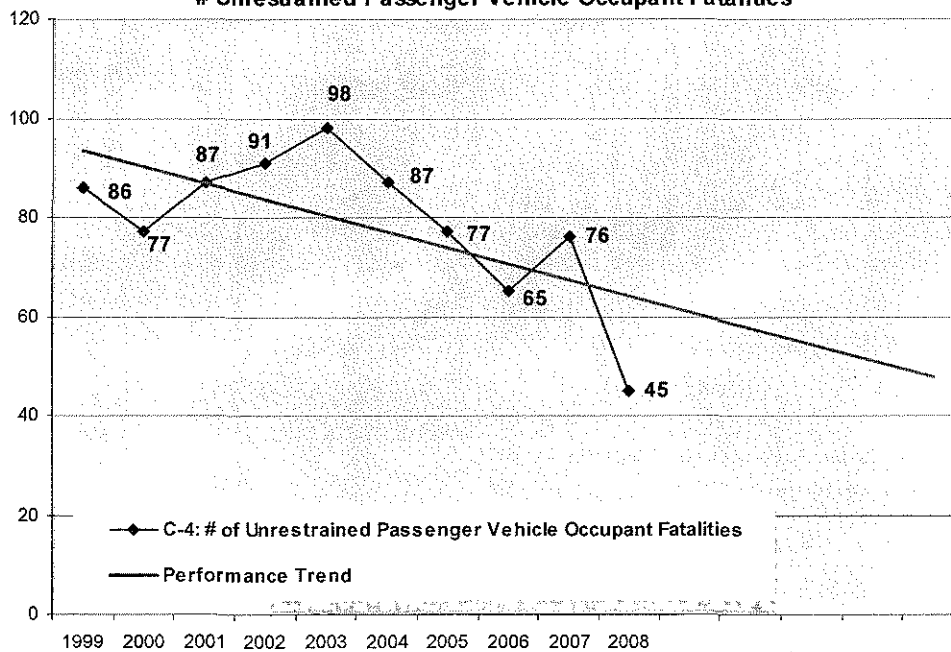
Urban Mileage Death Rate for Maine



Goal: C-4 Unrestrained Fatalities
Baseline

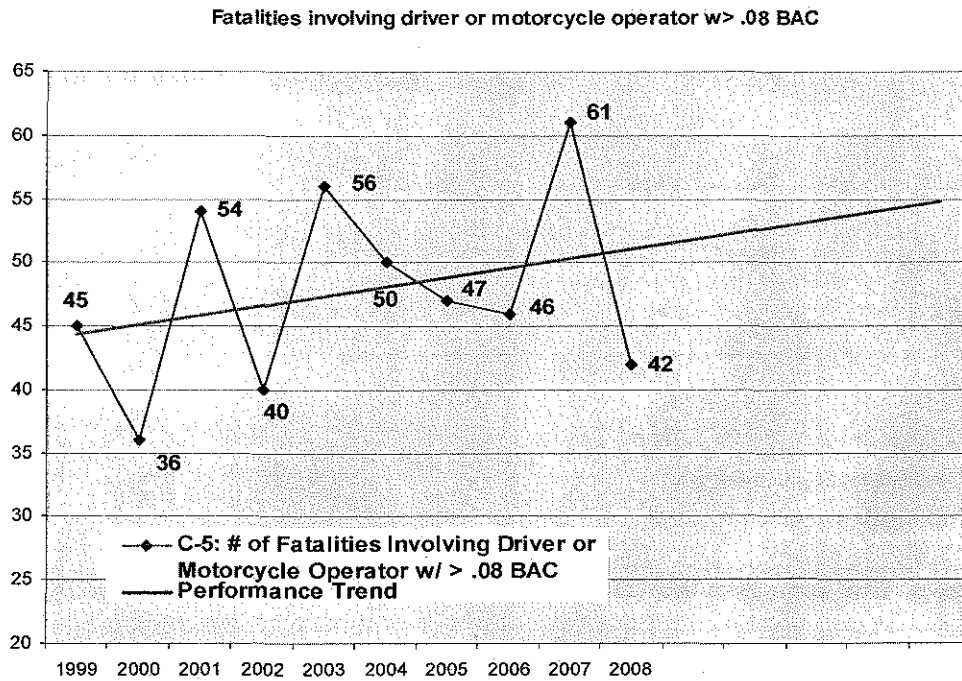
Reduce 5 year average by 5% by December 2013
5 year average of 70 to 66.5

Unrestrained Passenger Vehicle Occupant Fatalities



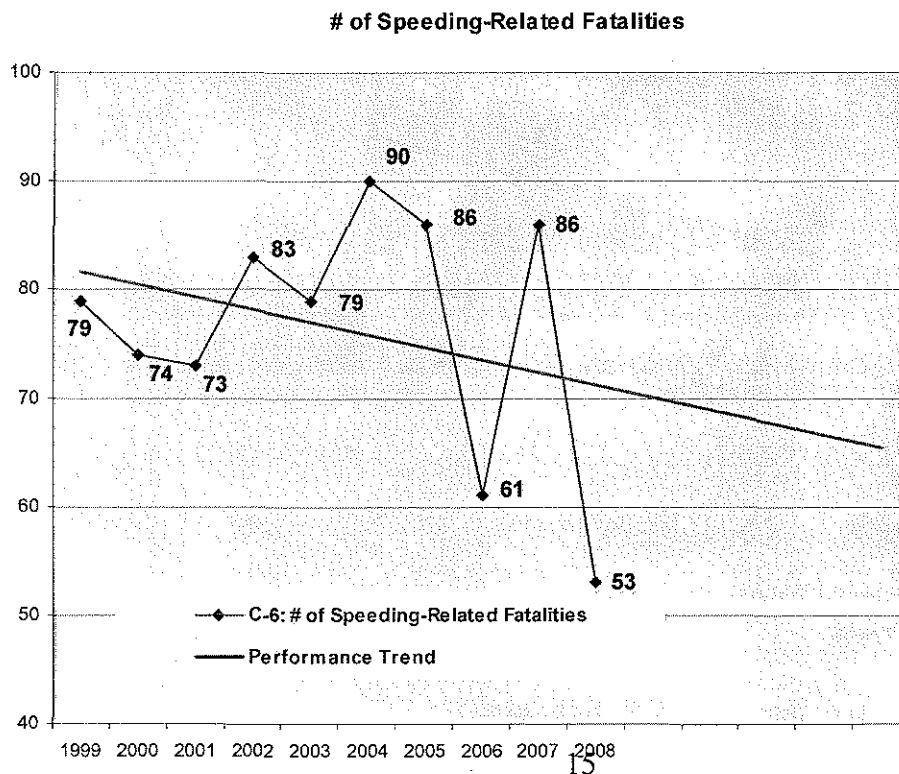
Goal: C-5 Fatalities at .08 or Above
Baseline

Reduce 5 year average by 5% by December 2013
5 year average of 49.2 to 46.7



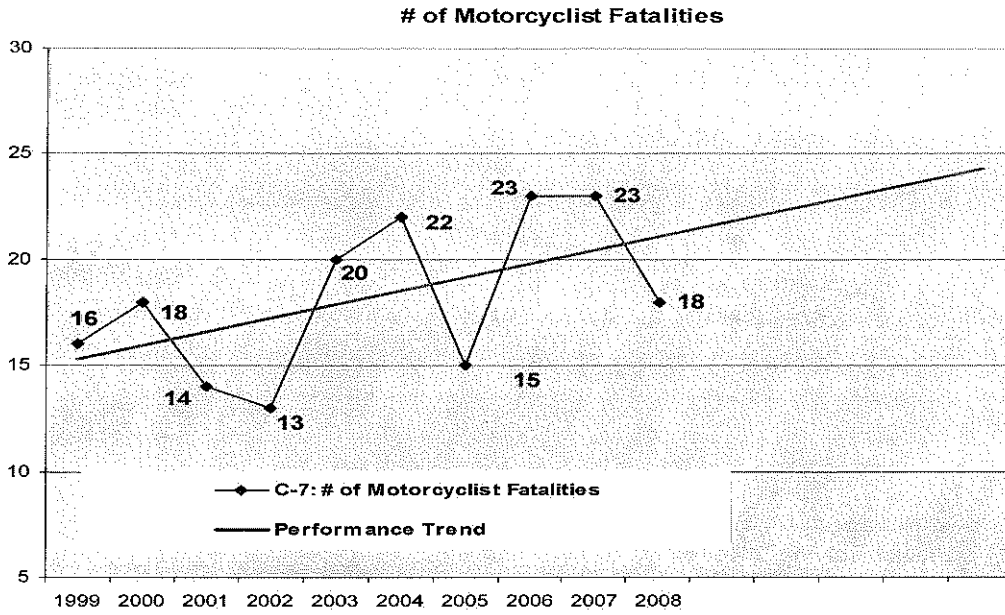
Goal: C-6 Speeding Related Fatalities
Baseline

Reduce 5 year average by 5% by December 2013
5 year average of 75.2 to 71.4



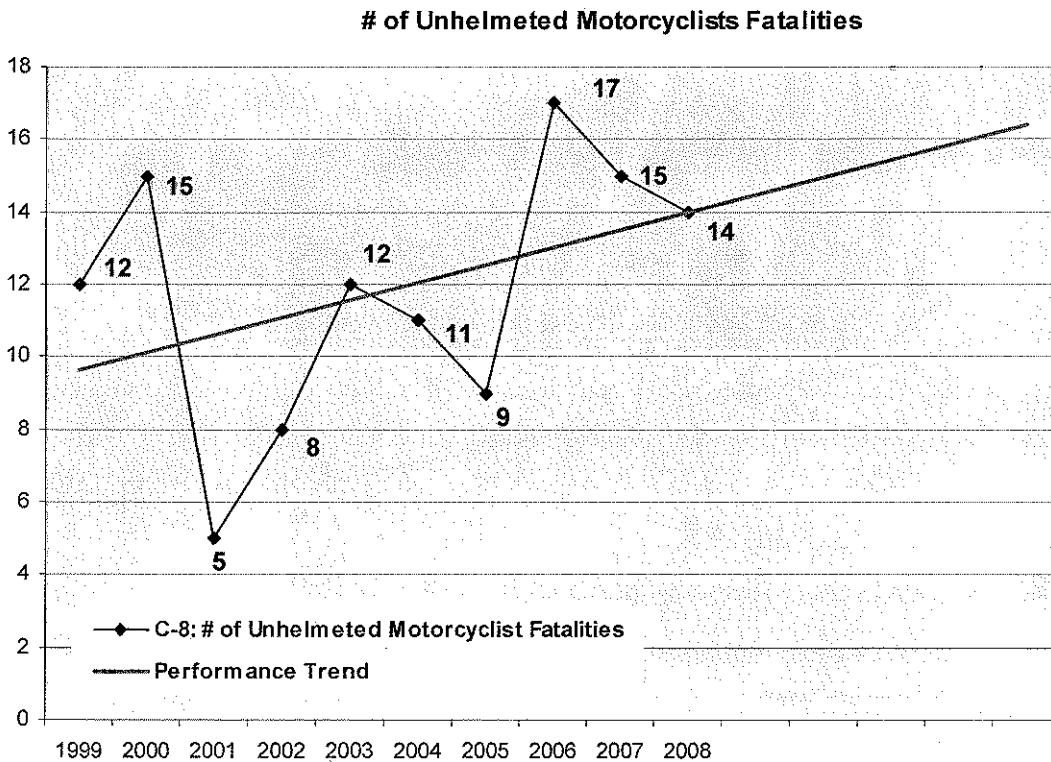
Goal: C-7 Motorcycle Fatalities
 Baseline

Reduce 5 year average by 5% by December 2013
 5 year average of 20.2 to 19.2



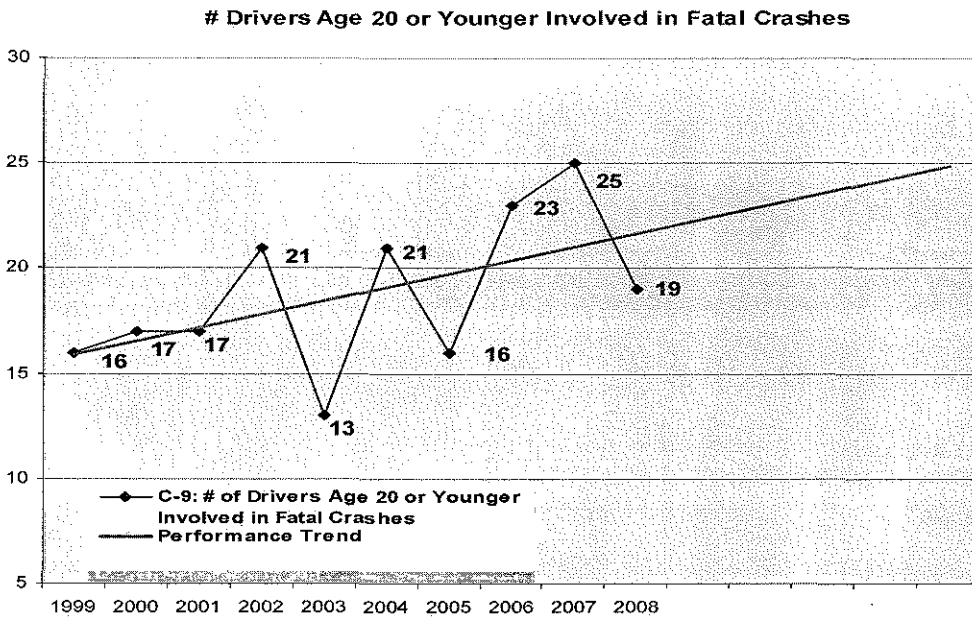
Goal: C-8 Unhelmeted Motorcyclists
 Baseline

Reduce 5 year average by 5% by December 2013
 5 year average of 13.2 to 12.5



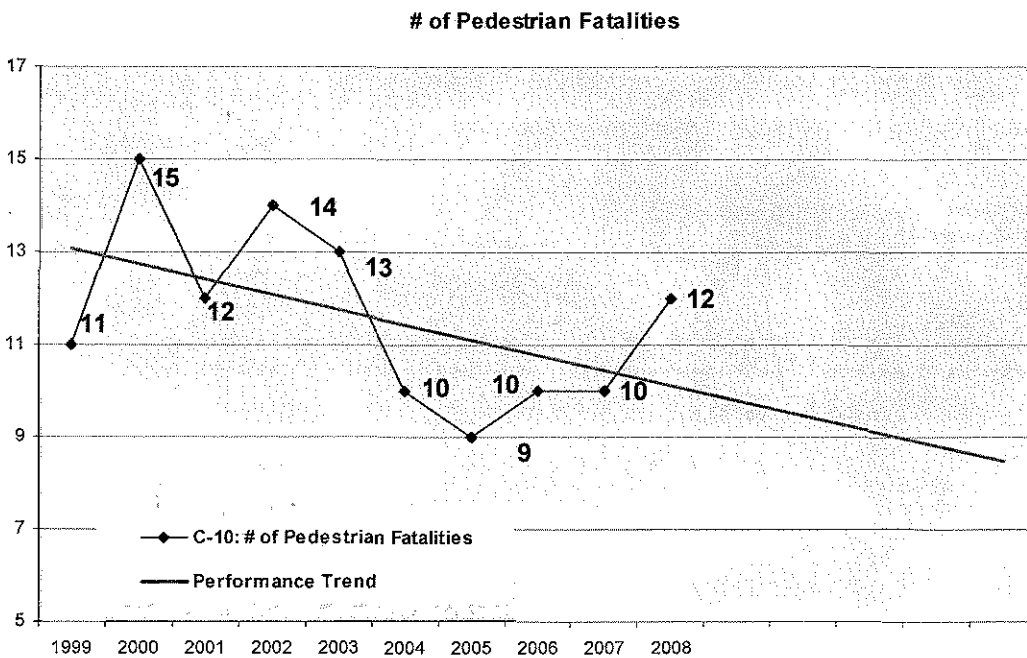
Goal: C-9 Drivers 20 & Under
Baseline

Reduce 5 year average by 5% by December 2013
5 year average of 20.8 to 19.7



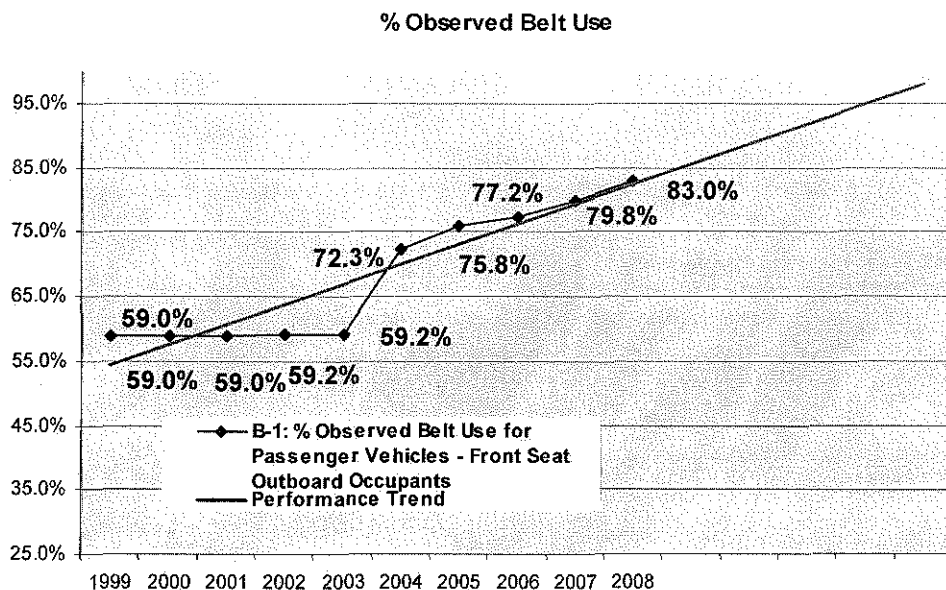
Goal: C-10: Pedestrian Fatalities
Baseline

Reduce 5 year average by 10% by December 2013
5 year average of 10.2 to 9.2



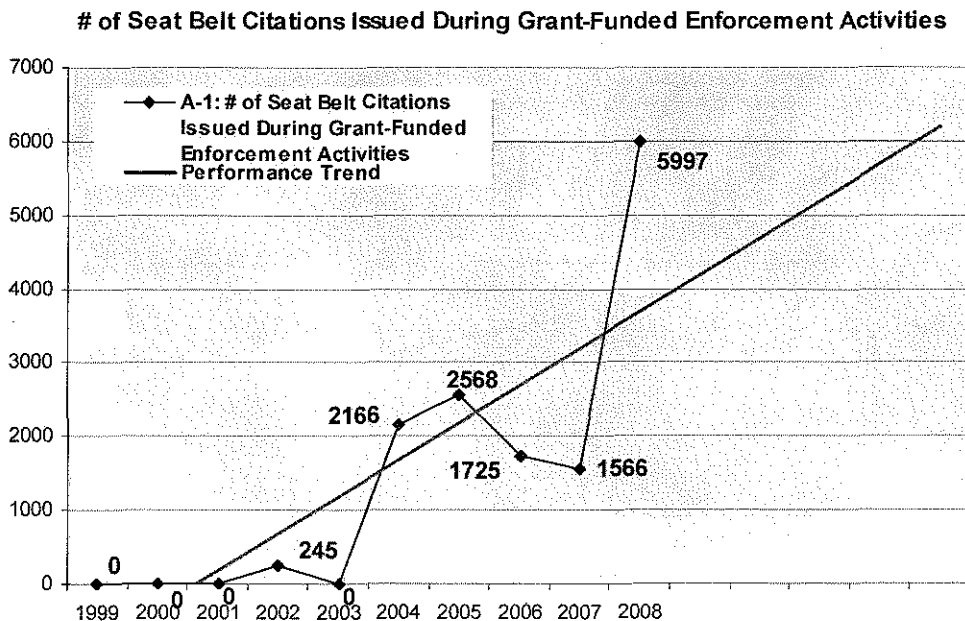
Goal: B-1: Observed Belt Use
Baseline

Increase Seat Belt Usage by 2% to 85% by December 2013
Based on 2008 Survey data



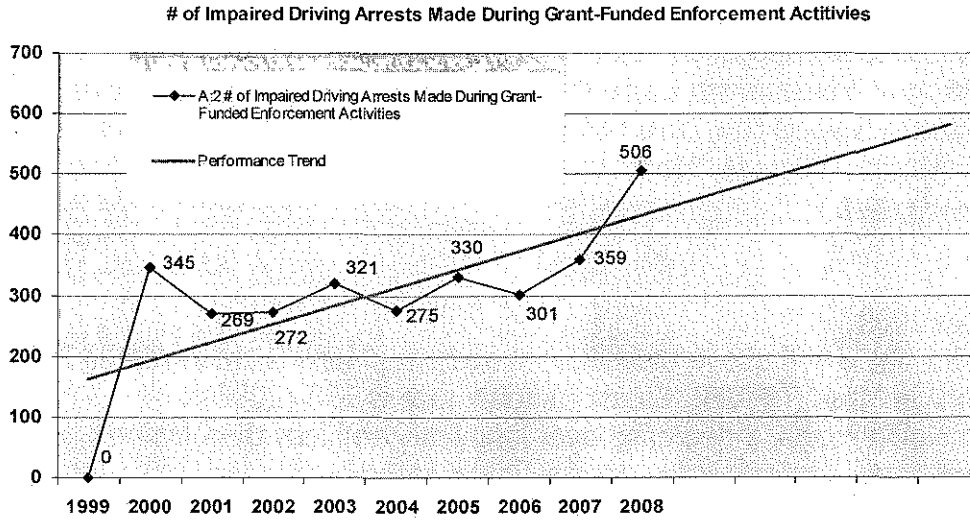
Goal: A-1: # Seat Belt Citation
Baseline

Monitor
5 year average of 2804



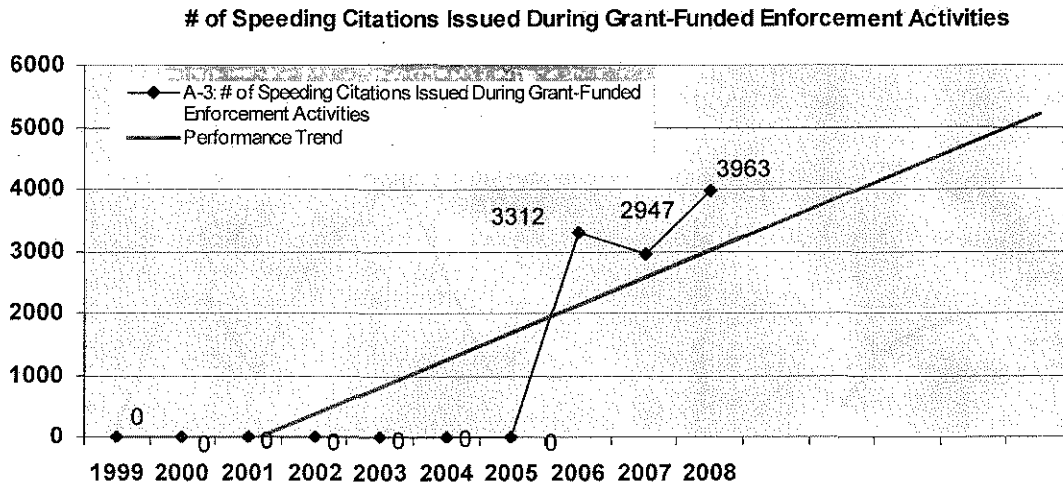
Goal: A-2: Impaired Driving Arrests
Baseline

Monitor
5 year average of 354



Goal: A-3: Speeding Citations
Baseline

Monitor
3 year average of 3407

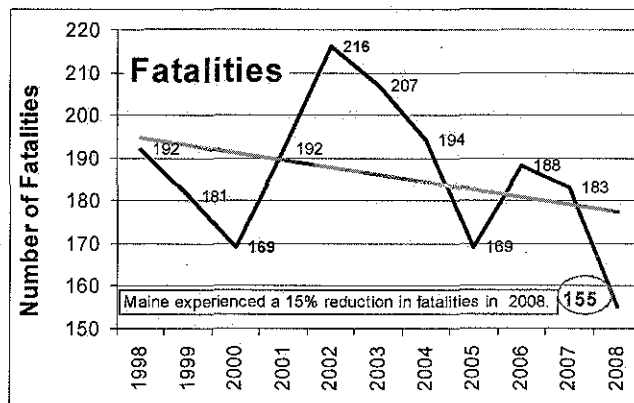
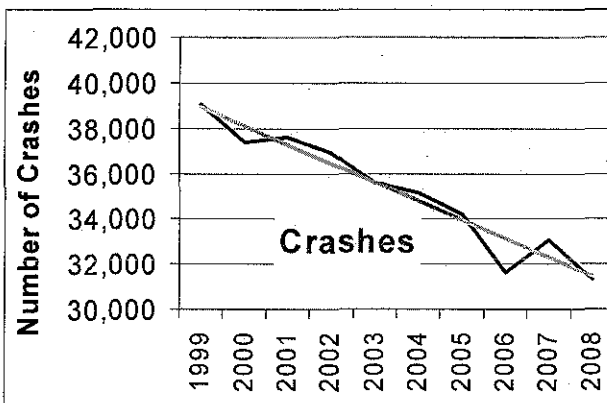
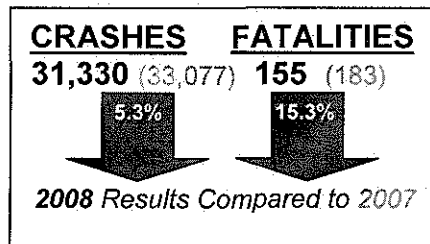


The Status of Transportation Safety in Maine

The Maine Transportation Safety Coalition reports annually on the state's crash activity in four priority crash topics: **Seat Belts/ Passenger Restraints; Lane Departure Crashes; Younger and Older Drivers; and Illegal/Unsafe Speed** (the core component of Aggressive Driving) plus the other noteworthy crash areas of **Alcohol/Drugs, Motorcycles** and **Distracted Driving** (new for 2008). 2007 results are shown in (gray).

2008 Maine Crash Results

- There were 31,330 crashes in 2008.
- Crash Rate decreased in 2008, but is still above the national average. Maine's crash rate is 215.6 Crashes/ Hundred Million Vehicle Miles (HMVM). Latest national rate is 198 (2006)¹.
- There were 155 fatalities on Maine roads, a decrease over last year, and less than Maine's average for the last ten years.
- Maine's Fatality Rate continues below the national rate of 1.27 (2008 NHTSA data).



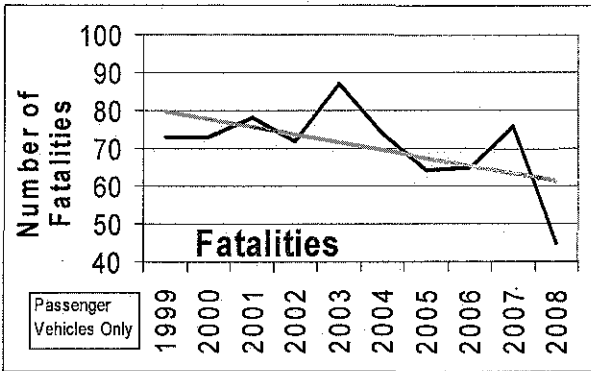
¹ National crash and fatality rates are from USDOT Bureau of Transportation Statistics

Data Notes: **1.** Total **Fatality** counts are from Maine Fatal Accident Report System (FARS).

Crash data is from MaineDOT systems that track crashes on public roads.

2. Crashes can be caused by a combination of factors, so one crash may have relationships to several of the categories listed in this report.

SAFETY BELT usage improves, but unbelted fatalities continue to be a concern. There



UNBELTED FATALITIES
45 (76)
 ↓
40.8%
 ↓
 2008 Results Compared to 2007

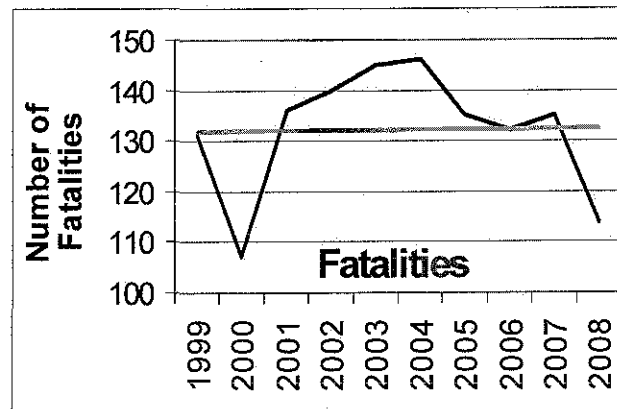
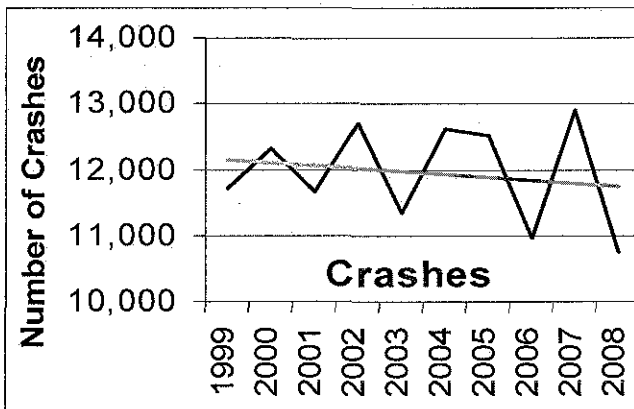
were 45 unbelted fatalities in passenger vehicles. This is 41% of the 108 passenger motor vehicle crash fatalities (does not include large trucks, pedestrians, bicycles, motorcycles, ATV's, etc.) Maine's seat belt usage rate in 2008 rose again to 83% -that is the same as the national average usage rate. Non-use of seat

belts does impact the fatality results in some of the following sections. Maine did pass a primary seat belt law effective 4/1/2008.

LANE DEPARTURE crashes continue as Maine's most frequent fatal crash type.

- Lane Departure (LD) crashes are 34% of Maine's crash total.
- 114 fatalities resulted from Lane Departure crashes, and although a good reduction from 2007, this still represents 74% of Maine's total crash fatalities. (about 33% of LD fatalities were Head On, 67% were Run Off Road).
- 49 (43%) of these fatalities were speed related.
- Weather plays a role in Maine's Lane Departure crashes – 5,100 crashes resulting in 8 fatalities occurred on wintry road surfaces; 1,300 crashes resulting in 25 fatalities on wet roads.
- Most fatalities did not occur on major or interstate highways. 53% of Lane Departure fatalities occurred on these secondary road classes: major collectors (27%), minor collectors (11%) and local roads (15%).

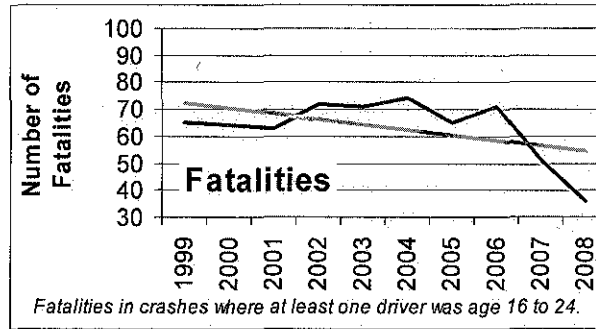
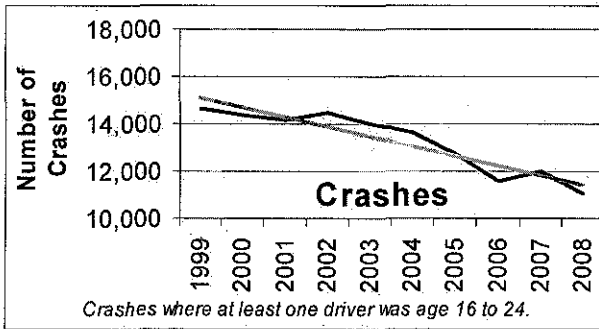
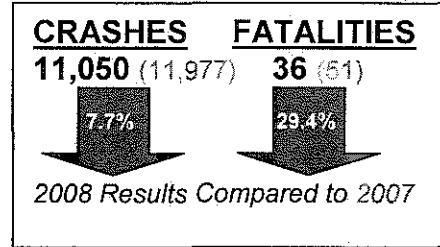
CRASHES	FATALITIES
10,745 (12,901)	114 (135)
↓ 16.7%	↓ 15.6%
2008 Results Compared to 2007	



YOUNGER DRIVERS. (defined here as between the ages of 16 and 24) Thirty-six young drivers aged 16 to 24 were involved in fatal crashes that resulted in 33 fatalities (23% of total Maine traffic deaths). Twenty-seven young drivers and occupants died. Twenty-four of these fatal crashes were Lane Departure. Leading fatal crash factors were exceeding the posted speed limit (16); failure to keep in the proper lane (13); careless or inattentive driving (9) and operator inexperience (4).

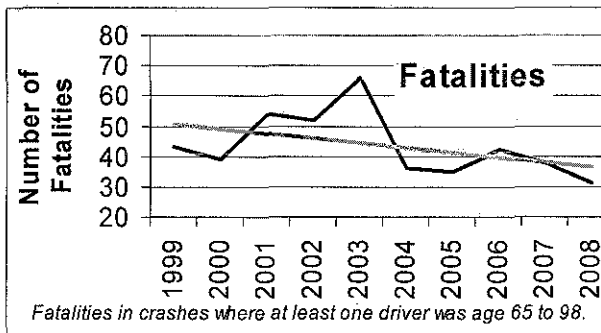
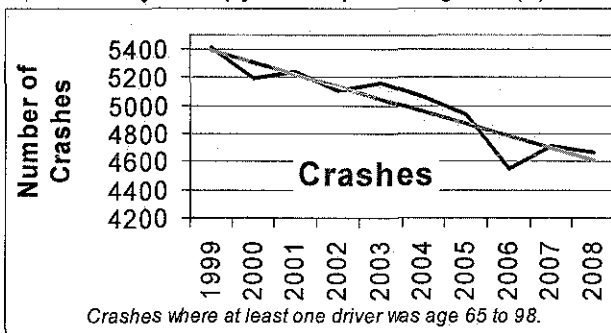
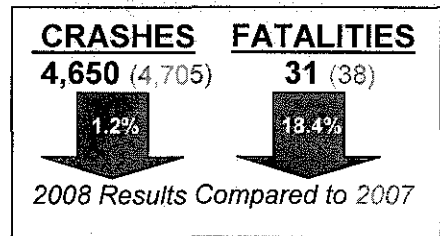
Crash facts about Maine's youngest drivers – aged 16 through 19:

- 14 young drivers were involved in fatal crashes
- 13 fatal crashes resulted in a total of 13 deaths
- 130 alcohol or drug-related crashes (8% of all alcohol/drug related crashes).
- In fatal crashes, there were 3 teen drivers with positive BAC
- Of the 13 fatalities involved drivers, 7 wore seat belts.



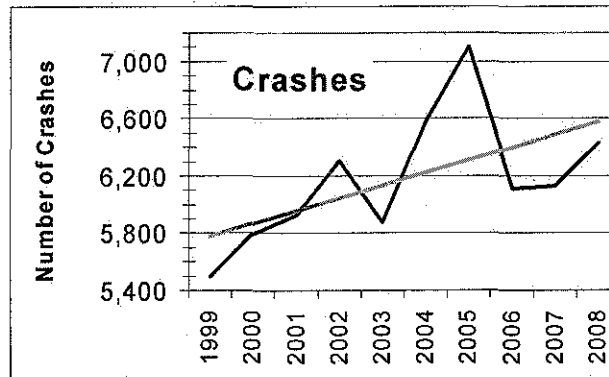
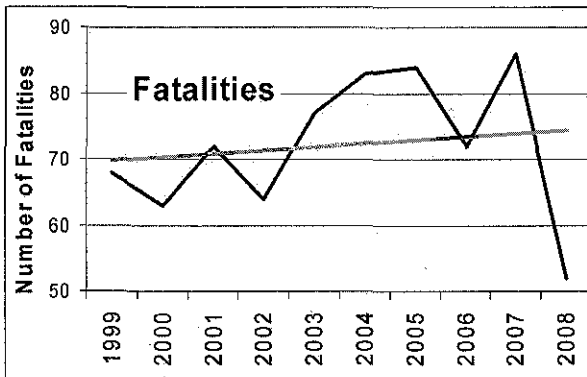
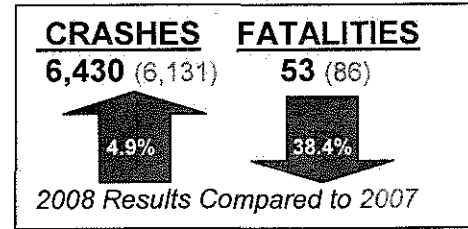
OLDER DRIVERS. (defined as age 65 and older) Thirty drivers over 65 years of age and older were involved in fatal crashes that resulted in 31 deaths. Thirty-three individuals in this age group died in crashes. Eighteen fatal crashes were Lane Departure. Leading crash characteristics are different than those for younger drivers. They include:

- Careless or Inattentive (11)
- Failure to Keep in Proper Lane (10)
- Failure to Yield the Right of Way (6)
- Failure to obey traffic signs, traffic control devices, or safety zone laws (4)
- Drowsy, sleepy, asleep or fatigued (3)

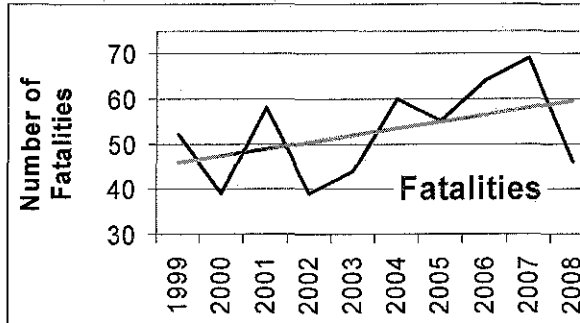
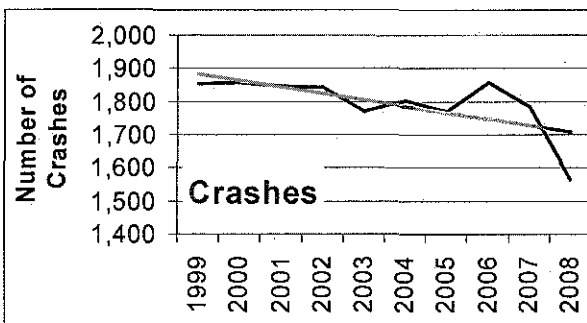
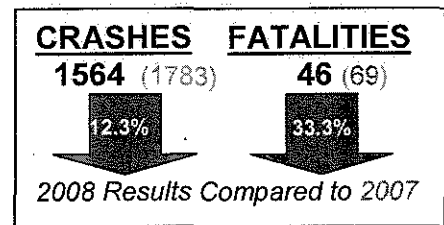


ILLEGAL/UNSAFE SPEED, a core element of Aggressive Driving showed a increase in crashes but decrease in fatalities in 2008. Speed-related crashes account for 20.5% of the total crashes and 34% of total fatalities.

- The biggest concern is excessive speed can lead to other driver errors and serious injuries.
- Adjusting speed for weather-related road conditions is a problem. Unsafe speed was noted in 4,312 crashes on snowy, slushy or icy road surfaces, and another 668 occurred on wet road surfaces.

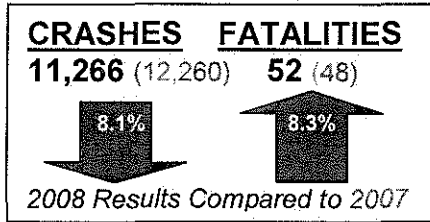


ALCOHOL-related crash fatalities decreased in 2008, as did the percentage of Maine's alcohol-related fatal crashes. However, the longer term fatality trend reflects an overall increase. Maine had 39 alcohol-related fatal crashes, and 35 of these fatal crashes had a BAC of .08 or higher (24% of all fatal crashes). This was below last years' fatality level (33% of total crashes) and below the FARS national rate of 32% (2008). In fatal crashes, 10 young drivers, age 16 to 24, had positive BAC levels, four 16-20 year olds had positive BAC results.



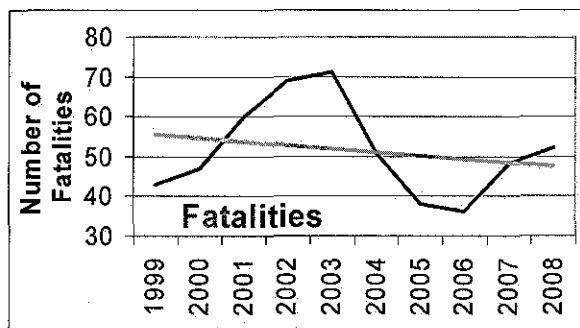
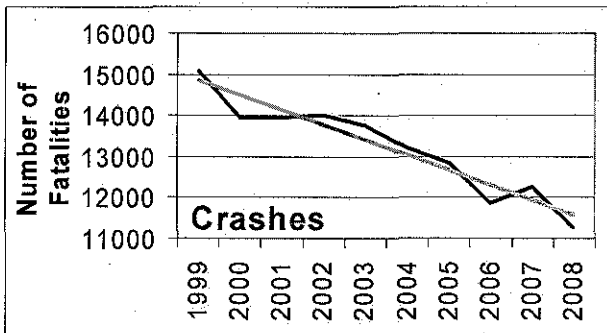
DISTRACTIONS/INATTENTION

Some crashes result when the driver takes their eyes off the road or their mind away from the driving decision needs. Various circumstances lead to distractions including talking to someone in the car, trying to reach for something on the floor or in the backseat, cell phone use/texting, or trying to open a CD case. It is difficult to accurately collect this information at the crash scene since drivers won't always volunteer what lead to the crash.



Maine has enacted a Distracted Drivers law that became effective on September 12, 2009 that includes this definition: "Operation of a motor vehicle while distracted" means the operation of a motor vehicle by a person who, while operating the vehicle, is engaged in an activity:

- (1) That is not necessary to the operation of the vehicle; and
- (2) That actually impairs, or would reasonably be expected to impair, the ability of the person to safely operate the vehicle.





Traffic Safety Facts for Maine : 2004-2008
Fatalities (All Crashes)

County Name	Fatalities					Fatalities Per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Androscoggin County	15	8	15	11	8	14.10	7.51	14.03	10.31	7.49
Aroostook County	15	6	11	17	7	20.70	8.30	15.27	23.63	9.77
Cumberland County	25	28	28	27	21	9.15	10.22	10.22	9.82	7.61
Franklin County	4	4	7	5	5	13.47	13.47	23.42	16.72	16.75
Hancock County	12	13	12	14	8	22.61	24.50	22.56	26.31	15.06
Kennebec County	7	18	19	14	18	5.85	14.98	15.77	11.60	14.88
Knox County	7	2	6	4	3	17.14	4.88	14.70	9.82	7.37
Lincoln County	7	3	5	8	13	20.10	8.60	14.37	23.01	37.54
Oxford County	16	9	14	5	7	28.60	16.02	24.81	8.83	12.34
Penobscot County	26	17	14	18	17	17.74	11.57	9.47	12.12	11.44
Piscataquis County	5	4	3	1	1	29.01	23.14	17.46	5.83	5.90
Sagadahoc County	5	9	4	5	1	13.66	24.77	10.98	13.76	2.75
Somerset County	8	14	16	14	7	15.74	27.48	31.12	27.14	13.62
Waldo County	7	5	7	6	7	18.42	13.11	18.20	15.60	18.26
Washington County	12	4	7	8	6	36.24	12.18	21.39	24.46	18.46
York County	23	25	20	26	26	11.53	12.45	9.97	12.93	12.89

Priority Programs

Occupant Protection Program

The overall goal of Maine's Occupant Protection Program is to increase safety belt use for all occupants, thereby decreasing deaths and injuries resulting from unrestrained motor vehicle crashes. In 2008, there were 108 fatalities involving passenger vehicles. Forty-five occupants were unrestrained, nearly 41%, a decrease from past years.

May High Visibility Enforcement and Education

In May 2009, BHS funded the annual "Buckle Up. No Excuses!" safety belt education and enforcement campaign that ran from May 18 to 31, 2009, in conjunction with the national "Click It or Ticket" campaign. There were 68 Maine law enforcement departments who participated in this campaign. (Note: Maine has 143 police departments of which 49 have 5 or fewer personnel.) The traffic statistics for this program include 7,708 traffic stops made with 8,354 tickets and warnings, 3,196 safety belt summons, and 1,956 safety belt warnings given. The overtime cost for this high visibility enforcement program was more than \$142,000 paid out of federal 402 funds. The Click It or Ticket initiative is designed to raise public awareness on the importance of using seatbelts. This is achieved through the use of coordinated high-visibility enforcement, public awareness, education and outreach.



November High Visibility Enforcement and Education

Forty law enforcement agencies and the Maine State Police participated in the BHS's first year Holiday Enforcement campaign, which ran October 15, 2008 through January 4, 2009. All departments were required to participate in the two week national seatbelt enforcement crackdown November 17-30. Over 740 seatbelt citations were given out during the November two week crackdown, and an additional 1,700 seatbelt citations were given out during the rest of the program. Over \$100,000 was paid out to law enforcement agencies for their enforcement efforts during the seatbelt enforcement period of the grant. This program was a great success, and BHS has made the program available for a second year in 2009.

Statewide Observational Surveys

A NHTSA approved occupant protection observational survey was conducted in June 2009, immediately after the "Buckle Up. No Excuses!" campaign. This survey showed an overall voluntary seat belt usage rate gradual decrease to 82.6%, down from 83% in 2008. Survey observations were recorded at the same 120 sites as in previous years. Two new components of the observational study were introduced this year. An additional selection of 36 primarily rural road segments was chosen for observations. Also, motorcycle helmet use was recorded.

This year, to determine if the general public was aware of the newly enacted primary belt law, BHS had conducted three waves of surveys of drivers at eight Maine Bureau of Motor Vehicles (BMV) offices. The surveys showed that the public was aware of the main feature of the primary belt law, i.e., that they can be stopped and ticketed simply for not wearing their seat belts.

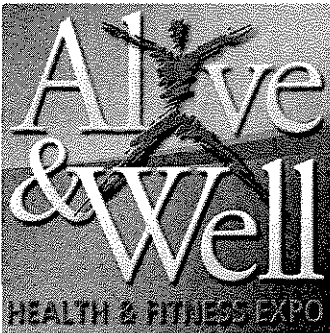
Copies of both the observational survey and the BMV survey results are included with this Annual Report.

Convincer & Rollover Education Program

In partnership with Mid-Coast EMS Council, BHS funds a very successful seat belt education program using both Convincer and Rollover simulators. In 2009, through various schools, safety fairs, college campuses, expos, work-related health and safety events, the WCSH6 Alive and Well Expo, and military events, more than 9,000 Maine citizens of all age groups were educated about the importance of using seat belts. A variety of activities were used to reach Mainers, including fatal vision goggle demonstrations, a seatbelt challenge, and hosting guest speakers at public events.

Targeting driver-training programs remained a priority of this program this past year. Over 800 driver-training students in 45 classes heard presentations on over a dozen different training programs. While the Convincer and Rollover simulators are geared toward teens and adults, several hundred children received safety belt demonstrations when they attended various expos this past year.

WCSH6 Alive and Well Expo



BHS participated in the News Channel WCSH6 Alive and Well Expo, held at the Cumberland County Civic Center in Portland Sept 26-27, 2009. BHS sponsored a booth at the Expo, and provided educational materials on safe teen drivers, child passenger safety, operating under the influence, Maine's defensive driving course, and other safe driving information. BHS's seatbelt Convincer simulator was there also, and provided demonstrations of what happens to an unrestrained occupant in a five mile per hour car crash.

Teen Driver Program

Teenagers contribute to and suffer from the consequences of motor vehicle crashes at a disproportionate rate. Drivers between the ages of 15-20 are 6.4 percent of all licensed drivers in the United States, but are involved in 12.9 percent of all fatal crashes. Studies have concluded that crash rates are highest during a teen's first few hundred miles on the road. In 2008, thirteen young drivers died in crashes on Maine roads, and in 2009, seventeen young drivers have died in crashes on Maine roads. This past year, BHS teamed with several agencies to identify new strategies to combat this growing problem.

Teen Driver Safety Committee

The Teen Driver Safety Committee was created to develop goals, strategies and activities to combat teen crashes and fatalities.

In late 2008, the committee reviewed an overall five year rolling crash trend on young driver performances to decide which driving issues to focus on and the ages to address. The findings of the crash data indicated the top three teen driving issues- speed, alcohol/drugs and lane departures/run off road crashes were the highest and the age group to focus on would be 16 to 18 year olds.

The committee has also researched "best practices" from other states to review and access information regarding what works and what doesn't. The committee surveyed other organizations/contacts to verify what, if any, teen community outreach/activities are being conducted so that the committee may work with them. Additionally, the committee reviewed the Maine Graduated Driver License program to see if any impact has been made and contacted local law enforcement and Student Resource Officers to determine what type of teen programs (both current and past) the departments have been involved in.

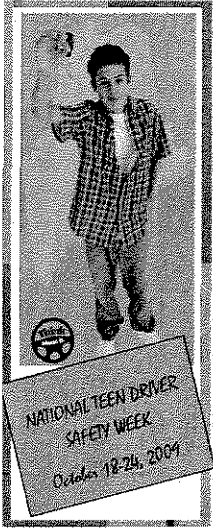
The committee consists of individuals representing the following departments: BHS, Maine State Police, Office of Substance Abuse, Bureau of Motor Vehicles, AAA Northern New England, Maine Injury Prevention Program, and the Maine Department of Transportation.

AAA Northern New England Teen Driver Coordinator

BHS contracted with AAA Northern New England to provide teen driver education and information initiatives for parents, teens and educators. The AAA teen driver coordinator responsibilities included:

- representing teen initiatives at several statewide meetings and conferences, including the Teen Driver Safety Committee monthly meetings, the Comprehensive School Health Program Key Advisory Group meetings, the Teen Driver Symposium, the Maine Driver Education Association Conference, and the Maine School Health Promotion Conference.

- providing updated information and education to Driver Educators, School Resource Officers, health educators and community program coordinators concerning the issues surrounding teen drivers.



- developing and maintaining the teen driver website, www.mainteendrivers.org, including providing updates and technical enhancements.
- coordinating and conducting the Teen Driver Training Initiative Program for law enforcement at the Maine Criminal Justice Academy in April 2009. Seventeen officers attended this program. Evaluations showed the program was very informative and provided them with resources they felt would be beneficial.
- conducting two Maine Driver Education Enhancement trainings approved by the Bureau of Motor Vehicle for CEU credits for driver education instructors. The sessions included evaluating the learning driver, special needs students, sexual harassment issues, advanced driving techniques, texting, carfit for teens and gas conservation.

Maine Teen Driver Symposium

The Maine Injury Prevention Program sponsored a Teen Driver Symposium on June 16, 2009. The Symposium's goals were to increase the understanding of the public health burden of motor vehicle injuries among teen drivers in Maine, identify strategies and initial steps to develop teen driver collaborations in Maine, and implement an effective Maine teen driver intervention program. Speakers at the Symposium were from many agencies, including BHS, Maine Center for Disease Control and Prevention, Maine Dept. of Transportation, NHTSA Region 1, and the University of Southern Maine.

Impaired Driving Program

Impaired driving continues to be one of Maine's greatest and most persistent threats to public safety. A strong commitment by BHS and Maine law enforcement to traffic enforcement is essential in order for any of our impaired driver programs to be successful. Maine's 2009 Impaired Driving Program focused on reducing alcohol-related fatalities by targeting high crash locations. Using police crash data, BHS was able to identify and partner with law enforcement to increase patrols in those areas.

The overall goal of Maine's Impaired Driving Program is to reduce the number of alcohol-related fatalities by 5% of the five year average of 75.2.

In 2008, 10 young drivers (age 16-24) had positive BAC levels; four 16-20 year olds had positive BAC results.

Summer High Visibility Impaired Driving Enforcement

The use of dedicated enforcement strategies combined with public awareness and education are key components to reducing the injuries and deaths attributed to impaired driving. In addition, local community programs must continue to put forth their independent efforts to reduce impaired driving crashes. Sending the message to the public that impaired driving will not be tolerated is essential.

In 2009, BHS funded 65 law enforcement agencies for the annual impaired driving high visibility enforcement campaign. As a result, Maine law enforcement stopped more than 7,800 drivers and made 384 OUI arrests. During the 2009 National Impaired Driving Crackdown (August 21 to September 7) Maine law enforcement made 145 OUI arrests and 2,302 traffic stops.

Alcohol-Related Fatalities*:

2003	75
2004	70
2005	60
2006	64
2007	69
2008	46

* FARS statistics

Top 10 Counties for Alcohol-Related Fatalities (2008):

Kennebec	11
York	11
Lincoln	6
Penobscot	4
Waldo	4
Cumberland	3
Washington	2
Aroostook	1
Franklin	1
Hancock	1

November High Visibility Enforcement and Education

As part of BHS's first year Holiday Enforcement Campaign in 2008, participating law enforcement agencies conducted OUI details during the grant period of October 15, 2008 through January 4, 2009. Over 160 OUI summons were given out, and 17 roadblocks were conducted during this period. The OUI portion of the Enforcement Campaign funded over 3,000 hours of dedicated OUI officer details, and cost over \$107,000.

Drug Recognition Expert Program

Maine currently has 89 active Drug Recognition Experts (DRE), up from 78 last year. The Maine Criminal Justice Academy (MCJA) held a DRE school in February with 17 candidates attending the training. Sixteen of the candidates successfully completed the certification phase of the training.

The Department of Human Services Health and Environmental Testing Lab (HETL) has estimated that 350 urine samples have been received from DRE's for analysis as of the date of this report. The HETL rule changes for urine sampling protocol that have been worked on for several years were adopted this year. The rule corrects outdated evidence collection and submittal procedures of urine samples to the lab. The MCJA is currently working with BHS and HETL to create a database to capture the location of DRE incidents and other crucial data essential to reporting program statistics.

The MCJA distributed new DRE contact posters to be located at Intoxilyzer sites statewide. The 11"x18" poster outlines common signs of drug impairment, provides protocol for calling out a DRE and provides space to record local DRE contact information. A list of active DRE's was also included with the poster.

Standardized Field Sobriety Test (SFST) and Drug Identification

The MCJA conducted or processed five full SFST student classes with 88 students attending, including the fourth year of instruction of SFST skills to the National Park Service at Acadia National Park. Five off site SFST four hour Refresher classes were processed statewide with 36 students attending; several more classes are planned prior to the end of 2009.

Need a Drug Recognition Expert?

Officers frequently encounter impaired drivers, and arrest them for Operating Under the Influence. If an Intoxilyzer test indicates that the suspect is not impaired by alcohol, call a Drug Recognition Expert (DRE).

Caution should be used as there are times that medical conditions mimic signs of drug impairment.

Questions that may indicate a suspect is impaired by drugs:

- Is the suspect's BAC consistent with their level of impairment?
- Is Horizontal Gaze Nystagmus present? (May not be for certain drugs)
- Do the suspect's eyes have a red, watery, and/or glassy appearance?
- Does the suspect have droopy eyelids or appear very excited?
- Is there a problem with the suspect's speech (slurred, slow, raspy, very talkative)?
- Is suspect dozing off or cannot sit still?
- Are there signs of drug ingestion (powder in nostril, track marks, paraphernalia in vehicle, etc)?

While these aren't all the signs of drug use, if you answered "yes" to any of the above questions, your suspect may be impaired by drugs. One way to tell for sure, is to have a DRE examine the suspect. When in doubt, call!

Before contacting the DRE:

1. The investigating officer must have probable cause to make an OUI arrest and the suspect should still be showing impairment on the Standardized Field Sobriety tests.
2. A BAC needs to be obtained prior to the DRE being called in.
3. If the BAC is between .00 and .08, is the impairment consistent with the BAC? If not contact a DRE.

There are always exceptions (accidents, etc.) If in doubt, please call a DRE and they will gladly assist with any questions you may have.

Local Drug Recognition Experts

Name	Agency	Phone
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SFST Assessment

The MCJA and BHS underwent a SFST Assessment in June of 2009. An assessment team of three nationally recognized experts came to Maine to review all areas of Maine's SFST program. The assessment team met with many people involved in Maine's SFST program over the three day long assessment. Several recommendations were made for improving Maine's program.



U.S. Department of Transportation



National Highway Traffic Safety Administration

Traffic Safety Facts for Maine : 2004-2008 Fatalities in Crashes Involving an Alcohol-Impaired Driver (BAC = .08+)

County Name	Fatalities					Fatalities Per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Androscoggin County	2	3	7	6	0	1.88	2.81	6.55	5.62	0.00
Aroostook County	4	1	0	6	1	5.52	1.38	0.00	8.34	1.40
Cumberland County	6	10	7	11	3	2.20	3.65	2.55	4.00	1.09
Franklin County	1	1	4	5	1	3.37	3.37	13.38	16.72	3.35
Hancock County	2	5	3	2	1	3.77	9.42	5.64	3.76	1.88
Kennebec County	3	7	7	3	9	2.51	5.83	5.81	2.49	7.44
Knox County	4	1	1	1	1	9.80	2.44	2.45	2.46	2.46
Lincoln County	1	1	2	4	6	2.87	2.87	5.75	11.50	17.33
Oxford County	8	3	6	1	1	14.30	5.34	10.63	1.77	1.76
Penobscot County	7	1	4	5	2	4.78	0.68	2.71	3.37	1.35
Piscataquis County	3	0	0	0	0	17.40	0.00	0.00	0.00	0.00
Sagadahoc County	1	3	0	3	0	2.73	8.26	0.00	8.25	0.00
Somerset County	0	3	1	5	1	0.00	5.89	1.94	9.69	1.95
Waldo County	2	1	1	1	4	5.26	2.62	2.60	2.60	10.43
Washington County	4	3	3	2	2	12.08	9.13	9.17	6.12	6.15
York County	8	7	6	11	11	4.01	3.49	2.99	5.47	5.45

Child Passenger Safety Program

The Maine Child Passenger Safety (CPS) Coordinator provided leadership and coordination of CPS activities throughout the State. The coordinator provided leadership for all aspects of the state's CPS Program and activities sufficient in number and quality to serve Maine's children and families effectively and efficiently.



Activities of the CPS Coordinator for this grant period:

- Attended Maine School Management Association (MSMA) annual conference in October 2008 (765 attendees)
- Attended a CPS Awareness training for Public Health Home Visitation nurses. Provided CPS brochures, bookmarks and posters for distribution
- Met with social workers from Catholic Charities to discuss how to best serve new immigrants relocating to Southern Maine
- Met with Transporting Preschool Children program instructors to determine how to move the program forward
- Assisted Site Managers in selecting appropriate car seats for children with special needs
- Conducted two annual CPS meetings/workshops in May 2009; all attendees qualified for CEU credits
- Conducted two regional CPS Advisory Board meetings in 2008. The purpose of the meetings was to obtain input on the need for CPS activities and share CPS information
- Established three new CPS Inspection Sites in Gorham, Houlton and Mexico
- Collaborated with the Maine Injury Prevention Program Evaluation Team, Bureau of Highway Safety, University of Southern Maine and the Children's Safety Network to develop and distribute Maine's first web-based CPS survey to over 100 Maine CPS Technicians. The purpose of the survey was to gather baseline data on CPS Technician knowledge, retention and level of participation.
- In June 2009, Maine Injury Prevention Program (MIPP), in partnership with the Bureau of Highway Safety sponsored a symposium entitled "Child Passenger Safety in Maine – the Road to a Safe Ride".
- CPS Conferences Attended:
 - February 2009- attended a conference in Marion, Indiana. This conference addressed transporting children with disabilities and preschoolers.
 - March 2009- attended the Lifesavers Conference in Nashville, Tennessee. This conference addressed a wide range of CPS safety topics.

Child Passenger Safety Training and Outreach

The Falmouth Fire-EMS Station inspected 462 child safety seats at 20 events, distributed eight new child safety seats to families in need and worked with over 29 Child Passenger Safety (CPS) Technicians and Instructors.

Falmouth Fire-EMS conducted one CPS Technician Certification class that 12 students attended; conducted two CPS Technician Update classes that 54 students attended; and conducted one Transporting Children with Special Health Care Needs class that 11 students attended.

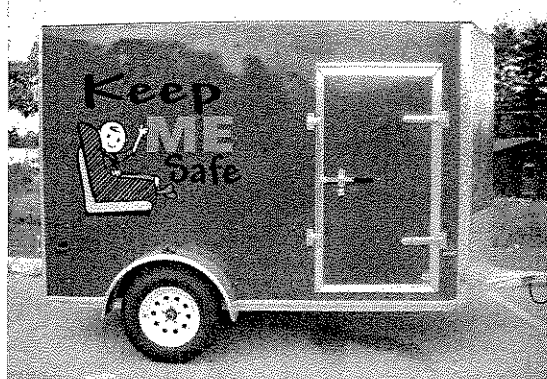
The Classroom Performance System (clickers) was utilized in the CPS Technician Update Class. A pre-test and a post-test was conducted to evaluate the students knowledge prior to the class and to measure their retention of knowledge after the class.

In addition to CPS technical trainings, Falmouth Fire-EMS also conducted an educational exhibit table at the Southern Maine EMS Children's Health and Safety Expo where approximately 800 children, parents and teachers had the opportunity to ask questions and receive information about child passenger safety.

The Technical Incentive Program (TIP) was launched during the 2009 grant period. TIP provides products such as polo shirts, fleece vests and rain jackets to active CPS Technicians and Instructors to encourage event attendance. Over 80 Technician Incentive Products were distributed to CPS Technicians and Instructors during this period. In addition, students who attend a CPS Certification class, a CPS renewal class or a CPS Update class receive a CPS Toolkit. This toolkit includes a messenger bag, a 25 oz. stainless steel water bottle, a clip-on hand sanitizer and a magnetic name badge for wallet certification ID card.

This grant allowed a CPS Technician and an Instructor to attend the Lifesavers Highway Safety Conference held on March 29 through April 1, 2009, in Nashville, Tennessee.

The Keep ME Safe Car Seat Check up event trailer was purchased, branded and stocked with the supplies needed to conduct a CPS event at any location.



Child Safety Seat Purchases

This year's child safety seat grant covered costs associated with providing child safety car seats to 39 Inspection Sites and 36 Distribution Sites located throughout Maine. The child safety car seat orders were placed monthly or quarterly by the Sites.

During this time period, 2,009 child safety car seats were provided to Maine's most vulnerable children and families. The cost of those seats was approximately \$123,000 in federal grant funds.

The type of child safety car seats provided consisted of: GR Toddler Nautilus, Sightseer, Express Car Seat, Cosco Scenera, Cosco Car Seats, Cosco Booster Seats, Angel Ride Infant Car Bed, On Board Infant Car Seat, Modified Vest, Discovery Car Seat, Sunshine Kids Radian 80, Triumph Premier, APEX 65 Booster and Pronto Booster.

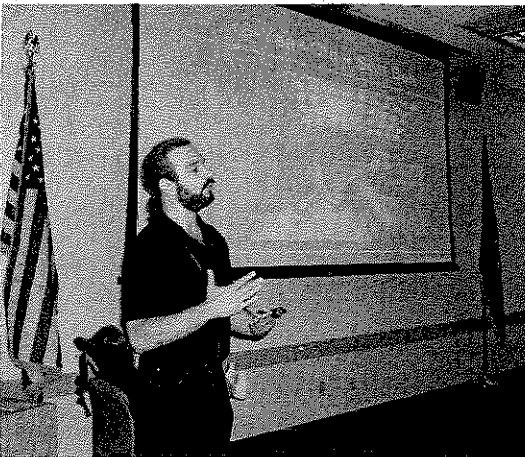
In addition, car seats designed for children with special health care needs were provided, including the Roosevelt car seat and the Evenflo Triumph Advance DLX seats.

CPS Events

Twelve free child safety car seat check up events were conducted at the Falmouth Fire/EMS Department in 2009. These events are held the first Thursday of every month from 2 to 6 PM. A total of 21 Senior Checkers and 71 CPS Technicians attended the events and 349 car seats and restraint types were inspected. Two car seats were provided to families in need.

During the NHTSA CPS Week held September 14-18, 2009, five CPS events were held across the state. A total of 8 Senior Checkers and 25 CPS Technicians attended the events and 68 car seats and restraint types were inspected.

"The Road to a Safe Ride" Training



Joseph Colella was the feature presenter at a recent conference in Augusta for Maine Child Passenger Safety Technicians. His presentation was on the technology of child passenger safety systems. The program was sponsored by Maine Injury Prevention Program (MIPP) and BHS. This conference was one of many learning opportunities for Maine Certified Child Passenger Technicians.

Traffic Records

The overall goal of Maine's Traffic Records Coordinating Committee (TRCC) is to continue to develop a comprehensive traffic records system that provides timely, complete, accurate and usable traffic records data so that we may analyze and address our highest priority traffic safety issues.

In 2008 and 2009, Maine's TRCC made significant progress in improving Maine's traffic records systems. These successes include:

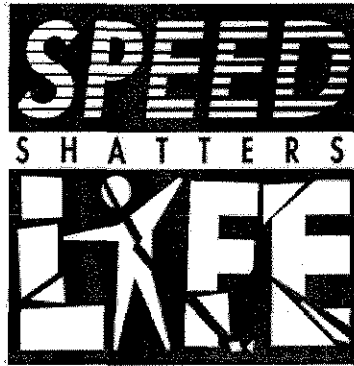
- Completed statewide deployment of Maine's Electronic EMS Run Report System (all services have been required to submit electronically as of 4/1/09). Ongoing training and data quality improvement efforts continue.
- Bureau of Motor Vehicles (BMV) continued migration of business functions to a new computer system,
- BMV completed the electronic transfer of registration data from municipalities project which resulted in improved efficiencies and reduction in submission times,
- BMV's Online Rapid Renewal Registration system was upgraded to register trailer fleets and additional municipalities began using the online system,
- Maine Crash Report Form was redesigned based on MMUCC Revision 3 which will result in a significant increase in MMUCC compliance for Maine's crash data, and
- Maine's Crash Reporting System technology upgrade began and the new data collection application is scheduled for completion in June 2010.

Speed and Aggressive Driving

2009 Dedicated Speed Enforcement

In 2008, speed-related fatalities were 53, down from 86 the previous year.

In an effort to drive those numbers down, BHS offered grants to law enforcement agencies that demonstrated a community speed problem. Details included each agency's high crash locations, locations of speed-related fatal crashes, high-ticket areas and areas of community complaints. BHS offered an over-time grant to 64 agencies across the state, including the Maine State Police, with the sole objective of reducing the number of speed related crashes, injuries and fatalities.



Agencies receiving the grant were required to conduct speed details in identified high crash locations. The Maine State Police conducted a yearlong program while the remainder of the agencies conducted a program from May to September. Speed enforcement included saturation patrols, speed radar traps and aircraft patrols.

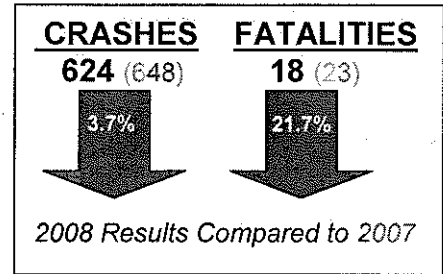
As a result of combined law enforcement efforts, 12,437 traffic stops were conducted, and 3,544 speed summons and 6,840 speed warnings were issued. In our 2009 Highway Safety Plan, we set an aggressive goal of reducing speed related fatalities by 5% from the 5 year average of 75.2 to 71.4.

Radar/Laser Equipment Purchase for Speed Enforcement

BHS assisted Maine's law enforcement agencies in acquiring radars and lasers in 2009. Over \$269,000 in Section 402 funds was spent to match the agencies' contributions toward the purchase of the speed monitoring equipment. The purpose of this equipment purchase program was to encourage focus on local speed problems and speed related crashes, and for agencies to use the equipment during speed enforcement grant programs. Over 200 units were purchased through this program.

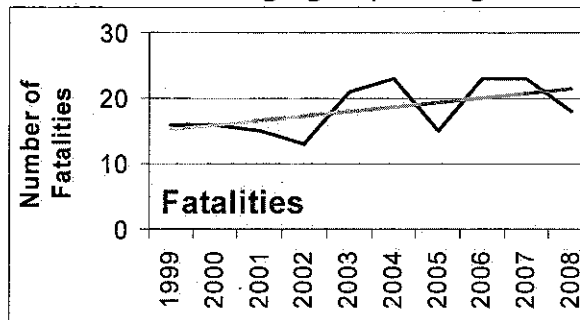
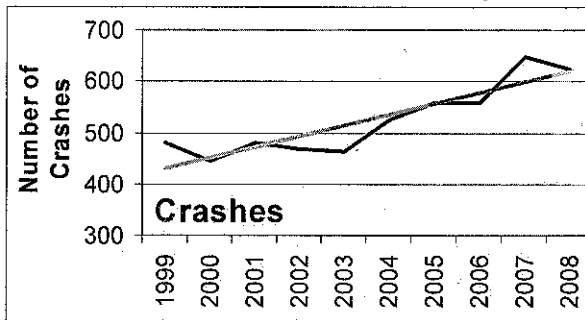
Motorcycle Safety

Motorcycle crashes resulted in eighteen fatalities in 2008. Motorcycle/scooter crashes will be a trend to watch with fuel costs causing travelers to consider cheaper transportation modes. In 2008, fatalities and crashes both decreased, however, longer term general crash and fatality trends are increasing. Motorcycle crash aspects include:



- There was a positive BAC for the motorcycle operator in 3 of the fatal crashes.
- Helmets were not worn by 78% of the riders killed.
- Leading age group of motorcycle operator fatalities is 26-54 (10 fatalities).
- Fifteen of the 18 fatal motorcycle crash fatalities were single vehicle occurrences.
- 14 of the fatalities were male, 4 were female.

There is an increase in motorcycle ownership in the 40 and above age group and there is an increase in motorcycle rider fatalities in that age group during the last 10 years.



As in past years, the Maine Bureau of Motor Vehicles (BMV), working under a grant from BHS, conducted a yearlong motorcycle safety awareness program in 2009. The priority areas for this year's program were program expansion, impaired riding, increasing motorcycle training materials, and motorcycle safety media.

Program expansion

Program expansion was a goal of the BMV's motorcycle program for 2009. However, due to a poor economic situation, both the Maine Safety Education Course (MSEC), an 8 hour motorcycle training course, and the Motorcycle Safety Foundation Basic Rider Course (BRC), a 15 hour course, showed a 38% marked decrease in attendance. The MSEC had 5332 participants in 2008 versus 2669 in 2009, and the BRC had 2552 participants in 2008 versus 2258 in 2009. The economy also influenced motorcycle sales which showed significant decreases.

Funding was provided to train a Ridercoach Course Trainer. The individual who completed that course will be utilized in the 2010 Ridercoach Preparation Course (RPC). The new trainer brings the trainer total to five available in the state. Four candidates successfully completed the spring RPC course. There are now 55 rider coaches in the state. A RiderCoach update course was held in Augusta in March 2009 with 40 Ridercoaches attending.

Impaired Riding

A portion of this year's grant funding was used to purchase a novelty gift item called a "side stand plastic puck". These pucks have the message "Don't drink and ride" clearly imprinted on them. These are to be distributed to individuals who have completed a rider course.

Motorcycle Training Materials

A new training motorcycle, a Suzuki TU 250, was purchased and put into service in May 2009. Four sets of two-way radios were also purchased. These radios were used as a pilot for motorcycle road tests to enable the pilot to communicate better with the applicant and the examiner. These radios were very successful.

Motorcycle Safety Media

PSAs with the "Think About It" theme were aired on Maine television in the northern and southern markets during Memorial Day, Fourth of July, and Labor Day weekends. The PSAs were targeted at non-motorcycling road users to reinforce the importance of looking out for motorcycles.

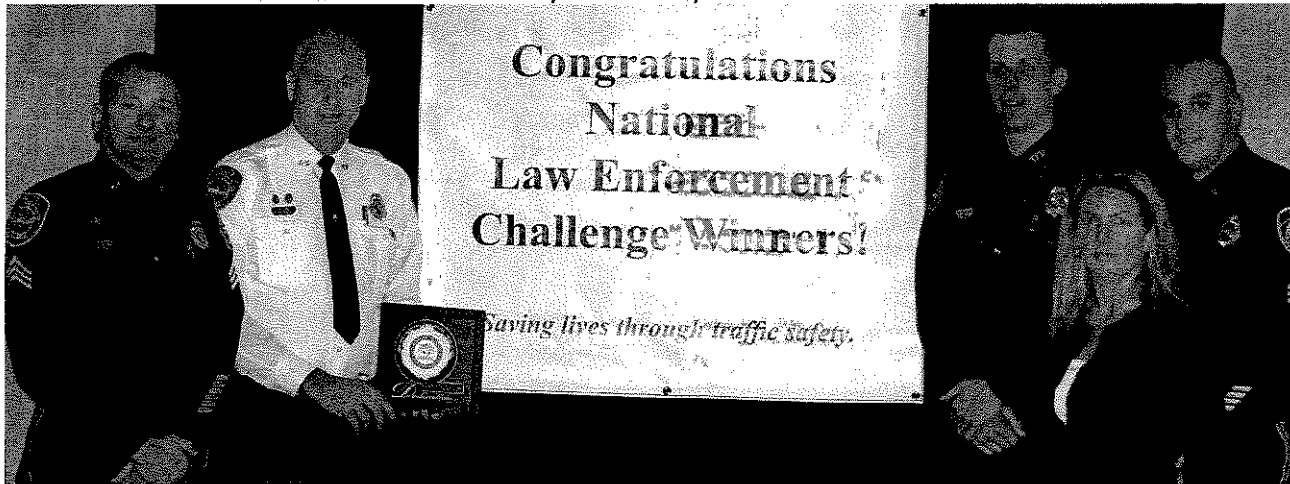
Noteworthy Programs

Law Enforcement Challenge

For the third year in a row, BHS sponsored the Maine Law Enforcement Challenge (MLEC) in 2009. The MLEC is an opportunity to showcase a law enforcement agency's community traffic safety programs. A winning MLEC program combines public information and enforcement to reduce crashes, death and injuries as well as economic loss.

Law enforcement agencies are broken into three categories for Maine judging purposes: large departments, small departments, (based on the number of each department's patrolmen), and the Maine State Police. The agencies finishing in the top of their categories are recognized for their efforts and are eligible for awards of police equipment. Once winners are selected, their Challenge submission is forwarded to the International Association of Chiefs of Police Law Enforcement Challenge, which is a nationwide competition.

There were over 500 agencies nationwide that submitted applications this year. In the national competition, York Police Department received first place in their division and the Maine State Police received third place in their division. As part of the award for winning first place, York PD went to the IACP national conference in Denver, Colorado, to receive their award.



This year twelve departments and the Maine State Police participated in the Challenge, which showcased each department's traffic safety programs during the 2008 year.

York PD, Presque Isle PD, Lisbon PD, Washington County SO, Farmington PD, and Knox County SO submitted applications for the small department category. York PD came in first place, winning a Jamar Radar Recorder System and a Stalker DSR 2X Radar unit. Presque Isle PD took second place, winning a Stalker DSR 2X Radar unit. Lisbon PD won third place, and was awarded a Kustom Pro III Laser.

Rockland PD, Sagadahoc County SO, South Portland PD, Cumberland County SO, Augusta PD, and Wells PD competed in the larger department category. Rockland PD came in first place and received a Jamar Radar Recorder System and a Stalker DSR 2X Radar unit. Sagadahoc County Sheriff's Office took second place, receiving a Stalker Lidar unit. South Portland PD took third place, receiving a Kustom Pro III Laser unit.

On September 9, an Awards Luncheon was held at the Ramada Inn in Lewiston. Over 40 people attended, representing all departments who participated in this year's Challenge. Ted Minall, the NHTSA Region 1 Law Enforcement Liaison, spoke at the Luncheon.

Partnerships and the Strategic Highway Safety Plan

BHS has partnered with the Maine Department of Transportation, Maine Turnpike Authority, Department of Health and Human Services, state law enforcement agencies and many others in working toward the identified initiatives within the statewide Strategic Highway Safety Plan (SHSP) to substantially reduce the number of injuries and deaths related to crashes on our highways. BHS will continue to explore new partnerships and continue to strengthen existing partnerships with more agencies (governmental and non-governmental, local, state, law enforcement and non-law enforcement) in our efforts to increase our chances of affecting behavioral changes and educating Maine citizens about all matters related to behavioral traffic safety. The SHSP Planning Committee is involved in updating the SHSP. Maine has been chosen as an implementation pilot state for strategic highway safety planning.

Save a Brain-Wear a Helmet

BHS partnered with The Brain Injury Association of Maine (BIAME) for a third year to provide a "Save a Brain" Helmet Program. This year the program presented 8,517 properly fitted bicycle helmets to Maine children through various events during the 2009 grant year.

Shannon Moss, WMTW News Channel 8, joined the BIAME and the Bureau of Highway Safety in their effort to protect Maine children from traumatic brain injuries.

Shannon remarked, "I have two little boys at home who love to ride their bikes, so as a parent safety is my number one priority."

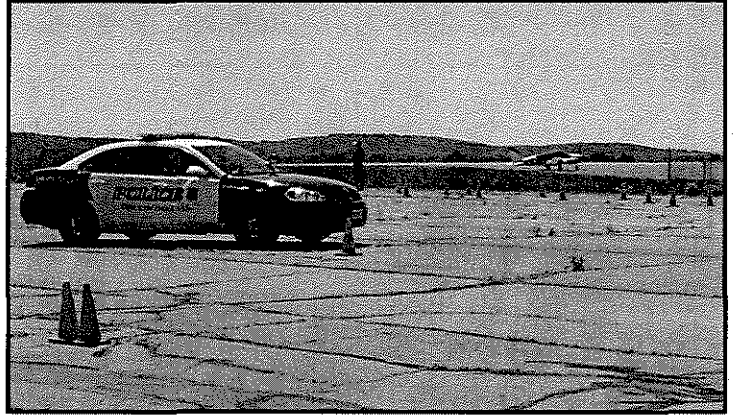


The BIAME and its campaign sponsors include Bureau of Highway Safety and WMTW Channel 8. Partner locations include the following police departments: Augusta, Biddeford, Lewiston, Portland, Sanford, Topsham, Waterville, plus the Biddeford YMCA. Volunteers from Spectrum Medical, Westside Neuro Rehab, the International Order of Rainbow for Girls and UNE and many others helped with the helmet fittings.

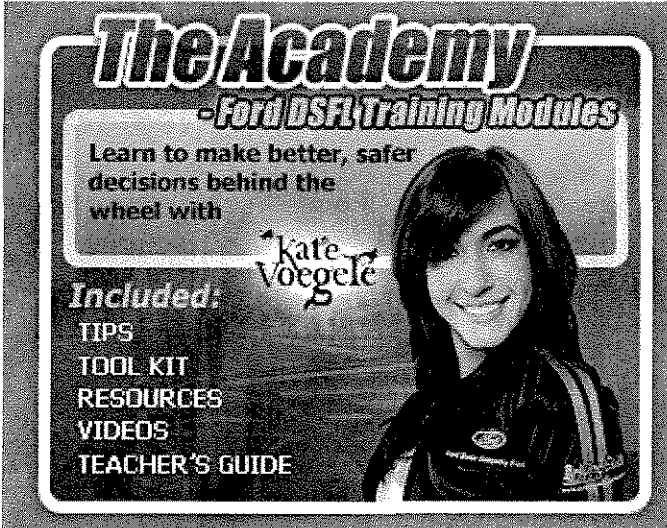
Precision Driving Skills for Law Enforcement

The Waterville Police Department conducted EVOC Training at the Waterville Airport. This twice a year program was established to train law enforcement officers how to handle emergency responses safely and with precision. The purpose is to teach precise driving skills under low speed, low stress conditions, while simulating an emergency response. The training includes both classroom and on course time.

This is a regional program pulling departments from all over central Maine.



Ford Driving Skills for Life



The Governors Highway Safety Association (GHSA) and Ford Motor Company recently made the Driving Skills for Life Academy program available to all state highway safety offices. The program was established in 2003 to teach newly licensed teens skills for safe driving beyond what they learn in driver education classes. The Bureau of Highway Safety made this program available to the public by placing a direct link on the Bureau website.

Crash Reconstruction

MeBHS recently sponsored an Advanced Pedestrian-Bicycle Collision Investigation course in Augusta for the Maine Crash Reconstruction Unit. The course, taught by Tony Becker and Mike Reade, provided the unit with the latest theories and methodologies of Pedestrian/Bicyclist Traffic Crash Investigation.

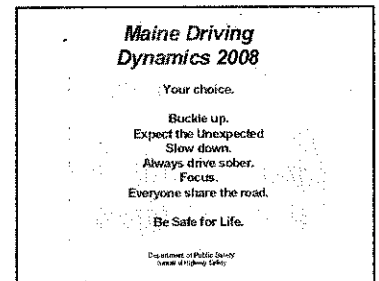
Topics covered in the class included:



- Instruction on the use of the PEDBIKE 2000 Plus software
- Pedestrian-Cyclist impact dynamics
- The effects of vehicle design on pedestrian-cyclist injuries and movement
- The origin of basic equations developed to analyze impact speed in pedestrian-cyclist involved collisions
- Recognize and understand the origin of equations used to analyze pedestrian-cyclist motion as a result of a collision
- The development of a systematic approach to pedestrian-cyclist collision investigation
- Real world case analysis
- Crash testing to assist in the overall pedestrian-cyclist analysis

Maine Driving Dynamics

Maine Driving Dynamics (MDD) is a Maine sponsored five-hour defensive driving course that offers all drivers the opportunity to improve their defensive driving abilities. The course includes discussion of collision avoidance techniques, safety issues, driver habits and attitudes, and the basic elements that constantly challenge drivers on Maine's highways. MDD is taught by a certified Maine Driving Dynamics instructor in a format that engages students with lectures, videos, and class discussion/participation. Those completing the course will receive a three-point credit on their driving record and students 55 and older can receive an insurance discount from their insurer.



BHS believes students are safer drivers after completing this course. They leave the class with a new and unique way of looking at the driving experience. The course is offered to the public several times each month at various locations around the state. MDD is sponsored by BHS in partnership with local and regional adult education organizations. The course is also offered on site to private companies.

Caribou Reflect While You Walk Program

Caribou Police Chief Michael Gahagan and Sgt. Paul Vincent report the town has many groups in the winter that exercise without wearing any highly reflective clothing. Coupled with Maine's long, dark and harsh winter, few street lights, and many areas that do not have sidewalks, people often use the roadways to exercise. The Caribou Police Department wanted to clearly communicate with public groups the need to be highly visible. With a grant from BHS, the Caribou Police Department in conjunction with local groups conducted training & awareness programs as well as providing 530 high visibility vests to residents. The goal is to keep pedestrians safe and visible.



Pictured is Officer Jason Matheson presenting a vest to Katie Pelletier at the local Cary Medical Center Health Fair.

Fatal Experience Demonstration Project

The Cumberland County Sheriff's Office conducted a program comprised of simulated drunk driving with the use of Fatal Vision Goggles, a supervised golf cart, and a small coned traffic course. The driver went through the course with no goggles on and tried to avoid hitting any traffic cones and obstacles such as baby carriages and beach balls. The driver then tried it with the fatal vision goggles. This was a very successful program; the deputies from Cumberland County Sheriff's Office travel around the state to bring this demonstration to safety events.

Operating After Suspension Program

The York Police Department created a comprehensive Operating After Suspension (OAS) enforcement program to apprehend drivers operating under suspension. They used a two phase approach for this program. Phase one included an informational blitz and an equipment purchase. The media was contacted and given information about the enforcement efforts and penalties for OAS. Presentations were made in schools and civic and business groups. The York PD used their Smart Trailer message board to alert the public to their OAS enforcement message. They also purchased a small Panasonic Tough Book to quickly check drivers' licenses during the various enforcement campaigns. The Tough Book increased their productivity during the enforcement.



The second Phase consisted of four enforcement techniques: specified patrol which identified offenders' addresses and work places; court patrol which involved apprehending offenders to and from their way to court; a two person OAS patrol where license checks were run based on

license plates; and an OAS roadblock detail.

The York PD was able to successfully arrest 22 drivers who were under suspension. A total of 946 drivers were stopped during this highly successful program.

Laptop Purchase for Law Enforcement

As a thank you to Maine law enforcement for their continuing years of dedicated participation in the high visibility enforcement campaigns, the BHS used Section 406 funds to purchase in-cruiser laptops for the departments. The laptops will be used to further the integration of Maine traffic records systems, and to ensure timely and accurate data collection. Over \$1,000,000 was used to purchase over 200 laptops.

Challenges

Young Drivers

Explore methods to reach teens and their parents to reduce the over-representation of teen drivers in fatal and serious injury crashes.

Mobilizations

Increase the number of law enforcement departments participating in the state and national mobilizations and to find more effective methods to make these mobilizations more performance based.

Safe Communities

Develop increased participation at the local grass roots level regarding prevention activities to reduce highway crashes.

Traffic Records

Improve data integration and coordination with highway safety stakeholders.

Impaired Driving

Maintain an emphasis on impaired driving notwithstanding the major reductions of the last year.

Media Summary

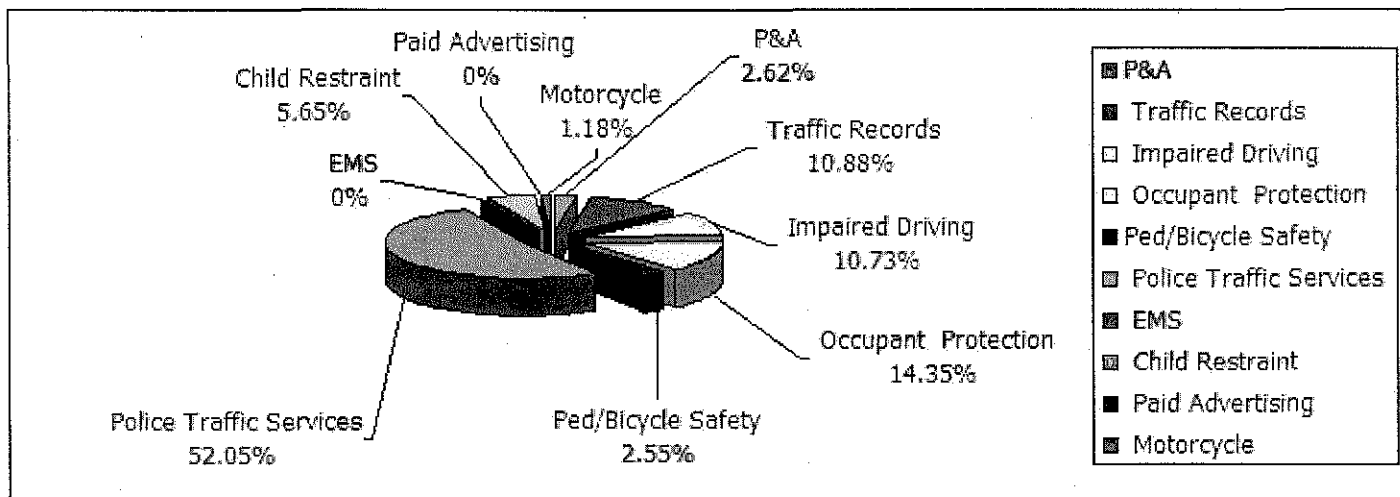
Earned media was the key to BHS's media campaign in 2009. Several television interviews were held with local law enforcement agencies during the "Click It or Ticket" campaign, and over 20 print stories ran in Maine's newspapers. Earned media also played a big role in BHS's OUI and speed enforcement campaigns, with several local police authorities relating to their communities the upcoming enforcement programs, and the importance of driving soberly and responsibly. An emphasis on earned media use was in place during the first year of BHS's Holiday Enforcement Campaign, which focused on OUI and seatbelt enforcement.

The BHS hired a full-service media relations firm in October 2009 to assist with a statewide highway safety media campaign. The campaign, "Survive Your Drive", covers all aspects of highway safety, including impaired driving, speed, seatbelt use, and teen drivers. The campaign kicked off in November in conjunction with the second year Holiday Enforcement Campaign. This multi-faceted media campaign will provide coverage to all regions of Maine with television, radio, and online advertising.

Fiscal Year Summary

FFY09 Financial Summary of Expenditures

	402	405	163	406	408	410	2010	2011	Total	% of Total
P&A	\$95,989								\$95,989	2.62%
Traffic Records	\$59,397				\$339,612				\$399,009	10.88%
Impaired Driving	\$32,660					\$361,104			\$393,764	10.73%
Occupant Protection	\$357,652	\$168,812							\$526,464	14.35%
Ped/Bicycle Safety	\$93,418								\$93,418	2.55%
Police Traffic Services	\$769,390			\$1,140,260					\$1,909,650	52.05%
EMS	\$0								\$0	0%
Child Restraint	\$106,306							\$100,961	\$207,267	5.65%
Paid Advertising	\$0								\$0	0%
Motorcycle	\$0						\$43,346		\$43,346	1.18%
TOTAL	\$1,514,812	\$168,812	\$0	\$1,140,260	\$339,612	\$361,104	\$43,346	\$100,961	\$3,668,907	100%



Safety Belt Use in Maine 2009

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University of Southern Maine

October 30, 2009

Submitted to:



Bureau of Highway Safety
State of Maine
164 State House Station
Augusta, Maine 04333-0164

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ACKNOWLEDGMENTS

We would like to thank several people who were helpful in conducting this study. Lauren Stewart, Director, Bureau of Highway Safety worked with us on behalf of the Maine Bureau of Highway Safety. Gerry Audibert and Ed Beckwith at the Maine Department of Transportation provided all of the traffic data and location information for each of the observation sites. We especially want to express our appreciation for all of the efforts of Bill Leaf and Tara Casanova at the Preusser Research Group in Trumbull, Connecticut. Their attention to detail regarding the data analysis and training of observers has been crucial to the success of the project.

Finally, we thank the tremendous contributions of the Survey Research Center observers: Margaret Gormley, Tom Buchanan, Jen Dodge, Diane Garriepy, Sharleen Garvey, Rob Kardell, and Anita Linnell.

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EXECUTIVE SUMMARY

Since 1986, the Maine Bureau of Highway Safety has periodically had an observation study of safety belt use in Maine conducted to determine the level of compliance in the state. For the year 2009, the Survey Research Center (SRC) at the Muskie School of Public Service, University of Southern Maine, with assistance from the Preusser Research Group of Trumbull, Connecticut, conducted the study and produced this report of the findings. Research results from this study provide the official measure of belt use in Maine and provide valuable information regarding the success of the state's efforts to educate the public about the importance of safety belt use. Furthermore, increased seatbelt use can lead to additional funding from the National Highway Traffic Safety Administration (NHTSA).

In 2009, in order to obtain an accurate measure of change in use rates over time, observations were recorded at the same 120 sites as in previous years. In the vast majority of cases, observations were conducted on the same day of the week and at the same time of day as in recent years; frequently, the same observer went to the same site. A probability based sampling method was utilized to select the 120 segments to be observed. Among the locations chosen were sites on I-95, I-295, and the Maine Turnpike. As a result, all types of roads and traffic were observed. As in all prior studies, visual observations were made to determine the extent of use.

In addition, two new components of the observational study were introduced this year. An additional selection of 36 primarily rural road segments was chosen for observations. See "New Rural Sites" on page for details of these findings. Also, motorcycle helmet use was recorded in 2009. Results of those observations are reported in the "Motorcycle Helmet Use" section on page 20.

Beginning in April 2008, drivers of vehicles could be stopped and ticketed for not being properly belted (in previous years, the law required police to observe another infraction in order to stop a vehicle and issue a ticket for not using a seatbelt). This study is now the second to measure the impact of the new primary enforcement law and will provide comparisons between the baseline measures recorded last year and the current year.

In the past five years and again this year, the observations were done immediately after a major campaign to raise awareness of Maine's seatbelt laws. Radio ads about seatbelt use received heavy air play in many parts of the state. In addition, many police departments conducted a coordinated and highly visible enforcement campaign. While we have speculated in the past that these steps might temporarily lead to an increased use rate, at least during the time of the campaign and shortly after, a sub-sample test done in previous years has found that effect to be relatively minor. However, in order to ascertain more accurately the extent of the possible "drop off" in use rates, the full observation study will be conducted

Safety Belt Use in Maine, 2009

again during September and October 2009, thus providing a more precise measure of that effect. *The remainder of this Executive Summary is referring only to the 120 observation sites that make up the official 2009 Maine seatbelt use rates. These are the same sites that have been observed and reported on for the past several years.*

In 1998 NHTSA developed new methods and standardized guidelines for measuring seat belt use. As a result, use rates can now be compared between states more accurately than was the case in the past. This study meets all of the applicable NHTSA criteria. It also follows the NHTSA guidelines regarding sample selection. Under these guidelines, sites selected must represent 85% of the state's population; in Maine, that requires sampling from the 10 counties with the highest population. See Table 11 for the list of counties studied.

Road sections selected as observation sites. Observations of seatbelt use were conducted at 120 sites from the 10 counties (see Table 11 for a full list of towns selected). Sites were selected following a probability-based sampling procedure developed by the Preusser Research Group and approved by NHTSA on July 26, 2004. Restraint use was recorded for 19,802 drivers and front seat passengers in 15,353 vehicles (in the 2008 study, 16,549 vehicles and 20,968 occupants were recorded).

Sampling and estimating protocols. In 1998, NHTSA began to institute new standardized sampling and estimating protocols for all states to follow in their safety belt use studies. These procedures were developed to ensure comparability among findings from state to state. The new estimation formulae are intended to provide each state with very precise estimates of their statewide belt use rates. These formulae provide a statistically sound method to calculate weights that will help adjust sample data to better reflect the volume and types of traffic found in all roads in a state, not just those selected for observation. Since 2004, Maine's sampling procedures have been based primarily on traffic data known as the Daily Vehicle Miles Traveled (DVMT) for each county in the State. These data provide a measure of the volume of traffic at each road segment in Maine.

One of the results of adopting new estimation methods is that the findings since 2004 are not entirely comparable to those from previous years. Different methods can produce different results, which is why NHTSA has adopted the new standardized methods. We support the use of the new estimation approach and NHTSA's efforts to bring consistency and uniformity to all of the states but remind readers that, because of these changes, results from this year's study are not quite equivalent to those conducted prior to 2004.

Safety Belt Use in Maine, 2009

Subgroup analyses. This report includes findings from several subgroups, such as for different seating positions, type of vehicle, etc. We urge readers to keep in mind that some of these groups have lower numbers and, therefore, the point estimates of their use rates are less precise than those for the entire sample.

OBSERVATION STUDY FINDINGS

Overview: Compliance with the law. The overall restraint use decreased slightly in 2009, to 82.6%. In 2002, the statewide use rate was only 59%. By 2007, that rate had increased to 79.8%. As in the previous two years, drivers have a similar rate of safety belt use as passengers. Table A shows changes in the rates for drivers and passengers for the three most recent years.

Table A

Comparison of seat belt usage rates statewide:

Occupants Observed	2009 Study	2008 Study	2007 Study
All Vehicle Occupants	82.6%	83.0%	79.8%
All Drivers	82.7%	83.2%	79.4%
All Front Passenger Seat Occupants	82.4%	81.3%	80.4%

Safety Belt Use in Maine, 2009

Gender differences. Women in particular show substantial compliance with seatbelt laws. Table B shows gender differences for 2007, 2008, and 2009.

Table B

Comparison of seat belt usage rates by gender:

Gender	2009 Study	2008 Study	2007 Study
Male Driver	80.3%	80.8%	75.5%
Female Driver	86.3%	87.1%	85.1%
Male Passenger	74.4%	71.5%	70.1%
Female Passenger	86.1%	86.4%	85.0%

Passengers' use of safety belts related to use by driver. As with prior studies, belt use of passengers is strongly correlated with the practices of the drivers. When drivers use their safety belts, other occupants of the vehicle (who are most likely friends or family of the driver) are more than three times as likely to use their belts as they are when the driver is not using a belt (90.8% vs. 27.8%).

Comparison with other states. While Maine's safety belt use has improved considerably since 1995, other states have increased their use as well¹. As a result, the state has remained near the bottom nationally, at least until last year. In 1995, Maine's rate of 50% was the fifth from the bottom of a list of all 50 states, the District of Columbia, and Puerto Rico. By 1997, Maine's use rate had risen only to number 35². In 2007, Maine remained at number 35, with only 15 states reporting lower use rates. These comparisons were all made before Maine's primary enforcement law. Because NHTSA has not yet released the 2009 use rates for all states, it is not possible to report where Maine now stands, but the state use rate in 2009 is equal to the 2008 national average.

Type of vehicle. As has been the case in every study conducted in Maine, people in pickup trucks have the lowest use rates, at 74.5%. This is a substantial increase from the 39.7% reported in 2002 and the 68.6% rate in 2007, but it continues to be an area where considerable improvement is still possible. Vans, SUVs, and cars have use rates of 85.6%, 83.9%, and 85.3%, respectively.

SUMMARY

Safety belt use in Maine has increased markedly since 1991, when only a third of people aged 16 and over were belted. (Another change in study methods should be noted here: In all of the studies conducted during the 1990s, information for all vehicle occupants, including children, was recorded, as well as the estimated age of each individual. Since 2004, children are no longer included for observations, nor is age estimated. See SRC's report "Child Safety Seat Use in Maine 2007" for details regarding recent safety seat and seat belt use among children in Maine.) While the current rate of 82.6% is encouraging, it appears that some groups, particularly males, still have room for a great deal of improvement.

The impact of safety belt use is significant. Research published by NHTSA in 2008 stated that, when properly used, lap/shoulder safety belts reduce the risk of fatal injury to front-seat passenger car occupants by 45%; they reduce the risk of moderate-to-critical injury by 50%. The safety effect is even greater for light truck occupants, where safety belts reduce the risk of fatal injury by 60% and moderate-to-critical injury by 65%. The same study estimates that over 15,000 lives were saved by using safety belts in the year 2006.³ It is research findings such as these that provide much of the impetus for continuing efforts to increase seatbelt use in Maine and the nation.

This year's study was conducted immediately after a major enforcement and publicity campaign meant to inform the public of the new seatbelt law, and to increase safety belt usage. The rest of this report describes how the 2009 study was implemented and presents the key findings. It also shows comparisons between 2009 and the previous two studies. The project was conducted thanks to a contract between the Bureau of Highway Safety, Department of Public Safety, State of Maine, and the Survey Research Center at the Muskie School of Public Service, University of Southern Maine (USM), along with a subcontract between USM and the Preusser Research Group in Trumbull, Connecticut.

Portland, Maine
October 30, 2009

INTRODUCTION

The impact of seatbelt use is substantial. Research reported by NHTSA last year found that lap/shoulder belts reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent and the risk of moderate-to-critical injury by 50 percent. Seat belts are even more effective for light-truck occupants, reducing the fatality risk by 60 percent and the moderate-to-critical injury risk by 65 percent. In 2006, seat belts saved the lives of an estimated 15,383 vehicle occupants age 5 and older.⁴ Nationally, about 83% of all motorists now use their safety belts.⁵

Prior to 1996, when mandatory seatbelt laws for adults went into effect, Maine motorists used their seatbelts at a rate only about half of the national rate.⁶ In November 1995, Maine voters narrowly approved a referendum establishing a secondary enforcement law requiring almost all people to wear safety belts or use child restraint devices. Since then, use rates in Maine have improved a great deal. The study here reports on results from an observation study conducted in 2009, only one year after Maine's new primary enforcement law began to be implemented. (Although the new law went into effect on September 20, 2007, ticketing didn't begin until April 1, 2008, to allow time for the state to raise public awareness of the law.) The data contained in this report are used to provide the Bureau of Highway Safety and the National Highway Traffic Safety Administration the current use rates and a measure of changing use patterns over time.

The research project was conducted by the Survey Research Center of the Muskie School of Public Service at the University of Southern Maine, under a contract with the Maine Bureau of Highway Safety, Department of Public Safety, State of Maine. The study was designed to determine the rate of safety restraint use in Maine as part of the development of a statewide comprehensive highway safety plan as required by NHTSA. It incorporates the standardized design requirements developed by NHTSA in an effort to ensure reliability and comparability of findings between each of the states.

METHODOLOGY

In 2004, a number of methodological changes were introduced in the observation study. These include the selection of road segments for observation, instead of controlled intersections; observation of moving vehicles, rather than stopped vehicles; observations on the Maine Turnpike and interstates; and the end of the practice of recording use for infants, children, and young teenagers (and the related practice of estimating ages of occupants). All of these changes have continued this year. While all previous studies have met NHTSA guidelines and represent the official state use rates, the effect of these changes means that direct comparisons may not be entirely accurate between studies conducted prior to 2004 and those conducted since. The following is a description of the changes that were implemented and their potential impact.

The biggest change in protocols in 2004 was that of sampling from all road segments on all types of roads rather than only selecting controlled intersections, as had been the practice up until 2004. It is possible that only recording cars and trucks at traffic signals is not representative of all traffic in the state. For instance, it may be that people traveling on roads with enough traffic to warrant a traffic signal are more likely to buckle up than those on less busy sections of roads. Or it might be that, where there are red lights to slow traffic down, people feel less need to use their belts. In either case, the presence of a traffic signal might affect use rates at each site; recording usage only at signalized intersections could affect the statewide measure of use. Similarly, including traffic on highways affects the results. A great deal of Maine's traffic is on the turnpike and interstates. Not including any of that traffic, which may have different use patterns, potentially impacted use rates measured. With the new protocols, the presence of traffic lights and absence of highway driving is no longer a factor in the estimates reported.

The next most significant change that took effect in 2004 was the observation of moving vehicles. Here it must be stated that recording use of occupants in moving cars and trucks is more difficult than observing stopped vehicles. There are several factors that make it harder—tinted windows, glare of sunlight, dark seatbelts on dark clothing, etc., not to mention the speed of cars on some roads. Several years of field experience, in Maine and in all of the other states, along with consistent training of observers, have found that these are barriers that can be overcome.

In addition to these methodological adjustments, another important factor is the highly advertised and visible awareness and enforcement campaign that was conducted immediately before the current study was begun. While this seems to have the effect of at least temporarily boosting people's likelihood of using safety belts, the 2005 "mini survey" that was conducted by the Muskie School and Preusser Research Group before the campaign began found the impact to be relatively minor.

Road sections selected as observation sites. Observation sites must allow the opportunity for a reasonably representative flow of multi-purpose traffic, while allowing observers a safe viewing position from which to observe and record belt use of occupants in each vehicle. Observers were given descriptions of the road segment to observe (e.g., "in Auburn, on Minot Avenue, between Heath Lane and Garfield Road"). They were also told which direction of traffic to observe. They then were able to find the most advantageous spot on the road segment from which to observe. They were instructed to only include vehicles that had actually passed through the first identifier of the description (in the example above, the intersection of Minot Avenue and Heath Lane). Observations were conducted from a single point on each segment. In all, observations of 15,353 passenger vehicles and the use or nonuse by 19,802 occupants was recorded. A list of the towns and cities selected appears as Table 11.

Sampling. The sites to be observed were selected by the Preusser Research Group of Trumbull, Conn. The sampling design was developed to ensure compliance with NHTSA's standardized guidelines. The sampling process was designed to provide a confidence level of 95% with an acceptable margin of error of plus or minus 5%. This resulted in a final sample size of 120 road segments. The probability of a road segment being selected was proportional to the traffic volume measured in average daily vehicle-miles traveled (DVMT) on each road segment, according to Maine Department of Transportation data. Again in 2009, the same 120 sites were observed as in 2004 through 2008.

Weighting. Consistent with NHTSA guidelines, the data were weighted to reflect the sampling design and the average traffic volume at the selected road segments. The weighting simply adjusts the actual number of vehicles observed to reflect the expected number of vehicles, based on the traffic volume where the segment is located, and combines the site data in a way that represents statewide traffic volumes.

Observation times and days. Observations were made at 120 locations throughout the state for 45 minutes each, on a structured schedule of observation times and days that would maximize the opportunity to study variations in restraint use by time and by day of the week. Road segments were randomly assigned to a day and time for observations, although consideration had to be given for trips to locations that required lengthy travel times. Each day and time had an equal probability of selection. All observations were done during daylight hours. Approximately 85% of the 2009 observations were done on the same day and time as the 2004 through 2008 observations. Those few that were done on a different day or time (due to weather, schedules, etc), were done at comparable times. For instance, a site that was observed in 2008 on a Tuesday morning could be done this year on a Wednesday or Thursday morning, but not on a Saturday morning, because travel patterns may be different on the weekend.

Many roads have two or more lanes of traffic in each direction. In those cases, the observation period was divided by the number of lanes, and each lane was observed for the proportional length of time. For

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example, a road with three lanes would require that each lane be observed for 15 minutes (three lanes times 15 minutes each equals 45 minutes, the full observation period).

Observation assignments were made across a schedule of time slots that began at 7:00 a.m. and ended at 6:15 p.m. They were conducted from June 1 to July 2, 2009 (by design, the observations are scheduled to be completed before the Fourth of July holiday, as traffic patterns may be significantly different during that weekend).

Observer training. Observers were trained by Tara Casanova from the Preusser Research Group. They were trained to observe proper shoulder belt use (vs. improper or no use) of the driver and, if present, a right front seat passenger (infants were excluded). Observations were made for private passenger vehicles only. These were the same methods used in Maine in previous years and in numerous other seatbelt observation efforts. The training involved written material, oral presentation, and field practice. The field practice was conducted on Forest Avenue in Portland, near the SRC office. The practice observations were crucial. Results were reviewed and analyzed for accuracy and consistency; no observers were allowed to begin until their practice observations met training standards.

OBSERVATION STUDY FINDINGS

Overview: Compliance with the law. The latest use figures show a very slight decline in the proportion of Maine's population buckling up, at 82.6% overall. Given that the drop in use was less than one half of one percentage point, the rate can be considered to be essentially unchanged from last year.

Nonetheless, this is the first year that the state's rate did not increase. While the use of safety belts has improved considerably in recent years, a number of states still have higher use rates.⁷ In order to raise rates relative to other states, it seems likely that Maine will continue to require an on-going effort of education and enforcement.

Gender differences. The female use rate has been consistently higher than that of males; that pattern continues in 2009. While 86.4% of all female occupants were restrained; only 79.4% of males were using their seatbelts. However, male passengers were the only occupants to increase their use rates, going from 71.5% in 2008 to 74.4% in 2009; all others declined slightly.

Seating position. Overall, there is little difference in use rates by seating position within vehicles. In 2009, 82.7% of drivers were using seatbelts and 82.4% of passengers were using theirs. While the difference is slight, this is the second year drivers have had a higher rate of belt use than passengers.

Urban/rural differences. The belt use rate in urban counties (Androscoggin, Cumberland, Kennebec, Penobscot, and York) remains higher than in rural counties, at 86.6% and 81.4% respectively. The gap between the two areas continues to narrow, however, with the difference dropping to less than 6 percentage points for the first time. (Note: due to the statistical difficulties of weighting data by ten different counties, various road types, and traffic volume at all road segments, these data are not weighted). In a reflection of changing population patterns in the state, 62% of the segments selected were in the 5 urban counties. Due to the higher traffic volume in those areas, 73% of vehicles observed were in urban counties, and 27% were in the rural counties.

Type of vehicle. There is one clear difference in driver safety belt use rates according to the type of vehicle the driver is operating. At 74.5%, drivers of pickup trucks have a considerably lower use rate than any of the other types of vehicles (see Table 7 for use rates of all occupants by vehicle type). It is likely that the selection of a vehicle and the decision of whether to buckle up or not are both related to gender, age, lifestyle and other factors, so this may not be a surprising finding; it certainly has been consistent over the years. With implementation of the primary enforcement law, however, drivers in pickup trucks have shown strong improvement, going from 68.6% in 2007 to the 74.5% mark in 2009.

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Passenger use related to use by driver. As in all prior studies, buckling up is a friend and family affair. When drivers use their safety belts, other occupants of the vehicle (who are most likely friends or family of the driver) are nearly three times as likely to use their belts as they are when the driver is not using a belt 90.8% vs. 27.8%; see Table 8.

Comparison with other states. While Maine's use rate has improved since 2002, other states have also improved.⁸ The net result is that Maine may now be in the middle of the range in national standings. As of this writing, NHTSA has not released 2009 rates, so Table 10 only reports changes in use rates from 2007 to 2008. Although final comparisons between states can not yet be made, the 2008 findings in Table 10 suggest that Maine will likely still be near the middle when the state by state listing for 2009 is complete.

Day of week. Observations were conducted on all days of the week, and while there are slight variations in safety belt usage across the days (Table 7), there is no readily apparent pattern to the findings. The assignment of days and times of observation to the sites was systematic and unbiased, but the number of observations obtained on each day varied considerably because the traffic volume at the selected sites varied. Use rates are highest on Thursdays (86.5 %) and lowest on Sundays, at 82.6% (NOTE: these are based on unweighted data).

Time of day. Safety belt use varies throughout the day (Table 7). The highest rates are at 1:00 p.m. (88.1%), followed by 4:00 p.m. (87.6%) and 7:45 a.m. (87.2%). The lowest rates occur at 10:00 a.m. (74.5%) and 8:30 a.m., at 79.2%. Time of day rates have also varied from year to year.

Weather and road conditions. Poor weather conditions hampered observations throughout the study period. As a result, more were conducted in wet and/or cloudy weather this year than in most years. Overall, 40.3% of vehicles were observed in sunny and clear weather and 36% while it was cloudy. The rest were done during rainy, foggy, or wet weather. There was some variation in use rates; sunny weather had 84.3% use and cloudy weather saw 85.0% use, while fog had 89.7% use, and light rain had 86.6%. (see Table 7).

Comparison of 2009 with 2008 and 2007 data. Several studies in Maine have now been conducted for the Bureau of Highway Safety of the Maine Department of Public Safety. The first was done by Northeast Research for the School of Public Health of the Boston University Medical School.⁹ The next four were conducted by the Muskie School's Survey Research Center.¹⁰ The year 2002 study was completed by CSI® Santa Rita Research Center.¹¹

The 2009 study is now the tenth conducted by the Muskie School. As described in the Methodology section, there were a number of major changes in the study design that were implemented in 2004. In

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addition, over the years other changes have been made, so direct comparisons between years may not be entirely appropriate.

In 2002, overall compliance stood at approximately 59%. At that time, the rate for people over 18 was also 59%. Beginning in 2004, only adults were recorded (although it is likely that some mid- to older-teens were inadvertently included). The rate for 2007 had increased to 80% and to 83% in 2008. Now, in 2009, the use rate has remained statistically consistent at 83%.

Drivers and passengers now share nearly the same rate of belt use, 82.7% and 82.4%, respectively. Previous trends had seen a higher use rate for passengers than drivers, until 2008 when drivers surpassed passengers in use.

A comparison of male drivers to female drivers over the three studies shows that the significant improvement among males over the past two years leveled off in 2009. For the year 2007, male drivers had a use rate of 74.9% and females had a rate of 85.4%. In 2008, the comparable figures were 79.5% for males and 87.0% for females. The current use rates of 79.4% for males and 86.4% for females demonstrate that the "gender gap" continues to narrow.

SUMMARY

During the early to mid-nineties, seatbelt use in Maine increased substantially. By 1997, however, that trend had ended. From then through 2002, there was no overall increase and even some declines in certain areas. The years of increase correspond to a time when a number of changes were made in seatbelt laws in the state—in 1989, the law was expanded to require all occupants age 4 to 19 to use restraints. In 1993, fines for violations were increased. And most importantly, in 1995, a statewide referendum requiring all adults 19 and older to use safety belts was passed. From 1995 through 2006, there were no major revisions to Maine's belt laws. With the implementation of the new primary enforcement law, Maine's safety belt use rates have again shown increases in a number of categories.

It is important to note, however, that this year's study has found slight declines in some important categories. Both male and female drivers' use rates are lower this year than last year, for instance. The 2009 study was only the second to measure the impact of the new primary enforcement law. Future studies may help to establish whether additional steps are necessary to ensure that Maine's level of safety in passenger vehicles will be improved and maintained.

NEW RURAL SITES

For several years, NHTSA guidelines have allowed states to observe traffic in the counties that, collectively, make up 85% of the state's population. This policy is built on the understanding that the population and traffic volume of the remaining counties are so low that including them would have almost no effect on the overall rates. In the interest of efficiency, the guidelines take this fact into account.

In Maine, this has meant that Franklin, Lincoln, Piscataquis, Sagadahoc, Waldo, and Washington counties were not included for observations. This year, for the first time, a sample of sites was selected from these six counties for an independent examination of belt use in rural areas. We emphasize that these observations are separate from the official findings that were covered in the earlier sections of this report; those ten counties continue to make up the official belt use for the state of Maine.

PRG selected six sites in each of the six counties. The sampling process was designed to provide observation sites on each of the specified road types. All observations were conducted by the same Observers, following the same observation methods as for the full 120 sites that make up the official Maine belt use study. The following pages present key findings from the rural sites study.

Table C

Comparison of seat belt usage rates, statewide and rural

Occupants Observed	June 2009, statewide	June 2009, rural
All Vehicle Occupants	82.6%	79.9%
All Drivers	82.7%	78.9%
All Front Passenger Seat Occupants	82.4%	82.5%

Table D

Comparison of seat belt usage rates by gender:

Gender	June 2009, statewide	June 2009, rural
Male Driver	80.3%	75.0%
Female Driver	86.3%	85.4%
Male Passenger	74.4%	68.1%
Female Passenger	86.1%	90.5%

RURAL OBSERVATION STUDY FINDINGS

Overview: Compliance with the law. Vehicle occupants in rural areas buckle up slightly less frequently than the statewide average, 79.9% overall. Because 2009 was the first year observations were conducted in these six counties, it is not possible to compare usage rates to previous years. However, it is possible to compare usage rates among vehicle occupants by gender, seating position, type of vehicle and other factors. While we also present both rural and statewide figures in the following tables, we wish to point out that some subgroups (female passengers, day of the week, etc) have very low numbers of observations and are thus subject to greater ranges of potential sampling error.

Gender differences. As in the state as a whole, seatbelt use among female vehicle occupants in rural locations is higher than that of males. While 87.0% of rural female occupants used their seatbelts, only 74.3% of rural male occupants did so. The usage rate among rural male drivers (75.0%) was more the 10 percentage points below that of rural female drivers (85.4%). An even greater disparity in usage was observed between male passengers (68.1%) and female passengers (90.5%) in rural locations.

Seating position. Unlike the drivers and passengers in the statewide study, seatbelt usage of drivers in rural locations was slightly lower than that of passengers, 78.9% to 82.5%, respectively.

Type of vehicle. As in the statewide study, pickup truck drivers in rural areas have the lowest rates of seatbelt use, at 69.4% (see Table 18).

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Passenger use related to use by driver. Similar to statewide trends, passengers in rural areas are more likely to buckle up if drivers do so. A majority of passengers (93.8%) were belted when the driver of their vehicle was also belted. When the driver was not belted, only 36.2% of passengers buckled up (see Table 19).

Day of week. Observations of seatbelt use in rural areas were conducted on all days of the week except Friday (it rained in Maine every Friday in June, making observations in the more rural counties impossible to schedule. Those that had been planned for Fridays were done instead on Mondays, the day with the most similar traffic and driving patterns as Friday) (see Table 18). Unlike the statewide study, usage rates varied significantly across days of the week, from an average of 85.9% on Thursdays to an average of 65.7% on Wednesdays. Weekend use was lower than weekday use, overall. Again, the number of observations obtained on each day varied considerably due to traffic volume at the selected sites.

Time of day. Safety belt use varied throughout the day in the rural observations (Table 18). The highest rates were at 11:30 a.m. (90.5%) and the lowest rates were at 3:15 p.m. (68.2%).

Weather and road conditions. Overall, 23.6% of vehicles in rural areas were observed in sunny and clear weather and 50.1% while it was cloudy. The rest were done during rainy (21.7%) or wet (4.6%) weather. There was some variation in use rates; cloudy weather saw 85.2% use and sunny weather had 77.0% use, while rain had 77.9% use and wet / not raining had 92.8% use. No observations were conducted under foggy conditions (see Table 18).

MOTORCYCLE HELMET USE

This year also marks the first time in many years that we included observations of motorcycle helmet use. There was no sampling protocol specific to motorcycle traffic volume; rather, we simply included observations for all motorcycles seen at the sites that had been selected for the seatbelt use sample. This resulted in recording the helmet use and non-use of 227 drivers and 39 passengers. Tables E and F present the key findings.

Table E

Comparison of motorcycle helmet usage rates statewide

Occupants Observed	June 2009
All Motorcycle Occupants	54.9% (N=266)
All Drivers	53.7% (N=227)
All Passengers	61.5% (N=39)

Table F

Comparison of motorcycle helmet usage rates by gender:

Gender	June 2009 %
Male Driver	53.7% (N=216)
Female Driver	54.6% (N=11)
Male Passenger	100.0% (N=3)
Female Passenger	58.3% (N=36)

ENDNOTES

¹ U.S. Department of Transportation, National Highway Traffic Safety Administration, *Traffic Safety Facts 2007, Research Note*, DOT HS 810 949.

² Al Leighton and Erika Ziller, *Safety Belt Use in Maine 1998*, Edmund S. Muskie Institute of Public Affairs, University of Southern Maine, prepared for the Bureau of Highway Safety, Department of Public Safety, State of Maine, April 1999.

³ U.S. Department of Transportation, National Highway Traffic Safety Administration, *2006 Motor Vehicle Occupant Protection Facts, August 2008*, DOT HS 810 654.

⁴ U.S. Department of Transportation, National Highway Traffic Safety Administration, *2006 Motor Vehicle Occupant Protection Facts, August 2008*, DOT HS 810 654.

⁵ U.S. Department of Transportation, National Highway Traffic Safety Administration, *Traffic Safety Facts 2007, Research Note*, DOT HS 810 949.

⁶ Al Leighton, Erika Ziller and Suzanne K. Hart, *Safety Belt Use in Maine 1995*, Edmund S. Muskie Institute of Public Affairs, University of Southern Maine, prepared for the Bureau of Highway Safety, Department of Public Safety, State of Maine, 1995; Suzanne K. Hart, *Child Restraint Device and Safety Belt Use in Maine*, 1991, Edmund S. Muskie Institute of Public Affairs, University of Southern Maine, prepared for the Bureau of Highway Safety, Department of Public Safety, State of Maine, August 1992; and Deidre Hungerford, David Kovenock, and James Sorg, *Maine Seat Belt Use Observation Study*, February, 1986: *Preliminary Summary*, Northeast Research, Orono, Maine, 1986.

⁷ U.S. Department of Transportation, National Highway Traffic Safety Administration, *Traffic Safety Facts 2007, Research Note*, DOT HS 810 949.

⁸ U.S. Department of Transportation, National Highway Traffic Safety Administration, *Traffic Safety Facts 2007, Research Note*, DOT HS 810 949.

⁹ Deidre Hungerford, David Kovenock, and James Sorg, *Maine Seat Belt Use Observation Study*, February, 1986: *Preliminary Summary*, Northeast Research, Orono, Maine, 1986.

¹⁰ Al Leighton, Erika Ziller and Suzanne K. Hart, *Safety Belt Use in Maine 1991, 1995, 1997, 1998*, Edmund S. Muskie Institute of Public Affairs, University of Southern Maine, prepared for the Bureau of Highway Safety, Department of Public Safety, State of Maine, 1992, 1995, 1997, 1999.

¹¹ Ash Bose, *Safety Belt Use in Maine 2002*, CSI Santa Rita Research Center, Communication Software, Inc., Arizona, December, 2002.

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TABLE 1

**Restraint Use in Passenger Vehicles
Statewide**

Maine, 2009

All Persons

All Persons	
Lap/Shoulder	82.6%
No Restraint	17.4%
No. Vehicles = 15,353; No. Persons = 19,802	

TABLE 2

**Restraint Use in Passenger Vehicles
Statewide
By Seating Position**

Maine, 2009

All Persons

Driver		Passenger	
Lap/Shoulder	82.7%	Lap/Shoulder	82.4%
No Restraint	17.3%	No Restraint	17.6%
N = 15,346		N = 4,456	

TABLE 3

**Restraint Use in Passenger Vehicles
Statewide**

Maine, 2009

Males

All Males	
Lap/Shoulder	79.4%
No Restraint	20.6%
N = 10,521	

TABLE 4

**Restraint Use in Passenger Vehicles
Statewide
By seating position**

Maine, 2009

Males

Driver		Passenger	
Lap/Shoulder	80.3%	Lap/Shoulder	74.4%
No Restraint	19.7%	No Restraint	25.6%
N = 9,079		N = 1,442	

TABLE 5

**Restraint Use in Passenger Vehicles
Statewide**

Maine, 2009

Females

All Females	
Lap/Shoulder	86.4%
No Restraint	13.6%
N = 9,178	

TABLE 6

**Restraint Use in Passenger Vehicles
Statewide
By seating position**

Maine, 2009

Females

Driver		Passenger	
Lap/Shoulder	86.3%	Lap/Shoulder	86.1%
No Restraint	13.7%	No Restraint	13.9%
N = 6,217		N = 2,961	

TABLE 7

**Percentage of Drivers Wearing Safety Belts
Under Selected Conditions
Statewide**

Maine, 2009

Type of Vehicle

Vehicle Type		Belt Use
Car	(N = 7,817)	85.3%
SUV	(N = 3,581)	83.9%
Van	(N = 1,238)	85.6%
Truck	(N = 2,717)	74.5%

Day of the Week

(Note: data in the rest of this table
are not weighted)

**Percent of Drivers
Wearing Safety Belts**

Monday	(N = 3,659)	85.6%
Tuesday	(N = 2,219)	86.1%
Wednesday	(N = 2,385)	83.1%
Thursday	(N = 2,870)	86.5%
Friday	(N = 522)	84.9%
Saturday	(N = 2,180)	85.4%
Sunday	(N = 1,745)	82.6%

Safety Belt Use in Maine, 2009

Table 7, cont'd

Weather ¹		Percent of Drivers Wearing Safety Belts
Sunny/Clear	(N = 6,291)	84.3%
Raining	(N = 3,523)	86.6%
Cloudy	(N = 5,608)	85.0%
Fog	(N = 117)	89.7%
Wet/Not Raining	(N = 41)	65.9%

1 Observations of **Sunny/Clear** and **Cloudy** imply the roads are dry. **Raining** corresponds to light rain occurring during the observations (data are not collected in heavy rain) and thus the roads are wet.

Start Time of Observation		Percent of Drivers Wearing Safety Belts
7:00 a.m.	(N = 888)	85.36%
7:45 a.m.	(N = 1,298)	87.2%
8:30 a.m.	(N = 587)	79.2%
9:15 a.m.	(N = 749)	85.2%
10:00 a.m.	(N = 407)	74.5%
10:45 a.m.	(N = 808)	86.1%
11:30 a.m.	(N = 973)	85.0%
12:15 p.m.	(N = 864)	82.1%
1:00 p.m.	(N = 1,216)	88.1%
1:45 p.m.	(N = 1,885)	86.4%
2:30 p.m.	(N = 945)	82.7%
3:15 p.m.	(N = 1,363)	82.2%
4:00 p.m.	(N = 1,179)	87.6%
4:45 p.m.	(N = 1,283)	86.0%
5:30 p.m.	(N = 1,135)	86.9%

TABLE 8

**Passenger belt use/nonuse
compared to Driver belt use/nonuse**
NOTE: Data in this table are NOT weighted

Maine, 2009

When the driver IS wearing a belt

Driver	Passenger	
NOT APPLICABLE	Lap/Shoulder	90.8%
	No Restraint	9.2%
N = Not Applicable	N = 4,495	

When the driver is NOT wearing a belt

Driver	Passenger	
NOT APPLICABLE	Lap/Shoulder	27.8%
	No Restraint	72.2%
N = Not Applicable	N = 497	

TABLE 9

**Restraint Use All Occupants, All Vehicles
Grouped by Observation Sites in Urban and Rural Counties**

NOTE: Data in this table are NOT weighted

Maine, 2009

RESTRAINT TYPE	URBAN		RURAL		STATEWIDE	
	N	%	N	%	N	%
Lap/Shoulder Belt	12,494	86.6	4,379	81.4	16,873	85.2
No Lap/Shoulder Belt	1,928	13.4	1,001	18.6	2,929	14.8
Lap/Shoulder Belt TOTAL	14,422	100.0	5,380	100.0	19,802	100.0

TABLE 10

Observed Safety Belt Use Rates Reported by States to NHTSA
2007 and 2008

2007 and 2008 State Belt Use Rates					
State	2007	2008	State	2007	2008
Alabama	82%	86%	Montana	80%	79%
Alaska	82%	85%	Nebraska	79%	83%
Arizona	81%	80%	Nevada	92%	91%
Arkansas	70%	70%	New Hampshire	64%	69%
California	95%	96%	New Jersey	91%	92%
Colorado	81%	82%	New Mexico	92%	91%
Connecticut	86%	88%	New York	84%	89%
Delaware	87%	91%	North Carolina	89%	90%
District of Columbia	87%	90%	North Dakota	82%	82%
Florida	79%	82%	Ohio	82%	83%
Georgia	89%	90%	Oklahoma	83%	84%
Hawaii	98%	97%	Oregon	95%	96%
Idaho	79%	77%	Pennsylvania	87%	85%
Illinois	90%	91%	Rhode Island	79%	72%
Indiana	88%	91%	South Carolina	75%	79%
Iowa	91%	93%	South Dakota	73%	72%
Kansas	75%	77%	Tennessee	80%	82%
Kentucky	72%	73%	Texas	92%	91%
Louisiana	75%	76%	Utah	87%	86%
Maine	80%	83%	Vermont	87%	87%
Maryland	93%	93%	Virginia	80%	81%
Massachusetts	69%	67%	Washington	96%	97%
Michigan	94%	97%	West Virginia	90%	90%
Minnesota	88%	87%	Wisconsin	75%	74%
Mississippi	72%	71%	Wyoming	72%	69%
Missouri	77%	76%	Puerto Rico	92%	93%

Source: U.S. Department of Transportation, National Highway Traffic Safety Administration, *Traffic Safety Facts, Crash Stats, April 2009*, Research Note DOT HS 811 106.

1 Rates in states with primary belt enforcement laws appear in boldface.

Primary Enforcement: Allows police to stop and cite motorists simply for not wearing seat belts.

Secondary Enforcement: Motorists must be stopped for another reason in order to receive a seat belt citation.

TABLE 11
Maine 2009 Observation Sites List

1. Cumberland County (18) <ol style="list-style-type: none">1. Portland (4)2. Freeport (3)3. Westbrook (3)4. South Portland (2)5. Casco (1)6. Cumberland (1)7. Gray (1)8. Raymond (1)9. Scarborough (1)10. Windham (1)	4. Kennebec (13) <ol style="list-style-type: none">1. Augusta (2)2. Sidney (2)3. Waterville (2)4. China (1)5. Hallowell (1)6. Monmouth (1)7. Oakland (1)8. Pittston (1)9. Readfield (1)10. West Gardiner (1)	7. Hancock (9) <ol style="list-style-type: none">1. Bar Harbor (1)2. Ellsworth (2)3. Stonington (2)4. Bucksport (1)5. Dedham (1)6. Deer Isle (1)7. Township 28 (1)
2. York (16) <ol style="list-style-type: none">1. Saco (3)2. Biddeford (2)3. Kittery (2)4. North Berwick (2)5. Wells (2)6. Acton (1)7. Eliot (1)8. Lyman (1)9. Sanford (1)10. Shapleigh (1)	5. Androscoggin (12) <ol style="list-style-type: none">1. Auburn (3)2. Lewiston (3)3. Sabattus (3)4. Livermore Falls (1)5. Poland (1)6. Turner (1)	8. Oxford (9) <ol style="list-style-type: none">1. Fryeburg (3)2. Greenwood (1)3. Hebron (1)4. Norway (1)5. Rumford (1)6. Sumner (1)7. West Paris (1)
3. Penobscot (15) <ol style="list-style-type: none">1. Bangor (5)2. Brewer (1)3. Carmel (1)4. Hermon (1)5. Holden (1)6. Howland (1)7. Mattawamkeag (1)8. Millinocket (1)9. Old Town (1)10. Orono (1)11. Plymouth (1)	6. Aroostook (12) <ol style="list-style-type: none">1. Caribou (3)2. Ashland (1)3. Fort Fairfield (1)4. Hodgdon (1)5. Limestone (1)6. Masardis (1)7. Sherman (1)8. Van Buren (1)9. Wade (1)10. Woodland (1)	9. Somerset (9) <ol style="list-style-type: none">1. Fairfield (2)2. Anson (1)3. Caratunk (1)4. Harmony (1)5. Madison (1)6. Norridgewock (1)7. Pittsfield (1)8. Starks (1)
		10. Knox (7) <ol style="list-style-type: none">1. Rockport (3)2. Rockland (2)3. S. Thomaston (1)4. Thomaston (1)

TABLE 12

**Restraint Use in Passenger Vehicles
Rural**

Maine, June 2009

All Persons

All Persons	
Lap/Shoulder	79.9%
No Restraint	20.1%
No. Vehicles = 3,295; No. Persons = 4,398	

TABLE 13

**Restraint Use in Passenger Vehicles
Rural
By Seating Position**

Maine, June 2009

All Persons

Driver		Passenger	
Lap/Shoulder	78.9%	Lap/Shoulder	82.5%
No Restraint	21.1%	No Restraint	17.5%
N = 3,289		N = 1,107	

TABLE 14

**Restraint Use in Passenger Vehicles
Rural**

Maine, June 2009

Males

All Males	
Lap/Shoulder	74.4%
No Restraint	25.6%
N = 2,287	

TABLE 15

**Restraint Use in Passenger Vehicles
Rural**

By seating position

Maine, June 2009

Males

Driver		Passenger	
Lap/Shoulder	75.0%	Lap/Shoulder	68.1%
No Restraint	25.0%	No Restraint	31.9%
N = 1,962		N = 325	

TABLE 16

**Restraint Use in Passenger Vehicles
Rural**

Maine, June 2009

Females

All Females	
Lap/Shoulder	87.0%
No Restraint	13.0%
N = 2,102	

TABLE 17

**Restraint Use in Passenger Vehicles
Rural**

By Seating Position

Maine, June 2009

Females

Driver		Passenger	
Lap/Shoulder	85.4%	Lap/Shoulder	90.5%
No Restraint	14.6%	No Restraint	9.5%
N = 1,324		N = 778	

TABLE 18

**Percentage of Drivers Wearing Safety Belts
Under Selected Conditions
Rural**

Maine, June 2009

Type of Vehicle

Vehicle Type		Belt Use
Car	(N = 1,571)	80.7%
SUV	(N = 781)	85.0%
Van	(N = 264)	81.5%
Truck	(N = 679)	69.4%

Table 18, cont'd

Day of the Week

(Note: data in the rest of this table
are not weighted)

**Percent of Drivers
Wearing Safety Belts**

Monday	(N = 748)	83.8%
Tuesday	(N = 1,048)	85.7%
Wednesday	(N = 114)	67.5%
Thursday	(N = 562)	85.9%
Friday	(N = 0)	-
Saturday	(N = 605)	73.7%
Sunday	(N = 218)	78.4%

Safety Belt Use in Maine, 2009

Weather ²		Percent of Drivers Wearing Safety Belts
Sunny/Clear	(N = 777)	77.0%
Raining	(N = 714)	77.9%
Cloudy	(N = 1,651)	85.2%
Fog	(N = 0)	-
Wet/Not Raining	(N = 153)	92.8%

1 Observations of **Sunny/Clear** and **Cloudy** imply the roads are dry. **Raining** corresponds to light rain occurring during the observations (data are not collected in heavy rain) and thus the roads are wet.

Safety Belt Use in Maine, 2009

Table 18, cont'd

Start Time of Observation		Percent of Drivers Wearing Safety Belts
7:00 a.m.	(N = 250)	84.0%
7:45 a.m.	(N = 120)	83.3%
8:30 a.m.	(N = 128)	82.0%
9:15 a.m.	(N = 261)	88.9%
10:00 a.m.	(N = 35)	71.4%
10:45 a.m.	(N = 171)	84.2%
11:30 a.m.	(N = 442)	90.5%
12:15 p.m.	(N = 88)	71.6%
1:00 p.m.	(N = 557)	81.0%
1:45 p.m.	(N = 442)	81.0%
2:30 p.m.	(N = 191)	82.2%
3:15 p.m.	(N = 107)	68.2%
4:00 p.m.	(N = 312)	79.5%
4:45 p.m.	(N = 138)	73.9%
5:30 p.m.	(N = 53)	71.7%

TABLE 19

**Passenger Belt Use/Nonuse
Compared to Driver Belt Use/Nonuse
Rural**

NOTE: Data in this table are NOT weighted

Maine, June 2009

When the driver IS wearing a belt

Driver	Passenger	
NOT APPLICABLE	Lap/Shoulder	93.8%
	No Restraint	6.2%
N = Not Applicable	N = 944	

When the driver is NOT wearing a belt

Driver	Passenger	
NOT APPLICABLE	Lap/Shoulder	36.2%
	No Restraint	63.8%
N = Not Applicable	N = 163	

TABLE 20
Maine 2009 Observation Sites List

1. Franklin County (6)	4. Sagadahoc (6)
1. Wilton (2)	1. Bowdoinham (1)
2. New Vineyard (1)	2. Richmond (1)
3. Jay (1)	3. Topsham (1)
4. Industry (1)	4. Woolwich (1)
5. Chesterville (1)	5. Bath (1)
	6. Bowdoin (1)
2. Lincoln (6)	5. Waldo (6)
1. Wiscasset (1)	1. Belfast (2)
2. Boothbay Harbor (1)	2. Frankfort (1)
3. Damariscotta (1)	3. Searsport (1)
4. Jefferson (1)	4. Liberty (1)
5. Bristol (1)	5. Unity (1)
6. Waldoboro (1)	
3. Piscataquis (6)	6. Washington (6)
1. Milo (2)	1. Jonesboro (3)
2. Monson (1)	2. Calais (1)
3. Greenville (1)	3. East Machias (1)
4. Parkman (1)	4. Topsfield (1)
5. Willimantic (1)	

History of Occupant Protection Laws

**EFFECTIVE
DATES**

LAWS

- 09-20-07 Primary enforcement law takes effect; ticketing began on April 1, 2008.
- 01-01-03 The operator is responsible for ensuring that a child (from 40 pounds but less than 80 pounds and less than 8 years of age) is properly secured in a federally approved child restraint system.
- 09-19-97 The operator is responsible for securing persons under age 18 in a safety belt/seat. Persons 18 years and older are responsible for securing themselves.
- 09-19-97 A law enforcement officer may take enforcement action against an operator or passenger 18 years or age or older who fails to wear a seat belt only if the officer detains the operator for a suspected violation of another law. The requirement that the operator must receive a fine for the other violation in order to be subject to a penalty for the seat belt violation has been deleted.
- 01-01-95 With the implementation of Title 29A, the child safety seat law and seat belt law were combined into one law.
- 12-27-95 A statewide referendum requiring adults 19 and older to use safety belts passed on 11-07-95. The law could be enforced only if the police officer had detained the operator of a motor vehicle for a suspected violation of another law.
- 07-94 Driver made responsible for securing children under 4 years in a child safety seat.
- 10-13-93 Penalty changed from fine of \$25 for first violation and \$50 for each subsequent violation for those aged 0 to 4 to traffic infraction (up to \$500 fine).
- 10-13-93 Penalty changed from fine of \$25 for first violation and \$200 for each subsequent violation for those 4 to 19 to traffic infraction (up to \$500 fine).
- 09-29-87 Children aged 4 to 13 years must be secured in a child safety seat or safety belt.
- 09-30-89 Law expanded to include children 4 to 16 years.
- 10-09-91 Law expanded to include persons 4 to 19 years.
- 09-23-83 Children aged 0 to 4 years must be secured in a child safety seat.

Maine Seat Belt Observation Form

SITE NUMBER: _____ SITE: _____

NOTES: _____

DATE: _____ - _____ - _____ DAY OF WEEK: _____

WEATHER CONDITIONS
 1 Clear / Sunny 4 Fog
 2 Light Rain 5 Clear but Wet
 3 Cloudy

DIRECTION OF TRAFFIC FLOW (Circle one): N S E W

START TIME: _____ (Observation period will last exactly 45 minutes)

		DRIVER			PASSENGER					DRIVER			PASSENGER		
Veh. #	Vehicle	Sex	Use	Sex	Use	Veh. #	Vehicle	Sex	Use	Sex	Use	Sex	Use		
	C = car T = truck S = suv V = van	M = male F = female U = unsure	+ = yes - = no U = unsure	M = male F = female U = unsure	+ = yes - = no U = unsure		C = car T = truck S = suv V = van	M = male F = female U = unsure	+ = yes - = no U = unsure	M = male F = female U = unsure	+ = yes - = no U = unsure				
1						36									
2						37									
3						38									
4						39									
5						40									
6						41									
7						42									
8						43									
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25						60									
26						61									
27						62									
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29						64									
30						65									
31						66									
32						67									
33						68									
34						69									
35						70									



Driver Awareness Surveys in Maine, June 2009

DRAFT: October 30, 2009

Prepared for:

The University of Southern Maine
Portland, Maine

Prepared by:

William A. Leaf and Neil K. Chaudhary

Preusser Research Group, Inc.
Trumbull, Connecticut

Introduction

Maine is one of 16 States to have upgraded their seat belt law to primary enforcement since 1997. As of July 2008, 26 States, the District of Columbia and Puerto Rico had primary enforcement laws. Having a primary seat belt law allows law enforcement to issue a belt citation upon observation of a seat belt violation alone. With secondary seat belt laws, police must first observe another violation (e.g. speeding) before being able to issue a seat belt citation.

The primary belt law in Maine went into effect September 20, 2007, with an educational grace period to April 1, 2008. In 2008, NHTSA conducted a three-part evaluation of the implementation and effects of the new primary belt law (Chaudhary, Tison, and Casanova, in review). Because the driver knowledge measurement described in this report is a continuation of their work, this document quotes liberally from the Chaudhary et al. report.

Primary laws have been associated with a higher percentage of observed seat belt use (e.g. Ulmer et al., 1995). In 2008, States with primary laws had an average observed seat belt usage rate about 9 percentage points higher than those with secondary laws (based on NHTSA, 2009).

Seat belt use saves lives. It is estimated that nearly half of passenger vehicle fatalities involving unbelted occupants would be prevented if they had been properly restrained. In practice, changes from secondary to primary belt laws have led, along with greater belt use, to fewer traffic fatalities. For example, in late 1999 and early 2000, Alabama, Michigan, and New Jersey changed their laws from secondary to primary. Chaudhary (in review) reported that these laws increased seat belt use among fatally injured front seat occupants of motor vehicles and also decreased the number of fatalities.

Similar effects were seen with other States as they passed belt use laws – belt use increased but fatalities did not drop as much as expected. One explanation was that the drivers who were buckling up were drivers who were already relatively safe drivers and the risky drivers, more likely to be involved in a crash, remained unrestrained. Thus, those most in need of seat belts were least likely to buckle up. Preusser, Williams, and Lund (1986) showed support for this contention. In their study, researchers went to bars in New York State several months after the New York seat belt law went into effect. Seat belt observations occurring on roadways near taverns showed that 43 percent of drivers during the day were belted but that observed belt use dropped to 36 percent at night, at the same location. Furthermore, drivers most likely to be drinking (and therefore constituted a higher risk) had even lower belt use. Indeed, drivers arriving or leaving bar parking lots at night had a 24 percent belt use rate.

One of the key features, of course, of a primary belt law is that the general public is aware of the law and perceives a high probability of being stopped and ticketed for not being restrained. Chaudhary et al. (in review) conducted three waves of surveys of drivers at Maine Bureau of Motor Vehicles (BMV) offices. They showed that the public was aware of the main feature of the primary belt law, i.e., that they can be stopped and ticketed simply for not wearing their seat belts.

This report repeats the Chaudhary et al. methodology to examine the evolution of driver knowledge and attitudes a year after they were last assessed, 14 months after Maine's primary belt law began to be enforced. Some results from Chaudhary et al. are included here for perspective. This study is one of a number of coordinated seat belt use measurements being undertaken by the State.

Method

Surveys were conducted in eight Bureau of Motor Vehicle (BMV) offices across the state of Maine: Augusta, Bangor, Ellsworth, Kennebunk, Mexico, Portland, Rockland, and South Portland. The offices were selected to provide a representative sampling of Maine drivers. Questions were designed to measure public awareness and perceptions of the new law, its penalties, and enforcement. A copy of the survey is included as Appendix A. Surveys were conducted from June 1, 2009, through June 15, 2009, immediately after the Nationwide *Click It or Ticket* campaign. The survey and methods were identical to those in Chaudhary et al. (in review).

Each individual completing a survey was required to be a licensed driver in the state of Maine. While individuals were waiting to be called at a station, they were approached and asked if they held a valid Maine license. Once qualified, they were asked to complete the anonymous survey.

Results

Demographics

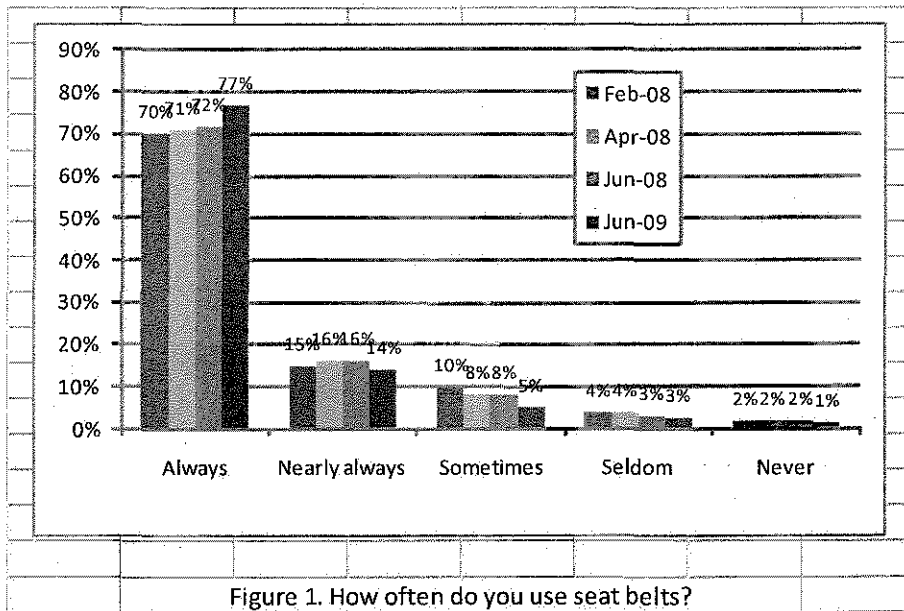
A total of 1,836 driver surveys were completed across the eight BMV offices. Forty-nine percent were male, 51 percent female. Six percent were 20 years old or younger; 11 percent were 21-25; 22 percent were 26-39; 21 percent were 40-49; 18 percent were 50-59; and 22 percent were age 60 or older. Sixteen percent drove less than 5000 miles/year; 29 percent drove 5000-10,000 miles/year; 29 percent drove 10,001-15,000 miles/year; and 26 percent drove more than 15,000 miles/year. Fifty-two percent drove passenger cars; 18 percent drove pickup trucks; 18 percent drove SUVs; 5 percent drove minivans; 2 percent drove full-size vans; and 2 percent drove other kinds of vehicles.

Belt Use

Self-reported belt use has increased from the three measurements in 2008 to the current survey in June 2009. The distribution of June 2009 belt use reports is given in Table 1; comparative values over the four waves are shown in Figure 1. Note that the actual belt use, measured at 120 sites statewide at about 80 percent, declined by about one percent from June 2008 to June 2009.

Table 1. Driver reports: How often they use seat belts

How often wear belts?	Number	Percent
Always	1,407	76.8%
Nearly always	260	14.2%
Sometimes	93	5.1%
Seldom	46	2.5%
Never	27	1.5%
TOTAL N	1,833	



Drivers were asked how their current seat belt use compared to their belt use in recent years. This year's results are shown in Table 2 and, for the four waves, in Figure 2. Drivers in all four waves indicate that their belt use is unchanged (about 60 percent) or is more often (about 17 percent) or much more often (20 percent) than recently. The consistency of these reports is independent of actual belt use, which rose about seven percent over the three waves in 2008 but declined slightly from June 2008 to June 2009.

Table 2. Driver reports: Belt use compared to "last couple of years"

How often wear belts?	Number	Percent
Much less often	19	1.1%
Less often	20	1.1%
About the same	1,102	61.1%
More often	285	15.8%
Much more often	379	21.0%
TOTAL N	1,805	

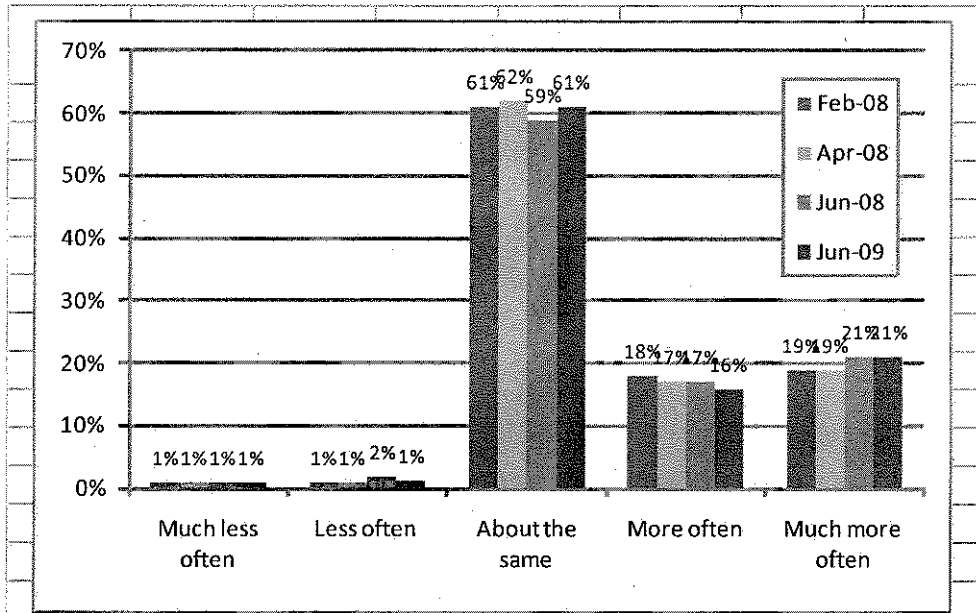


Figure 2. Compared to the last couple of years, do you now wear your seat belt ...

Knowledge of Maine Seat Belt Law and Enforcement

Drivers were asked what they thought was true about possible enforcement scenarios. Nearly 87 percent checked the correct primary law conditions. Incorrect choices were checked by 4.5 percent – 14.2 percent of drivers. (Drivers could check as many as they thought were correct; thus the total adds to more than 100 percent.) The percentage of drivers who thought that police could ticket only if they stopped them for something else, the standard secondary-law condition, was higher this year (14 percent) than in June 2008 (10 percent).

Table 3. Driver opinions: Which of the following they thought was true

Enforcement option	Number	Percent
Police can only give you a seat belt warning if they only stop you for not wearing your seat belt	244	13.3%
Police can give you a seat belt ticket only if they stop you for something else	261	14.2%
Police can give you a seat belt ticket only if there has been an accident	83	4.5%
Police can give you a seat belt ticket whenever they see you not wearing your seat belt	1,592	86.7%
TOTAL N	1,836	

Next, drivers were asked how strictly they think that their local police and the State Police enforce the seat belt law. Drivers gave both groups high marks, as shown in Table 4. Seventy percent of local police, and 77 percent of State Police, are credited with enforcing the seat belt law very strictly or somewhat strictly. These values are slightly higher than results from June 2008, when 68 percent of drivers felt that local police and 75 percent felt that State Police enforced the law very strictly or somewhat strictly.

Table 4. Driver reports: Seat belt law enforcement by police

How strictly enforce belt law?	Local Police		Maine State Police	
	Number	Percent	Number	Percent
Very strictly	420	24.2%	536	31.5%
Somewhat strictly	792	45.6%	768	45.2%
Not very strictly	356	20.5%	278	16.4%
Rarely	126	7.3%	89	5.2%
Not at all	41	2.4%	28	1.6%
TOTAL N	1,735		1,699	

Drivers also rated what they thought their chances were of getting a seat belt ticket if they drove without wearing their seat belt. Almost half (47.3 percent) felt that they would be ticketed always or nearly always if they were not properly buckled up. This is slightly higher than in June 2008, when 46 percent of drivers thought so.

Table 5. Driver reports: Chances of getting a ticket if driving unbelted

Chances of getting a ticket?	Number	Percent
Always	408	22.7%
Nearly always	443	24.6%
Sometimes	644	35.8%
Seldom	251	14.0%
Never	53	2.9%
TOTAL N	1,799	

Although a large number of drivers think enforcement is high and the likelihood of being ticketed for belt non-use, relatively few have actually received a seat belt ticket. Just 7.7 percent, 137 out of 1,771 drivers responding, report receiving a seat belt ticket.

Respondents were asked what the consequences would be if they got a seat belt ticket. Seventy-three percent felt they would have to pay a fine (of them, 71 percent knew the correct amount), 6 percent felt they could get the ticket dismissed in court or by going to traffic school, and 27 percent did not know. These values are similar to those measured in 2008, though the number checking “do not know” had declined from 27 percent in February 2008 to 22 percent by June 2008.

Table 6. Driver reports: What would happen if they got a seat belt ticket (*check all that apply*)

Consequences of seat belt ticket (check all ...)	Number	Percent
Could get ticket dismissed by going to court or traffic school	105	5.7%
Pay a fine: If so, how much?	1,346	73.3%
\$10-15	48	3.6%
\$20-25	90	6.7%
\$30-35	95	7.1%
\$50 or more (correct)	962	71.5%
Did not check an amount	151	11.2%
Don't know	498	27.1%
TOTAL N	1,836	

Awareness of Enforcement and Media Seat Belt Efforts

The remaining survey questions asked drivers what they had seen or heard recently about using seat belts. Note that these surveys were administered just at the end of the annual CIOT program with media and highly visible enforcement.

Three questions asked about different aspects of awareness. They are summarized in Table 7.

Table 7. Driver awareness of seat belt use efforts

Enforcement option	Number	Percent
In the past month, have you seen or heard about extra enforcement where police were looking at seat belt use?	896	48.8%
In the past month, have you personally experienced enforcement by police looking at seat belt use?	258	14.1%
Have you recently read, seen or heard anything about seat belts in Maine?	1,209	65.8%
TOTAL N	1,836	

Approximately two-thirds (66 percent) of the respondents noticed something about seat belts. Nearly half (49 percent) were aware of an emphasis on enforcement of the seat belt law. One in seven (14 percent) had personal experience with that police enforcement emphasis.

Those who had indicated a general awareness were asked to check where they had seen or heard something and what message theme(s) they recalled. The results are summarized in Tables 8 and 9 below.

Television was the most cited medium, by 37 percent of all respondents, followed by radio (25 percent), newspaper (23 percent), billboards (7 percent), posters (5 percent), and police checkpoints (5 percent). "Other" medium was selected by 8 percent of the respondents; the very few people explaining that indicated word of mouth or something related to their occupation.

Table 8. Where did they see or hear about seat belts in Maine (*check all that apply*)

Where see/hear about seat belts	Number	Percent
Newspaper	426	23.2%
Radio	465	25.3%
Bus shelter	9	0.5%
Television	681	37.1%
Poster	92	5.0%
Billboard	137	7.5%
Police checkpoint	88	4.8%
Other	153	8.3%
TOTAL N RESPONDENTS	1,836	

The most mentioned theme of the messages, by 54 percent of the respondents, was Click It or Ticket, which was the national theme. Twenty-three percent identified Buckle Up Maine as the theme they had heard, followed by You Drink, You Drive, You Lose (8 percent).

Table 9. What theme or themes were mentioned (*check all that apply*)

What did the messages say?	Number	Percent
Click it or ticket	986	53.7%
You drink, you drive, you lose	155	8.4%
Buckle up Maine	429	23.4%
55 Alive	20	1.1%
Other	69	3.8%
TOTAL N RESPONDENTS	1,836	

Discussion

In eight Maine Bureau of Motor Vehicles offices in June 2009, 1,836 drivers with valid Maine driver's licenses completed one-page surveys. Drivers were surveyed about their knowledge of seat belt law, enforcement, and recent campaigns to increase awareness and compliance as well as their own attitudes, belt use, and experiences.

This survey is an extension of three surveys conducted in 2008 around April 1, 2008, which was the time that Maine's primary seat belt law first began to be enforced. The third of those surveys was done in early June 2008, after the national CIOT enforcement and media campaign. The present survey was done in early June 2009, also just after the CIOT emphasis. Overall seat belt use in passenger vehicles, as measured by Maine in Section 157-compliant observations, was 83.0 percent in 2008 and 82.6 percent in 2009.

Most drivers reported high personal use of seat belts (77 percent "always" and 14 percent "nearly always"), consistent with actual statewide use. Although actual statewide belt use was unchanged from 2008, drivers consistently reported using their seatbelts more: for all four waves (three in 2008 and this one in 2009), about 60 percent of drivers reported "about the same" belt use as in preceding years, about 17 percent reported "more often", and about 20 percent reported "much more often". While some of this optimism corresponds to real improvement – with Maine's adoption of its primary law there was an increase of about 7 percentage points – this pattern of reported improvement was virtually identical across the four waves, suggesting more of a persistent outlook than a discerning view of reality.

Maine drivers were generally correct in their understanding of the belt law in this survey, with 87 percent knowing they could be ticketed just for not wearing their belt, nearly three-quarters (73 percent) knowing they could be fined, and three-quarters of *them* (71 percent) knowing the amount of the fine.

Maine drivers generally believe that their local police and the State Police strictly enforce the seat belt laws. Nearly half (47 percent) believe their chances of getting a ticket if they don't wear their seat belt is "always" or "nearly always," a useful view for maintaining high belt use but clearly inaccurate, since the number of unbelted drivers (about 17 percent of all drivers during daytime, more at night) far, far exceeds the number of seat belt tickets written.

Most drivers (54 percent) were aware of the CIOT campaign completed just before the surveys were administered. In addition, however, 23 percent recognized the "Buckle Up Maine" campaign, though it seems quite possible that this "campaign" does not actually exist.

References

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- Chaudhary, N.K., Tison, J., & Casanova, T. (in review) Evaluation of Maine's Safety Belt Law Change from Secondary to Primary Enforcement. NHTSA Contract No. DTNH22-05-D-15043, Task Order x, Final Report.
- NHTSA. (2009) Traffic Safety Facts: Occupant Protection, 2008 Data, DOT HS 811 160.
- Preusser D.F., Williams A.F., & Lund A.K. (1986). Seat belt use among New York bar patrons. *Journal of public health policy*, 7, 470-9.
- Ulmer, R.G., Preusser, C.W., & Preusser, D.F. (1995). Evaluation of California's safety belt law change from secondary to primary enforcement. *Journal of Safety Research*, 26 , 213-220.

Appendix A

The survey is given in its entirety on the next page.

This Driver Licensing Office is assisting in a vehicle safety study. Your answers to the following questions are voluntary and anonymous. Please complete the survey and then put it in the drop box.

1. Your sex: Male Female
2. Your age: Under 21 21-25 26-39 40-49 50-59 60 Plus
3. Your Zip Code: _____
4. About how many miles did you drive last year?
 Less than 5,000 5,000 to 10,000 10,001 to 15,000 More than 15,000
5. What type of vehicle do you drive most often?
 Passenger car Pickup truck Sport utility vehicle Mini-van Full-van Other
6. How often do you use seat belts when you drive or ride in a car, van, sport utility vehicle or pickup?
 Always Nearly always Sometimes Seldom Never
7. Compared to the last couple of years, would you say that you now wear your seat belt:
 Much less often Less often About the same More often Much more often
8. Which of the following do you think is true (check all that apply):
 Police can only give you a seat belt warning if they only stop you for not wearing your seat belt
 Police can give you a seat belt ticket only if they stop you for something else
 Police can give you a seat belt ticket only if there has been an accident
 Police can give you a seat belt ticket whenever they see you not wearing your seat belt
9. Do you think your local Police enforce the seat belt law:
 Very strictly Somewhat strictly Not very strictly Rarely Not at all
10. Do you think the Maine State Police enforce the seat belt law:
 Very strictly Somewhat strictly Not very strictly Rarely Not at all
11. What do you think the chances are of getting a ticket if you don't wear your seat belt?
 Always Nearly always Sometimes Seldom Never
12. Have you ever received a ticket for not wearing your seat belt? Yes No
13. If you were to get a seat belt ticket what would happen (Check all that apply):
 Could get ticket dismissed by going to court or traffic school
 Pay a fine
 How much? \$10-\$15 \$20-\$25 \$30-\$35 \$50 or more
 Don't know what would happen
14. In the past month, have you seen or heard about extra enforcement where police were looking at seat belt use?
 Yes No
15. In the past month, have you personally experienced enforcement by police looking at seat belt use?
 Yes No
16. Have you recently read, seen or heard anything about seat belts in Maine?
 Yes No

If yes, where did you see or hear about it? (Check all that apply):

- Newspaper Radio Bus shelter TV Poster Billboard Police checkpoint Other

If yes, what did it say?

- Click it or Ticket You Drink, You Drive, You Lose Buckle Up Maine 55 Alive

Other _____

