



Several questions included in the 1998 survey asked about boating safety and the enforcement of boating laws and regulations. Questions asked cover boating accidents, safety checks and assistance by law enforcement officers, and boater safety education. Boaters' responses to these questions and actual data collected from law enforcement and accident reports aid the Marine Board in evaluating its law enforcement, safety and education programs.

The Marine Board contracts for marine law enforcement services with county sheriffs in 32 counties, and with the Oregon State Police for coverage in other counties as well as statewide. The agency also works closely with the U.S. Coast Guard.

The Marine Board actively promotes boater safety education as well. Working with its law enforcement partners, the agency provides curricula, materials, and support for in-school programs. The Board also develops publications, conducts public outreach, and supports the efforts of boating groups such as the U.S. Coast Guard Auxiliary and the U.S. Power Squadrons.

Separately from the survey but as part of a regular safety program, the agency tracks and analyzes information from boating accident reports. By Oregon law, boating accidents involving a death or disappearance, an injury requiring medical treatment, or at least \$500 in damage must be reported. However, the agency estimates only 10 to 15 percent of "reportable" accidents are reported. Responses to the survey questions on accidents are used to augment actual reports and to help the agency develop better strategies for preventing accidents.

## 5.1 Boating Accidents

In the 1998 survey, 1.9 percent of boaters report being involved in an accident that resulted in more than \$500 damage to any boat or boats; 1.1 percent report that someone was injured or had to be treated as a result of an accident. These results suggest that there may have been as many as 2,663 accidents on Oregon's waterways between October 1, 1997 and September 30, 1998 that should have been reported. Likewise, the survey indicates that there were 1,581 accidents where a person or persons needed medical attention as a result of the accident. Both figures are down from the 1995 survey, when 2.5 percent (3,291 boaters) reported damage and 1 percent (1,285) reported injuries.

Comparing the 1998 survey results with 1995 shows similar numbers and percent of boaters experiencing accidents:

<b>Survey question</b>	<b>1995%</b>	<b>1998%</b>	<b>1995 Est.</b>	<b>1998 Est.</b>
Collision with other boat	2.7	2.7	3,578	3,826
Collision with fixed hazard	3.2	3.3	4,289	4,573
Collision with floating hazard	6.5	5.8	8,600	8,208
Accident with > \$500 damage	2.5	1.9	3,291	2,663
Accident with treated injury	1.0	1.1	1,286	1,581

*Information about boaters' training, encounters with law enforcement, and the incidence of accidents are presented in this chapter.*

These figures are taken from survey results, not from actual accident reports. In comparison, actual reports filed with the Marine Board during the corresponding survey period indicate only 125 accidents took place statewide. This includes 20 fatalities. Between 1994 and 1998, the number of accidents reported annually ranged between 115 and 144 . While there appears to be significant under-reporting for most accidents, the Board believes that the statistics for accidents involving fatalities are accurate.

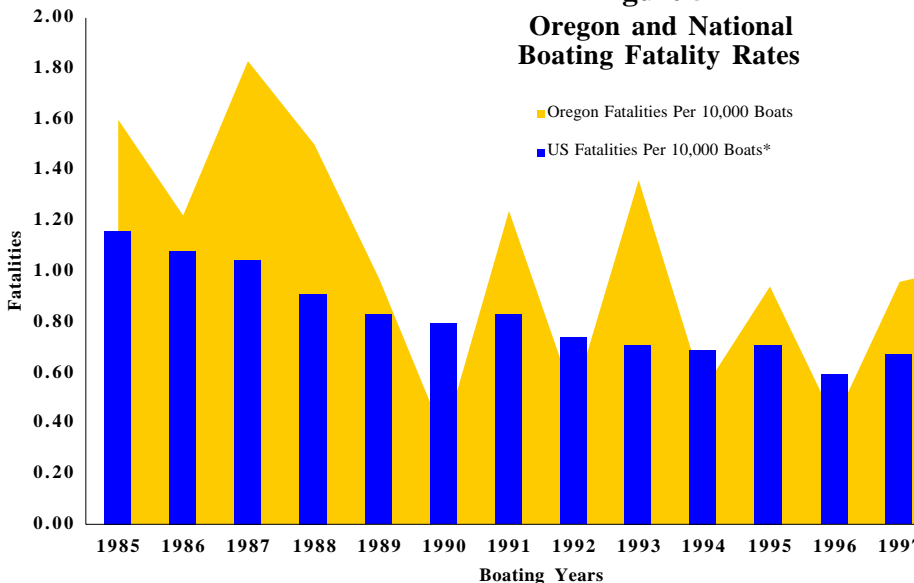
Boating accidents remain a serious concern to the Marine Board. Accidents involving fatalities are, of course, a primary concern. Over the past decade, the number of boating fatalities each year in Oregon has exceeded 10 in most years. Since 1985, the fewest number of deaths related to boating occurred in 1990 when only seven people lost their lives in a boating accident. The high was 28 deaths in 1987. Still, on the basis of deaths per 10,000 registered boats, there appears to be a steady decline in fatalities. This is also true for boating-related deaths nationwide. See Table 5-1 and Figure 5-1. For a comparison with national boating fatality rates, see Figure 5-2.

For more than a decade, the main contributing factors in boating deaths in Oregon have been:

- failure to wear life jackets or personal flotation devices;
- cold waters which can quickly incapacitate boaters who fall overboard;
- the use of alcohol.

Boating accidents do not increase in proportion to the size or potential speed of the craft. Non-motorized craft such as canoes, kayaks and rafts, and smaller power boats less than 17 feet long, have accounted for a large share of Oregon boating deaths during the decade. Personal watercraft are the exception, accounting for a disproportionate number of accidents in relationship to their population.

**Figure 5-1  
Oregon and National  
Boating Fatality Rates**



Survey Year	Fatalities	Oregon Fatalities Per 10,000 Boats	US Fatalities Per 10,000 Boats*
1985	23	1.60	1.16
1986	18	1.22	1.08
1987	28	1.83	1.04
1988	24	1.50	0.91
1989	16	0.97	0.83
1990	7	0.35	0.79
1991	21	1.24	0.83
1992	9	0.50	0.74
1993	25	1.36	0.71
1994	10	0.53	0.69
1995	18	0.94	0.71
1996	8	0.41	0.59
1997	19	0.96	0.67
1998	20	1.02	no info.

## 5.2 Boating Checks and Assistance

Survey questions 12 through 16 asked about law enforcement checks, assistance provided, and the quality of service and information offered by marine law enforcement officers.

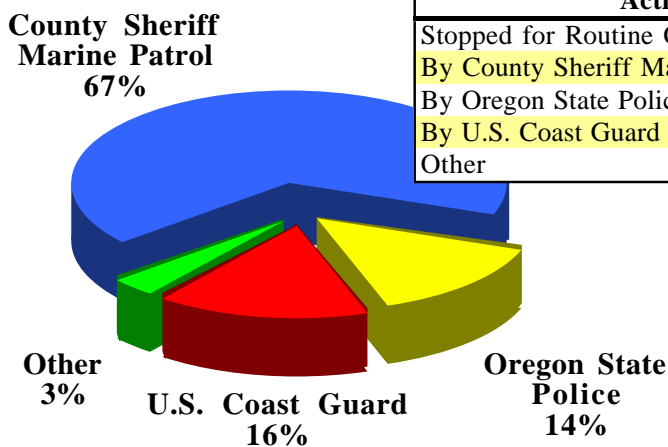
County marine patrols and the Oregon State Police report their enforcement and education activities to the Marine Board on a monthly basis. Agency records for the 1997-98 boating year indicate officers made 38,096 compliance checks, gave 15,420 warnings, and issued 2,907 citations for various boating violations.

### Compliance Checks

Nearly half of boaters surveyed (46 percent) report being stopped for a routine compliance check, also known as a boat safety examination. This is up from 32.3 percent reported in 1995. See Table 5-2 for a full comparison. Over ten percent of boaters checked were stopped more than once.

County marine deputies performed the most safety checks, accounting for two-thirds of all stops. Oregon State Police conducted 14 percent of all checks and the U.S. Coast Guard 16 percent. See Figure 5-2 below.

**Figure 5-2**  
Percent Share of Total Stops by Agency



**Table 5-2**  
Routine Compliance Checks: 1995 vs 1998

Activity	Percent		Percent Change
	1995	1998	
Stopped for Routine Compliance Check	32.3	45.6	13.3
By County Sheriff Marine Patrol	65.0	40.0	-25.0
By Oregon State Police	16.9	8.5	-8.4
By U.S. Coast Guard	15.1	9.4	-5.7
Other	2.5	2.0	-0.5

*Marine patrols are extremely active, making contact with almost half of all boaters who used their boats in 1998.*

### Boating Violations

Responses indicate that 7,877 boaters (5.7 percent of all boaters) were stopped for boating violations during the survey year. The number remains very close to the 5.8 percent reported in the 1995 survey. Of those stopped in 1998, 59 percent (4,567) report receiving warnings, with 24 percent (1,856) receiving citations, and 7.5 percent (579) receiving both.

## Assistance

For the 1998 survey, 9.1 percent of boaters report receiving some kind of assistance, up from 7.6 percent in the 1995 survey. “Other boaters” are most often the source of assistance, with a county sheriff marine patrol being the next most common source. See Table 5-3.

Source	Percent		Percent Change
	1995	1998	
Other Boaters	42.5	45.5	3.0
County Sheriff Marine Patrol	28.0	28.0	0.0
Other Boaters	13.4	9.7	-3.7
U.S. Coast Guard	11.7	11.8	0.1
Oregon State Police	4.2	5.0	0.8

## Service

For both compliance checks and assistance, the survey asked boaters to rate the courtesy and professionalism of the officer(s) and the service/quality of information provided. In both cases, where ratings are given, more than 50 percent of the ratings are “excellent” and more than 30 percent are “good.” In general, marine officers are viewed by the boating public represented in the survey as highly professional in their duties and offering valuable information. See Table 5-4.

	Excellent	Good	Fair	Poor
<b>Courtesy / Professionalism of Officer</b>				
Percent in 1995:	58.1	29.5	8.2	4.3
Percent in 1998:	55.8	30.3	5.4	8.5
<b>Service Provided by Officer</b>				
Percent in 1995:	56.1	31.7	7.3	4.8
Percent in 1998:	50.6	34.9	8.1	6.4

*Over 85 percent of all boaters contacted rate marine patrol officers as “excellent” or “good” for their courtesy and professionalism as well as for the quality of service they provide.*



## 5.3 Boater Safety Education

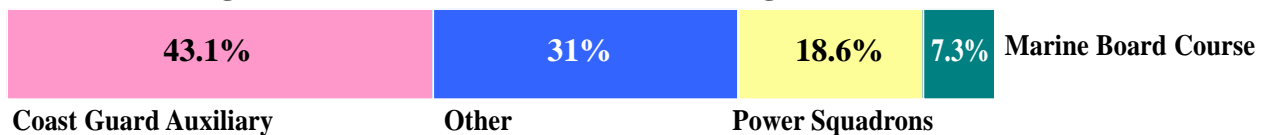
### Boating Safety Courses

Boaters were asked whether they had taken a safety course from the Marine Board or another boating organization. In the 1998 survey, 31.8 percent report that they have taken safety courses, down from 38 percent in the prior survey. The U.S. Coast Guard Auxiliary is mentioned as the most frequent source at 16.5 percent, with “other” at 11.8 percent, U.S. Power Squadrons at 7.1 percent, and the Marine Board’s correspondence course at 2.8 percent. See Table 5-5.

*Over 30 percent of all boaters say they have taken a boating safety course.*

Source	Percent		Percent Change
	1995	1998	
Coast Guard Auxiliary	16.1	16.5	0.4
Other	11.7	11.8	0.1
U.S. Power Squadrons	7.8	7.1	-0.7
Oregon Marine Board correspondence course	2.4	2.8	0.4

**Figure 5-3  
Percentage Share of All Courses Taken According to Source**



### Opinion About Mandatory Education

A new question asked boaters their opinion about requiring safety education for boaters. The survey gave respondents choices in relation to ages of operator and horsepower and type of craft. Overall, 87.7 percent support mandatory education for boaters in one or more of the categories offered. The least amount of support, with only 36.6 percent in favor, is for requiring education for any operator of a motorboat. Mandatory education for operators of motorboats with more than 25 horsepower is supported by 37.7 percent. For boats with motors greater than 50 horsepower, there is 48.6 percent support. Boaters expressed strong support, at 72.3 percent, for requiring education for operators of personal watercraft. The greatest support, with 72.5 percent, is for requiring an education course for any motorboat operator under 16 years of age,

*The 1999 Oregon Legislature passed legislation to require all operators of motorboats over 10 horsepower to pass a boating safety course. The requirement is to be phased in over a ten-year period.*

<b>Option for requiring an education course</b>	<b>Percent Yes</b>	<b>Percent No</b>
Any operator boat propelled by motor	36.6	63.4
Any motorboat operator under 16 yrs.	72.5	27.5
Any operator boat w/motor over 25 HP	37.7	62.3
Any operator boat w/motor over 50 HP	48.6	51.4
Any operator personal watercraft	72.3	27.7

## Boating Safety Messages

The Marine Board has conducted several boating safety information campaigns in recent years; survey questions provide one measure of the effectiveness of this outreach. A substantial 93.3 percent of respondents report hearing or seeing a boating safety message from some source. As might be expected, television is once again the most-often reported source at 85.9 percent, up from 82.8 percent in 1995. Television is followed by newspapers (52.5 percent) and radio (49 percent), with billboards trailing (26.4 percent). There have been progressively increased responses in each category since the 1992 survey. See Table 5-6.

Source of Safety Message	Percent		Percent Change
	1995	1998	
Television	82.8	85.9	3.1
Newspaper	49.2	52.5	3.3
Radio	42.8	49.0	6.2
Billboard	25.0	26.4	1.4
Other	17.3	17.6	0.3

*Nearly all boaters surveyed, 93 percent, have seen a boating safety message at some time during the period covered by the survey.*

