

Section F

Water

Table 2-41
Waterborne Transportation Safety and Property Damage Data Related to Vessel Casualties

	1970	1975	1980	1985	1990	1995	1996	1997	1998	1999
Fatalities ^a	178	243	206	131	85	46	50	46	59	44
Injured persons	105	97	180	172	175	145	129	109	107	113
Accidents ^b	2,582	3,310	4,624	3,439	3,613	4,196	3,799	3,704	3,872	3,654
Vessels ^c	4,063	5,685	7,694	5,694	5,494	6,849	6,075	5,819	5,793	5,285
Property damage (current \$ millions)	U	U	U	U	U	127.2	111.8	128.5	161.5	115.3

^a Fatalities include the number of people who died or were declared missing subsequent to a marine accident.

^b Accidents in this table are cited as "marine casualty cases" by the U.S. Department of Transportation, U.S. Coast Guard.

^c More than one vessel may be involved in a marine accident.

NOTES: All deaths and injuries cited result from vessel casualties, such as groundings, collisions, fires, or explosions. The data are for all commercial vessels under U.S. jurisdiction, including U.S. flag vessels anywhere in the world and foreign flag vessels within the

jurisdiction of the United States (within 12 miles, or having an interaction with a U.S. entity, such as a platform within 200 miles or a collision with a U.S. ship). Includes commercial fishing vessels.

1992-98 data come from the Marine Safety Management Information System. Data for prior years may not be directly comparable.

SOURCE: U.S. Department of Transportation, U.S. Coast Guard, Office of Investigations and Analysis, Compliance Analysis Division (G-MOA-2), personal communication.

KEY: U = data are not available

Table 2-42
Waterborne Transportation Safety Data not Related to Vessel Casualties

	1970	1975	1980	1985	1990	1995	1996	1997	1998	1999
Fatalities ^a	420	330	281	130	101	137	111	108	76	67
Injured persons	U	U	U	U	U	1,916	1,298	947	474	399
Vessels ^b	U	321	274	128	98	131	^R 1,409	1,023	506	426

^a Fatalities include people who were declared missing.

^b Figures represent the number of vessels involved in nonvessel casualties. These vessels were not part of the accident, but the accident may have occurred on the vessel (e.g., crewmembers swept overboard by a wave).

NOTES: Fatalities and injuries cited arise from an event not related to a marine casualty, such as falls or electrocution.

1992-98 data come from the Marine Safety Management Information System. Data for prior years may not be directly comparable.

SOURCE: U.S. Department of Transportation, U.S. Coast Guard, Office of Investigations and Analysis, Compliance Analysis Division (G-MOA-2), personal communications.

KEY: R = revised; U = data are not available

Table 2-43

Recreational Boating Safety, Alcohol Involvement, and Property Damage Data

	1960	1965	1970	1975	1980	1985	1990	1995	1996	1997	1998	1999
Fatalities	739	1,360	1,418	1,466	1,360	1,116	865	829	709	821	^R 815	734
Injuries	929	927	780	2,136	2,650	2,757	3,822	4,141	4,442	4,555	^R 4,612	4,315
Accidents	2,738	3,752	3,803	6,308	5,513	6,237	6,411	8,019	8,026	^R 8,047	^R 8,061	7,935
Vessels involved	3,785	4,792	4,762	8,002	6,954	8,305	8,591	11,534	11,306	11,396	11,368	U
Numbered boats ^a (millions)	2.5	6.4	7.4	7.3	8.6	9.6	11.0	11.7	11.9	12.3	12.6	U
Rates per 100,000 numbered boats												
Fatalities	32.8	21.3	19.2	20.1	15.8	11.6	7.8	7.1	6.0	6.7	6.5	U
Injuries	37.1	14.5	10.5	29.3	30.8	28.7	34.7	35.4	37.3	37.0	36.7	U
Accidents	109.5	58.6	51.4	86.4	64.1	65.0	58.3	68.5	67.4	65.4	64.1	U
Accident reports citing alcohol involvement	N	N	N	N	N	279	568	472	601	^R 698	704	U
Property damage (current \$ millions)	3.2	4.7	8.2	10.4	16.4	20.0	23.8	^R 30.3	^R 23.2	29.0	31	U

^a Prior to 1975, the count of numbered boats is an estimate.

NOTE: Only a small fraction of property damages and nonfatal accidents are reported to the U.S. Coast Guard.

SOURCE: U.S. Department of Transportation, U.S. Coast Guard, Office of Boating Safety, *Boating Statistics* (Washington, DC: Annual issues).

KEY: N = data do not exist; R = revised
U = data are not available

Table 2-44

Personal Watercraft Safety Data

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1987-98
Fatalities	5	20	20	28	26	34	35	56	68	57	84	78	511
Injured persons	156	254	402	532	708	730	915	1,338	1,617	1,837	1,812	1,743	12,044
Accidents ^a	376	650	844	1,162	1,513	1,650	2,236	3,002	3,986	4,099	4,070	3,607	27,195
Sales	29,000	48,000	64,000	72,000	68,000	79,000	107,000	142,000	200,000	191,000	176,000	130,000	1,306,000
Number in use	92,756	126,881	178,510	241,376	305,915	372,283	454,545	600,000	760,000	900,000	1,000,000	1,100,000	6,132,266

^a Total vessels involved.

NOTE: Personal watercraft are less than 13 feet in length and are designed to be operated by a person or persons sitting, standing, or kneeling on craft rather than within the confines of the hull.

SOURCES:

Fatalities, Injuries, and Accidents: U.S. Department of Transportation, United States Coast Guard, Office of Boating Safety, *Boating Statistics - 1998* (Washington, DC: 1999).

Sales: Personal Watercraft Industry Association, Internet site http://www.pwia.org/Abo_PWC.htm, as of June 19, 2000.

Use: 1987-96: National Marine Manufacturers Association, data compiled by the United States Coast Guard, personal communications.

1997-98: Ibid., Internet site <http://www.nmma.org/facts/boatingstats/statistic98.html>, as of June 19, 2000.

Table 2-45

U.S. Coast Guard Search and Rescue Statistics, Fiscal Year

	1985	1990	^e 1991	1992	1993	1994	1995	1996	1997	1998	1999
Cases	60,775	^R 53,097	^R 52,782	^R 53,294	^R 53,026	^R 53,899	^R 49,704	^R 43,553	^R 41,096	37,218	39,844
Responses ^a	70,237	^R 64,971	^R 66,409	69,856	69,784	^R 70,337	^R 63,679	55,710	^R 52,141	46,602	50,622
Sorties ^a	88,449	84,033	84,872	88,388	88,147	^R 108,758	^R 110,267	98,423	^R 91,722	83,307	89,635
Search and Rescue resource hours ^{Rb}	U	108,020	109,194	108,634	107,431	102,749	93,984	85,136	80,336	80,070	80,490
Lives saved	6,497	^R 4,407	^{Re} 5,465	^R 17,543	^R 5,826	^{Rf} 23,211	^R 4,453	^R 5,047	^R 3,897	3,194	3,743
Lives lost before notification ^c	259	^R 622	^R 748	^R 540	^R 800	^R 593	^R 468	^R 611	^R 454	418	353
Lives lost after notification ^d	1,076	^R 463	^R 368	^R 399	^R 415	^R 338	^R 304	^R 367	^R 290	188	180
Total lives lost	1,335	^R1,085	^R1,116	^R939	^R1,215	^R931	^R772	^R978	^R744	606	533
Persons otherwise assisted	138,791	^R 117,327	^R 113,704	^R 121,826	^R 119,069	^R 116,912	^R 101,357	^R 85,869	^R 75,357	66,138	70,255
Value of property lost (\$ million)	424.3	^R 368.5	^R 213.6	^R 314.5	^R 316.2	^R 435.5	^R 222.6	^R 273.8	^R 414.8	84.3	262.3
Value of property assisted (\$ millions)	2,376.8	^R 2,044.9	^R 2,282.4	^R 1,951.4	^R 2,491.8	^R 2,891.2	^R 4,467.2	^R 3,494.2	^R 1,762.1	1,288.2	1,235.0
Property loss prevented (\$ million)	905.4	^R 1,673.4	^R 1,799.3	^R 1,550.1	^R 2,144.7	^R 2,628.4	^R 3,882.8	^R 3,087.3	^R 1,353.5	996.8	1,019.0

KEY: R = revised; U = data are not available

^a Responses are the number of U.S. Coast Guard units involved. Sorties are the number of trips made by boat, aircraft, or cutter.

^b Search and Rescue resource hours represent the time that Coast Guard assets (i.e., air craft, boats and cutters) perform Search and Rescue operations.

^c Those persons whose lives were lost before the U.S. Coast Guard was notified of an incident.

^d Those persons whose lives were lost in an incident to which the U.S. Coast Guard was responding, but who were alive at the time the U.S. Coast Guard was notified of the incident.

^e Calculations are lower in fiscal year 1991 due to incomplete data submissions by two districts.

^f The Search and Rescue management Information System's reporting policy has been revised, and now requires complete reporting on all lives saved. This policy also includes reporting on "lives saved" in connection with Coast Guard Law Enforcement Activity

(i.e., Alien Migrant Interdiction Operations (AMIO)). AMIO lives saved in fiscal year 1992 was determined to be approximately 12,000. AMIO lives saved in fiscal year 1994 was determined to be 15,179.

SOURCE: U.S. Department of Transportation, U.S. Coast Guard, Search and Rescue Management Information Systems (SARMIS II) Database, 2000 for all data except Search and Rescue resource hours U.S. Department of Transportation, U.S. Coast Guard, Abstract of Operations database, 2000 for Search and Rescue resource hours.