

Training Scuba Divers: A Fatality and Risk Analysis

DAN Diving Fatality Workshop
8-10 April, 2010
Durham Hotel
Durham, North Carolina, USA



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Introduction

Scuba diving has inherent risk. As a diver training and educational institution, the PADI organization exists to train scuba instructors and divers to mitigate risk so that scuba diving can be experienced in a reasonably safe manner.

- Safety – a judgment of acceptable risk
- Risk – a measure of the probability & severity of harm

- *W.W. Lowrance, "Of Acceptable Risk: Science and the Determination of Safety", 1976*

How Safe is Scuba Diving?

To Answer –

1. Measure risk scientifically
2. Judge the acceptability of that risk: personal / social value judgment
3. From there, one can apply objective input into improving safety or practice
4. Objective risk estimates: based on knowledge of past occurrence of injuries, their frequencies, numbers of persons exposed and measures of their exposure (Denoble et al, 2008)

Risk & Quality Management Program at PADI

- The PADI organization systematically collects diving incident & fatality data as part of an internal & comprehensive quality & risk management surveillance & monitoring system
- The PADI organization employs the largest full-time staff of risk & quality management personnel across its 7 international offices in recreational diving
- These employees manage & administrate a robust quality management system, both proactively & retrospectively monitoring PADI training program standards, conduct, implementation & outcomes around the world
- PADI Instructors work in 175 countries & are bound by organizational standards & an annual membership agreement, a code of practice & a requirement of insurance coverage

Table 1: PADI Certifications by Year since Inception

Year	Certifications Per Year	Cumulative Certifications	Growth Percentage
1967	3,226	3,226	
1968	8,442	11,668	161.69%
1969	12,168	23,836	44.14%
1970	23,736	47,572	95.07%
1971	36,490	84,062	53.73%
1972	51,842	135,904	42.07%
1973	60,120	196,024	15.97%
1974	49,834	245,858	-17.11%
1975	61,244	307,102	22.90%
1976	66,609	373,711	8.76%
1977	69,771	443,482	4.75%
1978	86,187	529,669	23.53%
1979	95,193	624,862	10.45%
1980	107,404	732,266	12.83%
1981	124,365	856,631	15.79%
1982	141,429	998,060	13.72%
1983	168,778	1,166,838	19.34%
1984	203,001	1,369,839	20.28%
1985	240,384	1,610,223	18.42%
1986	277,378	1,887,601	15.39%
1987	315,468	2,203,069	13.73%

Year	Certifications Per Year	Cumulative Certifications	Growth Percentage
1988	350,000	2,553,069	10.95%
1989	387,767	2,940,836	10.79%
1990	440,418	3,381,254	13.58%
1991	456,046	3,837,300	3.55%
1992	529,463	4,366,763	16.10%
1993	564,672	4,931,435	6.65%
1994	625,487	5,556,922	10.77%
1995	680,263	6,237,185	8.76%
1996	717,973	6,955,158	5.54%
1997	743,763	7,698,921	3.59%
1998	775,735	8,474,656	4.30%
1999	799,696	9,274,352	3.09%
2000	852,702	10,127,054	6.63%
2001	907,171	11,034,225	6.39%
2002	896,977	11,931,202	-1.12%
2003	907,722	12,838,924	1.20%
2004	954,049	13,792,973	5.10%
2005	927,529	14,720,502	-2.78%
2006	936,579	15,657,081	0.98%
2007	952,716	16,609,797	1.72%
2008	952,097	17,561,894	-0.06%
2009	897,401	18,459,295	-5.74%

Study Methodology

Annual records of certifications issued, resultant training dives conducted & reports of diving fatality cases collected by the Professional Association of Diving Instructors (PADI) were examined for two ten-year periods: *1989-1998* and *1999-2008* respectively.

3 Sets of Data were Grouped & Analyzed for Each of the 10-year Periods

- (Data Set 1) Fatalities occurring during PADI-sanctioned training programs or under supervision of a PADI Member while enrolled in a non-PADI program;
- (Data Set 2) Diving fatalities occurring outside of PADI-sanctioned training programs & involving a PADI-certified diver; and
- (Data Set 3) Fatalities involving a PADI diving professional (Divemaster / Assistant Instructor / Instructor) while at work.

Combined Fatalities During the 20-Year Period

	1989 – 1998	1999 – 2008	Total
Data Set 1	111	193	304
Data Set 2	290	518	808
Data Set 3	<u>8</u>	<u>14</u>	<u>22</u>
Total	409	725	1,134

Top 10 Fatality Locations

- Top 10 Locations (descending order): 210 of 409 = 51.3% of all recorded fatalities between 1989-1998.
- Location# FL53 CA38 HI21 ENGLAND20 MEXICO19 EGYPT15 BAHAMAS12 NY11 TX11 PA10
- Top 10 Locations (descending order): 348 of 725 = 48% of all recorded fatalities between 1999-2008.
- Location# EGYPT46 FL46 AUSTRALIA38 MEXICO37 CA33 CANADA33 ENGLAND32 THAILAND32 HI26 JAPAN25

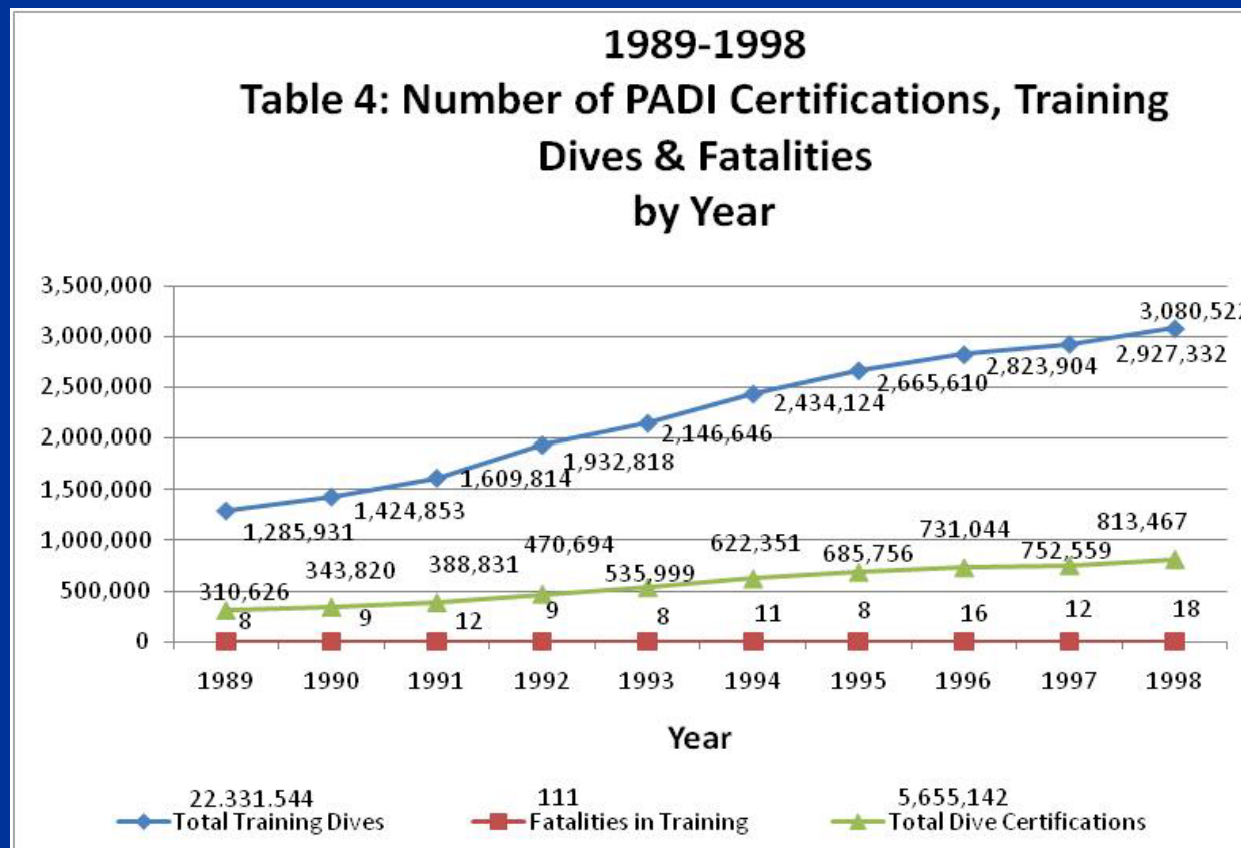
**Data Set 1: Fatalities occurring
during PADI- sanctioned
training programs or under
supervision of a PADI
Member while enrolled in a
non-PADI program**



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Data Set 1A: Fatalities in training programs or under supervision (1989-1998)

An overall fatality rate for divers in training or under supervision for this 10 year period was calculated to be 1.821/100,000 divers with a range of 1.167 to 2.829 per 100,000 divers. The fatality rate for the 1989-1998 period for training dives was 0.461/100,000 dives with a range of 0.300 to 0.683 per 100,000 dives.



Data Set 2A: Fatalities in training programs or under supervision (1999-2008)

An overall fatality rate for divers in this 10 year period was calculated to be 1.660/100,000 divers with a range of 0.918 to 2.698 per 100,000 divers. The fatality rate for the 1999-2008 period for training dives was 0.472/100,000 dives with a range of 0.283 to 0.692 per 100,000 dives.

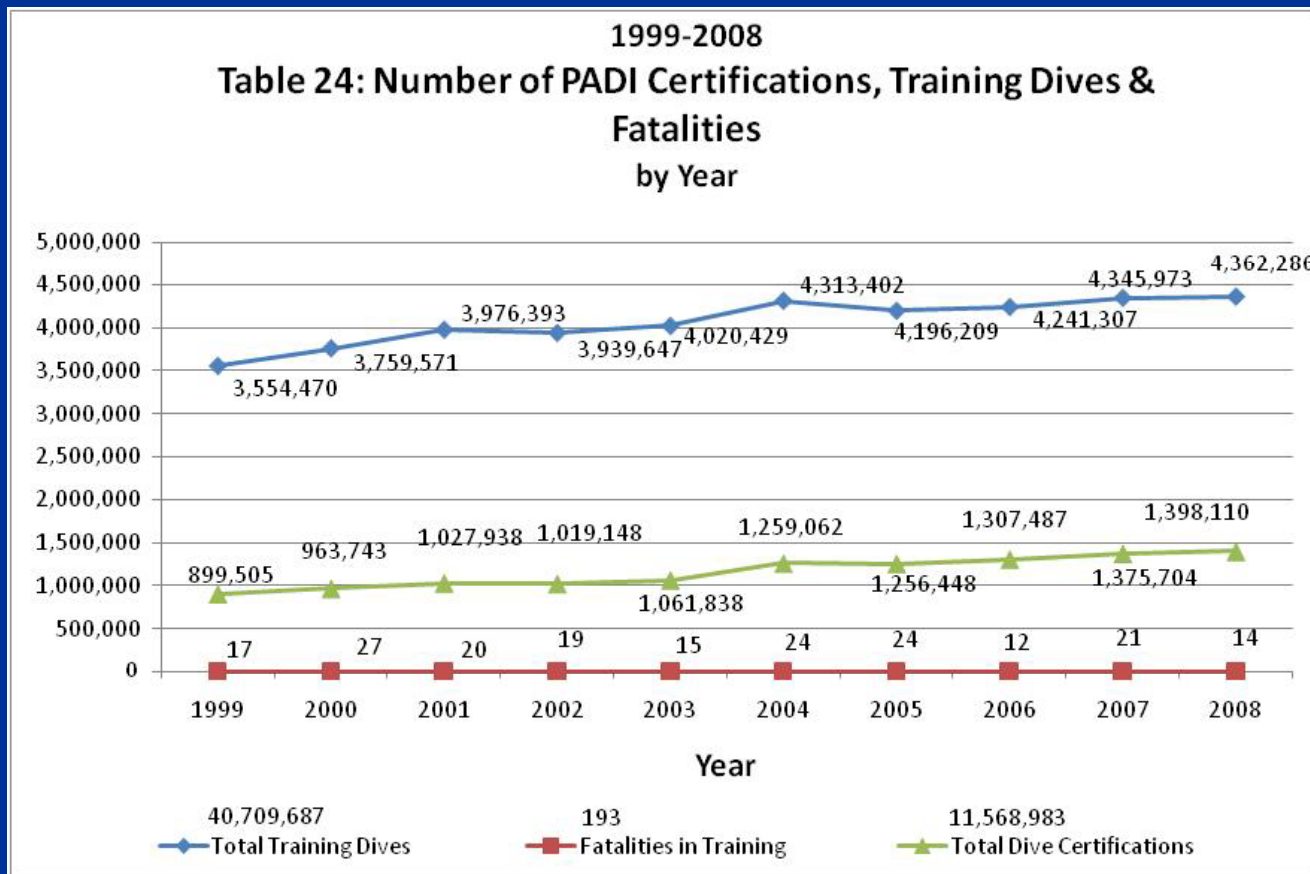


Table 8
Fatalities During PADI Training
Worldwide (except Japan)
1989-1998

N=111
Range: 8 - 18

Total Training Dives Conducted:
22,331,544
Total Certifications Issued: 5,655,142

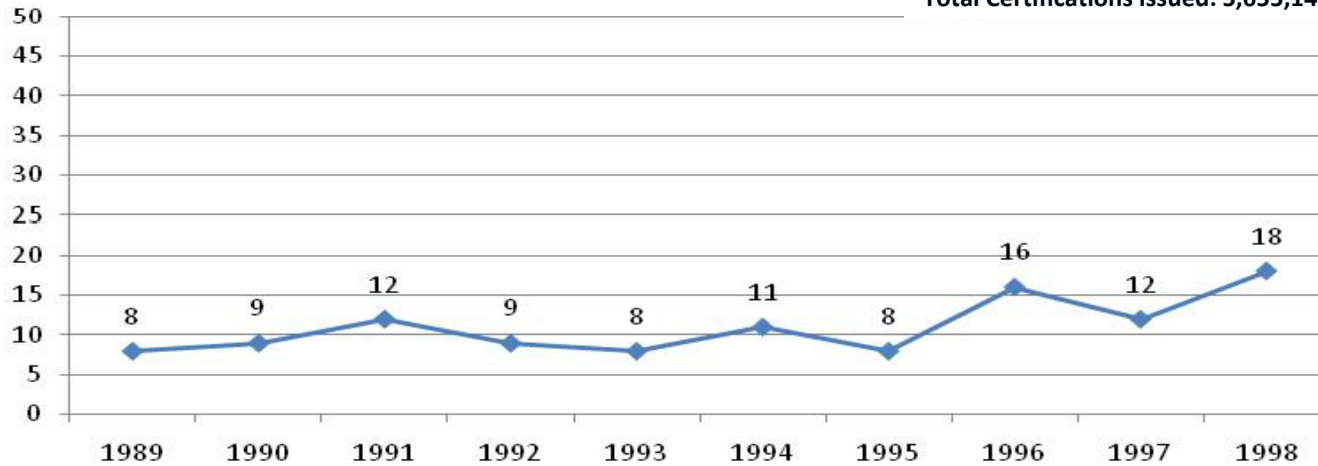


Table 28
Fatalities During PADI Training
Worldwide
by Year
1999-2008

N = 193
Range: 12 - 27

Total Training Dives Conducted:
40,709,687
Total Certifications Issued:
11,568,983

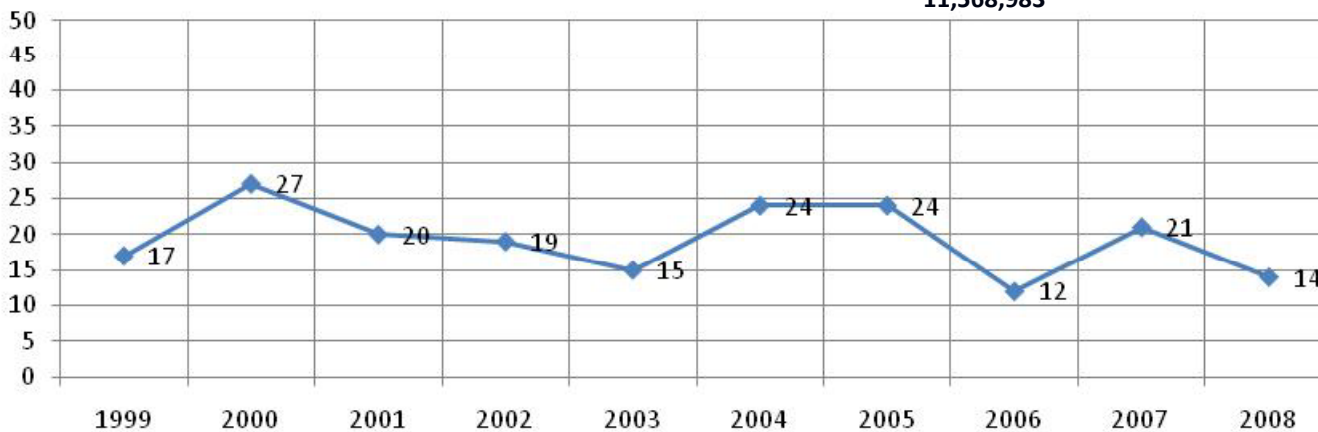


Table 7
Number of Training Fatalities
by Age
1989-1998

N = 118
 Range = 14 to 67 years of age
 Median age: 41 years

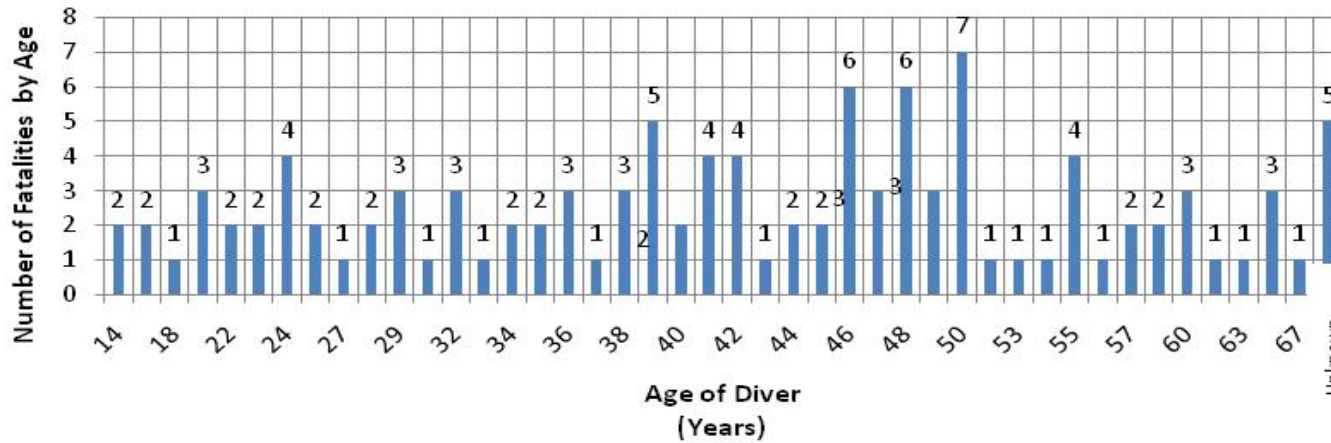


Table 27
Number of Training Fatalities
by Age
1999-2008

N = 193
 Range = 13 to 74 years of age (14 unknown)
 Median age: 45 years

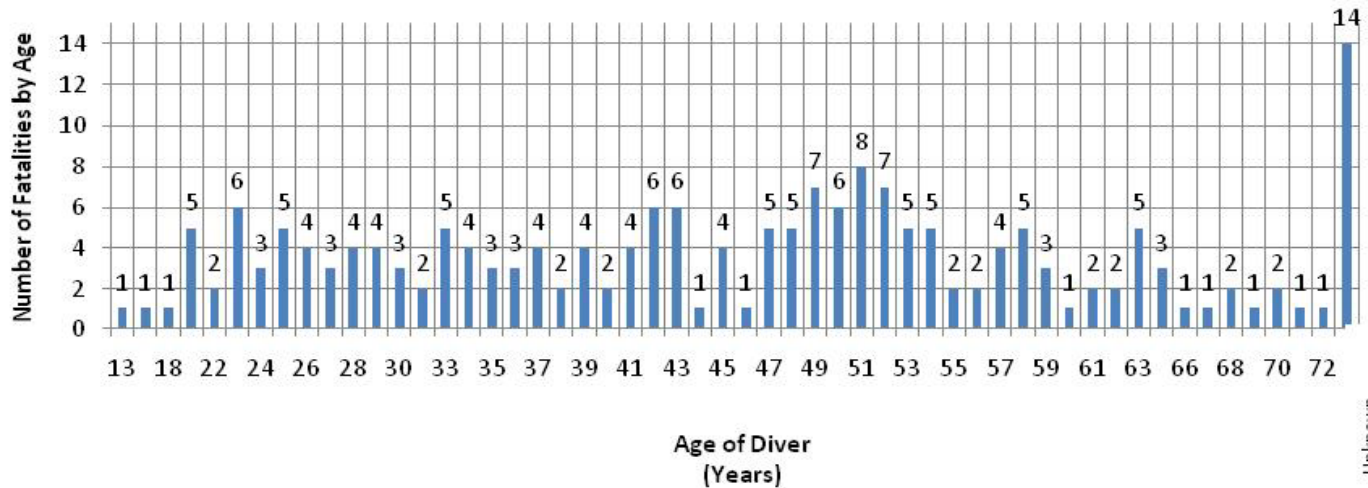


Table 9
Training Fatalities
by Cause of Death
Worldwide (except Japan)
1989-1998

N = 111
 Range = 1
 to 35

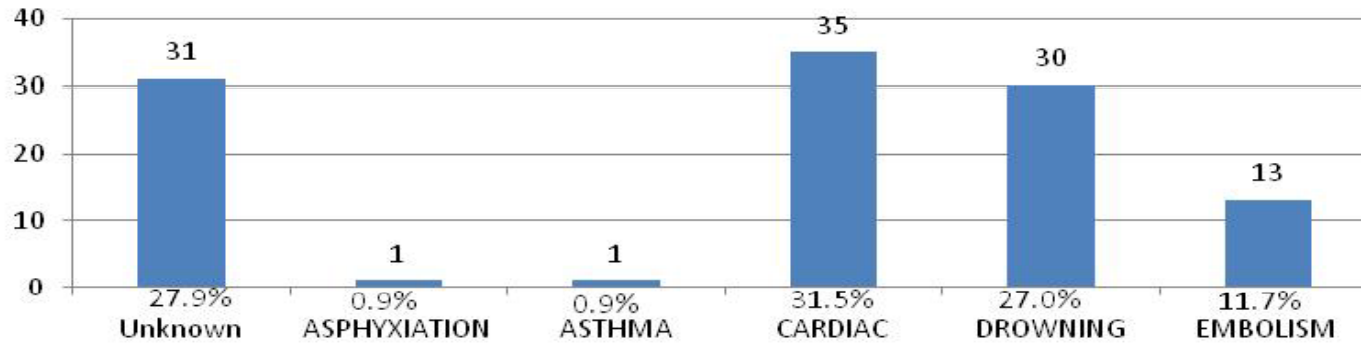
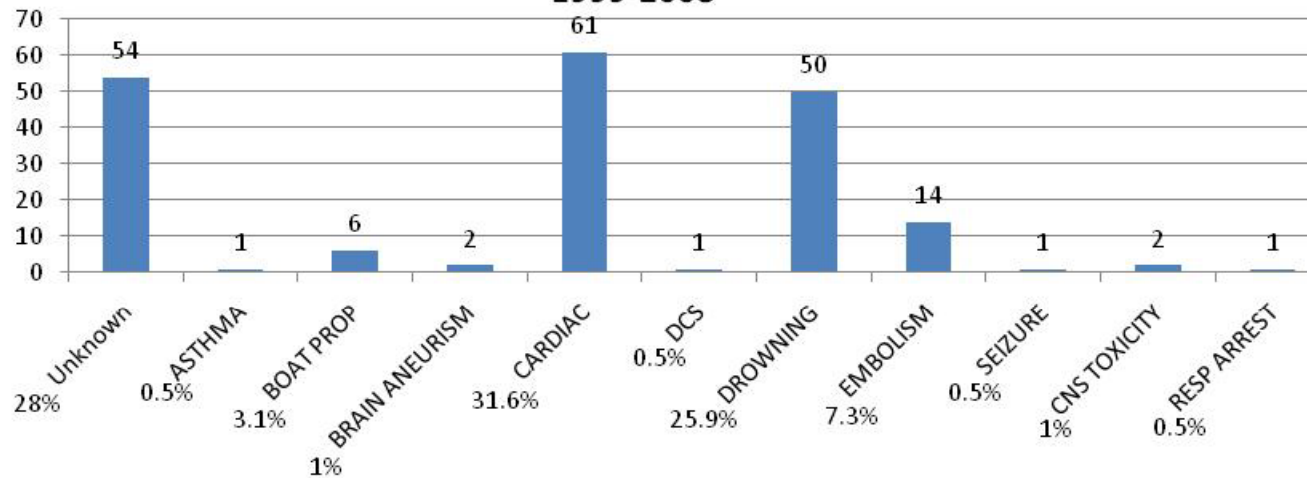


Table 29
Training Fatalities
by Cause of Death
Worldwide
1999-2008

N = 193
 Range = 1 to
 61



1989 – 1998

Table 10 – Fatality Sequential Events Analysis

<u>Triggers</u>	<u>Disabling Agents</u>
Out of gas	Unreported previous brain surgery
Exertion	Panic
Entangled	Hypoxia / shallow water blackout
Rapid Ascent	
Overweight / Diabetic	<u>Disabling Injuries</u>
Hypertension	Embolism
Group / Buddy Separation	Heart attack
Asthma	Post-dive heart attack

<u>Causes of Death</u>	<u>#</u>	<u>% of Total</u>
Cardiac Arrest	35	31.5%
Unknown	31	27.9%
Drowning	30	27.0%
Embolism	13	11.7%
Asphyxiation	1	0.9%
Asthma	1	0.9%
Total	111	100%

1999 – 2008

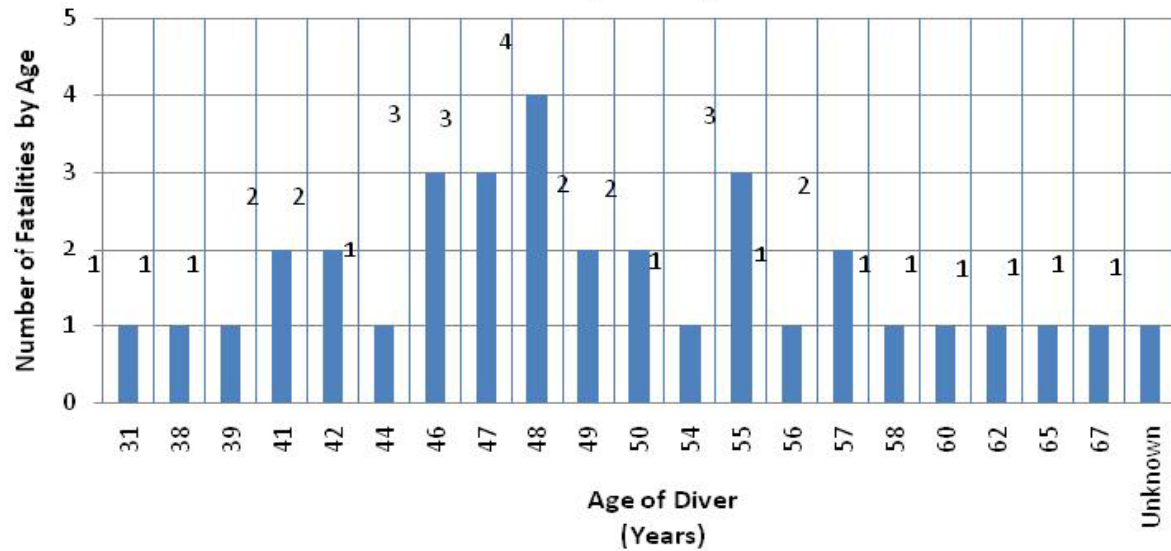
Table 30 – Fatality Sequential Events Analysis
Training or Supervised Dives

<u>Triggers</u>	<u>Disabling Agents</u>
Out of gas	Anxiety or stress
Entangled	Hypertension
Obese/overweight	Rapid ascent pre-existing medical condition
Diabetic	Fatigue
Group/Buddy Separation	Aspirated water
Exertion Rapid Ascent Hypertension	
Cardiac Problem	<u>Disabling Agents</u>
Depth	Ear problems
Difficulty with skill	Panic
Rough water	Seizure
Buoyancy problems	

<u>Causes of Death</u>	<u>#</u>	<u>% of Total</u>		
Cardiac Arrest	61	31.6%	CNS Toxicity	2 1.0%
Unknown	54	28.0%	DCS	1 0.5%
Drowning	50	25.9%	Seizure	1 0.5%
Embolism	14	7.3%	Respiratory Arrest	1 0.5%
Boat Prop	6	3.1%	Asthma	1 0.5%
Brain Aneurism	2	1.0%	Total	193 100%

**PADI
1989-1998
Cardiac-Related Fatality
by Diver Age**

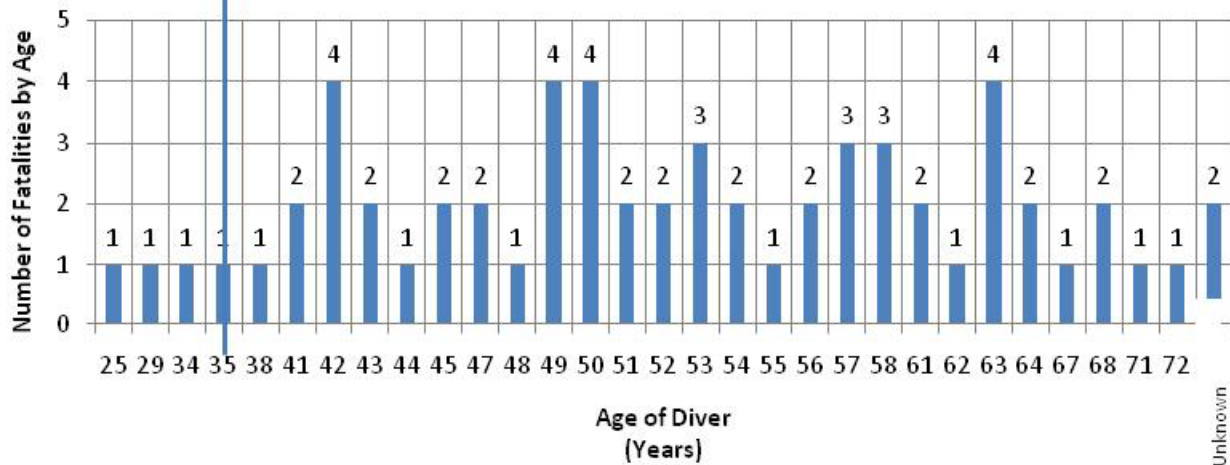
N = 35
Range = 31 to 67 years
of age, with 1 unknown
Median age: 49.5 years



< or = 35 years of age = 4
> 35 years of age = 57

**PADI
1999-2008
Cardiac -Related Fatality
by Diver Age**

N = 61
Range = 25 to 72 years
of age, with 2 unknown
Median age: 51.5 years



**Data Set 1: Fatalities
occurring during PADI-
sanctioned training programs
or under supervision of a
PADI Member while enrolled
in a non-PADI program,
by Course**



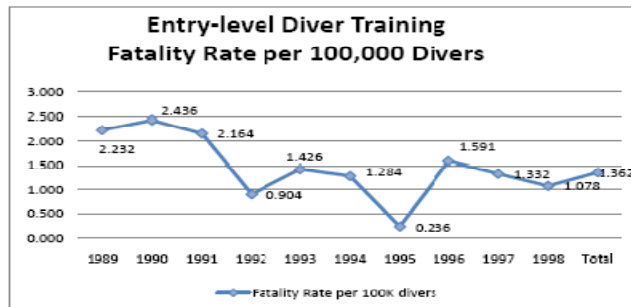
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TABLE 14
1989 - 1998

PADI
Entry-level Diver Training Worldwide (excluding Japan)
Fatality Rate per 100,000 Divers (N=49)

Entry-Level (4 dives)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
Total Certifications	224,008	246,312	277,326	331,805	350,637	389,540	423,734	440,109	450,460	463,865	3,597,796
Total Training Dives	895,962	985,196	1,109,256	1,324,796	1,402,104	1,558,030	1,694,822	1,760,382	1,801,782	1,855,404	14,387,734
Fatalities in Training	5	6	6	3	5	5	1	7	6	5	49
Age Range of Fatalities	39-55	14-65	28-50	47-55	23-57	19-58	39-39	29-53	35-65	47-67	14-67
Fatality Rate per 100K divers	2.232	2.436	2.164	0.904	1.426	1.284	0.236	1.591	1.332	1.078	1.362

Total for 10-year Period = 1.362 / 100,000 Divers
Range = 0.236 to 2.436 per 100,000 Divers

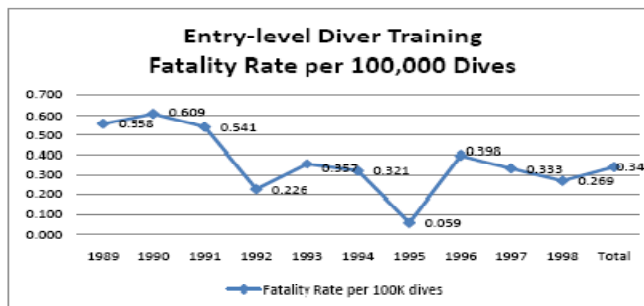


1989 - 1998
PADI

Entry-level Diver Training Worldwide (excluding Japan)
Fatality Rate per 100,000 Divers

Entry-Level (4 dives)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
Total Certifications	224,008	246,312	277,326	331,805	350,637	389,540	423,734	440,109	450,460	463,865	3,597,796
Total Training Dives	895,962	985,196	1,109,256	1,324,796	1,402,104	1,558,030	1,694,822	1,760,382	1,801,782	1,855,404	14,387,734
Fatalities in Training	5	6	6	3	5	5	1	7	6	5	49
Age Range of Fatalities	39-55	14-65	28-50	47-55	23-57	19-58	39-39	29-53	35-65	47-67	14-67
Fatality Rate per 100K dives	0.558	0.609	0.541	0.226	0.357	0.321	0.059	0.398	0.333	0.269	0.341

Total for 10-year Period = 0.341 / 100,000 Divers
Range = 0.059 to 0.609 per 100,000 Divers



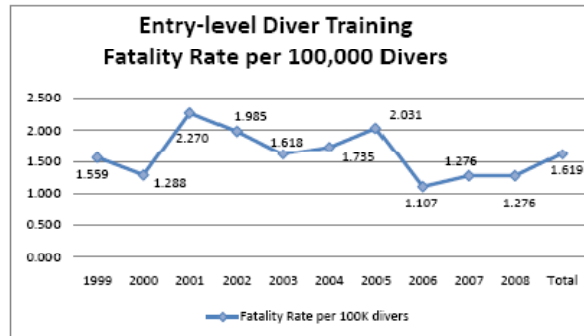
Cause of Death
23 Cardiac
13 Unknown
8 Drowning
5 Embolism
49 Total

TABLE 34
1999 - 2008

PADI
Entry-level Diver Training Worldwide
Fatality Rate per 100,000 Divers N=89

Entry-Level (4 dives)	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Total Certifications	512,993	543,598	572,722	554,132	556,149	576,492	541,534	542,022	548,509	548,495	5,496,646
Total Training Dives	2,036,482	2,140,570	2,247,190	2,166,798	2,169,430	2,237,760	2,098,202	2,094,992	2,117,726	2,117,316	21,426,466
Fatalities in Training	8	7	13	11	9	10	11	6	7	7	89
Age Range of Fatalities	26-53	22-72	23-59	23-57	29-55	28-63	34-67	29-71	35-58	21-62	21-71
Fatality Rate per 100K divers	1.559	1.288	2.270	1.985	1.618	1.735	2.031	1.107	1.276	1.276	1.619

Total for 10-year Period = 1.619 / 100,000 Divers
Range = 1.107 to 2.270 per 100,000 Divers

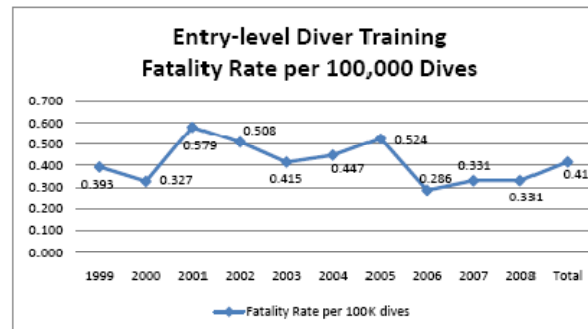


1999 - 2008
PADI

Entry-level Diver Training Worldwide
Fatality Rate per 100,000 Dives

Entry-Level (4 dives)	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Total Certifications	512,993	543,598	572,722	554,132	556,149	576,492	541,534	542,022	548,509	548,495	5,496,646
Total Training Dives	2,036,482	2,140,570	2,247,190	2,166,798	2,169,430	2,237,760	2,098,202	2,094,992	2,117,726	2,117,316	21,426,466
Fatalities in Training	8	7	13	11	9	10	11	6	7	7	89
Age Range of Fatalities	26-53	22-72	23-59	23-57	29-55	28-63	34-67	29-71	35-58	21-62	21-71
Fatality Rate per 100K dives	0.393	0.327	0.579	0.508	0.415	0.447	0.524	0.286	0.331	0.331	0.415

Total for 10-year Period = 0.415 / 100,000 Dives
Range = 0.286 to 0.579 per 100,000 Dives



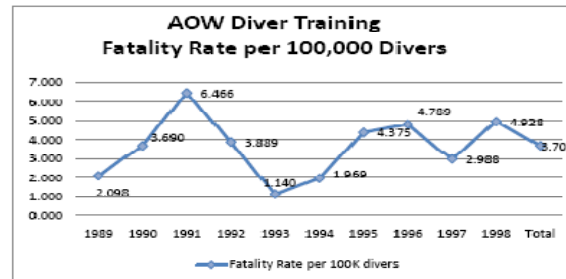
Cause of Death

- 1 Asthma
- 4 Boat Prop
- 2 Brain Aneurism
- 32 Cardiac
- 18 Drowning
- 6 Embolism
- 1 Resp Arrest
- 1 Seizure
- 24 Unknown
- 89 = N

TABLE 15
1989 - 1998
PADI
Advanced Open Water Diver Training Worldwide (excluding Japan)
Fatality Rate per 100,000 Divers (N=35)

Advanced Open Water (5 dives)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
Total AOW Certifications	47,668	54,196	61,858	77,133	87,698	101,561	114,278	125,281	133,875	142,034	945,582
Total AOW Training Dives	238,340	270,980	309,290	385,665	438,490	507,805	571,390	626,405	669,375	710,170	4,727,910
Fatalities in AOW Training	1	2	4	3	1	2	5	6	4	7	35
Age Range of Fatalities	34-34	29-49	22-41	36-48	34-34	19-42	18-41	24-56	15-50	14-50	14-56
Fatality Rate per 100K divers	2.098	3.690	6.466	3.889	1.140	1.969	4.375	4.789	2.988	4.928	3.701

Total for 10-year Period = 3.701 / 100,000 Divers
 Range = 1.140 to 6.466 per 100,000 Divers



1989 - 1998
PADI
Advanced Open Water Diver Training Worldwide (excluding Japan)
Fatality Rate per 100,000 Divers

Advanced Open Water (5 dives)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
Total AOW Certifications	47,668	54,196	61,858	77,133	87,698	101,561	114,278	125,281	133,875	142,034	945,582
Total AOW Training Dives	238,340	270,980	309,290	385,665	438,490	507,805	571,390	626,405	669,375	710,170	4,727,910
Fatalities in AOW Training	1	2	4	3	1	2	5	6	4	7	35
Age Range of Fatalities	34-34	29-49	22-41	36-48	34-34	19-42	18-41	24-56	15-50	14-50	14-56
Fatality Rate per 100K divers	0.420	0.738	1.293	0.778	0.228	0.394	0.875	0.958	0.598	0.986	0.740

Total for 10-year Period = 0.740 / 100,000 Divers
 Range = 0.228 to 1.293 per 100,000 Divers

Training Dive Type	#	%
Deep	19	54.3%
Night	7	20.0%
Navigation	2	5.7%
OW #5	1	2.9%
Drift	2	5.7%
Buoyancy	1	2.9%
Boat	1	2.9%
Drysuit	1	2.9%
N/A (freedive)	1	2.9%
TOTAL	35	100%

Deep Diving Fatality Location / Depth

Location	Depth	Location	Depth
TX	90'	NY	96'
UT	80'	WA	80'
CA	100'	China	?
NY	100'	WI	92'
England	105'	TX	90'
CA	?	England	51'
Israel	88'	CA	45'
NJ	104'	MA	95'
WI	70'	England	90'

Cause of Death:

Cause of Death	Deep	Total AOW
Unknown	9	10
Drowning	6	14
Embolism	2	4
Cardiac	2	2
Total	19	35

Related Factors: deep diving fatality

- 2 Separation from buddy
- 1 Panic
- 2 Rapid Ascent
- 1 Surface cardiac arrest
- Double-drowning: instructor & student

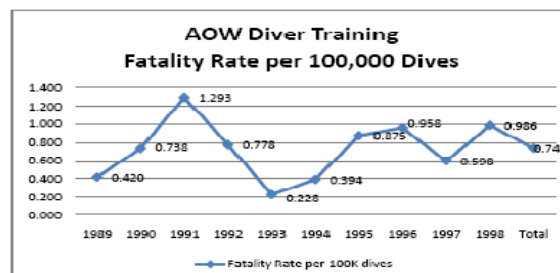
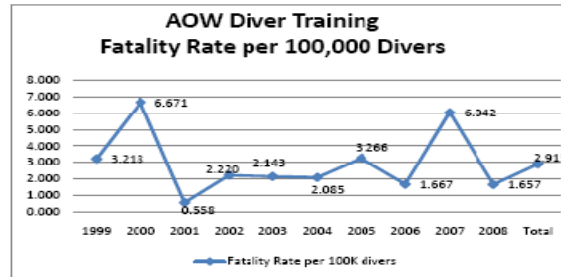


TABLE 35
1999 - 2008
PADI
Advanced Open Water Diver Training Worldwide
Fatality Rate per 100,000 Divers N=52

Advanced Open Water (5 dives)	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Total AOW Certifications	155,370	164,905	179,184	180,142	186,689	191,824	183,722	179,949	182,053	181,070	1,714,908
Total AOW Training Dives	776,850	822,365	885,460	889,192	920,305	945,982	905,898	888,359	898,799	893,648	8,924,540
Fatalities in AOW Training	5	11	1	4	4	4	6	3	11	3	52
Age Range of Fatalities	17-61	13-52	54	27-51	23-28	21-64	24-58	41-51	33-59	27-58	13-64
Fatality Rate per 100K divers	3.218	6.671	0.558	2.220	2.143	2.085	3.266	1.667	6.042	1.657	2.913

Total for 10-year Period = 2.913 / 100,000 Divers
 Range = 0.558 to 6.671 per 100,000 Divers



1999 - 2008
PADI
Advanced Open Water Diver Training Worldwide
Fatality Rate per 100,000 Divers

Advanced Open Water (5 dives)	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Total AOW Certifications	155,370	164,905	179,184	180,142	186,689	191,824	183,722	179,949	182,053	181,070	1,714,908
Total AOW Training Dives	776,850	822,365	885,460	889,192	920,305	945,982	905,898	888,359	898,799	893,648	8,924,540
Fatalities in AOW Training	5	11	1	4	4	4	6	3	11	3	52
Age Range of Fatalities	17-61	13-52	54	27-51	23-28	21-64	24-58	41-51	33-59	27-58	13-64
Fatality Rate per 100K divers	0.644	1.338	0.113	0.450	0.435	0.423	0.662	0.338	1.224	0.336	0.583

Total for 10-year Period = 0.583 / 100,000 Divers
 Range = 0.113 to 0.662 per 100,000 Divers

Training Dive Type	#	%
Deep	29	55.8%
Night	6	11.5%
Navigation	4	7.7%
OW #1	3	5.8%
Drift	1	1.9%
Wreck	2	3.8%
Boat	1	1.9%
Multi	2	3.8%
S&R	2	3.8%
Unknown	2	3.8%
TOTAL	52	100.0%

Depth range: surface to 267'

Deep Diving Fatality Location / Depth

Location	Depth	Location	Depth
Hong Kong	54'	NC	106'
Thailand	99'	Egypt	78'
Cayman Isl.	100'	Egypt	267'
Argentina	96'	Scotland	104'
Argentina	96'	New Zealand	80'
England	30'	Saipan	75'
Canada	85'	Argentina	96'
IL	80'	TX	90'
IL	85'	Mexico	120'
Mexico	120'	Mexico	120'
HI	97'	Canada	110'
HI	122'	Australia	78'
England	99'	VT	75'
PA	75'	England	0'

Cause of Death:

Cause of Death	Deep	Total AOW
Unknown	5	15
Drowning	15	19
Embolism	3	5
Cardiac	4	10
DCS	1	1
Boat Prop	1	2
Total	19	35

Related Factors: deep diving fatality
 Panic
 Low Air

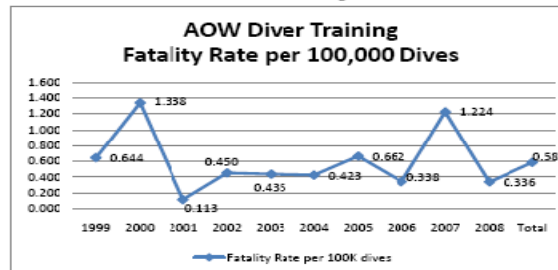


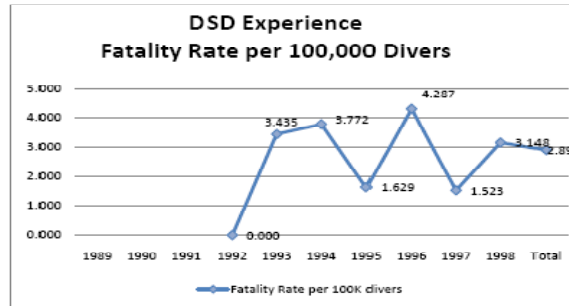
TABLE 16
1989 - 1998

PADI
Discover Scuba Experience Worldwide (excluding Japan)
Fatality Rate per 100,000 Divers (N=11)

Discover Scuba Diving (1 dive)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
Total DSD Experiences	0	0	0	5,113	29,111	53,027	61,398	69,974	65,663	95,293	379,579
Total DSD Training Dives*	0	0	0	5,113	29,111	53,027	61,398	69,974	65,663	95,293	379,579
Fatalities in DSD Training	0	0	0	0	1	2	1	3	1	3	11
Age Range of Fatalities					27-27	37-37	19-19	24-32	50-50	46-58	19-58
Fatality Rate per 100K divers				0.000	3.435	3.772	1.629	4.287	1.523	3.148	2.898

* suggested number of dives

Total for 10-year Period = 2.898 / 100,000 Divers
Range = 0.000 to 4.287 per 100,000 Divers



1989 - 1998
PADI

Discover Scuba Experience Worldwide (excluding Japan)
Fatality Rate per 100,000 Divers

Discover Scuba Diving (1 dive)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
Total DSD Experiences	0	0	0	5,113	29,111	53,027	61,398	69,974	65,663	95,293	379,579
Total DSD Training Dives*	0	0	0	5,113	29,111	53,027	61,398	69,974	65,663	95,293	379,579
Fatalities in DSD Training	0	0	0	0	1	2	1	3	1	3	11
Age Range of Fatalities					27-27	37-37	19-19	24-32	50-50	46-58	19-58
Fatality Rate per 100K dives				0.000	3.435	3.772	1.629	4.287	1.523	3.148	2.898

* suggested number of dives

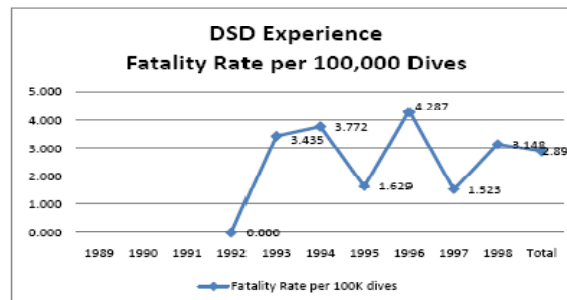
Total for 10-year Period = 2.898 / 100,000 Dives
Range = 0.000 to 4.287 per 100,000 Dives

Related Contributing Factors

- 1 Panic
- 2 Loss of control / separation
- 1 Out of air
- 1 Medical condition

Cause of Death

- 2 Unknown
- 1 Asthma
- 5 Drowning
- 1 Cardiac
- 1 Asphyxiation



* NOTE: The actual number of DSD experiences conducted is very likely much larger, as the denominator used to calculate these data are based only upon registrations received at PADI.

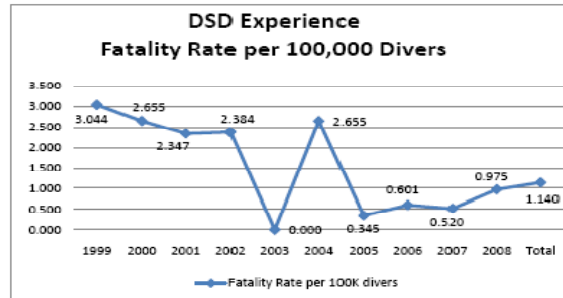
TABLE 36
1999 - 2008
PADI

Discover Scuba Experience Worldwide
Fatality Rate per 100,000 Divers N=24

Discover Scuba Diving (1 dive)	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Total DSD Certifications	65,706	75,325	85,220	83,890	112,920	263,696	289,681	332,554	384,966	410,408	2,104,366
Total DSD Training Dives	65,706	75,325	85,220	83,890	112,920	263,696	289,681	332,554	384,966	410,408	2,104,366
Fatalities in DSD Training*	2	2	2	2	0	7	1	2	2	4	24
Age Range of Fatalities	42-51	56-68	39-49	63	0	23-63	68	25	49-62	43-69	23-69
Fatality Rate per 100K divers	3.044	2.655	2.347	2.384	0.000	2.655	0.345	0.601	0.520	0.975	1.140

* suggested number of dives

Total for 10-year Period = 1.140 / 100,000 Divers
Range = 0.000 to 3.044 per 100,000 Divers



1999 - 2008

PADI
Discover Scuba Experience Worldwide
Fatality Rate per 100,000 Divers

Discover Scuba Diving (1 dive)	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Total DSD Certifications	65,706	75,325	85,220	83,890	112,920	263,696	289,681	332,554	384,966	410,408	2,104,366
Total DSD Training Dives*	65,706	75,325	85,220	83,890	112,920	263,696	289,681	332,554	384,966	410,408	2,104,366
Fatalities in DSD Training	2	2	2	2	0	7	1	2	2	4	24
Age Range of Fatalities	42-51	56-68	39-49	63	0	23-63	68	25	49-62	43-69	23-69
Fatality Rate per 100K dives	3.044	2.655	2.347	2.384	0.000	2.655	0.345	0.601	0.520	0.975	1.140

* suggested number of dives

Total for 10-year Period = 1.140 / 100,000 Divers
Range = 0.000 to 3.044 per 100,000 Divers

Cause of Death

- 12 Cardiac
- 5 Drowning
- 4 Unknown
- 24

* NOTE: The actual number of DSD experiences conducted is very likely much larger, as the denominator used to calculate these data are based only upon registrations received at PADI.

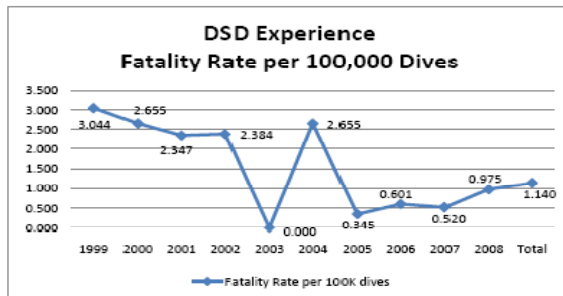
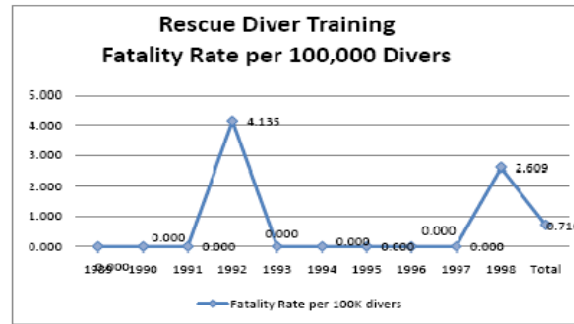


TABLE 17
1989 - 1998

PADI
Rescue Diver Training Worldwide (excluding Japan)
Fatality Rate per 100,000 Divers (N=2)

Rescue Diver (5 dives)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
Total Rescue Certifications	16,008	17,828	20,377	24,186	26,997	30,618	32,512	35,580	37,042	38,329	279,477
Total Rescue Training Dives	80,040	89,140	101,885	120,930	134,985	153,090	162,560	177,900	185,210	191,645	1,397,385
Fatalities in Rescue Training	0	0	0	1	0	0	0	0	0	1	2
Age Range of Fatalities				24-24						28-28	24-28
Fatality Rate per 100K divers	0.000	0.000	0.000	4.135	0.000	0.000	0.000	0.000	0.000	2.609	0.716

Total for 10-year Period = 0.716 / 100,000 Divers
Range = 0.000 to 4.135 per 100,000 Divers



1989 - 1998
PADI

Rescue Diver Training Worldwide (excluding Japan)
Fatality Rate per 100,000 Divers

Rescue Diver (5 dives)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
Total Rescue Certifications	16,008	17,828	20,377	24,186	26,997	30,618	32,512	35,580	37,042	38,329	279,477
Total Rescue Training Dives	80,040	89,140	101,885	120,930	134,985	153,090	162,560	177,900	185,210	191,645	1,397,385
Fatalities in Rescue Training	0	0	0	1	0	0	0	0	0	1	2
Age Range of Fatalities				24-24						28-28	24-28
Fatality Rate per 100K dives	0.000	0.000	0.000	0.827	0.000	0.000	0.000	0.000	0.000	0.522	0.143

Total for 10-year Period = 0.143 / 100,000 Divers
Range = 0.000 to 0.827 per 100,000 Divers

Cause of Death
1 Drowning
1 Cardiac

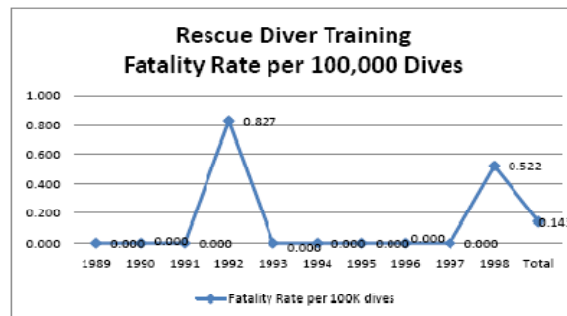
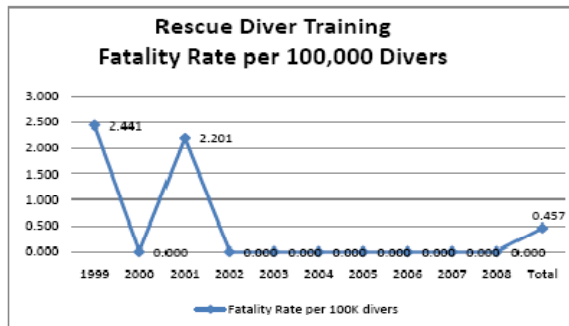


TABLE 37
1999 - 2008
 PADI
 Rescue Diver Training Worldwide
 Fatality Rate per 100,000 Divers N=2

Rescue Diver (5 dives)	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Total Rescue Certifications	40,969	42,367	45,444	45,766	44,829	45,390	44,598	42,935	42,845	42,588	437,731
Total Rescue Training Dives	204,845	211,835	227,220	228,830	224,145	226,950	222,990	214,675	214,225	212,940	2,188,655
Fatalities in Rescue Training	1	0	1	0	0	0	0	0	0	0	2
Age Range of Fatalities	Unknown	0	63	0	0	0	0	0	0	0	63
Fatality Rate per 100K divers	2.441	0.000	2.201	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.457

Total for 10-year Period = 0.457 / 100,000 Divers
 Range = 0.000 to 2.441 per 100,000 Divers



1999 - 2008
 PADI
 Rescue Diver Training Worldwide
 Fatality Rate per 100,000 Dives

Rescue Diver (5 dives)	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Total Rescue Certifications	40,969	42,367	45,444	45,766	44,829	45,390	44,598	42,935	42,845	42,588	437,731
Total Rescue Training Dives	204,845	211,835	227,220	228,830	224,145	226,950	222,990	214,675	214,225	212,940	2,188,655
Fatalities in Rescue Training	1	0	1	0	0	0	0	0	0	0	2
Age Range of Fatalities	Unknown	0	63	0	0	0	0	0	0	0	63
Fatality Rate per 100K dives	0.488	0.000	0.440	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.091

Total for 10-year Period = 0.091 / 100,000 Dives
 Range = 0.000 to 0.488 per 100,000 Dives

Cause of Death
 1 Unknown
 1 Cardiac

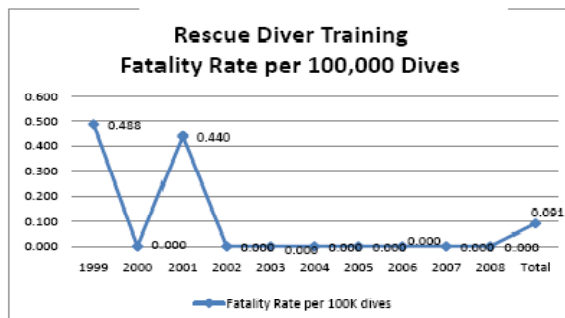
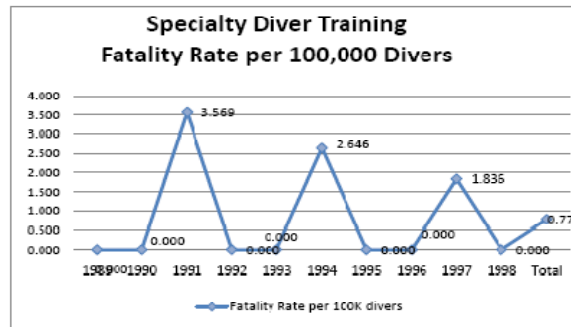


Table 18
1989 - 1998

PADI
Specialty Diver Training Worldwide (excluding Japan)
Fatality Rate per 100,000 Divers (N=3)

Specialties	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
Total Specialty Certifications	21,902	24,468	28,022	30,952	33,204	37,798	43,985	50,191	54,480	62,098	387,100
Total Specialty Training Dives	65,349	73,449	81,903	87,288	91,844	103,330	116,346	129,789	139,068	156,922	1,045,288
Fatalities in Specialty Training	0	0	1	0	0	1	0	0	1	0	3
Age Range of Fatalities			46-46			41-41			60-60		41-60
Fatality Rate per 100K divers	0.000	0.000	3.569	0.000	0.000	2.646	0.000	0.000	1.836	0.000	0.775

Total for 10-year Period = 0.775 / 100,000 Divers
Range = 0.000 to 3.569 per 100,000 Divers



1989 - 1998

PADI
Specialty Diver Training Worldwide (excluding Japan)
Fatality Rate per 100,000 Divers

Specialties	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
Total Specialty Certifications	21,902	24,468	28,022	30,952	33,204	37,798	43,985	50,191	54,480	62,098	387,100
Total Specialty Training Dives	65,349	73,449	81,903	87,288	91,844	103,330	116,346	129,789	139,068	156,922	1,045,288
Fatalities in Specialty Training	0	0	1	0	0	1	0	0	1	0	3
Age Range of Fatalities			46-46			41-41			60-60		41-60
Fatality Rate per 100K dives	0.000	0.000	1.221	0.000	0.000	0.968	0.000	0.000	0.719	0.000	0.287

Total for 10-year Period = 0.287 / 100,000 Divers
Range = 0.000 to 0.968 per 100,000 Divers

Cause of Death
2 Unknown
1 Drowning

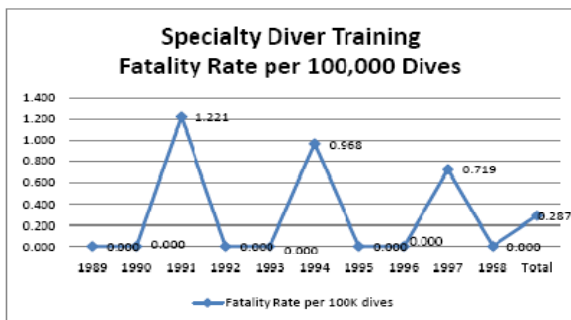
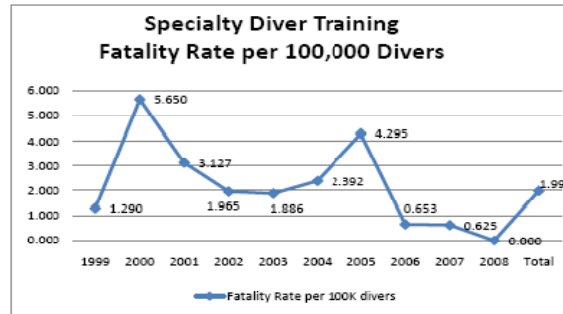


TABLE 38
1999 - 2008
PADI
Specialty Diver Training Worldwide
Fatality Rate per 100,000 Divers N=24

Specialties	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Total Specialty Certifications	77,506	88,488	95,946	101,806	106,018	115,424	139,697	153,050	159,882	157,905	1,205,722
Total Specialty Training Dives	188,821	215,116	234,771	250,465	262,231	301,598	336,142	368,865	385,563	382,110	2,925,682
Fatalities in Specialty Training	1	5	3	2	2	3	6	1	1	0	24
Age Range of Fatalities	42	21-41	24-48	33-40	23-51	25-53	43-58	38	70	0	21-70
Fatality Rate per 100K divers	1.290	5.650	3.127	1.965	1.886	2.392	4.295	0.653	0.625	0.000	1.991

Total for 10-year Period = 1.991 / 100,000 Divers
 Range = 0.000 to 5.650 per 100,000 Divers



1999 - 2008
PADI
Specialty Diver Training Worldwide
Fatality Rate per 100,000 Dives

Specialties	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Total Specialty Certifications	77,506	88,488	95,946	101,806	106,018	115,424	139,697	153,050	159,882	157,905	1,205,722
Total Specialty Training Dives	188,821	215,116	234,771	250,465	262,231	301,598	336,142	368,865	385,563	382,110	2,925,682
Fatalities in Specialty Training	1	5	3	2	2	3	6	1	1	0	24
Age Range of Fatalities	42	21-41	24-48	33-40	23-51	25-53	43-58	38	70	0	21-70
Fatality Rate per 100K dives	0.530	2.324	1.278	0.799	0.763	0.995	1.785	0.271	0.259	0.000	0.820

Total for 10-year Period = 0.820 / 100,000 Dives
 Range = 0.000 to 2.324 per 100,000 Dives

Cause of Death

- 5 Cardiac
- 2 CNS Toxicity
- 8 Drowning
- 2 Embolism
- 7 Unknown
- 24

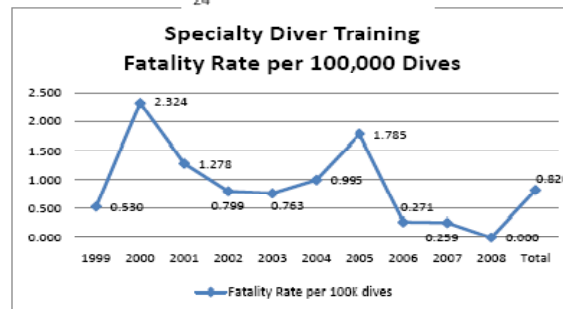
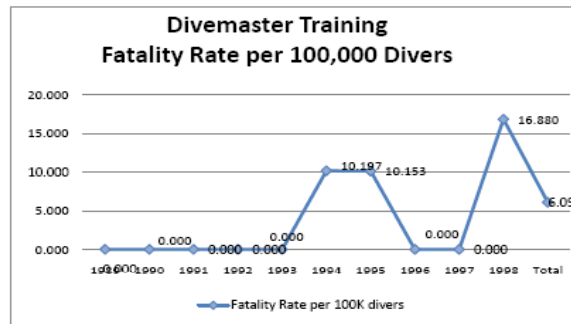


TABLE 19
1989 - 1998

PADI
Divemaster Training Worldwide (excluding Japan)
Fatality Rate per 100,000 Divers (N=4)

Divemaster (6 dives)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
Total DM Certifications	1,040	1,014	1,246	1,504	8,352	9,807	9,849	9,909	11,039	11,848	65,608
Total DM Training Dives	6,240	6,084	7,476	9,024	50,112	58,842	59,094	59,454	66,234	71,088	393,648
Fatalities in DM Training	0	0	0	0	0	1	1	0	0	2	4
Age Range of Fatalities						46-46				38-49	38-49
Fatality Rate per 100K divers	0.000	0.000	0.000	0.000	0.000	10.197	10.153	0.000	0.000	16.880	6.097

Total for 10-year Period = 6.097 / 100,000 Divers
Range = 0.000 to 16.880 per 100,000 Divers



1989 - 1998

PADI
Divemaster Training Worldwide (excluding Japan)
Fatality Rate per 100,000 Dives

Divemaster (6 dives)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
Total DM Certifications	1,040	1,014	1,246	1,504	8,352	9,807	9,849	9,909	11,039	11,848	65,608
Total DM Training Dives	6,240	6,084	7,476	9,024	50,112	58,842	59,094	59,454	66,234	71,088	393,648
Fatalities in DM Training	0	0	0	0	0	1	1	0	0	2	4
Age Range of Fatalities						46-46				38-49	38-49
Fatality Rate per 100K dives	0.000	0.000	0.000	0.000	0.000	1.699	1.692	0.000	0.000	2.813	1.016

Total for 10-year Period = 1.016 / 100,000 Dives
Range = 0.000 to 2.813 per 100,000 Dives

Cause of Death
2Cardiac
1Embolism

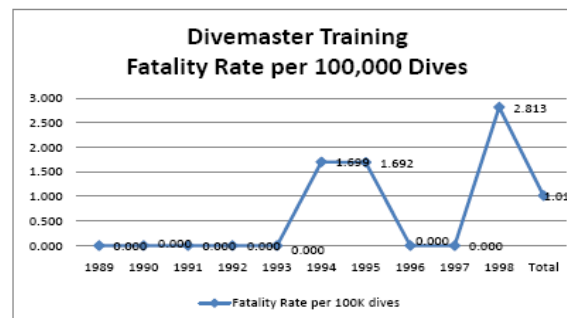
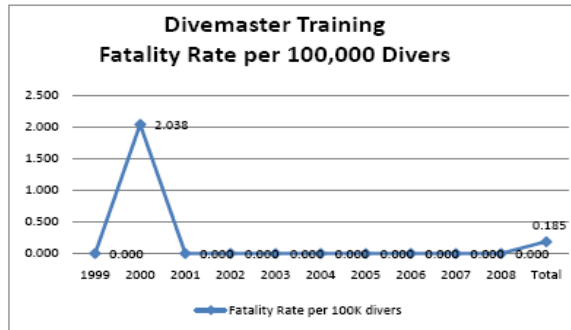


TABLE 39
1999 - 2008
 PADI
 Divemaster Training Worldwide
 Fatality Rate per 100,000 Divers N=1

Divemaster (6 dives)	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Total DM Certifications	46,961	49,060	49,422	53,412	55,233	56,236	57,216	56,977	57,449	57,644	539,610
Total DM Training Dives	281,766	294,360	296,532	320,472	331,398	337,416	343,296	341,862	344,694	345,864	3,237,660
Fatalities in DM Training	0	1	0	0	0	0	0	0	0	0	1
Age Range of Fatalities	Unknown										Unknown
Fatality Rate per 100K divers	0.000	2.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.185

Total for 10-year Period = 0.185 / 100,000 Divers
 Range = 0.000 to 2.038 per 100,000 Divers



1999 - 2008
 PADI
 Divemaster Training Worldwide
 Fatality Rate per 100,000 Dives

Divemaster (6 dives)	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Total DM Certifications	46,961	49,060	49,422	53,412	55,233	56,236	57,216	56,977	57,449	57,644	539,610
Total DM Training Dives	281,766	294,360	296,532	320,472	331,398	337,416	343,296	341,862	344,694	345,864	3,237,660
Fatalities in DM Training	0	1	0	0	0	0	0	0	0	0	1
Age Range of Fatalities	Unknown										Unknown
Fatality Rate per 100K dives	0.000	0.340	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.031

Total for 10-year Period = 0.031 / 100,000 Dives
 Range = 0.000 to 0.340 per 100,000 Dives

Cause of Death
 1 Cardiac

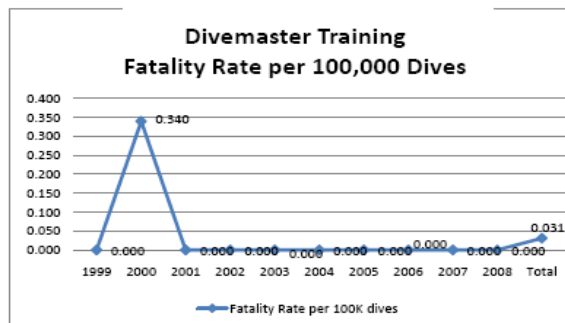


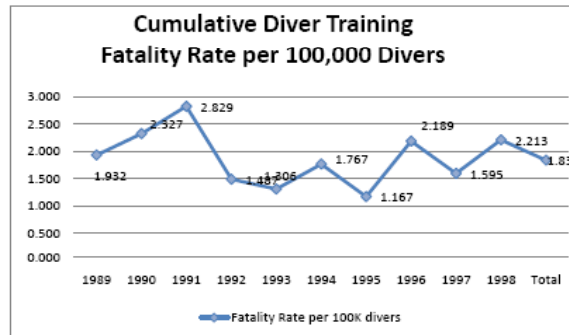
TABLE 20
1989 - 1998

PADI

Cumulative Scuba-Related Courses with Training Fatalities Worldwide (excluding Japan)
Fatality Rate per 100,000 Divers (N=101)

All Courses with Fatalities	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
Total Certifications	310,626	343,818	388,829	470,693	535,999	622,351	685,756	731,044	752,559	813,467	5,655,142
Total Training Dives	1,285,931	1,424,849	1,609,810	1,932,816	2,146,646	2,434,124	2,665,610	2,823,904	2,927,332	3,080,522	22,331,544
Fatalities in Training	6	8	11	7	7	11	8	16	12	18	104
Age Range of Fatalities	34-55	14-65	22-50	24-55	23-57	19-58	18-41	24-56	15-65	14-67	14-67
Fatality Rate per 100K divers	1.932	2.327	2.829	1.487	1.306	1.767	1.167	2.189	1.595	2.213	1.839

Total for 10-year Period = 1.839 / 100,000 Divers
Range = 1.167 to 2.829 per 100,000 Divers



1989 - 1998

PADI

Cumulative Scuba-Related Courses with Training Fatalities Worldwide (excluding Japan)
Fatality Rate per 100,000 Dives

All Courses with Fatalities	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
Total Certifications	310,626	343,818	388,829	470,693	535,999	622,351	685,756	731,044	752,559	813,467	5,655,142
Total Training Dives	1,285,931	1,424,849	1,609,810	1,932,816	2,146,646	2,434,124	2,665,610	2,823,904	2,927,332	3,080,522	22,331,544
Fatalities in Training	6	8	11	7	7	11	8	16	12	18	104
Age Range of Fatalities	34-55	14-65	22-50	24-55	23-57	19-58	18-41	24-56	15-65	14-67	14-67
Fatality Rate per 100K dives	0.467	0.561	0.683	0.362	0.326	0.452	0.300	0.567	0.410	0.584	0.466

Total for 10-year Period = 0.466 / 100,000 Dives
Range = 0.300 to 0.683 per 100,000 Dives

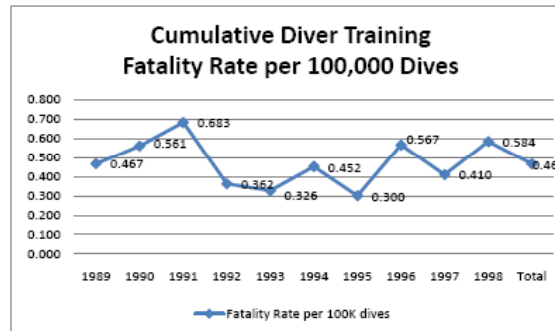


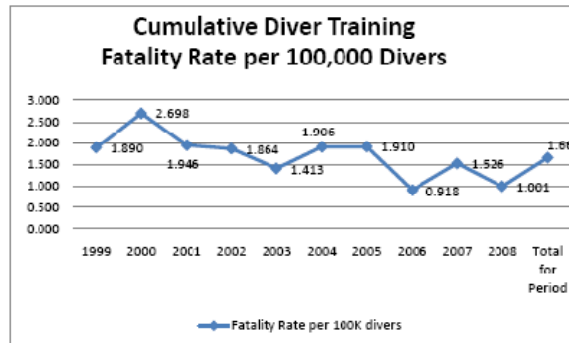
TABLE 40
1999 - 2008

PADI

Cumulative Scuba-Related Courses with Training Fatalities Worldwide
Fatality Rate per 100,000 Divers

All Courses with Fatalities	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total for Period
Total Certifications	899,505	963,743	1,027,938	1,019,148	1,061,838	1,255,062	1,256,448	1,307,487	1,375,704	1,398,110	11,568,983
Total Training Dives	3,554,470	3,759,571	3,976,393	3,939,647	4,020,429	4,313,402	4,196,209	4,241,307	4,345,973	4,362,286	40,709,687
Fatalities in Training	17	26	20	19	15	24	24	12	21	14	192
Age Range of Fatalities	17-61	13-72	23-63	23-63	23-55	21-64	24-68	29-71	33-70	21-69	13-72
Fatality Rate per 100K divers	1.890	2.698	1.946	1.864	1.413	1.906	1.910	0.918	1.526	1.001	1.660

Total for 10-year Period = 1.660 / 100,000 Divers
Range = 0.918 to 2.698 per 100,000 Divers



1999 - 2008

PADI

Cumulative Scuba-Related Courses with Training Fatalities Worldwide
Fatality Rate per 100,000 Dives

All Courses with Fatalities	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total for Period
Total Certifications	899,505	963,743	1,027,938	1,019,148	1,061,838	1,255,062	1,256,448	1,307,487	1,375,704	1,398,110	11,568,983
Total Training Dives	3,554,470	3,759,571	3,976,393	3,939,647	4,020,429	4,313,402	4,196,209	4,241,307	4,345,973	4,362,286	40,709,687
Fatalities in Training	17	26	20	19	15	24	24	12	21	14	192
Age Range of Fatalities	17-61	13-72	23-63	23-63	23-55	21-64	24-68	29-71	33-70	21-69	13-72
Fatality Rate per 100K dives	0.478	0.692	0.503	0.482	0.373	0.556	0.572	0.283	0.483	0.321	0.472

Total for 10-year Period = 0.472 / 100,000 Dives
Range = 0.283 to 0.692 per 100,000 Dives

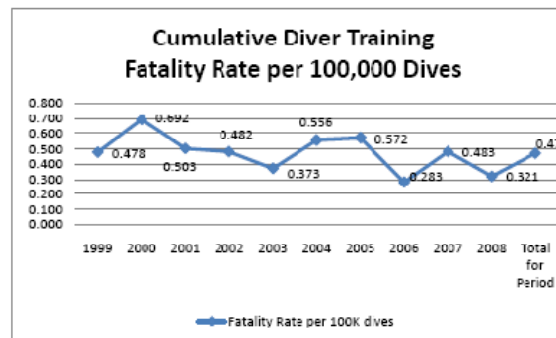


Table 21: Non-PADI Resort Program (1989-1998)*

Activity (non-certified supervised participant) *	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
Non-PADI-affiliated Resort Program	2	1	1	2	1	0	0	0	0	0	7

* Ratio of fatalities to divers unknown.

Cause of Death **#**

Cardiac	1
Drowning	1
Embolism	3
Unknown	1

Note: A denominator for non-PADI affiliated dive programs is not possible.

Table 41: Supervised Non-PADI Resort Program (1999-2008)*

Activity (non-certified supervised participant) *	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Non-PADI Resort Program	0	1	0	0	0	0	0	0	0	0	1

* Ratio of fatalities to divers unknown.

Cause of Death **#**

Embolism	1
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Note: A denominator for non-PADI affiliated dive programs is not possible.

**Table 41: Comparison of Fatality Rates by Course
1989 - 1998 vs. 1999 - 2008
Rate Per 100K Divers / Dives: Data Set Comparison**

Entry-Level	89 to 98	99 to 08	+ / - Number
Total Entry-Level Certifications	3,597,796	5,496,646	1,898,850
Total Entry-Level Training Dives	14,387,734	21,426,466	7,038,732
Fatalities in Entry-Level Training	49	89	40
Fatality Rate per 100K divers	1.362	1.619	0.257
Fatality Rate per 100K dives	0.341	0.415	0.074
Advanced Open Water	89 to 98	99 to 08	+ / -
Total AOW Certifications	945,582	1,784,908	839,326
Total AOW Training Dives	4,727,910	8,826,858	4,098,948
Fatalities in AOW Training	35	52	17
Fatality Rate per 100K divers	3.701	2.913	-0.788
Fatality Rate per 100K dives	0.740	0.589	-0.151
Discover Scuba Diving	89 to 98	99 to 08	+ / -
Total DSD Certifications	379,579	2,104,366	1,724,787
Total DSD Training Dives	379,579	2,104,366	1,724,787
Fatalities in DSD Training	11	24	13
Fatality Rate per 100K divers	2.898	1.140	-1.758
Fatality Rate per 100K dives	2.898	1.140	-1.758
Rescue Diver	89 to 98	99 to 08	+ / -
Total Rescue Certifications	279,477	437,731	158,254
Total Rescue Training Dives	1,397,385	2,188,655	791,270
Fatalities in Rescue Training	2	2	0
Fatality Rate per 100K divers	0.716	0.457	-0.259
Fatality Rate per 100K dives	0.143	0.091	-0.052
Specialties	89 to 98	99 to 08	+ / -
Total Specialty Certifications	387,100	1,205,722	818,622
Total Specialty Training Dives	1,045,288	2,925,682	1,880,394
Fatalities in Specialty Training	3	24	21
Fatality Rate per 100K divers	0.775	1.991	1.216
Fatality Rate per 100K dives	0.287	0.820	0.533
Divemaster	89 to 98	99 to 08	+ / -
Total DM Certifications	65,608	539,610	474,002
Total DM Training Dives	393,648	3,237,660	2,844,012
Fatalities in DM Training	4	1	-3
Fatality Rate per 100K divers	6.097	0.185	-5.912
Fatality Rate per 100K dives	1.016	0.031	-0.985
Cumulative - All Courses	89 to 98	99 to 08	+ / -
Total Certifications	5,655,142	11,568,983	5,913,841
Total Training Dives	22,331,544	40,709,687	18,378,143
Fatalities in Training	104	192	88
Fatality Rate per 100K divers	1.839	1.660	-0.179
Fatality Rate per 100K dives	0.466	0.472	0.006
Activity (non-certified supervised participant) *	89 to 98	99 to 08	+ / -
Non-PADI-affiliated Resort Program	7	1	-6.000

* Ratio of fatalities to divers unknown.

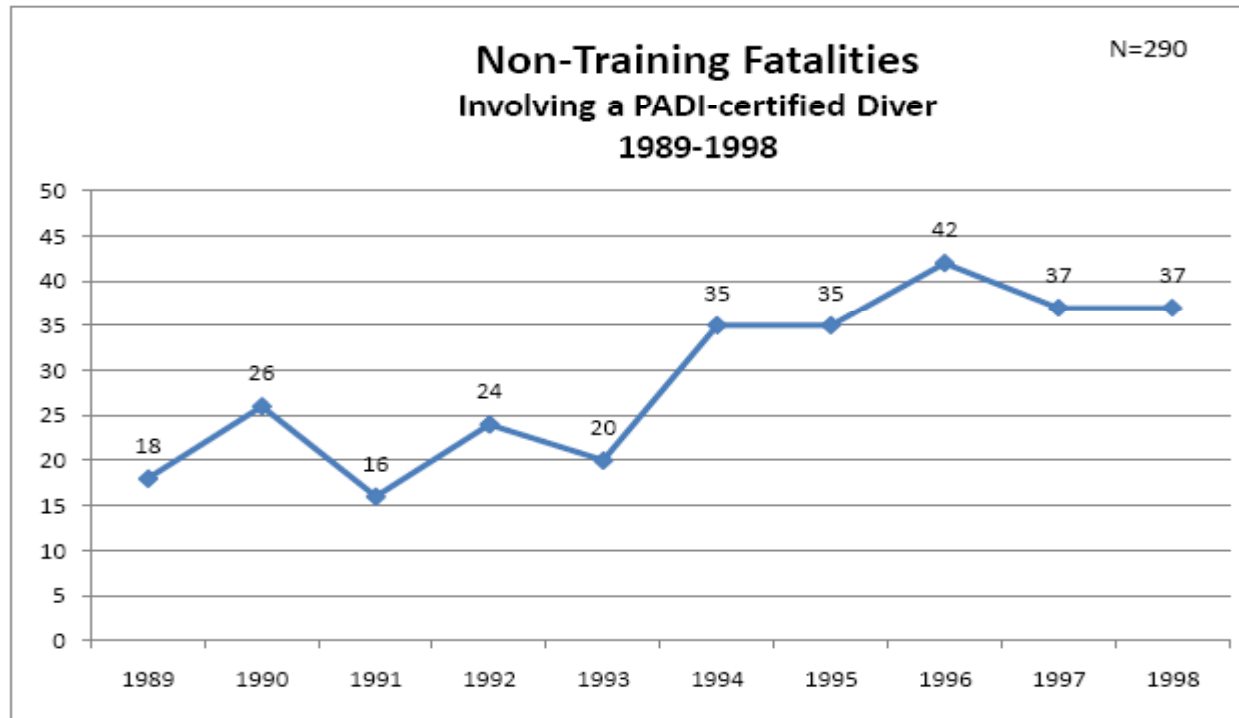
**Data Set 2: Fatalities
occurring outside of PADI-
sanctioned training or
supervised programs &
involving a PADI-certified
Diver**



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1989-1998

Table 44: Summary of non-training fatalities involving a PADI-certified diver



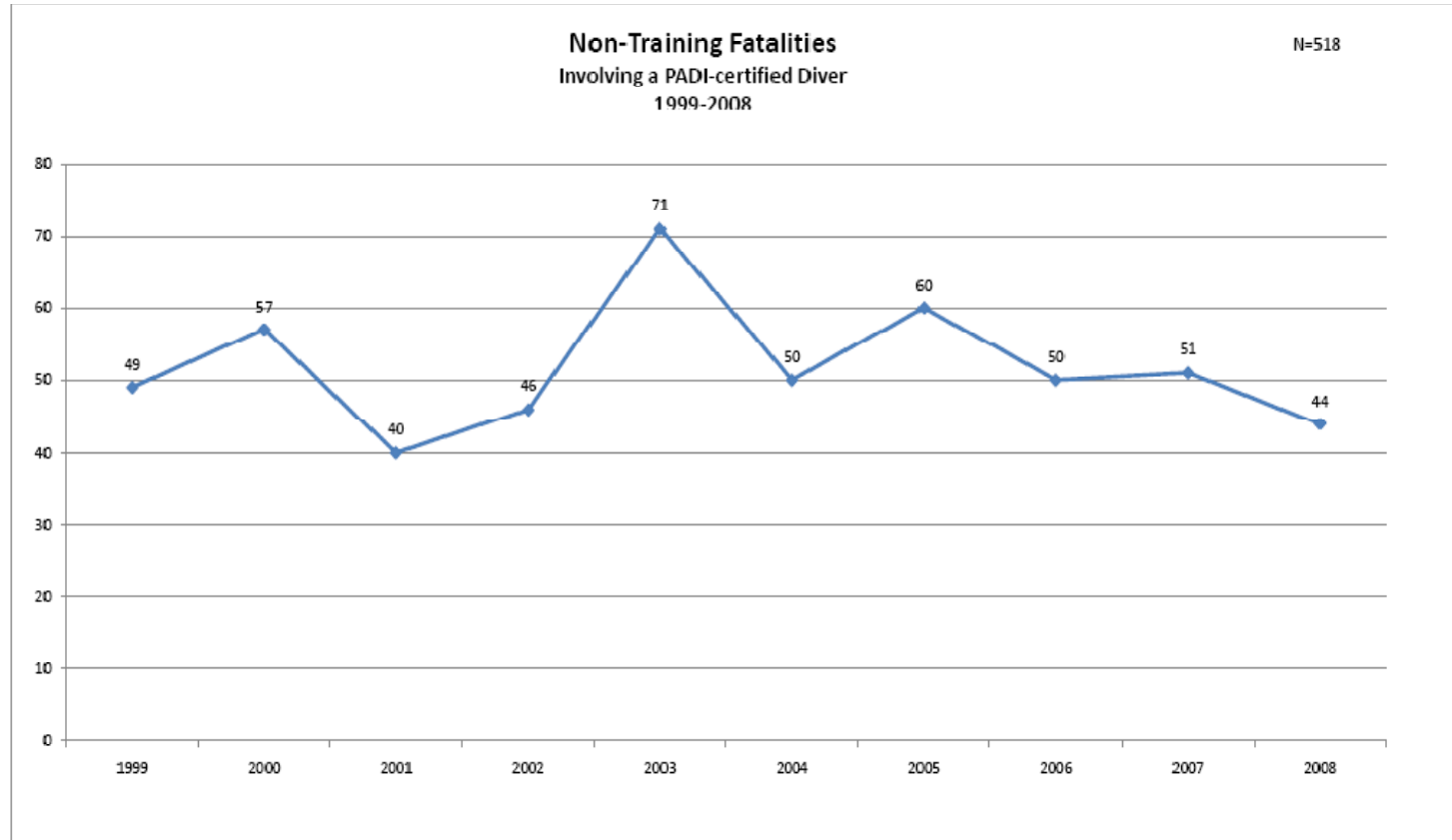
Contributing Factors:
Wreck penetration
Entanglement
Shallow water blackout
Depth
Out of Gas
Rapid Ascent
Hypothermia
Lost/Buddy Separation
Overweight
Previous Med Condition
Panic
Buoyancy Issues
Poor Equipt. Maintenance
Diving Alone

Cause of Death:	Count:	% of Total	Median Age:	Deep Dive (130+ feet):
Drowning	113	39.0%	38	11
Unknown	97	33.4%	40	22
Cardiac	41	14.1%	50	2
Embolism	29	10.0%	37	2
Boat Prop	6	2.1%	34.5	
Asphyxiation	1	0.3%	25	
Asthma	1	0.3%	48	
DCS	1	0.3%	42	
Shark Attack	1	0.3%	42	
Total	290	100.0%	40	

Male:	227	78.3%
Female:	63	21.7%
Total	290	100%

1999-2008

Table 46: Summary of non-training fatalities involving a PADI-certified diver



Contributing Factors:
Wreck penetration
Entanglement
Shallow water blackout
Depth
Out of Gas
Rapid Ascent
Hypothermia
Lost/Buddy Separation
Overweight
Previous Med Condition
Panic
Buoyancy Issues
Poor Equip. Maintenance
Diving Alone

Cause of Death:	Count:	% of Total	Median Age:	Deep Dive (130+ feet):
UNKNOWN	216	41.7%	45.5	6
DROWNING	166	32.0%	41	18
CARDIAC	84	16.2%	55.5	
EMBOLISM	32	6.2%	45	5
BOAT PROP	8	1.5%	38	
DCS	2	0.4%	45	
ANEURISM	1	0.2%	Unknown	
ANOXIA & HYPERCAPNIA	1	0.2%	45	
ASTHMA	1	0.2%	42	
BLOOD CLOT LUNGS	1	0.2%	50	
CEREBRAL & PULMONARY EDEMA	1	0.2%	64	
CONTAMINATED AIR	1	0.2%	37	1
PNEUMOTHORAX	1	0.2%	32	
RESP DISTRESS PULMONARY EDEMA	1	0.2%	45	1
RUPTURED ULCER	1	0.2%	53	
SHARK ATTACK	1	0.2%	49	
Total	518	100.0%	45	2

Male:	409	79.0%
Female:	103	19.9%
Unknown:	6	1.2%
Total	518	100%

**Data Set 3: Fatalities
involving a PADI
professional (Divemaster /
Assistant Instructor /
Instructor) while at work**



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Table #48
Fatalities Involving a PADI Professional at Work
Worldwide (except Japan)
1989 - 1998

Calendar Year	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL
Total PADI Membership	26,548	33,487	41,449	51,419	50,925	61,895	67,245	74,994	79,629	87,127	574,718
Fatal injury at work – other	1	1	0	0	0	0	0	0	0	0	2
Fatal injury at work – during training	0	0	0	0	1	1	0	0	0	1	3
Fatal injury at work – supervising	0	1	1	0	0	0	0	0	0	1	3
Total Individuals	1	2	1	0	1	1	0	0	0	2	8
Fatality Rate for Population (Membership)	1 in 26,548 0.003767%	2 in 33,487 0.005972%	1 in 41,449 0.002413%	0 in 51,419 0%	1 in 50,925 0.001964%	1 in 61,895 0.001616%	0 in 67,245 0%	0 in 74,994 0%	0 in 79,269 0%	2 in 87,127 0.002295%	8 in 574,718 0.000014%

Table #51
Fatalities Involving a PADI Professional at Work
Worldwide
1999 - 2008

Calendar Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	TOTAL
Total PADI Membership	100,699	106,978	109,958	118,892	123,741	127,077	130,472	131,714	133,526	134,959	1,218,016
Fatal injury at work – other	1	0	0	0	0	2	1	0	0	1	5
Fatal injury at work – during training	0	0	0	0	1	1	2	1	1	2	8
Fatal injury at work – supervising	0	1	0	0	0	0	0	0	0	0	1
Total Individuals	1	1	0	0	1	3	3	1	1	3	14
Fatality Rate for Population (Membership)	1 in 100,699 0.00000 99%	1 in 106,978 0.00000 93%	0 in 109,958 0%	0 in 118,892 0%	1 in 123,741 0.00000 8%	3 in 127,077 0.00002 36%	3 in 130,472 0.00002 3%	1 in 131,714 0.00000 8%	1 in 133,526 0.00000 7%	3 in 134,959 0.00002 2%	14 in 1,218,016 0.000011 %

Table #48
Fatalities Involving a PADI Professional at Work
Worldwide (except Japan)
1989 - 1998

YEAR	GENDER	AGE	LEVEL	CAUSE OF DEATH	LOCATION	FATAL INJURY AT WORK BY CATEGORY	DETAILS
1989	F	Unknown	OWSI	BOAT PROP	BWI	Other	CREWHAND ON BOAT, ATTEMPTING TO UNTANGLE LINE. INJURY - LACERATION (HEAD)
1990	M	54	IE, AI	CARDIAC	TX	Other	WATERMANSHIP EVALS - TREAD
1990	M	Unknown	DM	Unknown	JAMAICA	Supervising	TRIPLE FATALITY, 1 NEAR DROWNING, 1 AGE OR DCS, DM WAS DIVE GUIDE FOR GROUP, DEPTH >267'
1991	M	36	OWSI	DROWNING	IL	Supervising	SERVING AS SRFC DM, DOVE IN, FULLY CLOTHED, TO ASSIST DIVER, BODY RECOVERD DAYS LTR
1993	F	20	OWSI	DROWNING	WI	Training	INST & STDT DIED ON SAME DIVE
1994	M	35	OWSI	Unknown	UK	Training	CONDUCTING BB ASC W/STUDENT, MADE SUDDEN/RAPID ASC, STUDENT ATMPD TO ASSIST, TO NO AVAIL- INST DIED, BODY RCVD 5 WKS LTR
1998	M	59	MI	CARDIAC	FL	Training	HE WAS CONDUCTING OW TRAINING.
1998	M	24	DM	UNRECOVERED BODY	TOBAGO	Supervising	LOST AT SEA, NEVER RECOVERED. THE SEARCH WENT ON FOR ONE WEEK WITH NO SIGN OF DIVERS OR EQUIPMENT.

Table #50
Fatalities Involving a PADI Professional at Work
Worldwide (including Japan)
1999 - 2008

YEAR	GENDER	AGE	LEVEL	CAUSE OF DEATH	LOCATION	FATAL INJURY AT WORK BY CATEGORY	DETAILS
1999	M	27	OWSI	ELECTROCUTED	EGYPT	Other	ELECTROCUTED WHILE WORKING ON DIVE BOAT
							HAD DIFFICULTY BREATHING 3 DAYS PRIOR. FELT BETTER & MADE DIVE. SURFACED, BEGAN CONVULSING. BOAT PICKED UP, BEGAN AR. NAVY DR ARRIVED & TOOK OVER.
2000	M	28	DM	EMBOLISM	PHILIPPINES	Supervising	
							WAS TEACHING CW TRNG WHEN HE BECAME UNCONSCIOUS & STOPPED BREATHING. AR & CPR ADMIN. EMS ACTIVATED, TX TO HOSP WHERE HE EXPIRED. POSSIBLE HEART ATTACK OR STROKE.
2003	M	62	OWSI	Unknown	PANAMA	Training	
							CASUALTY INDICATED HE WISHED TO ABORT DIVE, FELL UNCONSCIOUS WHILST BOARDING BOAT. RESCUED ONTO BOAT WHERE VENTILATIONS AND O2 WERE ADMINISTERED. EVACUATED BY EMS.
2004	M	42	AI	UNKNOWN	EGYPT	Training	
							DM WENT IN WATER AFTR DIVE TO RETRIEVE ANCHOR W/OUT FINS, LATER DISCOVERED UNCON AT 100' AR & CPR, EMS TX TO HOSPITAL WHERE HE WAS PRONOUNCED DEAD.
2004	M	51	DM	DROWNING	HI	Other	
							REF AP04-222: TWO DIVERS WERE DROPPED OFF TO DRIFT DIVE TO MOORING WHERE BOAT HOOKED UP AND 4 CERTIFIED DIVERS WENT DIVING. AFTER THE DIVE, 2 DIVERS HAD NOT RETURNED AND SEARCH STARTED. ALARM RAISED UPON RETURN TO RESORT - SEA + AIR SEARCH STARTED NEXT DAY AND CONTINUED FOR SEVERAL DAYS - DIVERS STILL MISSING. DIVER EXPERIENCED MILITARY + COMMERCIAL DIVER WITH MANY YEARS EXPERIENCE.
2004	M	52	OWSI	UNKNOWN	FIJI	Supervising	
							WAS FOUND ON THE BOTTOM UNCONSCIOUS W/O A REG BY ONE OF THE GUESTS. HE WAS BROUGHT TO THE SRFC, CPR ADMIN. DID NOT REVIVE. AUTOPSY PENDING COC ON DEATH CERT. DROWNING
2005	M	32	DM	DROWNING	HONDURAS	Supervising	
							GROUP FAILED TO SURFACE FROM DIVE. CIRCUMSTANCES UNKNOWN. PRESUMED DECEASED.
2005	M	30	MSDT	UNRECOVERED BODY	TANZANIA	Training	

Table #50 (CONTINUED)
Fatalities Involving a PADI Professional at Work
Worldwide (including Japan)
1999 - 2008

YEAR	GENDER	AGE	LEVEL	CAUSE OF DEATH	LOCATION	FATAL INJURY AT WORK BY CATEGORY	DETAILS
2005	F	25	OWSI	DROWNING	SAIPAN	Training	INSTRUCTOR WAS LEADING 6 DIVERS ON AOW DEEP DIVE. DIVER APPROACHED WITH A PROBLEM AND THEY BOTH STARTED ASCENDING. UNK WHAT HAPPENED AT THIS POINT. INSTRUCTOR WAS FOUND THE NEXT DAY
2006	M	48	MSDT	HEAD INJURY	EGYPT	Training	STUDENT SURFACED WITHOUT INST. DIVERS BEGAN SEARCH FOR INST. HE WAS FOUND LYING ON THE BOTTOM WITH HEAD INJURIES & NO MASK OR REGULATOR. DIVER BOUGHT HIM TO SURFACE, RESCUE BREATHS ADMIN WHILST TOWING THE VICTIM TO THE BOAT. HE WAS PRONOUNCED DEAD.
2007	M	44	AI	CARDIAC	PA	Training	AI WAS ESCORTING 2 STUDENTS UP THE ASCENT LINE AFTER COMPLEETING DEEP AOWD WHEN EXPERIENCED PROBLEMS. HE LEFT STUDENTS AT THEIR SAFETY STOP AND WENT TO SRFC, DROPPED HIS WB AND CALLED FOR HELP. CPR COMMENCED IMMEDIATELY WHEN REACHED SHORE.
2008	M	38	DM	UNKNOWN	TURKEY	Training	RESC ALERTED OF DIVER TAKEN TO HOSP WITH DCI & THE LEADER WAS MISSING. DIVERS SEARCHED & SAW THE VICTIM AT 32.5M WITH NO REG & NO SIGNS OF LIFE. DIVERS ASCENDED & CALLED COAST GUARD TO RECOVER VICTIM.
2008	M	61	MSDT	CARDIAC	CANADA	Training	DIVER CONDUCTING AOW DEEP CLASS. APPARENTLY SHOWED DISTRESS U/W AND STUDENTS ASSISTED HIM TO SRFC AND TOWED HIM TO SHORE. CPR/FA PROVIDED AND EMS MEDIVACED BUT DECLARED DECEASED.
2008	M	35	OWSI	BOAT PROP	EGYPT	Other	INSTRUCTOR WAS HIT BY BOAT PROP IN SHALLOW WATER WHILE TRAINING AND OWD STUDENT. BOTH WERE FOUND INJURED & UNCONSCIOUS UNDER THE WATER. THEY WERE TOWED OUT OF THE WATER & CPR ADMIN BUT WERE NOT ABLE TO BE RESUSCITATED.

Summary

