

**HB**

**366**

Revision Date: January 12, 1996 Dept. Affected: Revenue  
 Title: An act relating to marine safety training and BRU: \_\_\_\_\_  
education programs Component: \_\_\_\_\_  
 Sponsor: DHSS Committee  
 Requestor: Rep. Austerman COMPONENT SERIAL NO. \_\_\_\_\_

Expenditures/Revenues: (Thousands of Dollars)

OPERATING EXPENDITURES	FY 97	FY 98	FY 99	FY 00	FY 01	FY 02
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
<b>TOTAL OPERATING</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

CAPITAL EXPENDITURES						
----------------------	--	--	--	--	--	--

CHANGE IN REVENUES ( )						
------------------------	--	--	--	--	--	--

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other						
<b>TOTAL</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Estimate of any current year (FY96) cost \$ \_\_\_\_\_

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS:

Earnings on the Fisherman's Fund currently are left with the General Fund and do not belong to the fund. Based upon the assumptions disclosed below, \$200,000 would be available for appropriation each year. While the funding source would clearly be the General Fund, it is difficult to determine which Department should reflect the fiscal impact as the bill does not address who the granting agency would be.

ASSUMPTIONS:

Current balance is \$8.1 million. As the fund is actively encouraging claims from fisherman, we have assumed that the fund will simply remain stable at \$8.0 million. The interest rate assumption used is 5%. Interest on \$8.0 million at 5% would be \$400,000 annually. One-half of this amount would then be \$200,000.

Prepared by: Betty Martin, Comptroller  
 Division: Treasury  
 Approved by Commissioner: [Signature]  
 Agency: Department of Revenue

Phone: 465-2350  
 Date: 1/12/96  
 Date: 1/12/96

PREPARER TO PROVIDE ALL DISTRIBUTION COPIES TO GOVERNOR'S LEGISLATIVE OFFICE

For further distribution information call the Governor's Legislative Office

(7)

HOUSE COMMITTEE REPORT

Date Referred to Committee: January 8, 1996

FURTHER REFERRALS:

Transportation  
Finance

Date of Committee Action: 1/30/96

The HEALTH, EDUCATION AND SOCIAL SERVICES Committee considered:

HB 366

HOUSE BILL NO. 366

MARINE SAFETY EDUCATION PROGRAMS

"An Act relating to marine safety training and education programs."

recommends it be replaced  
with the following committee substitute

CS HB 366 (HES)

the same title  
 a new title

additional referral to \_\_\_\_\_ Committee  
 attached amendment(s)

ADOPTS: \_\_\_\_\_ Letter of Intent

ATTACHES NEW FISCAL NOTE(S): (Dept) \_\_\_\_\_

APPROVES PREVIOUS: (Dept/Date) \_\_\_\_\_

fiscal note(s) \_\_\_\_\_

fiscal note(s) \_\_\_\_\_

zero fiscal note(s) Revenue

zero fiscal note(s) \_\_\_\_\_

SIGNING WITH RECOMMENDATIONS	DP	DNP	NR	AM
<i>John L. Dan...</i>			✓	
<i>Norman Skelton</i>			✓	
<i>Car Bruce</i>	✓			
<i>...</i>	✓			
<i>...</i>			✓	
<i>Car Bruce</i>	✓			
<i>...</i>			✓	

CHAIR'S SIGNATURE *Car Bruce*

9-LS1333\C  
Utermohle  
1/26/96

CS FOR HOUSE BILL NO. 366( )

IN THE LEGISLATURE OF THE STATE OF ALASKA

NINETEENTH LEGISLATURE - SECOND SESSION

BY

Offered:  
Referred:

Sponsor(s): REPRESENTATIVES AUSTERMAN, Ivan

A BILL

FOR AN ACT ENTITLED

1 "An Act relating to marine safety training and education programs."

2 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

3 \* Section 1. INTENT. (a) It is the intent of this Act to identify a source of funds that  
4 may be used to fund marine safety training and education programs to protect commercial  
5 fishermen, mariners, and the public from injury or death arising from accidents at sea.

6 (b) This Act does not create a dedicated fund.

7 \* Sec. 2. AS 23.35.060 is amended by adding a new subsection to read:

8 (b) The legislature may appropriate 50 percent of the income earned by the  
9 state on the balance of the fishermen's fund for grants to the Alaska Marine Safety  
10 Education Association for marine safety training and education programs.



## REPRESENTATIVE ALAN AUSTERMAN Alaska State Legislature

P.O. Box 2368, Kodiak, Alaska 99615 (907) 486-5930 • Session: State Capitol, Juneau, Alaska 99801 465-2487

### SPONSOR STATEMENT

#### HB 366

"An Act relating to marine safety training and education programs."

JANUARY 11, 1996

The Alaska Marine Safety Education Association (AMSEA) has been operating in the State of Alaska for 10 years. The primary purpose of this organization is to reduce the loss of life and injury in the Alaskan marine environment by providing education through a statewide network of qualified marine safety instructors.

AMSEA provides the safety training required by the Commercial Fishing Vessel Safety Act of 1988 to communities throughout Alaska. The Act, which took effect in 1991, requires a minimum in safety training and equipment for commercial fishing vessels.

AMSEA also helps Alaskans by providing marine safety instructor training who in turn teach drill instructor courses. These marine safety instructors also train the Alaska boating and fishing public, including many children and adults, in marine safety. Of the 7300 people AMSEA trained in 1995, 2000 were from the commercial fishing industry, 3700 were children.

According to a recent study by the Native Health Service, AMSEA training significantly reduced fatalities among commercial fishermen. This coincides with a 50 percent drop in fishing fatalities in Alaska in the last four years.

AMSEA is a nonprofit, community-based information and training network, supported by many volunteers. Its annual budget has ranged from \$100,000 to \$250,000 in the past five years. It has been receiving 100 percent of its funding from federal grants but these federal grant programs are ending June 30, 1996. This organization deserves our intervention to ensure long-term funding source stability.

### SPONSOR STATEMENT

Akhiok • Karluk • Kodiak • Larsen Bay • Old Harbor • Ouzinkie • Port Lions

The Fishermen's Fund (AS 23.35.060) was created before statehood. One hundred percent of the fishermen's fund is funded by commercial fishing license fees. Sixty percent of license fees are dedicated to this fund. Since commercial fishermen are the beneficiaries of the required marine safety training, it is appropriate to allow part of the interest on the fund to be used to fund some of AMSEA's marine safety programs.

It is estimated that the Fishermen's Fund generates approximately \$310,000 in interest a year. By way of this legislation, AMSEA is requesting approximately \$155,000 a year.

**DIVISION OF LEGAL SERVICES  
LEGISLATIVE AFFAIRS AGENCY  
STATE OF ALASKA**

(907) 465-3867 or 465-2450  
FAX (907) 465-2029  
Mail Stop 3101

130 Seward Street, Suite 409  
Juneau, Alaska 99801-2105

**MEMORANDUM**

December 28, 1994

**SUBJECT:** Fisherman's fund (AS 23.35)(Work Order No. 9-LS0362)

**TO:** Representative Ben Grussendorf  
Attn: Katherine

**FROM:** Michael F. Ford *M.F.*  
Legislative Counsel

You have asked if the fisherman's fund (AS 23.30.060) could be used to fund a program to teach safety to commercial fishermen. As explained in this memo, I believe that using the fund to teach safety could only be done if this purpose was added as a statutory purpose of the fund.

The existing benefits provided by the fund, those under AS 23.35.070 - 23.35.140, are all intended to treat fishermen who become disabled. There are no funds provided for prevention of injuries, or safety training. It could certainly be argued that prevention of accidents is directly related to the general purpose of the fund, but without statutory authority this type of expenditure would be beyond the scope of the benefits provided under existing law.

I should also point out that if the legislature alters the fund this would raise dedicated fund issues. As a fund in existence at statehood, the fisherman's fund is exempt from the prohibition against dedicated funds contained in Article IX, section 7, of the Alaska Constitution. However, the Attorney General has taken the position that no change to a grandfathered fund is permitted without destroying the legal dedication and making the fund subject to the dedicated fund clause. In short, you could modify the purpose of the fisherman's fund to permit funding for a safety program but by doing so you run the risk of destroying the dedicated fund exemption presently enjoyed by the fund.

If you have further questions on this matter please contact me.

MFF:lmb  
95-063.lmb



## Alaska Marine Safety Education Association

P.O. Box 2592, Sitka, Alaska 99835 PH (907) 747-3287 FAX (907) 747-1406

August 4, 1995

Alan Austerman  
P.O. Box 2368  
Kodiak, Ak. 99615

Dear Representative Austerman:

I am writing this letter to you in regards to funding for AMSEA's statewide training and education efforts in marine safety. Our financial situation now is critical. This summer, our budget (which comes solely from federal sources) has been cut by 75% from an already very minimal staff and low overhead program.

Through AMSEA's efforts in FY 95, over 7,500 people in trained in marine safety. Over of those trained are children, and over 1,000 were commercial fishermen, who are required to take USCG approved training in conducting emergency on board drills and survival. The AMSEA network of community based marine safety instructors has been responsible for training over 2,800 commercial fishermen in this requirement over the last 4 years. This has resulted in training being brought into over 60 Alaskan fishing ports. As a recent study has indicated (Perkins study enclosed), this training has been at least partly responsible for the 50% reduction in commercial fishing fatalities over the last 3 years in Alaska.

Alaska is the only state in the nation without a safe boating program, yet Alaska has the highest drowning rate in the nation (12x the national average). AMSEA has tried to fill in this education gap for the last 10 years, but without some state support at this point, AMSEA's efforts will be reduced to near zero.

AMSEA recognizes that fiscal belt tightening needs to occur at both the state and federal level. However, there is a source of fishermen contributed revenues that could be used to support AMSEA's work. The Fishermen's Fund was established in the early 1950's to help defray minor medical costs suffered by fishermen on the job. This fund is totally contributed to by fishermen. Income to this fund has greatly increased over the past few years and expenses keep decreasing. Although this is a grandfathered dedicated fund, the interest it is now earning goes into state general operating revenues. At this time there is over 7.2 million dollars in this Fund. AMSEA cannot and does not wish to tap into this dedicated fund's principal itself, but thinks it would make common sense to use just 50% or so of the \$300,000 in interest the Fund generates annually and put this back into injury prevention in fisheries and marine users.

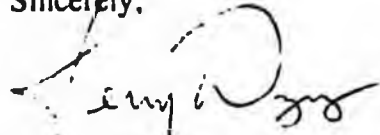
AMSEA is seeking your support for this funding in the next legislative session. We have the support from a number of fishing groups on this issue. Sitka's Representative, Ben Grussendorf is interested in working with you and Carl Moses this summer to pave the way for introducing a bill in the next legislature and working this through the budgetary process.

We hope that we can gain your support for this important work. AMSEA has worked for over

10 years to build expertise in marine safety relevant to the Alaska working, recreational and subsistence environment. It would be grossly inefficient to lose this expertise and then have to recreate it all again at a future date because the need was still great.

Please feel free to contact this office or Rep. Grussendorf if you need any other information on this matter at this time. Thank you in advance for your support.

Sincerely,



Jerry Dzuga  
Director/Training Coordinator

c.c. Rep. Ben Grussendorf  
Rep. Carl Moses

enc: Perkins study  
AMSEA Accomplishments  
Proposal for long term funding base for AMSEA  
Port list of AMSEA outreach delivered Drill Instructor courses  
AMSEA brochure



## Alaska Marine Safety Education Association

P.O. Box 2592, Sitka, Alaska 99835 PH (907) 747-3287 FAX (907) 747-1406

### AMSEA ACCOMPLISHMENTS IN LAST 8 YEARS

- \* Trained over 400 marine safety instructors from Ketchikan to Nome.
- \* Trained over 2,500 commercial fishermen in required Drill Instructor training in their homeports.
- \* Trained over 40,000 members of the public in marine safety.
- \* Sends out 2,500 copies of "Marine Safety Update" 4 times a year mostly to commercial fishermen.
- \* Acted as a clearinghouse for marine safety information.
- \* Maintains a inventory of marine safety videos, supplies and training equipment to loan.
- \* Has written and updated a marine safety curriculum relevant to Alaska as well as produced marine safety videotapes, displays, and books for children.
- \* Coordinated training and marine safety activities with over 50 private and public organizations.
- \* Worked with the Coast Guard ~~successfully~~ ~~problem solve~~ marine safety equipment problems for Alaskan fishermen.
- \* Helped to establish marine safety training networks on the 3 other coasts of the U.S.
- \* Helped many fishermen access marine safety equipment resources.
- \* Brought marine safety training into numerous Alaskan schools.
- \* According to a study currently underway, "AMSEA has had a statistically significant impact on the approximate 50% reduction in commercial fishing fatalities in the last two years in Alaska".
- \* Surveys have documented that at least 30 lives have been saved as a result of AMSEA's training efforts.
- \* Brought Drill Instructor training for commercial fishermen to over 50 Alaskan ports.



## Alaska Marine Safety Education Association

P.O. Box 2592, Sitka, Alaska 99835 PH (907) 747-3287 FAX (907) 747-1406

### AMSEA ACCOMPLISHMENTS IN LAST 10 YEARS

- Trained over 40,000 members of the public in marine safety
- 20,000 of those trained were children in Coastal and Interior Alaska.
- Trained over 2,500 commercial fishermen in required Drill Instructor training in 57 Alaskan ports.
- Trained over 400 Marine Safety Instructors who train members of the public in 50 home ports.
- Surveys document that at least 40 lives have been saved as a result of AMSEA training.
- A recent study has found that AMSEA's training had been responsible in part for the 50% reduction in commercial fishing fatalities in the last several years.
- Brought marine safety training into numerous remote Alaskan schools statewide.
- Sends out over 1,300 Marine Safety Update publications to mariners in Alaska 4 times a year.
- Acts as a clearinghouse for marine safety information. AMSEA's curriculum is a standardized curriculum on marine safety relevant to the Alaskan environment.
- Maintains an inventory of marine safety videos, supplies and training equipment to loan.
- Has written and produced award winning marine safety publications, displays and videos.
- Coordinated marine safety training efforts with over 50 public and private agencies.
- Worked with the Coast Guard to problem solve marine safety equipment problems and regulations.
- Helped members of the public access marine safety equipment resources.

AMSEA's efforts in marine safety have been recognized by awards from the U.S. Department of Health and Human Services, National Safety Council, U.S. Marine Safety Association and the Alaska Safety Advisory Council, among other awards.



## Alaska Marine Safety Education Association

P.O. Box 2592, Sitka, Alaska 99835 PH (907) 747-3287 FAX (907) 747-1406

### Proposal for Long Term Funding Base for AMSEA

Proposed by Jerry Dzugan, AMSEA Executive Director  
January 1995

Alaska Marine Safety Education Association (AMSEA) is a nonprofit organization based in Sitka. AMSEA's goal is to reduce the loss of life and injury in the Alaskan marine environment through public education provided by a statewide network of qualified marine safety instructors. Since its inception in 1985, AMSEA has trained over 40,000 people in communities throughout Alaska. Those trained include commercial fishermen, elementary and high school children, agency personnel, and members of the public. This unique program has received state and national recognition and is being modeled in other parts of the United States.

In recent years, AMSEA's primary focus has been to provide the safety training required by the Commercial Fishing Vessel Safety Act of 1988 to fishing communities throughout Alaska. AMSEA has provided this training to over two thousand commercial fishermen in over fifty Alaska fishing ports. A recent independent study revealed statistical proof that fishing vessel safety training is effective in saving lives.

In the state that has the highest drowning fatality rate in the nation and where the fishing industry has a high casualty rate, AMSEA's work has filled a void in education and training. Securing a stable, ongoing funding base is critical to the life of this program. Traditionally, AMSEA's primary source of funding has come from ~~state~~ federal sources. All but one of these grants expire on June 30, 1995 without option for renewal. A potential source of long-term funding is in the interest from the Fishermen's Fund. The interest from the Fund generates over \$300,000 annually, all of which goes into the State's General Fund. A fraction of the interest from the Fishermen's Fund would ensure the continued viability of this safety program and in no way harm the operation or purpose of the Fund.

In our effort to secure ongoing funding, AMSEA has support from fishing organizations statewide, from local legislators, and from the City and Borough of Sitka. The fishing industry is important to the state's economic health, and AMSEA is important to the health of Alaska's fishermen.

Any assistance that can be provided to secure the dedication of a portion of the interest from the Fisherman's Fund to support AMSEA's ongoing program will be greatly appreciated. For more information please contact the Alaska Marine Safety Education Association, (907) 747-3287.

# EVALUATION OF AN ALASKAN MARINE SAFETY TRAINING PROGRAM

by

RON PERKINS, MPH

---

The Alaska Marine Safety Education Association (AMSEA) provides commercial fishermen with an intensive 18-24 hour course on emergency preparedness, emergency response, and survival training. This study is a retrospective evaluation of the effectiveness of the AMSEA course in reducing drownings and hypothermia deaths among commercial fishermen. A list of all deaths and survivors compiled by the U.S. Coast Guard for the four year period from January 1, 1991 to December 31, 1994, was compared with a list of the AMSEA course graduates. None of the 114 deaths were AMSEA graduates, while 10 of the 227 survivors were graduates. These findings are statistically significant ( $p=0.034$ ).

---

## INTRODUCTION

A broken weld in the hull, a malfunctioning pump system, a leaking hatch cover, a man overboard, an engine fire or any number of other disastrous situations can occur quickly and unexpectedly at sea. Alaska has the highest drowning fatality rate in the U.S. with an age-adjusted rate that is five times the national average.<sup>1</sup> Alaska also has the highest occupational fatality rate in the commercial fishing industry. Nearly 25% of all U.S. commercial fishing fatalities occur in Alaska, twice the number of the second highest state (Louisiana).<sup>2</sup> An average of 40 boats go down off the coast of Alaska each year, with an annual average of 28 lives lost.

Alaskan fishermen work during every month of the year in extremely hazardous conditions. Imagine working in a factory where the floor is covered with water or ice and is constantly moving. Imagine a work environment where not all of the heavy equipment is anchored down, and you have to work in heavy, bulky clothing. Also, if a fire, flooding, or any other disaster is discovered, you must deal with it rather than run outside to escape. Fishing in Alaska is a very dangerous occupation.

Congress passed the "Commercial Fishing Industry Vessel Safety Act of 1988" (CFIVSA) to address some of the commercial fishing safety deficiencies. This Act contains federal regulations which specify the types of survival gear, safety equipment, fire fighting equipment, distress signals, first aid training, alarms,

etc. that are required on fishing vessels. This Act also requires that by September 1, 1994, each boat must have a person available who is trained to conduct monthly emergency safety drills, or the vessel must possess a 100 ton U.S. Coast Guard (USCG) license.

This retrospective study was designed to determine if the Alaska Marine Safety Education Association's (AMSEA) safety training sessions, which meet the requirements of the CFIVSA, have reduced the number of drownings/hypothermia deaths among the commercial fishermen who took the course. AMSEA's training is modeled after the International Maritime Organization's (IMO) Personal Survival Module.

#### METHODS

This study evaluates the "Marine Survival Equipment, Procedures, and Drills Course" (Drill Instructor Course) that was developed and conducted by the Alaska Marine Safety Education Association (AMSEA). This 18-24 hour hands-on course addresses emergency preparedness and response, signaling, use of survival equipment, evacuations, fire fighting, vessel stability and loading, as well as conducting drills.

The study period was from January 1, 1991 to December 31, 1994. The U.S. Coast Guard database identified vessels that were either involved in drownings or required rescues during the study period (vessel incidents). The vessel name, date of incident, victims, survivors, and a brief incident description were included. Information from the National Institute for Occupational Safety and Health (NIOSH) Alaska Activity and from a newspaper clipping service was used to cross-check for accuracy and to find additional names for victims and survivors. The names of victims and survivors were then compared to a list of the AMSEA Drill Instructor Course graduates. The dates of the vessel loss and of the course graduation were also compared to exclude people that took the course after losing their boat. If a victim or survivor could not be identified by name, they were not included in the study. Unoccupied vessels that were lost were also excluded. A survivor was defined as a person who was rescued from a boat in distress, either by the Coast Guard or by another vessel.

A two by two table was created using the number of deaths and the number of survivors, and whether they were AMSEA trained or not. The Fisher exact 2-tailed test was used to determine the probability that the difference was random.

## RESULTS

There was a total of 159 vessel incidents in Alaska reported by the U.S. Coast Guard during the four year study period. None of the 114 documented deaths were AMSEA Drill Instructor Course graduates. There was a total of 343 survivors, with 227 (66%) being identified by name. Of the survivors who were identified, 10 were AMSEA graduates on 8 different vessels (Table I).

TABLE I

	# OF VESSELS <sup>3</sup>	VESSEL INCIDENTS	TOTAL DEATHS	AMSEA DEATHS	IDENTIFIED SURVIVORS	AMSEA SURVIVORS
1991	17,580	47	41	0	44	2
1992	17,194	45	42	0	41	1
1993	16,276	26	21	0	45	1
1994	16,192	41	10	0	97	6
TOTALS		159	114	0	227	10

Ten of the 227 survivors were AMSEA trained, while none of the 114 who died were trained ( $p=0.034$ ). The probability of these findings occurring by chance was less than 4%. Only the survivors who were AMSEA graduates were counted as "saves", although there was an average of 3 additional (non-AMSEA trained) persons on each of the eight vessels.

One person's knowledge of life raft deployment, distress signal use, or emergency response could easily save the entire vessel and crew. Therefore, another way to analyze the data would be to look at vessels, rather than individuals. There were 64 vessels on which at least one death occurred and 86 vessels which had at least one identified survivor. Eight of the 86 "survivor vessels" had an AMSEA trained individual on board, while none of the 64 "death vessels" had an AMSEA trained person ( $p=0.01$ ).

## DISCUSSION

The results of this study indicate that there was a positive relationship between completing the AMSEA Drill Instructor Course

and surviving a life threatening incident at sea. A cumulative total of 1518 people in Alaska have been trained by AMSEA from January 1, 1991 to December 31, 1994, but this number is still only 3% of the total number of fishermen registered in 1994.<sup>4</sup> Every effort was made to identify the 116 unidentified survivors from Coast Guard reports, NIOSH investigations, and from newspaper accounts. According to the crews from two additional vessels not counted in this study, practicing the emergency drills described in an AMSEA manual they purchased, had also saved their lives. Anecdotal stories from other AMSEA graduates indicated that their knowledge and preparedness actually prevented the need to call the Coast Guard for help.

One possible confounding variable, beyond the scope of this study, was to determine if there were characteristics of persons that chose to take the AMSEA course that were different from persons that chose not to take the course. In other words, were "safety conscious" individuals more likely to take the course.

#### CONCLUSIONS

It is apparent from the statistics gathered to date, that the AMSEA training course is having an effect in reducing drownings among commercial fishermen. The AMSEA Drill Instructor Course teaches participants how to abandon ship, fight fires, use distress signals, make distress calls, launch survival craft, don survival suits, recover individuals from water, etc. Requiring safety and survival equipment is good, but individuals must practice using the equipment prior to an emergency for it to be effective. There are other drill instructor courses which are considerably shorter (8 hours) and use very few hands-on exercises. These abbreviated courses may or may not be as effective as the AMSEA course. Therefore, additional evaluations need to be completed to determine their effectiveness.

Several improvements which may help to increase the number of fishing vessel survivors in Alaska each year include: 1) Expand AMSEA training to more fishing vessel operators; 2) Increase enforcement of federal regulations that require safer vessels and emergency drills. 3) Standardize the type of Drill Instructor courses required by the USCG to fit the International Maritime Organization's Personal Survival module.

#### ACKNOWLEDGMENTS

Several people helped to make this research project possible: Peggy Yang, student volunteer; Jennifer Lincoln, NIOSH, Anchorage; Chris Honse, U.S. Coast Guard, Juneau; Jerry Dzugan, and Yuki Gough, AMSEA, Sitka.

## BIBLIOGRAPHY

1. Centers for Disease Control. National Summary of Injury Mortality Data, 1985-1991.
2. National Traumatic Occupational Fatality database. NIOSH, 1980-1989. Morgantown, West Virginia: US Department of Health and Human Services, Public Health Service, CDC, 1992.
3. Commercial Fisheries Entry Commission, Juneau, AK. Vessels registered in the State of Alaska, 1991-1994, Ed Muse, 10/27/94.
4. Fish and Game Licensing, Alaska Department of Revenue, Juneau, Alaska, 10/94.

**AMSEA: ALASKA'S MARINE SAFETY NET***Henry (Hank) Pennington*

Since 1971 the University of Alaska Fairbanks, Marine Advisory Program (MAP) and the Alaska Sea Grant College Program have worked with the fishing industry to reduce high accident rates and loss of life in the industry. Much of this effort has taken the form of marine safety training. Recognizing that the scope of the problem far exceeded their resources, MAP Marine Safety program personnel enlisted the aid of the U.S. Coast Guard in 1982 to help with training efforts and ultimately to produce the award-winning Fisheries Safety and Survival video series.

Encouraged by the success of that joint effort, I joined representatives of state and federal agencies and private organizations in 1985 to develop a training program that would address the safety needs of commercial fishermen and other marine users. At that time no safety regulations existed for commercial fishing vessels. Although agencies involved in marine activities recognized the need for safety training, especially in regions with extreme conditions, like Alaska, funding and expertise were lacking in any one agency. The Alaska Marine Safety Education Association (AMSEA) was formed as a result of the cooperative effort among agencies. It was the first program of its kind and has played a leading role in training instructors from throughout the country to develop marine safety programs in their home regions.

AMSEA is a nonprofit, community-based information and training network with headquarters in Sitka; it is funded by public grants and supported by volunteers. The association takes a unique approach for an education program: curricula are developed by committees comprising representatives from the agencies involved, depending on the expertise required. Training programs are conducted by agency personnel, and the Board of Directors is made up of agency representatives. Supporting organizations include the School of Fisheries and Ocean Sciences Marine Advisory Program; the Alaska Department of Health and Social Services, Emergency Medical Services Section; the Alaska Department of Public Safety; Northstar Survival, Inc.; the Southeast Alaska Regional Health Corporation; the Southeast Regional Emergency Medical Services Council; the U.S. Coast Guard; and the Alaska Department of Education Alaska Vocational Technical School. Grants have been obtained from the Alaska Department of Health and Social Services, the U.S. Department of Commerce, and the U.S. Coast Guard.

A major goal is to teach instructors to train others in their communities. Instructors are versed not only in the specifics of the marine safety and survival curriculum, but also in methods of instruction; they are given practice teaching opportunities and hands-on reinforcement of subject material. Training supplies and materials are available at no cost to AMSEA instructors for use in their own marine safety classes. Equipment includes marine survival gear, videos, and other educational materials.

Participation in marine safety programs in Alaska increased dramatically after passage of the National Commercial Fishing Vessel Safety Act by Congress in 1988. The Act, which took effect in 1991, delineates the minimum safety training and equipment requirements for commercial vessels, with regional differences depending on conditions. Since passage of the Act, requests for AMSEA classes have more than tripled.



*Hank Pennington demonstrates the proper and safe method of getting into a survival suit during a safety workshop. (Photo: D. Mercy)*

**OUR GOAL** is to reduce loss of life and injury in the Alaskan marine environment through public education provided by a statewide network of qualified marine safety instructors.

Since our inception in 1985, Alaska Marine Safety Education Association (AMSEA) has:

- Developed a marine safety and survival course curriculum.
- Promoted marine safety information and training to over 17,000 people.
- Established minimum training standards for marine instructors and marine safety procedures.
- Provided continued training and support for our statewide instructor network.

.....  
● For More Information  
● or to Schedule Classes  
● Contact AMSEA  
● P.O. Box 2592  
● Sitka, Alaska 99835  
● (907) 747-3287  
● .....



# Alaska Marine Safety Education Association

## *A community-based information and training network*

---

**OUR PROGRAM** consists of the following components:

### ***Marine Safety Instructor Manual.***

An up-to-date curriculum on safety and survival for the Alaskan marine environment, this manual is continually revised to insure accuracy and relevancy. This curriculum is easily adapted to various audiences and learning situations. Specific units include:

- Preparation for the Emergency
- Cold Water Near Drowning
- Hypothermia
- Cold Water Survival Skills
- Sea Survival
- Shore Survival

### ***Instructor Training.***

Instructor training is the foundation of our community-based marine safety and survival resource network, and is based on the *AMSEA Marine Safety Instructor Manual*. Instructor Training also incorporates introduction to methods of instruction, practice teaching opportunities, and hands-on reinforcement of subject material.

### ***Safety and Survival Courses.***

Courses are tailored to fit the specific needs of an audience whether recreational boaters, commercial fishermen, children or other marine user groups. Courses range from one hour workshops to week-long classes and can be arranged by contacting AMSEA.

### ***Instructor Support.***

Training supplies and materials are available at no cost to all AMSEA Instructors for use in their marine safety classes. Equipment includes marine survival gear, videos, and other educational materials.

### ***Marine Safety Update.***

A quarterly newsletter produced for AMSEA Instructors and other interested readers to: detail the latest developments in marine safety, list a schedule of statewide marine safety and survival courses, and provide safety equipment information.



Marine Safety Equipment

October 10, 1995

Representative Alan Austerman  
112 Mill Bay Road  
Kodiak, AK 99615

*Alan Austerman*  
*10/10/95*  
*746*  
*(12)*

Dear Representative Austerman,

I am attaching a copy of a letter that I have mailed to Governor Knowles' office. As you will read, it is a matter of concern to me. The A.M.S.E.A. (Alaska Marine Safety Education Association) program is in need of finding some long term, stable funding in order to keep the organization the healthy, viable, dynamic program that it is.

Although A.M.S.E.A. is located in Sitka, they have had a great influence on our community and the Alaskan fishing industry. I am a U.S.C.G. Approved, Certified A.M.S.E.A. Instructor, and as such have been able to teach the A.M.S.E.A. Marine Safety curriculum to many fishermen in the Kodiak fishing fleet. I have taught the classes privately at Joycrafts, taken the classes to the villages of Ouzinkie, Port Lions and Old Harbor, and taught various segments of the classes at the Kodiak College in conjunction with Kodiak Fishermen's Wives and Associates. I'm sure you have been made aware of the facts, of how much impact that training has had upon the safety of our fishing fleet in just the last couple of years. It's been dramatic! Lives lost because of vessel casualties has decreased considerably.

I urge you to support any means you can to seek long term stable funding for A.M.S.E.A. Our fishing fleet has benefited from AMSEA's existence, our community has benefited, our children have reaped the benefits, and our national fishing fleet have reaped benefits.

If I can be of more help to you in providing information please contact me.

Thank you for your support.

Sincerely,

*Ted E. Rogers*  
Ted E. Rogers

9727 Wren Lane  
Eagle River, AK. 99577

*Constituent*

September 26, 1995

Representative Pete Kott  
State Capitol  
Juneau, AK. 99801-1182

Dear Representative Kott:

You frequently send newsletters asking for my views on a variety of topics, and today I have some input for you. I have worked for the U.S. Public Health Service for the past 24 years, 16 of which have been in Alaska. I have a Bachelors and a Masters degree in Public Health. I recently completed a research project that might be of interest to you. The research project evaluated a marine safety training program that is conducted by the Alaska Marine Safety Education Association (AMSEA). This research paper will be published in the national peer review journal, Public Health Reports, in the November/December issue in 1995. The paper was also selected as one of 300 out of 900 papers for oral presentation at the World Injury Control Conference in Melbourne, Australia in February 1996.

The bottom line according to my research is that the AMSEA program is very effective in preventing deaths among the fishermen who took the course. The distressing point is that AMSEA relies entirely on short term grants for their funding. We need to support this effective program with recurring funding from the State. The funding could and should come from excess revenues of the Fishermen's Fund. This money originally came from the fishermen and AMSEA directly benefits the fishermen.

I realize there are obstacles to overcome in order to be able to use this excess funding but please see if it can be accomplished.

Thank you for your time and interest. If I can answer any questions, please call.

*Ron Perkins*

Ron Perkins, MPH  
Tel. 273-0102



907-486-3910  
Box 991

Kodiak, Alaska  
99615

October 12, 1995

FAX 486-6292

Governor Tony Knowles  
c/o Mary McDowell  
P.O. Box 110001  
Juneau, Alaska 99811-0001

Dear Governor Knowles,

I am writing to express our continued support for the Alaska Marine Safety Education Association (AMSEA) and to suggest a source of funding to continue its efforts to reduce loss of life in the fishing industry.

We have been strong supporters and advocates of AMSEA since its inception nine years ago. During that time AMSEA has never received any direct funding from the State, but has relied on grant funding from federal sources and income generated through its extensive offerings of classes to fishermen. AMSEA's budget was cut over 75% last year by Congress and sources of other grant funds have dried up due to budget cuts. We are very concerned about AMSEA's future as an ongoing source of safety training for fishermen.

The fishing industry by their own initiative contributes a portion of their license fees to the Fisherman's Fund to defray costs of injuries occurring within state waters. That fund has now grown to 7.2 million dollars, but the more than \$300,000 annual interest on the fund is deposited to the General Fund, rather than to programs that can further reduce injuries and loss of life in our dangerous industry.

We propose that a percentage of that interest be "earmarked" on a year to year basis for support of AMSEA. We recognize that by state law funds cannot be "dedicated" to any source, but that the legislature can earmark funds as we propose. This funding would in no way jeopardize the principal or viability of the Fisherman's Fund, and in fact, the effort would help the state to be more categorically responsible for the use of its revenues. The money for the Fishermen's Fund is generated by the fishing industry, and this proposed use of the income from the Fund would directly benefit the industry in assuring the continued viability of the successful, effective, and important AMSEA safety program.

Sincerely,

Al Burch  
Executive Director

Jay E. Stinson  
President

cc: Fred Zharoff, Allen Austerman, AMSEA

*Harvesting Alaskan Shrimp and Whitefish*

October 13, 1995

Governor Tony Knowles  
P.O. Box 110001  
Juneau, AK 99811-0001

Dear Governor Knowles,

You might remember during a campaign trip to Kodiak at the time of our annual Crab Festival, that you were involved in one of the highlights of our festivities, the survival suit race. You might also remember the frustration you experienced when getting into your suit during the race. ( I'm the gal that was helping you.) I am pleased to let you know that this past year one of the Kodiak High School teams won the race. This is the first time in years that the United States Coast Guard team did not win. Needless to say the Kodiak High School students are very proud of this accomplishment and they intend to do their best at keeping the trophy this coming year. So what is this all leading up to?

I teach Marine and Wilderness Survival Training as well as Fisheries Science at Kodiak High School. I am also an instructor for the ALASKA MARINE SAFETY EDUCATION ASSOCIATION, and include this training as part of my high school curriculum. At the present time I have 50 students involved in this training and have trained 40 other students as well as 40 adults in the past two years.

AMSEA is facing a major loss of funding from the Federal Government this year and I am very concerned about the future of AMSEA. AMSEA has provided invaluable training to the members of our community as well as members of many maritime dependent communities around the state and the nation. AMSEA has proven itself a leader in marine safety training and has filled a need in Alaska's maritime industries. Federal Regulations have made this type of training mandatory for persons onboard all commercial vessels. The healthy future of AMSEA and its ability to continue to provide this training depends on continued funding from somewhere. We are looking to the State of Alaska to help us with that funding.

I am asking you to please support reliable long term state funding of the AMSEA Program. I have read the proposal of using interest money from the Fishermen's Fund to support AMSEA and think this would be a fine way to use those resources. AMSEA is saving fishermen and fisherwoman's lives as well as lives of those involved in other

marine related industries. AMSEA could help you become a condender in the 1996 Kodiak Crab Festival Survival Suit races. We sincerely invite you to be a member of one our teams. We also sincerely thank you for your consideration towards this very important matter.

Hope to see you this spring!

A handwritten signature in cursive script, appearing to read "Jane Eisemann", followed by a horizontal line.

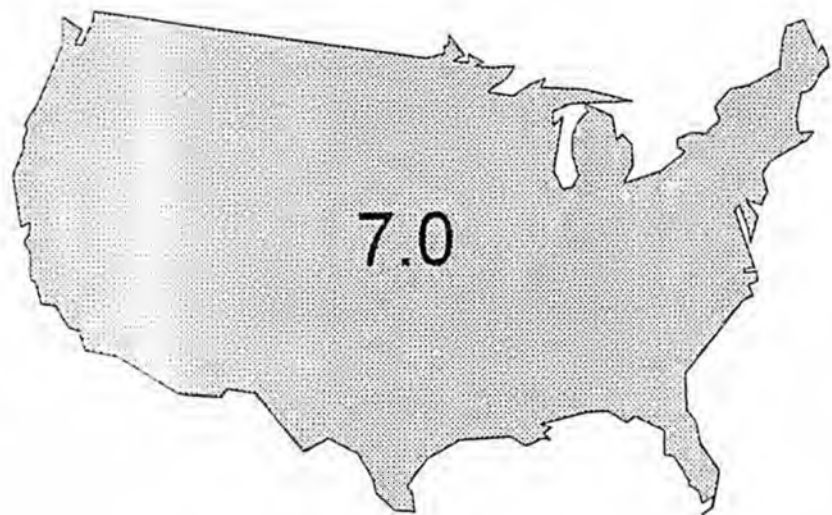
Jane Eisemann  
Kodiak High School Fisheries Instructor

cc/ Lieutenant Governor Fran Ulmer  
Jerry Dzugan Director AMSEA

# Occupational Fatality Rates per 100,000 Workers



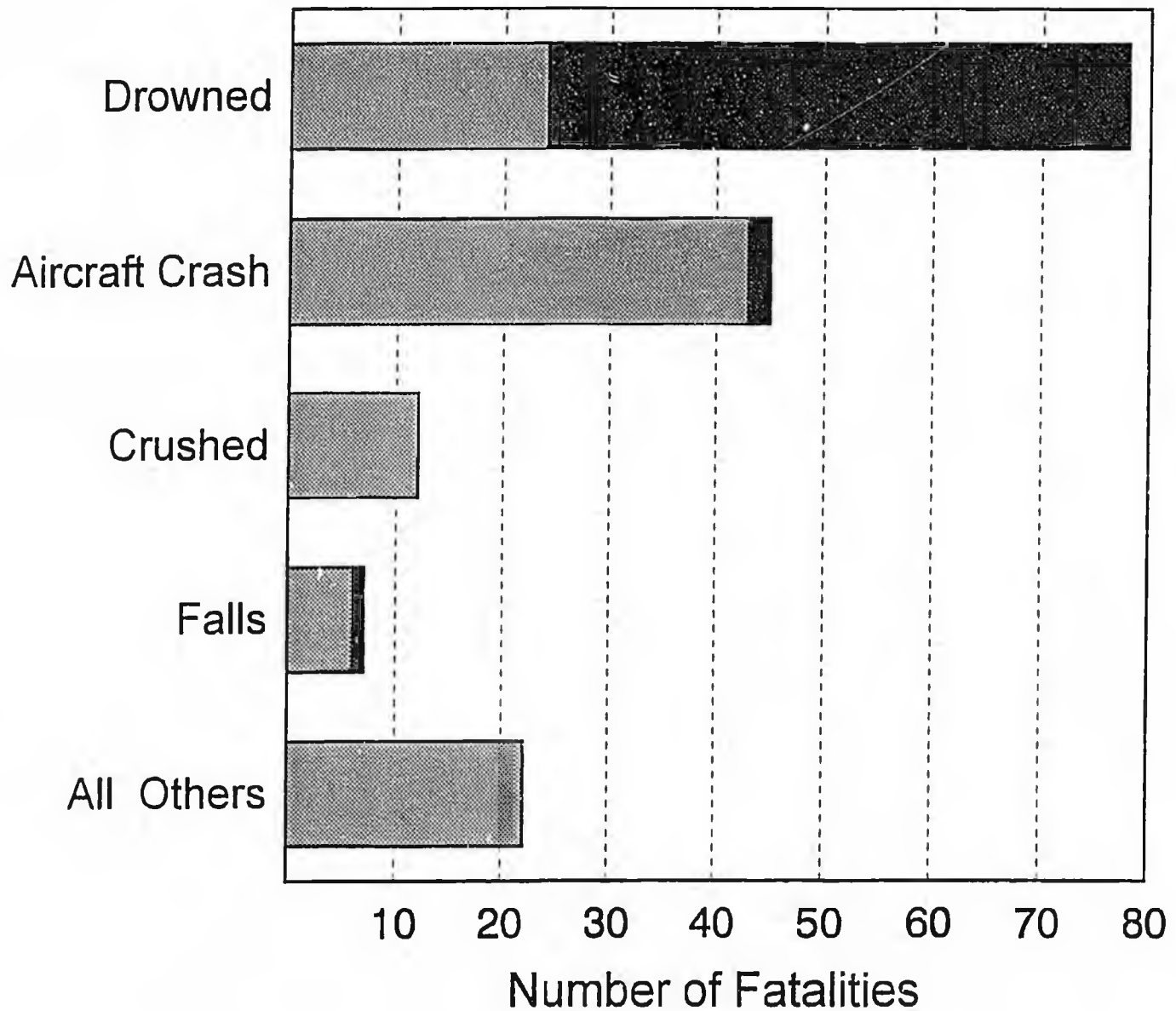
(Alaska only)



(includes all 50 states)

SOURCE: NIOSH, National Traumatic Occupational Fatalities  
Database, 1980--1989

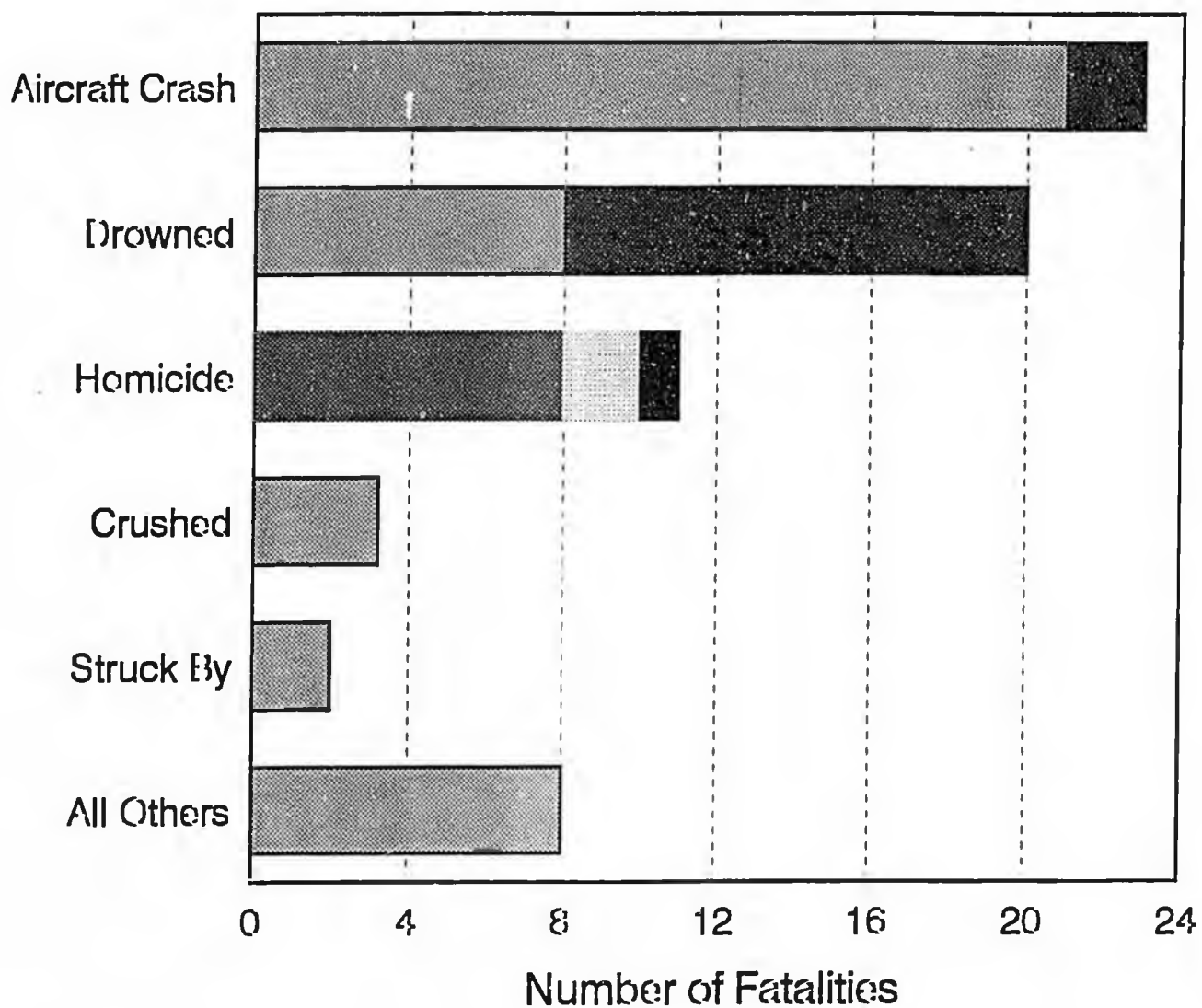
# Occupational Fatalities by Circumstance of Death, Alaska, 1991--1992, N=166





Confirmed : body recovered  
Presumed: body not recovered

SOURCE: Alaska Activity, Division of Safety Research, NIOSH  
Occupational Injury Prevention Program, Epidemiology Section, AKDHSS

# Occupational Fatalities by Circumstance of Death, Alaska, 1993, N=67

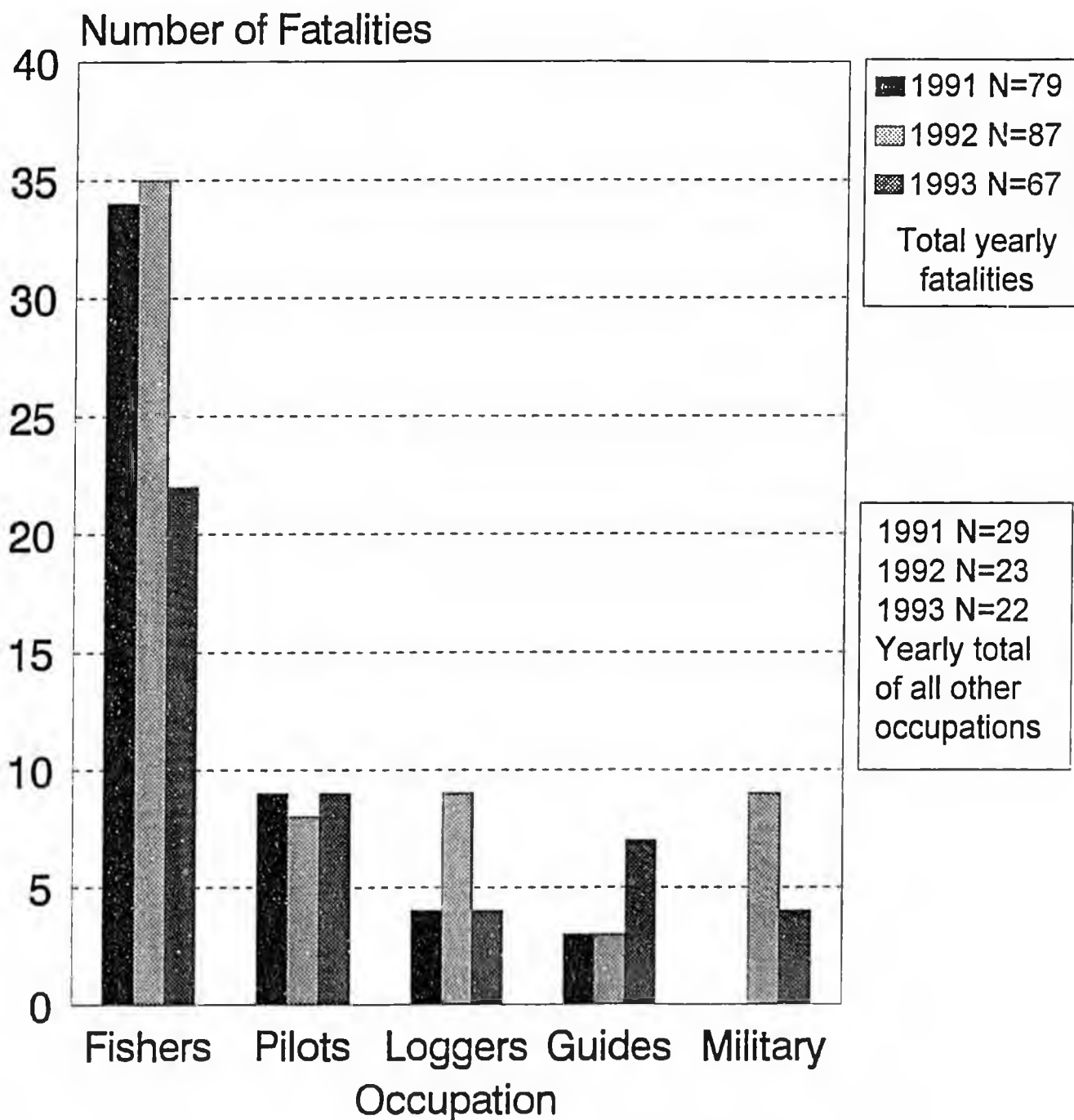


 Confirmed death: body recovered  
 Presumed death: body not recovered

 Gun  
 Knife  
 Bomb

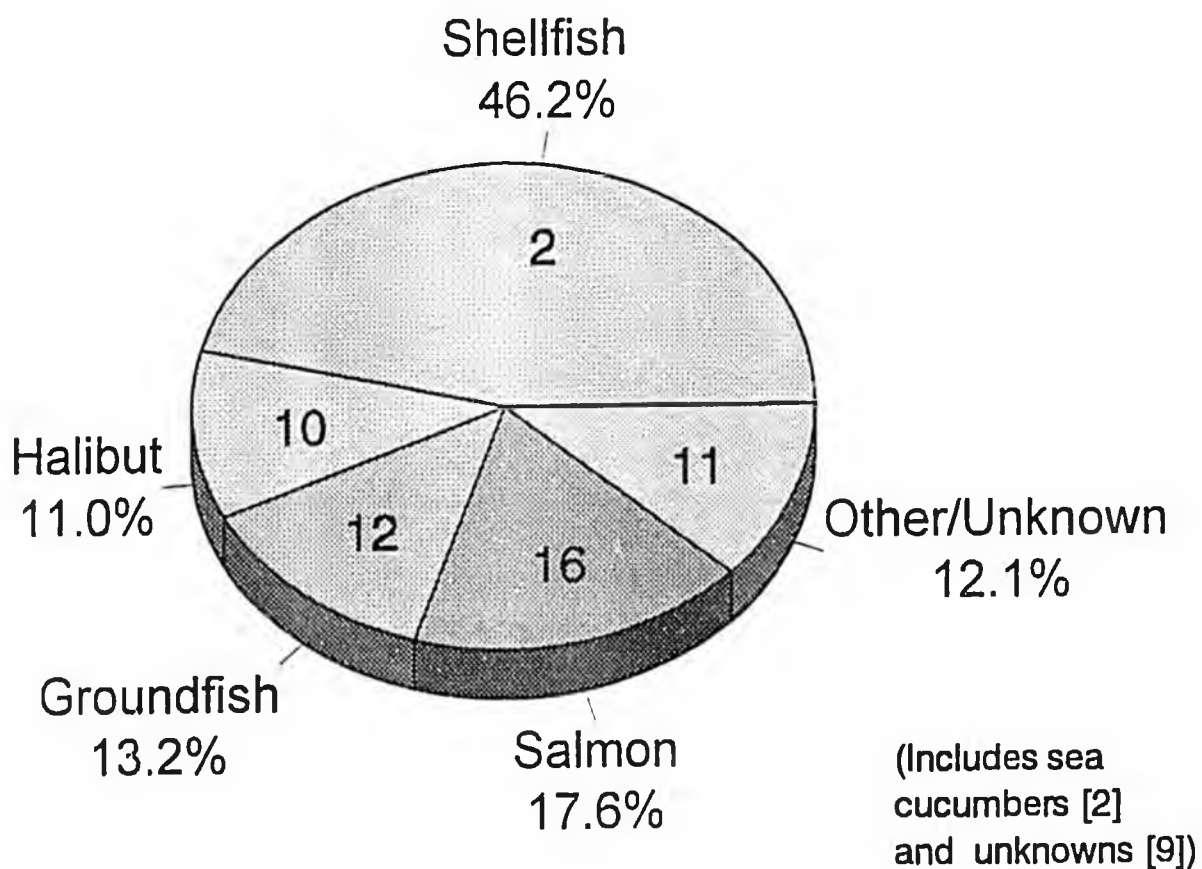
# Occupations with Greatest Number of Fatalities

## Alaska, 1991--1993



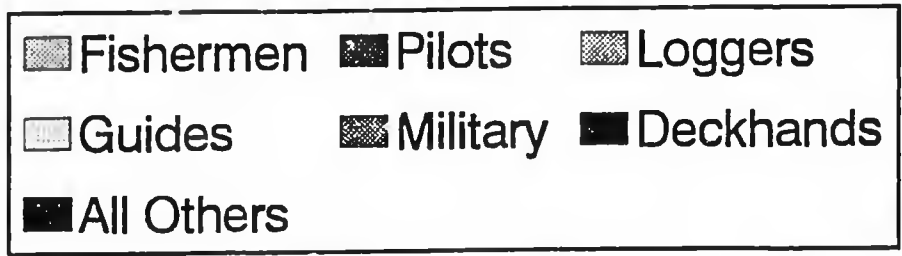
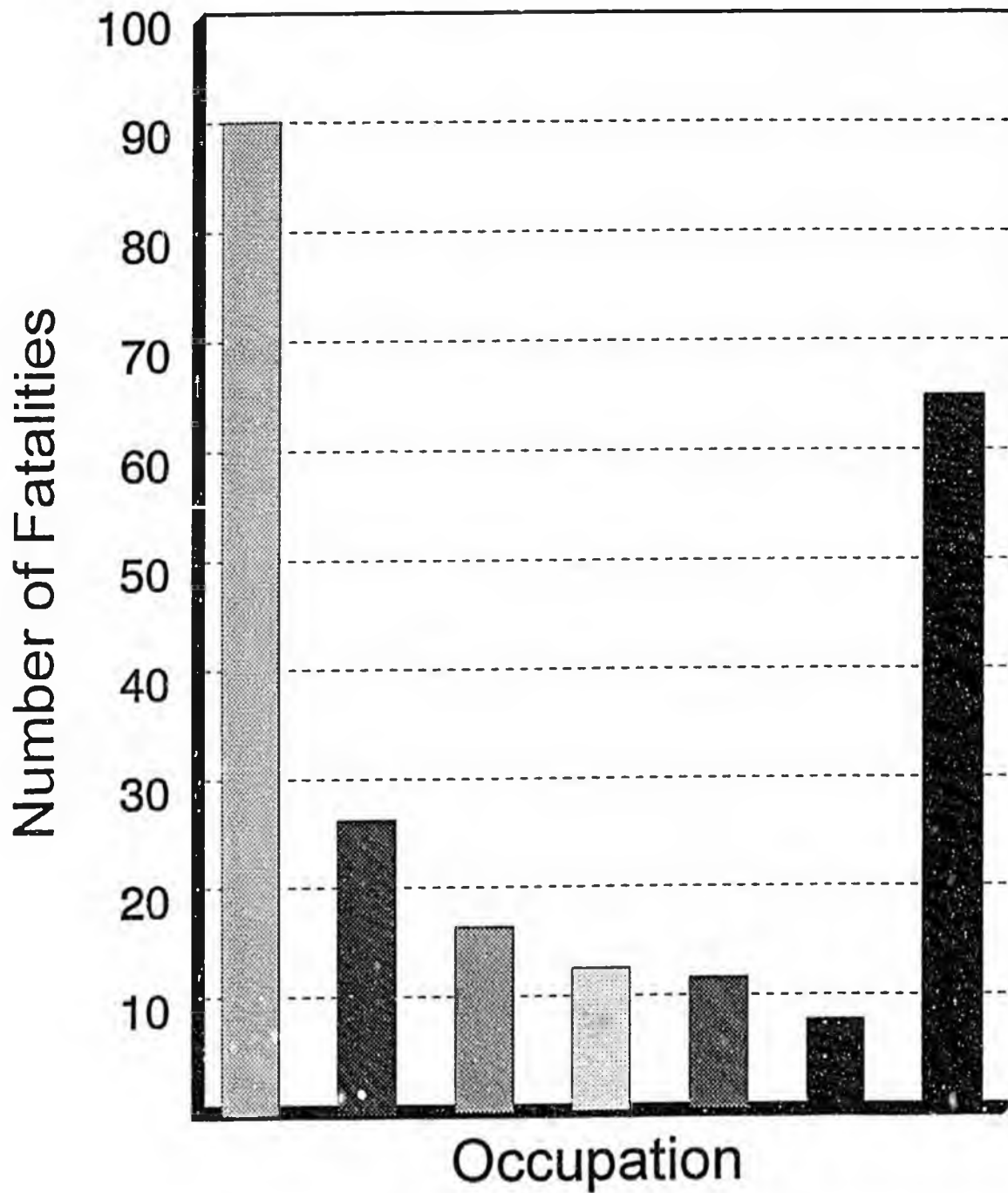
SOURCE: Alaska Activity, Division of Safety Research, NIOSH  
Occupational Injury Prevention Program, Epidemiology Section, AKDHSS

# Commercial Fisherman Fatalities by Fishery, Alaska, 1991--1993, N=91

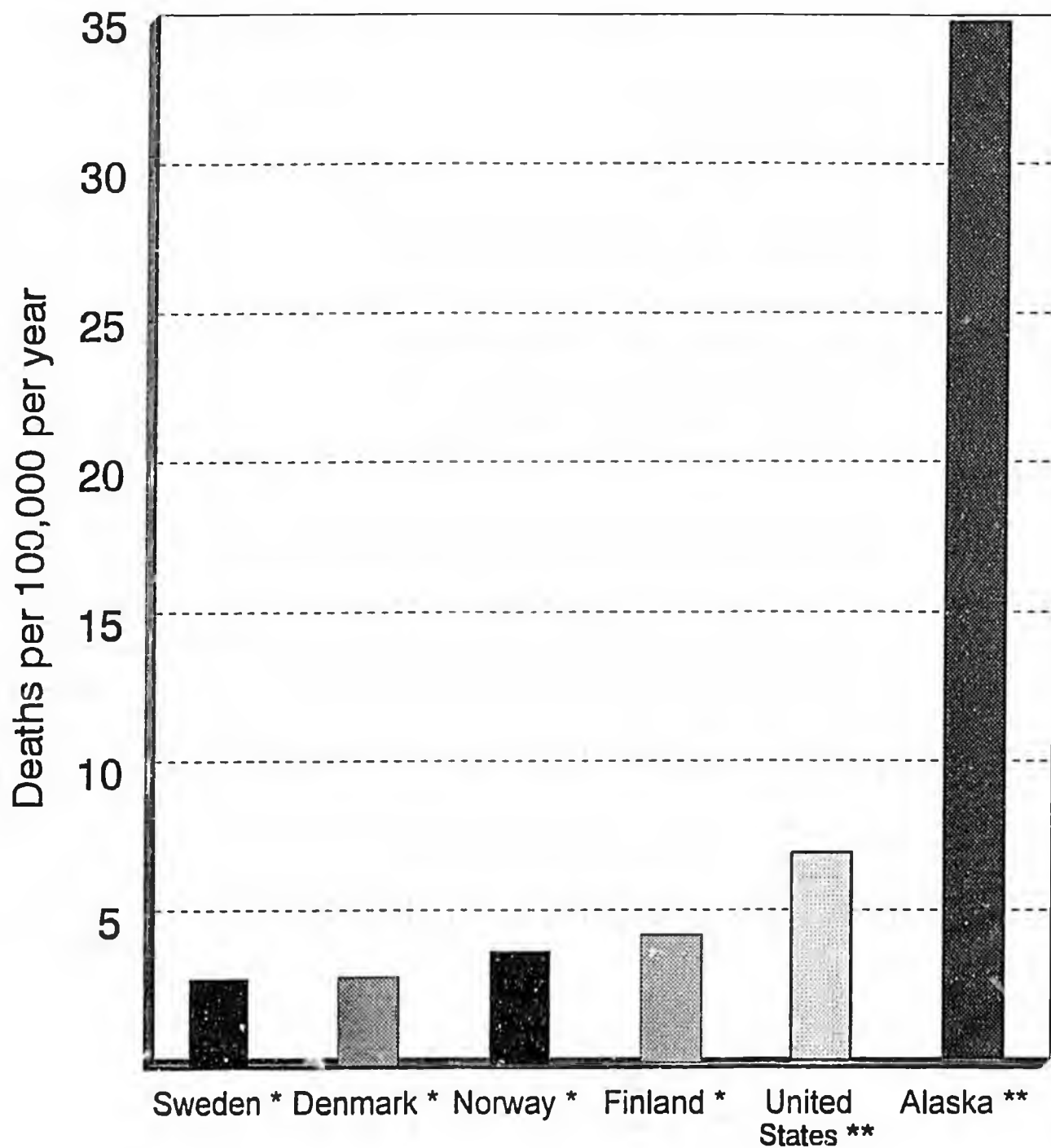


The shellfish fishery accounts for the most deaths of all Alaskan fisheries.

# Fatalities by Occupation, Alaska, 1991--1993, N=233



# Occupational Fatality Rate Comparison



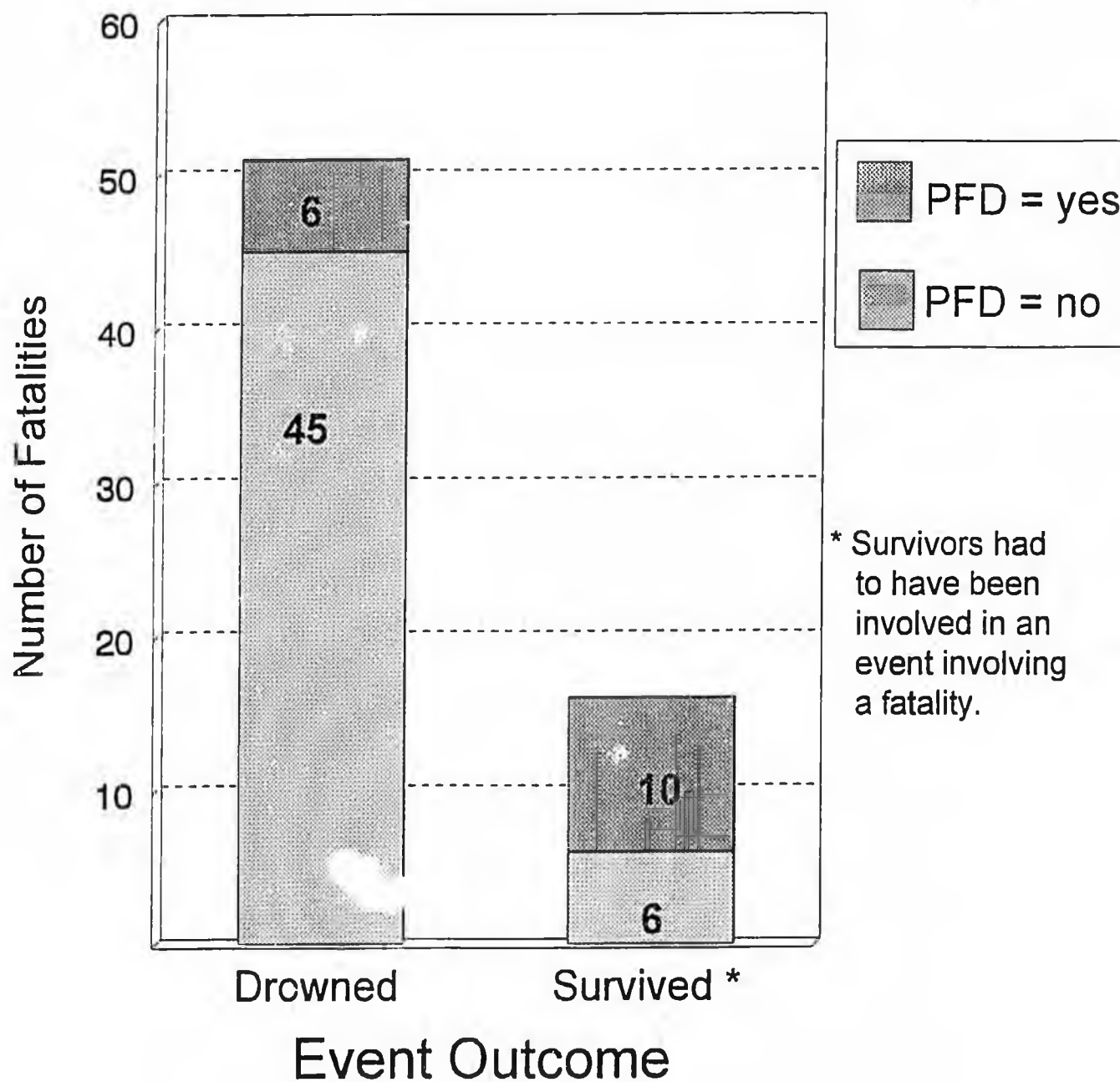
\* SOURCE: Arbejdstilsynet, The Danish Working Environment Service, 1980-1989, Copenhagen, 1993  
\*\* SOURCE: National Traumatic Occupational Fatality Surveillance System, NIOSH, CDC, 1980-1989

# Personal Flotation Device (PFD) Usage Among Individuals Involved in a Fatal Event, Alaska Commercial Fishing Industry, 1991--1993

		Event Outcome		
		Survived	Drowned	
Wearing PFD	Yes	10	6	16
	No	6	45	51
		16	51	67

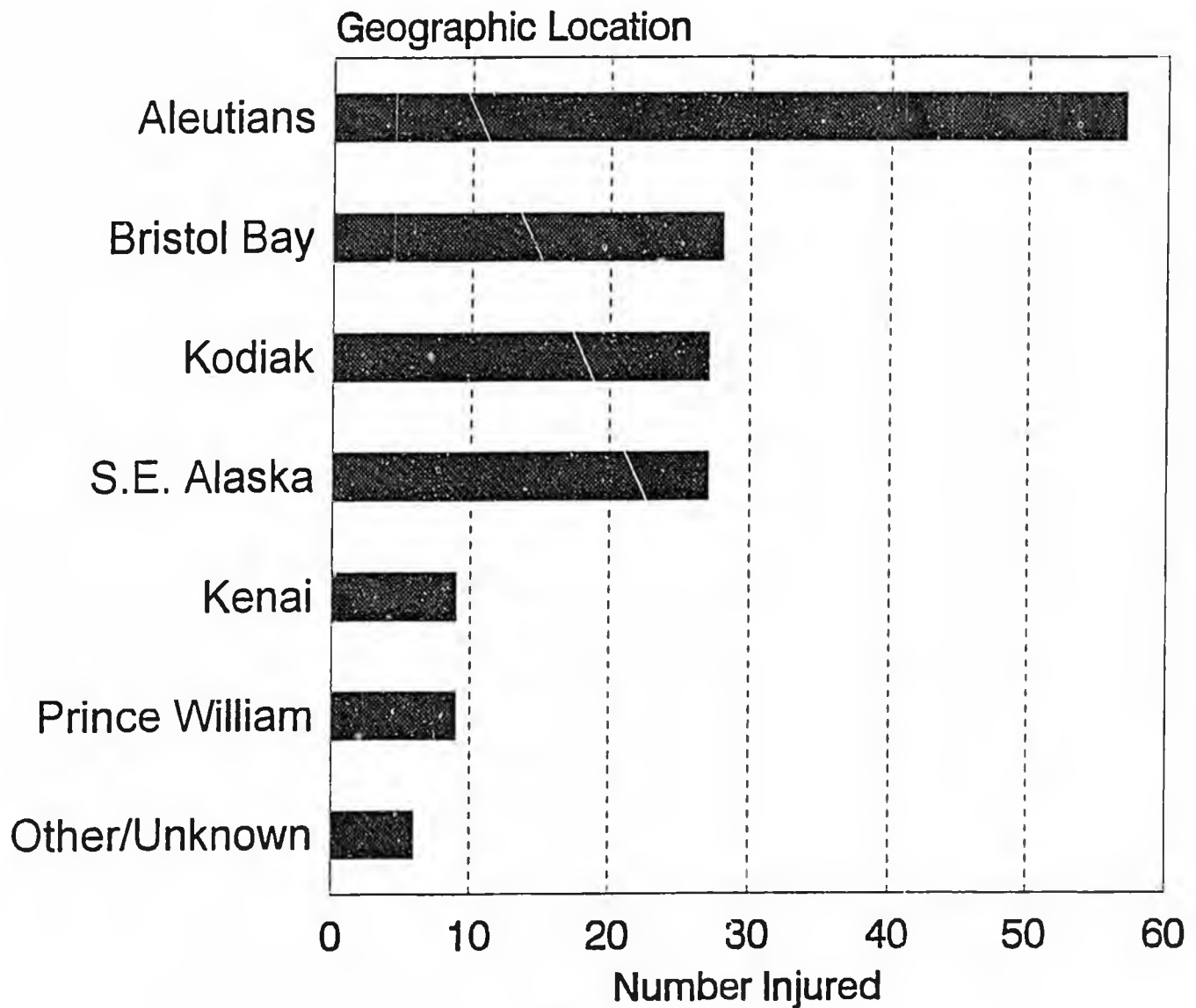
*Odds ratio = 12.5, 95% CI [2.8 - 60.0]*

# Personal Flotation Device (PFD) Usage in Fatal Incidents in the Commercial Fishing Industry, Alaska, 1991--1993



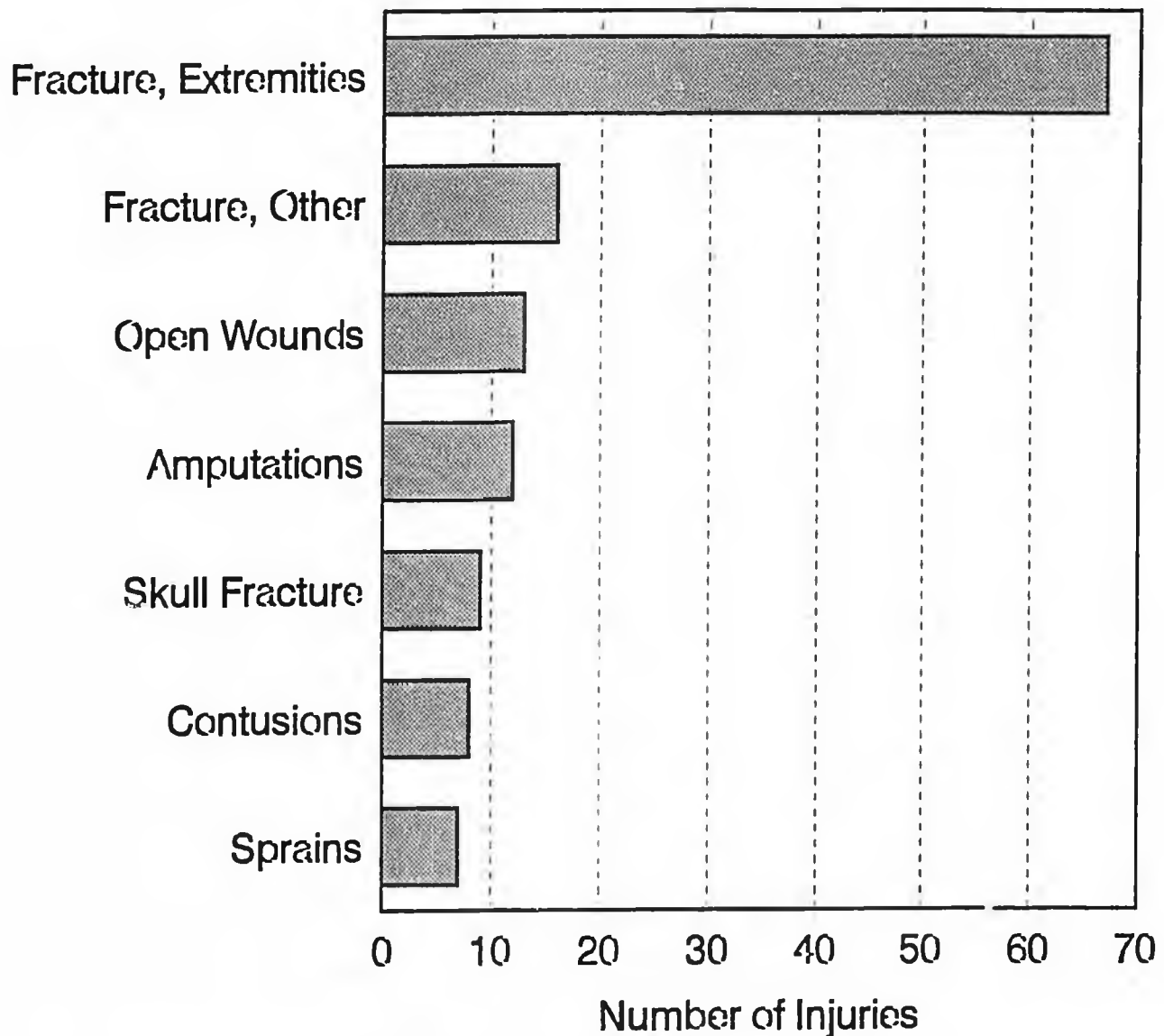
Having worn a PFD protected against drowning in incidents resulting in at least one fatality.

# Commercial Fishing Injuries by Geographic Location, Alaska, 1991-1993



The highest number of injuries occurred in the Aleutians.

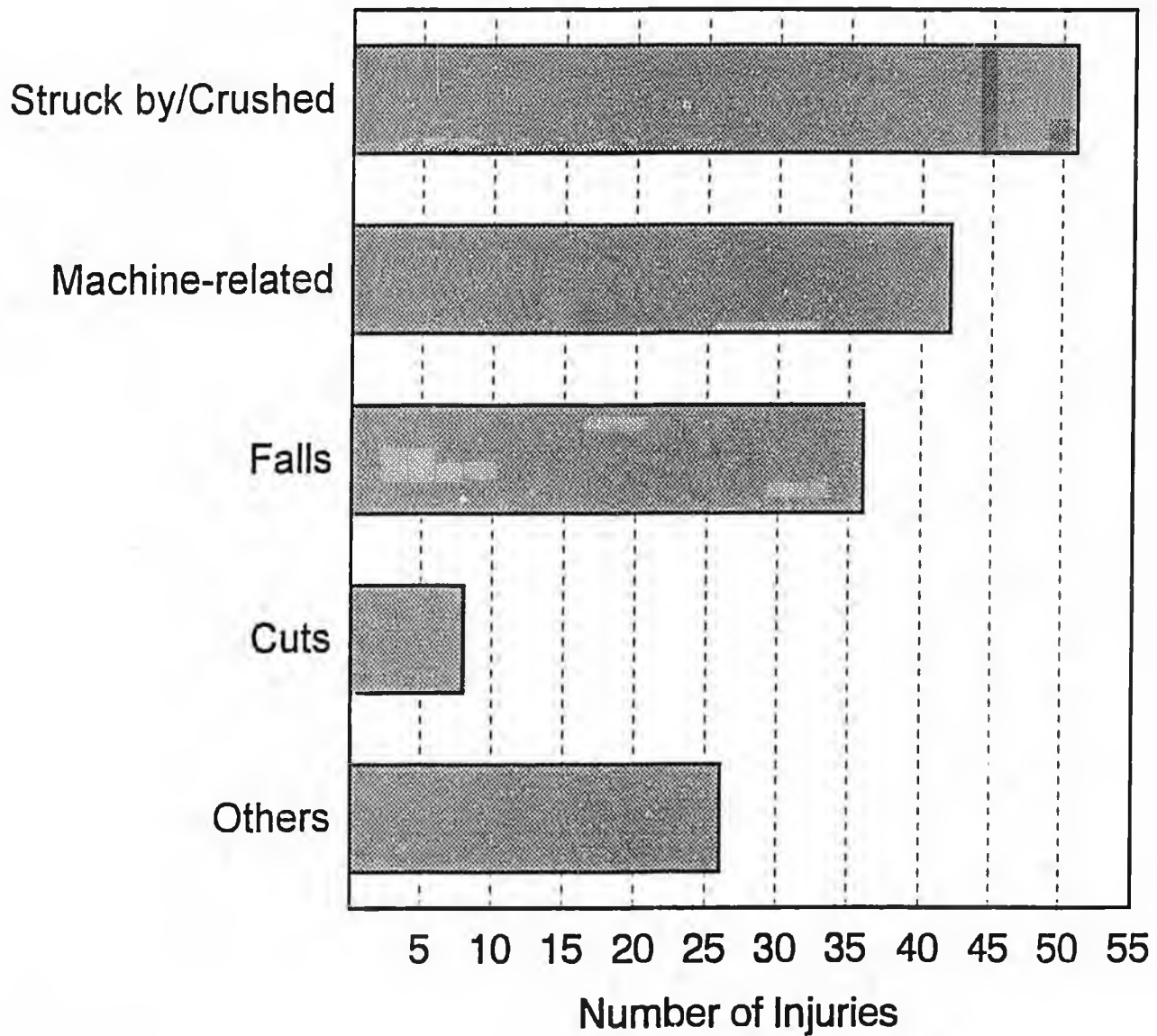
# Commercial Fishing Injury Description, Alaska, 1991-1993



\*Includes 31 workers with other injury descriptions.

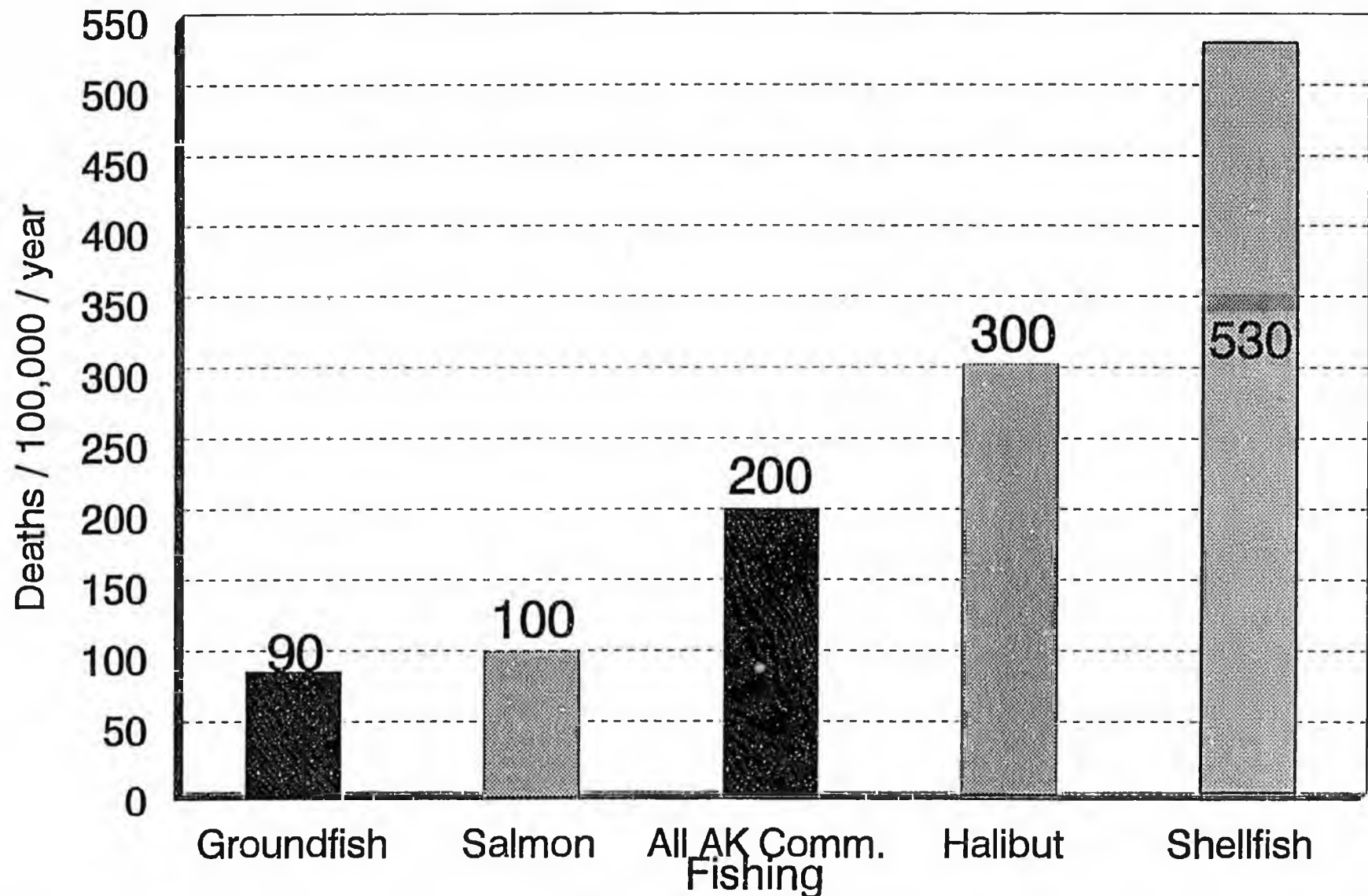
Fractures of the extremities were the most common injuries.

# Commercial Fishing Injuries by Circumstance of Injury, Alaska, 1991-1993



Being struck by or crushed by objects was the most common cause of injury, closely followed by machine-related injuries and falls.

# Occupational Fatality Rates by Fishery, Alaska, 1991 and 1992 (rates are calculated using full-time employment equivalents)



SOURCE: Alaska Activity, Division of Safety Research, NIOSH

Hospitalized and Fatal Commercial Fishing Injuries in Alaska,  
Mark S. Johnson, MPA  
Martha A. Moore, MS  
Alaska Department of Health & Social Services

Introduction:

There is a growing national awareness of the hazards associated with commercial fishing and processing in the United States. The National Research Council, Committee on Fishing Vessel Safety, reports that each year an average of 250 fishing vessels are lost along the Atlantic, Gulf, Pacific, and Alaska coasts, and over 100 fishers lose their lives in vessel related incidents. These fatalities reflect a high rate of occurrence relative to other occupations. The U.S. Coast Guard reports that from 1987 through 1991 an average of 42 vessels and 36 commercial fishers were lost off Alaska's coasts each year.<sup>2</sup>

In response to a public outcry about these tragedies, in 1988, the U.S. Congress passed the Commercial Fishing Industry Vessel Safety Act, and the U.S. Coast Guard has recently developed regulations requiring minimum safety equipment, stability testing, and crew training for commercial fishing vessels, based on size and fishing areas.<sup>2</sup>

It is too early to determine how effective these new laws will be in helping reduce the numbers of fatalities resulting from commercial fishing mishaps, but focusing only on fatalities does not give a complete picture of the hazards faced by commercial fishers and fish processors.

Until now, little information has been available on non-fatal injuries in the commercial fishing industry. This is because there has been no single data source for collecting statistics on fishing related injuries. Most injuries occurring on land, including shore based fish processing, are reported to the state worker's compensation system, but this system does not cover most injuries occurring off shore.

Under the Alaska Worker's Compensation Law (AS 23.30), commercial fishers are excluded from coverage. However, there is an Alaska Fishermen's Fund for some injured commercial fishers which pays up to \$ 2,500 per occurrence for emergency medical treatment. These data also are limited and are not adequate for epidemiologic surveillance. Other commercial fishing ventures, such as factory trawlers or floating processors, may be covered under Worker's Compensation or under protection and indemnity insurance under the Jones Act passed by the U.S. Congress in 1920. Finally, Native Alaskans usually are covered for medical treatment through the Indian Health Service. Using third party payor information to track fishing industry injuries is virtually impossible, because these data sources generally are incomplete, inconsistent, and often difficult to obtain.<sup>4</sup>

By law, any injury which requires professional medical treatment beyond first aid, should be reported to the U.S. Coast Guard. However, Coast Guard officials admit that their data often is spotty and incomplete.<sup>3</sup>

To get a more complete overview of serious injuries and fatalities in the Alaska commercial fishing and processing industries, data from the Alaska Trauma Registry is analyzed. The Alaska Trauma Registry is a surveillance system of injuries resulting in hospitalization or death. The purpose of the registry is to help medical care providers to evaluate the quality of trauma care, and to record information on causes and severity of injuries, and other factors, in order to target prevention strategies.

The Alaska Trauma Registry began as a pilot project involving seven hospitals in southcentral Alaska in March, 1988. By July, 1990, the project had expanded to a statewide registry with the voluntary participation of all twenty-five of Alaska's acute care hospitals.

The criteria for inclusion in the trauma registry are trauma patients with injuries described by ICD-9-CM codes 800.00 - 959.9 and victims of the effects of reduced temperature (991.0 -991.9), lightning (994), drowning and near drowning (994.1), strangulation (994.7), and electrocution (994.8), that are admitted to a hospital, transferred to a higher level of acute care, or declared dead in the emergency department. Vital statistics data, on fatalities of persons who did not get transferred to a hospital, are added to the database.

Data is abstracted from hospital medical records after patient discharge. Each record has 132 data elements which include information on prehospital and in-hospital response times and treatment, severity of injury, demographic factors, method of payment, length of stay, and discharge conditions.

Reports are sent quarterly to hospital quality assurance/improvement committees and, recently, to ambulance services and medical directors. Trauma Registry data also include ICD-9-CM E-Codes and a short narrative on the circumstances of injury, as well as other information, such as whether the injury was work related.

The primary objectives of this study are:

- 1) To describe the injury problem in the Alaska commercial fishing and processing industry using Alaska Trauma Registry data on hospitalized trauma patients, plus data on fatalities;
- 2) To illustrate the importance of using trauma registry data for injury surveillance and in targeting injury prevention and control strategies for the commercial fishing and processing industry.

### Methods

This study analyzes commercial fishing and processing related injuries in Alaska for those injuries serious enough to require transport to an Anchorage hospital, from March, 1988 through February, 1992 (four years). The three main hospitals in Anchorage provide the most sophisticated trauma care services in the state, including neurosurgery, and most serious injuries from coastal regions of Alaska, except southeast Alaska, are transported or transferred to an Anchorage facility. Southeast Alaska fishing industry injuries and fatalities are analyzed separately for the period from July 1, 1990 through December 31, 1991. This is because southeast Alaska facilities did not join the trauma registry until July, 1990.

Data are analyzed by major fishing region, patient residence, major cause of injury, body parts injured, severity of injury, cost of hospitalization, length of stay, and discharge status.

### Results

A total of 328 fishing industry injuries were transferred to an Anchorage hospital during the four year study period. Of these, well over one-half occurred in the Aleutian-Pribilof region of Alaska, and over 60 percent of the injured workers were out of state residents.

Among the non-fatal injuries, the most common cause were machinery (40.5%), falls (23.8%), and other (24.1%). Among fatal injuries the overwhelming cause is drowning (94% in 1992).

Analysis of body parts injured shows that upper extremities (37.8%) and lower extremities (25.3%) are the most common body parts injured. Approximately 9% received a brain or spinal cord injury.

Looking at the Abbreviated Injury Scale (AIS), which has a range of one to six, 29.2% had injuries scored at AIS 3 or greater, which are serious or critical injuries. Among those injuries determined to be from

fish harvesting activities, in approximately one-half the cases the type of fishing was determined. Of these, crabbing was the most common fishery resulting in injuries, followed by trawling. Seiners, gillnetters, and longliners had significantly fewer injuries.

The overwhelming majority of cases were discharged home, with only 2.4% transferred to another acute care facility and .9% transferred to a rehabilitation facility.

The minimum length of hospital stay was one day (minimum criteria for inclusion in the database) and the maximum was 64 days. The average length of hospital stay was 7 days.

Minimum hospital charges were \$ 581.00, and maximum charges were \$ 159,215.00. Average hospital charges were \$ 12,286.00 per case.

Analyzing southeast Alaska Trauma Registry-data separately, for the period July 1, 1990 through December 31, 1991, only 33 fishing industry injury cases were identified. Southeast Alaska generally has some different types of fisheries not usually found in other parts of the state, such as power trolling and hand trolling. Southeast Alaska also has some crabbing and shrimping, longlining, seining, and gillnetting.

Among the non-fatal injuries in southeast Alaska, the most common causes were machinery (30.3%), other and unspecified water transport (15.2%), piercing or cutting (15.2%), submersion (9.1%), and falls (9.1%).

Analysis of body parts injured shows that upper extremities (45.6%), trunk injuries (15.2%), and lower extremities (12.1%) are the most common body parts injured, followed by brain injuries (9%), and spinal injuries (3%). Looking at the AIS scores, 12.1% had injuries classified as AIS 3 or greater.

Type of fishing was not determined for the 33 cases from southeast Alaska.

Twenty-five patients were discharged home, and eight patients were transferred to another acute care facility. The minimum length of hospital stay was one day, and the maximum was 29 days. The average hospital stay for the southeast Alaska patients was 3.9 days. Minimum hospital charges were \$ 1,652.00 and the maximum charges were \$ 11,923.00. Average hospital charges were \$ 5,178 per patient.

### Conclusion

The Alaska commercial fishing and processing industry is the most dangerous industry in the nation. Preliminary analysis of Alaska Trauma Registry data shows that it can be a powerful tool for injury surveillance including information on causes, severity, demographic factors, costs, length of stay, and outcomes of persons who receive injuries serious enough to result in hospitalization or death.

Using this information, injury prevention strategies can be developed. For example, the number of head injuries resulting from crabbing and other pot fishing suggests that fishers should wear hard hats while on the decks of these vessels. The number of falls on some of these vessels suggests that non-skid surfaces and other fall prevention interventions should be considered.

Further studies of commercial fishing and processing injuries should include denominator information on the number of persons involved in each fishing and processing activity, and the average number of days a year that persons are employed in these industries. This will enable the calculation of rates of injuries for each activity.

Based on this preliminary analysis, it appears that certain fisheries, such as crabbing and trawling, tend to be more dangerous than other fisheries, such as gillnetting and trolling. It also appears that fishing industry injuries occurring in other parts of Alaska tend to be more severe than injuries occurring in southeast Alaska.

The Alaska Trauma Registry is the best single source of surveillance information on commercial fishing industry related injuries in Alaska. When combined with other available data sources, it can be an even more powerful tool.

References:

1. Fishing Vessel Safety: Blueprint for a National Program;  
Committee on Fishing Vessel Safety; Marine Board; Commission of Engineering and Technical Systems; National Research Council; National Academy Press, Washington, D.C. 1991 (p.xv).
2. Beating the Odds on the North Pacific: A Guide to Fishing Safety;  
Alaska Sea Grant College Program; Marine Advisory Bulletin No. 41; 1992 (p.v).
3. Ibid.
4. "Occupational Injury and Illness Rates in the Alaska Commercial Fishing Industry;" by Gunnar Knapp, Institute for Social and Economic Research, University of Alaska Anchorage; and Jennifer Christian, MD, Department of Health and Human Services, Municipality of Anchorage, Alaska, 1990.
5. Personal Communications with Glenn C. Sicks, Lt. Commander, U.S. Coast Guard, Seventeenth District Fishing Vessel Safety Coordinator, Juneau, Alaska.

Commercial Fishing and Processing Injuries in Alaska  
March, 1988 - February, 1992  
Cause of Injury  
N=328

Cause	No	%
Drown/Near Drown	6	1.8%
Falls	78	23.8%
Machinery	133	40.5%
Burns	11	3.3%
Other Injuries	79	24.1%
Object in eye	3	.9%
Struck	8	2.4%
Caught	1	.3%
Cut	9	2.7%
	328	100.0%

Body Part Injured  
(pie chart)  
N=328

Face/Head (non-brain injury)	27	8.2%
Neck, Spinal Cord Injury	8	2.4%
Upper Body Trunk	17	5.1%
Lower Body Trunk	12	3.7%
Upper Extremity	124	37.8%
Lower Extremity	83	25.3%
Head (brain injury)	20	6.1%
Other and Unspecified	23	7.0%
Heart and Lungs	3	.9%
Other Internal Organs	11	3.4%
	328	99.0%

Commercial Fishing and Processing Injuries in Alaska  
March, 1988 - February, 1992  
Abbreviated Injury Scale  
N = 328

AIS	NO.	%
0	6	1.8%
1	42	12.8%
2	175	53.4%
2H	9	2.7%
3	68	20.7%
3H	23	7.0%
4	1	.3%
4H	3	.9%
5H	1	.3%
	328	100.0%

Commercial Fishing & Processing Injuries in Alaska  
March, 1988 - February, 1992  
Hospital Charges  
Valid Cases 309

Minimum	-\$ 581.00
Maximum	\$ 159,215.00
Total	\$ 3,796,362.00
Average	\$ 12,286.00

Commercial Fishing & Processing Injuries in Alaska  
March, 1988 - February, 1992  
Hospital Length of Stay  
Valid Cases 326

Minimum	1 day
Maximum	64 days
Total	2,309 days
Average	7 days

Commercial Fishing Injuries in Southeast Alaska  
July 1, 1990 - December 31, 1991  
N = 33

- \* 33 injuries (30 male, 3 female)
- \* Race - (19 white, 5 Alaska Native, 1 Asian, 1 Pacific Islander, 7 unknown).
- \* Discharge Status (25 home, 8 another acute care facility).
- \* Residence (23 Southeast Alaska, 10 outside Alaska).

Commercial Fishing Injuries in Southeast Alaska  
 July 1, 1990 - December 31, 1991  
 ICD - 9 - CM E-Code  
 N = 33

E-Code	Cause	# of Injuries	%
830	Accident to watercraft causing submersion	3	9.1%
831	Accident to watercraft causing other injury	1	3.0%
832	Other accidental submersion or drowning in water trans.	1	3.0%
833	Fall on stairs or ladders in water trans.	1	3.0%
834	Other fall from one level to another in water trans.	2	6.1%
836	Machinery accident in water trans.	7	21.2%
837	Explosion, fire, or burning in watercraft	2	6.1%
838	Other and unspecified water transport accident	5	15.2%
887	Fracture, cause unspecific	1	3.0%
906	Other injury caused by animals	1	3.0%
916	Struck accidentally by falling object	1	3.0%
919	Agricultural machines	3	9.1%
920	Accidents caused by cutting or piercing instrument	5	15.2%
		33	100.0%

Commercial Fishing Injuries in Southeast Alaska

July 1, 1990 - December 31, 1991

ICD-9-CM N-Code

N = 33

N-Code	Body Part Injured	No.	%
801	Fracture of Base of Skull	1	3.0%
804	Multiple Fractures involving Skull or Face	1	3.0%
805	Fracture of Cerebral column with spinal injury	1	3.0%
808	Fracture of pelvis	2	6.1%
812	Fracture of humerus	2	6.1%
813	Fracture of radius and ulna	1	3.0%
815	Fracture of metacarpal bone(s)	2	6.1%
816	Fracture of one or more phalanges of hand	4	12.2%
824	Fracture of ankle	2	6.1%
844	Sprains and strains of knee and leg	1	3.0%
848	Other and ill defined sprains and strains	1	3.0%
850	Concussion	1	3.0%
883	Open wound of finger(s)	1	0%
886	Traumatic amputation of other finger(s)	4	12.2%
919	Superficial injury of other, multiple, and unspecified sites	1	3.0%
922	Contusion of trunk	2	6.1%
928	Crushing injury of lower limb	1	3.0%
942	Burn of trunk	1	3.0%
944	Burn of wrist(s) and hand(s)	1	3.0%
991	Effects of reduced temperature	1	3.0%
994	Effects of other external causes	2	6.1%
		33	100.0%

Commercial Fishing Injuries in Southeast Alaska  
July 1, 1990 - December 31, 1991  
N = 33

AIS	NO.	%
0	3	9.1%
1	7	21.2%
2	18	54.5%
2H	1	3.0%
3	2	6.1%
3H	1	3.0%
5H	1	3.0%
	33	100.0%

Commercial Fishing Injuries in Southeast Alaska  
July 1, 1990 - December 31, 1991  
Hospital Length of Stay  
N = 33

Minimum	1 day
Maximum	29 days
Total	106 days
Mean	3.9 days

Commercial Fishing Injuries in Southeast Alaska  
July 1, 1990 - December 31, 1991

N = 33

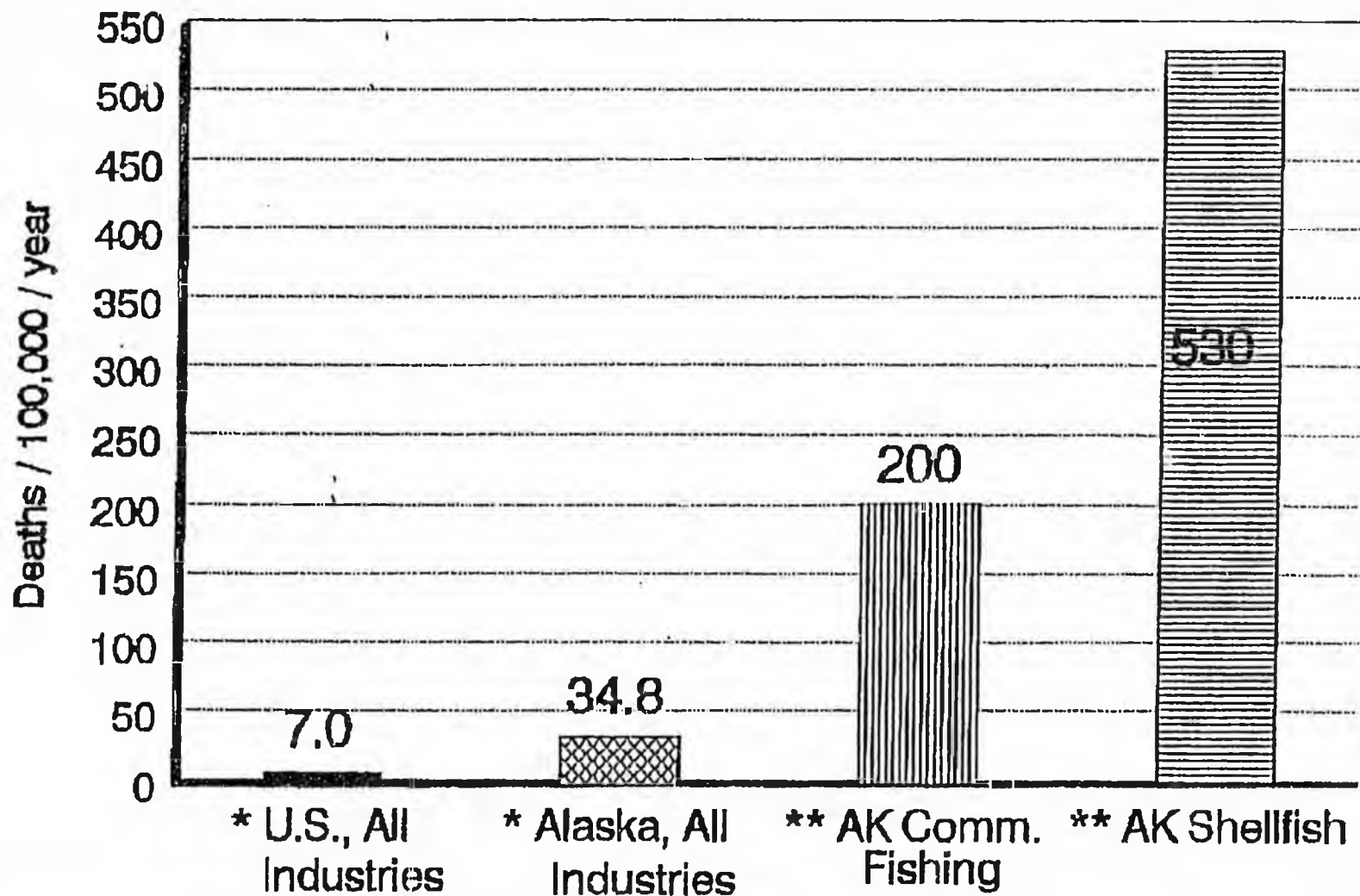
Hospital Charges

Minimum	\$ 1,652.00
Maximum	\$ 11,923.00
Total	\$ 25,892.00
Average	\$ 5,178.00

SENT BY: Xerox Telecopier 7021 ; 5-7-93 ; 11:02AM ; Alaskan Field Activi-

# Occupational Fatality Rate Comparison, Alaska, 1991 and 1992

(rates for Alaska are for full time employment equivalents)

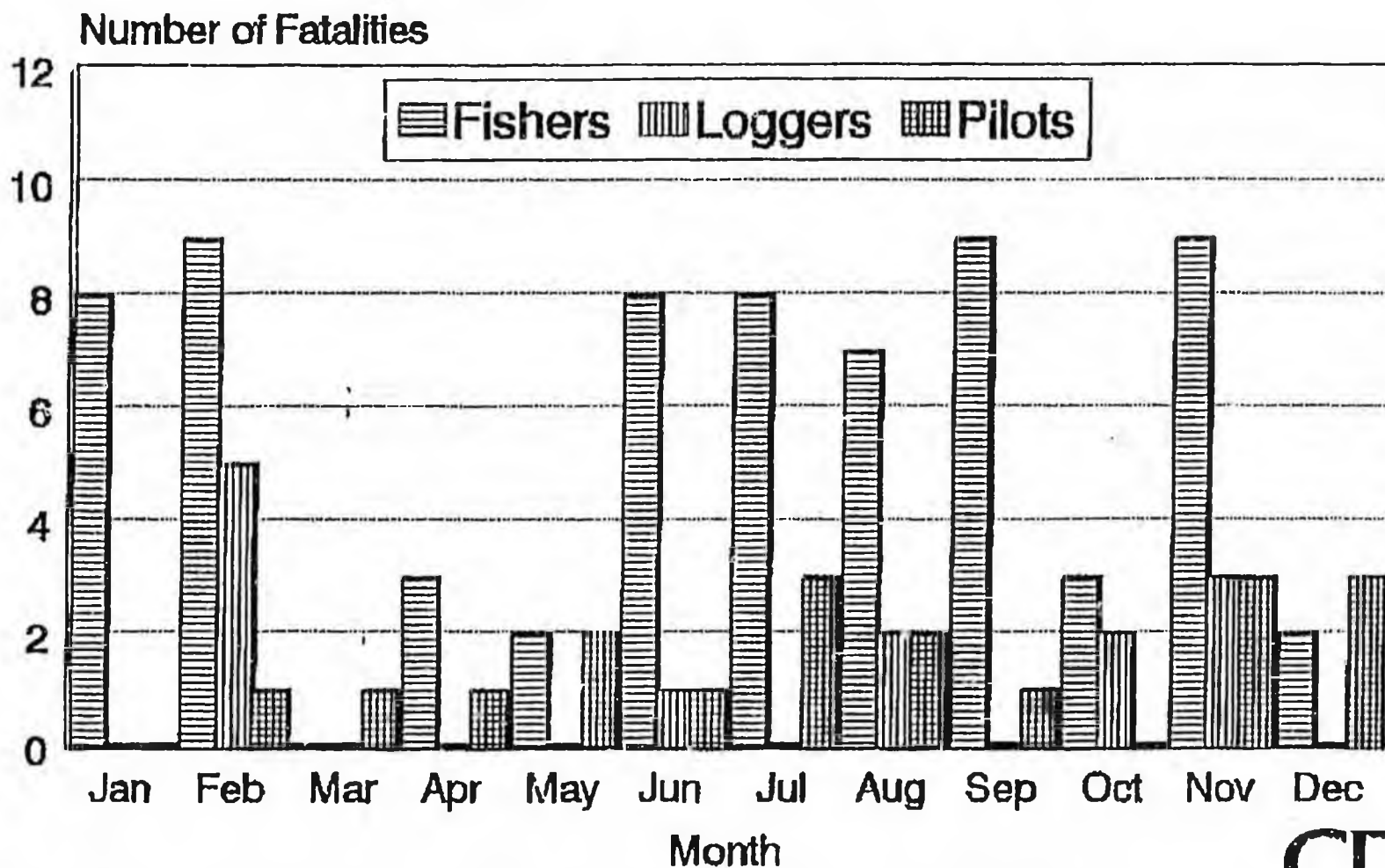


\* SOURCE: US - NTOF, NIOSH, 1980-1989

\*\* SOURCE: Alaska Activity, Division of Safety Research, NIOSH, 1991-1992



# Fatalities in the 3 Highest Risk Occupations by Month of Occurrence, Alaska, 1991 - 1992, N=101



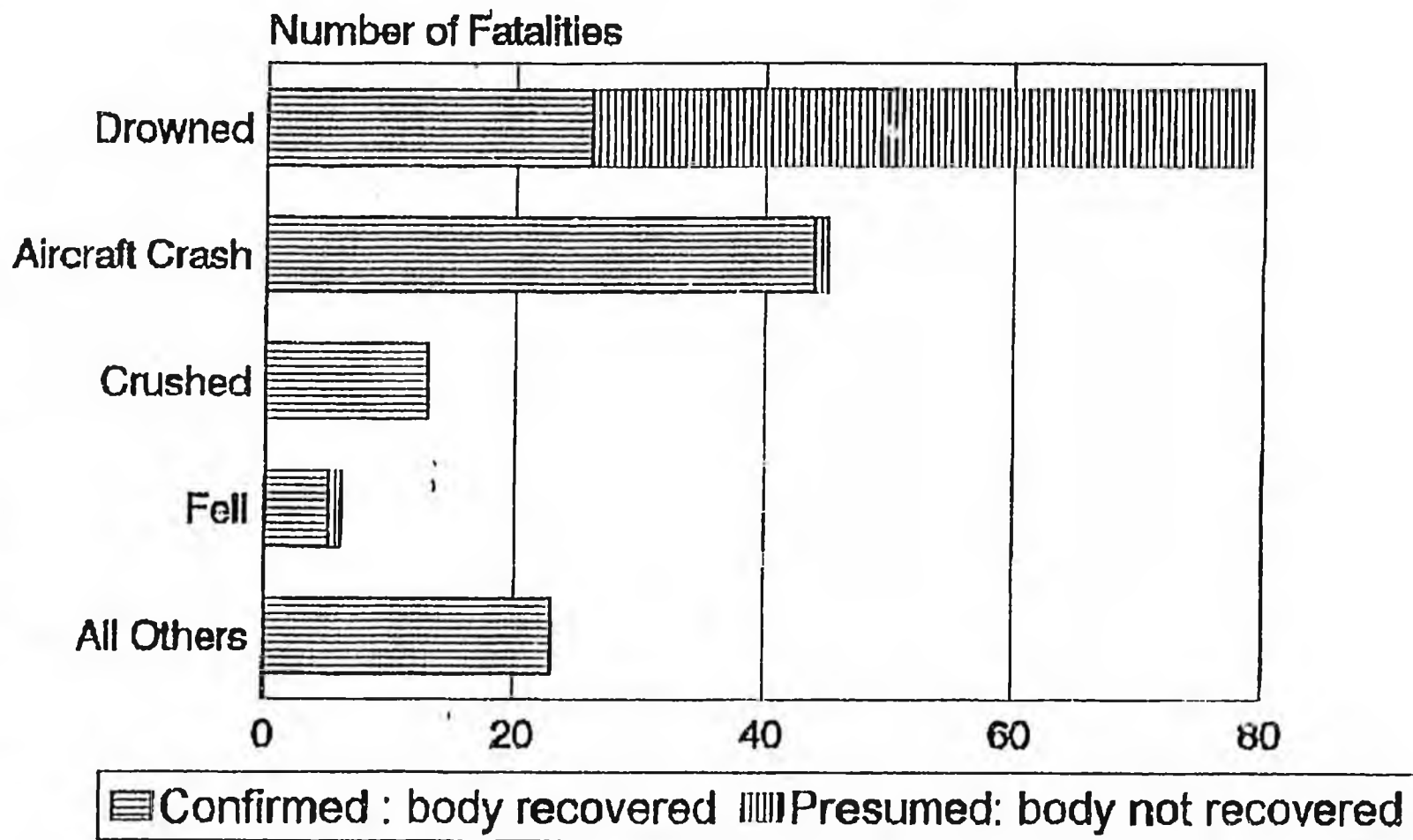
SOURCE: Alaska Activity, Division of Safety Research, NIOSH



SENT BY: Xerox Telecopier 7021 ; 5-7-93 ; 11:02AM ; Alaskan Field Activi-

9075861877i# 3

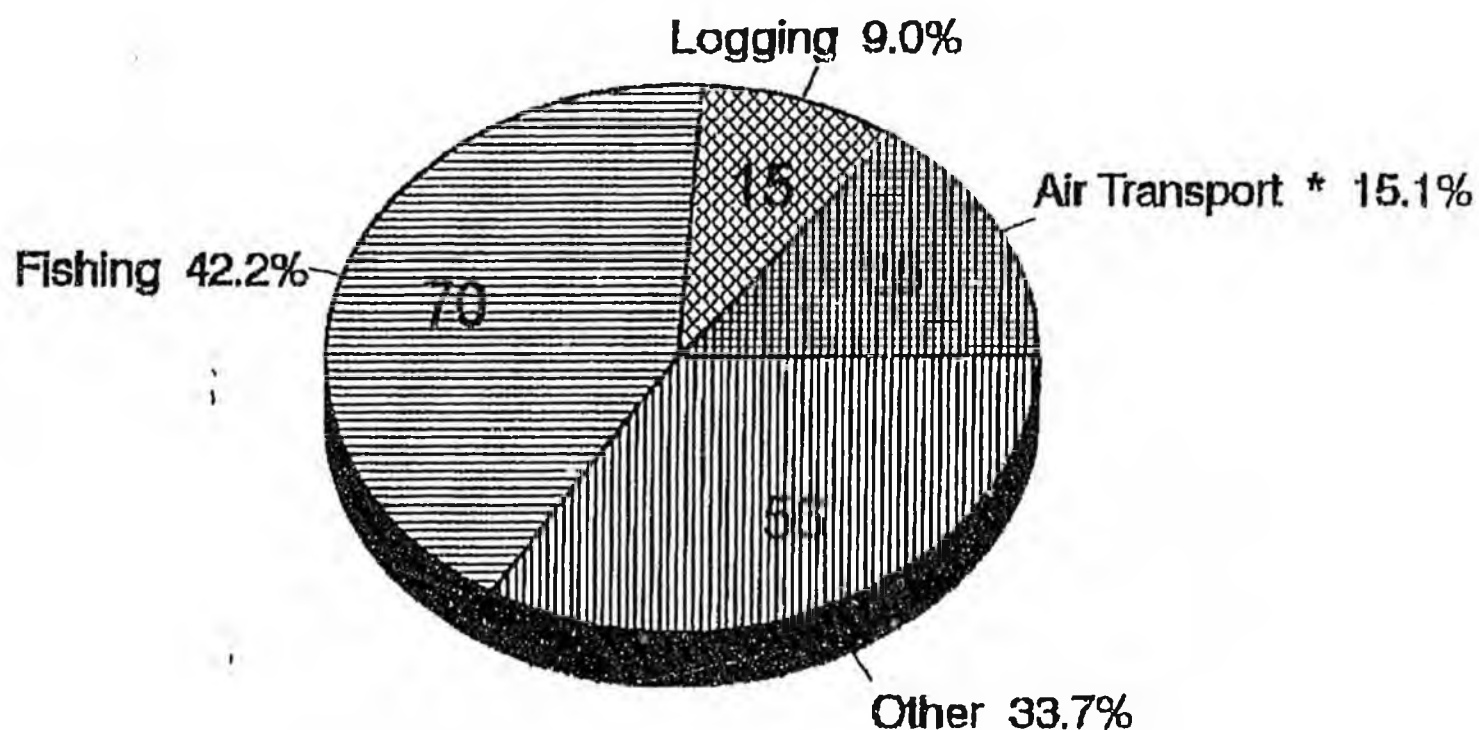
# Occupational Fatalities by Circumstance of Death, 1991 and 1992, N=166



SOURCE: Alaska Activity, Division of Safety Research, NIOSH



# Fatalities in Alaska Industries, 1991 and 1992, N=166



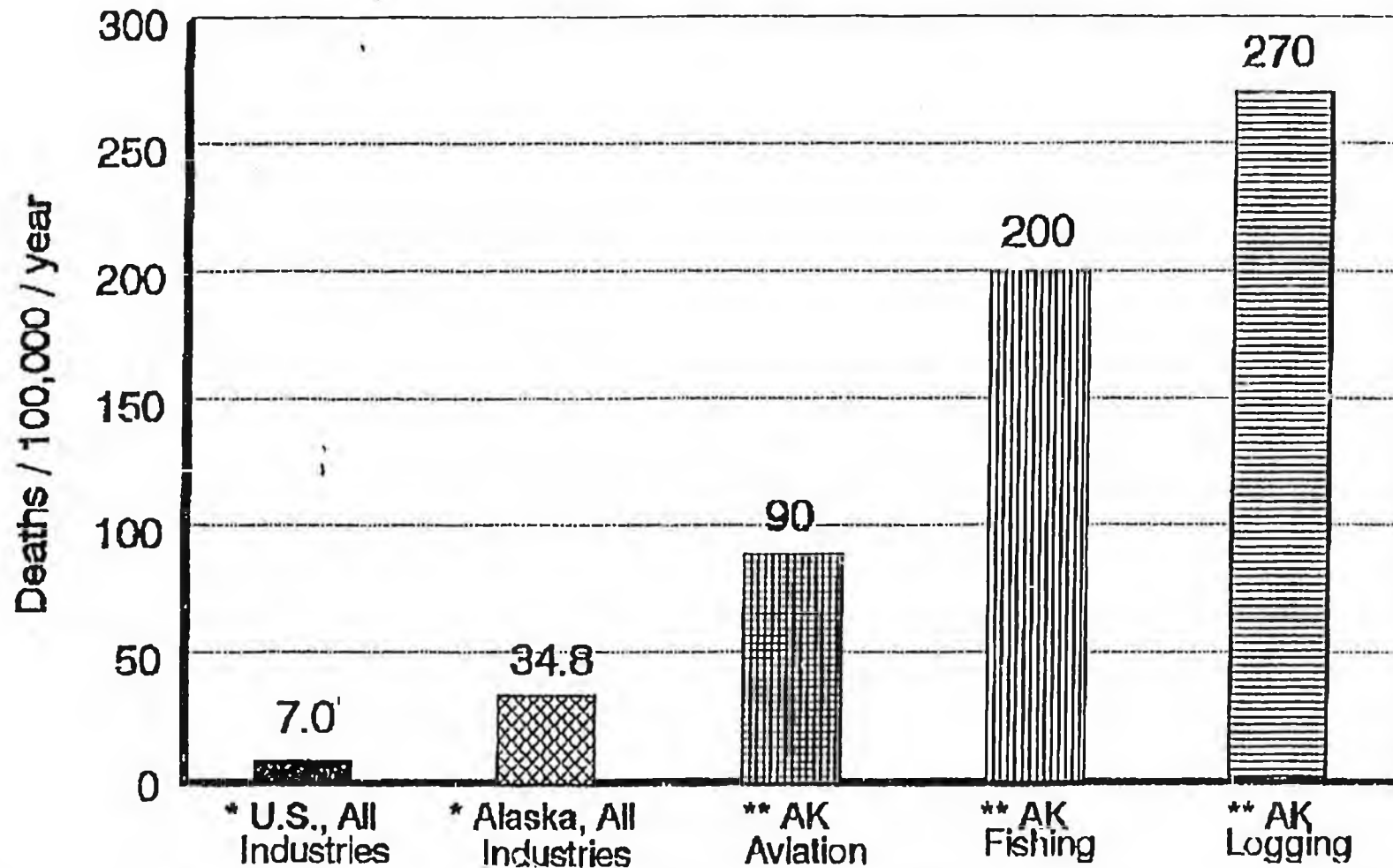
\* Excludes 20 workers from other industries killed in air crashes.

SOURCE: Alaska Activity, Division of Safety Research, NIOSH



# Occupational Fatality Rate Comparison

(rates for Alaska are for full time employment equivalents)



\* SOURCE: US - NTOF, NIOSH, 1980-1989

\*\* SOURCE: Alaska Activity, Division of Safety Research, NIOSH, 1991-1992



**DIVISION OF LEGAL SERVICES  
LEGISLATIVE AFFAIRS AGENCY  
STATE OF ALASKA**

(907) 465-3867 or 465-2450  
FAX (907) 465-2029  
Mail Stop 3101

130 Seward Street, Suite 409  
Juneau, Alaska 99801-2105

**MEMORANDUM**

December 28, 1994

**SUBJECT:** Fisherman's fund (AS 23.35)(Work Order No. 9-LS0362)

**TO:** Representative Ben Grussendorf  
Attn: Katherine

**FROM:** Michael F. Ford *M. F.*  
Legislative Counsel

You have asked if the fisherman's fund (AS 23.30.060) could be used to fund a program to teach safety to commercial fishermen. As explained in this memo, I believe that using the fund to teach safety could only be done if this purpose was added as a statutory purpose of the fund.

The existing benefits provided by the fund, those under AS 23.35.070 - 23.35.140, are all intended to treat fishermen who become disabled. There are no funds provided for prevention of injuries, or safety training. It could certainly be argued that prevention of accidents is directly related to the general purpose of the fund, but without statutory authority this type of expenditure would be beyond the scope of the benefits provided under existing law.

I should also point out that if the legislature alters the fund this would raise dedicated fund issues. As a fund in existence at statehood, the fisherman's fund is exempt from the prohibition against dedicated funds contained in Article IX, section 7, of the Alaska Constitution. However, the Attorney General has taken the position that no change to a grandfathered fund is permitted without destroying the legal dedication and making the fund subject to the dedicated fund clause. In short, you could modify the purpose of the fisherman's fund to permit funding for a safety program but by doing so you run the risk of destroying the dedicated fund exemption presently enjoyed by the fund.

If you have further questions on this matter please contact me.

MFF:lmb  
95-063.lmb

**Sec. 23.35.030. Commissioner or designee as chair.** The commissioner of labor or the person designated by the commissioner serves as the chair of the council. (§ 13 ch 64 SLA 1959; am § 1 ch 93 SLA 1960)

**Sec. 23.35.040. Duties of commissioner and council.** The commissioner shall consult with the council before the commissioner makes a negative decision on an appeal filed with the commissioner in relation to the care of a sick and disabled fisherman. (§ 13 ch 64 SLA 1959; am § 1 ch 93 SLA 1960)

**Sec. 23.35.050. Regulations.** The department may adopt regulations to carry out the purposes of this chapter, including those that are necessary or advisable to protect the fund by limiting or suspending payments from the fund. The regulations must be uniform in application. (§ 2 ch 100 SLA 1951)

**Opinions of attorney general.** — The Department of Labor may not adopt a regulation requiring that a reasonable deductible amount be satisfied on each claim before the Fund pays benefits. March 4, 1985 Op. Att'y Gen.

The Department of Labor could adopt

regulations limiting the availability of benefits under AS 23.35 to persons who have no insurance, as this would accord with the department's interpretation of the purpose of the Fund. March 4, 1985 Op. Att'y Gen.

**Sec. 23.35.060. Creation and administration of fishermen's fund.** There is created a fund, designated as the "fishermen's fund." The Department of Revenue is the custodian of the fund and the Department of Labor shall administer it. The fund shall be composed of 60 per cent of the money derived by the state from all commercial fishermen's licenses and money appropriated to carry out the purpose of this chapter. (§ 4 ch 100 SLA 1951; am § 1 ch 99 SLA 1955; am § 16 ch 105 SLA 1977; am § 11 ch 123 SLA 1978)

**Sec. 23.35.070. Benefits.** A fisherman, upon becoming disabled, is entitled to receive benefits as follows: Immediately after the fisherman sustains an injury or disability arising out of an accident directly connected with operations as a fisherman, either ashore in the state or in Alaska water, or suffers an occupational disease, the fisherman is entitled to emergency treatment, transportation to the nearest place where approved medical facilities are available, medical care, and hospitalization. In this section, "Alaska water" means the inland and territorial water of the state and the fishery conservation zone adjacent to the state established by 16 U.S.C. 1811 (§ 101, Fisheries Conservation and Management Act of 1976). (§ 5 ch 100 SLA 1951; am § 2 ch 99 SLA 1955; am § 1 ch 59 SLA 1957; am § 1 ch 15 SLA 1979)