

AMSEA Survey Summary Report: Alternative PFD Usage in 2019 Bristol Bay Fisheries

Summary

In 2019, Alaska Marine Safety Education Association (AMSEA) distributed 74 Stormline™ rain bibs with built-in flotation and Kent Rogue™ vests (non-Coast Guard approved personal flotation devices referred to in this report as PFDs) to Bristol Bay safety training participants who are commercial gillnet fishermen. The University of Alaska Sea Grant program also contributed toward the co-coordination of this effort, funded the purchase of the PFDs, and played a vital role in instruction and distribution of the PFDs.

Fourteen individuals who received the PFD also responded to a survey. The survey response rate was 25%, and 93% of the respondents used the PFDs. Thirteen of the fourteen respondents wore the PFDs some or all of the time. The survey respondents were almost evenly split as Alaska residents and non-residents, while gender was deeply skewed with 93% of respondents self-identifying as male. The majority of the survey respondents were between 25 and 44 years of age (77%). Survey respondents noted the PFDs were warm, durable, padded in appropriate places, and provided safety assurance; they also noted that the PFDs were bulky, difficult to take on and off, and sometimes overheated the worker.

Methodology

AMSEA held drill conductor classes in Dillingham, Naknek and Togiak in 2019, and at the end of these classes some of the participants received free PFDs – either rain bibs with inserted flotation pads or flotation vests - to try during the commercial fishing season. The rosters of these classes were used to establish the list of survey participants.

There were 65 adults who received PFDs and gave contact information. However, 10 of those gave invalid contact information. The total number of adult class participants who received a PFD and might have responded to the survey was 55 individuals; 38 did not respond to the survey.

Survey responses were received from 17 unique individuals. Three people filled out the survey who did not receive PFDs from the AMSEA class. Therefore, the number of survey respondents from unique individuals who received a free PFD was 14. One survey was anonymous, and 13 contained demographic data.

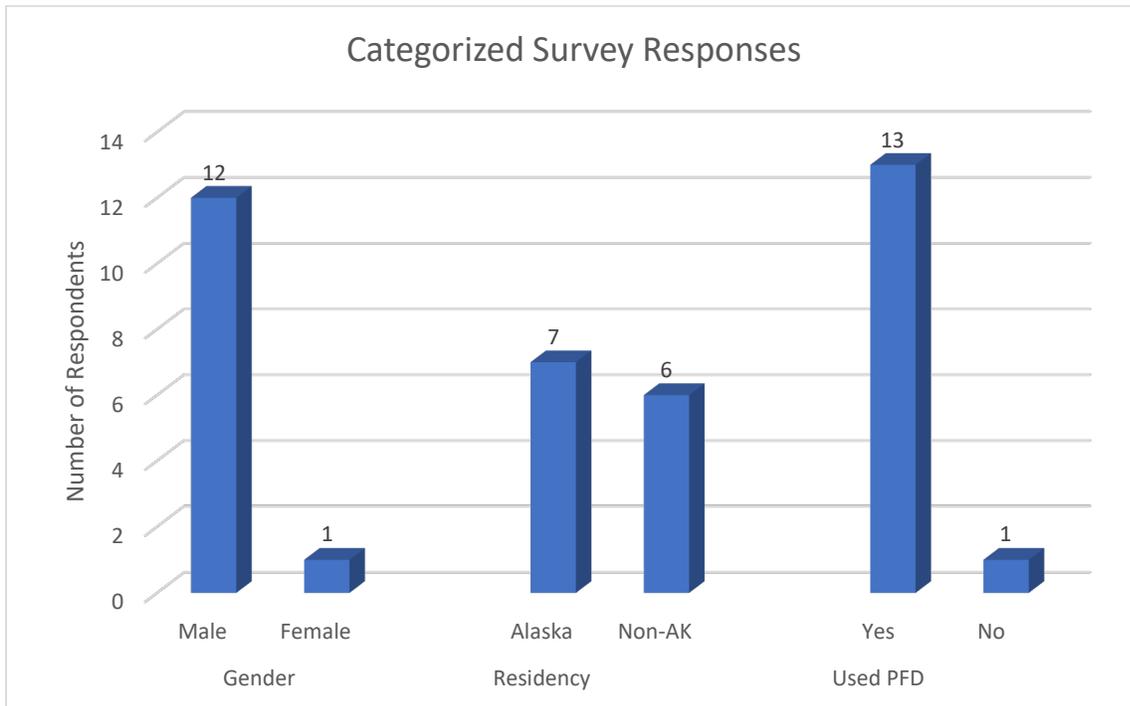
The response rate is therefore 14 people out of 55, or 25.4%. The response rate goal for this survey was 25%.

Parsing the Demographic Data

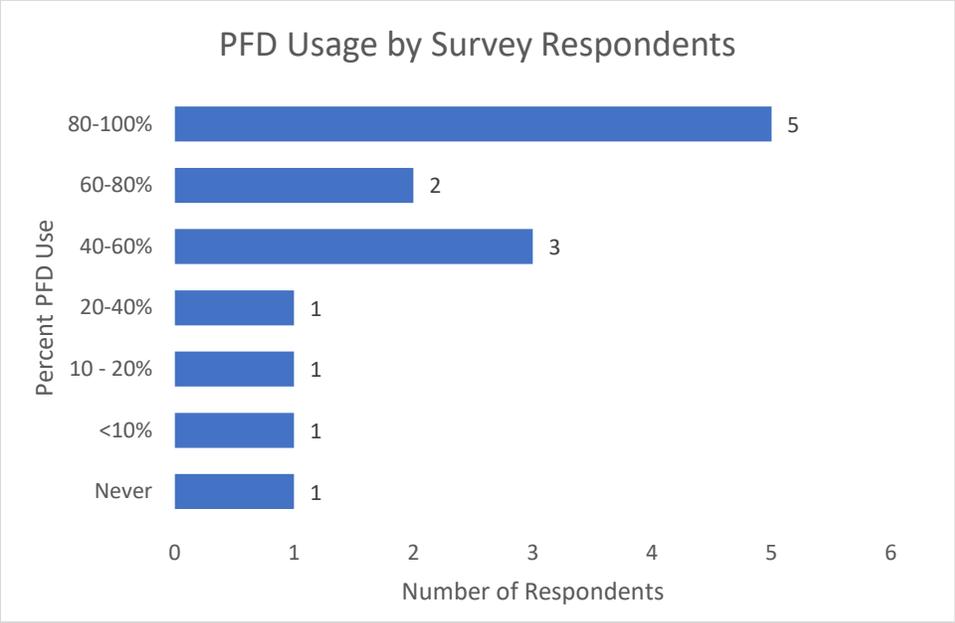
Survey participants were nearly evenly split between Alaska residents (7) and non-residents (6). All but one survey respondent wore the PFD given to them, which is a high usage level (93%) amongst other comparable surveys.¹

The only respondent who never wore the PFD was a non-resident of Alaska. The one individual who wore the PFD <10% was a non-resident of Alaska, and the one individual who wore the PFD 10-20% was also a non-resident of Alaska. Four out of the five respondents who wore the PFD 80-100% time were Alaska residents. Here it is interesting to note that those who wore the PFDs for a higher percentage of time during commercial fishing were Alaska residents, but the reason for that is not known.

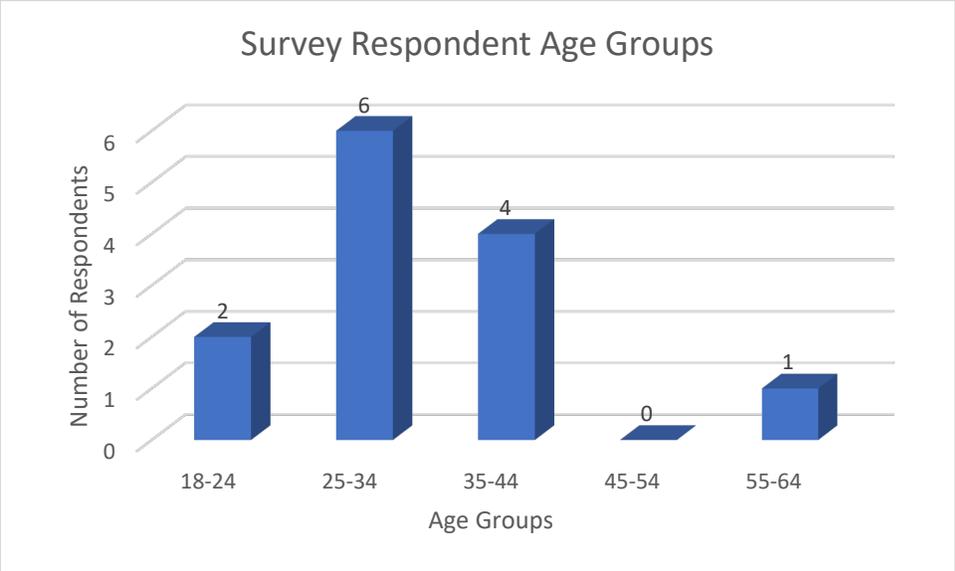
Survey participants self-identified their gender on the class roster. Only one survey respondent was female. She was also an Alaska resident, and she was the oldest survey respondent. Women typically make up 14% of commercial fishing skippers and crew members in Alaska (Alaska Department of Labor and Workforce Development).



¹ In the NIOSH 'Live to be Salty' survey conducted in 2015, 96 Bristol Bay drift gillnetters answered the question about PFD use; 53 (55.2%) of them said they "never" wore a PFD. The other 43 respondents wore a PFD at least sometimes while on deck; only 5 of those "always" wore a PFD while on deck.



Survey participants were a range of ages, with most being between 25-34 years old and 35-44 years old. Percent usage by age groups do not appear to have linkages or trends that can be highlighted.



Recommendations on Survey Process and Next Steps

The survey return rate achieved the 25% response rate goal. If this project and survey were to be replicated there may be ways to get an even higher response rate.

- Require survey participation for those who receive and PFD. Participants were told they would receive a free PFD if they completed the safety training and received a Drill Conductor card. At

that time the participants were told they would be asked to take a survey about PFD usage levels. However; a stronger sense of obligation among the PFD recipients might be created by asking each participant to sign a survey consent form at the time they receive the PFD, so they understand that their commitment for receiving the free PFD is taking the survey at some time in the future. Asking survey participants to sign a survey consent form, would also comply with the human subjects' consent requirement of informing participants of their rights and receiving their consent to take the survey. For this study, consent was the first question on the survey, but in future studies, consent could be obtained during the Drill Conductor class.

- Improve roster legibility. In the future, AMSEA could transcribe the class roster, print it out and have the participants verify or correct contact information. Denoting clearly on the roster who received or did not receive a PFD would save time and hassle for the surveyor. If similar studies are conducted in the future, the administration of the paperwork during class time may require two or more instructors or other administrative support during the training.
- Use a 907-area code number for phone calls, or do not conduct the survey or follow-up by phone. The phone portion of the survey yielded very little. In general people do not answer calls from unknown numbers or return messages from unknown requestors, despite the surveyor identifying as an AMSEA researcher.
- Utilize Google Forms rather than Survey Monkey, or use a platform that caters to the 21 – 34 age range. The survey was administered through Survey Monkey, which required the survey participant to click on a link to take the survey. Although surveys through Survey Monkey are common in many professions, they may not be common in the fishing industry and possibly mistrusted as spam or phishing scams. Additionally, younger people tend to use Google Forms rather than Survey Monkey, therefore type and style of technology selected for surveys could be tailored to generational preferences. To address these issues for future surveys, AMSEA could inform participants about the survey method they should expect to see at the time they receive the PFD.
- The survey should be conducted nearer to the time of PFD use. If PFDs are given out in May, the survey could take place months later or right after the fishery closes, such as in later July or early August. For the survey in this report, there may have been too much time between PFD use and the survey for participants to feel beholden to AMSEA to feel ownership in the project.
- An enticement for answering the survey could be at the individual level. For this 2019-2020 survey, a \$100 gift card drawing was offered as an enticement for participants to complete the survey by a certain date. This may have been an enticement for some; however, it may have also drawn in several people who did not receive PFDs to answer the survey. Alternatively, if a low number of survey responses is anticipated, each survey respondent could be paid \$10 for completing the survey, rather than conducting a drawing for a large, single prize amount.

Based on the response rate (25%) and the high level of PFD usage by the respondents (93%), this project and survey should be replicated on a larger scale, both in other commercial gill net fisheries and commercial fisheries with other gear types. Additionally, this project and survey should be replicated in the recreational and subsistence fishing sectors to understand the PFD usage, as well as cross-sector usage by individuals who commercial fish and recreational/subsistence fish.

Recommendations for Addressing Barriers to Wearing PFDs

One type of PFD received the most survey comments: the rain bibs with flotation in the knees. Many respondents liked the bibs because they were durable, padded in key areas, and provided not only flotation if needed but also served the traditional bib purpose of water/slime protection. The negative comments about the bibs included lack of US Coast Guard (USCG) approval, bulkiness, difficulty donning and doffing, and hindered movement while working. Many respondents stated that PFDs were too hot when working vigorously on deck, yet others noted positively that the bibs kept them warm. Survey participants recommended the bibs would be improved with a slim or athletic cut for greater ease of movement.

The respondents stated that the PFDs were generally compatible with working commercial gillnet fishing gear; however, the bulk was cumbersome and not ergonomic, and the warmth generated during working made the PFDs imperfect. No one noted that fishing gear caught on the PFDs, which was surprising to the surveyor. The survey did not ask whether the PFD vest was worn over or under raingear. Therefore, the assumption is that most participants wore the PFD vest under a rain jacket or “picking jacket” to keep fish slime off of the PFD. This could explain why there were no reports of problematic catching or snagging of fishing gear on the PFDs. A couple respondents noted that the PFDs were not USCG approved, and this was noted as a negative attribute of the PFDs. This aspect of the PFDs could be remedied by the maker of the PFDs. However, obtaining Coast Guard approval is an expensive process.

Survey respondents found information about PFDs in general in many varied sources from peers, stores, catalogues, and fishing trade shows. Seventy-five percent of the respondents had recommended these PFDs (bibs or vests provided in the survey project) to friends, and one respondent noted that he had bought seven additional for his crew to use while commercial fishing. A future survey could ask survey respondents how likely they were to follow a recommendation to buy/wear a PFD from a friend or colleague, and ask to how many people the survey respondent recommended the PFDs. By combining the answers of those two responses, the surveyor may be able to estimate the total number of people likely to buy and wear a peer-endorsed PFD.

Based on the high level of PFD usage by the survey respondents (93%) and the high level of percent-time-worn (71% wore PFDs 40 – 100% of the time), this project and study should be replicated with a higher participant number to more deeply understand barriers to PFD usage in commercial fisheries and to put PFDs in the hands of commercial fishermen. The high percent-time-worn in this project indicates that there is high worker satisfaction and wearability for these two types of PFDs. The timing of the PFD distribution may have contributed to the high percent-time-worn, because the PFDs were distributed directly after a marine safety class and just before the start of a commercial fishing season. If this result is replicable in a study with higher numbers of commercial fishermen, it would indicate that reduction of the drowning risk in commercial fisheries can be achieved by providing free PFDs that are compatible with commercial fishing work conditions. It is recommended that this study is replicated with a greater number of participants, which might include the same and other commercial gill net fisheries in Alaska, other gear types, and other fisheries within and outside of Alaska.